

Saving parts of Florida won't save the whole

Georgia Tasker — the Florida Native Plant Society's most prominent journalist advocate, and author of the society's publication, *Wild Things* — wrote wonderful things in *The Miami Herald* about the Annual Spring Conference in Miami.

'Cascades of extinction' ahead, biologist warns

By **GEORGIA TASKER**
Herald Garden Writer

Saving pieces of Florida isn't working to save ecosystems. Plants and animals of native Florida are falling to the wayside, being sequestered in islands of habitats, run over at stomach-churning rates when they wander outside them. They are being edged out by animal weeds and plant weeds, and driven to extinction by piecemeal management.

This was the urgent message delivered to the 10th annual conference of the Florida Native Plant Society last weekend at Florida International University by wildlife biologist Larry Harris.

The conference, "Living With Nature in the 21st Century," looked to the future and saw the need for:

- Regional conservation efforts that will allow whole ecosystems to function, rather than stranding plants and animals on ecological islands.

- Small conservation areas that both educate and conserve green space without pretending to be fully functioning habitats.

- Natural areas around schools throughout the state to be used as outdoor classrooms, with curricula designed to teach children about their natural heritage.

- State-initiated programs to help manage privately owned areas, and implement recovery plans for Florida's 34 plants listed as federally endangered.

'Feel-good ecology'

Florida's successes in bringing back the alligator, the bald eagle and the wood duck are "19th and 20th Century stories," said University of Florida scientist Harris in his keynote address. "Florida's conservation programming continues to stack up, but in my book it doesn't add up."

Harris, a member of the National Academy of Sciences and a former visiting scholar at

Harvard University, is author of *The Fragmented Forest* and 90 other publications on wildlife ecology. He is working with the National Academy of Engineers on highway designs for wildlife and is an adviser to Costa Rica, where efforts are under way to establish an international, multiuse conservation area.

Drips and drabs of new land purchases and single species reintroductions "make us feel good — it's sort of like feel-good ecology," he said, "but it has very little to do with ecology."

A new approach is needed, Harris said, because "The erosion of Florida's biological diversity rivals that of anywhere on the face of the Earth."

The Florida scrub's red widow spider that could provide secrets to a natural insecticide — being investigated at Harvard — is being lost as its habitat is destroyed.

Genetic diversity is being lost, too, Harris said. "Only eight genetically independent Florida panthers remain in the world. There are only eight that you would marry your daughter to . . . that aren't you uncle, your cousin, your brother, your father, your mother."

Dangerous inbreeding

Inbreeding among Florida panthers has reached the point where 50 percent of the male panthers alive today have only one testicle. And 95 percent of the spermatozoa of the adult males tested is congenitally infertile. What happens, Harris asked, when panthers begin showing up with no testicles?

Complexes of animals also are being lost. Among the interacting pinelands birds, the brown-headed nuthatch, the white-breasted nuthatch and the cockaded woodpecker are all but gone. Sparrows, starlings, rats, mice and red-bellied woodpeckers are taking their places.

Harris was scathing in his assessment of the viability of Ocala National Forest: "Somebody's been doing a number on our head. This is not a forest by most people's reckoning. It's

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Small land purchases and reintroduction of single species are not the way to preserve Florida's biological and genetic diversity, warns wildlife biologist Larry Harris.

an academic nicety to call that a forest. It's going to become a plantation. And plantations are not a forest."

As the seas continue to rise and condos continue to be built, plants and animals are being squeezed to death in the middle, which is often the site of a highway.

Look to the north

What we need, he said, is for the Everglades system to be able to move north as the seas push inland from the south.

"The salt water will continue to come in and the cypress will be invaded by mangroves and we should plan on it. Because in our lifetime, State Road 27 from Homestead to Flamingo will be under water."

To survive rising seas, calculations are that the whole system will have to move 300 miles north in the next 50 years.

New measures needed

Such movement means more than just building culverts for panthers, he said.

"It means we've either got to wall off the system and see it go extinct, or we've got to provide new measures of conservation that allow for this dynamic system to continue to work."

