

Python Predation: Big snakes poised to change U.S. ecosystems

Pet constrictors released into the wild are adapting to areas beyond the Florida Everglades

By Michael Tennesen

Brought to the U.S. as pets, Burmese pythons have made headlines with their uncontrolled spread in the Florida Everglades and willingness to challenge alligators for the position of top predator. A report released by the U.S. Geological Survey last fall delivered more bad news: two other constrictor species, also former pets, are thriving in the area, and six others could pose similar threats. Researchers fear that reproductive populations could spread and eat native animals into extinction.

The new interlopers—northern and southern African pythons, reticulated pythons, boa constrictors and four species of anacondas—have “ecological similarities,” explains Robert Reed, a USGS biologist and one of the authors of the report. “They are large invasive predators that native birds and mammals aren’t adapted to, and they are highly fecund, capable of producing up to 100 hatchlings in one nest.” They’re also big; some grow up to 20 feet and 200 pounds. They seize prey with their teeth and then wrap around the prey’s body, squeezing it to death.

Biologists first noticed the slithering invasion in the late 1990s. Snake numbers have risen dramatically: in 2000 two Burmese pythons were captured in the Everglades National Park; in 2008 the number captured hit 343. Biologists believe that tens of thousands now live in the park. Other constrictors have begun appearing beyond the Everglades: boa constrictors south of Miami and African pythons just west of the city.

Cryptic by nature, constrictors are extremely difficult to capture. “We know how they move and what they look like,” says USGS biologist Kristen Hart. “We had a radio-tagged snake in a fenced-off area the other day, right in the middle of six of us, and yet we couldn’t even see it. They are often underground or underwater or in a tree. They blend in so well here in the Everglades.”

When they move, however, they can move far. Relocated pythons have demonstrated a homing ability, returning up to 48 miles to the place where they were captured. Biologists worry that the reptiles may populate the Florida Keys, perhaps by riding on floating logs or even swimming the distance.

Without native predators, the snakes could really thrive. In fact, Burmese pythons may do better in Florida than in their home ranges in Southeast Asia, where jackals, monitor lizards, disease and parasites limit their numbers. “By the time they reach two years of age, not much can eat them in the Everglades,” Hart states. She describes one python she captured that “threw up four feet of an alligator.” Although biologists have recovered 10 alligators in python stomachs, for the most part the constrictors prey on small mammals and birds.

This predilection concerns Dave Hallac, chief of biological resources for the Everglades and Dry Tortugas. “We are going through this comprehensive restoration program here in the Everglades, trying to restore a number of wading and water-dependent birds, yet at the same time we have this big new predator in our midst.” Hallac and others do not want a repeat of what happened on the American island of Guam. There the nonnative brown tree snake invaded shortly after World War II and devastated native wildlife. Since the snake’s arrival, most likely as stowaways on cargo vessels, Guam has lost 10 of its 12 native forest bird species, most of its bats and about half of its lizards.

Given the number of constrictors imported to the U.S. as pets—Reed pegs the figure at just under one million—some species appear poised to take up permanent residence. (Florida law stipulates jail terms up to one year for anyone releasing a pet constrictor, which can grow from a 20-inch-long juvenile to an eight-foot-long monster in a year.) Still, wildlife biologists hope to keep the invasion contained. Although much of the southern U.S. offers a hospitable climate, the availability of prey, habitat and other factors will affect the snakes’ success.

Hart and others are working with different traps, transmitters and “Judas snakes”—radio-tagged pythons that lead them to other snakes—in an attempt to understand and control the creatures. She laments the fact that Florida didn’t take a more aggressive stance against these snakes years ago, when the reptiles were first sighted and might have been eradicated quickly. Says Hart: “We’ve gone beyond the point where they’re easily controllable.”

Note: This story was originally printed with the title "Python Boom"

Questions for *Python Predation: Big Snakes Poised to Change U.S. Ecosystems*

1. What is the native top predator in the Florida everglades?
2. How many Burmese pythons were captured in 2000?
 - In 2008?
 - Estimated population today?
3. Why could Burmese pythons thrive in Florida better than in their native Burma?
4. Describe the situation in Guam that Florida biologists are trying to avoid in Florida.
5. Why is biologist Kristen Hart concerned that Florida didn't address this problem earlier?