

tion that narrowly distributed Mediterranean snakes are more specialized than their widely distributed counterparts does not apply to the dietary ecology of these snakes.

Jump Dispersal in Introduced Mediterranean Geckos

From 1962–1997, Mediterranean Geckos (*Hemidactylus turcicus*) were intentionally introduced multiple times into a science building at the University



DAVIS/WIKIPEDIA.ORG

Slow rates of diffusion dispersal in introduced Mediterranean Geckos (*Hemidactylus turcicus*) suggest that the wide distribution of this species across the southern United States is a consequence of multiple jump dispersal events.

of Central Oklahoma in Edmond. In 2005, LOCEY AND STONE (2006. *Journal of Herpetology* 40:526–530) recorded 365 captures of 305 individuals and estimated the population size to be 1005 geckos with at density of 478 lizards/ha. The population had dispersed a maximum of 200 m from the point of introduction, a diffusion dispersal rate of 20 m/yr. The wide distribution of this species across the southern United States since their introduction in Key West, Florida was recorded in 1910 suggests that expansion of the species' range occurred as a consequence of multiple jump dispersal events instead of slow diffusion dispersal.

Population Structure and Density of Leopard Tortoises

Leopard Tortoises (*Geochelone pardalis*) are the largest tortoises in southern Africa, where they are widely distributed in a variety of habitats. MCMASTER AND DOWNS (2006. *Journal of Herpetology* 40: 495–502) studied Leopard Tortoises in semi-arid farmland in Nama-Karoo, central South Africa. The sex ratio of 92 tor-



ANDERS G.J. RHODIN, GEOLONIAN RESEARCH FOUNDATION

The population density of Leopard Tortoises (*Geochelone pardalis*) was lower in dry South African habitat than in more mesic situations, but adults were larger.

toises did not differ significantly from 1:1. Adult females were larger than adult males, and adults were larger than conspecifics studied in more mesic habitats. A population estimate of 57.6 ± 4.0 tortoises translated to a very low density of 0.017 tortoises/ha, much lower than in more mesic situations.

NEWS BRIEFS

Butler's Garter Snake Will Remain on Protected List

A legislative committee in Wisconsin that this summer had threatened to remove Butler's Garter Snake (*Thamnophis butleri*) from a protected list that stops developers from killing it, reversed course and decided to allow the snake to remain on a list of threatened species. The decision was praised by state Department of Natural Resources executive assistant Mary Schlaefter, who said protecting the endangered snake was vital to the overall health of the environment. Critical steps need to be taken when there is a species like this snake that is in danger of disappearing, she said.

With their habitat shrinking, the reptiles were placed on the threatened list in 1997 by the DNR, meaning that in most cases the snakes cannot be killed. The protected area encompasses about 405,000 acres in southeastern Wisconsin. Known for its colorful yellow stripes, the 1- to 2-foot-long snake is generally found

in marshes, prairies and fields, as well as in roadside grassy areas and in vacant lots. In addition to southeastern Wisconsin, it can be found in Ohio, Indiana, Michigan, and in southern Canada.

The Republican-controlled Joint Committee for Review of Administrative Rules decided in July to remove the snake from the DNR's threatened list if the agency didn't soften its regulations.



GARY CASPER

A legislative committee in Wisconsin that this summer had threatened to remove Butler's Garter Snake (*Thamnophis butleri*) from a protected list that stops developers from killing it, reversed course and decided to allow the snake to remain on a list of threatened species.

The agency on Tuesday outlined a number of changes it had made and was in the process of implementing, including reducing the time of review of proposed projects from 27 to seven days and coming up with more funding to reduce costs for homeowners to get needed surveys. Those surveys can cost up to \$10,000, said Andy Galvin, a consultation specialist in the DNR's bureau of endangered resources. The agency also reduced the number of acres in the protected area by 500. It is working to identify as many as 65 protected sites for the snake. Once those are established and stabilized, regulations on private landowners can be ended more quickly, Schlaefter said. "Our goal is to manage based on science, but in a way that minimizes impact on homeowners," she said.

The committee voted 7-2 not to take the snake off the protected list. One of the two no votes, state Rep. Debi Towns, R-Janesville, said she was concerned that the DNR was not setting a

goal of how many snakes needed to be in the area before the protection is removed. "I just think the whole thing is so nebulous. ... There's no end game," Towns said. Also voting no was state Rep. Dan LeMahieu, R-Oostburg.

Developers had complained that the snake's presence was delaying, and sometimes halting, construction projects. The snake has been found in Fond du Lac, Milwaukee, Ozaukee, Sheboygan, Washington, and Waukesha counties.

