

TO AMEND TITLE 18, UNITED STATES CODE,
TO INCLUDE CONSTRICTOR SNAKES OF THE
SPECIES PYTHON GENERA AS AN INJURIOUS
ANIMAL

HEARING
BEFORE THE
SUBCOMMITTEE ON CRIME, TERRORISM,
AND HOMELAND SECURITY
OF THE
COMMITTEE ON THE JUDICIARY
HOUSE OF REPRESENTATIVES
ONE HUNDRED ELEVENTH CONGRESS
FIRST SESSION
ON
H.R. 2811

NOVEMBER 6, 2009

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**TO AMEND TITLE 18, UNITED STATES CODE,
TO INCLUDE CONSTRICTOR SNAKES OF
THE SPECIES PYTHON GENERA AS AN INJU-
RIOUS ANIMAL**

FRIDAY, NOVEMBER 6, 2009

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON CRIME, TERRORISM,
AND HOMELAND SECURITY
COMMITTEE ON THE JUDICIARY,
Washington, DC.

The Subcommittee met, pursuant to notice, at 10:03 a.m., in room 2141, Rayburn House Office Building, the Honorable Robert C. “Bobby” Scott (Chairman of the Subcommittee) presiding.

Present: Representatives Scott, Jackson Lee, Wasserman Schultz, Quigley, Gohmert, Goodlatte, and Rooney.

Staff Present: (Majority) Ron LeGrand, Counsel; Veronica Eligan, Professional Staff Member; and (Minority) Kimani Little, Counsel.

Mr. SCOTT. Good morning. The Subcommittee will now come to order. I am pleased to welcome you today to the hearing before the Subcommittee on Crime, Terrorism, and Homeland Security on H.R. 2811, a bill to amend title 18, United States Code, to include constrictor snakes of the species Python genera as an injurious animal.

We are going to start with a brief video, about a 5-minute video to put the hearing in perspective. And we will begin with the video. [Video played.]

Mr. SCOTT. There are 47 species of pythons today. We will hear testimony about issues surrounding this bill and issues pertaining to the invasion of nonnative constrictor snakes, with particular emphasis on the Burmese python.

On June 10, Representative Kendrick Meek of Florida introduced H.R. 2811, which was then referred to the Judiciary Committee. The bill was introduced primarily to address serious safety and environmental hazards; that is, the presence of a large number of Burmese pythons in the Florida Everglades. These snakes, when mature, can reach the length of 23 feet and weigh up to 200 pounds. They can be a danger to humans, and they are clearly a threat to the Florida Everglades delicate ecosystem. Thousands now live there as a result of breeding after having escaped or having been intentionally or accidentally released from captivity.

[The bill, H.R. 2811, follows:]

111TH CONGRESS
1ST SESSION

H. R. 2811

To amend title 18, United States Code, to include constrictor snakes of the species Python genera as an injurious animal.

IN THE HOUSE OF REPRESENTATIVES

JUNE 10, 2009

Mr. MEEK of Florida introduced the following bill; which was referred to the Committee on the Judiciary

A BILL

To amend title 18, United States Code, to include constrictor snakes of the species Python genera as an injurious animal.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled.*

3 **SECTION 1. IMPORTATION OR SHIPMENT OF INJURIOUS**
4 **SPECIES.**

5 Section 42(a)(1) of title 18, United States Code, is
6 amended in the first sentence by inserting “; of the con-
7 strictor snake of the species Python genera” after
8 “polymorpha”.

Mr. SCOTT. As a result of this threat posed to the Everglades by the Burmese pythons, Interior Secretary Ken Salazar has asked the State of Florida, the National Park Service, and the U.S. Fish and Wildlife Service to develop an action plan to control this invasive species.

Much has been reported regarding the threat that these snakes represent to humans. Since 1980, 12 people have been killed by pet pythons. This includes a 2-year-old girl killed in July of this year in Florida by an 8-foot Burmese python that escaped from an aquarium in her home. In October of last year, near my home congressional district in Virginia, a woman was found dead by asphyxiation believed to be caused by a 13-foot long python owned by her and her husband. In 1999, an Illinois couple's 7.5 foot African Rock python escaped from its enclosure and killed their 3-year-old son. The 12 deaths caused by pythons clearly reflect their danger to humans, and it is clear that all too often owners of these animals do not understand that no matter how tame or friendly these snakes appear to be, it is and always will be a wild animal and, as such, subject to what appears to be some unpredictable behavior when in fact the behavior is natural for the snake.

In addition to the issue of safety to humans, we must also be concerned about the impact of these animals to our ecosystems when they leave captivity and breed, as they have in Florida. Today we will hear testimony about this impact. We will hear from U.S. Department of Interior about the recently completed biological risk assessment study of nine giant constrictors conducted by the U.S. Geological Survey, which appears to leave little doubt that something needs to be done to gain control over the continued invasion of these nonnative species in our ecosystem.

Although the bill, as introduced, covered all species of pythons, in July of this year, subject to a bipartisan agreement, Representative Rooney of Florida and a Member of the Subcommittee introduced an amendment to the full Committee markup of the bill to limit the prohibition to Burmese and African Rock pythons.

[The amendment follows:]

F:\M11\ROONEY\ROONEY_016.XML

AMENDMENT TO H.R. 2811
OFFERED BY MR. ROONEY OF FLORIDA

Beginning in line 6, strike “; of the constrictor snake of the species Python genera” and insert “; of the Burmese Python of the species Python molurus bivittatus; of the African Rock Python of the species Python sebae”.



Mr. SCOTT. Representative Wasserman Schultz, also a Member of the Subcommittee, while agreeing with the concept of the bill and the amendment's intent and focusing on the most dangerous constrictor snakes, expressed concern that the legislation may not go far enough in its coverage. She noted the concern that if we only restrict large pythons, then anacondas, boa constrictors, and other large snakes might similarly be imported and proliferate with similar impact on humans and our ecosystem.

Ranking Member Gohmert expressed concerns that we may not know enough about the context in which we are legislating and requested that we conduct this hearing when the issues before the bill is considered on the floor. That is what has brought us here today.

In addition to the testimony about the U.S. Geological Survey study, we will receive testimony from others with expertise on the issue, including experts from the University of Florida and the U.S. Association of Reptile Keepers, who will represent a point of view that differs from that of the U.S. Geological Survey. We will also hear from the Humane Society of the United States. Finally, we will hear from a representative from South Florida Water Management District, an agent that is on the scene of a vast area of South Florida that is directly impacted by the presence of some of these nonnative snakes.

The question before us is whether the bill we have reported from the full Committee reflects the appropriate action to be taken on this issue, and we want to do what is appropriate and timely without overreaching.

I will now recognize the Ranking Member of the Subcommittee, the gentleman from Texas, Judge Gohmert.

Mr. GOHMERT. Thank you, Chairman Scott.

Today's hearing is I feel like a good idea and appreciate our friend Congressman Meek being here and the rest of the panel members. I appreciate the written testimony that has been submitted.

As Chairman Scott pointed out, I did indicate I didn't think I knew enough about this, and so I appreciate the testimony and the information that has been provided by people that do so that we didn't go weighing into an area to legislate without having sufficient information.

But the legislation proposed would amend the Federal Criminal Code to include all pythons as injurious animals that cannot be imported into the United States. This bipartisan bill was introduced by our friend Mr. Kendrick Meek, the gentleman from Florida, in June of this year. Currently, the bill has nine cosponsors, including our colleague on the Crime Subcommittee, Mr. Rooney. Senators Nelson and Martinez have a companion bill in that other body.

Pythons are often imported to the United States for use as exotic pets, and clearly, many of these animals are kept as pets in the State of Florida. Over 5,000 Burmese pythons have been imported via Miami over the last 3 years. I had no idea the extent to which this had been going on. It really is shocking.

But despite recent efforts by the State of Florida to limit and better track these potentially dangerous snakes, Burmese pythons have been reported in Florida's wildlands. Although uncertainty re-

mains regarding their actual population, and this was staggering to me, an estimated 100,000 wild Burmese pythons are living in south Florida's natural wildlife areas, such as Everglades National Park.

Unfortunately, many of these potentially dangerous animals are not always kept in a safe or secure manner, and they often escape from their cages or aquariums. When pythons escape, they can be a huge danger to the surrounding human population. According to the media reports, at least 12 people have been killed by pet pythons since 1980. Sadly, in early July of this year, a 9-foot, so-called pet Burmese python escaped its aquarium encasement inside a Florida home and strangled a 2-year-old girl in her bedroom.

In response to this growing problem, members of the Florida delegation got together to craft this bipartisan bill which bans the imports of pythons in this country. The language of the bill adds these animals to the codified portion of the Lacey Act, a law that dates back to 1900, and is primarily used to prevent the importation or spread of potentially dangerous nonindigenous species in the United States.

There was some opposition from reptile keepers to the original language of H.R. 2811, as introduced. Those opposed to the bill felt that a ban on the import of all pythons was far too broad. At a markup of the bill, Mr. Rooney offered an amendment that would limit the types of snakes that would fall under the ban. The amendment was adopted by the Committee, but I did ask for this hearing so Members could learn more about the subject, and I have already learned a great deal from the written testimony that has been provided by our witnesses.

And so I appreciate the opportunity to have this hearing which has caused so much information to be submitted to us. Obviously our colleagues on both sides of the aisle from Florida realized there was a problem for Florida. I felt like it was important to see how much of a problem this was not just for Florida but for the United States, and to see whether this was something we should weigh in on the national level. It appears that it is a far bigger problem than I ever imagined.

So thank you for coming. Thank you for having the hearing, Chairman Scott.

I appreciate Mr. Meek's and Mr. Rooney's persistence in this manner, and I look forward to more information we get.

Mr. SCOTT. Thank you. We usually ask for other statements to be placed in the record, but the gentleman from Florida has been so active in this area, we will make an exception and allow him to make a statement.

The gentleman from Florida.

Mr. ROONEY. Thank you, Mr. Chairman. I would like to thank Chairman Scott and Ranking Member Gohmert for holding this very important hearing today.

In Florida, we have experienced firsthand the inherent dangers of the damages invasive species, such as the Burmese python, can do to an ecosystem. The Federal Government, in partnership with State and local interests, has dedicated billions of dollars toward restoring the American Everglades in South Florida.

As many of you know, the Everglades is home to an extraordinary variety of birds, fish, and other wildlife. Many are threatened or endangered. We are working tirelessly to save this threatened habitat to ensure the survival of the native wildlife; but, sadly, an invasive predator threatens all of the progress we have made.

The Burmese python has no natural predators in the Florida Everglades. They even prey on native adult alligators. You may have seen the famous picture of a huge python that attempted to eat a 6-foot alligator. This is the reality that we are facing in South Florida today.

There are estimates of over 100,000 Burmese pythons currently living in the Everglades. These vicious predators can grow 6 to 8 feet in a single year and prey on wading birds and other wildlife we are working so diligently to save. They thrive on our subtropic climate and abundant food resources. In 2006, the South Florida Water Management District filed a petition with the U.S. Fish and Wildlife to have Burmese pythons listed as an injurious species under the Lacey Act.

Just so I am clear, they petitioned for this 3 years ago this June. In that time, thousands more Burmese pythons have been imported into the United States, and more damage has been done to the ecosystem of South Florida. Not only are these deadly predators wreaking havoc on the Everglades, but earlier this year, we heard the tragic news reports of a 2-year-old who was strangled in her crib while she slept by a pet Burmese python.

This past summer, a 17-foot Burmese python was found and killed in Okeechobee, Florida, which is in my district. For those not familiar with this area, this city is north of Lake Okeechobee and over 100 miles north of Everglades National Park. These snakes pose a real threat to health and human safety and should be listed under the Lacey Act.

We have been waiting for 3 years for the Fish and Wildlife to issue a decision. Three years is too long. We cannot wait any more. And too much is at risk.

My fellow delegation member, Mr. Kendrick Meek, who is here today, introduced H.R. 2811 to legislatively do what we have been waiting 3 years for the Fish and Wildlife to do, ban the further importation of these dangerous snakes. H.R. 2811 will help us fight the growing problem of Burmese pythons at the source, by keeping them from entering our country. It is a piece of the solution, and a very important piece I might add. And I thank the Member for joining us today.

I was very pleased with the recent USGS risk assessment of nine large species of pythons, anacondas, and the boa constrictor. The risk assessment confirmed what we have long feared: Of the nine, four were determined to have a medium risk of establishment; and five, which includes the Burmese and the African Rock, were found to have a high risk of establishment. While this puts us one step closer to a Fish and Wildlife determination, time continues to pass and with more of these dangerous predators being imported.

While H.R. 2811 is not a silver bullet to ending the problem in South Florida, it is a vital step toward reaching that goal. We must stop the further introduction of these snakes while we continue to

work to eradicate them from the Everglades. I look forward to hearing from today's witnesses, and yield back the remainder of my time.

Thank you, Mr. Chairman.

Mr. SCOTT. Thank you, Mr. Rooney.

We have two panels of witnesses to help consider the issue today. Our first panel will consist of Congressman Kendrick Meek of the 17th District of Florida. He is in his fourth term of Congress, is a Member of the House Ways and Means Committee, the Democratic Steering and Policy Committee, the NATO Parliamentary Assembly, and he is Chairman of the Board of Directors of the Congressional Black Caucus Foundation, and he is the lead sponsor of H.R. 2811.

Mr. Meek, I assume you can stay within 5 minutes without a clock.

Mr. MEEK. I will try.

Mr. SCOTT. Mr. Meek, it is a pleasure to see you here today, and look forward to your testimony.

TESTIMONY OF THE HONORABLE KENDRICK B. MEEK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. MEEK. Mr. Chairman, let me just say, hopefully, I won't go against my time. I was noticing that this time keeper was close, unusually close, to me. But I will move it back a little further.

It is a honor to be before the Subcommittee, and Mr. Chairman, you and your Ranking Member are very good friends of mine here before Congress.

And Mr. Rooney, I want to thank him for all of his hard work on this legislation. This is truly bipartisan.

Mr. Chairman, I have a couple of illustrations here that I want to show, because I believe the Members of the Committee have shaped the debate as it relates to why we are here. This sells it. This H.R. 2811 sells itself. There are a number of incidents that have been out there involving children, public safety. Also, as it relates to the ecosystem and the Florida Everglades, the python, the Burmese python does not have a natural predator, so it is the top of the food chain in the Florida Everglades. When the Florida alligator is being slammed by a snake, I think it is time to do something.

We have a number of young people that buy these snakes, and then Johnny goes off to school, and we find ourselves in a situation where the parent has to find a way to dispose of these animals, and many times they release them into what they believe is a natural habitat, which it is not. These pythons lay up to 100 eggs. They get up to 12 to 16 feet in length in a given year, and they reproduce fast. So now we have over 30,000—well over 30,000—pythons in the Florida Everglades, far too many to trap. We have to stop the spigot and by outlawing these from snakes by being imported. It is very, very important.

Mr. Chairman, for the record, I would like to say I know the Committee has already voted in full Committee on this legislation, but I want to share with you, proponents and opponents of the bill, that I think that this Committee has taken an extra step to make sure that we are doing the right thing at the right time. And the

evidence is so strong; the reason why these snakes should be barred from being imported to the United States, I believe that the outcome of today's hearing will hopefully have 2811 moving to the floor as fast as possible to get it over to the Senate.

With that, Mr. Chairman, if I can, I have a couple of things that I want to—first, we have one of the snakes that were captured in the Florida Everglades. It is not alive.

Mr. SCOTT. Thank you.

Mr. MEEK. The snake's name is Pandora, and I know that I have George Horne from the South Florida Water Management District is here.

Okay. George, if you can help me bring Pandora out so that Members of the Committee can see.

Mr. Chairman, Pandora was actually caught in the Florida Everglades. And as you can see, this snake is quite long, big, and you can only imagine if this was going—this snake was actually kept in a private home or in the Florida Everglades. Even the Florida alligator doesn't stand a chance against this snake. And I am pretty sure that out of 30-plus thousand of these snakes that have been identified by the South Florida Water Management District and the Florida Fresh Game and Fish Commission, that there are bigger snakes that are out there.

And so, Mr. Chairman, if you have any or Members of the Committee have any questions, I will be more than happy to answer them.

I have a couple of boards here, wherever they are. This board here illustrates how many eggs and the size of them. This was obviously a snake caught in the Florida Everglades that has been euthanized. But see the row of eggs that they drop again, not having a natural predator, brings about an unfair situation as relates to management and also keeping the Florida Everglades the way it has been over the years, a place where people travel throughout the world to come see.

This is also showing you what an 11-foot python approximately 10 to—5- to 7 years old can consume. One python. So we find a number of the egrets and possum, you have your raccoons, you also have the American cots and the little blue herons. You name it. Squirrels, rabbits, cotton rats that are natural and mice that are natural to the Florida Everglades find themselves falling victim to these pythons.

So, Mr. Chairman, I would strongly encourage the Committee to allow not only Mr. Rooney and I but other members of the Florida delegation and Members of Congress that have testified even there on the dais, Mr. Chairman, to move 2811. I will be happy to answer any questions. And, Mr. Chairman, I would also ask the permission of yourself and the Ranking Member if I could enter my formal statement into the record.

[The prepared statement of Mr. Meek follows:]

PREPARED STATEMENT OF KENDRICK B. MEEK

KENDRICK B. MEEK

Statement

Judiciary Subcommittee on Crime, Terrorism and Homeland Security Hearing on

H.R. 2811 a Bill to List Pythons as an Injurious Animal

November 5, 2009

Thank you, Mr. Chairman for calling this hearing today so that we may put a spotlight on non-native pythons. These snakes are dangerous, not only to the delicate ecosystem in the Everglades, but also to families and communities who are having increasing run-ins with these predators outside of the Everglades.

Along with a number of my Florida colleagues across both sides of the aisle, I have worked tirelessly to protect and restore the Florida Everglades. In May, Senator Nelson and I met with Secretary Salazar in Florida to tour the Everglades and the River of Grass. During this fan boat tour I heard again and again about the danger the establishment of pythons, particularly Burmese pythons, poses on the many endangered and threatened species that call the Everglades home.

These snakes are highly adaptable and strong swimmers. They have no known predator in the US and have even been known to kill Florida gators. Because they have no natural predator, and because they can lay up to 100 eggs at a time after just 18 months, these pythons have been firmly established in the Everglades. The Everglades Python Patrol has captured over 250 pythons this year alone, but with over a million acres of natural habitat and their ability to blend in seamlessly with their surroundings, I know this number represents only a small fraction of the number of pythons likely living in the Everglades at this time. These snakes can grow from anywhere between 6 to 9 feet in their first year and can grow up to 20 feet long by the time they reach full maturity, weighing over 250 lbs.

The threat of these massive snakes is not only to those animals living in the Everglades and other rural areas however. Pythons are also a threat to public safety. More and more of these snakes have been found hundreds of miles away, appearing in the backyards of families, at busy intersections, and outside of local businesses. Shortly after my Everglades tour, an 11 year-old boy in Okeechobee discovered a 17 foot long python in a canal outside his uncle's veterinary clinic. And just last week, a 9½ foot long Burmese Python was found slithering around a Vero Beach neighborhood. The incidences of people coming into contact with these snakes continue to be documented and the numbers continue to rise. Increased contact between humans and these dangerous snakes further increases the likelihood of injury or death to an innocent resident.

And it's not just Burmese Pythons. There have been a number of similar incidences of African Rock Pythons in the community as well. Although not as established in the Everglades as Burmese Pythons, these African Rock Pythons have the same ability to thrive there. In fact, a recent USGS report, which will be discussed later, found 5 snakes, including the two types of African Rock Pythons- Northern and Southern, to be highly invasive.

These snakes are a threat to our children, our pets and our environment, and there is simply no safe way for them to be here. One of the most memorable and devastating incidences occurred last July, when a 2-year old child was asphyxiated by an 8 foot long albino Burmese Python, which was kept as a pet by her parents. And I should make it clear, that this is not just Florida's problem. Burmese pythons can survive in a number of Southern, warm-weather states. Climate maps that I have looked at from the US Geological Survey show that they may be able to live in up to 1/3rd of the US.

We have the opportunity NOW to stop not just the importation and sale of pythons in the US, but to stop the damage they are doing to the delicate ecosystem of the Everglades, and prevent other people from being injured by them. Tracking and capturing the Burmese Pythons in the Everglades is a difficult, if not impossible task, as they have

already established themselves to a point where we may never be rid of them. But it is important that we work to ensure other foreign invasive snakes don't take hold of our ecosystem as well. We can still hope to stop other snakes from being introduced and endangering the environment and the public safety. It is my hope that this bill will move quickly. With the rate that these snakes breed and move around, we simply can't afford to wait.

ATTACHMENT





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Mr. SCOTT. Without objection, the statement will be entered into the record.

And are there questions of the witness? The gentleman from Texas.

Mr. GOHMERT. Normally, we don't ask questions of our fellow Members, but the chart you displayed showing how much a python could consume over here, over what period of time is that?

Mr. MEEK. That is from 5 to 7 years, I believe. Am I correct? Five to 7 years. That is, from what I understand from the South Florida Water Management District that manages the Florida Everglades, the flow of water and also from the Florida Fish and Game Commission that monitors a number of habitats of the Everglades, that

is what a 5-to-7-year-old python will require to survive. And this information was backed up from, obviously, autopsies that were taken on pythons that were captured.

Mr. GOHMERT. And the other photograph, what are those eggs contained in?

Mr. MEEK. That is actually within the body of the python. And this python was caught in Florida Everglades, and of course, scientists want to learn more about what they are doing, what they are eating, and many of these pythons have been tagged and monitored. And just recently the State of Florida allowed I think 15 trappers to go out and trap pythons. But when you are dealing with 30,000—and they are hard to find. Once they get into the weeds and into the water, it is hard to find. Secretary Salazar, myself, Senator Nelson actually took an airboat tour to the Florida Everglades and to talk about these pythons, and South Florida Water Management District others brought a python out for us to see similar to the size of the one we have here on the table.

Mr. GOHMERT. Do you know if those have migrated? Or there are similar areas, wildlife areas, in Georgia. Do you know if they have migrated north?

Mr. MEEK. Yes, sir. These pythons, 9 times out of 10, start out as pets, and people move throughout the country. The reason why the attention has been placed on the Florida Everglades, when you start getting a snake tackling the Florida alligator, people travel throughout the world to come see the Florida alligator, and they reproduce faster than the alligator or any other predator that is in the Florida Everglades.

Also for the record, Mr. Chairman, at the appropriate time and also Mr. Ranking Member, I have a Palm Beach Post story here that only 39 snakes out of the 15 permits that were given to trap were actually trapped and captured.

[The information referred to follows:]

Statewide python hunt yields only 39 snakes
 By PAUL QUINLAN
 Palm Beach Post Staff Writer
 Wednesday, November 04, 2009

The python posses, ordered into the Everglades on a mission to kill the giant, invasive constrictors, have finished hunting - for now.

Their take: 39 snakes. The good news: most were on the small side. The bad: that means the pythons are breeding.

Florida's first-ever python hunt began three-and-a-half months ago after Gov. Charlie Crist ordered state wildlife officials to issue licenses to herpetologists, Gladesmen and others deemed qualified to eradicate the beasts.

The python push started weeks after a pet Burmese strangled a 2-year-old girl in Sumter County, and amid coiling fears that the snakes might take over the Everglades and slither across South Florida, devouring native wildlife and, perhaps, threatening humans.

The 15 special permits expired Oct. 31, though other licensed hunters in the state may continue to kill pythons encountered on designated hunting lands.

Officials called the test-run of the python eradication program a success, even though the body count was small compared to the oft-repeated — and, some say, exaggerated — estimates that as many as 100,000 or more pythons may now live in the Everglades. No accurate estimates exist, and scientists who study the problem say only that pythons likely number in the tens of thousands.

The relatively small take was to be expected, as pythons tend to remain hidden during daylight hours in hot weather, said Scott Hardin, exotic species coordinator for the Florida Fish and Wildlife Conservation Commission.

"We went into this knowing it was a sub-optimal time of year for people to be looking for pythons," said Hardin. "They don't need to be out in the daytime. It's plenty warm. They'll spend their time hunting at night."

Of the 39 Burmese Pythons caught, slightly more than half were less than 4 feet long — further evidence that pythons are breeding in the Everglades, said Hardin. The hunters' largest catch was 10 feet, 4 inches. But the largest python found in Florida was spotted in July and measured 17 feet, 2 inches long and 26 inches around at the thickest point.

He also noted that most of the snakes were found to have empty bellies. "It tells you they're not gorging themselves all the time, as some people might suspect," said Hardin.

“They typically eat big meals but not too often.”

The permit-holders were required to record details of their hunts and any snakes caught, data which dispelled misconceptions the snakes would be easy to find, said Larry Connor, the FWC biologist who compiled the snake data.

“When you go out with a group for four or five hours and find, generally, one snake — I think that's fairly realistic,” Connor said.

The hunt was a ground battle in the larger war to combat the snakes’ spread. In Washington on Thursday, a hearing is scheduled on the proposal from U.S. Rep. Kenrick Meek, the Miami Democrat and gubernatorial candidate, to list three types of pythons — Burmese, Northern African Rock, and Southern African Rock — as “injurious species,” thus outlawing their import and trade.

Out of concern for the python hunters’ safety, the 15 permits were set to expire on the same day that the general gun hunting season started.

Hardin said the state would likely expand the program and resume the hunt — perhaps before the new year. “Certainly, we want to have some people back in place during the reproductive season, which runs roughly from January through April,” Hardin said.

Mr. MEEK. So, really, as we continue to allow these snakes to come into the United States, we find ourselves putting those that monitor the movement and also tracking these snakes at a huge disadvantage because they are being released because of their size. Imagine, you could not maintain a snake of this size in your home. And we have—Mr. Rooney talked about incidents in his district and we have a number of incidents where we find these snakes that are found in back yards because they have to feed. And if

someone has a family pet or if someone has a small child or what have you, we know that is the case, in many cases in Florida and any community in the United States, these snakes are going to do what they have to do to survive. And, unfortunately, they grow to this size, they become a danger to the public. They become a danger to management organizations throughout the country.

Mr. GOHMERT. Thank you.

Mr. SCOTT. Are there other questions?

If not, thank you. Thank you very much.

Mr. MEEK. Thank you, Mr. Chairman, for allowing me to come before you today. And I look forward to working with the Committee as we continue to work toward this great legislation moving to the floor.

Mr. SCOTT. Thank you. If our next panel will come forward.

As our witnesses are being seated, our first witness on this panel will be Daniel Ashe. He is the U.S. Fish and Wildlife Services Deputy Director for Policy. In this capacity he oversees the assistant directors in the Washington, D.C., office, providing strategic program direction and developing policy and guidance to support and promote program development to fulfill the service mission.

After he testifies, Andrew Wyatt, the founder of the North Carolina Association of Reptile Keepers and the founder of the United States Association of Reptile Keepers. And he is currently the President of the USARK which works for the betterment of the reptile industry by promoting sound legislation and the best professional management standards at the State and Federal levels. He operates an eco tour, and wildlife education companies, provided reptiles and expertise in the production of several TV and film projects including segments for the National Geographic Channel.

Next will be Professor Elliot Jacobson. He holds a Doctor of Veterinary Medicine and a Ph.D. In zoology. He has served on the faculty of the University of Florida since 1977, where he is currently a professor of veterinary medicine. Over the last 32 years he has worked on health problems of a wide variety of amphibians, reptiles, birds, and mammals. His laboratory focuses on infectious diseases of wildlife and zoo animals. He has authored or coauthored 250 refereed scientific papers, 37 chapters and texts, edited and coedited four books and has been either the principal or coprincipal and investigator on 83 funded projects since 1978.

After he testifies, Nancy Perry is the vice president of government affairs for the Humane Society of the United States. She oversees legislative campaigns to protect animals, including statewide initiatives and grassroots organizations throughout the country. She has spearheaded congressional work to end horse slaughter, crack down on puppy mills, and protect Yellowstone bison. A graduate of Northwestern School of Law of Lewis and Clark College, she has founded the Student Animal Legal Defense Fund, the Animal Law Journal, and the Animal Law Conference. She co-teaches an animal law seminar at George Washington University Law School and a summer intensive course at the Lewis and Clark Law School.

Our sixth witness, George Horne, is deputy executive director, operations and maintenance, South Florida Water Management District, was named in 2002, and has 37 years of district experi-

ence in water resource operations and maintenance. In that role he is responsible for overseeing operations and maintenance of the Central and Southern Florida Project as well as other district water control and conveyance facilities. This water management system includes more than 2,300 miles of canals and levees, 2,200 water control structures, 61 pump stations, and over 1 million acres of land across the district's 16-county region.

Now, each of our witness's written statements will be entered into the record in its entirety, and I will ask each of our witnesses to summarize their testimony in 5 minutes or less. And to help stay within that time, there is a lighting device on the table which will begin green, switch to yellow when you have 1 minute, and will turn red when your time has expired.

Mr. Ashe.

**TESTIMONY OF DAN ASHE, DEPUTY DIRECTOR OF THE
UNITED STATES FISH AND WILDLIFE SERVICE, WASH-
INGTON, DC**

Mr. ASHE. Good morning, Chairman Scott, Ranking Member Gohmert, and Members of the Subcommittee. I am Dan Ashe. I am the deputy director of the U.S. Fish and Wildlife Service. And we appreciate the opportunity to testify here today, Congressman Meek's leadership, and your timely consideration of a very important conservation issue.

Being an executive branch agency, we generally prefer to allow administrative processes to run their course, but today we are here to support H.R. 2811 as reported and also to recommend amending the legislation to include all nine species of large constrictor snakes in light of the recently released U.S. Geological Survey risk assessment.

We believe that the Burmese python and the other large constrictor snakes present a clear and urgent threat. The Burmese python population estimate is now in the tens of thousands putting a variety of imperiled species and the Everglades ecosystem at risk. But Burmese pythons are not the only concern. These other species of large snakes that are or may be breeding in the Everglades now including boa constrictors and northern African pythons and other species may pose a similar risk.

Given the value of the Everglades' ecosystem, its biological diversity, and the potential threat to other ecosystems and species, all nine large constrictor snakes will be the focus of the Service's continued assessment under the Lacey Act.

Unfortunately, there is no silver bullet that will comprehensively address the conservation challenge presented by these snakes. We lack effective trapping and other control technologies. We lack capacity to detect the snakes in the wild. We lack adequate science, management, and regulatory tools to prevent the further introduction and spread of these predators. Therefore, we believe that immediate action is appropriate, and we urge the Subcommittee to take that action.

In June 2006, the Service received a request from the South Florida Water Management District to list Burmese pythons as an injurious species under the Lacey Act. At that time, at the time the petition was submitted, no scientific information had been compiled

on Burmese pythons that would enable a rigorous assessment of risk and potential impacts to the Everglades and other ecosystems.

As a result, in 2007, the Fish and Wildlife Service and the National Park Service partnered to jointly fund the risk assessment for these nine large constrictor snake species considered invasive or potentially invasive in the United States.

Of the nine constrictors assessed, as was noted before, five were shown to pose a high risk to ecosystem health, including the Burmese python, Northern African python, Southern African python, yellow anaconda, and boa constrictor. The remaining four large constrictors, the reticulated python, green anaconda, Beni anaconda, and Deschauensee's anaconda, were shown to pose a medium risk. None of the large constrictors that were assessed were classified as a low-risk.

In addition to the risk assessment, the Service published a notice of inquiry in January of 2008 soliciting biological, economic, and other data related to the potential of adding these large constrictor snakes to the list of injurious wildlife. We received over 1,500 responses. The Service is using this information and the risk assessment in our ongoing evaluation of whether these constrictor snakes should be considered as injurious under the Lacey Act.

We are completing economic analysis and documentation required under the National Environmental Policy Act. We expect to complete our internal review and be positioned to publish a proposed Lacey Act determination in early 2010. Should a proposed rule be issued, the publication would be followed by public comment and a final decision would be possible as early as mid-2011. Given the importance of this issue, the Service is working diligently to complete the administrative process, but it is complex and time consuming.

In summary, the Department supports H.R. 2811 as reported, and recommends amending the legislation to include all nine species of large constrictor snakes. We appreciate Congressman Meek and the Subcommittee bringing attention to this conservation concern. Thanks for the opportunity to testify today, and I would be happy to answer questions.

[The prepared statement of Mr. Ashe follows:]

PREPARED STATEMENT OF DAN ASHE

**TESTIMONY OF DAN ASHE, DEPUTY DIRECTOR, U.S. FISH AND WILDLIFE
SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE HOUSE JUDICIARY
SUBCOMMITTEE ON CRIME, TERRORISM, AND HOMELAND SECURITY ON
H.R. 2811, TO AMEND TITLE 18, U.S. CODE, TO INCLUDE CONSTRICTOR SNAKES
OF THE SPECIES PYTHON GENERA AS AN INJURIOUS ANIMAL**

November 5, 2009

Introduction

Chairman Scott, Ranking Member Gohmert, and Members of the Subcommittee, I am Dan Ashe, Deputy Director of the U.S. Fish and Wildlife Service (Service) within the Department of the Interior (Department). I appreciate the opportunity to testify before the Subcommittee today on H.R. 2811, which as introduced would have amended Title 18 Section 42, U.S. Code, to include constrictor snakes of the *Python* genus as an injurious animal. As reported by the House Judiciary Committee, H.R. 2811 was modified to include only two species of the genus, which are the Burmese python and northern African python. The Department appreciates Congressman Meek bringing attention to this important conservation issue.

While the Department generally prefers the administrative process to run its course, we support H.R. 2811, as reported, and we recommend amending the legislation, in light of the recently released U.S. Geological Survey (USGS) risk assessment, to include all nine species of large constrictor snakes. The nine species that were assessed include the Burmese python, northern African python, southern African python, reticulated python, green anaconda, yellow anaconda, Beni or Bolivian anaconda, DeSchauensee's anaconda, and boa constrictor.

The threat posed by the Burmese python and other large constrictor snakes is evident. H.R. 2811 includes only a subset of the *Python* genus, while the USGS risk assessment indicated that other large constrictor snakes also pose a risk to the health of the ecosystem. The nine large constrictor snakes evaluated in the risk assessment will be the focus of the Service's internal assessment under the Lacey Act.

Before I discuss the specifics of the injurious wildlife provisions of the Lacey Act and injurious wildlife evaluation of large constrictor snakes, I would like to share some background information about the effects the Burmese python has had in the Everglades and other parts of Florida. More than 1,200 of the snakes have been removed from Everglades National Park since 2000, with others having been removed from the Florida Keys, along Florida's west coast, and farther north along the Florida peninsula. Burmese pythons threaten many imperiled species and other wildlife. Two Burmese pythons were found near Crocodile Lake National Wildlife Refuge, and the remains of three Key Largo wood rats were found in their stomachs. The Key Largo wood rat is listed as Endangered under the Endangered Species Act, with estimates suggesting about 200 individuals remain in the wild in one isolated location.

Burmese pythons and other large constrictor snakes are highly adaptable to new environments and opportunistic in expanding their geographic range. Unfortunately, there is no silver bullet that will comprehensively address the conservation challenges raised by the introduction of

Burmese pythons and other large constrictor snakes in the Everglades. Steps to help address these challenges include: trapping and other control technologies, increasing public awareness, rapidly responding to sightings of snakes in the wild, and detecting the snakes and preventing their further spread. To meet these challenges, the Service is working with many partners, including the National Park Service (NPS), USGS, the South Florida Water Management District, the Department of Agriculture, the Florida Fish and Wildlife Conservation Commission, the Florida Wildlife Federation, and The Nature Conservancy.

In addition, State and Federal regulatory approaches play an important role in this effort. In 2008, the State of Florida enacted regulations requiring owners of Burmese pythons and other reptiles of concern to pay an annual \$100 fee and demonstrate that they have the capacity to safely hold the animals. The State has also shown tremendous leadership by hosting several Nonnative Pet Amnesty Days, during which owners of exotic pets can turn in unwanted animals, no questions asked, rather than turning them loose in the wild. The Florida Fish and Wildlife Conservation Commission is now considering developing additional regulatory strategies, and legislation has been introduced at the State level to further regulate Burmese pythons and other species of concern.

