

LEVELED BOOK • X

Invasion of the Pythons



Written by Sean McCollum

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Range of Burmese Pythons Loose in Florida

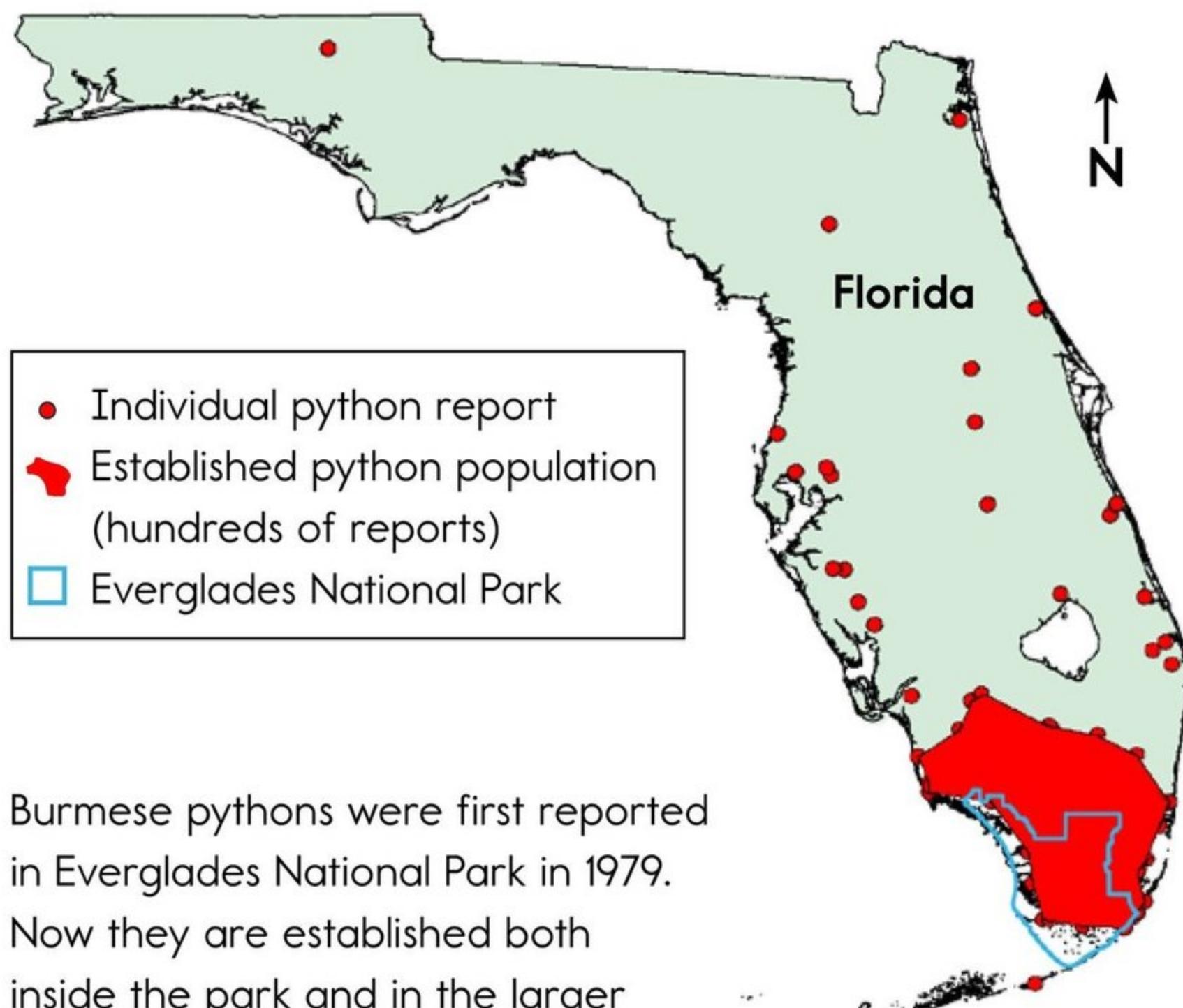


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Introduction

Slogging through ankle-deep water in the Florida Everglades, the scientists approach their target. Suddenly, one of the team pounces and grabs the tail of a huge snake. Another researcher lunges and grabs the snake behind its head. Others quickly join the wrestling match between humans and this 16-foot (4.9 m), 150-pound (68 kg) **Burmese python**.

