

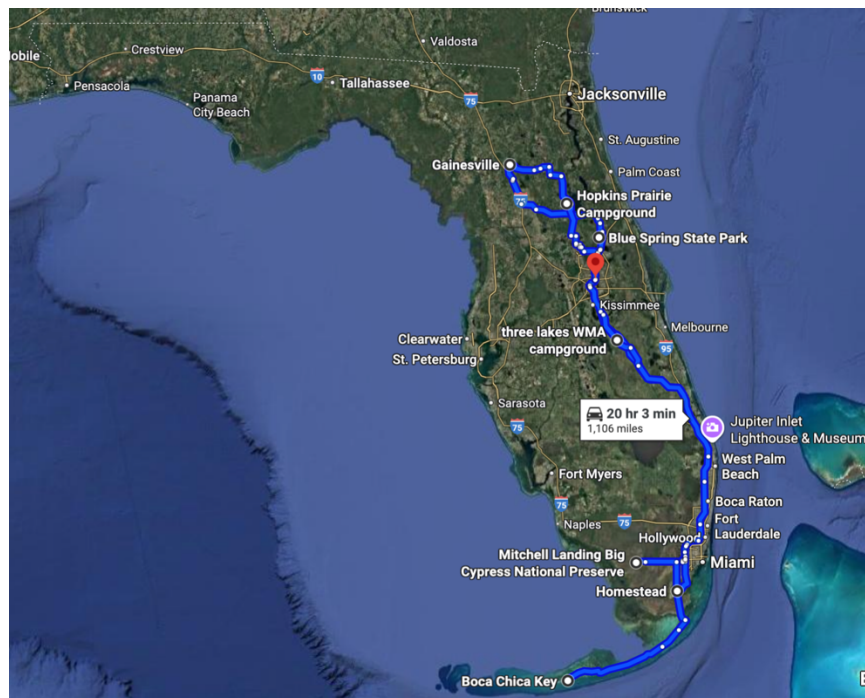
FLORIDA MAMMAL REPORT: DEC 25-31, 2024

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Introduction:

Florida, while low in mammal diversity compared to states of the western US (e.g., CA, AZ & TX), is ecologically unique with several endemic & near-endemic mammals and localized habitats like the Florida scrub and the Everglades. Out of the 5 endemic mammalian genera of the USA, 3 (all monotypic) are found in Florida: the endemic Florida Mouse (*Podomys*); and the Golden Mouse (*Ochrotomys*) and Round-tailed Muskrat (*Neofiber*), which range into neighboring parts of the SE USA. As a result, I'd long wanted to visit the state, but like many US destinations, never really prioritized it in my travels. I finally got there in December 2024 – high flight prices over the holidays & a very busy fall of PhD work made subtropical Florida seem like a compelling & efficient alternative to international travel, as I'd have the chance to independently see species and places dramatically different from those in my now cool, rainy home in California.

While very popular among birders and herpers, few mammal watchers seem to have done intensive trips to Florida. And those who had emphasized one thing to me: the mammal watching is hard. Most of the state's special mammals are elusive, low-density, and/or live in habitats that are difficult to access. So, we began the trip with fairly low expectations but high hopes – and honestly, we left pretty impressed! The mammal watching is certainly less easy than in California, but with the right planning, strategy, and enough time in the field, we found Florida to be very rewarding in its own right. And even when the mammals slowed down, we found it hard not to be impressed by the birdlife, alligators, and other general nature.



A rough map of our travels in peninsular Florida

On a less happy note, I will admit though that the state of nature in Florida is at times rather depressing. It's clear that Florida's government prioritizes the greed of developers and investors over the state's unique natural heritage. The impacts of habitat loss and invasive species are clear to see in many sites, and no doubt impact the long-term viability of Florida's mammals and its ecosystems as a whole. So, if you want to see them, perhaps try to visit soon.

To maximize time in Florida's special habitats, I planned a 2-part trip with 3 nights in south Florida and 3 nights in the center. I selected sites based on iNaturalist records, specimen data from the University of Florida's BioGator database, and pre-trip email correspondence with a few local naturalists. The planning was fun and allowed us to explore some cool new places not previously featured on mammalwatching.com. Thanks to Joe Montes de Oca, Stephanie Brines at Bat Conservation International, Ben Balmford, and Scott Flamand for advice.



