

NEWSBRIEFS

Canada's Roadkill Hot Spot

The fourth deadliest road in the world for turtles just got a little safer. Work crews finished laying 2,500 meters of temporary fencing this week to prevent turtles and other creatures from wandering out of their marshlands onto the Long Point (Ontario) Causeway. "It's just an attempt to stop the carnage right now," said reptile biologist Scott Gillingwater, shortly after finding a Midland Painted Turtle (*Chrysemys picta marginata*) squashed into the pavement on which 10,000 animals die each year.

Long Point, extending into Lake Erie south of Brantford, defines one of the most biologically diverse regions in Canada. The United Nations recognizes the peninsula and its neighboring wetlands as one of the country's 13 World Biosphere Reserves, with multitudes of birds, animals, and reptiles, including eight types of turtles and 18 kinds of snakes — but the wetlands lie between the mainland and the peninsula. In 1927, authorities built a 3.5-km causeway to allow car access to cottages, fishing spots, and public beach areas that later developed into a provincial park. They created a killing field.

"My father and his dad often talk about their trips to their cottage on Long Point ...," area biologist Paul Ashley wrote two years ago in *BirdWatch Canada*. "My grandfather reminisces that back then the turtles and snakes were so thick that you couldn't help but run over a few." Now population numbers are dropping noticeably.

"The Northern Map Turtle [*Graptemys geographica*] is a species of special concern," reptile biologist Gillingwater said, as he stepped through

the marshes to examine nesting sites. "The Blanding's Turtle [*Emydoidea blandingii*] is threatened, and the Eastern Fox Snake [*Elaphe gloydi*] has recently been upgraded ... from threatened to endangered."

With warm weather, turtles begin roaming widely in search of mates or places to lay eggs. Skunks, foxes, and possums will eat most of the eggs. Birds and bullfrogs will go after hatchlings. Only a few turtles will survive to adulthood. Several years ago, Canadian Wildlife Service researchers estimated that between April and October the causeway handles 2,250 car trips a day. On summer weekends the number quadruples. The same study found that 10,000 animals a year die on the road — mostly Leopard Frogs (*Rana pipiens*), but 99 other species as well. Another Canadian Wildlife Service study showed that some drivers run over turtles and snakes for sport. "Working from existing literature, U.S. conservationist Matthew Aresco of northern Florida named Long Point Causeway the world's fourth-worst road for turtle mortality after three U.S. roads. Area residents decided enough was enough.

Two years ago, some 20 local groups came together to rebuild the causeway. They decided that permanent barriers to the roadway and underground passages must be created for animals. Waterways must be opened for spawning fish. A \$40,000 feasibility study by a Kitchener, Ontario, firm recently put renovation costs at \$14–20 million. Provincial and national bodies would need to get involved. In the meantime, the Ontario

Species at Risk Stewardship Fund has paid \$30,300 to erect 2,500 m of plastic fencing toward the south end of the causeway. Sand is also being dumped inside the fences as temporary turtle nesting areas. A modest start, perhaps, but the efforts should save a few turtles.

John Goddard, Toronto Star

Snake-handling Pastor Arrested

The pastor of a Kentucky church that handles snakes in religious rites was among ten people arrested by wildlife officers in a crackdown on the venomous snake trade. Undercover officers purchased more than 200 illegal reptiles during the investigation. More than 100 snakes, many of them deadly, were confiscated in the undercover sting after Thursday's arrests, said Col. Bob Milligan, director of law enforcement for Kentucky Fish and Wildlife. Most were taken from the Middlesboro home of Gregory James Coots, including 42 Copperheads (*Agkistrodon contortrix*), 11 Timber Rattlesnakes (*Crotalus horridus*), three Cottonmouth Water Moccasins (*A. piscivorus*), a Western Diamondback Rattlesnake (*C. atrox*), two cobras and a Puff Adder (*Bitis arietans*).

Handling snakes is practiced in a handful of fundamentalist churches across Appalachia, based on the interpretation of Bible verses saying true believers can take up serpents without being harmed. The practice is illegal in most states, including Kentucky.

Coots, 36, is pastor of the Full Gospel Tabernacle in Jesus Name in



GLENN LOWSON, TORONTO STAR

A Midland Painted Turtle (*Chrysemys picta marginata*) makes the trek across the treacherous causeway.

DANGER ZONES

The top five sites for turtle roadkill per mile are:

1. U.S. Highway 27 at Lake Jackson near Tallahassee, Florida.
2. U.S. Highway 441 at Payne's Prairie Preserve State Park near Gainesville, Florida.
3. U.S. Highway 93, Mission Valley, Montana.
4. Long Point Causeway, Ontario.
5. Cape May, New Jersey.