The python finally tires, and they haul it back to the lab for study. The scientists win this time. A bigger battle is underway, though, because Burmese pythons aren't even supposed to be in Florida. These large snakes are **native** to the jungles and marshy grasslands of India and other parts of South Asia. What are they doing in Florida?

Who Invited That Guy?

For millions of years, the movement of animals and plants was limited by natural barriers. Mountain ranges and deserts separated habitats, so species could not spread. Oceans were especially difficult to cross.

That changed as transportation improved. By the 1800s, many humans moved to new lands, bringing familiar livestock and plant seeds with them. Sometimes animals—rats, lizards, dogs, and cats—crawled onto ships and were carried across the sea. Today people move farther and faster than ever before. Whether by human design or by accident, other species move as well.

In their native lands, species usually have **competition** and **predators** to keep their numbers in check. If their new home lacks these challenges, a new species may multiply and take over, thereby becoming an **invasive species**. Kudzu vines from Japan, for example, have choked out other plants in the southeastern United States. On the island of Guam, the brown tree snake has wiped out much of the bird **population**. As other native species lose a familiar source of food or shelter, the entire **ecosystem** can suffer.

No one knows for sure how Burmese pythons got into the Everglades ecosystem. The first invaders may have escaped from Florida pet shops, or maybe some pet owners released their pythons when they grew too big to care for. Once the snakes got loose, they thrived in the heat and humidity, hiding in the tangled underbrush and gobbling up other animals. The invasion of the pythons was underway.

Pythons as Pets

Burmese pythons have become trendy pets among some snake fans. They are cheap to buy and are believed to be easy to control. Some owners can be careless about their pets, though. They may be unaware of how fast and how huge pythons grow. In a couple of years, a 2-foot (.6 m) snake can grow to 12 feet (3.7 m). Also, snakes are escape artists that will squeeze their way out of cages or aquariums that are not carefully locked. Now and then, large pet pythons have attacked and even killed people.

In 2012, the U.S. Fish and Wildlife Service banned bringing new Burmese pythons into the United States. Owners must also insert a microchip into pet pythons to make them easier to trace.