The Service has also partnered with the Pet Industry Joint Advisory Council and the National Oceanic and Atmospheric Administration's Sea Grant Program to develop the *Habitattitude*TM campaign, which encourages aquarium hobbyists and water gardeners to be environmental stewards by not releasing pets and plants into natural habitats. We are working toward expanding this campaign to terrestrial plants and animals and developing Burmese python-specific messages for Florida.

Despite the efforts of a broad array of partners, our work has only begun. There is evidence indicating thousands of Burmese pythons are now breeding in the Everglades, and we have only started to develop the techniques needed to address this threat. The reality is that no effective techniques were created to control an invasive snake of this size before our current effort; we are forging a new path. In addition, Burmese pythons are not the only concern. Other species of large snakes are or may be breeding in the Everglades now—boa constrictors and northern African pythons—and other species may pose a similar threat. Given the value of the Everglades, its biological diversity and the threat of invasive species, the Service is committed to addressing this concern and restoring the ecosystem.

Injurious Wildlife Provisions of the Lacey Act

Under the Lacey Act, the Secretary of the Interior is authorized to regulate the importation and interstate transport of species determined to be injurious to humans, the interests of agriculture, horticulture or forestry, and the welfare and survival of wildlife resources of the United States. Species listed as injurious may not be imported or transported across State lines by any means without a permit issued by the Service. The Service considers a variety of factors when evaluating a species for listing as injurious, such as the species' survival capabilities, its ability to spread geographically, its impact on habitat and ecosystems, its impact on threatened and endangered species, its impact on human beings and resource-based industries, and resource managers' ability to control and eradicate the species.

If a species is found to be injurious, the Service publishes a proposed rule in the *Federal Register* to add the species to the list of injurious wildlife and seeks public comment on the proposal. We evaluate public comments received and any additional data gathered, and either publish a final rule to add the species to the list or a notice explaining why the species will not be listed. This evaluation process and the timeframe under which we accomplish it varies based on the availability of data and the complexity of the analyses as well as considerations under the National Environmental Policy Act (NEPA), the Regulatory Flexibility Act, executive orders, and other mandates.

The Lacey Act does not regulate intrastate transport; consequently, State regulatory protocols can play an important role in addressing the threat of large constrictor snakes and other invasive species.

Injurious Wildlife Evaluation of Large Constrictor Snakes

In June 2006, the Service received a request from the South Florida Water Management District to list Burmese pythons as an injurious species under the Lacey Act. At the time the petition was submitted, no scientific information had been compiled on Burmese pythons that would enable a rigorous assessment of risk and potential impacts to the Everglades and other ecosystems. As a result, in 2007 the Service partnered with NPS to jointly provide funds to USGS towards completion of a risk assessment of nine non-native boa, anaconda, and python species considered invasive or potentially invasive in the United States. USGS finalized the risk assessment on October 13, 2009. The risk assessment evaluates each species according to multiple factors associated with either risk of establishment or consequences of establishment, and concludes with an Organism Risk Potential that assigns risk as low, medium, or high for each species. Species assessed were the Burmese python, northern African python, southern African python, reticulated python, green anaconda, yellow anaconda, Beni or Bolivian anaconda, DeSchauensee's anaconda, and boa constrictor.

The selection of these giant constrictor species was based on concern over the size of the potential invaders combined with their prevalence in international trade. Many of these large snakes are popular as pets, and are associated with a large domestic and international trade. Over the past 30 years, about a million individuals of these nine species have been imported into the United States, and current domestic production of some species likely exceeds import levels. The international trade in reptiles as pets is the primary pathway by which these species enter the country.

The Burmese python is currently distributed across many thousands of square kilometers of south Florida and a population of boa constrictors is established south of Miami. Additionally, recent evidence strongly suggests a reproducing population of northern African pythons on the western boundaries of Miami. There is as yet no evidence for reproducing populations of the various anacondas or the reticulated python, although representatives of both groups have been captured or sighted in the wild in Florida and elsewhere.

Of the nine large constrictors assessed, five were shown to pose a high risk to the health of the ecosystem, including the Burmese python, northern African python, southern African python, yellow anaconda, and boa constrictor. The remaining four large constrictors—the reticulated python, green anaconda, Beni or Bolivian anaconda, and DeSchauensee’s anaconda—were shown to pose a medium risk. None of the large constrictors that were assessed was classified as low risk. As compared to many other vertebrates, giant constrictors pose a relatively high risk as potential invasive species, especially in terms of risk to stability of native ecosystems.

Because there are no native snakes that reach similar sizes, giant constrictors represent a novel predation risk to native prey species, and their remarkably broad diets would allow them to consume most native birds and mammals. Giant constrictors potentially represent a serious threat to birds and mammals of conservation concern, especially threatened or endangered species in wetlands or those on islands. Some of the giant constrictors are known to reach relatively high densities in their native ranges, and this trend is reinforced by the apparent high densities of invasive Burmese pythons in parts of south Florida. The traits shared by the giant constrictors include many of the traits that either increase the severity of their probable ecological impacts or exacerbate the challenge of controlling or eradicating them, including that the species are habitat generalists, arboreal when young, tolerant of urbanization, sit and wait predators, very low detectability in the wild, high fecundity, long distance dispersers, rapid growth, early maturation, generalist predators, and as previously mentioned high population densities. Thus, in comparison to potential invaders lacking these traits, this group of snakes constitutes a particularly high risk. While a few of the very largest species have been known to attack humans in their native range, such attacks appear to be rare.

The difficulty in detecting these species in the field complicates efforts to identify the range of invasive populations or deplete populations through visual searching and removal of individuals. There are not currently available control tools that would appear adequate for eradication of an established population of giant snakes once they have spread over a large area.

The USGS risk assessment used a method called “climate matching” to estimate those areas of the United States exhibiting climates similar to those experienced by the species in their respective native ranges. Considerable uncertainties exist about the native range limits of many of the giant constrictors, and myriad factors other than climate alone can influence whether a species could establish a population in a particular location. Climate extrapolations are therefore most profitably compared among species to infer the relative geographic risks associated with establishment in the United States, rather than being used as rigorous predictors of exactly where a species can establish a population. Based on climate alone, many of the species are likely to be limited to the warmest areas of the United States, including parts of Florida, extreme south Texas, Hawaii, and insular territories. For a few species, however, larger areas of the continental United States appear to exhibit suitable climatic conditions.

In addition to the recent USGS risk assessment, the Service published a Notice of Inquiry in the *Federal Register* on January 31, 2008, to solicit biological, economic, or other data related to the potential of adding large constrictor snakes to the list of injurious wildlife. During the public comment period, which closed on April 30, 2008, the Service received 1,528 responses.

The Service is using the information provided by the public and the USGS risk assessment in our ongoing evaluation of whether large constrictor snakes should be included under the Lacey Act. The Service is now completing an economic analysis of a potential Lacey Act rulemaking, which is a requirement under the Regulatory Flexibility Act and Executive Orders 12866 and 13272. The economic analysis is based on available data, and limited data is available. Impacted businesses are not large enough to have major data collections and reporting requirements. We have import data from the Service's Office of Law Enforcement and Division of Management Authority. In addition, the Pet Industry Joint Advisory Council has provided the Service data on the number of snakes bred annually. However, we are still seeking data pertaining to interstate shipments and business profiles to determine the percent of revenues impacted by a potential listing under the Lacey Act. In addition to analyzing economic costs, the economic benefits of a potential listing are still being assessed. Reducing the probability of constrictor snake establishment would reduce the probability of negative impacts on a variety of entities, such as agriculture, human health, native animal species, and migratory birds. However, estimates of the economic value of these impacts are dependent upon the availability of future projections of snake populations.

The Service is drafting documentation required under NEPA and expects to complete our internal review and determine the appropriate Lacey Act role by early 2010. Should a proposed rule be issued, the publication would be followed by a public comment period and a final decision most likely within one year thereafter. Given the importance of this issue, the Service is working diligently to thoroughly and expeditiously complete the required reviews.

Conclusion

In summary, the Department supports H.R. 2811, as reported, and recommends amending the legislation to include all nine species of large constrictor snakes that USGS evaluated in its risk assessment. We appreciate Congressman Meek and the Subcommittee bringing attention to this conservation concern.

Chairman Scott, Ranking Member Gohmert, and Members of the Subcommittee, thank you for the opportunity to testify on H.R. 2811. I would be happy to answer any questions you may have.

Mr. SCOTT. Thank you.
Mr. Wyatt.

**TESTIMONY OF ANDREW WYATT, PRESIDENT, UNITED STATES
ASSOCIATION OF REPTILE KEEPERS, GRANDY, NC**

Mr. WYATT. Good morning, Chairman Scott, Ranking Member Gohmert, and the rest of the Subcommittee. I want to thank you for the opportunity to come before you and present testimony here on H.R. 2811. My name is Andrew Wyatt, and I am here representing the United States Association of Reptile Keepers, of which I serve as president.

Over the past 60 years, the practice of keeping reptiles has changed from an obscure hobby to an incredibly widespread and mainstream part of the American experience. Reptiles have become intensely popular and now present in millions of American households. One in every 25 U.S. households has one or more reptiles. They now permeate pop culture, movies, advertising. And I am sure you are all familiar with the Geico gecko.

The reptile industry has grown into a sophisticated and independent \$3 billion a year industry. Herpetoculturalists produce high-quality captive bred animals for collectors, research, zoos, museums, TV, and film. These animals can be valued at over \$100,000 for individual specimens. Millions of dollars flow into the national economy from the reptile industry. It is interlaced and interconnected with all levels of economy. The purchase of equipment, dry goods, bedding, cages channel money into U.S. manufacturing.

Millions of dollars go into support American agriculture with purchases of food, grain, rodents, bedding, et cetera. Millions of dollars more support airlines and parcel shippers. The reptile industry in the United States accounts for 82 percent of the worldwide export and trade and high-quality captive bred reptiles. Thousands of American small businesses and their employees depend on the reptile industry, and there would be a great loss of jobs if this bill was to pass and restrict all nine species.

USARK is concerned about the feral Burmese pythons in the Everglades and the impact they could potentially have on the ecosystems of South Florida. We recognize the problem and have been committed to be part of the solution. Our members have been intrinsic in the creation of the python removal program and in coordination with Florida Fish and Wildlife in South Florida. We were the first to be licensed to remove pythons from State lands in South Florida.

USARK has actively appealed to the U.S. Department of Interior to open up Everglades National Park to removal programs modeled on the Florida program. We do not believe captured pythons should be rereleased back into the park for any reason. USARK has also offered up \$10,000 to U.S. Fish and Wildlife Service to establish the basis of a program to get pythons out of Florida and into qualified hands that can securely and humanely house them for the rest of their natural lives. USARK has great expertise in regards to pythons, how to find them, where to find them, reproductive behaviors, predation, et cetera. Unfortunately, in our view, the Federal Government has failed to capitalize on this vast pool of knowledge and experience to most effectively address the issue of feral Burmese pythons in Everglades National Park in South Florida.

Beyond the invasiveness of the Burmese python, it is our fear that the issue is becoming overly politicized and media driven, thus

creating a situation where we selectively interpret the available science. This is an issue area especially in this Committee that isn't especially well known and thus lends itself to misinformation and overgeneralizations.

USARK estimates that today there are over 4 million boas and pythons in captivity in the United States today. This is not just about imported animals. This is about animals that have existed in the United States for over 30 years, and will continue to exist, because there are no provisions in this bill to address the number of animals that are already in captivity in the United States.

USARK has been developing and employing best handling practices and accreditation, and welcomes a more in-depth discussion in this regard with congressional administrative officials. It is our belief that the best management practices and professional standards specific to certain reptiles is what is needed, not Draconian measures that will only succeed in destroying a viable industry and many American jobs.

Some have characterized the two USGS reports as proof that the country is in immediate peril from a swift takeover of our parks and natural areas by pythons and boas. We believe this to be overstated. These two reports have been widely criticized by respected scientists. These reports are filled with errors, inaccuracies, and very little actual supporting data.

U.S. Fish and Wildlife has an evaluation process under way. H.R. 2811 assumes an outcome that may not be the reality. It does not make provisions for all of the animals already in captivity. I suggest policy and strong science take precedent over political expedience. Thank you very much for your time.

[The prepared statement of Mr. Wyatt follows:]

PREPARED STATEMENT OF ANDREW WYATT

Testimony of Andrew Wyatt
President
United States Association of Reptile Keepers (USARK).

Committee on the Judiciary, Subcommittee on Crime, Terrorism, and Homeland Security

H.R. 2811, a bill to amend title 18 of the U.S. Code, to include constrictor snakes of the species Python genera as an injurious animal.

November 5, 2009

Mr. Chairman, members of the Subcommittee, I want to thank you for the opportunity to be before you and present testimony today on HR. 2811, a bill to amend title 18 of the U.S. Code, to include constrictor snakes of the species Python genera as an injurious animal.

My name is Andrew Wyatt and I am here representing the United States Association of Reptile Keepers (USARK), of which I serve as President.

By way of background, USARK represents the highly sophisticated commercial production of captive bred reptiles in the United States. We are a science and education based advocacy for the responsible private ownership of, and trade in reptiles. USARK endorses caging standards, sound husbandry, escape prevention protocols, and an integrated approach to vital conservation issues. Our goal is to facilitate cooperation between government agencies, the scientific community, and the private sector in order to produce policy proposals that will effectively address important husbandry and conservation issues. The health of these animals, public safety, and maintaining ecological integrity are our primary concerns.

Over the past 60 years, the practice of keeping reptiles has changed from an obscure hobby to an incredibly widespread and mainstream part of the American experience. Reptiles have become intensely popular and are now present in millions of American households (1 in every 25 US Households has 1 or more reptiles). They now permeate pop culture, movies and advertising. Who doesn't know the Geico Gecko?

From early beginnings in the pet trade herpetoculture, the practice of breeding reptiles and amphibians, has grown into a sophisticated and independent \$3 billion annual industry. Herpetoculturists produce high quality captive bred animals for collectors, research, zoos, museums, TV & film. For reference, these animals can be valued at over \$100,000 for individual specimens. Millions of dollars flow into the national economy from the Reptile Industry. It is interlaced and interconnected with all levels of economies. Purchases of equipment, dry goods, bedding and cages channel money into U.S. manufacturing. Millions of dollars go to support American agriculture with purchases of food, including rodents, grain, bedding, vegetables and prepared diets. Millions of dollars more support airlines and parcel shippers. The Reptile Industry in the United States accounts for 82% of the worldwide export and trade in high quality captive bred reptiles. Thousands of American small businesses and their employees depend on the Reptile Industry.

Reptiles are an animal interest that have captivated an incredibly diverse cross section of the American demographics; from scientists to school children, Wall Street bankers to construction workers, conservationists, attorneys, teachers, rock stars, actors and even politicians. Your friends and neighbors keep reptiles. Some member of your family keeps, or has kept, reptiles. Collectively we refer to this demographic as the Reptile Nation, comprising more than 5 million Americans. All are intensely interested in protecting their legal rights to possess and work with reptiles. Reptile keepers are single-issue voters when that issue is perceived as unnecessary, unwarranted, or unfair regulation of their legal right to own and care for their animals. An

example of this passion and organization was witnessed earlier this year when Members of the House Committee on Natural Resources received nearly 50,000 letters from the Reptile Nation in advance of a legislative hearing on a well-intentioned but misguided and fatally flawed legislative proposal.

USARK is concerned about feral Burmese Pythons in the Everglades and the impact they could potentially have on the eco-system of South Florida. We recognize the problem and have committed to be part of the solution. Our members have been intrinsic in the creation of a Python Removal Program in coordination with Florida Fish & Wildlife Conservation Commission (FWC) and we were the first to be licensed to remove pythons from state lands in South Florida. USARK has actively appealed to the U.S. Department of the Interior to open up Everglades National Park to a removal program modeled on the Florida program. We do not believe captured pythons should be re-released back into the Park for any reason. USARK has offered \$10,000 to United States Fish & Wildlife Service to establish the basis of a program to get pythons out of Florida and into qualified hands that can securely and humanely house them for the rest of their natural lives. USARK has great expertise in regards to pythons; how to find them, where to find them, reproductive behaviors, predation, safe secure maintenance in captivity... etc. Unfortunately, in our view, the federal government has failed to capitalize on this vast pool of knowledge and experience to most effectively address the issue of feral Burmese Pythons in the Everglades National Park and South Florida.

Beyond the invasiveness of the Burmese Python, it is our fear that the issue is becoming overly politicized and media-driven, thus creating a situation where we've selectively interpreted the available science. This is an issue area, especially in this Committee, that isn't especially well-known, and thus it lends itself to misinformation and over-generalizations. The physical danger posed by pythons toward humans has simply been grossly overstated. Even in their native range of South East Asia, where human population densities far exceed that of South Florida, deaths attributed to pythons are extremely rare. As a general matter, pythons have never posed a real threat to humans. That's not to say however, they make the best family pet in every case, or that they cannot pose a threat when best handling practices are not followed or existing laws designed to ensure responsible ownership are ignored. Only that they are not the dangerous killers portrayed by activists in the media.

USARK estimates that today there are over 4 million Boas and Pythons in captivity in the United States. This represents about \$1.6 billion in asset value and \$1.8 billion in annual revenues. Of these in captivity today, 100,000 are Burmese Pythons or African Pythons. {None of these animals will be going anywhere, because there are no provisions in HR 2811 for the disposition of these animals.} USARK will continue to work on shifting the ongoing debate over these species toward policy resolutions based upon complete and solid science. The utmost of care should be taken in any attempt to manage the captive and feral populations. If mistakes are made, problems will only be compounded. Simply legislating animals onto the Injurious Wildlife List of the Lacey Act will not accomplish HR 2811's stated intent. Rather, it will destroy the most valuable resource capable of effectively managing the millions of animals already here. If you

reduce the value of these animals to zero and destroy the livelihoods of those most qualified to deal with the secure disposition of all of these animals, where will that leave us?

USARK has been developing and employing best handling practices and accreditation for many years and welcomes a more in-depth discussion in this regard with congressional and administration officials. It is our belief that best management practices and professional standards specific to certain reptiles is what is needed, not draconian measures that will only succeed in destroying a viable industry.

Not only is the reptile industry a viable component of the American economy, but we have made an unparalleled contribution to conservation; captive breeding as a conservation safety net. Captivity is now considered an important tool of vertebrate conservation. What is today being attempted around the world for amphibians through the International Amphibian Ark, and as proposed by the Great Cats and Rare Canids Act (H.R. 411 and S. 529), and many captivity programs for other rare vertebrates ranging from Sumatran rhinos to Guam kingfishers, has already been accomplished for reptiles. Today the vast majority of boas and pythons held in captivity are captive-bred animals. These are animals that have not been removed from the wild. Reptiles are today more securely established in captivity than any other vertebrate group. This is truly one of the greatest conservation accomplishments of the past 20 years.

Almost all species and subspecies of boas and pythons have been bred in the United States. There are now viable self-sustaining captive populations of several hundred species of reptiles being maintained in the United States. Most pythons and many boa species now exist in captivity as viable ancillary populations. This has been accomplished through a decentralized, non-governmental, economically driven model of conservation. It is American private enterprise that has achieved this very impressive modern goal, not a penny of American taxpayer dollars has been spent in this endeavor.

As the Subcommittee is aware, there is a scientific process underway at the US Fish & Wildlife Service which carefully evaluates the science prior to making an "injurious species" determination. I would note that one of the commitments of the current Administration was not to politicize the scientific process used to make some of these policy decisions. I ask that this Committee do the same. USARK is fully aware of the criticism that the Fish and Wildlife Service injurious species process takes too long and thus members of Congress are now being pushed into overriding this scientific process for the sake of political expediency. This is wrong. This was wrong when it was attempted before for other species, and it is wrong today. Ironically though, many of the groups backing HR 2811 have had decided to suspend their policy in order to fit their agendas on this issue. It is important to note that, historically, these same groups feverously have opposed other legislative and regulatory efforts that favored political policy over scientific fact.

I ask that the Subcommittee note and consider state-level legislation that is now in place in all but eight U.S. States. For example, last year legislation was passed in NC with the support of the

NC Partners in Amphibian & Reptile Conservation to regulate the ownership and use of large constricting snakes. Similar legislation exists in the states of Texas and Florida, for reference. These measures insure that safe, secure, professional best management practices are observed to legally work with these animals. USARK is also currently working in VA and SC to introduce similar legislation in 2010. These best management practices embodied in existing state legislation could easily be adapted to a national USARK accreditation process insuring uniformity and professionalism across the country.

In conclusion, many of these species we are discussing today have been captive bred in this country for over thirty years and have demonstrated no evidence of invasiveness. It is our hope that this Subcommittee will choose to take a more measured approach than is set forth in HR 2811. USARK is committed to safe reptile ownership and welcomes the opportunity to work with Congress to that end.

Again thank you for the opportunity to appear before the Subcommittee. I am happy to answer any questions you may have.

Mr. SCOTT. Thank you, Mr. Wyatt.
Dr. Jacobson.

**TESTIMONY OF ELLIOTT R. JACOBSON, DVM, Ph.D, DACZM,
PROFESSOR OF ZOOLOGICAL MEDICINE, COLLEGE OF VET-
ERINARY MEDICINE, UNIVERSITY OF FLORIDA, GAINES-
VILLE, FL**

Dr. JACOBSON. Chairman Scott, Members of the Subcommittee, I want to thank you for allowing me to be here today to discuss H.R. 2811.

As background, I would like to say I grew up in Brooklyn, New York. That was my home until I was 22. And I fell in love with reptiles not because they are all over New York City. And there are not alligators in the sewer system in New York. There never were. And so these myths about these animals get distorted and especially in movies.

And for whatever reason, I was captivated by these animals. My father used to take me to the American Museum of Natural History. I would go in the reptile hall and just could spend hours there and to the Bronx Zoo. And then the Staten Island Zoo, which was unique in that almost the whole zoo at that time was a snake collection. It is a very, very unique experience.

And these animals have guided me through my entire life. I have gone through to graduate school initially working on my master's and Ph.D. Working with reptiles and amphibians as my research animals. I had die-offs of animals in my colonies while doing research and decided veterinary medicine was an area I wanted to go into to learn more about the disease problems of these animals both as research animals, wild animals. And when I graduated from veterinary school in 1975, I was a wildlife veterinarian for the State of Maryland from 1975 through 1977 working through the University of Maryland.

And then I went on to the University of Florida in 1977 because of its long history of herpetologists that were in the zoology department at the University of Florida and the creation of the new veterinary college. And I went there and, with others, built a program in zoo animal medicine, which is one of the top in the world, if not the top.

And all of these experiences, I have had contacts with a wide variety of animals as a zoo veterinarian, from sea lions to elephants to giraffes to reptiles, and I have been bitten by a lot of animals over the years, more than most people would like to consider.

But I will tell you what was the most significant bite that sent me in the emergency ward; people don't realize. My cat. I was bathing my cat. It bit me through my finger. I got a *Pasteurella* septicemia. I had to go to the emergency ward and be put on IV antibiotics. Most people don't realize that cats have some pretty potent pathogens, and they give more significant bites in terms of infection than probably dogs. And feral cats are a major issue.

I just wanted to get that on the table so the reality of some of these exposures are really known, and the reality is that there are a lot of domestic animal exposures. And pet ownership is—bad pet ownership is not just sacred to reptile people. It extends across all the domestic animals that we have.

So I was asked to look at this document and make comments on it because of what it may result in. And the one thing I am struck with this document is one—and it clearly states it up front; there is no hiding it, but it's not really dwelled upon—is their model is full of uncertainty. And there is probably more uncertainty in this document than there is certainty, and that is because the biological status of these animals in the wild is for the most part unknown. And in the wild, most of these animals are going through a contraction of their home range of what they occupied because of develop-

ment, being killed by people. And, but probably loss of habitat is the biggest thing.

And the other thing, which is somewhat over—it grabs your attention. These maps are very visually appealing of seeing an area in green where potentially the Burmese python could invade. But these maps are based on climate and climate only. And it is stated in here, and it is not dwelled upon, that climate is only one factor in the geographic distribution of an animal. There are many other factors that if you took this and layered it with all the other factors on top, you would come down with a very restricted range, I would expect, for the Burmese python. And we know there has an ecological disaster in Southern Florida, absolutely no doubt about that with the Burmese python.

I would like to make an analogy so you can—this is a good analogy. The Florida panther and the Burmese python overlap to a great degree in their habitat. Why is that? Well, it is the last wild place in South Florida. As Florida panthers try to move north, they get killed. As Burmese pythons try to move north out of the Everglades, my expectation—here is what I propose. Get a couple of 16-foot pythons, see how long it takes them to cross I-10 and see if they survive. That would be a study that would give you an idea of how difficult it is for these animals to cross roads. A lot of the Florida panthers that were lost were lost in Alligator Alley because they were hit by a car which resulted in changes.

And so if the Florida panther was just limited by climate, it would up in the Adirondacks. Climate does not truly represent why the Florida panther is only in South Florida, and the same could be said for the Burmese python.

And, for me, I don't see a convincing argument scientifically, as a scientist, where all these other species are going to become established. These animals have been in the pet trade since I was a child, so that is 50 years or more, and they have had opportunity to spread over 50 years in the United States. And South Florida has been a disaster in a lot of ways because there are all kinds of introduced species in South Florida, not just Burmese pythons, but many other introduced species and introduced plants which are a threat to that ecosystem.

So, in conclusion, I want to say that, in summation, I don't think we are on the edge of the cliff of a conservation disaster with the continued importation of most of these species. In my mind, they would have been established already if they were such an imminent threat because many have been brought in.

That is not say that things need to be made better. And I think there can be better rules and regs. And given the state of our economy, that loss of jobs should not occur. Thank you.

[The prepared statement of Dr. Jacobson follows:]

PREPARED STATEMENT OF ELLIOTT R. JACOBSON

Testimony of Elliott R. Jacobson, DVM, PhD, DACZM, Professor of Zoological
Medicine, College of Veterinary Medicine
University of Florida

Committee on the Judiciary, Subcommittee on Crime, Terrorism, and Homeland Security

Mr. Chairman, members of the Subcommittee, I want to thank you for the opportunity to be before you and present testimony today on HR. 2811, a bill to amend title 18 of the U.S. Code, to include constrictor snakes of the species Python genera as an injurious animal.

My name is Elliott R. Jacobson and I am currently a Professor of Zoological Medicine, Department of Small Animal Clinical Sciences in the College of Veterinary Medicine at the University of Florida. My testimony will include personal experiences with a range of domestic and non-domestic species and concerns I have with a recently published USGS Open-File Report 2009-1202, "Giant Constrictors: Biological and Management Profiles and an Establishment Risk Assessment for Nine Large Species of Pythons, Anaconda, and the Boa Constrictor" (Reed and Rodda, 2009).

First let me provide some pertinent educational and experiential background relevant to this hearing.

I was born in Brooklyn, NY in 1945 and attended Brooklyn College of the City University of New York, where I earned my BS degree in Biology in 1967. I went on to earn a Master of Science Degree at New Mexico State University in 1969 where I worked on physiological ecology of snakes. Next, I attended graduate school at the University of Missouri where I earned my PhD in Zoology. Illness and disease in my research animals opened my eyes to a career in veterinary medicine. He dually enrolled in graduate school and veterinary school and earned his DVM and PhD in Zoology in 1975. From 1975 to 1977 he was a faculty member in the Veterinary Science Department at the University of Maryland and wildlife veterinarian for the state of Maryland where he worked on various epizootics of waterfowl in the Chesapeake Bay. Elliott R Jacobson arrived at the University of Florida in 1977 and is currently a Professor of Zoological Medicine, Department of Small Animal Clinical Sciences in the College of Veterinary Medicine. He is also a member of the Zoological Medicine Service, Veterinary Medical Center at the University of Florida where he serves as a clinician and teaches veterinary students and graduate veterinarians in a zoological medicine residency-training program. Since 1979, Dr. Jacobson has advised 30 residents and has advised or served on the committee of 18 graduate students. Almost all of former residents are employed in major zoological institutions and aquariums scattered across the United States. In 1986 he became a Diplomate of the American College of Zoological Medicine. Over the last 32 years he has worked on health problems of a wide variety of amphibians, reptiles, birds, and mammals. His laboratory focuses on infectious diseases of wildlife and zoo animals, with an emphasis on reptiles including the development of serologic assays and molecular diagnostic assays used to determine exposure to and infection with certain pathogens. He has authored or coauthored 250 refereed scientific papers, 37 chapters in texts, edited and co-edited four books, and has been either the principal or co-principal investigator on 83 funded projects since 1978. Many of his papers are the first description of certain infectious agents in nondomestic species. Several of these descriptive reports have evolved into long-term research projects. I also have been a reptile hobbyist since childhood, keeping and breeding a wide range of reptiles over the years. Currently I have about 120 snakes.

With that as background material to judge my expertise, my testimony will include personal experiences with a range of domestic and non-domestic species and concerns I have with a recently published USGS Open-File Report 2009-1202, "Giant Constrictors: Biological and Management

Profiles and an Establishment Risk Assessment for Nine Large Species of Pythons, Anaconda, and the Boa Constrictor (Reed and Rodda, 2009). It is my understanding that this report is being used as the “best” source of information in determining the ultimate outcome on the bill to amend title 18. While this report presents much factual information gleaned from the literature, it also is replete with interpretations and categorizations of various “Organism Risk Potential” (Table 10.6) that (as far as I can tell) are based on a subjective scoring system that lacks scientific credibility. I will go through this document, pointing to those issues/topics/factors that lack substantive data to support their conclusions. In some cases, important information has been left out. Given that much of this is not my area of research expertise, since it covers such a diverse range of topics, that no one person could be an ultimate source of expertise for all that is covered in this over the last 34 years I have reviewed a wide range of papers/reports on different topics for journals and governmental organizations that I feel comfortable reviewing this document. This report contains areas that are well documented and others that are very poorly described (such as colonized animals serving as a pathogen vector). In the following paragraphs I will point to those statements or interpretations that merit further evaluation/discussion.

The authors start off with the following statement in Chapter 1: “in this report we compile summaries of the biology of nine very large constrictor species and consider what effects these species might have on the ecology, economy, and domestic tranquility of the United States were such snakes to become established”. One snake, the Burmese Python is already established and thus there should be some information compiled for these potential effects. None is provided. Given that the US is engaged in two wars in the middle-east and an unemployment rate of over 10%, it is hard to imagine that such snakes would have a more than insignificant impact on domestic tranquility.

In the 2nd paragraph of Chapter 1, the authors state that “the boa” is very large...” However many island forms of this snake are relatively small and overall, this snake is relatively small compared to the other constrictors listed in this report.

Pages 2-3. The authors state that that “This document addresses primarily the biological impacts associated with potential colonization of the United States by any of the nine giant constrictors....” But the authors go on to state: “Risk assessment, by its very nature, entails uncertainty”. “A risk assessment model cannot absolutely determine whether or not an introduced exotic species will establish and if it does what impact it will have” The (ANSTF, 1996). The ANSTF (1996) pointed out “..... it is the biological uncertainty more than anything else that initiated the need for developing a nonindigenous risk process. Common sense dictates that the caliber of a risk assessment is related to the quality of data available about the organism and the ecosystem that will be invaded”. The authors of the report state, **“The basic natural history of the giant constrictors is largely unknown; our risk assessment reflects this uncertainty.”** If their risk assessment reflects this uncertainty, then why in Table 10.4 is the probability of the 9 constrictors becoming established in the US given as either high (5) or medium (4). Probabilities are not expressed as statistical probabilities and because of this, they have less value to the reviewer.

Under “Synopsis of Conclusions” the authors state: “At present, the only probable pathway by which these species would become established in the United States is h pet trade”. This is not totally correct. The boa constrictor, *Boa constrictor imperator*, ranges just north of Hermosillo, Mexico, an area very close to the US. For whatever reason, this subspecies of the boa constrictor has never made it into the US. Why is that? Probably a combination of ecological and climactic factors are involved. This needs to be studied in order to determine limitations to the spread of this species. Thus, Figure 7.5, a map of areas of the US matching the climate envelope expressed by *Boa constrictor* in its native range does

not explain why this species has never invaded the US given that its northern range is so close to the Arizona border. Also the fact that boa constrictors became established on Deering Estate in the 1970s in southern Florida, and has been breeding for 10 consecutive years, there is no indication that it has spread beyond this introduced locality. Why is this?

Page 6. The author states, “The list of differences among the species is less striking than are the ecological commonalities among them”. However, ecological details are not provided. A table would have been helpful that lists similarities and differences.

Pathogens that these snakes can harbor, diseases described for these animals, and ectoparasites that infest these snakes along with pathogen these ectoparasites may serve as vectors is very superficially addressed. While most of the literature is based on captive constrictor snakes, this literature still provides important information. Studies are needed on pathogens and diseases of these large constrictors.

While all these snakes grow quickly (page 6), most of the available information is for captive snakes that are maximally fed. It is doubtful they would grow as rapidly in the wild.

Page 6. The authors state “All the giant constrictors would have few predators on themselves in the US because they are so large.” all start out small and probably many (if not most) would be eaten by a variety of predators. The effects of fire ants on the ability of Burmese pythons to brood their eggs needs to be studied. This could be a limiting bio-ecological factor. There are anecdotal reports of declines of certain native egg laying snakes in Florida due to fire ant predation.

Page 9. The authors state, “Knowledge of the biology of these giant constrictors may be scanty, but knowledge of appropriate management tools for these species is almost nonexistent. Thus for the management profiles we relied to varying degrees on inference from the management of other snake species, primarily the Brown Tree snake in Guam and the Habu in the Ryukyu Islands (Rodda and others, 1999d). But such inferences are full of uncertainty given how different these animals are regarding their natural history and biology.

Climate Matching on page 15, acknowledges “one controversial component of species-specific management is projection of the areas of the US that are climatically suitable for each giant constrictor. “. This only provides an indication of the “relative size and location of the geographic area at risk, but should be used only with great circumspection to identify localities at risk.” The reviewer believes the maps over-predict the geographic area at risk. There are probably many areas within these areas that the large constrictor snakes could not exist.

Page 16, Reasons for preferring our Method to the use of Environmental Niche Models. The authors fail to convince the reviewer that their method is a better predictor of areas at risk for invasions vs. Environmental Niche Models. Given all the uncertainty previously expressed by the authors, it is hard to have confidence in their model.

Page 22. Dogs may serve very well in locating nesting (incubating) Burmese pythons, even though these animals are in a semi-aquatic habitat. It appears they have not been utilized as well as they could.

Page 23. Use of a pathogen to directly control constrictor snake populations should be avoided. Extensive studies would need to be done on native reptiles and that would be cost prohibitive.

Page 33. The diet of indigo snakes is primarily amphibians and reptiles, with a smaller percentage of mammals. Their diet is probably quite different than the constrictors in this report.

Page 37. "Many proponents of pathogen-based control have advocated the use of advanced genomic science to enhance the virulence of a pathogen-based agent (Interdisciplinary Center for Biotechnology Research 1992)." Actually, what was recommended was to identify a non-pathogenic blood parasite that could be gene spliced with a sequence coding for an anti-gonadotropin or inhibitor of some aspect of the reproductive system including egg development.

Page 52. Burmese Python. Section 3.5. Introduced Ranges. Very little information is provided. A map should have been included showing specific sites where Burmese pythons have been encountered in Florida and where females with eggs have been found. History of the invasion of this snake should have been included along with current methods of control and demographic findings.

Page 59. 7.2. Human Health Risks. "A remarkable exception occurred during production of this report (1 July 2009), in which an unattended 2-year-old in Florida was sought out and fatally constricted by the family's 2.5 m (5.5 kg) pet amelanistic Burmese python (Miller, 2009)." The reviewer takes issue with use of "sought out". This was a horrific event, but certainly should have been prevented if the animal was caged properly. The reviewer doubts the snake purposefully "sought out" this child. This is highly anthropomorphic.