Matthew Aresco, Lake Jackson Ecopassage Alliance



SUZANNE L. COLLINS, DNR

Copperheads (*Agkistrodon contortrix*) are frequently handled in a small number of fundamentalist churches who trust that true believers can take up serpents without being harmed.

Middlesboro, where a Tennessee woman died after being bitten by a rattlesnake during a service in 1995. Her husband died three years later when he was bitten by a snake in northeastern Alabama. Coots was charged Thursday with buying, selling, and possessing illegal reptiles. He had no listed telephone number and could not be reached for comment.

The snakes, plus one alligator, were turned over to the nonprofit Kentucky Reptile Zoo in Slade. Most appeared to have been captured from the wild, with some imported from Asia and Africa. Zoo Director Jim Harrison said some of the animals would likely have become exotic pets had they not been seized. "There's been a large trade in exotics for years," he said. "Some people are just fascinated with them." "You can purchase anything off the Internet except common sense," Harrison said. "A venomous snake isn't a pet. You don't play with it. If you do, you're an idiot."

Butler's Garter Snake in Trouble

The Wisconsin Department of Natural Resources (DNR) is changing the way it interprets its authority and definition of "Take" under the Wisconsin Endangered Species Law, and is proposing a new "regulatory framework" for the Butler's Garter Snake (*Thamnophis butleri*). These changes would remove most protections for habitat utilized by endangered and threatened species, substantially reducing the Department's regulatory jurisdiction. The new Butler's Garter Snake "framework" would allow unregulated development of most upland habitat utilized by the snake for its life cycle. The Department has begun implementing these changes without public notice.

The proposed "regulatory framework" is based on a new legal interpretation of "Take" and the Department's jurisdiction, which suggests that if no animals are immediately and obviously killed by an action, a "Take" is avoided and the Department has no authority, even if the actions result in significant harm to the resource, or deaths that are not immediately observed. This new interpretation does not acknowledge that destroying a species' habitat harms individuals of the species, and does not acknowledge that a "Take" occurs when mortality results when individuals return to a lost habitat area and cannot find food or shelter, and through loss of reproductive potential and increased mortality from overcrowding in remaining habitat (if any remains). Such mortality would be a direct result of the unregulated habitat loss. The Department also takes no account of cumulative harm, jeopardy, or viability of the resource resulting from these habitat and population losses. This new interpretation essentially removes protections for all endangered and threatened species in many, if not most, situations. It allows a person to simply shoot an animal off, or wait for it to walk, crawl, or fly away, perhaps to get a drink of water, and then destroy the habitat upon which it depends. For the Butler's Garter Snake, which feeds almost exclusively on earthworms (which do not occupy saturated wetland soils), upland habitat is crucial for obtaining food and shelter, and incubating embryos. The snakes depend on grasses and other vegetation for shelter from predators. Pregnant females seek warm upland sunlit areas adjacent to grasses (to which they flee when disturbed). Such basking sites are crucial to embryonic development in this ectothermic species so proper temperatures can be achieved. Loss of upland habitat would crowd snakes into wetlands, where many would succumb to lack of food and shelter from the elements, overcrowding, and increased predation. Snakes hidden within upland soil and duff retreats at the time of grading, where they take shelter for the night, sit out periods of hot dry weather, and hibernate, would simply be crushed by heavy equipment.

The DNR has issued a "regulatory framework" for selected (stakeholder

public review. They are holding meetings about it with stakeholders, and state they will develop a new broad authorization based on it after comments are received. The new broad authorization will be public noticed and vetted by the Natural Resources Board (NRB). If similar to the "framework" being distributed, this broad authorization will automatically approve the "Take" that results from projects that follow certain minimization measures, such as snake fencing, snake removals, and staying 300 feet away from wetland boundaries. However, the Department, by a form letter being distributed to parties currently in the Butler's Garter Snake approval process, appears to be implementing the substance of the proposed new broad authorization before it is public noticed or reviewed by the NRB.

The "regulatory framework" lists a number of measures that minimize "Take" of snakes. The draft regulatory framework correctly refers to these as avoidance measures that minimize "Take," but the form letter contradicts this and states that these measures actually avoid "Take." As a point of fact, these measures do not avoid "Take," they only minimize it. The Department's own research, for example, documented that snakes occupy habitat more than 300 ft from a wetland boundary (Joppa and Temple, 2005. Use of upland habitat by Butler's Garter Snake (*Thamnophis butleri*). *Bulletin of the Chicago Herpetological Society* 40:221-227), and ample evidence exists of snakes crossing fence lines and over-wintering in uplands. The incorrect portrayal of minimization measures as complete avoidance is the basis for the removal of protections, and unsupported by science.



