

THE LOST HABITAT

by Robert B. Schuh and Ralph Bove

When visitors to Florida reflect on the state's ocean, the gulf beaches or cypress swamps, they think of the "real" Florida as something different from their hometown and state. The clear, almost cloudless sky, the smell of the air, the lush, green vegetation in winter, seem to be unique.

People, whether they be tourist or native, often overlook a unique feature of Florida. For it can be seen only in Florida and a small section in southeast Alabama. The feature occupies some of the most valuable, well-elevated real estate in Florida. This height of ancient sand dunes has made it unusual enough to survive as a separate plant community for 5,000 years or more. The topography has also been the major factor in destroying (in less than a century) most of the habitat by development along the southeastern coast of Florida.

On the sand dunes formed during the Pleistocene Age (100,000 years ago) the sand pine scrub plant community developed. The plants and animals have adapted to the desert-like existence in the dry, sterile soils. It is so specialized that 40 to 60 percent of the 70 plant species are endemic, i.e., they are found nowhere other than in the sand pine scrub.

Some of these endemic plants are also endangered and likely to be lost because of development. A few examples are Curtiss' Milkweed (*Asclepias curtissii*), Four-petaled Paw-paw (*Asimina tetramera*) and the Dancing Lady Orchid (*Oncidium variegatum*).

There are also endemic animals, such as the Scrub Jay, Florida Mouse (the only mammal found exclusively in Florida), Gopher Tortoise, and Gopher Frog (all of which are threatened), and the rare Florida Scrub Lizard. Insects show up in the sand pine scrub, such as beetles (*Altaenius saramari* and *Peltostrupes profundus*) and also the Red Widow spiders. It seems that every step in the food chain is endangered. These organisms have specialized in this harsh environment; however, their habitat is shrinking by growing human habitations.

Thousands of years ago, under different climatic conditions, scrub

jays must have been distributed continuously from Florida to California. However, geological changes affected the range of scrub vegetation and, in time, these birds were separated from each other. The Florida Scrub Jay is now evolved into a distinct subspecies and is rarely ever found outside the state or far from good scrub habitat.

Just as geological time has entrapped the jays, it has also made sand pine scrub an active workshop for the origins of both plant and animal life. This outdoor classroom is just beginning to be researched, and at Jonathan Dickinson State Park, five research projects are currently under way.

1. Baseline Photographic Study — to show scrub recovery after wildfire.
2. Baseline Inventory — numerically determining plant density, dominance, and abundance in the scrub.
3. Environmental Impact Study of Military Training in Scrub — to determine deterioration of

sand pine scrub by human activity.

4. A Study of the Florida Mouse in Scrub — for habitat preference.
5. Don Richardson's Ph.D. Study (University of Florida) on Allelopathy in Scrub — plant toxins to repel other plants and reduce competition.

The sand pine scrub plant association has, at times, summer temperatures of up to 130° F. From the roadside, it appears to some to be rough, ragged, and ugly. Perhaps that is the reason why it is sought by developmental interests eager for exploitation. This misunderstood, unique part of Florida has unparalleled ecological value, and efforts to actively pursue its preservation are encouraged.

(The Florida Native Plant Society's Annual Conference in Boca Raton in May will include a slide presentation on this plant community and a field trip to Jonathan Dickinson State Park, the largest tract of highly specialized scrub community on Florida's southeast coast.)

The Loxahatchee River runs through Jonathan Dickinson State Park.

Bill Partridge



Ernest W. Lantz



Florida Scrub Lizard (*Sceloporus wood*)