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***Apple Snail shells signal the change in Snail Kite and Limpkin sightings.***

## **AVIAN ESCARGOT**

"To see Snail Kites you will have to go to the Miccosukee Restaurant on the Tamiami Trail north of the Everglades National Park, go behind the restaurant to the canal, and set up your scope to look north over the Everglades, and maybe you will see one flying around." This was the telephone information I received from a local Florida birder in 1975 while organizing a group field trip, back before the internet, cell phones, eBird, now common local guide books, rare bird alerts, and the countless resources now available to traveling birders.

Snail Kites (*male, left*) were very rare and exceedingly hard to find. The same was true for Limpkins. "For Limpkins, you will have to go to John Prince Park in Lake Worth, where there is a nesting pair. You might find one of them there." On that trip we found a very distant male Snail Kite at the Miccosukee Restaurant, and lucked into a wandering Limpkin at the John Prince Park. Those were the only ones we saw on that entire week-long trip. The Snail Kite population at one time reached a low point of only about 30 birds in Florida (although widespread in





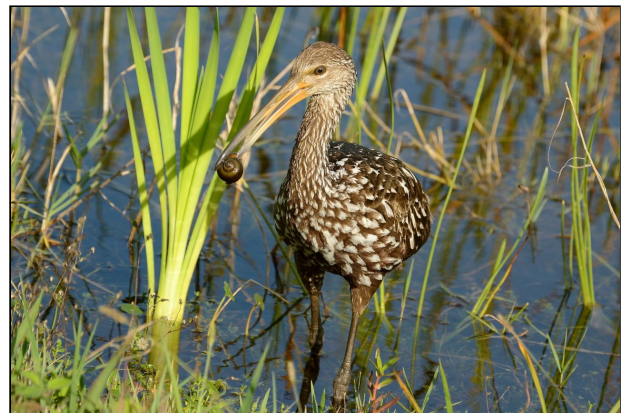
Central and South America), and the Florida Limpkin population was not much greater. My, how times have changed.



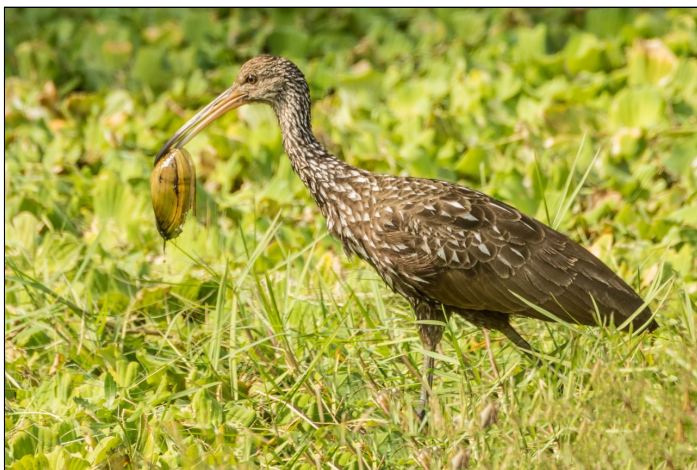
intervening 40 years? Apple Snails! Wherever either Snail Kites or Limpkins are found in the field today, you can bet there will be a collection of Apple Snail shells on the ground somewhere nearby (*right*).

Snail Kites dine almost exclusively on Apple Snails, and they provide over 75 percent of the Limpkin diet. The golf-ball-sized Florida Apple Snail was the native snail that both species relied upon. In the 1960's and '70's when Florida residential development began to explode, Florida water levels were so drawn down during annual dry periods that Apple Snails became very scarce.

In the 1990's construction of water restoration projects began, and with more stable water levels, Apple Snail populations rebounded, and with them, the Snail Kite and Limpkin populations. Then in the early 2000's additional species of alien African and South American Apple Snails, up to three times the size of the native Apple Snails, also began to appear; probably as escapees or discards from aquarium owners, for whom they had been imported, further enhancing the birds' dietary needs. Today, anyone watching either bird species for an extended period of time will undoubtedly observe a snail picked up and carried from along a canal, farm pond, water reclamation project, or marsh edge. (*See Limpkin, right*)



In the series of photos below this article, the female Snail Kite has brought the Apple Snail to its favorite perch (*photo 1*), where it deftly and quickly severs the columellar muscle holding the snail's body to the snail's shell (*photo 2*). Note how the Kite uses a single talon from each foot to secure the edge of the snail's shell while the bottom beak holds the edge of the shell between the Kite's talons to give the upper beak leverage to slice through the snail's connecting shell muscle. The Kite's upper beak is specially adapted with a sharp hook to enable it to insert into the snail's shell and pull the snail's body out from its shell. Once the snail's muscle is cut, the Snail Kite pulls the snail's body from the shell (*photo 3*) and lets the shell drop away to the ground, with the meal morsel intact and ready to be torn apart for quick consumption. (*photo 4*)



After a short interlude, the Snail Kite will set off in search for another Apple Snail meal. Limpkins (*left*), with their oyster-knife-shaped bills, are able to tackle larger shelled organisms, such as clams, as well as Apple Snails.

Escargot is a delicacy in some parts of the world, particularly in France. But, I personally, have never had the experience of tasting that delight. Oysters, mussels and clams are definitely favorites of mine and I suspect there may be some similarity in the taste of snails along with all those other shell protected food items. But I sure am glad that when I partake of such wonderful morsels, I don't have to open the shells for the food with my mouth as the Snail Kites and Limpkins do. And when served with melted butter or sauce they undoubtedly taste better to us than swallowed down raw as the birds eat them. I

wonder if the birds would think the same if they had such an opportunity. That would be an interesting experiment to undertake. Maybe when I get old and have more time.



(1)



(2)



(3)



(4)

For information on Apple Snails and their effect on Snail Kites and Limpkins, see:  
[http://141.232.10.32/pm/recover/recover\\_docs/igit/igit\\_mar\\_2005\\_report/ig\\_3-12\\_snailkit\\_e.pdf](http://141.232.10.32/pm/recover/recover_docs/igit/igit_mar_2005_report/ig_3-12_snailkit_e.pdf)

For information on invasive foreign Apple Snails, see:  
[http://myfwc.com/media/673720/FWC\\_applesnails\\_FLMS\\_handout.pdf](http://myfwc.com/media/673720/FWC_applesnails_FLMS_handout.pdf), and  
<http://www.anstaskforce.gov/spoc/applesnail.php>

In my research I found an article describing the 1970's Miccosukee Restaurant location for finding Snail Kites in "Everglades National Park and the Surrounding Area," a Falcon Guide by Roger L. Hammer, at page 92

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