GARY CASPER

The Wisconsin Department of Natural Resources (DNR) is proposing a new "regulatory framework" for the Butler's Garter Snake (*Thamnophis butleri*) that would remove most protections for habitat utilized by this and other endangered and threatened species.

If any of these measures are implemented, the draft framework allows the project to proceed with no further review, ceding its authority to require conservation measures to avoid cumulative harm and jeopardy. This will result in nearly complete loss of the upland habitats on which the species depends, with no mitigation required.

The “regulatory framework” uses an unsupported definition of “over-wintering habitat,” essentially equating it with wetlands. This is repeated in the form letter. However, ample evidence indicates that snakes hibernate in certain upland situations, such as crayfish burrows, rotted tree root channels, loose fill, and old foundations. The Department acknowledges this by claiming that they will study the matter. The assertion that Butler’s Garter Snakes only hibernate in wetlands is not supported by a single scientist, and the “Take” associated with developing upland overwintering sites is being allowed without regulation.

The “regulatory framework,” if approved as a new broad authorization, would provide a path leading to essentially no protections for the upland habitat portion of Butler’s Garter Snake critical habitat (in most cases), clearly resulting in significant harm to the resource, with no jeopardy analysis performed. The current “regulatory framework” does not acknowledge this, takes no account of cumulative harm, and cedes the Department’s authority and obligation to protect the resource.

The San Francisco Airport Aims to Boost the Population of Endangered San Francisco Garter Snakes

The Peninsula’s most tenacious population of endangered San Francisco Garter Snakes (*Thamnophis sirtalis tetrataenia*) is about to make a major comeback in a little-known urban canal system steps away from a concrete jungle of airport runways, highway on-ramps, and railroad tracks. San Francisco International Airport’s team of planners and environmental engineers is in the final stages of preparing for a 10-year, \$4 million project to redesign two urban storm water canals that also happen to be prime habitat for the San Francisco Garter Snake. The construction project, beginning in mid-August, is designed to dredge four miles’ worth of canals that

provide flood control for the airport while creating a veritable snake paradise of burrows, swimming holes, and hunting sites for prey.

Motorists southbound on Highway 101 would never suspect they were speeding by this little oasis of willow and acacia plants along the banks of a channel that stays wet through the summer. This is the place — Cupid’s Row Canal in San Bruno, along with the South Lomita Canal in Millbrae — to which San Francisco Garter Snakes have been restricted for the last 50 years as the surrounding land has been filled with malls and subdivisions.

The habitat enhancement project, which is seeking an environmental permit from San Francisco and several state agencies, evolved out of an incident in 2003 when a storm flooded the neighborhood around the Cupid’s Row Canal. Both canals suffer from silt buildup and require regular dredging, but dredging can be tricky because of potential impacts to the garter snake and the California Red-legged Frog (*Rana aurora draytonii*), its main source of food.

The solution on which airport officials settled was to re-engineer the canals, creating sediment traps that would minimize the need to dredge as often, and widening the canals to create still pools where the frogs could lay their eggs. The next time they have to maintain the canal a decade hence, officials hope the snake and frog populations will have rebounded so strongly that getting a permit won’t be quite so complicated. “It’s like expanding their subdivision. There’s more space for them to set up their burrows close to the water,” said Ernie Eavis, deputy airport director and chief engineer.

The San Francisco Garter Snake has been listed as endangered since 1967, its wetland habitat threatened by develop-



The largest known population of endangered San Francisco Garter Snakes (*Thamnophis sirtalis tetrataenia*) in the Bay Area exists in an area owned and maintained by San Francisco International Airport.

ment while its prey, the Red-legged Frog, became correspondingly rare (it is now listed as a threatened species). By 2004, the snake was so scarce that state officials were asking the public to help find the remaining population so it could be protected. In 2005, five pairs of snakes were transported from the Netherlands to San Francisco.

