

BIG TROUBLE

A PLAGUE OF **GIANT PYTHONS** IS SPREADING THROUGH FLORIDA EATING EVERYTHING IN SIGHT. AND THAT'S JUST THE TIP OF AN INVASIVE SPECIES JUGGERNAUT

STORY AND PHOTOS
BY LESLIE ANTHONY





A real handful:
Lucy, an 18-foot
Burmese python
was found beside
a Wal-Mart store.



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YOU CAN SEE A PICTURE of a big snake putting the squeeze on somebody in a book. You can watch nervous, bug-eyed wranglers extracting the well-muscled animals from swamps on the Discovery channel. You can even look at all the crazy web photos of a snoozing Amazon oil-rig worker swallowed by an anaconda. But nothing—*nothing*—can prepare you for the fear instilled by the steel-cable feel of an 18-foot, 200-pound Burmese python in your arms. And if it hisses with every exhalation of its single, 20-litre lung—a sure sign it’s annoyed as hell—well, all the more unnerving.

“Lucy bit and constricted me three times already,” admits Justin, the man from Matthews Animal Rescue who originally found the snake in a culvert beside a Wal-Mart in Bradenton, Florida, and who is now displaying it to a group of curious onlookers. “But she’s generally pretty chill.”

With his tattooed, muscled arms, cropped beard and scraggly mullet dangling from beneath a straw cowboy hat, Justin looks like a cross between Dog the Bounty Hunter and Crocodile Dundee. After I handle the snake, he passes it over to a group of young people who have gathered to admire his find. The youngsters heft the now seemingly somnolent Lucy while I take photos. One cradles the snake’s head and the rest support the massive body. An ecstatic five-year-old holds up a section with hands raised overhead. As I snap his picture, it’s hard for me not to dwell on how easily he would fit inside Lucy and barely create a bulge.

It’s not an abstract thought: the spectre of a small child being swallowed by a wild marauding python in Florida is very, very real.

If you need to have a meeting about an invasive species, it’s already too late. —Dr. Fred Kraus

THE VIEW OUTSIDE Meg Lowman’s Sarasota home is like many in Florida’s labyrinthine sub-coastal suburbia: a freshwater canal meanders lazily between a wall of jungle-dark forest on one side and the sweeping manicured lawns of palatial homes on the other. Sandhill cranes, white ibises and various herons stand at attention in the shallows of the black water. Otters fish stealthily near the forest, and alligators pop up regularly in the canal to cruise the watery strip for a meal. The gators often lumber out into the reeds on the forest side, and, very occasionally, pull up on the edge of a lawn to sun. But unless someone feeds them, an inherent fear of humans keeps the gators at bay; the slightest approach sends them scurrying back to their submarine world.

Gazing around this bucolic-if-swampy scene, you get the idea that no matter how much Florida’s abundant land-gobblers scarify the landscape (which they do with apparent abandon), benign nature will barge right back in. But then you hear the story about the 13-foot Burmese python that a woman found in her garage a couple streets over. It’s nature, sure, but not Florida nature. And certainly not benign. If the woman owned a cat or a dog, either could easily have found its way into the snake’s stomach. So too could the otters and birds around the slough. Even alligators are a legitimate meal for the voracious and extra-large serpents,



Opposite: Curious kids get a feel for the lovely Lucy. This page (clockwise from above): Skip Snow with the skin of a 16-foot python that he took to Congress; Snow and his team opening up a specimen from the Everglades; one of the many Python Project snake coolers; just a few of the eggs inside a pregnant female.

which are also amazingly prolific (they can lay over 100 eggs). In fact, the Burmese python—native to Southeast Asia as its name suggests—is officially out of control in South Florida. The specimens turning up are no longer anomalous pet-trade escapees or the result of overburdened owners turning them loose. The species is established, breeding and spreading rapidly, a bona fide nuisance eating everything in its path. Everyone from university biologists to wildlife managers to state legislators now believe radical measures are required to stop it.