Scott Bauer
Associated Press

Database Details Pesticide Effects on Reptiles and Amphibians

The citizens group Californians for Alternatives to Toxics (CATs) has created a user-friendly database of the most recent international research about the effects of pesticide use on amphibians and reptiles. "By bringing together current research on beleaguered amphibians and reptiles, we have made this global information readily accessible to academics, neighborhood activists, and students," said Patty Clary, CATs programs director. The Reptile, Amphibian, and Pesticides database (RAP) builds on an earlier version that covered the literature to 1998 and was assembled by the Canadian Wildlife Service.

"The value of this database is that biologists and other users can easily access information about the effects of pesticides on amphibians and reptiles drawn from a variety of sources," said Marlon Gil, a biologist who compiled the database for CATs. Gil, whose frog research has taken him as far afield as West Africa, said, "Hopefully this will enhance efforts to prevent losses of these species worldwide." The updated research is searchable by species and genus, location of research, pesticide studied, and toxicological effect. It includes a list of 327 scientific papers published since 1999 on the effects of pesticides on amphibians and 128 research papers on the impact of pesticides on reptiles. Clary said that CATs will update the database as new information becomes available.

The database specializes in field studies from California that are meshed with findings from the unique pesticide-use database of the state's Department of Pesticide Regulation. California is one of

the "hot spots" in the global decline of amphibian populations, and native aquatic frog and toad species have been disappearing for two decades. For example, research by the U.S. Geological Survey since 1997 has revealed dangerous levels of pesticides in both the bodies of frogs and in their aquatic habitats in pristine areas of the Sierra Nevada. Entire populations of native frogs have vanished, and research has pinpointed pesticide sprays that have drifted hundreds of miles from the Central Valley to settle in wilderness areas.

Founded in 1982, CATs was a major player in a suit that won increased protection from pesticides for the Red-legged Frog (*Rana aurora draytonii*), made famous by Mark Twain in his story "The Celebrated Jumping Frog of Calaveras County." The new database is available at the CATs website at: <http://www.alternatives2toxics.org>.

Environment News Service
22 December 2006

Python Patrol Plies the 'Glades: Crews Aim to Stem Voracious Non-native Species Imperiling the Fragile Ecosystem

"SNAKE!" Hearing this shout, Skip Snow slammed on the brakes. When the off-roader plowed to a halt, he and his partner, Lori Oberhofer, leapt out and took off toward two snakes — 10-foot Burmese Pythons (*Python molurus bivittatus*) lying on a levee, sunning themselves. After slipping, sliding and tumbling down a rocky embankment, Snow, a wildlife biologist, grabbed one of the creatures by the tail. The python, Oberhofer says, did not care much for that. "It made a sound like Darth Vader breathing," she said, "and then its head swung around and I saw this white mouth flying through the air." Snow saw the mouth too — jaws open 180 degrees, needle-sharp teeth bared in an almost devilish grin. He let out a shriek, then blinked. When his eyes opened, the python's head was hanging in midair, a foot from his own. Oberhofer, with a ninja-like thrust, had snared the python in midstrike. In the end, the humans were victorious: Both snakes were bagged, trucked off to the Everglades Research and Education Center, euthanized and necropsied for the benefit of science.

So goes python control in the Everglades, a painstaking, around-the-clock slog against a voracious, foreign snake species that has established a stronghold in this wilderness and put native wildlife at risk. Scientists also worry that these slithery giants may soon start to feast on native species whose survival is in doubt. "The Everglades doesn't work by itself anymore," says Leon Howell, who has been associated with the park for 21 years and now is a park ranger. "This whole landscape has to be managed today: water, fire, exotics — you name it." Which explains the evolution of Snow and Oberhofer into a human firewall against non-native species. Without them, Howell figures, "there'd be pythons all over the place."

The pythons began turning up here in the late 1990s. Pet owners were releasing their unwanted snakes in and around the park. Convincing the public that the pythons are a danger to the Everglades is a tough sell. As vast as these wetlands may appear, they have been so drained and abused by humans in the last century that a population of pythons, if left unchallenged, could take down this fragile web of life within a generation. "It's a now-or-never thing," Oberhofer said. "We still have a chance, with the python's numbers being so limited, to do something. But if we let this go, we don't know how far the pythons will migrate, how much they will reproduce."

Native to southeastern Asia, the Burmese Python has come to the



ORLANDO COY



KENNETH L. KRYSKO

Burmese Pythons (*Python molurus bivittatus*) have become established in the Everglades and efforts to control them and other invasive species may be a last-ditch effort to protect native wildlife.