Page 61. 9.0. Entry Potential. The reviewer would like to see that data that shows survival of imported constrictors approaching 100%.

Page 62. 10.2. Climate Match – Areas of the United States at Greatest Risk. Why are these areas of greatest risk since climate suitability is just one factor in the establishment of an invasive species, a necessary but not sufficient condition?

Page 64. 10.4. The following two sentences do not make sense to the reviewer and appear to be contradictory? The circumstantial evidence from southern Florida is that the combination of panthers and alligators has not noticeably constrained establishment or spread. It is possible, however, that spread will accelerate if and when Burmese pythons spread beyond the area densely inhabited by panthers and alligators."

Page 64. 10.6. Hibernation Requirements. Gopher tortoise burrows will not be suitable for those large constrictor snakes that hibernate. There is a size limit. The following is information provided by Ray Ashton, a noted gopher tortoise biologist: "The average adult tortoise is cm long CL 20-32 cm (add 5-8 cm to this to figure width of burrow). The average height of a tortoise is (12-16 cm). (add 2 cm for the height of the burrow).

Note that burrows have an end chamber, which is an average of 5 cm in circumference larger than the width of the burrow. Note that coastal strand burrows in shell sands and in very wet flatwoods (where the pythons are found) are usually very shallow (above 1 m) in depth and the shell sands cause easy collapse of the burrows. However on some islands many burrows are less than 3 m. long. Where there are deep sands like the edges of the dunes, they may be up to 8 m. The burrows would not be a good refuge for a python exceeding 2 m. maximum. This is using the indigo and diamondback size range. We photographed a tortoise kicking a large diamondback, probably just less than 2 m. until the snake left. This indicates that tortoises may well be aggressively kicking out larger snakes".

Page 65. 11.1 Dispersal Ability. What has limited the Burmese python from dispersing further north

than it has? There is no mention anywhere in this report on the effect of highways and interstates, and urbanization of Florida, on the ability of this snake to disperse any further north than it has.

Peg 68. 13.1. Species of Special Concern as Prey or Competitors. The authors state, "A very large number of imperiled species are at risk from giant constrictors in the state of Florida." See Table 4.2. There is no mention or comparison made about the impact of feral cats on these species. Which is of greater concern? The millions of feral cats already throughout the state of Florida and elsewhere in the US or invading constrictor snakes?

Page 245. In Chapter 10, "The Risk Assessment", no quantitative data are presented to determine consequences of establishment (Table 10.5) for the nine giant constrictor species and how the authors arrived at the organism risk potential algorithm in Table 10.6. The authors state that this was adopted by the Aquatic Nuisance Species Task Force (ANSTF, 1996), but the specifics of how their categories of "High, Medium, and Low" were determined. In Pyron et al (2008), the authors' ecological niche models, which include 19 climatic variables representing climatic extremes as well as averages, indicate that the only suitable habitat in the U.S. for Burmese pythons presently occurs in southern Florida and in extreme southern Texas. Models based on the current distribution of the snake predict suitable habitat in essentially the only region in which the snakes are found in the U.S. The authors conclude that the Burmese python is strongly limited to the small area of suitable environmental conditions in the United States it currently inhabits due to the ecological niche preferences of the snake. The ability of the Burmese python to expand further into the U.S. is severely limited by ecological constraints. This is in conflict with the assessment by Reed and Rodda (2009). Thus further ecological studies are needed to determine the most accurate model that should be used.

CONCLUSION: Although this report provides much valuable biological information for nine large species of pythons, anacondas, and the boa constrictor, the risk assessment component of this report does not make an compelling argument for these snakes spreading throughout the climatic map areas in the US depicted for each species. As previously stated by the authors: "Risk assessment, by its very nature, entails uncertainty". "A risk assessment model cannot absolutely determine whether or not an introduced exotic species will establish and if it does what impact it will have" The (ANSTF, 1996). **"The basic natural history of the giant constrictors is largely unknown; our risk assessment reflects this uncertainty."** This comment alone makes the reviewer question whether the nine constrictor snakes can become established in the areas represented by the climate maps provided for each snake. The climate maps oversimplify an extremely complicated issue since climate alone will not dictate where or when these snakes will become established. Other ecological factors need to be considered. Urbanization and the system of roads north of extreme southern Florida will probably be a factors that will affect the spread of these snakes. A composite map is needed that represents an overlay of all the potential ecological factors that would affect the ability of these snakes to become established beyond southern Florida and possibly southern Texas. Finally, the fact that the boa constrictor, *Boa constrictor imperator*, ranges into northern Mexico, but has never entered the US, suggests there are ecological factors that have limited its spread into the US. The report does not address this issue. The authors of this report are correct in stating that much uncertainty exists.

Mr. SCOTT. Thank you, Dr. Jacobson.
Ms. Perry.

TESTIMONY OF NANCY PERRY, VICE PRESIDENT OF GOVERNMENT AFFAIRS, THE HUMANE SOCIETY OF THE UNITED STATES, WASHINGTON, DC

Ms. PERRY. Thank you, Chairman Scott, Ranking Member Gohmert, Representative Goodlatte, and other Members of the Subcommittee.

My name is Nancy Perry, and I am vice president of government affairs for the Humane Society of the United States. We are the Nation's leading animal protection organization with more than 11 million supporters nationwide. That is one in every 28 Americans. And we work very hard to create a humane and a sustainable world, and that is a world that would benefit people as well.

We are a mainstream force against cruelty, against neglect, and against exploitation. And we are the most trusted voice in extolling the human-animal bond. Our mission is to celebrate animals as well as to confront cruelty, and we will be talking about that, both ends of that today.

We work to investigate cruelty and to enforce existing laws as well as to educate the public, and we are the lead disaster relief agency in the country for natural disasters and other forms of disasters. We also engage in the direct care of thousands of animals at our network of sanctuaries, rescues, rehab centers, and we have a mobile veterinary clinic.

We really appreciate this opportunity to testify in favor of H.R. 2811, which will add certain pythons to the list of injurious species prohibited for the import and interstate commerce. We support the bill, and we urge that it be amended to include all nine species of large constrictor snakes identified as posing a genuine risk to people or the environment by the new USGS report. If some of these snakes are included and others are not, then the trade will simply shift between giant constrictor snakes, and that is a great concern to us.

When Congress has acted on the trade of other dangerous wild animals as pets, it has acted comprehensively. You may recall, in 2003, Congress banned the interstate commerce of big cats, lions, tigers and other large cats, as pets, and it passed that prohibition unanimously.

It also this session passed a comprehensive prohibition on primates as pets in the Captive Primate Act by a large bipartisan vote.

We think that H.R. 2811 should do the same thing. It should address this entire category of giant constrictor snakes that USGS has just provided tremendous scientific background on. Otherwise, this Committee will have to keep coming back and adding species, tragedy by tragedy.

H.R. 2811 will not take away anyone's pet. This merely addresses the interstate commerce, not the possession within a State. It really tries to target the exotic commercial pet trade. So people who own these animals will continue to keep them, and they will retain responsibility for them.

These animals could continue to move across State borders for zoological, educational, medicinal, and scientific purposes. This is a reasonable and moderate solution, and it balances private owner-

ship of snakes with the very real and serious public safety and ecological threats that these giant snakes pose.

Large constrictor snakes do not belong in the pet trade for three reasons: The risk to public health and safety; the risk to animal welfare; and the risk to the environment. The danger of keeping large constrictor snakes as pets was already talked about today, and it was tragically demonstrated in July when a 2-year-old Florida girl lost her life. She was killed by a Burmese python kept as a pet in her home.

Four people have actually been killed by pet pythons in the U.S. just since 2006, and three of them were experienced reptile handlers. Two of these fatalities were by reticulated pythons, the world's longest snake, and in fact, that includes the fatality that occurred near Chairman Scott's district. That was a reticulated python. So without an amendment to H.R. 2811, we will not even be addressing these snakes.

Animal welfare of course is a major concern for us. Snakes are often marketed as low-maintenance pets, but the reality is keeping them healthy and safe and secure is very difficult. It requires a sophisticated level of care that many owners are simply not able to provide. These snakes grow very large very quickly, and they can outgrow their enclosure and escape. We have a great concern for the welfare of these snakes, for the pets that they can consume when they escape, as well as for the wildlife that they can take when they get out.

Now, the environmental risk of large constrictor snakes was already well exposed and discussed in the USGS report. It is a 300-page document that examines nine species, and it found that all nine pose a high or medium risk. None of them were a low risk. People often purchase these animals when they are young and manageable. So it makes sense. We can understand that many people think that this is appropriate to do. But the snakes grow so quickly that they can soon escape their own enclosures, and then they can even be abandoned all too often outdoors if a person finds them unmanageable.

Burmese pythons, boa constrictors, and probably some African pythons have already established themselves and are breeding as invasive species in Florida. There are likely tens of thousands of Burmese pythons in the wild, and those put a lot of other already imperiled wildlife at risk.

Other States can and will be next. H.R. 2811 is an important step, but if only some pythons are included, the trade will shift from one giant snake to another. A simple Google search for one of these snakes will tell you immediately how readily available they are on the Internet. Just look up a giant constrictor or a green anaconda, and you will find them readily available.

HSUS truly appreciates and celebrates these animals, but we believe that they really need to be in their natural habitat, not in America's wild lands or in our communities, where they do pose tremendous harm to people and to the ecology.

We really applaud Representative Meek's leadership on this issue, along with Mr. Rooney, and we are looking forward to working with this Subcommittee. We applaud the Subcommittee for its

interest in this issue, for holding this hearing, and we would like to work with you for a comprehensive solution. Thank you.

[The prepared statement of Ms. Perry follows:]

PREPARED STATEMENT OF NANCY PERRY



**Hearing on H.R. 2811, a Bill to Amend Title 18, United States Code, to Include
Constrictor Snakes of the Species Python Genera as an Injurious Animal**

**U.S. House of Representatives
Subcommittee on Crime, Terrorism, and Homeland Security**

**Testimony of Nancy Perry
Vice President, Government Affairs
The Humane Society of the United States**

November 6, 2009

I am Nancy Perry, vice president, Government Affairs of The Humane Society of the United States (HSUS). Thank you, Chairman Scott and members of the Subcommittee, for the opportunity to testify in support of H.R. 2811, introduced by Rep. Meek, which would add certain nonnative constrictor snakes to the list of injurious species that cannot be imported or moved in interstate commerce for the pet trade.

On behalf of The HSUS, the nation's largest animal protection organization, and our more than 11 million supporters, and the Humane Society Legislative Fund, we support H.R. 2811 and urge that it be amended to include all nine large constrictor snake species identified as posing risk to our environment by the U.S. Geological Survey (USGS) in a comprehensive report released last month. If only some of these species are included, just a portion of the problem will be addressed. The trade would simply shift to other species, and risks to public safety, animal welfare, and the environment would remain.

Dangerous Wild Animals in the Pet Trade

The HSUS has long advocated for legislation to restrict the trade in dangerous wild animals as pets. Wild animals kept as pets can injure and kill, and can spread disease, and the average pet owner cannot provide the sophisticated care needed to maintain these animals in a healthy condition in captivity. People often purchase wild animals while they are young and manageable, and when the animals grow too dangerous to handle they no longer want them, but there are very few options for placement. If the animals escape or are turned loose, they can put people and pets at risk, can impose costs on cash-strapped communities, and can threaten wildlife and wreak havoc on the environment.

Congress passed the Captive Wildlife Safety Act unanimously in 2003 to prohibit importation and interstate commerce in lions, tigers and other big cats for the pet trade. The House earlier this year passed by an overwhelming margin the Captive Primate Safety Act (H.R. 80), which would provide the same protections for monkeys, chimpanzees, and other primates. That bill was approved by the Senate Committee on Environment and Public Works in May, and is awaiting action in the full Senate. In both cases, Congress sought to proactively address entire categories of dangerous wild animals (big cats and primates) rather than introduce legislation each time there is a problem with one or two species.

Similarly, we support H.R. 2811, which will prohibit importation and interstate commerce of certain constrictor snakes for the exotic pet trade by adding them to the list of injurious species under the Lacey Act, but we believe the public policy must be crafted to address the entire category of large constrictor snakes. As it was introduced, H.R. 2811 would have addressed the trade of all species in the python genus. The House Judiciary Committee amended the bill to apply only to Burmese pythons and African rock pythons. We believe such a policy would be incomplete. Other large constrictor snakes also pose dangers, such as green anacondas, which are the world's heaviest snakes, and reticulated pythons, which are the world's longest snakes.

If only some species are restricted, the trade will shift to others, and the risks will remain. As the USGS report noted, "Should the species that currently dominate the trade become less readily available, one would expect a compensatory increase in sales and interest in the related taxa, as has been seen in response to export bans of particular species from several countries in recent decades."

Passage of H.R. 2811 would not result in confiscation of people's pets. The bill applies to interstate movement of these animals. It does not affect possession of the animals within a state. People would keep their existing pet constrictor snakes. In addition, H.R. 2811 targets the trade in these dangerous animals as exotic pets, while allowing the animals to continue to be imported and moved across state lines for zoological, educational, medical, or scientific purposes with a federal permit. This is a reasonable and moderate solution that balances private ownership of snakes with the very real and serious public safety and ecological threats posed by these creatures.

Danger to People and Pets

The danger of keeping large constrictor snakes as pets was demonstrated tragically in July 2009 when a 2-year-old Florida girl was killed by an 8-foot Burmese python kept as a pet in her home. At least four people have been killed by pet pythons since 2006; seven people have been killed since 1999.

These grim statistics include adults with experience handling reptiles. A Virginia Beach woman was killed by her 13-foot reticulated python in October 2008. She was found dead of asphyxiation, with a note to herself on a whiteboard, "Medicate Diablo." News reports say she may have been attempting to squirt medication into the snake's mouth. It reportedly took two men to drag the snake back to his enclosure. In 2006, an Indiana man told family members he was going to treat his 14-foot pet reticulated python for a medical condition. He was found dead in a shed by asphyxiation, with the python nearby. An Ohio man was strangled by his pet Burmese python in 2006. He was taken to a hospital, but it was too late to save him.

In addition to deaths, many people have been injured. According to news reports, in January 2009, a 3-year-old Nevada boy was constricted to the point of unconsciousness by an 18-foot reticulated python temporarily being kept in the family's home. As the boy began turning blue, his mother stabbed the snake with a kitchen knife to free the child, who survived.

First responders who face serious risks on a daily basis should not have to confront these deadly snakes. According to news reports, firefighters responding to a warehouse fire in Florida in 2007 found more than 100 snakes in the building, including 8-foot boa constrictors and pythons between 12- and 17-feet long. A firefighter found a large Burmese python in the basement of a New York home after a fire was doused in 2007. A California firefighter found a 6-foot anaconda alive among the debris after a fire gutted a music studio in 2006.

Constrictor snakes on the loose also have attacked and killed family pets, such as a Siamese cat who was eaten by a Burmese python roaming a Florida neighborhood in 2005 and a small dog who died of injuries after being attacked by an escaped pet python in 2006.

The Appendix to this testimony provides details of attacks, escapes, and other incidents involving constrictor snakes compiled from news reports. Many more incidents likely have occurred but gone unreported.

Risk to Public Health

Like other reptiles, constrictor snakes carry the bacteria *Salmonella*. The Centers for Disease Control and Prevention (CDC) reports that reptiles and amphibians account for approximately 74,000 cases of reptile-associated salmonellosis each year -- 6 percent of U.S. *Salmonella* cases and 11 percent of cases in people under 21. The CDC recommends keeping reptiles out of homes with children under five and people with weakened immune systems, who are most susceptible.

Direct contact with a reptile is not necessary to contract *Salmonella* because the bacteria can live on surfaces. In December 2001, a 3-month-old California infant was taken to an emergency department after a day of bloody diarrhea and fever. The

child's father, a high school biology teacher, often draped a large snake (i.e., a boa) over his shoulders in the classroom. He was careful to wash his hands -- but not to change clothing -- before going home and holding his child. The snake was found to be the source of the child's *Salmonella* infection.¹

In April 2001, a woman died in Oklahoma related to a *Salmonella* infection after obtaining a transfusion of blood platelets. The platelet donor's 9-foot pet boa constrictor was identified as the likely source of the *Salmonella*. A second patient who received platelets from the man also contracted *Salmonella* but was healthier initially and lived.²

Environmental Threat

On October 13, 2009, the USGS released a comprehensive 300-page report, "Giant Constrictors: Biological and Management Profiles and an Establishment Risk Assessment for Nine Large Species of Pythons, Anacondas, and the Boa Constrictor." This peer-reviewed research quantified the ecological risk that nine species of large constrictor snakes pose to the United States, looking at both the probability that the snakes would become established and the resulting consequences.

The species studied are the Indian or Burmese python (*Python molurus*), Northern African python (*Python sebae*), Southern African python (*Python natalensis*), reticulated python (*Python* [or *Broghammerus*] *reticulatus*), boa constrictor (*Boa constrictor*), green anaconda (*Eunectes murinus*), yellow anaconda (*Eunectes notaeus*), Beni or Bolivian anaconda (*Eunectes beniensis*), and De Schauensee's anaconda (*Eunectes deschauenseei*).

The USGS concluded that overall risk was high for five of the giant constrictor snake species and medium for the other four species. Because all nine species share a large number of traits that promote invasiveness or impede population control, none of the species was found to be low risk.

For example, the species all have remarkable reproductive capacities and the ability to move large distances quickly. These traits make limiting their spread very difficult. The snakes also blend well into their surroundings, hindering efforts to find and remove them. Moreover, according to the USGS report, no current control tools seem adequate to eradicate an established population of giant snakes that has spread over a large area.

¹ "Reptile-Associated Salmonellosis --- Selected States, 1998--2002," *Morbidity and Mortality Weekly Report*, Centers for Disease Control and Prevention, December 12, 2003 <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5249a3.htm>

² Mehrdad Jafari, M.D., Ph.D., et al., "Salmonella Sepsis Caused by a Platelet Transfusion from a Donor with a Pet Snake," *The New England Journal of Medicine*, October 3, 2002 <http://content.nejm.org/cgi/content/full/347/14/1075>

Removal efforts should occur when a population is limited to a local area less than a few acres, but USGS says the snakes are rarely detected until they have spread more widely.

Two of the species studied are confirmed to be already established and breeding in the United States -- Burmese pythons and boa constrictors. From a relatively small number of animals released or escaped from the pet trade, Burmese pythons are now distributed across thousands of square miles of south Florida, probably numbering in the tens of thousands. The well-known photograph of a Burmese python who tried to swallow an alligator in the Florida Everglades illustrates the magnitude of the potential impact. If Burmese pythons can challenge alligators for top predator status, they can upset the balance of the ecosystem.

Burmese pythons will eat a wide variety of reptiles, birds, and mammals of all sizes, and can deplete vulnerable species. According to the USGS report, "A very large number of imperiled species are at risk from giant constrictors in the State of Florida." The report lists several species of special concern that have been eaten by Burmese pythons in Florida including the endangered Key Largo woodrat, round-tail muskrat, limpkin, and white ibis.

According to the USGS, large areas of the United States have a climate that appears suitable for survival of Burmese pythons, including most of California, Texas, Oklahoma, Arkansas, Louisiana, Mississippi, Alabama, Florida, Georgia, and South and North Carolina. With global warming, the potential range for these snakes is expected to move northward.

Boa constrictors also are already established in Florida, but over a much smaller area. With proactive measures to stop the influx of these snakes and remove existing animals, it may be possible to halt their spread. According to the USGS, "extant technology would not appear to be capable of eradicating any of the giant constrictors from south Florida unless the colonization were caught very early, perhaps around the present range of the Boa Constrictor population now in Miami (several hundred hectares or less)."

The USGS report sites evidence strongly suggesting that a third species, northern African pythons, has established a reproducing population along the western edge of Miami. Individual animals of other species also have been found in the wild, raising concerns that they, too, could become established. The USGS notes that a green anaconda was found dead near Florida's Fakahatchee Strand Preserve State Park in 2004, and two adults and a juvenile were observed in the area. Yellow anacondas, a smaller species that can still grow to 10-feet long, have been found in or near Florida's Big Cypress National Preserve. A wildlife official reported seeing a yellow anaconda approximately 6-feet long in Arkansas's Wapanocca National Wildlife Refuge in 2005.

Another characteristic that creates risk is the ability of the snakes to serve as hosts for parasites and disease. As the USGS report notes, snakes taken from the wild and

imported often carry exotic parasites or pathogens that may transfer to other captive snakes during transport, sales, and pet ownership, or to native snakes or livestock if the animal escapes or is released. For example, snake ticks originating in Africa may carry heartwater, which is potentially devastating to cows, deer and other ruminants, and ticks from Asia can carry capillariasis, a disease of human health significance. Wild-caught anacondas imported to Europe are reported to be riddled with parasites, as noted by USGS.

Environmental risk assessment, by its nature, is not an exact science. The USGS report says the certainty is greatest for Burmese pythons and boa constrictors because they are unequivocally reproducing in the United States. Because of the potential danger large constrictor snakes pose to people and our ecosystems and the extreme cost and difficulty of removing these animals once they get established, it is important to err on the side of caution. The USGS report leaves no doubt that action is needed now to prevent the spread of Burmese pythons and boa constrictors to new areas and to prevent the introduction of other species.

Risk to Animal Welfare

Though often marketed as low maintenance pets, reptiles have complex needs that are difficult for the average pet owner to meet in captivity. Their requirements for light and temperature frequently are not met, and heating elements that can harm them are often used. Constrictor snakes can grow very large very quickly, resulting in enclosures that are inadequate for their size and to prevent their escape.

Constrictor snakes may suffer from starvation, dehydration, and other symptoms of neglect when owners cannot provide proper care. Underfed snakes may pose particular risks to people. By one account, the snake who killed the Florida toddler was about half the appropriate weight. The USGS report notes that the snake who killed the Ohio man in 2006 also was underweight.

Constrictor snakes have been found kept in deplorable conditions by both dealers who move large numbers of the animals and by individuals keeping them as pets. For instance, a Florida woman was arrested for animal cruelty in 2008 after authorities reportedly found animals in substandard conditions including a Burmese python kept in a small dog crate full of feces and shedded snake skins.

Officials investigating a report of an alligator in a Connecticut apartment in 2006 also found 36 snakes including boa constrictors, pythons, and an anaconda. The tenant had been evicted the previous day. The animals were left in extremely dirty and unhealthy conditions, with no food or water.

A Maryland man was charged with animal cruelty following an investigation of conditions at a reptile wholesale business in a warehouse in 2003. Boa constrictors were among the animals being housed in the facility; 199 animals were found dead.

A Pennsylvania man was charged with cruelty after admitting he turned loose his 10-foot Burmese python and 9-foot reticulated python in July 2009. When the snakes were found -- one along a road and the other along a creek behind a home in the same area -- they were severely malnourished. The person who took the snakes reportedly said it probably took years for them to deteriorate to that condition.

Once species are established, methods used to remove animals may be inhumane. Preventing the animals from becoming established in the first place is only failsafe humane approach.

Comprehensive Legislation Is Needed

H.R. 2811 is an important step to address the trade in dangerous large constrictor snakes as pets. But if only Burmese pythons and African rock pythons are included, the trade will shift to other species. All one needs to do is a Google search for "anacondas for sale," "boa constrictors for sale," or "reticulated pythons for sale," and their ready availability for sale across state lines to untrained individuals is apparent.

An ounce of prevention is worth a pound of cure. Had Burmese pythons been listed as injurious 20 years ago, the colonization of the Everglades National Park could have been avoided, along with tremendous ecological and financial costs. If Congress does not take comprehensive action now, it will have failed just as policymakers failed to prevent the invasion of Burmese pythons 20 years ago.

The Humane Society of the United States urges passage of H.R. 2811 with an amendment to include the nine species identified by the USGS as posing risk to our environment. We appreciate and celebrate snakes, but nonnative large constrictor snakes belong in their natural habitats and range countries around the globe, not in America's wilderness and private homes, harming our natural resources and putting people at risk.

We applaud the Subcommittee's interest in addressing the trade in these dangerous constrictor snakes as pets and look forward to working with you to pass comprehensive legislation to protect public safety, animal welfare, and the environment.

Appendix

Incidents Demonstrate Risks to Public Health and Safety, Animal Welfare, and the Environment

October 2009 (California): A 7-foot boa constrictor on the loose went under a car and was found wrapped around the car's engine compartment. The snake was reportedly one of three snakes someone left in a box on a corner in Compton. Another one was taken by a neighbor, and the third one was dead. Source: Fox 43

October 2009 (Massachusetts): A 5-foot boa constrictor was caught in a makeshift trap in the attic of a six-family dwelling in Fall River. It was unclear where the snake came from. The snake was thought to be sick with an upper respiratory infection and about 10 pounds underweight. Source: *The Boston Globe*

October 2009 (North Carolina): Two brothers found an injured 7-foot boa constrictor in a driveway. Source: Star News Online

October 2009 (Florida): A mother and daughter found an 8 or 9-foot Burmese python in their residential neighborhood in Vero Beach, the second nonnative snake caught in Vero Beach this year. Source: 12 News

October 2009 (Florida): Authorities found an 11-foot Burmese python crawling uncaged in a Crestview man's home. Source: Florida Fish and Wildlife Conservation Commission

October 2009 (Florida): Charges were filed against a Wewahitchka man after his 11-foot Burmese python escaped and was killed in a neighbor's chicken coop. The man had no cage for the snake, who crawled freely about his Wewahitchka apartment. Source: Florida Fish and Wildlife Conservation Commission

September 2009 (Florida): A 10-foot boa constrictor was on the loose in Hillsborough County. Wildlife officials say they are not going after the snake because so many people have dumped pet snakes, and they don't have the resources to go after them all. Source: Fox Tampa Bay

September 2009 (Florida): Authorities were alerted to an 18-foot Burmese python at an Apopka home. The snake reportedly weighed 400 pounds and was 30 inches around. Source: WBIR.com

September 2009 (Florida): Authorities removed two large Burmese pythons from a Lakeland home, an 11-foot male and a 17-foot female who weighed more than 150 pounds. Source: Florida Fish and Wildlife Conservation Commission

September 2009 (Florida): A 7-foot reticulated python was found near a state park. Source: *Sarasota Herald-Tribune*

September 2009 (Florida): An 8-foot python was found along a roadside in Placer County. Source: KTVU.com

September 2009 (New York): A 10-foot Burmese python was on the loose in Elmira Heights. This was the second time one of the owner's pythons escaped into the neighborhood. Source: WETMtv.com

September 2009 (Arkansas): An 11-foot Burmese python escaped from an enclosure in a garage, was found in a neighbor's yard, and was recaptured. Source: *The Morning News*

September 2009 (Florida): A dead 10-foot python was found in the water at the Largo Nature Preserve. Source: *Largo Leader*

August 2009 (California): A boa constrictor between 6 and 8 feet long was found on a road in Escondido. Source: *North County Times*

August 2009 (New York): A 4-foot boa constrictor was found in a Manhattan laundromat. Source: NY1

August 2009 (Florida): A 5-foot boa constrictor was found on a Daytona Beach road. Source: News Journal Online

August 2009 (California): An 11-foot Burmese python escaped from a Riverside County home and was found in a neighbor's yard. Source: *The Press Enterprise*

August 2009 (Missouri): A 9-foot Burmese python was spotted at a park and captured a few days later. Source: *St. Joe News*

August 2009 (Oregon): A 10-foot python was found on a road. Source: KVAL News

August 2009 (Utah): An 8-foot Burmese python was found outside a woman's home. Source: *Deseret News* (Associated Press)

July 2009 (Florida): A 2-year-old girl was killed by an 8-foot Burmese python who escaped from an enclosure in her home. Source: Florida Fish and Wildlife Conservation Commission

July 2009 (Florida): A 17-foot Burmese python was found on the grounds of a veterinary hospital. The snake was spotted by the 11-year-old nephew of the hospital owner. Source: *Miami Herald*

July 2009 (Indiana): A 5-foot-long red-tail boa constrictor escaped and was missing. Source: *The Republic*

July 2009 (Illinois): An 8-foot boa constrictor was caught after escaping and being on the loose for a few weeks. The snake was a few houses away. Source: *Connect Tristates*

July 2009 (Florida): A large boa constrictor was found hiding in the gutter of a vacant Pasco home. Source: FOX Tampa Bay

July 2009 (Florida): Two Burmese pythons, one 8 feet, one 9.5 feet, were captured after escaping from a home. Source: *The Ledger*

July 2009 (Florida): A 12-foot plus Burmese python was found loose around a neighborhood of town homes. Source: *Orlando Sentinel*

July 2009 (Pennsylvania): A 10-foot albino Burmese python and 9-foot reticulated python were found. Both snakes were malnourished. The owner reportedly admitted to releasing the snakes because he could no longer afford to care for them. Source: *Lebanon Daily News*

July 2009 (Maryland): A 3-foot Burmese python escaped from a home. Source: *The Gazette*

July 2009 (Arizona): A Yuma family found a 6-foot long python on their front porch. Source: *The Arizona Republic*

May 2009 (Florida): A Punta Gorda police officer removed an injured 4.5-foot python from an intersection. The snake suffered from a broken jaw and died soon afterward. Source: NBC2 News

May 2009 (Florida): An investigation into the escape of a 10-foot Burmese python in Pinellas Park determined the snake had escaped almost two months earlier. Source: Florida Fish and Wildlife Conservation Commission Division of Law Enforcement Field Operations Weekly Report

May 2009 (Maine): A 2-foot boa constrictor escaped from a cage in a high school. He hid in an old computer printer, and was not discovered until the school gave the printer to a student to take home and dismantle. Source: WHNT 19News (AP)

February 2009 (Wisconsin): Two Burmese pythons were turned over to a shelter after the owners were arrested on drug-related charges. Source: *Beloit Daily News*

January 2009 (Nevada): A 3-year-old boy was bitten and squeezed to the point of unconsciousness by an 18-foot python. His mother stabbed the snake with a kitchen

knife and freed the child. The snake had been in the home for four to six weeks. Source: kvbc.com and *Las Vegas Review-Journal*

January 2009 (New York): A 7-foot reticulated python escaped from an enclosure, and authorities were called to capture and remove the snake. Source: *New York Daily News*

January 2009 (New York): A Burmese python was found in a field in Brooklyn. The cold weather had taken a toll on the animal who had lost an eye and developed an infection, causing some teeth to fall out. Source: *York Daily Record*

December 2008 (Ohio): A man called animal control when his 6-foot boa constrictor became aggressive during a nighttime feeding. Authorities helped find the snake a new home. Source: WLWT

November 2008 (Florida): Investigators captured three Burmese pythons, ranging from 9 to 11 feet, within a 50-yard span of an area known as the 8.5 Square Mile in Miami-Dade County. Source: Florida Fish and Wildlife Conservation Commission, Division of Law Enforcement Field Operations Weekly Report.