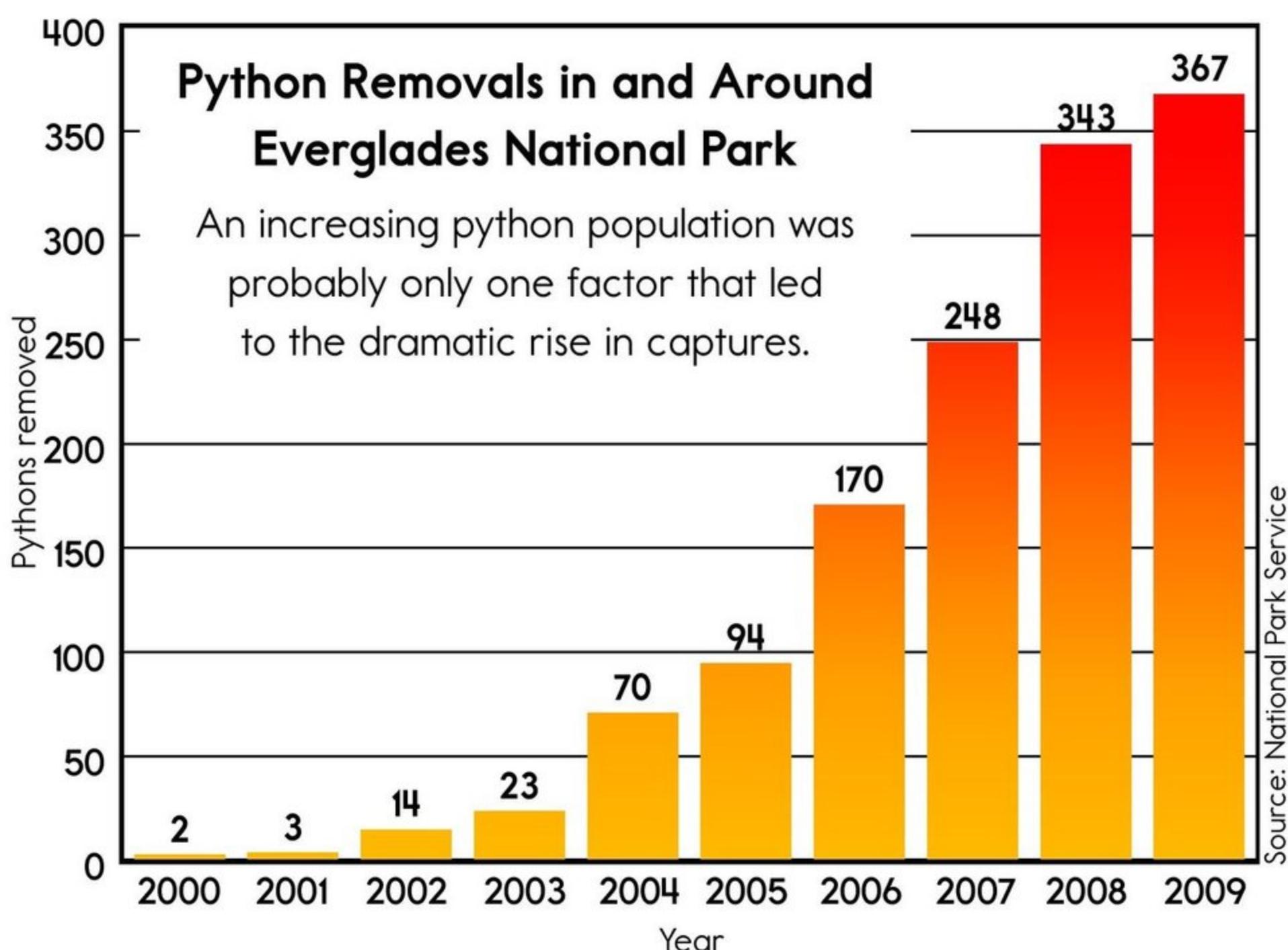


A man kisses his pet albino Burmese python.

Threats by the Thousands

The first Burmese python was reported in the Everglades in 1979. Another sixteen years passed before the next one was found. Since 2000, though, python reports have grown more and more common. When a nest of python eggs was discovered, it confirmed what wildlife biologists feared: Burmese pythons were breeding in the wild.

Pythons **reproduce** rapidly. Females usually lay more than fifty eggs a year, and within three years of hatching, young pythons themselves are ready to breed. The result in the Everglades has been a population explosion as, year after year, more pythons lay eggs and more pythons survive.



Pythons hatch from their eggs ready to slither away and start eating and growing, reaching adult size in only four years. Burmese pythons average about 12 feet (3.7 m) in length, but the largest may stretch more than 20 feet (6.1 m) and top 200 pounds (90 kg).

Creepy to some, beautiful to others, the way Burmese pythons kill is the stuff of nightmares. Pythons belong to a class of snakes called *constrictors*. These snakes track down live animals using their sense of smell and ability to sense heat. They then surprise their prey, latching on with a broad mouth lined with sharp teeth. Once the animal is caught, the python coils its muscular body around it and squeezes until its victim **suffocates**. Finally, the snake swallows its prey whole, stretching its jaws to gulp down animals as much as five times larger than its own head.

Scientists have yet to get a true count of how many pythons live in the Everglades today. They estimate the python population to be anywhere between 5,000 and 100,000. In 2012, researchers captured the biggest Burmese python found so far in the Everglades. She was 17 feet 7 inches (5.4 m) long, and inside her were 87 eggs ready for laying.

An Everglades Nightmare

The Everglades—nicknamed the River of Grass—is one of the most unusual ecosystems in North America. A region of wetlands in southern Florida, it consists mainly of marshes, swamps, and grasslands. Few hills and fewer buildings rise on the broad, flat landscape, but it is rich with plant and animal life and is an important home for many native insects, fish, mammals, and other animals.

The American alligator is perhaps the most familiar Everglades native. This leathery reptile can grow up to 16 feet (4.9 m) long and is a fierce predator. Rarer is the Florida panther—only a few dozen of these big cats still roam in the wild. The Everglades is also home to many smaller mammals and is a paradise for birds, including the bald eagle, great egret, roseate spoonbill, and many other wading birds.



With jaguars and pumas gone from Florida, the only big cat left there is the panther. Its population is tiny.

