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DURING A RECENT VISIT with Jeff Combs, Park Ranger, at J. N. "Ding" Darling National Wildlife Refuge, on Sanibel Island, I noticed a photograph in his office of a tree snail and asked, "Where was this photo taken?" Although I anticipated his answer, I was delighted when he told me it was taken on Sanibel. Up until that moment I had thought it was quite possible that the last of Sanibel's population of this particular species of snail had all perished from the cold, during the severe winter of 1989. I had personally looked many times in the same locality since that cold snap but had been unsuccessful in finding either an active or an aestivating live specimen. According to my job-related field diary for the period, the last time I saw one of these tree snails alive on the refuge was in May 1987. At the time I wrote, "While spraying pepper in area north of the boardwalk and west of the mound I discovered a non-sealed live adult Lig about 5-feet above the ground and within 10 feet of the boardwalk. Shell generally yellow."

I told Jeff that the particular species that I thought was pictured had been released on what is now part of the refuge. He was astonished, and asked, "You mean they're not native?" So, in response to Jeff's interesting question, I thought I'd put together this short discourse on the history of some tree snails that may still occur on Sanibel Island.

For purposes of this discussion, I'll first exclude two of Florida's native snails that are indigenous to Sanibel, since they are sometimes included among those mollusks that are arboreal by life style. These are the common periwinkle snail (*Littoraria*) and the rosy wolf snail, (*Euglandina*). The former is abundant locally in the red mangrove forests and tidal systems, and the latter is predatory and cannibalistic, a usually terrestrial snail that is common in some Sanibel Island uplands, particularly those known as West Indian tropical hardwood hammocks. Individuals sometimes move from the ground up onto the trunks and lower levels of trees and shrubs. In recent years, a tree snail I identified as the Florida Keys tree snail, (*Orthicalus reses nesodryas*) — not the federally threatened Stock Island tree snail, but a subspecies — started showing up on eastern Sanibel. This form may now be well established and widespread on the barrier islands and was probably introduced by the nursery landscape plant trade. By now, there may be other species of arboreal snails populating the islands of which I have no personal knowledge.



Left – the periwinkle snail. Center – the rosy wolf snail. Right – the Florida Keys tree snail. Photos from the Internet, not to scale.

Sometime after 1898, Sanibel pioneer G.J. Kesson opened and maintained a trail that led east from his homestead on the shore of the bayou that now bears his name. As far as I know, the large concrete cistern that marks his homesite still exists, well hidden by vegetation, on what's now federal land. The path continued through the thick hammock and ended when it reached Calusa middens that were cleared and leveled and planted in Key limes.

Later, a subsequent but absentee landowner, William Shepard, continued to keep the trail trimmed and extended it during his infrequent but regular visits to Sanibel. He and his wife Polly considered their property a remarkable botanical site and named the popular walking path "Gasparilla's Trail," after the reputed locally based pirate, Jose Gaspar. According to regional folklore Gasparilla once frequented area waters, and even was indirectly responsible for the place name Captiva. Bill Shepard didn't discourage use of his trail by islanders who knew about it and could brave the mosquitoes. After reaching the mounds, the trail through Bill Shepard's labor-intensive efforts, continued to meander eastward following the ancient upland ridge that was dominated by West Indian hardwoods. In those days the trail had no loop and he had extended it well east of the powerline right of way that now cuts across J.N. "Ding" Darling National Wildlife Refuge. A weathered metal sign once identified the trailhead and it was accessible by crossing the small bridge that today leads to the Calusa Shores subdivision.

In the early 70s the U.S. Fish and Wildlife Service took Shepard's property along with several adjacent tracts by condemnation proceedings and added them to the refuge — but not before May 3, 1967, when Shepard managed to convey use of the 100-foot wide easement to Lee County Electric Cooperative for 99 years.

Sometime in the early 1930s, G.J. Kesson or an associate of his visited the Florida Keys and collected a number of live banded tree snails (once genus *Oxystyla*, now *Orthalicus*). He released them in the comparable habitat type along his trail. In a paper published in 1940, (*Oxystyla* on Sanibel Island, Florida), the late malacologist William J. Clench was the first to discuss the introduction of these tree snails to the island.



Sanibel's two intentionally introduced tree snails.

Left – the banded tree snail. Right – Florida tree snail (known commonly as a "Lig"). A variety of different color forms, all from the same collection site, of Ligs were introduced. Photos from the Internet, not to scale.

Another species of tree snail, classified to be in the genus *Liguus*, occur naturally in Florida in Dade and Monroe Counties. In 1955, I was introduced to several colonies of these beautiful snails in northern Monroe County, by the late Erwin Winte, one of the first Rangers at Everglades National Park and a leading authority on Florida tree snails. One particular snail colony was located just outside the then boundary of the Park. In June 1963, I took Sanibel Islanders Clarence Rutland and Marshall Tabbachi to one of the tropical hardwood hammocks on the north side of the Pinecrest Loop Road. We collected several dozen of the abundant multicolored Florida tree snails that day and took them back to Sanibel to purposely release them. Clarence freed his at his home site on Periwinkle Way and Marshall released his on his Periwinkle Way Villa Capri Motel property (now Anchor Inn) near the corner of Donax Street. I released a few on the Sanibel Lighthouse grounds at the very eastern point. I don't know if any survive along Periwinkle Way, I'm sure none do at the lighthouse. The remaining "Ligs" were taken and liberated on the private land that was accessible by walking Gasparilla's Trail. This snail release occurred a few years before the final transfer of land ownership and the completion of the dike that has since become the refuge's Wildlife Drive.

Does either, or both of these tree snails continue to thrive on Sanibel Island? Just as soon as key environmental conditions are right, I'll launch a personal search for them, but as a responsible searcher I must use common sense. I know that collecting live shells on Sanibel Island is prohibited. I also know these snails are somewhat doubly protected because of their location, and the federal penalties for taking specimens from national wildlife refuge lands are very stiff. It'll be camera only . . . and, I won't touch! Stay tuned for the results of this "expedition(s)."

Charles LeBuff

June 8, 2007

POSTED COMMENTS/FEEDBACK ON THIS ARTICLE

Charles, this article about the tree snails was extremely interesting; as after visiting the Shell Museum this past June with our grandson and viewing the tree snail display the fact these may be here on the island made me curious and I for one would love to see them in the wild. So I will look forward to seeing your photos should you locate any of them. Good luck on your mission. I would love to be able to help you! Keep up the good work. I love this newsletter and thank you for all the time you spend to bring such interesting and valuable information to those of us who love Southwest Florida like my husband Reece and I do. Look forward to the next issue.

Gerri Much — North Little Rock, Arkansas and Sanibel Island, Florida. (Received 7/3/07)