November 2008 (Florida): A woman nearly tripped over a 10-foot boa constrictor in Punta Gorda. Source: nbc-2.com

October 2008 (Virginia): A woman was found dead by asphyxiation, and her 13-foot pet reticulated python, who she was apparently medicating, was found outside his enclosure. Source: *The Virginian-Pilot*

October 2008 (Colorado): A woman was attacked by her 6-foot albino Burmese python. The animal was sprayed with a fire extinguisher to get him to let go of her finger and then according to the woman it took five paramedics to hold the snake down. Source: KRDO.com

October 2008 (Florida): A 12-foot 100-pound Burmese python was found crossing a road in Jupiter Farms. The snake appeared to be injured and may have been hit by a car. Source: South Florida Sun-Sentinel.com

September 2008 (Oklahoma): A woman found a 4-foot boa constrictor in her motor home. Source: *The McAlester News-Capital*

September 2008 (Florida): A Myakka City homeowner found a 10-foot albino Burmese python in her driveway. Source: *Sarasota Herald-Tribune*

August 2008 (Nevada): A 13-year-old girl was visiting her father and was attacked by a pet Burmese python; her father killed the approximately 15-foot snake to rescue her. The snake reportedly escaped from a large tank with locks. The same

day, a student zookeeper in Venezuela was crushed to death by a Burmese python. Source: KVBC

August 2008 (Michigan): A state trooper shot and killed a nearly 7-foot long snake, believed to be a Burmese python, seen on a Port Sheldon Township road. Source: *The Grand Rapids Press*

July 2008 (Maine): A man discovered an 8- to 9-foot reticulated python under the engine compartment of his pickup truck in Wilton. It was the second such incident in Maine in less than a week. A Gorham woman found a reticulated python in a washing machine on Wednesday. The snake had injuries on its upper jaw from being dragged. Source: *Sun Journal*

June 2008 (Florida): A woman found a 7-foot Burmese python in her Key Largo yard. She and a friend killed the snake. Source: *The Reporter*

June 2008 (Illinois): A woman found a 4-foot albino Burmese python in a Starbucks parking lot in Rockford. Source: rrstar.com

June 2008 (New York): A 14-foot 80-pound Burmese python was found after more than two days on the loose in the Jordan-Elbridge area. He had been at a reptile rescue center and the owner believed someone cut the bungee cords on his cage, letting him get out. Source: news10now.com

May 2008 (North Carolina): A 4-foot python was found loose in a restaurant. Source: WECT TV6

May 2008 (Florida): Firefighters battling fires in the Everglades encountered pythons, boa constrictors, and other exotic animals. Source: National Geographic News

April 2008 (Oregon): A pet store owner reached into a cage to show a customer a 12-foot Burmese python when the snake bit her hand and coiled around her arm, throwing her to the floor. It took several emergency responders to unwrap the snake. Source: MSNBC (Associated Press)

April 2008 (Florida): Deputy Secretary of the U.S. Department of the Interior Lynn Scarlett found an 8- to 9-foot Burmese python while hiking in the Everglades. Source: People, Land & Water, U.S. Department of the Interior

April 2008 (Connecticut): A 6-foot python escaped from a home and was found two days later curled up in the yard. Source: *The News-Times*

April 2008 (Florida): A Burmese python about 8-feet long was found in the rafters of a Marco Island Executive Airport hangar. Source: *Naples Daily News*

April 2008 (Illinois): A red-tail boa was among the animals who escaped when a car crashed into a home and broke open their tanks. Most of the animals were recaptured. Source: *Belleville News-Democrat*

March 2008 (Kentucky): Authorities seized a boa constrictor and python, along with venomous snakes and other reptiles, from a man's home. At the time of the seizure, the owner of the animals was in the hospital having two fingers amputated because of a snake bite. Source: LEX 18 News

March 2008 (California): A woman pleaded guilty to animal cruelty. A nearly 15-foot Burmese python was one of more than 200 animals found in her home, many of them malnourished and in need of veterinary care. Source: *The Sacramento Bee*

February 2008 (Florida): A 4-foot python was found beneath a water heater in a newly rented home. Source: *Sarasota Herald-Tribune*

February 2008 (Florida): A 13-foot python was seen in a Wal-Mart parking lot. A rescue worker found the animal in a culvert more than two weeks later. Source: *Sarasota Herald-Tribune*

February 2008 (Florida): A woman was arrested for animal cruelty after authorities found a Burmese python and other animals living in deplorable conditions in her home. The snake was kept in a small dog crate that was full of feces and shedded snake skins. Source: *St. Petersburg Times*

January 2008 (Montana): A man was driving with a 5-foot long Burmese python when the animal crawled out of a pillow case and into the van's duct system. Auto mechanics retrieved the snake. Source: *Great Falls Tribune*

December 2007 (Ohio): A 7-foot African rock python was found in the Metzger Marsh State Wildlife Area. The animal was alive though it was 37 degrees and sleeting. Source: *The Toledo Blade*

December 2007 (Florida): A man mowing the lawn for the county ran over and killed a 16-foot python. An animal control officer said the snake was among the largest of the 20 large pythons or boas he has found in the past decade in Indian River County, comparable in size to one found two years before. Source: *tcpalm.com*

October 2007 (Florida): A Summerland Key resident was cited for allowing the escape of captive wildlife and inadequate cage size for a reptile. The incident began after citizens saw a 14-foot python in the bushes along a public parking lot. The owners of the snake – who used the animal for photos with tourists – said the snake had escaped two days before. Source: Florida Fish and Wildlife Conservation Commission Field Operations Weekly Report

September 2007 (Florida): His barking dog alerted a man to the presence of an 11-foot Colombian red tail boa constrictor in a park. Source: local10.com

September 2007 (Florida): An animal control officer was bitten twice by a 5-foot boa constrictor, on the back of the hand and on the finger. The snake was being removed from underneath a woman's car, where he had wrapped himself around coil springs in the wheel well. Source: abc3340.com

September 2007 (Florida): Firefighters responding to a Delray Beach warehouse found more than 100 snakes in the building, including 8-foot boa constrictors and pythons between 12- and 17-feet long. Several small snakes were killed in the fire. The owner says he sells the animals to retailers. Source: firstcoastnews.com

September 2007 (Florida): Officials removed a python from beneath the deck of a private residence in Collier County. Source: Florida Fish and Wildlife Conservation Commission Field Operations Weekly Report

August 2007 (Ohio): A man brought a 10-foot python to a festival. The snake was killed by a boy who stomped on the animal's head. Source: 13abc.com

August 2007 (Florida): Two large snakes were captured in Lee County: a 10-foot Burmese Python found by two maintenance workers at an apartment complex and a boa constrictor longer than 6 feet who was spotted in the middle of an intersection. Source: *Naples Daily News*

July 2007 (Florida): A reticulated python approximately 15-feet long was found in a yard in a residential community. Source: WFTV.com

July 2007 (New York): Two Burmese pythons were found on the loose in Albany. An 8-foot snake had escaped from a second-floor pen and was claimed by the owner. No one had claimed the 4-foot snake. Source: *The Times Union*

July 2007 (Rhode Island): A man took a 6-foot boa constrictor to the police, claiming he found the snake along the road. The police discovered the snake belonged to the man, and he had tried to sell the animal to a pet store the day before. Though the store declined to buy the boa, the man purchased a small python even though he could no longer care for the larger snake. Source: The Providence Journal's Daily News Blog

June 2007 (Pennsylvania): Officials caught a 9 1/2-foot Burmese python, but a second large snake remained on the loose. That snake was thought to have killed a cat, a bird, and several kittens. Source: Courier Times

May 2007 (New York): A firefighter found a large Burmese python in the basement of a home after a fire was doused. Source: *The New York Times*

April 2007 (Florida): A 7.5 foot Burmese python was captured on Key Largo. The animal was found by researchers tracking a Key Largo wood rat -- an endangered species -- fitted with a radio transmitter collar. The remains of two wood rats along with the radio transmitter were found inside the python. Source: keynoter.com

April 2007 (Florida): A 3-year-old boy was bitten in the face by a 6-foot boa constrictor when posing with the snake for a photograph at a theme park, and was taken to a hospital for treatment. Source: CBS4

March 2007 (Alaska/Alabama): An Alaska woman took in an 8-foot Burmese python around 2002 after a landlord found the animal without food in an empty apartment, two weeks after the previous resident was evicted. The snake grew to 16 feet, outgrowing the home. The snake was shipped to an Alabama zoo, but during transport she spent many hours in cold temperatures in a small crate. The snake died four weeks later. Source: *Anchorage Daily News* and KTUU.com

December 2006 (Ohio): A man died at the hospital after being strangled by his pet python. Source: United Press International

December 2006 (Florida): A 14-foot, 14-year-old Burmese python being exhibited at an aquarium wrapped around the handler's arm and waist and bit her. A police taser was needed to get the snake to let go. The woman was treated at the hospital for wounds to her hands. Previously a man was bitten when feeding the snake. Source: *St. Petersburg Times*

September 2006 (Indiana): A 23-year-old man with experience handling reptiles was killed by his 14-foot reticulated python. A medical examiner determined that the death was consistent with asphyxiation caused by compression of the neck and chest. Source: MSNBC and *The Corydon Democrat*

September 2006 (Montana): A man trying to enter Canada with five snakes turned them over to U.S. authorities rather than obtain the proper permits to export them. Two red-tail boa constrictors were among the animals who were dehydrated and had mites. Source: *Great Falls Tribune*

August 2006 (Michigan): A woman reported her 6- to 7-foot boa constrictor missing. Source: *The Macomb Daily*

August 2006 (Florida): A 9-foot Burmese python was found near the Tallahassee airport. After police initially captured and put the snake in a bag, the animal escaped from the back seat of the patrol car and had to be recaptured. Source: KHOU-TV Animal Attraction Blog

July 2006 (Michigan): Two boa constrictors were on the loose in a matter of days. Source: WJRT-TV

June 2006 (Connecticut): Officials investigating a report of an alligator in an apartment also found 36 snakes including boas, pythons and an anaconda. The tenant had been evicted the previous day. There were two dead lizards and the remaining reptiles were left in extremely dirty and unhealthy conditions, with no food or water. Source: 2006 Annual Report, State of Connecticut, Department of Environmental Protection, Division of State Environmental Conservation Police

June 2006 (Utah): A couple returned surprised to find a former roommate's pet 7-foot red-tailed boa possibly preparing to attack their pet cat. Source: KSL TV

April 2006 (California): A firefighter found a 6-foot anaconda alive among the debris after a fire gutted a music studio. The owner of the studio and snake was arrested on suspicion of setting the fire. Source: *Orange County Register*

March 2006 (Florida): A man driving with his pet snake wrapped around his neck crashed his car into roadwork barricades after the snake began biting him. According to reports, when police first encountered the man, he had numerous small cuts on his body, and freshly dried blood on his forehead and right hand. Source: *Naples Daily News*

March 2006 (Colorado): An evicted renter abandoned a 7-foot constrictor snake in an apartment. Source: *Glenwood Springs Post Independent*

February 2006 (Florida): A man walking his dog – an 8-pound rat terrier – let the dog off his leash. A neighbor's pet python had gotten free and grabbed the dog by the head, wrapping around him. The man used a golf club to get the snake to release the dog, but the dog ran away and was found dead the next day with injuries consistent with constriction. Source: *orlandosentinel.com* (AP)

February 2006 (Idaho): After being missing for two weeks, a Burmese python was found in the bathroom ceiling of the apartment below the one she from which she escaped, apparently through a hole in the wall. Source: *Foxnews.com* (AP)

December 2005 (Hawaii): A 4-foot boa constrictor was found in the laundry area of a home. The home was undergoing renovation and the door may have been left open during construction. Source: *Hawaii Department of Agriculture*

November 2005 (Georgia): A woman found a 7-foot Burmese python in a pillowcase in her backyard. Source: *The Associated Press*

October 2005 (Florida): A woman looking for her pet Siamese cat instead found a bulging Burmese python in her backyard. X-rays showed that the snake had eaten the cat. Source: NBC6.net

October 2005 (Florida): A 10-foot African rock python was found after crawling into a turkey pen and eating a turkey. The bulging snake was too large to fit back through the fence. Source: NBC6.net

September 2005 (Delaware): An 8-foot boa and three 4- to 6-foot boas were abandoned at an apartment complex after a tenant's eviction. The local animal shelter was helping place those snakes, plus a fifth one about 5-feet long who was seized the same week from a man walking in the street with the snake around his neck. Source: *The News Journal*

September 2005 (Florida): Captured in a now-famous photograph, the body of a Burmese python who tried to swallow an alligator was found in the Everglades. Exactly what happened may remain a mystery, but with the Burmese python as a new top predator in the Everglades, each of the snake's potential prey species could be at risk. Source: *St. Petersburg Times*

August 2005 (Missouri): A UPS driver found a 9-foot Burmese python among packages in his truck. The teenager who ordered the snake instead received an empty box. The python was shipped in a plastic container that was taped shut and placed inside the box. The tape was intact but the container was cracked and the cardboard box had tears in it. Source: First Coast News (AP)

July 2005 (California): A 15-foot Burmese python was discovered in a Sacramento warehouse. The animal belonged to a man who worked down the street. He had unknowingly poked a hole in the cage with a forklift. This was the snake's third escape. Source: *The Sacramento Bee*

July 2005 (Pennsylvania): The owners of a 9-foot Burmese python turned the snake over to authorities. The animal was reportedly underfed and living in a cage that was too small. Source: *The Intelligencer Journal*

June 2005 (Arkansas): Wildlife officials say there have been two sightings of yellow anacondas in the Wapanocca National Wildlife Refuge, one by a person fishing in 2004 and a recent sighting by a wildlife official. Source: KAIT8.com

June 2005 (Florida): Police responded twice in a month to reports of snakes roaming a neighborhood. A 13-foot Burmese python was recaptured, then got loose and was recaptured again. An 8-foot python (and five monitor lizards) remained at large. Source: News4jax.com

February 2005 (Florida): A giant python was found sprawled across a busy street in Englewood. Source: *Venice Gondolier-Sun*

November 2004 (Connecticut): A New Haven couple reported their 15-foot python was missing. Authorities responding did not find the python, but did find other animals the couple had illegally including an Argentinean boa. Source: WTNH

September 2004 (Michigan): A 6-foot boa constrictor escaped from a home. Source: cm-life.com

September 2004 (Mississippi): A 17-foot Burmese python missing for four days was lured out of hiding with a rabbit. The snake had escaped from the bathroom where she was being kept when the door was left open, and taken refuge underneath insulation in the attic of the apartment building. Source: *The Sun Herald*

August 2004 (Florida): A green anaconda was collected from Big Cypress Swamp in Collier County. Source: U.S. Geological Survey Nonindigenous Aquatic Species Database

August 2004 (Texas): Authorities searched for weeks for a large snake who was reported missing. A 7-foot python believed to be a different animal was caught the previous week at a landscaping company. The curator of the Houston Zoo's herpetology department said his department receives dozens of calls each week from people looking to turn over a snake to the zoo -- 15 to 20 calls per week just on boas. Source: *Brenham Banner-Press* and The Associated Press

July 2004 (Florida): A 16-foot-long Burmese python was captured on a city street. An animal control officer said he had picked up dozens of loose Burmese pythons and boa constrictors over the years, but this was the largest. Source: cbsnews.com

June 2004 (Kansas): A teenager was showing off the family's 15-foot pet python when the animal coiled around his arm and began to squeeze, turning the boy's arm blue. The snake bit the teen and his mother, and they called 911. Emergency crews used a fire extinguisher to get the snake to loosen his grip. Source: News4jax.com

February 2004 (Florida): A 14-foot reticulated python escaped. Source: Local6.com

October 2003 (New Jersey): Pythons, boa constrictors, and an anaconda were among the 180 reptiles authorities took into custody when their caretaker had not been seen for a week. The man was in the hospital being treated for a venomous snake bite. Source: *The Star-Ledger*

September 2003 (Virginia): A Burmese python about 12-feet long was found after being on the loose for more than three weeks. The snake had pushed open a window to escape. Source: *The Virginian-Pilot*

September 2003 (Florida): A teenager took his 9.5 foot Burmese python into the backyard and the animal disappeared. He found the snake 20 hours later in the neighborhood. Source: *The News-Press*

September 2003 (Florida): A couple walking their dogs spotted a boa constrictor. They called rescue workers who picked up the animal. Source: *St. Petersburg Times*

August 2003 (Illinois): A man was doing plumbing work at home when he heard that a snake had gotten loose in the area. Two days later, after driving many miles, he found the 6-foot boa constrictor under the hood of his van. Source: *Chicago Daily Herald*

August 2003 (Washington): A man found an escaped 7-foot python passing through his yard. The week before, a park ranger found a similar-size python in a lake. The local animal shelter generally takes in about 10 loose snakes a year. Source: *The Seattle-Post Intelligencer*

August 2003 (Arizona): Authorities took a 12-foot Burmese python from a yard. The mobile homes on the property seemed to be vacant, and the animal appeared to be abandoned. Source: The Associated Press

August 2003 (Florida): A 12-foot Burmese python escaped from a Florida home and was on the loose. Source: United Press International

July 2003 (Connecticut): A 3-foot boa constrictor was found outside a condominium complex. Source: *Connecticut Post*

July 2003 (Florida): A man reported his 12-foot Burmese python was missing and had not eaten for a week. A neighbor found the snake the next day. The python had a bulge in his stomach but it was unclear what he had eaten. Source: *The Bradenton Herald*

July 2003 (Rhode Island): A 14-foot Burmese python escaped from his tank and through a window screen. Source: The Associated Press

June 2003 (Florida): A 13-foot Burmese python escaped from a home. The mother of the snake's owner found the snake in the yard wrapped around her 3-year-old Mountain Feist dog. She was able to free the dog, but the snake then wrapped around her leg. Rescue workers freed her and returned the snake to his cage. Source: *Florida Today*

June 2003 (Maryland): A man was charged with animal cruelty following an investigation of conditions at a reptile wholesale business in a warehouse. Boa

constrictors were among the animals being housed in the facility; 199 animals were found dead. Source: *Washington Post*

June 2003 (Florida): More than 100 snakes were stolen from a breeder, including 10 boa constrictors. Other snakes were left crawling loose in a room, including one who was found crawling out a broken screen. Source: *Tampa Tribune*

June 2003 (Illinois): Officers found an 8-foot reticulated python on a bike trail in Blackwell Forest Preserve; previously a 5-foot boa was found. Source: Illinois Department of Natural Resources Office of Law Enforcement

May 2003 (California): Authorities removed a red-tailed boa constrictor from a home, along with 100 to 200 mice, about three dozen rats, and a cat. They found debris piled in the house, which smelled of animal waste. Source: *San Jose Mercury News*

October 2002 (California): A 6-foot boa constrictor was spotted on a fence and on the loose until being captured a day later. Source: City News Service

September 2002 (New Jersey): A 7-foot boa constrictor was found in a roadway. Source: *The Star-Ledger*

September 2002 (Ohio): A 10-foot Burmese python escaped and was on the loose about three weeks. The snake was found in a vacant home being renovated, with a telltale bulge in its middle. X-rays showed the snake had eaten a small canine, possibly a fox or stray dog. Source: The Associated Press

September 2002 (Tennessee): A Burmese python about 8- to 10-feet long escaped – for the second time. The first time the snake was at large for about a month. Source: *Knoxville News-Sentinel*

July 2002 (Texas): A landlord in southwest Houston found reptiles including three Burmese pythons in a house he owns. The reptiles were in cages and had been abandoned for at least two months. None of the cages had water and the animals were dehydrated. Source: KSBW.com

July 2002 (Maine): A sheriff's deputy investigating an abandoned SUV was startled to discover a 5-foot-long boa constrictor in the back seat and another snake coiled in a terrarium. Source: *Portland Press Herald*

July 2002 (Louisiana): A 12-foot Burmese python escaped and was recaptured a week later. Source: *Times-Picayune*

June 2002 (North Carolina): A 12-foot pregnant Burmese python escaped and was on the loose for two days. Source: *News & Record* (Greensboro)

May 2002 (Florida): Six snakes ranging in length from 9 to 20 feet escaped from a woman's apartment. Two were found curled up in a friend's apartment, but authorities were looking for four large Burmese pythons. Source: *Florida Today*

April 2002 (Florida): An 18-foot Burmese python who had been living for at least a year near a service plaza on Florida's Turnpike was captured. A state crew mowing the grass in the area had reported seeing the animal a year before, and there had been several sightings since. Source: *Orlando Sentinel*

February 2002 (Colorado): A man had his pet Burmese python wrapped loosely around his neck when the snake suddenly constricted. By the time rescue workers wrestled the animal off the man, it was too late and he later died. Source: *Rocky Mountain News*

December 2001 (California): A 3-month-old infant was taken to an emergency department after a day of bloody diarrhea and fever caused by *Salmonella*. The infant's father was a high school biology teacher who often draped a large snake (i.e., a boa) over his shoulders in the classroom. He would wash his hands -- but not change his clothing -- before going home and holding his child. The snake was found to be the source of the child's *Salmonella*. Source: U.S. Centers for Disease Control and Prevention

April 2001 (Oklahoma): A woman died from septic shock related to a *Salmonella* infection after obtaining a transfusion of blood platelets. The platelet donor's 9-foot pet boa constrictor was identified as the likely source of the *Salmonella*. The type of *Salmonella* found in a stool sample from the snake matched that found in the platelets. The man exhibited no symptoms at the time of his donation, but had been ill two weeks before and taken antibiotics. A second patient who received platelets from the man also contracted *Salmonella* but was healthier to begin with and lived. Source: *The New England Journal of Medicine*

August 2001 (Pennsylvania): An 8-year-old girl was strangled by her father's pet Burmese python. The child had been left home alone, and the snake broke through the top of the cage. Paramedics said she was not breathing when they arrived; she was taken to a hospital and placed on a ventilator until she was pronounced brain dead two days later. An autopsy showed the cause of death was compression of her neck and chest. Source: *The Augusta Chronicle* (Scripps) and *Pittsburgh Post-Gazette*

August 1999 (Illinois): A couple's 7.5-foot African rock python escaped from an enclosure and killed their 3-year-old son. Source: *St. Louis Post-Dispatch*

October 1996 (New York): A 13-foot python, kept as a pet by two teen-age brothers who hoped to have careers caring for reptiles, killed one of the brothers, possibly

mistaking him for food. The 19-year-old was found by a neighbor with the snake coiled around his midriff and back. Source: *The New York Times*

1993 (Colorado): A 15-year-old was killed by his brother's 11-foot pet python. He had snake bites on his body, and an autopsy found he was suffocated. The 8-year-old snake had been a family pet since she was only a foot long. Source: The Associated Press

1984 (Iowa): An 11-month-old boy was killed by his father's 10-foot pet python who escaped from an enclosure. Source: *Fort Madison Daily Democrat* and *The Loss of Innocents* by Cara Elizabeth Richards

1983 (Missouri): A man was crushed to death by his 16-foot pet Burmese python. Source: The Associated Press

August 1982 (Nevada): An 8-foot python escaped from his cage, crawled into an adjoining bedroom, and killed a 21-month old boy in his crib. The snake belonged to an unrelated man who lived in the house. Source: United Press International

November 1980 (Texas): A 7-month-old girl was killed by her father's 8-foot pet reticulated python. The child died of asphyxiation and her head was covered with dozens of needle-like tooth marks. The snake had forced his way out of a covered 30-gallon aquarium and crawled into the baby's crib. Source: The Associated Press

Mr. SCOTT. Thank you, Ms. Perry.
Mr. Horne.

TESTIMONY OF GEORGE HORNE, DEPUTY EXECUTIVE DIRECTOR, OPERATIONS AND MAINTENANCE, SOUTH FLORIDA WATER MANAGEMENT DISTRICT, MSC 5100, WEST PALM BEACH, FL

Mr. HORNE. Mr. Chair, Committee, thank you for inviting me to represent the South Florida Water Management here today.

At the South Florida Water Management District, we are charged with protecting and restoring the South Florida ecosystem and America's uniquely diverse Everglades River of Grass. We find ourselves, in doing so, combating the Burmese python and the others which have invaded.

One of the most critical things to South Florida—we are charged with restoring the Everglades. And in doing so, one of the most critical things that are there is bird counts. I mean, and where do we find these snakes but in the exact place where we are trying to count birds and ensure that we are doing that restoration process. And we actually know that by putting tracking devices on them. We have found those in rookeries and—which is quite disturbing, because the birds can leave the nest. If many of them come in there and they see them, and of course, then there are no hatchlings that year, and we lose that whole part of our ecosystem.

The snake that you see there in the picture, there was 59 eggs in that snake; and 58 of those 59 eggs were fertile. Many of the snakes we find are small. If you find any big ones, you say, well, maybe someone released that. But we actually do necropsies on those, and the things we find in them are all those species out there that we are trying to protect. The wood storks have been there. Deer have been there. Alligators of course, and the things you see on the list. Everything that is there are things that have actually been depicted that we found in them when we have done necropsies.

And as far as how they travel, they can travel a mile and a half a day. I mean, that is pretty amazing. We have an employee that his sole job is to go out and look on a daily basis, and he basically rides the Tamiami Trail that crosses the Everglades. Almost on a daily basis he finds a dead snake on the road. He also runs down the canal, and he found the one that you have seen here today, as well as the 16-and-a-half footer as the largest one we found so far. The one that is here is basically a juvenile. It is not grown yet. You can only imagine when you see what is there, what are they going to eat? What is going to be left of the Everglades when they are truly done?

And once the food source is gone, they are going to move from the Everglades into communities, and one can only imagine what happens there. Pets won't be safe. We know that they have actually gotten some small farm animals that border along the Everglades, and actually the National Park Service was actually there and actually captured one after it just ate a gentleman's goose in his yard. Because we told him—what are you all doing? We are tracking a snake. And, well, it just ate a goose. He goes, I am missing a goose. And they found it only a couple feet away.

So it is a real threat. And it is amazing, having spent 37 years working in and around the Everglades, the fact that this one guy basically has taken a third of the 1,248 snakes that have been taken in cooperation with ourselves and Everglades National Park. That is truly amazing. You know, when you see the Burmese python on the road—you see far less of the native snakes. You don't see them in the same quantity you find the pythons.

So we know they are moving. We know they have been in areas all over the State. I think anyone would be foolish to believe that in other national areas that there are not Burmese python populations, that people have released them and they are going to breed. As long as there is a food source and they can find another like species, they are going to be there. They are going to establish.

We found a nest with hatchlings. It truly is astonishing. And the South Water Management is committed to try to take these out, and we have been out there for a long time. When we sort of seen them and realize how large they are, we got quite concerned and committed this full-time FDE just to look. And it is amazing the things that we have learned about them.

And it is amazing the things that we have learned about them. You know, where do we go? We certainly need a bill that is going to help protect us. I don't think we are ever going to get rid of the Burmese pythons at this point. They are firmly established.

We have the African rock python, which we know is breeding because we found yearlings of that species as well. They are going to breed in the wild. As long as there is a food source they are going to flourish. I mean, they are very adaptive. They are ambush hunters and they are going to be there. You are not going to see them a lot, but we have found them, we have taken one right down the canal bank from where families with small children were fishing and we have taken the snake down and said have you seen any of these, and most people don't because they camouflage themselves quite well. But the reality is they are there.

One of our Wildlife and Fish Commissioners was telling me he had never seen one until we started sending pictures to him almost of a daily basis of the ones that we had taken, and he could not believe it, which pushed the Florida Fish and Wildlife Commission to do more and to go out and start the hunts. The people that have just started looking for them, only found the 37 this year, but they just started. I mean, and it is one of those things that you have to, you know, kind of develop a theme for and looking at them and actually being able to find them.

I think, in conclusion, I would like to say the South Florida Water Management District and other agencies is trying to contain the documented damage and growing threat of Burmese python and other invasive animals in Florida. The flow of potentially harmful exotic animals across our border continues.

Just for one example, roughly 144,000 boa constrictors were imported into the United States between 2000 and 2007. Federal action is needed now to address the immediate threat posed by the giant constrictors which have and are likely to establish in our Nation's wilderness areas.

Without prevention, preventative measures to limit the future introduction, we will continue to inherit costly and permanent man-

agement liabilities at taxpayers' expense. Quite simply, prevention is the only financially efficient, it is the only feasible means of controlling invasive and adaptive cryptic organisms like the Burmese python.

While the amendment does not meet the larger need to modernize the injurious wildlife provisions of the Lacey Act, it is an important stopgap to limit the importation of high risk giant constrictor species, and it is a sorely needed measure to help us protect and restore the Everglades ecosystem.

[The prepared statement of Mr. Horne follows:]

PREPARED STATEMENT OF GEORGE HORNE

Written Testimony on H.R. 2811, To amend title 18, United States Code, to include constrictor snakes of the species *Python* genera as an injurious animal

By George Horne, Deputy Executive Director, Operations and Maintenance,
South Florida Water Management District

As matter of great importance to the South Florida Water Management District, we thank you for the opportunity to submit this testimony on H.R. 2811, To amend title 18, United States Code, to include constrictor snakes of the species *Python* genera as an injurious animal. While our regional agency maintains more than 2,600 miles of flood protection and water management canals/levees in 16 Florida counties, the South Florida Water Management District is also charged with protecting and restoring the greater South Florida ecosystem, including Lake Okeechobee, the largest natural lake in the southeastern United States, and America's uniquely diverse Everglades *River of Grass*. Additionally, the South Florida Water Management District is the largest single landowner in the region with more than one million acres of public land within our boundaries. Our continued ability to successfully restore and manage these important natural resources is hampered by the growing presence of exotic giant, invasive constrictor snakes, which are now found free-ranging in Florida's vast wilderness areas.

Our written testimony today focuses on the importance of limiting introductions of non-native, giant constrictor snakes. We have a long history of successful invasive plant management and experience, but only recently have we had to commit more and more resources to the emerging populations of the Burmese python and other non-native constrictors appearing across our landscape. If effective preventative programs were in place to limit introductions of non-native constrictors, such as the legislation now under consideration, these much-needed taxpayer-funded resources could be redirected to other important resource management efforts. Today, however, the negative impacts from the unlimited importation of new pest animals require active responses on our part. Effective prevention of additional introductions of potentially-invasive constrictor snakes, as proposed in this bill, is the only path to prevent these costs from continually increasing.

While Florida, California and Hawaii are among the states most impacted by introduced invasive species, every state is affected. Globally, exotic invasive species, including pest animals, weeds and pathogenic diseases, are a major cause of global biodiversity decline. In particular, non-native animals compete for food and habitat, upset existing predator/prey relationships, degrade environmental quality, spread diseases and, in our case, may threaten the integrity of flood protection levees and canal banks, and electrical power delivery. Nationally, more than 50,000 species of introduced plants, animals and microbes cause more than \$120 billion in damages and control costs each year (Pimentel 2005). Already, 192 non-native animal species are established in Florida, calling for the development of methods to forecast and respond to the potential economic loss, environmental damage and social stress caused by both new non-native animal introductions and long-established invasive organisms.

Collaborative management, education, training and broadening public awareness, along with baseline population analyses, may provide a foundation for building effective control strategies and tools. Several states, including California, Hawaii and Idaho, are devising non-native animal

invasion prevention programs and/or lists. This bill makes an important contribution towards prevention by limiting the importation of two snake species with high invasion potentials in the U.S.

Specific support for H.R. 2811, To amend title 18, United States Code, to include constrictor snakes of the species *Python* genera as an injurious animal.

The South Florida Water Management District strongly supports the draft language of H.R. 2811. Prompt action is needed at the federal level to limit the number of invasive pythons released into the wild. Designating these species as injurious to the welfare and survival of the wildlife resources of the United State is an important step toward that goal. Our specific comments on the draft bill include:

- The South Florida Water Management District petitioned the U.S. Fish & Wildlife Service to include the Burmese python as an injurious wildlife species under the Lacey Act (18 U.S.C. 42) in June 2006. To date, the Service has not made a determination for listing this species. This amendment to the Lacey Act recognizes the clear and present threat of the Burmese and African python, and provides immediate limitations on their importation.
- The inclusion of the African Rock python (also known as Northern African python) is timely given recent evidence of breeding Northern African pythons in Miami-Dade County near the Everglades. This giant constrictor shares many physical and ecological traits with the Burmese python, prompting concern that this species may become highly invasive in Florida and elsewhere.
- African rock python is an English common name used for two closely-related African python species, *Python sebae* and *P. natalensis*, which are indigenous to northern and southern Africa, respectively. To avoid confusion, some prefer to use the common names, Northern African python and Southern African python, to distinguish these species. Although the Southern African python is less common in international trade, it is rarely distinguished from *P. sebae* among importers. Therefore, we support amendments to H.R. 2811 that unambiguously designate both species of African pythons (*P. sebae* and *P. natalensis*) as injurious wildlife.
- The amendment could also be expanded to include all giant constrictor species determined by the U.S. Geological Survey, or USGS, to have medium or high invasion risk potential. The recently published USGS risk assessment for giant constrictors (Reed & Rodda 2009) ranked nine species as having either a medium or high overall risk potential for invasion in the United States. These species include the **Beni Anaconda, Boa Constrictor, Burmese Python, DeSchaunsee's Anaconda, Green Anaconda, Northern African Python, Southern African Python, Reticulated Python and Yellow Anaconda**. We strongly support inclusion of these species in H.R. 2811 in order to immediately limit importation of species that our best science predicts will be invasive. Rather than wait for the next Burmese python to become established in the United States, a proactive approach such as the proposed legislation being discussed today is urgently needed to protect our environment, economy and quality of life – not just in Florida but throughout the nation.

Current measures

In 2005, the Florida Fish and Wildlife Conservation Commission created an invasive animals management section. One of its key recommendations led to a new Florida rule limiting commerce in “reptiles of concern,” including the world’s five largest non-venomous snakes and the carnivorous Nile monitor. These animals were selected as most threatening because of their large size and extreme predatory natures. Now in force in Florida Administrative Code, the rule requires \$100 annual possession permits, and they must be identified via implanted microchip. Prior to this action, however, these species were already present in Florida’s pet commerce and, to varying degrees, have been reported in Florida’s wilds. In fact, Burmese pythons are now thoroughly established in South Florida’s natural areas. According to the U.S. Geological Survey, Burmese python population estimates range from 5,000 to more than 100,000 in the Everglades.

The Florida Fish and Wildlife Conservation Commission’s exotic animals section is engaged in serious management efforts against species present only in isolated areas and in small populations. Broader management efforts would benefit from federal engagement.

Burmese Pythons in Florida

Upfront prevention of the introduction of new pests will not only prevent damages to natural areas but would also preclude economic loss stemming from an injurious species’ gaining economic value in the pet trade only to be regulated later. For example, the non-native Burmese python is a top predator that is known to prey upon more than 20 native Florida species. Notable among these are the federally listed Key Largo wood rat, white-tailed deer, American alligator, bobcat and numerous wading birds common to the Everglades, including the wood stork. The South Florida Water Management District is deeply committed to preserving and restoring South Florida’s environmental health and, unfortunately, the Everglades ecosystem is now home to this invasive snake. Attempts to manage Burmese pythons divert taxpayers’ funds from these other urgent primary restoration and protection tasks. Yet, failure to do so will leave this aggressive animal as a serious impediment to our Everglades restoration progress. The Burmese python also threatens agricultural interests as small livestock are also likely prey. In 2008, the U.S. Geological Survey published a climate tolerance model predicting that this snake will likely survive throughout most Southeastern states and westward across the southern reaches of the country to the Pacific.

The significant value of current sales of the Burmese python would be affected if commerce in the species is regulated. Such economic loss could have been avoided if the Burmese python had earlier been identified as a serious potential pest and trade had focused on less threatening snakes.

Since 2000, the South Florida Water Management District and Everglades National Park, have removed 1,248 Burmese pythons from the Everglades. As a top predator and prolific breeder, Burmese pythons threaten ecosystem restoration efforts and natural wildlife, including species already threatened or endangered. Adverse experience already gained in Florida strongly indicates the need to regulate the importation and sale of this snake. Without stronger regulation and control resources, adverse impacts of Burmese pythons will continue to get worse, and the python’s population will continue to expand north of the Everglades and likely into South Florida’s urban areas.

Florida's Other Non-Native Giant Constrictors

Given South Florida's abrupt boundaries between dense human population centers and vast sub-tropical wilderness areas, it comes as no surprise that numerous giant constrictor species have been observed in Florida. While most observed animals are presumed to be released pets, three additional constrictor species are now considered established or potentially established in Florida—the common boa, Northern African python and yellow anaconda. All three species are identified in the USGS risk assessment as having a high overall risk of establishment in the United States. The common boa has been repeatedly observed in South Florida, primarily on the Deering Estate in eastern Miami-Dade County, but also near Everglades National Park. Between 1989 and 2005, 96 common boas were captured in South Florida (Snow et al., 2007). Recent confirmed sightings of Northern African pythons near the eastern boundary of the Everglades and yellow anacondas near Big Cypress National Preserve and Myakka State Park in southwest Florida are also cause for alarm. All three of these species share traits with the Burmese python that are considered important factors for invasive potential (Reed & Rodda 2009), and like the Burmese python all three species will be very costly to control should they become widely established.

Conclusion

As the South Florida Water Management District and other agencies try to contain the documented damage and growing threat of the Burmese python and other invasive animals in Florida, the flow of potentially harmful exotic animals across our borders continues. To use just one example, roughly 144,000 boa constrictors were imported into the United States between 2000 and 2007 (LEMIS data). Federal action is needed now to address the immediate threat posed by giant constrictors which have or are likely to establish in our nation's wilderness areas. Without preventative measures to limit future introductions, we will continue to inherit costly and permanent management responsibilities at taxpayers' expense. Quite simply, prevention is not only financially efficient, it is the only feasible means of controlling invasions of adaptive and cryptic organisms like the Burmese python. While this amendment does not meet the larger need to modernize the injurious wildlife provisions of the Lacey Act, it is an important stopgap to limit importation of high risk giant constrictor species – and that is a sorely-needed measure to help us protect and restore the Everglades ecosystem.

Citations

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Mr. SCOTT. Thank you. And I want to thank all our witnesses for their testimony. We will now pose questions under the 5-minute rule. And I will start by recognizing myself for 5 minutes.

Mr. Ashe, we have heard the term, all nine species of constrictor snakes. Are there large snakes that are not constrictor snakes? Are there any large snakes that are not constrictor snakes?

Mr. ASHE. I am not an expert on snakes, Congressman, and I am thinking there are large snakes that are not constrictors.

Mr. JACOBSON. There are several. You look at venomous snakes, the King cobra is listed at 16 foot, 18 foot. And then you get into the Bushmaster, which is up at about 12 feet from Costa Rica, Central America, and South America. So there are a couple of venomous snakes that get up to that size. Some of the snakes related to the Indigo snake that is Florida, there is a whole series of those snakes that go all the way down through Central America and into northern South America, and they get up to 8 to 10 feet. And so they are a sizable snake.

But generally, the ones mentioned in this report, not only is their length but their girth. They get, you know, heavy. There are other long pythons from Australia that are much thinner and just don't have the impressive size of these snakes.

Mr. SCOTT. Mr. Horne, you have indicated that you have been observing this phenomenon. Have you seen a significant increase over the last few years?

Mr. HORNE. Yes, sir, we have. Really, this past year we have started seeing them, the road kills. I mean, before you would see one occasionally. But let me—literally, this week there has been four that our employees have sent back pictures of because we document GPS every one of them that we find. And they are truly all over. And particularly we find yearlings and we find up to about six footers. The larger ones we don't typically find as road kill but the yearlings when they are moving out and moving to other areas we do find them.

Mr. SCOTT. Have you seen a significant increase over the last few years?

Mr. HORNE. Yes, sir. The others that we were finding we were actually going out and hunting, we were finding them on levees. These actually we are finding are road kills where they have just been literal run over crossing the road.

Mr. SCOTT. Mr. Ashe, you indicated the term "economic analysis"; what is involved in that?

Mr. ASHE. We would do, in the context of our compliance with the Regulatory Flexibility Act and executive orders on economic—looking at economic implications of regulatory actions, we would, in the process of moving our Lacey Act determination forward, we would look at the economic impact of a Lacey Act determination. So as part of our administrative process—

Mr. SCOTT. I mean, what is considered on economic impact?

Mr. ASHE. Excuse me, sir?

Mr. SCOTT. What is considered when you talk about economic impact.

Mr. ASHE. Many of the things that Mr. Wyatt spoke to in his testimony. We would consider the impact on small businesses in particular, you know, revenue, business revenue related to trade in these species and the implications of regulating trade for business enterprises.

Mr. SCOTT. And would you, would the impact on the ecosystem and danger to humans be part of that analysis?

Mr. ASHE. Absolutely. That is the main piece of our Lacey Act determination, would be whether the snakes present a danger to

humans, to ecological systems, and to endangered and threatened species.

Mr. SCOTT. Mr. Wyatt, do you want to respond to that on the economic analysis? And also respond to what would happen, what is supposed to happen to these snakes as they grow.