IN ONE OF THE ROOMS AT HIS LAB, BIOLOGIST SKIP SNOW HAS A PILE OF HEAVY PLASTIC COOLERS STACKED LIKE BRICKS, EACH STENCILLED "PYTHON PROJECT." IT'S THE MOTHERLODE OF SNAKES

Which is why many of those people are sitting around a table in Meg Lowman's house. Lowman—whose home is decorated in Amazon chic, with tribal masks, blowguns and other primitive weaponry—is a director of Environmental Initiatives and a professor of Biology and Environmental Studies at New College of Florida. Her research interests in insect-plant ecology typically hover high above the ground in tropical canopies, but Lowman is hosting this synod of students, scientists, trappers, politicians and policy-makers as a prelude to a formal conference she has organized on Florida's invasive herpetology problem

(herpetology being the study of reptiles and amphibians). She is chairing both gatherings because she has voluntarily taken on the mantle of Supreme Intergalactic Commander of the county's invasive "herp" task force, the latest piece in Florida's jurisdictional jigsaw to declare war on pythons and a legion of other non-native species.

The politicians and biologists talk well into the night, all of them very well-informed as far as herps are concerned. The university types lead respected research programs on various reptiles and amphibians, and have also authored papers on invasive species. A representative of the Florida Wildlife Commission once worked in the increasingly suspect pet trade. Even the Sarasota County Commissioner is an amateur herpetologist who spent his formative years crawling through scrub after the *ne plus ultra* of Florida serpents, the beautiful and now extremely rare Indigo snake. All decry the accelerating disappearance of native species under a rising tide of exotics. All have no idea what to do about it. Which is cheaper and more efficient in stopping new introductions: public education or law enforcement? How to deal with the animals already present: kill them outright or simply try to stop them from breeding? Much discussion centres on a viable definition of "invasive" to act upon: should a non-native species pose a threat to human health, the economy or just the ecosystem?

As a trained herpetologist myself, I've come down to Florida



Scenes from the front lines (clockwise from upper left): **Python Pete, the snake-sniffing beagle; the grisly remains of a 13-foot python that attempted—unsuccessfully—to swallow a seven-foot gator; a Florida state trooper handling a road hazard; sign of the troubled times; one of the baited traps on Key Largo.**

to see how this state—where gators swallow golfers, hurricanes swallow towns and hanging chads swallow democracy—is going to deal with another beckoning maw. But I must confess I also have a slightly less noble reason: I want to see these huge snakes for myself.

And that is part of Florida’s problem. Plenty of people who live down here think it’s cool to have pythons.

It’s only a matter of time before pythons get into the sugar cane south of Lake Okeechobee. Then there’s no stopping them.

—Skip Snow

“YOU KNOW ABOUT FIRE ANTS, don’t you?”

Skip Snow is staring at my sandalled foot, planted squarely on top of a sandy mound from which thousands of red specks swarm.

“Of course,” I say, nonchalantly removing my foot and surreptitiously shaking it off just as searing pain erupts in a dozen locations.

We’re hiking along a levee hemming the eastern edge of Everglades National Park. Dense overgrowth of an old banana plantation lies to the east, the famed River of Grass to the west. A nearby canal is the main conduit for the swarm of Burmese pythons flowing from the Everglades, estimated to contain up to 100,000 of the animals. Snow figured it was a good place to set some python traps.

A wildlife biologist for Everglades National Park, Snow was one of the first to realize the potential magnitude of the python problem. Now, as director of the park’s python project, he investigates ways to capture and remove them.

“We haven’t done well eliminating species we don’t want unless they have a certain life-history trait that can be exploited,” says Snow, “and Burmese don’t have that vulnerability. They survive happily here because they’re generalists in diet, habitat use and behaviour. So it comes down to this: how do you effectively, willfully achieve extinction?”

A MAJOR ISSUE IN THE ECOLOGICALLY FRAGILE EVERGLADES IS THAT PYTHONS ARE CONSUMING SPECIES OF SPECIAL CONCERN SUCH AS THE WOOD STORK AND THE MANGROVE FOX SQUIRREL

Suddenly, turkey vultures fill the air ahead. Keeping the same arm’s length distance from us as we step forward, these grim reapers rise and fall like black tumbleweeds.

“They were feeding on a dead python up here a few days ago,” says a university student who works with Snow. “So we know they’re using this route.”

Snow explains that trapping is still a big experiment. “What kind will work or will they work at all? What time of year is best for trapping—when the animals are mating, foraging or seeking

ABOVE RIGHT: MICHAEL BARRON/NATIONAL PARK SERVICE; BELOW RIGHT: COURTESY EVERGLADES NATIONAL PARK

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refuge? Should traps be baited with live animals or unbaited? I don't know. No one does."