A few pockets of the distinctive blue-and-brown snake remain, mostly in coastal areas, such as Mori Point in Pacifica, and in parts of coastal Santa Cruz County. Scientists believe they originated in the flatlands around what is now Highway 280. However, the largest known population in the Bay Area now exists in the narrow “West of Bayshore” area owned and maintained by San Francisco International Airport. The U.S. Fish and Wildlife Service has been aware of their presence there since the 1970s, but was under the impression that their numbers had dwindled in recent years. The Service was proven wrong by a study, conducted this spring, that found between 400 and 500 San Francisco Garter Snakes. “It’s hard to tell how long the snakes have been there. It’s completely surrounded by development, so it’s like a little island population. That population is going to be isolated from all the others, but at one time they were probably able to go up the watershed and communicate with all the others,” said David Kelly, a Fish and Wildlife Service biologist familiar with the project.

The snakes’ survival becomes even more impressive considering how close they came to being wiped out by development. Only the fact that the airport bought the land in the 1920s spared their habitat.

Julia Scott, Bay Area News Group

The Bush Administration Seeks to Kill the Endangered Species Act

Parts of the Endangered Species Act may soon be extinct. The Bush administration wants federal agencies to decide for themselves whether highways, dams, mines, and other construction projects might harm endangered animals and plants. New regulations, which do not require the approval of Congress, would reduce the mandatory, independent reviews government scientists have been performing for

35 years, according to a draft first obtained by *The Associated Press*.

Interior Secretary Dirk Kempthorne said late Monday that the changes were needed to ensure that the Endangered Species Act would not be used as a “back door” to regulate the gases blamed for global warming. In May, the Polar Bear became the first species declared as threatened because of climate change. Warming temperatures are expected to melt the sea ice on which the bear depends for survival.

The draft rules would bar federal agencies from assessing the emissions from projects that contribute to global warming and its effect on species and habitats. “We need to focus our efforts where they will do the most good,” Kempthorne said in a news conference organized quickly after AP reported details of the proposal. “It is important to use our time and resources to protect the most vulnerable species. It is not possible to draw a link between greenhouse gas emissions and distant observations of impacts on species.”

If approved, the changes would represent the biggest overhaul of endangered species regulations since 1986. They would accomplish through rules what conservative Republicans have been unable to achieve in Congress: Ending some environmental reviews that developers and other federal agencies blame for delays and cost increases on many projects. The chairman of the House Natural Resources Committee, which oversees the Interior Department, said he was “deeply troubled” by the changes. “This proposed rule ... gives federal agencies an unacceptable degree of discretion to decide whether or not to comply with the Endangered Species Act,” said Rep. Nick Rahall, D-

WV. “Eleventh-hour rulemakings rarely if ever lead to good government.”

The new regulations follow a pattern by the Bush administration not to seek input from scientists. The regulations were drafted by attorneys at both the Interior and Commerce Departments. Scientists with both agencies were first briefed on the proposal last week during a conference call, according to an official who asked not to be identified. Last month, in similar fashion, the Environmental Protection Agency surprised its scientific experts when it decided it did not want to regulate greenhouse gases under the Clean Air Act. The rule changes unveiled Monday would apply to any project a federal agency would fund, build, or authorize that the agency itself determines is unlikely to harm endangered wildlife and their habitat. Government wildlife experts currently participate in tens of thousands of such reviews each year.

The revisions also would limit which effects can be considered harmful and set a 60-day deadline for wildlife experts to evaluate a project when they are asked to become involved. If no decision is made within 60 days, the project can move ahead. “If adopted, these changes would seriously weaken the safety net of habitat protections that we have relied upon to protect and recover endangered fish, wildlife, and plants for the past 35 years,” said John Kostyack, executive director of the National Wildlife Federation’s Wildlife Conservation and Global Warming initiative.

Under current law, federal agencies must consult with experts at the Fish and Wildlife Service or the National Marine Fisheries Service to determine whether a project is likely to jeopardize any endangered species or to damage habitat, even if no harm seems likely. This initial review usually results in accommodations that better protect the 1,353 animals and plants in the U.S. that are listed as threatened or endangered, and determines whether a more formal analysis is warranted. The Interior Department said such consultations are no longer necessary because federal agencies have developed expertise to review their own construction and development projects, according to the 30-page draft obtained by the AP. “We believe federal action agencies will err on the side of caution in making these determinations,” the proposal said. The direc-

tor of the Fish and Wildlife Service, Dale Hall, said the changes would help focus expertise on “where we know we don’t have a negative effect on the species but where the agency is vulnerable if we don’t complete a consultation.”