Mr. WYATT. Well, it would have a significant impact on the American economy. There are approximately 5 million Americans would be negatively impacted with the passage of this bill if it were to include all nine species. You are talking about thousands of small business owners and we are talking about people who are not, don't have 401(k)s. They are small business people who have plowed all their money back into their projects, and so not only would this bill bankrupt them and stop them, and eliminate their ability to make a living, but their asset values would basically go to zero overnight. And that actually creates quite a problem of logistics that this bill does not account for in the fact that there would be approximately 4 million. We are not talking about import here. The import is fairly insignificant to the trade in reptiles, as we represent it. We are talking about the captive bred trade and very high quality, valuable animals, and there is about 4 million of them in captivity of them right now. This bill makes absolutely no provision for what would happen to those animals.

It was spoken to by the lady from HSUS that everyone would be able to keep their animals. But when you are invested in a business and your asset value goes to zero, and now you are put into a position where you have to care for many animals that are not going to be of economic value to you anymore, it creates quite a logistical problem and is going to open up a can of worms into what is going to happen with these animals.

The best tool to address that issue is the trade, the captive bred trade that is continuing to go on, because we work with very sophisticated standards, and we have worked at the State level in North Carolina, and we are looking at introducing a bill into the Chairman's home State of Virginia in 2010 and South Carolina as well that puts professional standards on how these animals are housed, cared for, safety protocols, escape recovery plans, and that type of thing.

So you are not talking about a casual pet in the context of these particular animals. You are talking about an animal that needs to be looked after in a certain way and professional standards are required as a matter of State law.

We are also developing a national accreditation system where you could have a more uniform way to address that across the board. And we would welcome the opportunity to discuss with the Committee, turn this into a policy discussion.

Mr. SCOTT. Well, if somebody has one of these pets, what happens when the pet continues to grow?

Mr. WYATT. Well, you would continue to take care of the animal. I mean, they grow to certain sizes, but, I mean, the people who are serious about this and would adhere to these kinds of regulations that are widespread across the United States, most States have regulations in place. The State of Florida has professional standards. The State of Texas has professional standards. So if—

Mr. SCOTT. Is there any limit as to who can own these in their homes?

Mr. WYATT. Absolutely. Absolutely. If you are not maintaining the animals at a certain level of security, accounting for them with the documentation, micro chipping, providing for escape prevention and recovery protocols, safety protocols, et cetera, these are all things that have been accounted for and they exist in Florida right now. It is a fairly new provision that has barely had a chance to take effect, but we are bringing more and more people into compliance all the time.

Mr. SCOTT. Provision in what? Are people licensed to have these pets?

Mr. WYATT. Yes. I believe though Dr. Elliott wants to address this.

Mr. JACOBSON. I am permitted. I have a lot of reptiles that I keep at home, and including venomous snakes. And they fall under the same permitting as the giant constrictors, and most of them are on State permitting, which has become much more elaborate in Florida over the last couple of years. Disaster plans have to be filled out. You have to list a veterinarian who is going to be involved in, if it is an elephant or whatever, to being able to mobilize the animal to move it in case there is a hurricane.

There are people in Florida with elephants and lots of cats. And so there is a pretty rigorous permitting. And it seems like every time the law enforcement comes over I am away. And then my wife has to take around the agent, and she then discovers I have a new snake.

Mr. SCOTT. Mr. Gohmert.

Mr. GOHMERT. Thank you. And I do appreciate all the testimony and expertise. And Dr. Jacobson, the phenomenal amount of education and training and experience you have. I was an Eagle Scout, got some training there and in science classes, but also as a father of girls who loved cats. You are the expert. I am sure it is necessary sometime, but I would give you the same advice I gave my daughters. Quit bathing those cats. You are going to get hurt.

But I was curious, what species or specimen is worth \$100,000? I think Mr. Wyatt mentioned that.

Mr. JACOBSON. The herpeticulture trade, and Andrew will have further comment on it. I followed it and what it has turned into is designer reptiles, animals with unusual colors, whether they are albinos or they have certain genes that are missing and take out a pigmentation and cause a different color change, no different than people have been doing breeding of fish, of koi and goldfish with different color traits. And certain color traits, because they are the first of that color trait, and some of them are very—I mean, beauty is in the eyes of the beholder, and there is a color beauty in some of these animals. And that is where the trade has really gone to a large degree. And it has gone to smaller snakes. There are very small pythons. Not all pythons are big. But the bulk of the industry now is the ball python and all the color morphs of ball pythons they go from 10K to 30K or 40K. But as more and more of those get bred then the price comes down and then people are looking for something else to breed that has a different variant in

it. And that is how a lot of the herpeticulture business has gone over the last 15 years.

Mr. GOHMERT. Well, that brings me to another question. What is the difference—and this is for anyone. What is the difference between the snakes that are included in the ban in the bill and those that were excluded by the amendment? What is the distinction?

Mr. WYATT. Well, as far as the ones that were, the ones that are being proposed to be put back in the bill, you know the boa constrictor makes up a huge amount of the trade in the United States. The two biggest components of trade in snakes in the United States is the ball python and the boa constrictor. And you were asking about animals with a high value. There has been ball python morphs that have sold for as much as \$100,000 for one individual specimen, and that is where a lot of the trade is.

So when you start talking about stopping the trade in those animals, then you are talking about a lot of money and a lot of people. If you are talking about the Burmese python, that is much more limited. You know, there may be, you still have a sizeable number of animals in the United States, maybe 100,000 or so, but the trade is not nearly as widespread and—

Mr. GOHMERT. But as far as physical distinctions or killing propensity, those kind of things, is there a distinction between those that are being sought to keep in and those that are banned? Ms. Perry?

Ms. PERRY. Actually I think a really important point is that the reticulated python is responsible for half of the deaths in the last few years, and that snake is not included currently with the amended version. And, in fact, in a recent USGS press release they talk about how that snake is known for unprovoked attacks in the wild.

So I think we are really overlooking some important species. These are all giant constrictor species.

Mr. ASHE. Mr. Gohmert, I think one important aspect as well from the standpoint of enforcement, a lot of these snakes, especially when they are younger, and this is part of the USGS risk assessment, is they are difficult to distinguish. And so from the standpoint of an agency that would have to do enforcement, listing only a segment of these snakes, particularly because they were all identified as having either medium or high risk, but listing only two of them would complicate our enforcement because especially when they are smaller they are difficult to distinguish.

Mr. GOHMERT. Well, there was—Congressman Meek mentioned that there are no natural predators in Florida. And I was wondering you know, are there natural predators to the large pythons? And how is the population controlled in countries where they are native?

Mr. JACOBSON. I would like to comment because that is a—in the report it is mentioned on page 6, this lack of predators. And the fact is these animals don't hatch out at 400 pounds. They hatch out at about 20 inches or 24 inches maybe. And there are a multitude, I will guarantee you there will be a multitude of animals that will prey upon them. And when you look at replacement of most animals to have a stable population, you are looking at a replacement of two over the life span. When you look at sea turtles with 100

and 100 plus eggs, most of those babies are dead before they make it out to sea. And so that is the process in the real world. And I would expect that storks to kites to king snakes, indigo snakes, raccoons, wild pigs, feral pigs down there, which are real problematic also, conservation wise, they would eat up snakes. And none of these pythons is going to eat a big, big alligator. And there is just no, that 6-foot alligator yes, and that animal died trying to eat that alligator. And that may be the limit to what a big python can contain. And when you see alligators that are 13 feet, they can prey on snakes smaller than them. They can.

And so that statement to me is not correct. It is not correct. It doesn't account for all the babies and what happens to them the first year of their life.

Mr. GOHMERT. I had a second part to the question though. If there was, how populations were controlled in countries where they are native.

Mr. JACOBSON. Well, they are contracting. In almost all of these cases, and you will see this almost worldwide, that populations of all kinds of animals, including these big snakes, are becoming more and more condensed as habitat is lost. And these snakes generally don't do well with humans, and they get killed off.

Mr. GOHMERT. Thank you very much.

Mr. ROONEY. Thank you, Mr. Chairman. Mr. Ashe, Chairman Scott was asking you about the economic impact on, and you were talking about with regard to business. I am curious with regard to Florida's tourism economy. Does that weigh into the factor of your economic impact?

Mr. ASHE. It would. Congressman, I think one thing that is important as we think about economic impact is that, as has been talked, discussed a little bit, we are talking about a constrained natural environment, the Everglades, on which the United States citizens and the citizens of Florida are expending billions of dollars to restore in large part to conserve species of wildlife that are greatly imperiled and listed under the Federal Endangered Species Act. And if we can't control the source of, this source of potential threat to those species then the other citizens and the other economy of the State of Florida has to absorb that impact as we then try to conserve those threatened and endangered species.

So it is not just simply a question of what would be the impact of listing these species under the Lacey Act, but what would be the economic impact of not listing them and not controlling them because then more of the burden for Florida panther recovery and wood stork recovery and Everglades kite recovery and Florida wood rat recovery will fall on other aspects of the Florida economy.

Mr. ROONEY. And Mr. Wyatt, you were speaking of the research and the regulation and the nature going into the Carolinas. And you know, one of the concerns or questions I guess I have for you is that from what I understand in Florida now we are tagging these snakes that are issued as pets or sold in the free market. There is regulation with people that want to own, as you said. But some of these snakes, if not a lot of these snakes, and maybe Mr. Horne can weigh in on this, that are being found aren't the ones that have the micro chip in them or aren't the ones that are tagged. They are the ones that are being born. And I guess my con-

cern here is are these snakes getting out of control in the Everglades with the picture that we see there with the eggs. And it has nothing to do with how well you are doing your job or the snake industry has been doing their job. We have got a problem in South Florida that has gotten out of control. Do we have a responsibility to do something about that.

Mr. WYATT. I don't disagree, Congressman Rooney, that Burmese pythons are a problem in South Florida. What level of problem they turn out to be, the science will discover in time. The thing about it is that we are talking about some separate issues here, and there is no doubt that there is an established population of Burmese pythons in south Florida.

One of the best tools that Florida has to help address those issues is the people that have the most experience in it. You know, oftentimes, in these government agencies that are tasked to take care of these issues, the personnel tasked to handle these issues simply do not have the expertise, as illustrated by Mr. Ashe, in how to deal with these animals. Well, you have got a large pool of knowledge here accumulated over years and years and years and years that you can tap into as far as—but one of the things is snakes can be tracked by dogs. And that is not something that has been fully explored because you haven't brought in people that have the experience on how to train dogs in that manner. You know, you can't find panthers without dogs either. It is hard to—you know, so these animals can be trained to track them down. And there is a myriad of ways that you can start to address the issues that we would love to become part of the policy discussion on how to help Florida address these things.

And as far as the provisions that Florida has already put in place, it is a matter of public relations and public education and bringing more and more people into compliance. And that has been problematic. But the bill, the statute has not been in place that long, and we are working with the State of Florida right now, with FWC, to bring a higher profile to the statutes that are in place, and bringing more and more people into compliance, and that will lead to less and less problems.

Mr. ROONEY. I appreciate your offer to extend that knowledge and expertise, and I think it should be tapped into to the other members of the panel.

Real quick, before I run out of time, Mr. Horne, can you give us a rough estimate of South Florida Water Management and what has been spent to actually remove these snakes from State land?

And then I have a really quick follow-up question, which I am going ask right now because my time is out. You talk about, you know, how many snakes that we have caught with the trappers that you have. And one of the questions that I always get from the public, so this is a question that I am relaying from my constituents. We have hunting seasons for alligators. We have tag limits, bag limits, whatever you want to call them. And the estimates for the Burmese python in the Everglades, you know, can get into the hundreds of thousands, depending on who you are asking, who you believe. Why don't we have a system where it is open to the public with regulated bag limits and things like that like we have for alli-

gator hunts? Why are we only using South Florida Water Management contracted people in the limited basis we are now?

Mr. HORNE. Well, basically it is one full-time FTE, is basically what we are spending on it now. And we have 10 that are trained to actually identify, but only one to truly take the snake. Because of the concerns with the larger snakes and their ability to be injurious to people, we do not allow except for the one person which is licensed to actually take them with a gun.

The reason Fish and Wildlife is concerned about opening to anyone is because they want people that are trained, because the ability for them to get hurt is pretty dramatic as well. They are hard to see, they camouflage very well. Actually, the gentleman that hunts them for us, he has a unique ability; he can smell them, and he sees them quite well, which, you know, everyone can't do that. I mean, it is quite unique to go on a hunting trip with him when he rides down and basically he just rolls down the levee in a pickup truck and he can spot them in the bushes or he will smell them. He has actually said many times I have been out, I smell one here.

So they are hard to see, they are hard to track and of course it is in the Everglades. I mean, it is not easily accessible and typically, you know, they are down low. They are not up where you can easily see them, so people don't look for them.

Mr. ROONEY. I thank the Chairman, and I will yield back. But I would request in any future meetings that we have the snake smeller testify next time. Please. I would love to hear from him.

Mr. HORNE. He is quite a character.

Mr. SCOTT. We have been joined by the gentlelady from Florida who has also been very active in this issue. Gentlelady from Florida, Ms. Wasserman Schultz.

Ms. WASSERMAN SCHULTZ. Thank you, Mr. Chairman. And first let me take this opportunity to commend my colleague who testified on the first panel, Congressman Meek, and my colleague, Mr. Rooney, from the great State of Florida. I just have a couple of questions.

Mr. Wyatt, where do you live?

Mr. WYATT. I live on the Outer Banks of North Carolina.

Ms. WASSERMAN SCHULTZ. And so it is safe to assume that you don't live near the area where there are now 100,000 Burmese pythons or African rock pythons overrunning the Everglades, do you?

Mr. WYATT. No, ma'am, I do not.

Ms. WASSERMAN SCHULTZ. Do you have children?

Mr. WYATT. I am here representing the United States Association of Reptile Keepers, which has our largest membership in your State.

Ms. WASSERMAN SCHULTZ. Do you have children?

Mr. WYATT. Yes, ma'am.

Ms. WASSERMAN SCHULTZ. I assume they don't live near the more than 100,000 non-native Burmese pythons and African pythons that have overrun Everglades.

Mr. WYATT. No, ma'am.

Ms. WASSERMAN SCHULTZ. Okay. So it is safe to assume that while you represent an organization that supports people being able to keep as many reptiles as they want to, that it doesn't really

affect you or most of your members because they don't live anywhere near the real problem. Correct?

Mr. WYATT. Well, quite a few of our members do live right around the problem and in fact it is our members that have helped the Florida Fish and Wildlife establish the python removal plan and have the greatest level of expertise in dealing with the pythons in South Florida.

Ms. WASSERMAN SCHULTZ. Okay. Let me ask you a couple of questions as it relates to your view because you say you have recommendations to help address the problem. How are we going to limit the likelihood of continued abandonment and other irresponsible handling of these animals because, you know, while you might think there is a responsible way to, in your mind, address this problem, which is somehow different than banning the 2 or 9 or 45 species of pythons that are non-native that have been released into the environments in which they don't belong, but yet they thrive and threaten to overrun the ecosystem? What is it that you are recommending to your members and what aggressive proactive steps are you taking to ensure that your members who are the keeper of these pets are making sure that they are not being irresponsible? Because the reason that we have this problem is because of the people who keep these pets and can't handle them anymore and just let them go into the environment. So what guidelines and what steps is your organization taking to make sure that that irresponsible behavior doesn't continue to make this problem worse?

Mr. WYATT. Well, Florida is already on the right track by instituting professional standards for maintaining these animals, okay. You cannot—

Ms. WASSERMAN SCHULTZ. But I would like to know what your organization is doing. Since you are the one that is advocating on behalf of people being able to keep these pythons, what do you provide in terms of guidance to your members?

Mr. WYATT. Well, we have a model State legislation that we just passed in North Carolina this year that we are introducing into Virginia and South Carolina, and similar programs are in place in many States around the country.

Ms. WASSERMAN SCHULTZ. But I note that you didn't say Florida. Is there a reason?

Mr. WYATT. Florida has established their system which we used as a model 2 years ago. It is a matter of bringing more and more people into compliance. The job of public relations may be—

Ms. WASSERMAN SCHULTZ. But you would agree that once you have 100,000 snakes overrunning an ecosystem, that the horse is out of the barn, so to speak. So let me ask another question.

Mr. WYATT. But it does provide a framework to be able to address the situation. It is much like drinking and driving is against the law. Okay? If you drink and drive you are going to be—

Ms. WASSERMAN SCHULTZ. Okay, with all due respect, what details, specifically what steps, proactively, are you taking to make sure that your members don't release these, quote/unquote, pets into the environment when they can't handle them anymore?

Mr. WHITE. By requiring professional caging standards, safety protocols, safe recovery—

Ms. WASSERMAN SCHULTZ. What ensures that they do that?

Mr. WYATT. Excuse me?

Ms. WASSERMAN SCHULTZ. What ensures that they follow those guidelines.

Mr. WYATT. Well, there is no overriding force that will force anyone to obey any law. But by providing the framework and the remedy of legal recourse through the court system, that is how this country operates.

Ms. WASSERMAN SCHULTZ. Isn't that the reason that we need the standards in the first place because you can't be in every pet owner's home.

Mr. WHITE. That is correct and that is why we are implementing those standards around the country in the very few places where they are not already implemented.

Ms. WASSERMAN SCHULTZ. Okay. Can you describe for me what you mean by your more measured approach than the approach that this bill takes? What is a more measured approach than not allowing these pythons to be imported into the country?

Mr. WYATT. Well, this is not just about import. It is about interstate transport, and that would destroy the trade. So it is not just about import.

Ms. WASSERMAN SCHULTZ. What do you mean by more measured approach?

Mr. WYATT. Well, H.R. 2811 will not succeed in providing the remedy that you seek. Okay, it is not going to change anything in the Everglades.

Ms. WASSERMAN SCHULTZ. But you are not defining anything. What is your—you say in your testimony that you think we should take a more measured approach. Define that for me.

Mr. WYATT. By turning this into a policy discussion instead of trying to discuss this in the realm of political expediency. There is a scientific process in place that US Fish and Wildlife Service—

Ms. WASSERMAN SCHULTZ. Policy discussions don't prevent snakes from going so large that they swallow alligators, okay? They don't.

Mr. Horne, thank you for being here. It is a real pleasure to work with the South Florida Water Management District, and I appreciate your expertise here. The South Florida Water Management District is obviously working hard on Everglades restoration. And I wonder if you could share with the Committee just how difficult it has become to focus on your restoration efforts, which I know is all consuming, while simultaneously having to deal with and divert resources to dealing with the python problem.

Mr. HORNE. Well, since we work in the Everglades, we find ourselves, you know, training staff to look for snakes and protect themselves against the snakes. We have found the snakes in pump stations. We have found the snakes inside water control structures. I mean, in the beginning when we first started seeing them, some of our staff, which thought they were doing the right thing, actually tried to capture one which was quite large and it got loose in the truck and they had to abandon the truck. We have had scientists taking water samples actually chased from the water's edge all the way back to the vehicle by a very large snake and ended up running over it in a truck.

So we are confronted with something that we never had to deal with before. And then you put on top of that as part of the Everglades restoration, one of our critical measures are we being successful is bird counts. And we know for a fact and we have photographed them and tracked them, those snakes were in the rookeries when the birds are there, you know, which makes them abandon their nests. It means that we are going to fail. I mean, there is nothing we can do about that. And it is very frustrating and we don't really know how to deal with it because we are sure, relatively positive we are not going to be able to get rid of these snakes. They are going to be there forever. And that means we are going to fail.

Ms. WASSERMAN SCHULTZ. Mr. Chairman, I know my time has expired but if I can just ask Mr. Horne one more question. Are you concerned that—tell me what you think the consequences are to not banning the further import of these kinds of snakes.

Mr. HORNE. I think there is going to be future populations of different kind of snakes. I mean, we already know that we have snakes in Miami-Dade County on the Deering Estate. We have rock pythons in the Bird Drive Basin. We have yellow anacondas in Big Cypress National Preserve and Myakka River State Park. We already know they are there and different species are there. It is only a matter of time and food source that those populations explode as well.

And knowing from that picture the number of eggs that those things lay, the parent snake stays with them until they hatch, so they are guarded, so there is not any other predator that is going to come and eat them until they hatch, we are doomed. We are truly doomed.

Ms. WASSERMAN SCHULTZ. Mr. Chairman, once or twice a year, I look in my backyard, and we live on a lake that connects to the Everglades. I live about 2 miles from the Florida Everglades. And once or twice a year I look out my backyard door and see an alligator lounging on the edge of the bank of the lake. Sometimes you see the top of their head, you know, the eyes sticking out of the top of the water. This has already occurred, and it is only a matter of time before—we have—in south Florida, we literally have a line that you can see right when you fly into south Florida, you look at the Everglades, there is a development line that puts houses on one side of it and the Everglades on the other. And it is only a matter of time before snakes like that one, snakes like this one end up in the backyards of folks with children. There are children that have already been eaten and we will hear more horror stories unless we take the steps that this bill suggests that we should.

Thank you for your indulgence. I yield back the balance of my time.

Mr. SCOTT. Thank you. We are going to have another round. I would like to ask Mr. Ashe, is there any question that the population—I'm sorry. Thank you.

My colleague from Virginia. I am sorry.

Mr. GOODLATTE. Thank you, Mr. Chairman. And thank you for holding this hearing. It is definitely a change of pace from health care reform. Can Mr. Ashe or Mr. Horne tell me what Florida laws

exist right now to deal with this? What does Florida law allow with regard to the ownership of these?

Mr. ASHE. Well, basically you have to have a yearly permit that costs \$100 per year, and you have to have your snake implanted with a device, a micro chip. But, you know the reality is——

Mr. GOODLATTE. Let me just ask you, why hasn't Florida banned these snakes? I mean, I am hearing Dr. Jacobson point out that there are very limited places where the snake can survive in a habitat, a natural habitat. Obviously, Ms. Perry has attached a very impressive list of incidents regarding large snakes to her testimony, and they are all over the country. But I don't find that there is a large population of them anywhere in the natural, in the wild, other than in south Florida.

So I guess my question—I don't object to adding this particular species to the legislation that we already have. But I am wondering why Florida hasn't banned these snakes outright if they are this magnitude of a problem.

Ms. PERRY. Congressman, Florida is actually considering legislation to enact a ban right now.

Mr. GOODLATTE. Has any State enacted legislation to ban them?

Ms. PERRY. Yes. Hawaii prohibits ownership of snakes. Obviously, they, as an island they have unique problems. Illinois bans life threatening reptiles, including constricting snakes 6 feet or more in length. Iowa bans reticulated pythons, anacondas, African rock pythons. Massachusetts bans African rock pythons, reticulated pythons and anacondas. Montana bans African rock pythons, amethystine pythons, green anacondas, Indian and Burmese pythons, and reticulated pythons. New Jersey bans anacondas and New York——

Mr. GOODLATTE. That is enough. So Florida could take action here that would definitely help in this regard?

Ms. PERRY. Yes, and I think they will.

Mr. GOODLATTE. Now, on the issue of whether we should go from one or two, I guess the legislation now contains two of the large snakes. And Mr. Ashe, you have proposed and Ms. Perry, you proposed that the legislation ought to be amended to cover nine species. I take it those, are those all nine species that exist, or are there nine that we know that there are species that have been imported in the United States?

Mr. ASHE. Those are the nine species that were covered by the U.S. Geological Survey's risk assessment, so those are the nine species with which we have both field experience and scientific discoveries.

Mr. GOODLATTE. All right. Mr. Wyatt and Dr. Jacobson have suggested that if you ban the two, the trade will shift. And you have suggested that the trade will shift to the others. Do we have any information in the study or elsewhere about what the various—I mean, are Burmese pythons the overwhelming favorite and these others are much smaller? Or is the ownership of these species distributed across a wide area?

Mr. ASHE. I think, as Mr. Wyatt said, no, they are greatly distributed. Our information for 2008 in terms of importation of these species, we had a total of 31, over 31,000 of these nine species were imported into the United States legally.

Mr. GOODLATTE. Do you have it broken down by species?

Mr. ASHE. About 24,000 of those were boa constrictors.

Mr. GOODLATTE. So not the Burmese pythons?

Mr. ASHE. But that is the point, is that—

Mr. GOODLATTE. I understand. But in the wild, the problem that the act is designed to cover, is it only the Burmese python that is prevalent in south Florida in the Everglades?

Mr. ASHE. The boa constrictor. Actually there is a naturally reproducing population of boa constrictor established in South Miami, and so we are finding wild and potentially reproducing individuals of most of these species in the area now. But once they are established, it is too late really. Just like we have seen with the Burmese python, once these species are established—

Mr. GOODLATTE. Well, let me ask you about. I mean, this is a serious problem obviously, not just for the environment but also for—Ms. Perry's list includes a number of instances of people being killed. Many of them are in homes of people who are the pet owners, so that obviously raises some eyebrows. But I think that could be left to State legislation to cover what people can own in their homes.

But what are we doing—Mr. Rooney tells me that his legislation would allow for people to go out and trap these animals and exterminate them in the wild. What are we doing to aggressively accomplish that goal? It seem to me it would be a desirable goal to eradicate this non-native invasive species that is in the Everglades and other places in south Florida.

Mr. ASHE. It is absolutely the proper goal, once they are established, to try to control those populations. But what we have learned with invasive species in general is they are difficult to control once they are established in the wild.

Mr. Rooney asked the question earlier about hunting. And the Big Cypress Preserve has opened the preserve and allowing hunters in the preserve to take pythons. And so far, in 2009, that has resulted in one python being killed. I mean, they are very cryptic animals. They are hard to find. And so you, as Mr. Horne mentioned, you really have to be a skilled individual to go out and find these.

So what that means is public agencies like the Fish and Wildlife Service, like the Park Service, like Florida Fish and Game Department, have to expend their valuable, precious, limited resources.

Mr. GOODLATTE. I understand. Let me let Mr. Wyatt and Dr. Jacobson respond.

Mr. JACOBSON. I would like to make a comment and to reiterate what Andrew said a while ago. I was on the Florida Panther Recovery Team for 2 years, two seasons in the mid-80's. I went down and served as a veterinarian on the team and got to know the tracker, Roy McBride, very well. And if it wasn't for Roy McBride and his dogs, there would have been no panthers found. And that is in a semi-aquatic, aquatic habitat.

The report downplays dogs because of it being a semi-aquatic habitat. And there is no reason for me to believe that dogs would not be as effective. They may not eliminate, but there is an opportunity to really do something because dogs are now trained to smell for bed bugs in beds in hotels. A lot of people don't know about

that, the problem with bed bugs in hotels. But there are dogs now trained to smell one egg of a bed bug in a mattress. There are dogs that are used——

Mr. GOODLATTE. I am convinced of the remarkable capabilities of dogs, and I think they ought to be utilized to find these snakes.

Mr. JACOBSON. They need to be utilized and I will expect that the identification of animals in the wild is just one that will be many times greater than that.

Mr. GOODLATTE. Do you want to respond to the statement that we ought to cover all the species rather than just the two that are the bill because obviously somebody is probably going to offer an amendment to accomplish that and we are going to have a make a decision about that? Mr. Wyatt or Mr. Jacobson, do you want to respond to Ms. Perry and Mr. Ashe, who say that we ought to cover all nine?

Mr. WYATT. I think that if you are using the new USGS study to predicate that, that the study, although you know attempting to characterize this situation has got a lot of flaws and there is a lot of uncertainty involved in it, as Dr. Jacobson testified. And so, I think you need—before you start to eliminate thousands of American jobs and destroy American families, you need to seriously consider all the ramifications. This is about far more than importation. I mean, we can——

Mr. GOODLATTE. What do you say to the people who point to the pretty significant list of a 15-year old was killed by his brother's 11-foot pet python; an 11-month-old boy was killed by his father's 10-foot pet python; 8-foot python escaped from his cage, crawled into an adjoining bedroom and killed a 21-month-old boy in his crib; 7-month-old girl was killed by her father's 8-foot reticulated python.

Again, as I say, I think that those ownership issues probably should be addressed by State legislation, not Federal legislation. But what do you say to those who say that there is a real counter-vailing issue here to the economic aspect?

Mr. WYATT. I agree with you, Congressman. And you know, there is no doubt that there are some issues with safely maintaining these animals. But it can be done in a responsible manner and you need to take a little bit of perspective. Although all life is precious, if you look at the incidents involving dogs and other domestic wildlife, according to the Humane Society of the United States, there has been already this year over 20 deaths attributed to dogs.

Mr. GOODLATTE. I understand that. But I also would bet two things, one that dogs are in a far, far, far higher percentage of households in the United States than large snakes are. And secondly, we, as a society, have developed ways to educate and so on in dealing with them. I think we are far behind that in dealing with these large reptiles.

Mr. WYATT. Absolutely. And the legislation that we are pushing to put professional standards in place in the few places where they are not already in place will go a long way to addressing these issues. And the more public education we have in bringing more people into compliance, it will reduce those numbers even more.

So you are talking about something which is not having a huge impact on the population as a whole. And I don't disagree that

there are more dogs in captivity than there are big snakes. But there is—most of the risk associated with dealing with these animals is occupational risk. Innocent members of the public outside the owner's home or facility are not being hurt by these animals like could even happen with a stray dog. It is people within the families. And oftentimes, you are going to find that these people are already in violation of the law, and have put themselves in a position where they are threatening their families.

Mr. GOODLATTE. Or the plumber or the electrician.

Mr. Chairman, my time has expired. I thank everybody on this panel. It is a very interesting issue. And I don't think the solution is an easy one. I do think the general issue of whether or not they should be allowed in people's homes is not the purview of the Congress, but the issue of whether or not non-native species should be imported to the United States if they do get into the wild and cause significant environmental damage and cause a risk to people outside of their homes is something that we should be taking into consideration.

Thank you.

Mr. SCOTT. Thank you. Gentlelady from Texas.

Ms. JACKSON LEE. Thank you very much, Mr. Chairman. Let me thank Congressman Meek, a dear friend from Florida, and of course, a colleague on this Committee, Congresswoman Wasserman Schultz, for the thoughtfulness that has been projected into this, into the deliberations that we have here.

I would like to indicate with all due seriousness as I listen to Mr. Wyatt, and I can appreciate the affection that those who handle these animals well would have and would be suspicious of a regulatory scheme.

Let me disagree with my good friend from Virginia. I frankly believe if an animal is of such dangerous inclination that we do regulate that holding by a family in a private home, because a private home is also protected by the laws of this land and the Constitution. And we protect people from intruders. When I say that, the law doesn't allow intruders to kick open your doors and come in, guns waving at you, because you are protected in your home.

Well, the same thing. The law should protect others, whether it is through being overwhelmed by an oversized animal. And let me just say, the idea—and I use animal generic because I know some of the specialists will tell me that snakes are obviously in a refined category. But in any event, if you have the kind of size pet that wants to consume an alligator, then you have a problem because I don't believe that that family can contain that particular pet. If you have one of this size, that is being measured by this group here, I think we have a problem. If you have one that has 58 fertilized eggs, I think we have a major problem. And what I see this legislation as doing is add the constrictor snake of the species python to section 42(A)(1) of the title 18, which is known as the Lacey Act, as an injurious species that would be prohibited from being shipped and imported into the United States.

Now, I may be willing to go further because some people may find that they admire sharks. Certainly we know a whole array of shark incidences from the Atlantic Coast to the Pacific Ocean. I live on the Gulf Coast, not necessarily a haven, but someone might

want to say this is attractive; I think I can handle this. Let me get a shark egg and put it in my fish tank. And the question is, is that a responsible thing to do?

So I think the question should be asked, and I want us to do it humanely as we regulate. But at the same point, I need us to realize that we have regulated a lot of things.

There is a second amendment. That is a very volatile question to compare it to. But we do have a level of regulation. We want people to own weapons, guns, in a legal manner. We are suspicious of people who pile up guns in their homes with no regulatory registration, if you will. So we have to be responsible.

So I would ask Dr. Jacobson, in your testimony you focus on the inherent uncertainty of risk and you seem hesitant to suggest Congressional action when there is merely a risk as opposed to an actual problem. Nonetheless, you would agree that there is a risk.

Would you agree that there is a likelihood to some degree that a breeding population of pythons or one of the other constrictor snakes under scrutiny could emerge in another warm climate area in the United States? Do we have that possibility?

I would like to—if you could just answer quickly yes or no, I want to get to Nancy Perry if I could, please, because I need to have—just if you would, sir.

Mr. JACOBSON. Based on another paper that contradicts this report, it is south Texas.

Ms. JACKSON LEE. I am sorry.

Mr. JACOBSON. There was a paper published in a reviewed journal. This is not reviewed. This is what we call gray literature. It hasn't gone through the scientific scrutiny of peer review such as a paper going to science or nature. And so there is another paper that came out that has a different model that was published. And it is in contrast to this. And they have a map of the U.S. showing the Burmese python only found suitable habitat, south Florida and south Texas.

Ms. JACKSON LEE. At this point in time in our history, that if they begin to move around the country by way of private owners, we may have some greater concern there. I am sure there is a climate question and a habitat question. But if there is no recognition that they can be both a risk and an actual problem, then there is the opportunity to proliferate.

Mr. JACOBSON. Not up north, not as far as those maps depict in here. I lived in Missouri, and there is no way they would get to Missouri.

Ms. JACKSON LEE. Well, let me say this. I think there is a large population in south Texas and Florida, so I am not necessarily suggesting to you, I would not suggest to you, I don't pretend to be a specialist. But I am not pretending to suggest that they would proliferate. I am saying that people can do strange things.

Mr. JACOBSON. We have had—I met someone years ago that was a student at Columbia University, and he had a Russell viper in his dorm room. And this was back in the early 70's. This would never happen today because of those—it escaped and was never found. And there are a lot of examples of animals. They just can't handle that climate.

Ms. JACKSON LEE. And I understand. But we don't know on the way to his demise how many rats and other animals that he par-took. I am glad he didn't find a 2-year old.

Nancy, let me—Ms. Perry, might I please pose—you are with the Humane Society. Let me get your sense of this question, or the idea of what we are trying to do or this legislation is trying to do.

Ms. PERRY. Yes. Thank you, Congresswoman. I feel that the Humane Society is here to state that we believe that the USGS has identified snakes that, all nine snakes pose either a high or a medium risk to the environment. We already know that these giant constrictor snakes pose a very serious risk to people. And I think that we should follow the path that Congress has taken before when we have dealt with dangerous wild animals as pets, and we have been comprehensive.

In the case of big cats, we banned all big cats. In the case of primates, we banned all primates just this year. And I think this is the same pattern that we need to follow here. And obviously, it is obvious from the testimony today, whoever you listen to, this is a burgeoning problem.

Ms. JACKSON LEE. Absolutely.

Ms. PERRY. Even Mr. Wyatt testifies to the burgeoning trade involved. So this is not going away, and I think we have to get out ahead of it. We have a problem we can't necessarily fix with some of these snakes, but we darn well better get ahead of the rest of them. And I think it is time for an amendment that would get us there.

Ms. JACKSON LEE. Mr. Chairman, if I could get Mr. Horne, only because I think he is engaged with the population. I understand that the Everglades have residents and therefore I see you are in south Florida, and therefore large snakes of this kind would seem to pose a threat to your wastewater system or the residents. What have you found, besides the loss of life, potentially, for that size snake coming into an area where there are people living?

Mr. Horne.

Mr. HORNE. Well, we have indeed found that. We have found them on some small farms, as well as some properties that the district owns that we leased back, waiting on restoration. We ask the farmers to start a new farming practice and that would be to encircle the property from outside in. And indeed, on one of those in a 1,500-acre parcel, we killed I believe it was 47 snakes, just by plowing them under, and of course then we went out and got them. So that is pretty bizarre.

Ms. JACKSON LEE. About what size were they?

Mr. HORNE. They were anywhere from 6 to I believe around 10 feet, most of them.

Ms. JACKSON LEE. You would not want to meet them on a dark night.

Mr. HORNE. I wouldn't want to.

Ms. JACKSON LEE. So this poses a health issue, a safety issue, and certainly I am not sure how many farmers, these are farmers farming something else, I take it?

Mr. HORNE. They farm beans and eggplants.

Ms. JACKSON LEE. It certainly does not contribute to the business that they are in.