Of the assorted traps set along the levee, most are baitless, others self-baiting—like the one we find that has a cotton rat huddled in a corner along with an ill-tempered water snake, which the student wrestles out. But no pythons.

I'm disappointed because I've already been searching hard. Two days of paddling through the swamps at various public access points had turned up nothing more exotic than a cottonmouth coiled around an empty Budweiser can. But squinting into the watery shadows and tangle of vegetation had taught me this: looking for a cryptically patterned snake of any size this way is like searching a galaxy-sized haystack for a hay-coloured needle. So I'd hit the road.

Cars are the biggest killers of pythons, which is why counting roadkill is the most reliable census method. Though pythons are now *the* most common snake on some Everglades roads, I'd had no luck seeing one while driving from west to east along the famous Tamiami Trail. Dead alligators, however, had abounded, as had freshly flattened rat snakes and water snakes. Signs advertising "Alligator Wrestling" were also legion, and I wondered if this anachronistic sideshow might be augmented with "Python Wrestling," a way for some of Snow's larger captures to earn their keep in the service of education.

Snow has certainly had some impressive finds. In December, 2005, he tracked four radio-tagged pythons through the park to get an idea of their movements and habits. The four snakes—one of which travelled 78 kilometres—led Snow and crew to 12 *untagged* pythons. One of the untagged snakes—a 16-foot female—confirmed the park officials' worst fears when it turned out she contained an endangered wood stork. Snow had the snake professionally skinned, figuring the prop might come in handy as a semiotic.

Later at his lab in the Dan Beard Center, an aging, nondescript bunker built far off the tourist path during the Cuban Missile Crisis, Snow shows me the skin. As he unrolls it—which seems to take forever—he recounts how he took it to Washington and stretched it out in the halls of Congress. Folks were impressed, but didn't really pay attention until he pointed to pictures of cute little fawns on office calendars, declaring: They *eat* those things!

If Snow knows anything about Burmese pythons, it's what they eat. The usually laconic ranger becomes positively animated when discussion turns to the python diet.

"Analyzing stomach contents is like opening Christmas presents," he says. "Most will be shirts and ties—you know, cotton rats and lots of mice—but once in a while there's a treasure like an alligator or a fawn deer."

He brandishes a zip-lock bag containing the tiny hooves of a young deer, its short hair frizzled from the acid-bath of the python's stomach.

"*Python molorus* eats a broad spectrum of prey," he begins to lecture, "which means wading birds, songbirds, bobcat, deer, rats of all types, and, it seems, a lot of rabbits. The last few years driving around here has been like, 'Where are all the rabbits?'"

But a major issue in the ecologically fragile Everglades is that pythons are clearly consuming species of special concern: wood stork, mangrove fox squirrel and even the sea-going frigate bird. (A frigate was found in the stomach of an inland python—they're still trying to figure that one out.)

The Burmese python may currently be Florida's number one invasive problem, but it's certainly not the only one. And some say that other animals might eventually prove to be more of a threat.

Take the black spiny-tailed iguanas—*Ctenosaura similis*. These aggressive lizards—which can grow to the size of a cat—have never been as common as green iguanas in the pet trade because they're mean, toothy and untamable. They're also pugnacious predators that will eat anything that fits in their mouths—they'll even forage through garbage cans like seagulls. People have found everything you can imagine in their stomachs—including traces of juvenile gopher tortoise, a highly endangered species crucial to Florida's ecology.



From the handful of *Ctenosaura* loosed in the mid-'70s on Gasparilla Island—a small island south of Sarasota—the native of Central America began spreading and multiplying obnoxiously to become the dominant predator on the islands in the area. By 2006, the area was devoid of other lizards, most birds that should have been present weren't, and the only snakes left were old—an ecosystem in collapse. One biologist I talked to warned that, while *Ctenosaura* may just be on a few small islands now, "if it spreads inland it's all over. For everything."

A local tax was raised to help address the problem, and a trapper is now being paid \$20 a head to dispatch the animals. So far, he's removed 13,000 iguanas, but an estimated 20,000 are still alive. Shooting them isn't easy—with a running speed of almost 35 kilometres per hour, *Ctenosaura* is listed by the *Guinness Book of World Records* as the world's fastest lizard.