LORI OBERHOFER

As Burmese Pythons (*Python molurus bivittatus*) become more common in the Everglades, so do encounters with native wildlife, such as this American Alligator (*Alligator mississippiensis*). Although large 'gators eat pythons, large snakes eat small alligators. Long-term effects on either species are unknown.

Everglades by way of the burgeoning global trade in exotic pets, creatures shipped to America legally and distributed via pet shops and flea markets. Since 2000, about 1 million pythons have been imported to the U.S. for commercial sale.

Todd Lewan
Associated Press
20 December 2006

Tighter Rules Urged as Exotic Pets Adapt to Florida's Wild

With giant snakes battling alligators in the Everglades, the state wildlife commission has proposed sharp restrictions on the owners of Burmese Pythons (*Python molurus bivittatus*) and four other non-native reptiles, including a requirement to implant their slithery pets with computer identification chips.

Florida's climate has made the state a congenial home for species from Africa, Asia, and South America let loose by their owners after they become too big or too high maintenance. A breeding population of Burmese Pythons has been discovered in Everglades National Park, where the constrictors have been killing native birds, mammals, and, in one notorious incident, an alligator. Elsewhere in the state, trappers routinely catch pythons and other large non-native snakes.

The new rules would limit sales of constricting snakes that grow to at least 12 feet, specifically Burmese Pythons,

Reticulated Pythons (*P. reticulatus*), African Rock Pythons (*P. sebae* and *P. natalensis*), Amethystine or Scrub Pythons (*Morelia amethystina*), and Green Anacondas (*Eunectes murinus*). The rules also would restrict sales of Nile Monitors (*Varanus niloticus*), carnivorous lizards that can grow as long as 6 feet and already have established a breeding population in the Cape Coral area on Florida's Gulf Coast.

At the moment, anyone can walk into a pet shop and walk out with a python. Under the new rules, buyers would have to be 18 years old, complete a questionnaire, apply for a state permit, submit a plan for keeping the animal secure in case of a hurricane or other disaster, and have the reptile implanted with a computer chip. The rules would go into effect 1 January 2008. They would be retroactive, although owners would have until 1 July 2008 to comply with the chip requirement. Assuming — and hoping — that many owners of the big snakes would find these rules too onerous, the state plans to set up amnesty programs that would allow people to drop off unwanted reptiles at sites yet to be determined — no questions asked. “We don't know how many are out there,” West said. “We have a suspicion it's a high number. We're hoping a lot of people will say they don't want to do this and turn them in.” The restrictions would have to be approved by the wildlife commission, a seven-member board appointed by the governor. The commission initially will consider the proposals in February.

David Fleshler
South Florida Sun Sentinel
1 January 2007

Court Grants Protection for Recently Discovered Salamander

In response to a suit brought by the Environmental Protection Information Center, Klamath-Siskiyou Wildlands Center, and Center for Biological Diversity, Superior Court Judge Peter Busch ruled today that the Department of Fish and Game (DFG) cannot lawfully strip protection for the Scott Bar Salamander (*Plethodon asupak*) under the California Endangered Species Act.

Formerly considered a subpopulation of the Siskiyou Mountains

Salamander (*P. stormi*), which is listed as a threatened species under the California Endangered Species Act, the Scott Bar Salamander was described as a new species in May 2005. Rather than herald the discovery of new species, DFG immediately informed forestry officials and timber companies that the salamander had lost protection, which allowed several logging projects to destroy salamander habitat. At least one private logging plan is currently proposed in Scott Bar Salamander habitat and likely will be affected by today's decision.

“DFG's move to allow logging in the Scott Bar Salamander's habitat runs counter to their mission to protect the state's fish and wildlife,” said Joseph Vaile, campaign director of the Klamath-Siskiyou Wildlands Center (KS Wild). “The court today made it clear that DFG lacks the authority to remove protections from rare species just because they were described as a new species.”

The court's decision was important because it clarifies that only the Fish and Game Commission, and not DFG, can remove protection for species under the California Endangered Species Act. Because advances in genetic analyses allow detection of previously undetectable species, it is quite likely that other new species will be separated from already protected species. Today's decision ensures that these species will continue to receive protection until the Fish and Game Commission has a chance to review their status in light of the thorough scientific review and public comment required under the law.

16 January 2007



ALAN BARRON

A court ruling clearly stated that the California Department of Fish and Game cannot remove protection from rare species, such as the Scott Bar Salamander (*Plethodon asupak*), just because they were described as new species.