Mr. HORNE. No, ma'am, it does not. And particularly there is a lot of bird farmers and everything else that is in that area. If they are there, it only stands to reason that they have to be in other places. They are just not spotted, the concentrations haven't got to a point where you are going to find them in the same magnitude that they are there. But just the fact that they are there, that there is enough food source in that small concentration that would hold so many snakes is amazing to me. So, you know, the one—that picture that I was just sent yesterday, actually a mower in a habitated area of Homestead actually hit one when they were mowing one of our canal banks and it was off the bank in the water and we have pictures of that.

So I mean they are there. They are just not being seen in the same magnitude that we are finding them very close to the Everglades where they are much harder to find.

Ms. JACKSON LEE. Mr. Chairman, I live on the Gulf Coast, as I indicated, and I was very intimately involved, as many of us were, in Hurricane Katrina. And of course we know the wetlands and areas around the New Orleans areas. When I say wetlands, they are close to the Gulf Coast as well. But the whole idea of a hurricane and what it brought in, it is not too far reaching to think that troubles that you might have in south Florida just because of the nature of nature, that troubles could come about because you move these animals or someone brings them or however it might be transported.

We are all ploughing new ground. But I do know it poses a major safety risk.

And I will end on this note. I don't want to see—these are snakes that we don't want to see abused. And the import of such, the movement of such, the proliferating of such is abusive. If they are not allowed to be in their normal habitat because they are proliferating around human beings, there is an abuse question here, and I do believe we have the right to regulate.

I yield back, Mr. Chairman.

Mr. SCOTT. Just have a second round, just very brief question to Mr. Ashe. There is no question that the population of these snakes, the population is growing. Is that right?

Mr. ASHE. No question.

Mr. SCOTT. At some point you would imagine it would reach an equilibrium, where it wouldn't grow any more? Or will it just continue to grow?

Mr. ASHE. We do not know that. We would predict that these populations would expand to some point. The point has been raised earlier that they are residing now in a very rich ecological environment, the Everglades. At some point they are probably pretty happy there because there is a good steady supply of food. If they start to deplete that supply of food, then they would look to move elsewhere. And so our experience with invasive species as a whole is that they tend to be slow to get themselves established. Once they get themselves established, then they began to expand rapidly.

Mr. SCOTT. Since they are already there and they are growing, what good would this bill do?

Mr. ASHE. For the species that are already there, the Lacey Act, listing them under the Lacey Act would provide an additional level of assurance and control. We will have to have a multifaceted effort in order to remove them or control them in the environment. For the species that have not been, have not established themselves in the natural population, that is where the Lacey Act will have the most effect, which is why we have asked you to include those other species so that we can get ahead of this curve.

If I may, Mr. Chairman, with regard to the statement that was made about the USGS being gray literature and not having been reviewed, the USGS has a very rigorous process of objective and independent peer review for their products. This is a citable scientific document, has been through a rigorous process of scientific peer review.

Mr. SCOTT. Dr. Jacobson, could you say a word about the growing population ever reaching equilibrium where it would stop growing?

Mr. JACOBSON. I don't have the expertise to really give you a definitive statement on it. Some of it will be based on my view on the Gestalt of these animals and what they do and a combination of biological characteristics. I would expect that at some point down the road, say there was no intervention at all, there would be some population equilibrium. And I would expect that you would probably start, as you run out of a prey base, the predators tend to get smaller.

And I think this may have been experienced on Guam with the brown tree snake. When originally identified, those snakes before management plans went into effect were much larger and now they are smaller as they have eaten up their prey base.

For these animals to migrate into other areas, I think that cars and humans will kill them. I mean, most people on the panel I expect have never had a snake as a pet or probably don't know many people that have had them as pets, but there is a disdain for snakes, for whatever the reason is. And so they are an easy target in certain ways, especially when the reptile hobbyists have taken a long time to really get to this point and not being more proactive. But they are now.

The presentation of these animals to me as dangerous is a very relative term because of the range of animals I have worked on. If you saw how they handled that big python, that animal was not handled as a dangerous animal. No one had control of its head. That was a big fat snake that probably could just barely move. There is a certain risk, but not I think the risk that—

Mr. SCOTT. My question was, how much will it continue to grow and what is the limitation on growth?

Mr. JACOBSON. Without having the data to know, really, what is the population density and what is the prey base that is needed? I have heard these figures from 30,000.

Mr. SCOTT. Can you explain prey base?

Mr. JACOBSON. Pardon?

Mr. SCOTT. Can you explain prey base?

Mr. JACOBSON. Prey base is the food that these animals will feed upon, whether they are raccoons.

Mr. SCOTT. So the limit on growth of the population is when they run out of food?

Mr. JACOBSON. Yeah.

Mr. ASHE. Mr. Chairman, part of the concern is that the food for these species includes a number of animal and aquatic species that are listed under the Endangered Species Act. So we can't afford to wait until their prey base runs out because those are critically endangered species. As I said before, as the numbers of those species go down, then we have to increase regulation on the other parts of the Florida economy. So the tourism economy and other aspects of the Florida economy have to absorb that addition.

Mr. SCOTT. Is the cat out of the bag already? If you have got enough of these snakes floating around, the population is growing, the prey base is being consumed, what can we do about it? How much difference would this bill make one way or the other since the population is already growing?

Mr. JACOBSON. They need to be worked on biologically with adequate money and for control. The problem with the brown tree snake was there wasn't adequate funding, and we put a proposal together as part of a biotech group in the early 1990's to USGS for using transgenic modern-day techniques to basically insert a gene into a parasite that would inhibit the reproduction of the brown tree snake. It was going to take 5 to 10 years to do. They have that project incorrectly stated in this report. And, unfortunately, with the review process, some things get missed. And our project wasn't to take a virus and manipulate that and kill the snake with a virus that would kill it; it was to take a harmless parasite and put a gene in that would shut off some part of its reproductive cycle. That was going to cost about \$4 million, \$5 million. That was the end of the project. So it was not adequately funded.

And I expect this Burmese python catastrophe in south Florida, unless it is funded properly, this will go on and on and on forever.

Mr. ASHE. That is the point, Mr. Chairman. The idea that as we—we are doing things to help control this snake. We are expanding python capture. We are partnering with hunters. We are doing cooperative workshops and we are studying python movement and habitat. We are working on python attractants. But those are efforts that require taxpayer dollars. And I think you and Mr. Gohmert and the Members of the Committee understand the limitation on taxpayer dollars.

So if we can't prevent additional invasions from happening, then that means the taxpayer bears the burden of this cost as we have to increase our efforts at controlling these invasive exotic species, and so the taxpayer is the one who bears the cost of that.

Ms. PERRY. Mr. Chairman, this legislation helps us prevent adding fuel to the fire for the Burmese and African pythons at the very, very least. It also provides us with a great opportunity to address the other, the entire collective group of nine constrictors that we already know now from USGS do pose a genuine risk to the environment. So it gives us an opportunity.

Mr. SCOTT. Mr. Horne.

Mr. HORNE. The State of Florida is spending billions of dollars to restore the Everglades and the ecosystem that feeds that, and these snakes are going to actually destroy most everything that we are there to protect. I mean, I think that is inevitable. You actually heard that from Mr. Jacobson. You heard that they are going to eat

the prey base, and when what we are trying to store is gone are going to have basically the river grass with nothing else in there. And there are numerous species that is there.

We know that they can live in other places, the Louisiana bayou, the Okefenokee Swamp, Texas, Mississippi. We know easily they can be there. They don't have the same problem we have currently, but we have to anticipate they are going to have that problem based on this report, and the fact that in their native environment they live in the same type of climates, so it is only inevitable they are going to be there.

The reason we need to do this, and we are absolutely in support of the nine species, we need to stop the importation of those. We are not going to stop the snakes from spreading. It is only a matter of time. And we talked earlier about storm events. We know that the Burmese moves dramatically when there has water because it is easier for them to move because of their size, particularly the large ones. So those water bodies become a conduit for them to move wherever. So a flood event, they are moving. They are spreading their habitat because they can move quickly and easily on that. So we definitely urge you to act on this bill.

Mr. SCOTT. The gentleman from Texas.

Mr. GOHMERT. Thank you. I am curious, we keep talking about things like Okefenokee in Georgia. You have got Louisiana bayous. Texas has some areas where they might could live. But have any of these snakes that are under discussion here been found in the wild in Georgia, in Louisiana, or Texas, to your all's knowledge?

Mr. HORNE. We certainly know in Florida they have moved because we have found them as up as Sarasota, they have been found in Melbourne, and basically to consider it there you need to find three or four or them of them, find them in the wild. And since they like to be in places where they have large prey base, they are going to be in the swamps.

Mr. GOHMERT. That is my question. I am just asking, I understand all of that, we covered it completely. I am just asking if any have been found in Georgia, Louisiana, or Texas.

Mr. WYATT. The answer to that question is, no. And that is a notable point, because these animals have existed in captivity in the United States for upwards of 30 years.

Mr. GOHMERT. That was another question I had. You mentioned that before, Mr. Wyatt, that there may be 4 million snakes that have been here for 30 years. What was the event 30 years ago that brought them to the United States?

Mr. WYATT. Well, they became—well, it actually goes back farther than that and probably as far as the early history of animals being brought into the United States. Dr. Elliot could probably better—Dr. Jacobson could probably address that better than I can.

Mr. GOHMERT. Why did you say 30 years ago?

Mr. WYATT. Well, 30 years ago is when herpetoculture, the hobby and science of breeding reptiles, really started to take shape and more interest was drawn to it. But the animals were first being brought in, you know, as much as 60 years ago and in the case of some animals even much longer ago than that.

Mr. GOHMERT. Has there ever been a python removal program that has been successful anywhere?

Mr. WYATT. It has only just begun in Florida. And a point there is that the greatest work done as far as actually proactively working to remove pythons from the Everglades has been done in a partnership between the State of Florida, the Florida Wildlife Commission and——

Mr. GOHMERT. We have been here a long time, and I am just going to ask you please restrict your answer to my question. I have zeroed in just a few answers I want, so I have facts. And unless somebody has answered to the contrary, then apparently there has not been a removal process.

Mr. JACOBSON. No. It hasn't been accomplished. And there are there has not been accomplished and there are only two snakes where there has been a really active removal program, and they haven't succeeded.

Mr. GOHMERT. I am also curious, and there isn't an answer for this. But I wondered if a snake is labeled injurious and this kind of action is taken, if then that may cause a realization that, gee, if this snake does harm to someone, then I may have even a heightened civil liability than I have otherwise. Maybe now I have a heightened incentive to release this snake into the wild.

And I am just wondering, do you think that is a legislate concern, that passing this bill might push people to release snakes into the wild that they might not otherwise?

Ms. PERRY. Mr. Chairman, I would suggest that is probably already a problem. When we have the fatality of a 2-year-old girl this year in July, anyone who has a snake like this has got to wonder whether or not they want to keep that snake. And I think we shouldn't let that prevent us from getting out ahead of this problem.

Mr. GOHMERT. With regard to thermal imaging, since it is a snake, I doubt that they show up on thermal imaging. Do they?

Mr. JACOBSON. Yes, they can. They can. It depends on—we have done thermal imaging different reptiles. And at least in captivity, in the wild, too, they will go out and bask or be out in the sun. And so their body temperature is very highly—it is physiologically regulated but very dependent on the environment. They can get their body temperature up to, say, in the 90's and you will pick that up. At night it might drop down into the 70's or whatever. So.

Mr. GOHMERT. There is a chance it could pick it up.

Mr. JACOBSON. Yes.

Mr. GOHMERT. Okay. I was just curious. Thank you very much.

Mr. SCOTT. Mr. Horne.

Mr. HORNE. The Army Corps of Engineers has actually done some work on the snakes in south Florida, but there has to be a pretty dramatic temperature variance for them to see them, and they actually used a drone plane with some imaging equipment on it and they actually did find them. But it has to be on a day when there is a dramatic change in the weather, which is not something we typically have in Florida. So it makes it difficult there.

Ms. PERRY. Can I address the previous question? You asked if these snakes are found in the wild in other States. And there is sort of a distinction between whether they are found and breeding and established, or just found in the wild because they escaped. And I would point you to our testimony which has this list of inci-

dents just in August of this year. In Oregon, California, Missouri, Utah, there are incidents of snakes being found in the wild in the sense that they are out and loose. And obviously, over the course of a summer, a snake could survive if the temperatures allowed it to and could cause serious incidents.

Mr. JACOBSON. When I was growing up as a child, there were people I knew had snakes that escaped in the neighborhood, either killed or never seen again. And so there are snake escapes in probably every major city in the country, and in airports there have been examples.

Mr. SCOTT. Thank you very much. I would like to thank all of our witnesses for their testimony today. Members may have additional written questions which we will forward to you, and ask that you answer as promptly as possible so that the answers may be made part of the record. The hearing record will remain open for 1 week for the submission of additional materials.

Without objection, we will submit into the record letters from the Pet Industry Joint Advisory Council, Dr. Kenneth Crisco, Senior Biological Scientist, Division of Herpetology, Florida Museum of Natural History University of Florida, the Wildlife Society, the Gourmet Rodent Pet Store.

Mr. JACOBSON. It employs 70 people and makes about \$4 million a year.

Mr. SCOTT. And we have requested that their letters and written testimony be entered into the record of the hearing.

Without objection, the Subcommittee now stands adjourned.

[Whereupon, at 12:25 p.m., the Subcommittee was adjourned.]

A P P E N D I X

MATERIAL SUBMITTED FOR THE HEARING RECORD

REPORT TO THE AQUATIC NUISANCE SPECIES TASK FORCE

Generic Nonindigenous Aquatic Organisms Risk Analysis Review Process

**(For Estimating Risk
Associated with the Introduction
of Nonindigenous Aquatic Organisms
and How to Manage for that Risk)**

Risk Assessment and Management Committee
Aquatic Nuisance Species Task Force

October 21, 1996

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I. INTRODUCTION

Objective of the Review Process

The Risk Assessment and Management (RAM) Committee was initiated by, and is under the auspices of, the Aquatic Nuisance Species Task Force (Task Force). The Task Force was created for the purpose of developing a strategy in which the appropriate government agencies could meet the goals of the Aquatic Nuisance Prevention and Control Act of 1990. The Task Force was "... established to coordinate governmental efforts related to nonindigenous aquatic species in the United States with those of the private sector and other North American interests" (ANSTF, 1994). The Task Force is co-chaired by the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration.

The Generic Nonindigenous Aquatic Organisms Risk Analysis Review Process (hereafter referred to as the Review Process) is the risk process developed through the RAM committee to help meet the requirements of the Aquatic Nuisance Prevention and Control Act.

The objective of the Review Process is to provide a standardized process for evaluating the risk of introducing nonindigenous organisms into a new environment and, if needed, determining the correct risk management steps needed to mitigate that risk.

The Review Process provides a framework where scientific, technical, and other relevant information can be organized into a format that is understandable and useful to managers and decision makers. The Review process was developed to function as an open process with early and continuous input from all identified interested parties.

The Review Process was designed to be flexible and dynamic enough to accommodate a variety of approaches to nonindigenous organism risk depending on the available resources, accessibility of the biological information, and the risk assessment methods available at the time of the assessment. The Review Process may be used as a purely subjective evaluation or be quantified to the extent possible or necessary depending on the needs of the analysis. Therefore, the process will accommodate a full range of methodologies from a simple and quick judgmental process to an analysis requiring extensive research and sophisticated technologies.

The specific function of the Review Process is to:

- RISK ASSESSMENT -- Develop a process that can be used to:
 - a. evaluate recently established nonindigenous organisms
 - b. individual pathways (i.e., ballast water, aquaculture, aquarium trade, fish stocking, etc.)
 - c. evaluate the risk associated with individual pathways (i.e., ballast water, aquaculture, aquarium trade, fish stocking, etc.)

- **RISK MANAGEMENT** – Develop a practical operational approach to maximize a balance between protection and the available resources for:
 - a. reducing the probability of unintentional introductions
 - b. reducing the risk associated with intentional introductions

The History and Development of the Review Process

The Review Process was modified from the Generic Non-Indigenous Pest Risk Assessment Process (Orr, et al, 1993) developed by the USDA's Animal and Plant Health Inspection Service (APHIS) for evaluating the introduction of nonindigenous plant pests. The APHIS process has been thoroughly tested both within and outside of the agency with numerous completed individual organism assessments and three high risk pathway studies.

The development of the Review Process has been synchronous with and functionally tied to the development of various ecological risk assessment methodologies and nonindigenous organism issues. Foremost was the National Research Council's workshops and meetings for the development of the "Ecological Paradigm" (NRC, 1993). The Review Process's basic approach and philosophy borrows heavily from the NRC's project.

Other major projects and reports which have influenced the direction of the Review Process are: The Environmental Protection Agency's "Ecological Framework" (EPA, 1992a) and associated documents (EPA, 1992b, 1992c, 1994); the United States Congress Office of Technology Assessment's nonindigenous species report (OTA, 1993); and the Forest Service's pest risk assessments on nonindigenous timber pests (USDA, FS, 1991, 1992, 1993).

In addition to the above projects and numerous other pertinent work the following quality criteria (modified from Fischhoff et al. 1981) were used in designing the Review Process:

- **Comprehensive** - The assessment should review the subject in detail and identify sources of uncertainty in data extrapolation and measurement errors. The assessment should evaluate the quality of its own conclusions. The assessment should be flexible to accommodate new information.
- **Logically Sound** - The risk assessment should be up-to-date and rational, reliable, justifiable, unbiased, and sensitive to different aspects of the problem.
- **Practical** - A risk assessment should be commensurate with the available resources.
- **Conducive to Learning** - The risk assessment should have a broad enough scope to have carry-over value for similar assessments. The risk assessment should serve as a model or template for future assessments.
- **Open to Evaluation** - The risk assessment should be recorded in sufficient detail and be transparent enough in its approach that it can be reviewed and challenged by qualified independent reviewers.

Risk Analysis Philosophy

The risk assessment process allows for analysis of factors for which the dimension, characteristics, and type of risk can be identified and estimated. By applying analytical methodologies, the process allows the assessors to utilize qualitative and quantitative data in a systematic and consistent fashion.

The ultimate goal of the process is to produce quality risk assessments on specific nonindigenous aquatic organisms or with nonindigenous organisms identified as being associated with specific pathways. The assessments should strive for theoretical accuracy while remaining comprehensible and manageable; and the scientific and other data should be collected, organized and recorded in a formal and systematic manner.

The assessment should be able to provide a reasonable estimation of the overall risk. All assessments should communicate effectively the relative amount of uncertainty involved and, if appropriate, provide recommendations for mitigation measures that reduce the risk.

Caution is required to ensure that the process clearly explains the uncertainties inherent in the process and to avoid design and implementation of a process that reflects a predetermined result. Quantitative risk assessments can provide valuable insight and understanding; however, such assessments can never capture all the variables. Quantitative and qualitative risk assessments should always be buffered with careful human judgment. Goals that cannot be obtained from a risk assessment are:

1. A risk assessment cannot determine the acceptable risk level. What risk, or how much risk, is acceptable depends on how a person, or agency, perceives that risk. Risk levels are value judgments that are characterized by variables beyond the systematic evaluation of information.
2. It is not possible to determine precisely whether, when, or how a particular introduced organism will become established. It is equally impossible to determine what specific impact an introduced organism will have. The best that can be achieved is to estimate the likelihood that an organism may be introduced and estimate its potential to do damage under favorable host/environmental conditions.

The ability of an introduced organism to become established involves a mixture of the characteristics of the organism and the environment in which it is being introduced. The level of complexity between the organism and the new environment is such that whether it fails or succeeds can be based on minute idiosyncrasies of the interaction between the organism and environment. These cannot be predicted in advance by general statements based only on the biology of the organism. In addition, even if extensive information exists on a nonindigenous organism, many scientists believe that the ecological dynamics are so turbulent and chaotic that future ecological events cannot be accurately predicted.

If all were certain, there would not be a need for risk assessment. Uncertainty, as it relates to the individual risk assessment, can be divided into three distinct types:

- a) uncertainty of the process -- (methodology)
- b) uncertainty of the assessor(s) -- (human error)
- c) uncertainty about the organism -- (biological and environmental unknowns)

Each one of these presents its own set of problems. All three types of uncertainty will continue to exist regardless of future developments. The goal is to succeed in reducing the uncertainty in each of these groups as much as possible.

The "uncertainty of the process" requires that the risk methodologies involved with the Review Process never become static or routine but continue to be modified when procedural errors are detected and/or new risk methodologies are developed.

"Uncertainty of the assessor(s)" is best handled by having the most qualified and conscientious persons available conduct the assessments. The quality of the risk analysis will, to some extent, always reflect the quality of the individual assessor(s).

The "uncertainty about the organism" is the most difficult to respond to. Indeed, it is the biological uncertainty more than anything else that initiated the need for developing a nonindigenous risk process. Common sense dictates that the caliber of a risk assessment is related to the quality of data available about the organism and the ecosystem that will be invaded. Those organisms for which copious amounts of high quality research have been conducted are the most easily assessed. Conversely, an organism for which very little is known cannot be easily assessed.

A high degree of biological uncertainty, in itself, does not demonstrate a significant degree of risk. However, those organisms which demonstrate a high degree of biological uncertainty do represent a real risk. The risk of importing a damaging nonindigenous organism (for which little information is known) is probably small for any single organism but the risk becomes much higher when one considers the vast number of these organisms that must be considered. It is not possible to identify which of the "unknowns" will create problems -- only assume that some will. Demonstrating that a pathway has a "heavy" concentration of nonindigenous organisms for which little information is present may, in some cases (based on the "type" of pathway and the "type" of organisms), warrant concern. However, great care should be taken by the assessor(s) to explain why a particular nonindigenous organism load poses a significant risk.

This need to balance "demonstrated risks" against "biological uncertainty" can lead assessors to concentrate more on the uncertainty than on known facts. To prohibit or restrict a pathway or specific nonindigenous organism, the reasons or logic should be clearly described.

Risk assessments should concentrate on demonstrated risk. Applying mitigating measures based on well-documented individual nonindigenous pests will frequently result in a degree of mitigation

against other organisms demonstrating high biological uncertainty that might be using the same pathway.

If we accept that "it is not possible to determine whether a particular introduced organism will become established", and "it is equally impossible to determine what specific impact an introduced organism will have", then we might be asked, "what value is there in doing risk assessments, which consist of assessing the probability of establishment and the consequence of establishment?". The risk assessment process is an effective tool for estimating potential in a systematic fashion.

Some of the information used in performing a risk assessment is scientifically defensible, some of it is anecdotal or based on experience, and all of it is subject to the filter of perception. However, we must provide an estimation based on the best information available and use that estimation in deciding whether to allow the proposed activity involving the nonindigenous organism and, if so, under what conditions.

The assessment should evaluate risk in order to determine management action. Estimations of risk are used in order to restrict or prohibit high risk pathways, with the goal of preventing the introduction of nonindigenous pests.

When conducting risk assessments for government agencies, the most serious obstacles to overcome are the forces of historical precedent and the limitations presented by legal parameters, operational procedures, and political pressure. In order to focus the assessment as much as possible on the biological factors of risk, all assessments need to be completed in an atmosphere as free of regulatory and political influences as possible.

The following quote is taken from the NRC's 1983 Red Book on "Risk Assessment in the Federal Government: Managing the Process":

"We recommend that regulatory agencies take steps to establish and maintain a clear conceptual distinction between assessment of risks and consideration of risk management alternatives; that is, the scientific findings and policy judgments embodied in risk assessments should be explicitly distinguished from the political, economic, and technical considerations that influence the design and choice of regulatory strategies".

This can be translated to mean that risk assessments should not be *policy-driven*. However, the Red Book then proceeded with a caveat:

"The importance of distinguishing between risk assessment and risk management does not imply that they should be isolated from each other; in practice they interact, and communication in both directions is desirable and should not be disrupted".

This can be translated to mean that the risk assessment, even though it must not be policy-driven, must be *policy-relevant*. These truths continue to be valid (NRC, 1993).

II. THE REVIEW PROCESS FOR CONDUCTING PATHWAY ANALYSES AND ORGANISM RISK ASSESSMENTS

The need for a risk assessment starts either with the request for opening a new pathway which might harbor nonindigenous aquatic organisms or the identification of an existing pathway which may be of significant risk. All pathways showing a potential for nonindigenous organism introduction should receive some degree of risk screening. Those pathways that show a high potential for introducing nonindigenous organisms should trigger an in-depth risk assessment.

The following details of the Review Process focus on evaluating the risk of nonindigenous organisms associated with an identified pathway. Figure 1, on page 8, outlines the flow of a pathway analysis, dividing the process into initiation, risk assessment, and risk management. Specific organisms needing evaluation which are not tied to a pathway assessment would proceed directly to the "*Organism Risk Assessments*" box in Figure 1 (page 8) and the "*Organism Risk Assessments*" section starting on page 10.

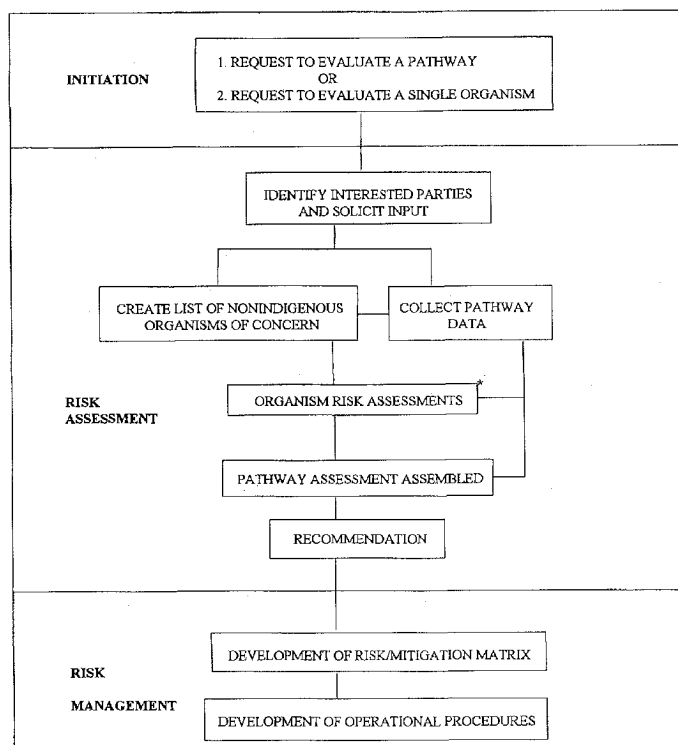
Collecting Pathway Data

Specific information about the pathway must be collected. This information, coupled with additional data (if necessary), would fulfill the "Collect Pathway Data" element in Figure 1, page 8.

Specific information needed about the pathway will vary with the "type" of pathway (i.e. ballast water, aquaculture, aquarium trade, fish stocking, etc.). The following generalized list of information has been useful in other nonindigenous risk assessments.

- 1) Determine exact origin(s) of organisms associated with the pathway.
- 2) Determine the numbers of organisms traveling within the pathway.
- 3) Determine intended use or disposition of pathway.
- 4) Determine mechanism and history of pathway.
- 5) Review history of past experiences and previous risk assessments (including foreign countries) on pathway or related pathways.
- 6) Review past and present mitigating actions related to the pathway.

FIGURE 1. Pathway Analysis: Flow Chart showing the Initiation, Risk Assessment and Risk Management for a pathway.



* = For details on the Organism Risk Assessment see Figure 2 "Risk Assessment Model", page 11. Pathways that show a high potential for introducing nonindigenous aquatic organisms should trigger detailed risk analyses.

Creating a List of Nonindigenous Aquatic Organisms of Concern

The next element in figure 1 (page 8) is "Create List of Nonindigenous Organisms of Concern". The following generalized process is recommended.

- STEP: 1) Determine what organisms are associated with the pathway.
2) Determine which of these organisms qualify for further evaluation using the table below.

Category	Organism Characteristics	Concern
1a	species nonindigenous not present in country (United States)	yes
1b	species nonindigenous, in country and capable of further expansion	yes
1c	species nonindigenous, in country and reached probable limits of range, but genetically different enough to warrant concern and/or able to harbor another nonindigenous pest	yes
1d	species nonindigenous, in country and reached probable limits of range and not exhibiting any of the other characteristics of 1c	no
2a	species indigenous, but genetically different enough to warrant concern and/or able to harbor another non-indigenous pest, and/or capable of further expansion	yes
2b	species indigenous and not exhibiting any of the characteristics of 2a	no

3) Produce a list of the organisms of concern from (step 2) categories 1a, 1b, 1c, and 2a. Taxonomic confusion or uncertainty should also be noted on the list.

4) Conduct Organism Risk Assessments from the list of organisms developed in step 3.

Based on the number of organisms identified and the available resources, it may be necessary to focus on fewer organisms than those identified using the above table. When this is necessary it is desirable that the organisms chosen for complete risk assessments be representative of all the organisms identified. A standard methodology is not available because the risk assessment process is often site or species specific. Therefore, professional judgement by scientists familiar with the aquatic organisms of concern is often the best tool to determine which organisms are necessary for effective screening.

This screening has been done using alternative approaches. Different approaches can be found in each of the three log commodity risk assessments (USDA, Forest Service, 1991, 1992, 1993).

Organism Risk Assessments

The Organism Risk Assessment element in figure 1 (page 8) is the most important component of the Review Process used in evaluating and determining the risk associated with a pathway. The Organism Risk Assessment can be independent of a pathway assessment if a particular nonindigenous organism needs to be evaluated. Figure 2, on page 11, represents the Risk Model which drives the Organism Risk Assessment.

The Risk Assessment Model is divided into two major components the "probability of establishment" and the "consequence of establishment". This division reflects how one can evaluate an nonindigenous organism (e.g. more restrictive measures are used to lower the probability of a particular nonindigenous organism establishing when the consequences of its establishment are greater).

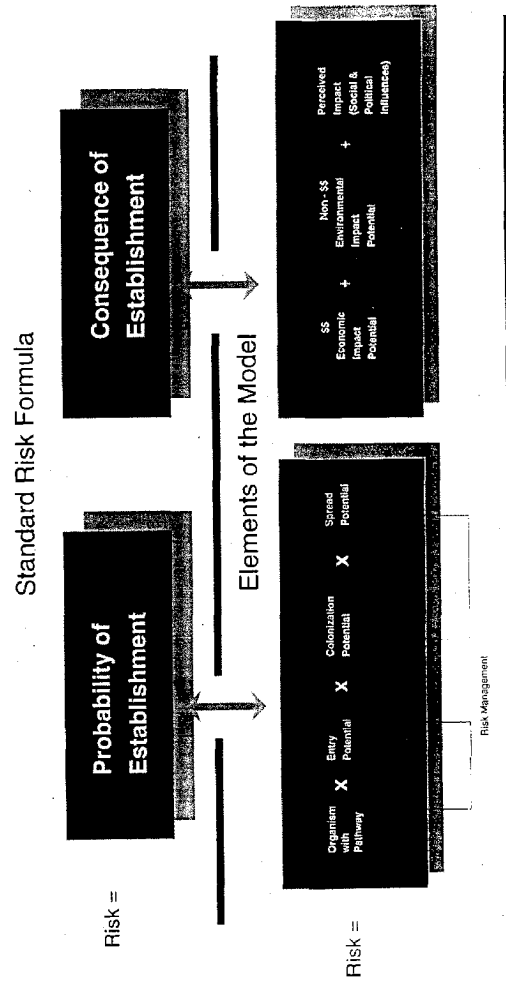
The Risk Assessment Model is a working model that represents a simplified version of the real world. In reality the specific elements of the Risk Model are not static or constant, but are truly dynamic showing distinct temporal and spatial relationships. Additionally, the elements are not equal in weighing the risk nor are they necessarily independent. The weight of the various elements will never be static because they are strongly dependent upon the nonindigenous organism and its environment at the time of introduction.

The two major components of the Risk Assessment Model are further divided into seven basic elements which serve to focus scientific, technical, and other relevant information into the assessment. Each of these seven basic elements are represented on the Risk Assessment Form (Appendix A, page 21) as probability or impact estimates. These may be determined using quantitative or subjective methods. See Appendix B (page 24) for a minimal subjective approach.

The strength of the assessment is that the information gathered by the assessor(s) can be organized under the seven elements. The cumulative information under each element provides the data to assess the risk for that element. Whether the methodology used in making the risk judgement for that element is quantitative, qualitative, or a combination of both, the information associated with the element (along with its references) will function as the information source. Placing the information in order of descending risk under each element will further communicate to reviewers the thought process of the assessor(s).

Adequate documentation of the information sources makes the Review Process transparent to reviewers and helps to identify information gaps. This transparency facilitates discussion if scientific or technical disagreement on an element-rating occurs. For example, if a reviewer disagrees with the rating that the assessor assigns an element the reviewer can point to the information used in determining that specific element-rating and show what information is missing, misleading, or in need of further explanation. Focusing on information to resolve disagreements will often reduce the danger of emotion or a preconceived outcome from diluting the quality of the element-rating by either the assessors or the reviewers.

FIGURE 2
Risk Assessment Model



- For model simplification the various elements are depicted as being independent of one another
 - The order of the elements in the model does not necessarily reflect the order of calculation

The characteristics and explanations of the seven elements of the Risk Assessment Model are as follows:

A. Elements -- Group I: Assess Probability of Organism Establishment

When evaluating an organism not associated with a pathway, or an organism recently introduced, the first two elements under Group I would automatically be rated as high because entry into the new environment is either assumed or has already occurred.

1. Nonindigenous Aquatic Organisms Associated with Pathway (At Origin) -- Estimate probability of the organism being on, with, or in the pathway.

The major characteristic of this element is: Does the organism show a convincing temporal and spatial association with the pathway.

2. Entry Potential -- Estimate probability of the organism surviving in transit.

Some of the characteristics of this element include: the organism's hitchhiking ability in commerce, ability to survive during transit, stage of life cycle during transit, number of individuals expected to be associated with the pathway, or whether it is deliberately introduced (e.g. biocontrol agent or fish stocking).

3. Colonization Potential -- Estimate probability of the organism colonizing and maintaining a population.

Some of the characteristics of this element include: the organism coming in contact with an adequate food resource, encountering appreciable abiotic and biotic environmental resistance, and the ability to reproduce in the new environment.

4. Spread Potential -- Estimate probability of the organism spreading beyond the colonized area.

Some of the characteristics of this element include: ability for natural dispersal, ability to use human activity for dispersal, ability to readily develop races or strains, and the estimated range of probable spread.

B. Elements -- Group II: Assess Consequence of Establishment

5. Economic Impact Potential -- Estimate economic impact if established.

Some of the characteristics of this element include: economic importance of hosts, damage to crop or natural resources, effects to subsidiary industries, exports, and control costs.

6. Environmental Impact Potential -- Estimate environmental impact if established.

Some of the characteristics of this element include: ecosystem destabilization, reduction in biodiversity, reduction or elimination of keystone species, reduction or elimination of endangered/threatened species, and effects of control measures. If appropriate, impacts on the human environment (e.g. human parasites or pathogens) would also be captured under this element.

7. Perceived Impact (Social & Political Influences) -- Estimate impact from social and/or political influences.

Some of the characteristics of this element include: aesthetic damage, consumer concerns, and political repercussions.

Often the assessor feels uncomfortable dealing with the categories of Economic and Perceived Impact. However, information found by an assessor relating to these categories may be helpful in making risk management decisions. The assessor should not be expected to reflect, or second guess, what an economist or politician would conclude but rather to present information gathered on the organism that would (or could) have an affect in these areas.

The elements considered under Consequences can also be used to record positive impacts that a nonindigenous organism might have for example its importance as a biocontrol agent, aquatic pet, sport fish, scientific research organism, or based on its use in aquaculture. The elements in the case of deliberate introductions would record information that will be useful in determining the element-rating that would be a balance between the cost, the benefit, and the risk of introducing the nonindigenous organism.

The Risk Assessment Form (Appendix A, page 21) should be flexible. Each nonindigenous organism is unique. The assessor needs to have the freedom to modify the form to best represent the risk associated with that particular organism. The seven elements need to be retained to calculate the risk but other sections may be added or subtracted. If the assessor feels that information, ideas, or recommendations would be useful, they should be included in the assessment. The assessor can combine "like" organisms into a single assessment if their biology is similar (e.g. tropical aquarium fish destined to temperate North America).