Burmese pythons will gulp down any animal they can catch. In fact, they have been called “eating machines.” In the Everglades, researchers discovered a python that had killed and swallowed an 80-pound (36 kg) deer. In another case, they found a dead python with a 6-foot (1.8 m) alligator in its mouth. The two animals had killed each other in a life-or-death struggle.

Worried that pythons might wipe out some of Florida’s native animals, one research team set out to discover whether this might be the case. In areas with large numbers of these snakes, the researchers studied the populations of small mammals, such as marsh rabbits, raccoons, bobcats, and opossums. They looked at animal counts along roadways from 1996–1997, before pythons became common, and then examined the same data for more recent years.

What the team found was shocking: The populations of all these mammals had crashed. There were no signs of marsh rabbits or foxes at all. Yet where pythons were rare or absent, populations were unchanged. Many scientists think pythons are responsible—either they ate all these animals or wiped out the smaller animals that are food for bobcats, foxes, and other predators.

Vanishing Mammals

Scientists compared mammal numbers in Everglades National Park before 2000 with numbers from 2003–2011. With the rise of pythons, native mammal numbers have crashed.



Threatened and Threatening

Even as they threaten native animals that are endangered in the United States (eating the Florida panther's prey, for instance, or simply eating wood storks), Burmese pythons are endangered in South Asia. Their numbers have been shrinking there because of the destruction of their habitat. Also, they are hunted for their skins and meat, as well as captured and sold as exotic pets.



The number of nesting wood storks has risen since it was listed as an endangered species in 1984. Habitat protection has helped; pythons may not.

Pythons also eat birds in the Everglades. In one study, researchers found that birds make up 25 percent of a python's diet. The feathers and bones of rare and endangered species, such as the wood stork, have been found in pythons' bellies.

How do scientists know what the pythons are eating? In most cases, they do a *necropsy*, slicing open dead pythons and studying the dead animals they find in their stomachs. The remains have mostly been of mammals, but birds that live in or near water are also at risk of being eaten.

Part of why native animals may be so helpless against pythons is because these snakes are newcomers. Native species have evolved together, adapting to one another in order to coexist. For 16 million years, no snakes in Florida have been big enough to prey on many of these animals. The natives may not know how to protect themselves or their young from this invasive predator.

What's more, the ecosystem lacks any way to keep the invader in check. Burmese pythons live at the top of the Everglades **food chain**. Alligators

will eat them if they can, but once a python gets big enough, it will even attack alligators.



Skip Snow, a biologist at Everglades National Park, pulls a bird from a python's stomach.

Fighting Back

Finding pythons in the Everglades is tough. The landscape makes it easy for pythons to hide—and hard for humans to find them. Burmese pythons may hide in the grass and brush, and they can stay underwater for up to thirty minutes.

Still, Florida workers and volunteers are taking action to try to bring pythons under control. At Everglades National Park, they track down and capture the snakes when possible—almost 2,000 in recent years. Hunters are also allowed to capture the snakes or kill them for their skins and meat. Unfortunately, hunters sometimes mistakenly kill small native snakes, thinking they are baby pythons.