Meanwhile, other experts suggest that the equally aggressive but much larger Nile monitor may have greater potential for destruction. One of the world's largest lizards—a six-foot eating machine, afraid of nothing—the Nile monitor has long been known to be living in the Cape Coral area, and a first specimen recently turned up on an island nearby. Monitors are relentlessly carnivorous throughout their long, large lives. And they *love* eggs, making omelettes of native bird, snake and lizard nests, and giving them the potential to impact fragile sea-turtle populations.

Todd Campbell of the University of Tampa told a conference last year that he thought people would start getting serious about Nile monitors when the first burrowing owl nest was wiped out. They didn't. So he feels that native herps and ground-nesting birds—anything that burrows or lay eggs in an area where there are Nile monitors—could be doomed. "I'm tired of giving this talk," he said, "but I'm going to keep doing it until you all listen."

—Leslie Anthony

Pugnacious predator:
[The black spiny-tailed iguana is wiping out the native wildlife.](#)

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“We’re just waiting to find an endangered Florida puma in a snake,” says Snow. “One good thing is that stomach contents have made some of our other work easier. Muskrats are hard as hell to find during mammal surveys, but easy to find in pythons.”

Snow then moves to a pile of heavy plastic coolers stacked like bricks at one end of the room, each stencilled “Python Project.” It’s the motherlode of snakes. Snow cracks a cooler open and pulls out a mesh bag containing what looks like a lumpy stone. When he lays the bag on a table, the stone unravels to life and Snow has a hard time getting a grip behind the head without being bitten by the lashing beast. The snake is almost seven feet, hefty, hungry and, for the moment, vicious as hell.

Which is another thing about these snakes. They can be aggressive. In January 2003, shocked tourists in the Everglades witnessed a python-alligator battle from a raised platform at the Royal Palm Visitor Center. (The gator won.) Since then, epic tilts between pythons and alligators worthy of a Japanese horror flick have become almost common. One involved a 13-foot python that burst open after swallowing a seven-foot gator; officials came across the grisly scene during a helicopter survey and a graphic picture of the mess went viral on the Internet.

If it has been in the pet trade, it has been introduced to Florida.

—Researcher at the Sarasota Invasive Herps Workshop

ONE BIG QUESTION may never be answered. In Florida parlance: Where the *hey-all* did all these goddamn *pie-thons* come from? Theories abound, but the primary explanation seems at odds with the numbers: could this plague of behemoths really have been introduced solely by uninformed owners whose pets outgrew their welcome?

From the mid-1990s through 2003, officials in Everglades National Park removed a total of around 50 pythons. Then, in 2004 alone, 61 snakes were removed. Biologists initially believed them to be discarded pets; after all, almost 100,000 Burmese pythons were imported to the U.S. between 1996 and 2006, and they’re bred by the thousands domestically. But when hatchlings were found deep within the park, authorities

had to admit that the adaptable species, dependent only on a permanent source of water, was firmly established. Officials doubled their efforts and even trained a snake-sniffing beagle—Python Pete—to help out. But python removal is still accelerating: 250 in 2007 and 600 by September of 2008.

Global trade and travel have spread the problem of introduced species everywhere, but Florida—with its sub-tropical climate, mix of terrestrial and aquatic habitats, busy ports and high human immigration—is particularly vulnerable. Escapees from homes, cargo ships, parks and attractions (*Visit Reptile World! See mighty pythons and cobras!*) have all contributed. Authorities don’t think that individuals are releasing huge numbers of pets intentionally (though one person did leave a python in a foreclosed home), but they believe that some dealers are. At one commercial operation, the surrounding woods are full of exotics, including pythons. Researchers believe this site may account for at least nine introduced species.

What’s to be done? A Florida statute makes it illegal to release an exotic animal, but it’s unenforceable unless authorities actually see somebody doing it. Burden of proof. Thus, nobody has ever been prosecuted under the statute. And if they were, it’s a \$1,000 fine and/or up to a year in jail if convicted—the equivalent of a fine for littering, when what’s happening is tantamount to ecological arson.