Our old conservation methods are "bankrupt" — both the park set-aside approach and the utilitarian, sustained-yield approach "that says if you harvest whales on a sustaining-yield basis and you don't harvest too many, there will be whales. You can have your cake and eat it, too. Neither of these can be depended on to save Florida's biological diversity for the future," he said.

"If sustained yield is so great, why isn't there a huntable population of Canada geese in Florida anymore? North America's waterfowl populations have never been this bad off. Ever."

Florida's marine resources — porpoises, tuna, redfish — as well as its forest resources are being devastated by the sustained-yield approach, he said. "We're over-exploiting everything we ever put our hands on."

Artificial boundaries

Florida forests are being lost at the rate of 150,000 acres a year, 2½ times the rate of forest loss in Brazil. The forest cover is being broken up, and habitat islands are being created. Plants and animals can't get outside the artificial boundaries of the islands. When they try, automobiles kill them with astonishing efficiency.

"If you analyze the 333 biggest [parks] . . . 85 percent are smaller than the home range of a single mink or otter," Harris said.

Until 200 years ago, Harris said, Florida had 11 native mammals of any size. Today, the bison, monk seal and red wolf are either locally or globally extinct; the panther, Key deer and manatee are federally endangered; the otter, bobcat and black bear are state listed or listed by the Convention on International Trade of Endangered Species (CITES); only two — the raccoon and white-tailed deer — are doing well.

Ironically, while Florida is losing native plants and animals, the state is gaining hundreds of unwanted exotic ones. There are 100 species of free-ranging vertebrates in Florida that don't belong here, from fish to reptiles to mammals.

Unwelcome inhabitants

"Opossums, armadillos, dogs, cats . . . you name it, we've got it, and most are bandits, renegades. We should not rejoice that we've been invaded by the red fox or the coyote or the *bufo marinus*."

A dangerously robust population of raccoons is particularly menacing, preying on marine turtles, wood ducks, gopher tortoises. In all, jeopardizing 180 species of Florida amphibians, reptiles and birds that nest near or on the ground.

The decline of everything from woodstorks to Carolina parakeets to panthers signals an approaching "faunal collapse" that will cause "cascades of extinction in the future."

A different approach

Harris' solutions are to create a regional mosaic, based on a design that allows for zones of different uses, buffering zones and highly protected natural areas that are not managed.

Harris proposed a feathered buffer on the east and west coasts that would put such things as prisons and half-way houses between development and the Everglades preserve area. Hunting would be allowed in certain areas, as well, to rid us of raccoons and other "bandits" that can displace native animals.

Highways have to be redesigned. "If we can build a bridge to Key West, why can't we build one across the Everglades?"

And entire corridors of systems must be saved and allowed to function naturally, following the philosophy that now is developing — the Suwanee corridor, the Weikiva corridor, the Kissimmee River corridor and the Cross-Florida Barge Canal greenway.

"We're starting to restore natural, functioning systems, not just for bears and manatees to march around in, but to piece this puzzle back together."

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QUOTABLE COMMENTS

"The erosion of Florida's biological diversity rivals that of anywhere on the face of the Earth."

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• Larry Harris
University of Florida Wildlife Biologist

"People need to understand that [forest] understory is not underwear, something to be embarrassed about showing in public."

"You've got to let people know that God created rattlesnakes; their palmetto patch did not."

How to save native Florida? 'Regulation, education, and purchase. If you choose education and purchase over regulation, you will have lost the ball game. You need a clearing ordinance that says, "Don't touch that!"

• Maggie Hurchalla
Martin County Commissioner

If a landowner wants to manage his property for wildlife, so far all he gets is 'a sign that says "Florida Forest Steward" and a handshake. The next step is to formally recognize some of these efforts with tax breaks."

• Dennis Hardin
Florida Dept. of Agriculture
Div. of Forestry

"Wetlands have been identified as the most efficient way to filter pollutants from surface run-off."

• Chuck Alden
Landscape Architect

Roger Hammer is trying to get people to call the endangered Key Largo Wood Rat by a new name – Key Largo Wood Gerbil – to change their image. "They're about the size of a hamster, with cute rounded ears, and don't look anything like roof rats."

• Roger Hammer
Chief Naturalist for Metro-Dade Parks