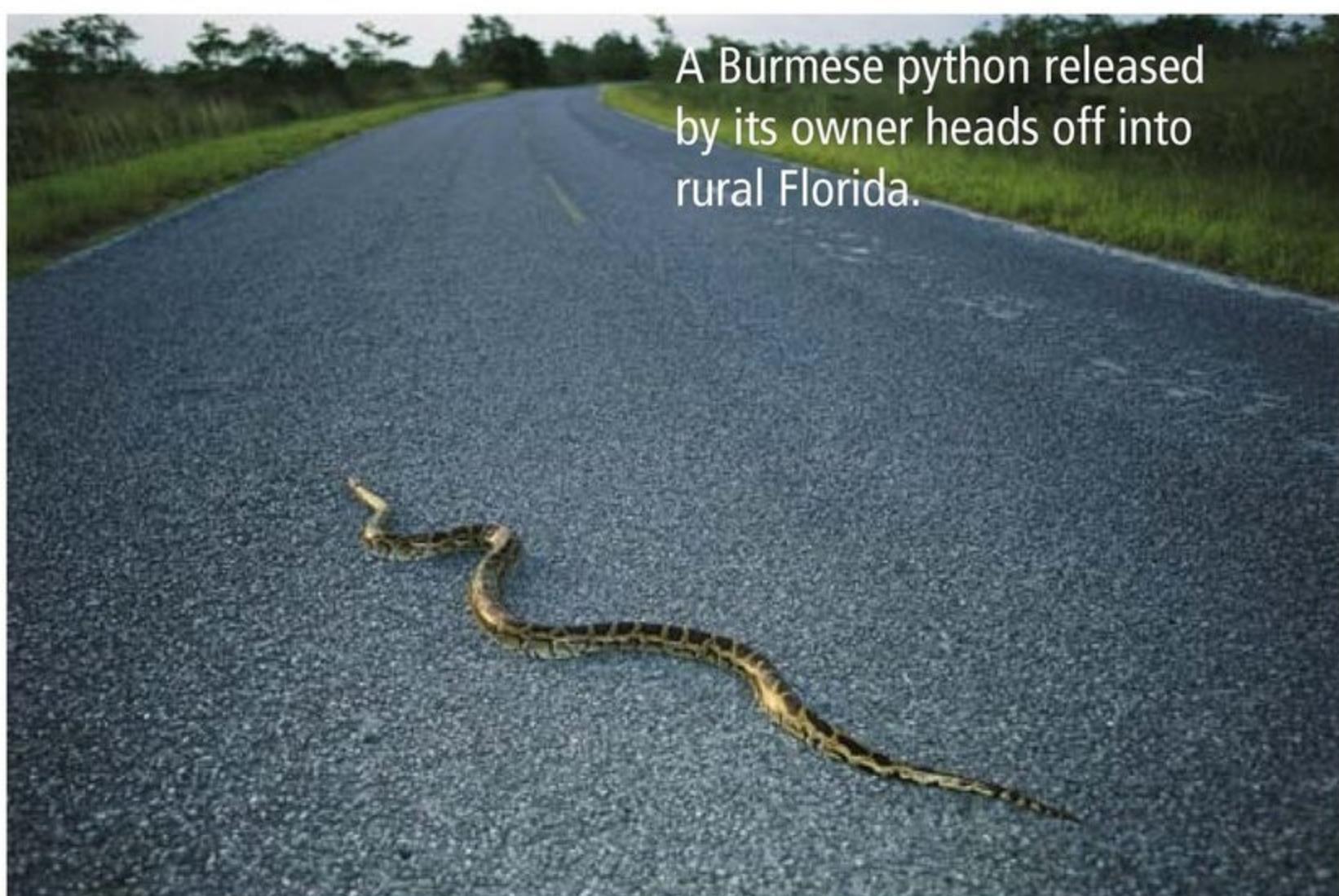
One way researchers track pythons is by using radio **transmitters**. They insert the device into a live snake and release it, and that snake might lead them to other pythons.



A researcher inserts a radio tag into a live Burmese python.

New laws have been put in place to prevent pet pythons from joining those in the wild. Still, most experts believe it is already too late to stop the python takeover of Florida. Wildlife biologists today fear that Burmese pythons may invade other parts of the country. They can swim to new territory and survive in most places where winters don't get too cold. Many southern states could be at risk, from South Carolina all the way to California.

Scientists continue to investigate the role that pythons play in the changing Everglades ecosystem. Until they learn more, they are careful about putting all the blame on pythons. Still, what we learn about these snake invaders in Florida may keep them from making their way across the country.



A Burmese python released by its owner heads off into rural Florida.

Glossary

adapting (v.)	changing to fit a new or specific situation or environment (p. 13)
competition (n.)	the struggle between organisms for limited resources, such as food, light, or territory (p. 5)
ecosystem (n.)	a community of living things together with their habitat (p. 5)
food chain (n.)	a group of plants and animals that all have a relationship with each other through what they eat (p. 13)
invasive species (n.)	a non-native species that is introduced into an ecosystem and does harm to the other species living there (p. 5)
native (adj.)	natural to an area (p. 4)
population (n.)	all the members of one species in a particular area (p. 5)
predators (n.)	animals that hunt or eat other animals to survive (p. 5)
python (n.)	any of a variety of large snakes that kill by coiling around their prey and squeezing the breath out of them (p. 4)
reproduce (v.)	to make offspring that are similar to the original living thing (p. 7)
suffocates (v.)	causes to die from being unable to breathe (p. 8)
transmitters (n.)	devices that send out signals, such as radio or television signals (p. 14)

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