The number of risk assessments to be completed from the list of nonindigenous organisms in a particular pathway depends on several factors. These include the amount of individual organism information, available resources, and the assessor's judgement concerning whether the completed assessments effectively represent the pathways' nonindigenous organism risk.

The source of the statements and the degree of uncertainty the assessor associated with each element needs to be recorded in the Risk Assessment. The use of the Reference Codes at the end of each statement, coupled with the use of the Uncertainty Codes for each element, fulfill these

requirements. Both the Reference Codes and the Uncertainty Codes are described in Appendix A on page 23.

If a federal agency uses the Review Process for potential environmental problems, much of the information may contribute to meeting that agency's National Environmental Policy Act (NEPA) requirements. When both NEPA documentation and a risk assessment are warranted, the two should be coordinated so that resources are not duplicated. Although a risk assessment is similar to an Environmental Impact Statement (EIS) the risk assessment differs by focusing on the probability of occurrence and the impact of that occurrence, while an EIS generally places its emphasis on who or what will be impacted. Therefore, a risk assessment is more likely to clarify possible outcomes, determine or estimate their probabilities of occurrence, and succeed in recording the degree of uncertainty involved in making the predictions.

Summarizing Organism and Pathway Risk

An estimate of risk is made at three levels in the Review Process. The first, places a risk estimate on each of the seven elements within the Risk Assessment (element-rating). The second, combines the seven risk element estimates into a Organism Risk Potential (ORP) which represents the overall risk of the organism being assessed. The third, links the various ORPs into a Pathway Risk Potential (PRP) which will represent the combined risk associated with the pathway.

The assigning of either a quantitative or a qualitative estimate to an individual element, and determining how the specific elements in the Model are related, and how the estimates should be combined are the most difficult steps in a risk assessment. There is not a "correct" formula for completing these steps. Various methodologies such as geographical information systems, climate and ecological models, decision-making software, expert systems, and graphical displays of uncertainty may potentially increase the precision of one or more elements in the Risk Assessment Model. Indeed, risk assessments should never become so static and routine that new methodologies can not be tested and incorporated.

When evaluating new technologies and approaches it is important to keep in mind that the elements of the Risk Assessment Model are dynamic, chaotic, and not equal in value. New technologies or approaches which may be appropriate for assessing one organism may be immaterial or even misleading in evaluating another organism.

The high, medium, and low approach presented in Appendix B (page 24) for calculating and combining the various elements is judgmental. The process in Appendix B is a generic minimum for determining and combining the element estimates and not necessarily "the best way it can be done".

The strength of the Review Process is that the biological statements under each of the elements provide the raw material for testing various approaches. Therefore, the risk assessments will not need to be re-done to test new methods for calculating or summarizing the ORP and PRP.

On risk issues of high visibility, examination of the draft assessment should be completed by pertinent reviewers not associated with the outcome of the assessment. This is particularly appropriate when the risk assessments are produced by the same agency, professional society, or organization that is responsible for the management of that risk.

Elements of Risk Management And Operational Requirements

The previous sections dealt with assessing the level of risk associated with a particular pathway or organism. Once the risk assessment is completed, it is the responsibility of risk managers to determine appropriate policy and operational measures.

A. Elements To Consider In Risk Management Policy:

- Risk assessments (including uncertainty and quality of data)
- Available mitigation safeguards (i.e., permits, industry standards, prohibition, inspection)
- Resource limitations (i.e., money, time, locating qualified experts, needed information)
- Public perceptions/perceived damage
- Social and political consequences
- Benefits and costs should be addressed in the analysis

B. The following four risk management operational steps should be accomplished:

- Step 1: Maintain communication and input from interested parties;
- Step 2: Maintain open communication between risk managers and risk assessors;
- Step 3: Match the available mitigation options with the identified risks;
- Step 4: Develop an achievable operational approach that balances resource protection and utilization.

STEP 1: Participation of interested parties should be actively solicited as early as possible. All interested parties should be carefully identified because adding additional interested parties late in the assessment or management process can result in revisiting issues already examined and thought to have been brought to closure. All identified interested parties should be periodically brought up-to-date on relevant issues.

STEP 2: Continuous open communication between the risk managers and the risk assessors is important throughout the writing of the risk assessment. This is necessary to ensure that the assessment will be policy relevant when completed. Risk Managers should be able to provide detailed questions about the issues that they will need to address to the risk assessors before the

risk assessment is started. This will allow the assessors to focus the scientific information relevant to the questions (issues) that the risk managers will need to address.

As important as open communication is between risk managers and risk assessors, it is equally important that risk managers do not attempt to drive, or influence, the outcome of the assessment. Risk assessments need to be policy-relevant not policy-driven.

STEP 3: Matching the available mitigation options with the identified risks can sometimes be done by creating a mitigation matrix placing the organisms, or groups of organisms, identified in a specific pathway along one axis and the available mitigation options along the other. Where a specific organism, or group of organisms, meets a specific mitigation process in the matrix, the efficacy for control is recorded. Using this process it becomes apparent which mitigation or mitigations are needed to reduce the risk to an acceptable level. The mitigation matrix (page 17) was used in the mitigation report on New Zealand log imports (USDA, APHIS, 1992) which addresses the nonindigenous organisms identified in the New Zealand log risk assessment (USDA, FS, 1992).

STEP 4: Developing a realistic operational approach is not easy. Each new operational decision must consider a number of management, agency, and biological factors that will always be unique to any specific organism or pathway. However, at an operational risk management level each step in the operational pyramid (page 18) is a process that needs to be examined before approval of the importation, or release, or action against, a nonindigenous organism or pathway is taken. These include the risk assessment, the development of conditions for entry to meet current industry or regulatory standards, effective mitigation of any identified potential nonindigenous aquatic organisms, feasibility of achieving the mitigation requirements, and finally, a system of monitoring to ensure that all mitigation requirements are maintained.

MITIGATION MATRIX

Pinus radiata logs from New Zealand
(Pathogens & Plant Feeding Insects vs. Mitigation)

Mitigation Procedures in NEW ZEALAND					In USA	
ORGANISM	30 DAY LIMIT	SAWLOG QUALITY ONLY	DE- BARKING	MB FUMI- GATION	AGENCY ENTRY REQ.	HEAT PROCESS SAWMILL
Bark Beetles	S	S	E	T	S	T
Platypus spp.	S	S	S	T	S	T
Sirex/ Fungus	S	E	S	E	S	T
Lepto- Graphium	S	E	S	E	S	T
Kaloterms	S	E	S	T	S	T
Huhu beetles	S	E	S	E	S	T
Hitch hikers	S	S	E	T	S	T
Unknown Pests	S	S	S	E	S	T

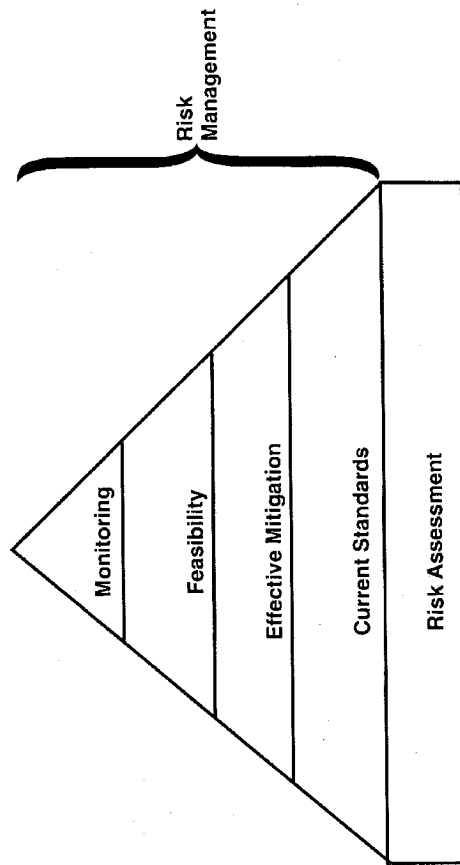
Key:

(S)ome reduction of pest risk expected (less than 95%)

(E)xtensive reduction (95 percent or more) of pest risk expected

(T)otal (100 percent or nearly 100 percent) reduction of pest risk expected

Operational Pyramid (Risk Management)



Components of the Final Analysis

A completed Risk Analysis may contain the following:

► Tracking/Information Form or Section

This documents the analysis process and records information about why the assessment was done, who the assessment was done for, and information which might not be found in the assessment itself but could be useful background information for future reviewers. It also would contain information that would be helpful in determining (at a later date) the depth of the review, which resources were used and which methodologies were tried but not used in the final assessment. The main function of this form or section would be to provide additional transparency to the analysis and to provide a historical record for future reviewers.

► Pathway information form or section

► A complete list of the organisms of concern

► The individual Organism Risk Assessments

► Response to specific questions requested by risk managers

► Summation of the methodology used in determining the ORPs and PRPs

► Mitigation/risk matrix

► Detailed discussion associated with each level of the operational pyramid

► Summation and responses to outside reviewers

III. REFERENCES

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- USDA FOREST SERVICE. 1991. Pest Risk Assessment of the Importation of Larch from Siberia and the Soviet Far East. Miscellaneous Publication No. 1495.
- USDA FOREST SERVICE, 1992. Pest Risk Assessment of the Importation of *Pinus radiata* and Douglas-fir Logs from New Zealand. Miscellaneous Publication No. 1508.
- USDA FOREST SERVICE, 1993. Pest Risk Assessment of the Importation of *Pinus radiata*, *Nothofagus dombeyi* and *Laurelia philippiana* Logs from Chile. Miscellaneous Publication No. 1517.

APPENDIX A:

ORGANISM RISK ASSESSMENT FORM
(With Uncertainty and Reference Codes)

ORGANISM _____	FILE NO. _____
ANALYST _____	DATE _____
PATHWAY _____	ORIGIN _____

I. LITERATURE REVIEW AND BACKGROUND INFORMATION
(Summary of life cycle, distribution, and natural history):

II. PATHWAY INFORMATION (include references):

III. RATING ELEMENTS: Rate statements as low, medium, or high. Place specific biological information in descending order of risk with reference(s) under each element that relates to your estimation of probability or impact. Use the reference codes at the end of the biological statement where appropriate and the Uncertainty Codes after each element rating.

=====

PROBABILITY OF ESTABLISHMENT

Element	Uncertainty
Rating	Code
(L,M,H)	(VC - VU)

- | | |
|---------------|--|
| _____ , _____ | Estimate probability of the nonindigenous organism being on, with, or in the pathway. (Supporting Data with reference codes) |
| _____ , _____ | Estimate probability of the organism surviving in transit. (Supporting Data with reference codes) |
| _____ , _____ | Estimate probability of the organism successfully colonizing and maintaining a population where introduced. (Supporting Data with reference codes) |
| _____ , _____ | Estimate probability of the organism to spread beyond the colonized area. (Supporting Data with reference codes) |

CONSEQUENCE OF ESTABLISHMENT

Element Uncertainty
 Rating Code
 (L,M,H) (VC - VU)

- ____ , ____ Estimate economic impact if established. (Supporting Data with reference codes)
- ____ , ____ Estimate environmental impact if established. (Supporting Data with reference codes)
- ____ , ____ Estimate impact from social and/or political influences. (Supporting Data with reference codes)

III. ORGANISM/PATHWAY RISK POTENTIAL: (ORP/PRP) _____

Probability of Establishment	I	Consequence of Establishment	=	ORP/PRP RISK
------------------------------------	---	------------------------------------	---	--------------

II. SPECIFIC MANAGEMENT QUESTIONS:**III. RECOMMENDATIONS:****IV. MAJOR REFERENCES:**

REFERENCE CODES TO ANSWERED QUESTIONS

Reference Code	Reference Type
(G)	General Knowledge, no specific source
(J)	Judgmental Evaluation
(E)	Extrapolation; information specific to pest not available; however information available on similar organisms applied
(Author, Year)	Literature Cited

UNCERTAINTY CODES TO INDIVIDUAL ELEMENTS

Uncertainty Code	Symbol	Description
Very Certain	VC	As certain as I am going to get
Reasonably Certain	RC	Reasonably certain
Moderately Certain	MC	More certain than not
Reasonably Uncertain	RU	Reasonably uncertain
Very Uncertain	VU	A guess

**APPENDIX B: JUDGMENTAL CALCULATION OF ORGANISM RISK AND
PATHWAY RISK****Step 1. Calculating the elements in the Risk Assessment**

The blank spaces located next to the individual elements of the risk assessment form (Appendix A) can be rated using high, medium, or low. The detailed biological statements under each element will drive the judgmental process. Choosing a high, medium, or low rating, while subjective, forces the assessor to use the biological statements as the basis for his/her decision. Thus, the process remains transparent for peer review.

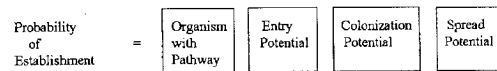
The high, medium, and low ratings of the individual elements cannot be defined or measured -- they have to remain judgmental. This is because the value of the elements contained under "probability of establishment" are not independent of the rating of the "consequences of establishment". It is important to understand that the strength of the Review Process is not in the element-rating but in the detailed biological and other relevant information statements that motivates them.

Step 2. Calculating the Organism Risk Potential

The Organism Risk Potential and the Pathway Risk Potential ratings of high, medium, and low should be defined (unlike the element rating in step 1 which have to remain undefined). An example is provided of these definitions at the end of Appendix B (page 29).

The following 3 steps must be completed in order to calculate the Organism Risk Potential.

Step 2a. Determine Probability of Establishment



The probability of establishment is assigned the value of the element with the lowest risk rating (example: a high, low, medium, and medium estimate for the above elements would result in a low rating).

Because each of the elements must occur for the organism to become established, a conservative estimate of probability of establishment is justified. In reality (assuming the individual elements are independent of each other) when combining a series of probabilities (such as medium - medium - medium) the probability will become much lower than the individual element ratings. However, the degree of biological uncertainty within the various elements is so high that a conservative approach is justified.

Step 2b. Determine Consequence of Establishment

Consequence of Establishment	=	Economic	Environmental	Perceived
Consequence of Establishment	=	H	L,M,H	L,M,H
		L,M,H	H	L,M,H
		M	M	L,M,H
		M	L	L,M,H
		L	M	L,M,H
		L	L	M,H
		L	L	L
				= H
				= H
				= M
				= M
				= M
				= M
				= L

Note that the three elements that make up the Consequence of Establishment are not treated as equal. The Consequence of Establishment receives the highest rating given either the Economic or Environmental element. The Perceived element does not provide input except when Economic and Environmental ratings are low (see next to the last column on the above table).

Step 2c. Determine Organism Risk Potential (ORP)

ORP RISK =

PROBABILITY
OF
ESTABLISHMENT

CONSEQUENCE
OF
ESTABLISHMENT

||

||

ORP RISK =

High Medium Low	High High High	= High = High = Medium
High Medium Low	Medium Medium Medium	= High = Medium = Medium
High Medium Low	Low Low Low	= Medium = Medium = Low

Here the conservative approach is to err on the side of protection. When a borderline case is encountered (lines 2, 4, 6, 8 on the above chart) the higher rating is accepted. This approach is necessary to help counteract the high degree of uncertainty usually associated with biological situations.

Step 3. Determine the Pathway Risk Potential (PRP)

ORP		PRP
Rating	Number	Rating
High	1 or more	High
Medium	5 or more	High
Medium	>0 but <5	Medium
Low	All	Low

The PRP reflects the highest ranking ORP. The only exception is when the number of medium risk organisms reaches a level at which the total risk of the pathway becomes high. The number, 5 or more, used in the above table is arbitrary.

Definition of Ratings used for Organism Risk Potential and Pathway Risk Potential:

- Low = acceptable risk - organism(s) of little concern (does not justify mitigation)
- Medium = unacceptable risk - organism(s) of moderate concern (mitigation is justified)
- High = unacceptable risk - organism(s) of major concern (mitigation is justified)

When assessing an individual organism, a determination that the ORP is medium or high often becomes irrelevant because both ratings justify mitigation. When evaluating a pathway, the potential "gray area" between a PRP of medium and high may not be a concern for the same reason.

APPENDIX C: DEFINITIONS (Aquatic Nuisance Species Act definitions in bold type)

AQUATIC NUISANCE SPECIES - A nonindigenous species that threatens the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural or recreational activities dependent on such waters. Aquatic nuisance species include nonindigenous species that may occur in inland, estuarine and marine waters and that presently or potentially threaten ecological processes and natural resources. In addition to adversely affecting activities dependent on waters of the United States, aquatic nuisance species adversely affect individuals, including health effects.

AQUATIC SPECIES - All animals and plants as well as pathogens or parasites of aquatic animals and plants totally dependent on aquatic ecosystems for at least a portion of their life cycle. Bacteria, viruses, parasites and other pathogens of humans are excluded.

BALLAST WATER - Any water and associated sediments used to manipulate the trim and stability of a vessel.

CONTROL - Activities to eliminate or reduce the effects of aquatic nuisance species, including efforts to eradicate infestations, reduce populations of aquatic nuisance species, develop means to adapt human activities and facilities to accommodate infestations, and prevent the spread of aquatic nuisance species from infested areas. Control may involve activities to protect native species likely to be adversely affected by aquatic nuisance species. Preventing the spread of aquatic nuisance species is addressed in the Prevention Element of the proposed Program; all other control activities are included in the Control Element.

ECONOMIC IMPACT POTENTIAL - The expected net change in society's net welfare which is the sum of the producers' and consumers' surpluses arising from changes in yield and cost of production caused by the pest.

ECOSYSTEMS - In the broadest sense, these are natural or "wild" environments as well as human environments, including infrastructure elements. An ecosystem may be an animal or plant in the case where the species involved is a pathogen or parasite.

ENTRY POTENTIAL - The relative ability of an organism to penetrate the borders of a given area within a time interval.

ENVIRONMENTALLY SOUND - Methods, efforts, actions or programs to prevent introductions or control infestations of aquatic nuisance species that minimize adverse impacts to the structure and function of an ecosystem and adverse effects on non-target organisms and ecosystems and emphasize integrated pest management techniques and nonchemical measures.

ESTABLISHED - When used in reference to a species, this term means occurring as a reproducing, self-sustaining population in an open ecosystem, i.e., in waters where the organisms are able to migrate or be transported to other waters.

EXCLUSIVE ECONOMIC ZONE - The Exclusive Economic Zone of the United States established by Proclamation Number 5030 of March 10, 1983, and the equivalent zone of Canada.

INDIGENOUS - The condition of a species being within its natural range or natural zone of potential dispersal; excludes species descended from domesticated ancestors (OTA, 1993).

INTENTIONAL INTRODUCTIONS - The knowing import or introduction of nonindigenous species into, or transport through, an area or ecosystem where it was not previously established. Even when there is no intent to introduce an aquatic organism into an ecosystem, escapement, accidental release, improper disposal (e.g., "aquarium dumps") or similar releases are the virtual inevitable consequence of an intentional introduction, not an unintentional introduction.

Synonyms: Purposeful, Deliberate.

INTEGRATED PEST MANAGEMENT - The control of pests utilizing a practical, economical, and scientifically based combination of chemical, biological, mechanical or physical, and cultural control methods. Coordinated application of non-chemical control methods is emphasized in order to reduce or eliminate the need for pesticides. Integrated pest management is a balanced approach which considers hazard to the environment, efficacy, costs, and vulnerability of the pest. It requires: (1) identification of acceptable thresholds of damage; (2) environmental monitoring; and (3) a carefully designed control program to limit damage from the pest to a predetermined acceptable level.

NATIVE - Indigenous.

NONINDIGENOUS SPECIES - Any species or other viable biological material that enters an ecosystem beyond its historic range, including any such organism transferred from one country into another [Nonindigenous species include both exotics and transplants].

Synonyms: Introduced, Exotic, Alien, Foreign, Non-native, Immigrant, Transplants.

ORGANISM - Any active, infective, or dormant stage of life form of an entity characterized as living, including vertebrate and invertebrate animals, plants, bacteria, fungi, mycoplasmas, viroids, viruses, or any entity characterized as living, related to the foregoing.

PATHWAY - The means by which aquatic species are transported between ecosystems.

PREVENTION - Measures to minimize the risk of unintentional introductions of nonindigenous aquatic species that are, or could become, aquatic nuisance species into waters of the United States.

PUBLIC FACILITIES - Federal, State, regional and local government-owned or controlled buildings, structures and other man-made facilities, including water intakes, boat docks, electrical power plants, locks and dams, levees, water control structures, and publicly-owned fish culture facilities. Electric generating stations, water supply systems and similar facilities

operated by public utilities or other non-governmental entities are also considered public facilities.

RISK - Is the likelihood and magnitude of an adverse event.

RISK ANALYSIS - The process that includes both risk assessment and risk management.

RISK ASSESSMENT - The estimation of risk.

RISK COMMUNICATION - The act or process of exchanging information concerning risk.

RISK MANAGEMENT - The pragmatic decision-making process concerned with what to do about the risk.

SPECIES - A group of organisms, all of which have a high degree of physical and genetic similarity, can generally interbreed only among themselves, and show persistent differences from members of allied species. Species may include subspecies, populations, stocks, or other taxonomic classifications less than full species.

TRANSPLANTS - Species native to North America which have been introduced into ecosystems where they did not occur prior to European colonization. In other words, such species did not historically occur in the location in question.

UNINTENTIONAL INTRODUCTION - An introduction of nonindigenous species that occurs as a result of activities other than the purposeful or intentional introduction of the species involved, such as the transport of nonindigenous species in ballast or in water used to transport fish, mollusks or crustaceans for aquaculture or other purpose. Involved is the release, often unknowingly, of nonindigenous organisms without any specific purpose. The virtually inevitable escapement, accidental release, improper disposal (e.g., "aquarium dumping") or similar releases of intentionally introduced nonindigenous species do not constitute unintentional introductions.

Synonyms: Accidental, Incidental, Inadvertent.

UNITED STATES - The 50 States, the District of Columbia, Puerto Rico, Guam, and all other possessions and territories of the United States of America.

VECTOR - A biological pathway for a disease or parasite, i.e., an organism that transmits pathogens to various hosts. Not a synonym for **Pathways** as that term is used in the proposed Aquatic Nuisance Species Program.

WATERS OF THE UNITED STATES - The navigable waters and the territorial sea of the United States. Since aquatic nuisance species can move or be transported by currents into navigable waters, all internal waters of the United States, including its territories and possessions, are included. The Territorial Sea of the United States is that established by Presidential Proclamation Number 5928 of December 27, 1988.

Synonyms: United States Waters



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Final Position Statement

Invasive Plants and Animals

An invasive species is defined by the multi-agency National Invasive Species Council¹ as one that is "1) non-native (or alien) to the ecosystem under consideration and 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health." This position statement uses invasive species as an umbrella term referring to alien, exotic, non-indigenous, and non-native species.

The effects of invasive plant and animal species and their costs to society are becoming of more concern every year. Effects include negative impacts on biological diversity (especially species at risk), productivity, environmental integrity, and wildlife and human health. Costs to society are both in dollars spent and opportunities lost. Scientific and popular literature is showing a large variety of consequences from both purposeful and accidental introductions, indicating growing concern and recognition of the problem.

While there remain examples of introductions of non-native species that have produced benefits, e.g., for biological control, soil stabilization, increased recreational opportunities, and agricultural programs, many more examples of negative consequences can be found. If and when purposeful introductions are being considered in the future, the beginning assumption should be that the risk is great unless proven otherwise; well-designed and extensive quantitative analyses of the risks and uncertainties should be required.

The policy of The Wildlife Society regarding invasive plants and animals is:

1. As a first and guiding principle, The Wildlife Society will promote the maintenance of biological diversity and ecosystem integrity and oppose the modification and degradation of natural biomes by invasive species.
2. Encourage programs to monitor invasive species that are capable of modifying native wildlife habitat and affecting biological diversity, to determine whether they are causing significant ecological, economic, and social problems or have established themselves in modified ecosystems but cause minimal identifiable impacts.
3. Support appropriate control programs of invasive species that are cost effective and exhibit results within a reasonable time frame, without causing additional perturbations.
4. Discourage the further introduction of invasive species for any purpose, including agricultural diversification, pet trade, and genetic engineering.

5. Insist on strict husbandry standards for those invasive species already present in agricultural diversification programs to prevent their accidental escape into the wild and consequent degradation of wildlife habitat.
6. Accept the few apparent non-conflicting successes of past non-native species introductions (e.g., Ring-necked Pheasant) that have helped to promote conservation programs (e.g., Conservation Reserve Program) intended to protect native plants and animals.
7. Host forums and information sessions to educate the public about invasive species and their negative ecological and economic impacts on natural ecosystems, particularly species at risk and their habitats.
8. Encourage the passing and enforcement of effective new laws and regulations at the state and federal level that would help control the spread of invasive species.
9. Encourage research by public and private agencies and organizations to control, minimize, or eliminate the impact of invasive species.

[1] National Invasive Species Council, National Invasive Species Management Plan (www.invasivespecies.gov).

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28 October 2009

Since 1992, one of my main research projects has involved biological invasions and ecological disturbances, as people in the pet trade continue to illegally release animals into the wild. Thus, I am well familiar with Florida Statute 372.265, which specifically prohibits the release of nonindigenous wildlife in Florida without a permit from the Florida Fish and Wildlife Conservation Commission (FWC). Despite having this law on the books, as well as people admitting to releasing such animals, this law has never been enforced related to the establishment of nonindigenous reptiles in Florida. As a result, there are currently 48 established (i.e., reproducing) nonindigenous herpetofaunal species in Florida, which ranks Florida as having the largest number in North America. Additionally, this number continues to rise each year and there is no end in sight. Figure 1 illustrates the documentation of established nonindigenous amphibians and reptiles in Florida. Since the introduction of the Greenhouse Frog (*Fuhyas planirostris*) in 1863 through 1940 (when Archie Carr published his "Contribution to the Herpetology of Florida"), only nine nonindigenous herpetofaunal species were established in Florida. All, except for one, the Texas Horned Lizard (*Phrynosoma cornutum*), was introduced accidentally via cargo and plant shipments. In contrast, since 1940 an additional 39 nonindigenous species have been established (and countless have been introduced), and nearly all are directly related to the pet trade.

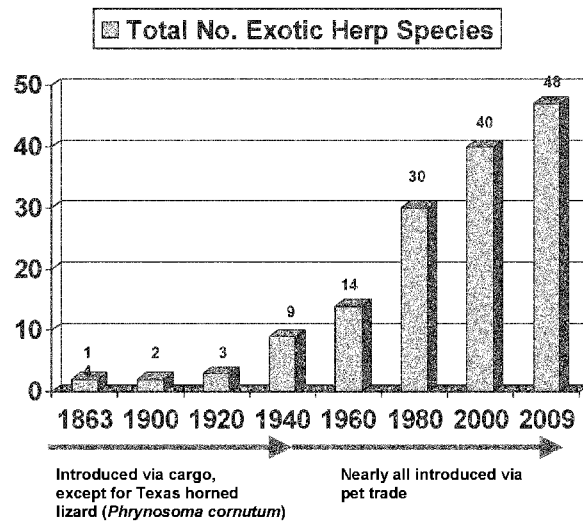


Fig. 1. Established nonindigenous amphibians and reptiles in Florida.

Because of the state's failure to enforce its own laws, this letter is a strong endorsement of H.R. 2811. This bill was originally introduced to cover the Genus *Python*, but recently amended in Committee to cover only Burmese Pythons (*Python molurus*) and African Rock Pythons (*Python sebae*). These two giant constrictors are bred in very large numbers in captivity in the United States each year, therefore I do not see any reason to continue to import more of these, as well as the remaining giant constrictor species examined in: Reed, R.N., and G.H. Rodda. 2009. Giant Constrictors: Biological and Management Profiles and an Establishment

Risk Assessment for Nine Large Species of Pythons, Anacondas, and the Boa Constrictor. Open-File Report 2009-1202. I fully support prohibiting the importation and interstate commerce of all nine of these large constrictor snakes for the pet trade. Two, *Python molurus* and *P. sebae* are now established in Florida, and many of the remaining have already been introduced into Florida via the pet trade, but hopefully they are not yet established. Regardless of how (i.e., either by natural disaster [Hurricane Andrew] or the typical introduction pathway of illegal releases by humans) Burmese Pythons became established in Florida, these animals did not float over from Myanmar and their introduction is directly related to the pet trade.

The trend in the ever-increasing number of introduced of nonindigenous amphibians and reptiles must stop immediately. I fully support H.R. 2811. If you have any questions or require additional information, please feel free to contact me anytime.

Sincerely,



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TESTIMONY OF THE WILDLIFE SOCIETY FOR THE RECORD OF THE 6 NOVEMBER 2009 HEARING OF THE HOUSE JUDICIARY COMMITTEE, SUBCOMMITTEE ON CRIME, TERRORISM, AND HOMELAND SECURITY REGARDING H.R. 2811

The Wildlife Society appreciates the Subcommittee's attention to H.R. 2811, legislation that would amend Title 18 of the U.S. Code to include constrictor snakes within the *Python* genus as injurious animals. Constrictor snakes, such as the Burmese Python, are not native to the U.S. and pose countless risks to native wildlife and ecosystems if they become established here. We would like to take this opportunity to express our support for H.R. 2811 and present our recommendations for expanding its coverage.

The Wildlife Society was founded in 1937 and is a non-profit scientific and educational association of over 8,000 professional wildlife biologists and managers, dedicated to excellence in wildlife stewardship through science and education. Our mission is to represent and serve wildlife professionals—the scientists, technicians, and practitioners actively working to study, manage, and conserve native and desired non-native wildlife and their habitats worldwide.

A recent report released by the U.S. Geological Survey (USGS), "Giant Constrictors: Biological and Management Profiles and an Establishment Risk Assessment for Nine Large Species of Pythons, Anacondas, and the Boa Constrictor," outlines the risks posed by these species to the stability of native ecosystems, and the potential threats to human safety. The nine constrictor species in the *Python*, *Eunectes*, and *Boa* genera examined by the study are dietary and habitat generalists, tolerant of urbanization, grow rapidly, produce many offspring, and can potentially carry diseases and parasites.

All nine of the species examined by the study present a medium or high ecological risk and pose the threat of becoming established in the U.S. Their adaptability, lack of natural predators, and tolerance of a wide range of environmental conditions, are valid predictors for giant constrictor species becoming invasive in the U.S. Whether any reactionary control method would be successful in eliminating established giant constrictor snakes in the U.S. is unknown. Giant constrictors like the Burmese Python and the Yellow Anaconda are well-camouflaged and difficult to detect and trap. The report draws upon examples of past unsuccessful eradication attempts of the Brown Treesnake in Guam, the Boa Constrictor on Cozumel Island in Mexico, and others, to demonstrate the unfeasibility of such measures.

We encourage the swift markup and passage of H.R. 2811. While we commend its sponsors for introducing this much-needed initiative, The Wildlife Society is concerned that the legislation will only address a fraction of injurious constrictor snake species. Therefore, we recommend that H.R. 2811 also include the nine species of constrictor snakes included in the USGS study: Indian or Burmese Python (*Python molurus*), Northern African Python (*Python sebae*), Southern African Python (*Python natalensis*), Reticulated Python (*Python reticulatus*), Boa Constrictor (*Boa constrictor*), Green Anaconda (*Eunectes murinus*), Yellow Anaconda (*Eunectes notaeus*),

Beni or Bolivian Anaconda (*Eunectes beniensis*), and De Schauensee's Anaconda (*Eunectes deschauenseei*). Such action will help to effectively mitigate the potential impacts these species will have on native wildlife if their importation remains unregulated. According to USGS, the pet trade is the only plausible mechanism of establishment of these species, and so it is crucial to impose stricter regulations on the industry. Proactive regulation of the importation of non-native species is vital to maintaining the integrity of our ecosystems.

Thank you for considering the views of wildlife professionals. We have attached our position statement on invasives plants and animals to this statement. Please feel free to contact Laura Bies (301-897-9770 ext. 308 or laura@wildlife.org) if you have any questions, or to let us know if we can be of any more assistance.

Sincerely,



Bruce Leopold, President

Joint Statement on H.R. 2811

Our organizations, representing millions of Americans across the country, call for passage of S. 373 and H.R. 2811, amended to list as injurious under the Lacey Act the nine species studied by the U.S. Geological Survey in the report, "Giant Constrictors: Biological and Management Profiles and an Establishment Risk Assessment for Nine Large Species of Pythons, Anacondas, and the Boa Constrictor," dated 2009.

This comprehensive scientific risk assessment reviewed nine species of large constrictor snakes and found that all nine pose high or medium risk to our environment. Because of the characteristics of these snakes, none was found to be low risk. If these animals escape or are released they can have severe impacts on wildlife including depleting vulnerable species. Once they establish breeding populations, it may be impossible to remove them. Because of their large size they also pose a threat to people. They can potentially serve as hosts for ticks and disease that could affect other animals.

The USGS study leaves no doubt that action is urgently needed to halt the importation and interstate commerce for the pet trade of all the species studied: Indian or Burmese Python (*Python molurus*), Northern African Python (*Python sebae*), Southern African Python (*Python natalensis*), Reticulated Python (*Python reticulatus*), Boa Constrictor (*Boa constrictor*), Green Anaconda (*Eunectes murinus*), Yellow Anaconda (*Eunectes notaeus*), Beni or Bolivian Anaconda (*Eunectes beniensis*), and De Schauensee's Anaconda (*Eunectes deschauenseei*). If only some of these dangerous species are restricted, the trade will shift to others, and risks to the environment, public safety, and animal welfare will remain.

The regulatory process to list species as injurious takes several years, and we cannot afford to wait. With the scientific evidence established, legislation is needed now to address the trade in large constrictor snakes as pets. Our organizations also support legislative and regulatory action to expedite the process to list species as injurious going forward. An ounce of prevention is worth a pound of cure. Had Burmese pythons been listed 20 years ago, the colonization of the Everglades National Park could have been avoided, along with tremendous ecological and financial costs.

We urge swift passage of S. 373 and H.R. 2811 with coverage for the nine large constrictor snake species studied by USGS.

Animal Welfare Institute
Born Free USA
Defenders of Wildlife
Great Lakes United
Humane Society Legislative Fund
The Humane Society of the United States
National Environmental Coalition on Invasive Species
Natural Areas Association
Natural Resources Defense Council
The Nature Conservancy
Sierra Club
Union of Concerned Scientists

List of Organizations as of October 30, 2009





THE
GOURMET
RODENT, INC.™

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(352) 472-9192 (FAX)

12921 S.W. 1ST ROAD STE. 107 PMB #434 JONESTOWN, FL 32669

October 29, 2009

To whom it may concern on the House Judiciary Subcommittee on Crime, Terrorism and Homeland Security,

My name is William Brant, I am a member of the United States Association of Reptile Keepers, and I am writing at their request. My wife and I have owned The Gourmet Rodent, Inc. since 1986. Located in Newberry, FL. The Gourmet Rodent distributes frozen rats and mice for animal food, and produces reptiles for pets. **We employ 70+ people and had a payroll in excess of \$1,500,000.00 in 2008** (payroll not including compensation to owners). Studies have shown that every \$1.00 of payroll has an economic impact of \$3.08 on a small community like Newberry, FL.

As a result of our reptile and rodent business, I have worked on reptile related issues with the State of Florida since 1992, and I was appointed to represent the Reptile Industry on the Animal Industry Technical Council (AITC) in 2001. The AITC is an advisory council to Florida's Commissioner of Agriculture. http://www.doacs.state.fl.us/ai/diroffice/dir_ai_tech_counc.shtml I have recently been appointed to the Florida Fish and Wildlife Conservation Commission (FWC) Reptiles of Concern Technical Assistance Group (ROC TAG). This is a group of stakeholders providing input to the FWC regarding the five species of reptiles currently identified by FWC as Reptiles of Concern, including the Burmese Python. In addition to these two Florida appointments, I have served as a companion animal representative on the Board of Directors for the Pet Industry Joint Advisory Council (PIJAC, <http://pijac.org/about/board/>) since 2003.