You’d think that if it’s so easy for captive stuff to get away, then there’s all the more reason for regulations and containment laws—like those enacted after Hurricane Andrew in 1992, when thousands of species of plants and animals housed and bred on the edge of the Everglades were literally blown all over Florida. Government types like to point to Andrew as the cause of the Everglades python problem, saying the timing seems about right to account for the discovery and rapidly rising curve of captures, and that a known breeder in nearby Homestead was likely the source.

Skip Snow doesn’t agree. “Andrew is unlikely as a cause. Pythons found near Nine-Mile Pond in 1995 included hatchlings, mid-sized and large snakes that don’t fit a release profile. I think the state people know everyone is pointing fingers at their lax regulations and lack of enforcement on the pet trade, and like to point

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to Andrew in a sort-of throw your hands up way that says: 'It's not our fault!' But here's the deal: a crime was committed or there was negligence; either way it's on their hands."

How much information on population biology is needed to manage an introduced species? Stop studying them and start killing them!

—Dr. Daniel Simberloff

"YOU KNOW ABOUT POISONWOOD, don't you?

Wildlife biologist Karen Garrod and I are taking our first tentative steps into the dense brush of Crocodile Lake National Wildlife refuge on Key Largo to check on a python trap.

"No, I don't," I say. I'd learned my lesson with the fire ants.

"It burns and itches pretty bad, especially if you're sensitive to stuff like that. It's *this* but not *that*," she says pointing at what look like identical leaves. "It's shinier, see?"

Not really. Which leads to a morning filled with complex ducking, pirouetting and occasional *pas de deux* with Garrod as I attempt to avoid anything with similar looking leaves—which, to my eyes, is almost everything.

Key Largo's first python was found in April 2007, by a visiting Scottish biologist working on the highly endangered Key Largo woodrat. Tracking a radio-collared rat, she instead turned up a python—whose stomach held the aforementioned rodent and its transmitter. Alarm bells rang. When a few more pythons turned up, potential effects on the woodrat—as well as the endangered cotton mouse and American crocodile—helped fully depress the panic button.

Garrod relates the scenario that then played out as we plow through jungle-like forest. Under the auspices of the Endangered Species Act in partnership with the U.S. Geological Survey, the U.S. Fish and Wildlife Service struck up a rapid response team at the end of January 2008. Garrod was picked for the team because she'd had experience—for two years she worked on a similar squad in Guam, where mouse-baited traps were used to control the troublesome brown treesnake (eradication is impossible). Now, each day on Key Largo, Garrod checks 33 traps located along a

stretch of County Road 905 between the two major north-south arteries to the mainland—U.S. 1 and Card Sound Road. That covers the land area between the main overland gateways. The problem? Burmese pythons are great swimmers, and the Everglades are less than 20 kilometres away.

Like Skip Snow's traps, Garrod's have various configurations; unlike Snow's, all are baited with a large, live rat. Raccoons, possums and even green iguanas mess with the traps and sometimes get into them. Large black racers and yellow ratsnakes are often found coiled on or near the traps, proof at least that the bait is effective in drawing some rodent-scarfing serpents. But so far, no pythons.

At last count, eight pythons had been found on Key Largo—all roadkills, save one beaten to death by a woman who saw it eating a dove in her backyard. Are these isolated cases of individuals working their way down from the Everglades, with maybe a smattering of released animals in the mix? Likely not: in July 2008, dead python hatchlings were found on the road.

Finally, Garrod and I reach our goal. Trap #12 of the Key Largo Burmese Python Control Project is an important one. Lodged on the brown forest floor beneath a sun-dappled mesh of greenery, it sits close to the brackish waters of Barnes Sound, and even closer to a flat, open, sunny area where several American crocodiles nest every year. At the right time, crocodile hatchlings are easy to find paddling around the adjacent lagoon. At the right time, even a small python could consume a good number of the highly endangered animals.

"If I actually found a python in one of these traps I would definitely be torn," says Garrod. "I'd be excited that the trap worked, saddened that the pythons *were* actually here, but—and I won't lie to you—a little remorseful for the python. I don't like to kill *anything*... but sometimes you gotta do what you gotta do."

POSTSCRIPT: In July, a two-year-old girl was killed by a pet Burmese python that had escaped its cage in her house near Orlando. State officials immediately licensed a small group of dedicated trappers to aid in eradication and control efforts. **e**

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