Responding to questions about the process, Hall said, “We will not do anything that leaves the public out of this process.” The new rules were expected to be formally proposed immediately, officials said. They would be subject to a 30-day public comment period before being finalized by the Interior Department. That would give the administration enough time to impose the rules before November’s presidential election. A new administration could freeze any pending regulations or reverse them, a process that could take months. Congress could also overturn the rules through legislation, but that could take even longer. The proposal was drafted largely by attorneys in the general counsel’s offices of the Commerce Department’s National Oceanic and Atmospheric Administration and the Interior Department, according to an official with the National Marine Fisheries Service, who spoke on condition of anonymity because the plan hadn’t yet been circulated publicly. The two agencies’ experts were not consulted until last week, the official said.

Between 1998 and 2002, the Fish and Wildlife Service conducted 300,000 consultations. The National Marine Fisheries Service, which evaluates projects affecting marine species, conducts about 1,300 reviews each year. The reviews have helped safeguard protected species such as Bald Eagles, Florida Panthers, and Whooping Cranes. A federal government handbook from 1998 described the consultations as “some of the most valuable and powerful tools to conserve listed species.” In recent years, however, some federal agencies and private developers have complained that the process results in delays and increased construction costs. “We have always had concerns with respect to the need for streamlining and making it a more efficient process,” said Joe Nelson, a lawyer for the National Endangered Species Act Reform Coalition, a trade group for home builders and the paper and farming industry.

Sen. Barbara Boxer, D-CA, chairwoman of the Environment and Public Works Committee, called the proposed



GEORGE SHUSTER

Current proposals to alter regulations regarding enforcement of the Endangered Species Act would have undermined efforts to protect endangered species, such as the Gray Whale (*Eschrichtius robustus*).

changes illegal. “This proposed regulation is another in a continuing stream of proposals to repeal our landmark environmental laws through the back door,” she said. “If this proposed regulation had been in place, it would have undermined our ability to protect the Bald Eagle, the Grizzly Bear, and the Gray Whale.”

The Bush administration and Congress have attempted with mixed success to change the law. In 2003, the administration imposed similar rules that would have allowed agencies to approve new pesticides and projects to reduce wildfire risks without asking the opinion of government scientists about whether threatened or endangered species and habitats might be affected. The pesticide rule was later overturned in court. The Interior Department, along with the Forest Service, is currently being sued over the rule governing wildfire prevention. In 2005, the House passed a bill that would have made similar changes to the Endangered Species Act, but the bill died in the Senate. The sponsor of that bill, then-House Natural Resources chairman Richard Pombo, R-CA, told the AP that allowing agencies to judge for themselves the effects of a project will not harm species or habitat. “There is no way they can rubber stamp everything because they will end up in court for every decision,” he said. However, internal reviews by the National Marine Fisheries Service and Fish and Wildlife Service concluded that about half the unilateral evaluations by the Forest Service and Bureau of Land Management that determined that wildfire prevention projects were unlikely to harm protected species were not legally or scientifically valid. Those had been permitted under the 2003 rule changes. “This is the fox guarding the hen house. The interests of agencies will outweigh species protection interests,” said Eric Glitzenstein, the attorney representing environmental groups in the lawsuit over the wildfire prevention regulations. “What they are talking about doing is eviscerating the Endangered Species Act.”

For more information see the Fish and Wildlife Service (www.fws.gov/endangered), National Marine Fisheries Service (www.nmfs.noaa.gov/pr/laws/esa/), and the National Wildlife Federation (www.nwf.org/news).

Dina Cappiello, Associated Press

Man Bitten by Gila Monster

On 25 June, a 24-year-old homeless man who had wandered into the Saguaro National Park found a Gila Monster (*Heloderma suspectum*) and picked it up because — as he later told rangers — “it wanted to be friends.” The man then placed the lizard on his shoulders, whereupon it promptly bit him on the neck. While trying to shed the animal, it bit him once more on the hand. He then picked it up and wrapped it in a piece of clothing. A park volunteer encountered the man walking on a roadway adjacent to the park and asked if he needed help. The man told the volunteer what had happened, then showed him the lizard.

Rangers were summoned; when they arrived, they found the man vomit-

ing and complaining of difficulty breathing. He was transported by ambulance to a Tucson area hospital, where he was admitted for treatment of the bites, heat exhaustion, and severe dehydration. The Gila Monster appeared uninjured, and was returned to the park.

This was the park’s second Gila Monster incident this year. Gila Monsters are native to the American southwest and northern Mexico, and are the only venomous lizard native to the United States. These heavy, slow-moving lizards can grow to two feet in length and can weigh up to three pounds. Because of their slowness, they rarely present a threat to humans.

*Bob Love, Chief Ranger, Saguaro
National Park*



Gila Monsters (*Heloderma suspectum*) are the only venomous lizard native to the United States, but they rarely present a threat to humans.