I am writing to make comment on **HR 2811**. As currently drafted **HR 2811** would have a devastating impact on our business and subsequently on the city of Newberry and surrounding communities. When I say devastating impact, I mean that in its current form, **HR 2811** would immediately render worthless an inventory and investment of well over \$2,500,000.00 in our business alone. We have a healthy business that has been surviving in an extremely difficult economy, but if we suffer a \$2,500,000.00 loss at the stroke of a pen, we may not be able to survive. It is important to note two critical points. The first is that we do not sell any Burmese Pythons, nor have we for many years, yet **HR 2811** would still have a devastating impact on our business. Secondly, the \$2,500,000.00 loss is just the immediate impact, not to mention the loss of many times this amount of business for many years to come. Our business is not alone. There are many thousands of reptile related businesses across Florida and the nation that are in the same position we are.

I do agree with you and many others who say that there is a problem with feral Burmese Pythons in the Everglades. That is a population of animals that is most likely the result of a mass release of Burmese Pythons from a reptile distributor that was located within five miles of Everglades National Park (ENP) at the time of Hurricane Andrew in 1992. Had the current laws of Florida been in practice prior to Hurricane Andrew, the ENP population of Burmese Pythons more than likely would not exist today. However identifying how the problem was created does little to solve the problem today, so I will make a few suggestions as to what I believe should be done.

- First and foremost, allow the Reptiles of Concern statutes and rules currently in place in Florida to have the impact they were intended to have. These laws came into effect in January, 2008. I'm quite certain that any law passed by any state or nation requires time to be recognized, understood and complied with by the impacted citizenry. Enough time



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has not passed for this to occur in Florida, but an awareness of these laws has come to the forefront with all of the publicity in recent months.

- I would suggest that the appropriate course of action at the Federal Level is to allow the US Fish and Wildlife Service to continue with the Injurious Wildlife process prescribed within the Lacey Act. A process that combines the scientific process for risk assessment as well as public input to discuss the science involved, and the economic impact which we all know is the result of any piece of legislation or governmental policy. I urge you to let this process go forward to its final outcome, because this is the way the Lacey Act was designed to protect the environment and the public. I say this because there needs to be debate over some of the science that our political leaders have been given. There is credible science that disputes the US Geological Survey conclusions that Burmese Pythons could populate the lower third of the United States. This debate over the science needs to be conducted in a less political arena than the legislative process. The economic impact of these decisions is far too great to not fully examine all pertinent science. This is the reason the Lacey Act prescribed the process by which living things could be added to the Injurious Wildlife List.
- Finally, if federal legislation is necessary, please do not make it too far over reaching. Since we are addressing a Burmese Python problem, craft a bill that deals with the import of Burmese Pythons, but permits the existing population of Burmese Pythons within the US to be commercially traded within the US, or exported from the US. I fear that a total ban on trade would immediately render all Burmese Pythons worthless and force many individuals to irresponsibly release their Burmese Pythons into the wild, thus achieving the exact opposite effect of what the legislation was intended to accomplish.

I appreciate your involvement in this complicated issue and I realize the legislative process is not an easy one. I ask that you look at this issue from the perspective of the surprisingly extensive reptile community before making a law that could have many unintended consequences.

Sincerely,

William E. Brant
The Gourmet Rodent, Inc.
12921 SW 1st Road
Newberry, FL 32669
352-332-4072



November 4, 2009

The Honorable Bobby Scott
Chairman
Subcommittee on Crime,
Terrorism, & Homeland Security
U.S. House of Representatives
Washington, DC 20515

The Honorable Louie Gohmert
Ranking Member
Subcommittee on Crime,
Terrorism, & Homeland Security
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Scott and Ranking Member Gohmert:

The Pet Industry Joint Advisory Council (PIJAC) wishes to convey its opposition to H.R. 2811 and the establishment of a prohibition under the Lacey Act against the importation or interstate movement of "the constrictor snake of the species *Python* genera." As the largest pet trade association in the United States, PIJAC represents importers, exporters, breeders, distributors and wholesale and retail sellers of companion animals and related pet products, as well as advocating for the rights of the hundreds of millions of Americans who own pets.

Although H.R. 2811 was originally designed to curb the spread of Burmese Pythons in Florida's Everglades, the language of the bill encompasses far more than this single subspecies. Indeed, as crafted, the measure would impose a ban on all pythons, not one or two problematic species in south Florida. Most of the other species do not possess the biological characteristics that have facilitated the current concerns about the Burmese. For example, the Ball Python, which is popular among pet owners, is a relatively small, docile snake. There is thus no scientific justification for a broad-based ban. And, if such legislative action were to occur, we are confident that it would actually facilitate the mass release of pythons by frightened and angry hobbyists and reptile aficionados. It could, in fact, backfire and foster the very problem that we all agree needs to be addressed in a strategic and timely manner.

PIJAC appreciates the U.S. Congress' interest in addressing the presence of Burmese pythons (*Python molurus bivittatus*) in the Florida Everglades. We are aware that the most effective and efficient way to deal with invasive species issues is through Federal/state/stakeholder collaborative initiatives. PIJAC has been an active participant in the development of several state initiatives regulating large constrictors. For example, Florida and Texas have adopted regulatory mechanisms governing possession of species of concern, including large constrictors.

PIJAC strongly believes that invasive species listings should occur as a result of a science-based risk analysis which takes into consideration not only credible, standardized risk assessments, but also viable risk management and risk communication measures. Circumventing the statutory listing process is not warranted and undermines the long-standing statutory process found in the Lacey Act.

PET INDUSTRY JOINT ADVISORY COUNCIL

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CHIEF EXECUTIVE OFFICER

Marshall Meyers

The Lacey Act specifically sets forth a process for the listing of species in which the Fish and Wildlife Service (Service) is charged with evaluating potentially injurious species through a science-based risk analysis. We respectfully urge the Congress not to rush to judgment, thereby defeating the very purpose of this risk analysis process, which has yet to be thoroughly vetted and reviewed by qualified experts and stakeholders. Instead, Congress should look to states such as Florida and Texas for model regulatory mechanisms covering possession of species of concern such as large constrictors. These mechanisms incorporate flexibility in lieu of imposing an outright ban as a way to facilitate orderly possession and movement of animals already within the United States without relying on Lacey Act styled prohibitions.

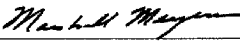
A listing under the Lacey Act has far more implications than simply banning importation of a species into the United States – it also restricts/bans interstate movement/commerce in the species. Failure to establish a process such as proposed herein will undoubtedly lead to the mass release and/or euthanasia of the thousands of Burmese pythons (and potentially other large constrictors) already maintained as pets and commercial breeding stock in the United States.

If the Burmese python (or additional constrictor species) is added to the Lacey Act list of injurious wildlife species through legislative action, PIJAC submits that the Congress needs to amend the Lacey Act to specifically establish a mechanism for managing specimens of a listed species already in the United States. Such a mechanism should parallel state initiatives that: a) permit intrastate and interstate possession and movement; b) provide for exporting live specimens to countries which allow importation; and c) establish a 120-day grace period following enactment of a listing during which time owners can, without penalty, take the necessary steps to come into compliance, rehome (but not release) or surrender the animal(s) to a predetermined, government-approved organization. PIJAC wishes to work with your Subcommittee to craft such language in the event it is decided to pursue statutory resolution rather than wait for the Fish and Wildlife Service to complete its science-based process.

PIJAC's scientific team is reviewing the recently released 302-page U.S. Geological Survey Risk Assessment on Giant Constrictors. A cursory review indicates a number of problems: it is confounded by many uncertainties and a lack of credible scientific information on many species, numerous unfounded conclusions and/or conflicting statements, and questions as to whether the approach taken follows the recommendations for conducting such assessments follow well established tenants for conducting science-based risk analyses published by the National Academy of Science and the Environmental Protection Agency. PIJAC will be submitting detailed comments to the Fish and Wildlife Service once our review is completed. But in the interim, we wish to convey that the USGS report should not be treated as an adequately-vetted, peer-reviewed scientific document. It contains substantial issues that need to be addressed through future dialogue with experts and further revision. To base policy decisions on the document as it stands now would be irresponsible.

Again, we appreciate your interest and time in reviewing this issue. PIJAC looks forward to working with you on this matter to craft a reasonable and workable mechanism covering possession, transportation, exhibition and caging, identification, and record keeping requirements if the Congress preempts the normal, standardized listing process.

Respectfully submitted,
Pet Industry Joint Advisory Council

By 
Marshall Meyers, CEO

cc: The Members of the Subcommittee on Crime, Terrorism & Homeland Security



THE HUMANE SOCIETY OF THE UNITED STATES

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October 16, 2009

The Honorable John Conyers, Jr.
Chair, Committee on the Judiciary
2426 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Conyers:

In light of your leadership on animal protections issues, I want to be sure you are aware of a new study by the U.S. Geological Survey assessing the environmental risk to the United States of the trade in large constrictor snakes. After extensive research, USGS reported that all nine species studied, including a variety of large pythons, anacondas, and boa constrictors, pose either medium or high risk.

The study highlights the urgent need for legislation to stop the importation and interstate trade in large constrictor snakes as pets. As you know, H.R. 2811 and S. 373 originally would have prohibited importation and interstate sale of nearly all python species, but H.R. 2811 was amended in Committee to include only Burmese pythons and African rock pythons. By including only some species, the policy would be incomplete and the legislation would address only a portion of the problem.

If only some species are restricted, the trade can shift to other large constrictors. As the USGS study notes: "Should the species that currently dominate the trade become less readily available, one would expect a compensatory increase in sales and interest in the related taxa, as has been seen in response to export bans of particular species from several countries in recent decades."

In addition to environmental risks, the trade in large constrictor snakes threatens public safety and the welfare of the animals. The potential dangers were underscored when a 2-year-old Florida girl was tragically killed by a Burmese python kept as a pet in her home on July 1. She was the fourth person killed by a pet python since 2006 – two of them adults killed by reticulated pythons.

Celebrating Animals : Confronting Cruelty

2100 L Street, NW Washington, DC 20037 t 202.452.1100 f 202.778.6132 h thehumane.org

October 16, 2009
Page 2

Burmese pythons escaped or released from the pet trade have become established in the Everglades. Even if substantial resources are spent to remove them, they are probably ineradicable because of their remarkable reproductive abilities and ability to blend into the environment. The USGS report says that Northern African pythons and boa constrictors also have been found to be reproducing in Florida.

The USGS study leaves no doubt that a proactive approach is needed to prevent Burmese pythons from spreading to other parts of the country and to block other species from becoming established.

We look forward to working with you on a comprehensive approach that addresses all large constrictor snakes.

Sincerely,



Wayne Pacelle
President & CEO
The Humane Society of the United States



THE WILDLIFE SOCIETY

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JAN 27 2010

20 January 2010

Bobby Scott
Chairman
House Subcommittee on Crime, Terrorism, and Homeland Security
1201 Longworth House Office Building
Washington, DC 20515

Dear Chairman Scott:

Attached please find a letter from sixteen Ph.D. scientists supporting the USGS' recent report
*Giant Constrictors: Biological and Management Profiles and an Establishment Risk Assessment
for Nine Large Species of Pythons, Anacondas, and the Boa Constrictor.*

If you have any questions or need any additional information, please do not hesitate to contact
me (laura@wildlife.org; 301-897-9770 ext 308).

Sincerely,

Laura M. Bies
Director of Government Affairs
The Wildlife Society

20 January 2010

Bobby Scott
 Chairman
 House Subcommittee on Crime, Terrorism, and Homeland Security
 1201 Longworth House Office Building
 Washington, DC 20515

Dear Chairman Scott:

We are writing in support of the report recently released by the U.S. Geological Survey (USGS), *Giant Constrictors: Biological and Management Profiles and an Establishment Risk Assessment for Nine Large Species of Pythons, Anacondas, and the Boa Constrictor*. The undersigned scientists believe that this report is based on peer-reviewed and transparent science and the risk assessment model used in the report is reasonable and appropriate, notwithstanding claims made in a recent letter submitted to this subcommittee by the U.S. Association of Reptile Keepers (USARK) challenging the validity of the USGS report.

The USGS study is unbiased and was not developed to support a predetermined policy, as suggested by the USARK letter. The USGS report was written with the intention of informing future U.S. Fish and Wildlife Service and National Park Service management strategies, not to respond to or support policies that had already been developed or established. The report was requested by the agencies and specifically aimed to collect information on the risks of giant constrictor snakes on ecosystems, wildlife, and human safety.

USGS peer-reviews all work that receives agency funding. This particular report was reviewed by 20 experts associated with U.S. and international universities, agencies, and organizations. In fact, 18 of the 20 reviewers who scrutinized this study were from institutions or agencies outside the USGS, contrary to USARK's allegations that the report is not externally peer-reviewed.

While we understand the value of scrutinizing research models, results, and conclusions, we believe USARK's unsubstantiated allegations are unprofessional and undermine important efforts being made by the scientific community.

Thank you for taking the time to consider our professional perspectives. We hope that in considering legislation to regulate large constrictor snakes you will use the USGS report without reservation.

Sincerely,

Paul E. Bartelt, Ph.D.
 Professor of Biology
 Waldorf College

David Camron Duffy Ph.D.
 Professor of Botany and Unit Leader
 Pacific Cooperative Studies Unit
 University of Hawai'i

Len H. Carpenter, Ph.D.
Retired Wildlife Biologist

William E. Faber, Ph.D., CWB
Natural Resources Instructor
Department of Natural Resources
Central Lakes College

Selma N. Glasscock, Ph.D.
Assistant Director
Welder Wildlife Foundation

J. Christopher Haney, Ph.D.
Chief Scientist
Defenders of Wildlife

Lucas Joppa, Ph.D.
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Duke University

Fred Kraus, Ph.D.
Research Zoologist
Department of Natural Resources
Bishop Museum

Kenneth L. Krysko, Ph.D.
Senior Wildlife Biologist
Division of Herpetology
Florida Museum of Natural History

John D. Lloyd, Ph.D., CWB
Senior Research Ecologist
Ecostudies Institute

John F. Organ, Ph.D., CWB
Adjunct Associate Professor of Wildlife Conservation
University of Massachusetts, Amherst

Gad Perry, Ph.D.
Associate Professor
Department of Natural Resource Management
Texas Tech University

Stuart Pimm, Ph.D.
Doris Duke Professor of Conservation Ecology
Nicholas School of the Environment
Duke University

Christina M. Romagosa, Ph.D.
Postdoctoral Fellow
Auburn University

Daniel Simberloff, Ph.D.
Nancy Gore Hunger Professor of Environmental Studies
Department of Ecology and Evolutionary Biology
University of Tennessee

Phyllis N. Windle, Ph.D.
Senior Scientist and Director, Invasive Species
Union of Concerned Scientists

23 November 2009

U.S. House of Representatives Committee on the Judiciary
The Subcommittee on Crime, Terrorism & Homeland Security
2138 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Bobby Scott and Ranking Member Louie Gohmert:

We write in regard to the recent Congressional hearing on HR 2811. As scientists who have worked with reptiles including those cited in HR2811, we express our reservations regarding the document recently released by USGS as an “Open-Report”, titled *Giant Constrictors: Biological and Management Profiles and an Establishment Risk Assessment for Nine Large Species of Pythons, Anacondas, and the Boa Constrictor*.

Simply put, this report is not a bona-fide “scientific” paper that has gone through external peer review. Part of this report is fact-driven, described by the authors as “traditional library scholarship.” By the authors’ admissions, there are surprisingly little data available regarding the natural history of these species. In their attempt to compile as much information as possible, the authors draw from a wide variety of references, ranging from articles published in peer-reviewed professional journals to far less authoritative hobbyist sources, including popular magazines, the internet, pet industry publications, and even various media sources. While such an approach is inclusive, it tends to include information that is unsubstantiated and, in some cases, contradicts sound existing data.

As scientists whose careers are focused around publishing in peer-reviewed journals and providing expert reviews of papers submitted to these journals, we feel it is a misrepresentation to call the USGS document “scientific”. In fact, much of this report is based on an unproven risk assessment model that produces results that contradict the findings presented in a recently published scientific paper that used a more complex and superior model (see: Pyron R.A., F.T. Burbrink, and T.J. Guiher. 2008. Claims of Potential Expansion throughout the U.S. by Invasive Python Species Are Contradicted by Ecological Niche Models, PLoS One 3: e2931. doi:10.1371/journal.pone.0002931). Unfortunately, the authors of the USGS document limit their reference to this scientific work to an unsubstantiated criticism. To the contrary, this alternate model is validated by its relatively accurate prediction of the natural distribution of the species in question (something the USGS model does not even attempt). Furthermore, despite its conclusion of a limited potential distribution of Burmese pythons in the United States, the model presented by Pyron et al. accurately predicts the presence of Burmese pythons in the Everglades.

The USGS model likely provides a gross overestimate of potential habitat for these snake species. People throughout the United States keep pythons as pets, yet the only known breeding populations in the United States are in the Everglades. Such a wide distribution of potential sources of invasion, but only a localized invasive event, suggests that factors beyond those used in the USGS model are critical to limiting the suitability of habitat for pythons. The authors even state that climate is only one factor of several that affect the distribution of an animal, yet they develop a model that only uses overly simplistic climatic data (e.g., the climatic data did not take seasonality into consideration).

We are further concerned by the pervasive bias throughout this report. There is an obvious effort to emphasize the size, fecundity and dangers posed by each species; no chance is missed to speculate on negative scenarios. The report appears designed to promote the tenuous concept that invasive giant snakes are a national threat. However, throughout the report there is a preponderance of grammatical qualifiers that serve to weaken many, if not most, statements that are made.

We fully recognize the serious concerns associated with the presence of persistent python populations in southern Florida. As top predators, these animals can and will have a dramatic impact on the community of wildlife that lives in the Everglades. Inaccurately extending this threat to a much larger geographic area is not only inappropriate, but likely takes needed focus away from the real problem in the Everglades.

In conclusion, as written, this document is not suitable as the basis for legislative or regulatory policies, as its content is not based on best science practices, it has not gone through external peer-review, and it diverts attention away from the primary concern. We encourage the USFWS and USGS to submit this document to an independent body for proper and legitimate peer review. Additionally, we encourage the Committee to review this document, not as an authoritative scientific publication, but rather as a report currently drafted to support a predetermined policy.

Signed:

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University of Florida

Dale DeNardo, DVM, PhD
Associate Professor School of Life Sciences
Arizona State University

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Professor Emeritus
Texas State University

CC:
The Honorable Bill Nelson, U.S. Senator (FL)
The Honorable Kendrick Meek, U.S. Congressman (FL-17)
The Honorable Tom Rooney, U.S. Congressman (FL-16)
The Honorable Ken Salazar, Secretary, U.S. Dept of the Interior
Director Marcia McNutt, U.S. Geological Survey
Director Sam Hamilton, U.S. Fish & Wildlife





November 6, 2009

The Honorable Bobby Scott
 Chairman
 Subcommittee on Crime, Terrorism, and Homeland Security
 U.S. House of Representatives Committee on the Judiciary

The Honorable Louie Gohmert
 Ranking Member
 Subcommittee on Crime, Terrorism, and Homeland Security
 U.S. House of Representatives Committee on the Judiciary

Re: Statement By The National Retail Federation For The Hearing By The House Committee on the Judiciary, Subcommittee on Crime, Terrorism, and Homeland Security On H.R. 2811, A Bill To Amend Title 18, United States Code, To Include Constrictor Snakes Of The Species Python Genera As An Injurious Animal

On behalf of its member companies in the retail sector selling pets and pet products, the National Retail Federation is submitting this statement for the hearing of the Subcommittee on Crime, Terrorism, and National Security of the U.S. House of Representatives Committee on the Judiciary on H.R. 2811 to include constrictor snakes of the species python genera as an injurious animal and ban their importation and commerce in the United States.

By way of background, the National Retail Federation (NRF) is the world's largest retail trade association, with membership that comprises all retail formats and channels of distribution including department, specialty, discount, catalog, Internet, independent stores, chain restaurants, drug stores and grocery stores as well as the industry's key trading partners of retail goods and services. NRF represents an industry with more than 1.6 million U.S. retail establishments, more than 24 million employees - about one in five American workers - and 2008 sales of \$4.6 trillion. As the industry umbrella group, NRF also represents over 100 state, national and international retail associations.

There are many stories about the damage that large pythons released into the wild have wrought on the Florida environment, as well as at least one death attributed to these snakes. Thus, the key question before the subcommittee is not whether there is a problem, but rather what is the extent of the problem and what is the best means to address it in a targeted and effective manner.

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U.S. retailers of pets and pet products support improvements in the regulatory regime to prevent the introduction into the United States of harmful non-native species. We support proposals to establish a better risk-assessment process to prevent the importation of and commerce in harmful nonnative animal species through existing statutory authority under the Lacey Act (Pub. L. No. 97-79, §§ 2-9, 95 Stat. 1073-80 (1981) (codified at 16 U.S.C. 3371-3378 (1994)). By the same token, we have serious concerns about legislation, such as H.R. 2811, that would deviate significantly from this approach by imposing a comprehensive ban on an entire genus without any assessment of risk or environment and economic impact.

There are seven species of python and several subspecies, none of which is native to the United States. The two species of particular concern are the Burmese Python (*P. molurus bivittatus*) that can grow to up to 25 feet, and the African Rock Python (*P. sebae*) that can grow to 20 feet. However, many pet retailers sell Ball or Royal Pythons (*P. regius*) that grow only 3 – 4 feet long, but would also fall under the ban proposed by this legislation. These pythons are already widely-owned throughout the United States, are typically housed in terrariums, and have not been shown to pose the same threat as the Burmese and African Rock Pythons. Thus, this sweeping ban proposed in H.R. 2811 would have an adverse impact on the pet trade and ownership.

By banning trade in all pythons throughout the United States, H.R. 2811 also imposes an unnecessary and flawed "one-size-fits-all" approach. For example, a proper regulatory regime should be able to take into consideration that even if a certain python species are potentially harmful to the Florida ecosystem, they are not harmful to ecosystems in Alaska or Colorado, where they cannot survive in the wild, and, therefore, could be allowed in trade. A proper regulatory regime should also take into consideration other measures, such as permitting and licensing requirements, state regulations, measures to prevent reproduction, and conditional use standards and containment systems that can be effective alternatives to an outright ban in protecting against generally against invasive non-native species.

We believe a better approach to this problem is to provide the U.S. Fish and Wildlife Service (USFWS) adequate funding, manpower and resources to enforce current law governing the introduction of invasive species. Lack of resources by the primary enforcement agency is a serious problem that needs to be addressed for any solution to be effective. Moreover, any legislation on this issue should focus on a risk-based approach to controlling the introduction of pythons and other non-native species. While it does not fall under the jurisdiction of the Judiciary Committee, the House is currently considering another bill (H.R. 669) that would make modifications to current law under the Lacey Act. It would direct the USFWS to assess the risk of importing into the United States all nonnative wildlife species, taking into consideration whether the species has established or spread, or caused harm to the

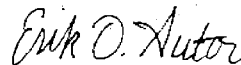
economy, the environment, or other animal species or human health in ecosystems similar to the United States.

Although we have pointed out a number of flaws in this bill to the House Committee on Natural Resources and the Senate Committee on Environment and Public Works that need to be addressed, we generally agree with the risk-based approach taken in H.R. 669 to address the problem of controlling the introduction of invasive, non-native species, including pythons.

In sum, H.R. 2811 is a haphazard approach to a problem that can be better and systematically addressed through the Lacey Act. The problem of how to regulate importation and commerce in non-native, and potentially harmful species should not be done on an ad hoc and potentially inconsistent manner. Rather, Congress needs to consider this issue within the context of the Lacey Act, which is the current law regulating importation and commerce in all non-native animal species, through a science-based listing process. Any changes to that law should also be undertaken with the participation of all stakeholders, including pet retailers and pet owners.

Any questions pertaining to these comments or this legislation can be directed to me at (202) 626-8104 or by email at autore@nrf.com.

Sincerely,



Erik O. Autor
Vice President, Int'l Trade Counsel
National Retail Federation

cc: The Honorable Pedro R. Pierluisi (D-PR)
The Honorable Jerrold Nadler (D-NY)
The Honorable Zoe Lofgren (D-CA)
The Honorable Sheila Jackson Lee (D-TX)
The Honorable Maxine Waters (D-CA)
The Honorable Steve Cohen (D-TN)
The Honorable Anthony D. Weiner (D-NY)
The Honorable Debbie Wasserman Schultz (D-FL)
The Honorable Mike Quigley (D-IL)
The Honorable Ted Poe (R-TX)
The Honorable Bob Goodlatte (R-VA)
The Honorable Dan Lundgren (R-CA)
The Honorable Randy Forbes (R-VA)
The Honorable Tom Rooney (R-FL)



November 12, 2009

PIJAC Position on H.R. 2811

Proposal:

PIJAC appreciates the U.S. Congress' interest in addressing the presence of Burmese pythons (*Python molurus bivittatus*) in the Florida Everglades. We are aware that the most effective and efficient way to deal with invasive species issues is through Federal/state/stakeholder collaborative initiatives. PIJAC, as a general rule, does not endorse adding species to the Lacey Act "injurious wildlife" list through legislative action unless a species poses a clear, eminent threat to human health or security on a large regional or national scale (e.g., zebra mussels). Rather, PIJAC strongly believes that listings should occur as a result of a science-based risk analysis which takes into consideration not only credible, standardized risk assessments, but also viable risk management and risk communication measures.

If the Burmese python (*Python molurus bivittatus*) is added to the Lacey Act list of injurious wildlife species through legislative action, PIJAC submits the following concept as a way to manage specimens of this species already in the United States. A listing under the Lacey Act has far more implications than banning importation of a species into the United States – it also restricts/bans interstate movement/commerce in the species. Failure to establish a process such as proposed herein will undoubtedly lead to the mass release and/or euthanasia of the thousands of Burmese pythons (and potentially other large constrictors) already maintained as pets and commercial stock in the United States. In administering provisions such as those proposed below, the Federal government needs to recognize that the Lacey Act was originally enacted to assist the states, not regulate the states.

If this species is to be regulated at the Federal level, PIJAC supports inclusion of language in the Lacey Act that:

- a) permits interstate movement of Burmese pythons subject to the standards recommended herein
- b) provides for exporting live specimens of Burmese pythons to countries which allow importation, and
- c) establishes a 120 day grace period following enactment of the regulation during which time Burmese python owners can, without penalty, take the necessary steps to come into compliance, rehome (but not release) or surrender the animal(s) to a predetermined, government-approved organization.

PET INDUSTRY JOINT ADVISORY COUNCIL

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Marshall Meyers

Proposed Federal/State Regulatory Mechanism for Burmese Pythons (*Python molurus bivittatus*) listed as injurious under the Lacey Act.

Possession, Transportation, Exhibition and Caging of Burmese Pythons.

(1) Any person, corporation or other entity which keeps, possesses, breeds, acquires, exhibits or sells any Burmese pythons (*Python molurus bivittatus*) shall comply with Sections _____, _____, _____ of the Lacey Act. The new sections would include language to incorporate the concept set forth below:

(2) General qualifications: Any person desiring to keep, possess, exhibit, buy or sell Burmese pythons shall meet the following standards:

(a) Comply with state and local laws and regulations governing the import, export, acquisition, breeding, exhibition, sale, or possession of Burmese pythons.

(b) Specify the location of the facility at which the Burmese pythons shall be maintained in accordance with its 911 address identification (i.e. physical street address where the animals are located).

(c) Have a PIT tag (passive integrated transponder; also known as a "microchip") implanted into the Burmese python. (See specific section on Identification).

(3) Facility requirements: Burmese pythons shall be maintained, housed, kept in safe, secure and proper housing in cases, cages, pits or enclosures meeting the following specifications:

(a) Cage may be constructed of a variety of materials including plate glass of at least one-quarter inch thickness, break-resistant plastic of similar strength, concrete reinforced with wire, sheet metal, molded fiberglass, plywood or interlocking lumber that has been treated to be impervious to moisture and is not less than one-half inch in thickness, or other materials which provide equivalent stability and security against escape and unauthorized intrusion. Cages and doors to cages shall be sealed in such manner as to provide appropriate ventilation while preventing escape. The doors of each cage shall be securely locked by a device operated by a key, combination, key card or other locking device.

(b) Inspection: Persons possessing Burmese pythons are subject to inspection by appropriate state agencies responsible for regulating wildlife and by the United States Fish and Wildlife Service.

(c) Transportation: When transporting a specimen of Burmese pythons, the specimen shall be transported in a secure enclosure appropriate for the number of animals and the size of the animals.

(d) Disaster and Critical Incident Plans: Persons possessing Burmese pythons shall document in writing a course of action to be taken in preparation for natural disasters or critical incidents to minimize the likelihood of the animals escaping.

Record Keeping and Reporting Requirements.

Any person who possesses one or more Burmese pythons shall maintain records as follows:

(1) Record Keeping: Accurate records of all changes in inventory including births, deaths, acquisitions, sales and transfers of all Burmese pythons shall be maintained in legible writing (ideally typed). Such records shall be open to inspection by appropriate governmental authorities upon request.

(a) Records of births or deaths shall include the date of the birth or death; and the quantity of each birth or death. For the purposes of this section "birth" shall be defined as the initial hatch for the clutch.

(b) Records of acquisition shall include the date of acquisition, purchase, or gift; quantity; method of identification and unique PIT tag number for each specimen; name and complete address of the person from whom the animal was obtained.

(c) Records of sale or transfer shall include the date of sale or transfer; quantity of the specimens sold or transferred; method of identification and unique passive integrated transponder (PIT tag) number of each specimen sold or transferred; and name, address of the person acquiring the specimens.

(d) Records shall be maintained for each specimen for two years following disposition of the specimen.

Identification of Burmese pythons; Escape.

(1) Any person who keeps or possesses Burmese pythons must permanently identify each specimen.

(a) Each Burmese python shall be permanently identified by a unique PIT tag (passive integrated transponder, also known as a "microchip"). The PIT tag shall be implanted under the specimen's skin in a manner to maintain the PIT tag permanently in place in the back one-third (1/3) of the snake, forward of the anal plate. Should the snake lose the PIT tag, it should be immediately re-tagged and the new identification number added to the specimen-specific records maintained by its owner.

(b) Records of identification, including the PIT tag number and associated information about the particular specimen (species, specimen name or number, gender, and age) must be maintained for as long as the specimen is possessed and for two years after the specimen is sold, transferred, or otherwise disposed of.

(c) If photographic identification is also maintained, the photograph of the specimen must include sufficient distinguishing characteristics such as marks, scars, patterns, and unique scalation, if present, to enable that particular specimen to be distinguished from other specimens of the same species.

(2) If a specimen escapes or is stolen, the person must notify the appropriate state authority, local authority and/or the United States Fish and Wildlife Service, as appropriate, immediately upon discovery of the animal's absence.

Statewide python hunt yields only 39 snakes
 By PAUL QUINLAN
 Palm Beach Post Staff Writer
 Wednesday, November 04, 2009

The python posses, ordered into the Everglades on a mission to kill the giant, invasive constrictors, have finished hunting - for now.

Their take: 39 snakes. The good news: most were on the small side. The bad: that means the pythons are breeding.

Florida's first-ever python hunt began three-and-a-half months ago after Gov. Charlie Crist ordered state wildlife officials to issue licenses to herpetologists, Gladesmen and others deemed qualified to eradicate the beasts.

The python push started weeks after a pet Burmese strangled a 2-year-old girl in Sumter County, and amid coiling fears that the snakes might take over the Everglades and slither across South Florida, devouring native wildlife and, perhaps, threatening humans.

The 15 special permits expired Oct. 31, though other licensed hunters in the state may continue to kill pythons encountered on designated hunting lands.

Officials called the test-run of the python eradication program a success, even though the body count was small compared to the oft-repeated — and, some say, exaggerated — estimates that as many as 100,000 or more pythons may now live in the Everglades. No accurate estimates exist, and scientists who study the problem say only that pythons likely number in the tens of thousands.

The relatively small take was to be expected, as pythons tend to remain hidden during daylight hours in hot weather, said Scott Hardin, exotic species coordinator for the Florida Fish and Wildlife Conservation Commission.

"We went into this knowing it was a sub-optimal time of year for people to be looking for pythons," said Hardin. "They don't need to be out in the daytime. It's plenty warm. They'll spend their time hunting at night."

Of the 39 Burmese Pythons caught, slightly more than half were less than 4 feet long — further evidence that pythons are breeding in the Everglades, said Hardin. The hunters' largest catch was 10 feet, 4 inches. But the largest python found in Florida was spotted in July and measured 17 feet, 2 inches long and 26 inches around at the thickest point.

He also noted that most of the snakes were found to have empty bellies. "It tells you they're not gorging themselves all the time, as some people might suspect," said Hardin.

“They typically eat big meals but not too often.”

The permit-holders were required to record details of their hunts and any snakes caught, data which dispelled misconceptions the snakes would be easy to find, said Larry Connor, the FWC biologist who compiled the snake data.

“When you go out with a group for four of five hours and find, generally, one snake — I think that's fairly realistic,” Connor said.

The hunt was a ground battle in the larger war to combat the snakes’ spread. In Washington on Thursday, a hearing is scheduled on the proposal from U.S. Rep. Kenrick Meek, the Miami Democrat and gubernatorial candidate, to list three types of pythons — Burmese, Northern African Rock, and Southern African Rock — as “injurious species,” thus outlawing their import and trade.

Out of concern for the python hunters’ safety, the 15 permits were set to expire on the same day that the general gun hunting season started.

Hardin said the state would likely expand the program and resume the hunt — perhaps before the new year. “Certainly, we want to have some people back in place during the reproductive season, which runs roughly from January through April,” Hardin said.



CHAMBER OF COMMERCE
OF THE
UNITED STATES OF AMERICA

R. BRUCE JOSTEN
EXECUTIVE VICE PRESIDENT
GOVERNMENT AFFAIRS

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July 28, 2009

The Honorable Bobby Scott
Chairman
Subcommittee on Crime, Terrorism
& Homeland Security
Committee on the Judiciary
U.S. House of Representatives
Washington, DC 20515

The Honorable Louie Gohmert
Ranking Member
Subcommittee on Crime, Terrorism,
& Homeland Security
Committee on the Judiciary
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Scott and Ranking Member Gohmert:

The U.S. Chamber of Commerce, the world's largest business federation representing more than three million businesses and organizations of every size, sector, and region, opposes H.R. 2811, which would amend the Lacey Act to ban constrictor snakes "of the species Python genera" as an injurious animal.

The bill, ostensibly intended to address the proliferation of the Burmese Python in the Everglades of Florida, is so broadly worded that it would effectively ban all python snakes rather than one specific species. The Ball Python, for example, would be banned under this proposed bill. The Ball Python – the most popular and widely owned Python species – has limited growth potential and does not pose the same threat as a Burmese Python, yet its import, export, or interstate movement would be prohibited. Thus, if enacted in its current form, this legislation would adversely impact tens of thousands of businesses, hobbyists, and pet owners across the country.

More importantly, the proposed ban would circumvent the statutory listing process called for by the Lacey Act, whereby the U.S. Fish and Wildlife Service (FWS) conducts a science-based risk analysis and seeks public comment prior to making a final determination that a species is "injurious." In fact, such a process is already underway at FWS with regard to the Burmese Python. If enacted, H.R. 2811 would bypass this transparent, stakeholder-inclusive, science-based listing process in favor of an overly broad ban.

The Chamber recognizes that the introduction and establishment of nonnative wildlife species can cause potential harm; nevertheless, a broadly worded bill that bans far more species than it should to accomplish its objectives and circumvents a statutory, science-based listing process is not the solution. Congress should allow the listing process established by the Lacey Act and carried out by FWS to address the potential threat of the Burmese Python as an injurious species. If, however, Congress intends to pass a ban to limit the import of the Burmese Python, then it is essential that the proposed ban be narrowly construed so that it does not cover every species of Python.

Sincerely,



R. Bruce Josten

Cc: The Members of the Committee on the Judiciary