L: Big Cypress (*avicennia*) and R: Sherman's (*shermani*) Fox Squirrels

This itinerary worked very well, and we recorded 21 species total with specials like Big Cypress & Sherman's Fox Squirrels, Golden & Florida Mice, Florida Bonneted Bat, Southeastern Myotis, and West Indian Manatee. The only major misses were Round-tailed Muskrat and Eastern Spotted Skunk, both quite difficult. We did night drives of anywhere from 3-6h every night (always with a thermal scope), and a lot of thermal scoping by day too (for Round-tailed Muskrat). Between the trip length, constant field time, and long drives between sites, we were pretty exhausted by the end; a slower trip 1.5x the length would definitely be less strenuous. Visiting central Florida in particular in winter is a bit of a gamble – night-time temperatures can drop below 40°F if you get hit

by a cold front – but we were lucky with warm, humid days (75-85°F) and nights (65-75°F) and relatively little heavy rain (possible any time of year). I'd like to go back to FL in early April, the warmer part of the “dry season” (Dec-Apr) someday.

Trip Account:

We arrived in Orlando airport around 11AM and after picking up a Jeep Compass from Alamo (recommended), stopped at a bridge I'd prepared 20 min away where we found many **Mexican Free-tailed Bats** and the target **Southeastern Myotis** roosting in expansion joints. Next up was Orlando Wetlands Park, a site where birders sometimes report herons preying on Round-tailed Muskrat, but we drew a blank on muskrats or active nests – the first of many unsuccessful searches. We continued to Green Cay Wetlands in Boynton Beach, arriving near sunset. 1.5h of careful thermal scoping from the boardwalk failed to produce Round-tailed Muskrat (there are a few iNaturalist records here), though we did observe 8 **Marsh Rabbits**. After a quick dinner, we drove to Big Cypress, set up camp at Mitchell's Landing, and did a night drive on the Loop Rd. Mammals were thin on the ground, undoubtedly thanks to introduced Burmese Pythons: in 3 hours, we saw a juvenile **Cotton Mouse** and 2 **Hispid Cotton Rats** well, and a brief **Virginia Opossum**.



Southeastern Myotis, Mexican Free-tailed Bat (*cynocephala*), and Cotton Mouse

An early drive on the Loop Rd the next morning produced no mammals, but we eventually scored great views of the rare '**Big Cypress**' **Fox Squirrel** – our key target – just E of the Education Center while leaving the area around 11AM. We checked into the Hotel Redland in Homestead, our base for the next 2 nights, and spent the day resting. The evening's key target was Florida Bonneted Bat, the USA's rarest bat and a S Florida endemic that is slowly increasing in the Miami area these days. A helpful tip led us to a bat box in a public park in Miami, where we had great views of 9 **Florida Bonneted Bats** emerging around 6PM. We continued to Everglades NP and spent

some time driving and walking near Royal Palm, eventually seeing the target **Marsh Rice Rat**, a few **Hispid Cotton Rats**, and Florida Cottonmouth, but no Seminole Bat.

After another relaxing morning, we turned our attention to the Florida Keys. This coral archipelago off the S coast of Florida, the most tropical place in the lower 48 states, is home to several distinctive mammalian subspecies we were keen to see. The dwarf **'Key' Deer** are pretty much unmissable on Big Pine Key and a dusk visit to Boca Chica Beach Park (on Boca Chica Key) produced 4 **'Lower Keys' Marsh Rabbits**, despite on and off heavy rain (plus **Virginia Opossum & Black Rats**). The rain cost us Velvety Free-tailed Bat (only found in the Keys in the US), but we successfully found the small, very pale **'Torch Key' Raccoons** (and more **'Key' Deer**) on Upper Sugarloaf Key. We couldn't find the doubtfully distinct 'Silver' Rice Rat on Cudjoe Key, though we did see another **Virginia Opossum**. An hour on roads surrounding Dagny Johnson Key Largo Hammock SP failed to produce 'Key Largo' Woodrat or 'Key Largo' Cotton Mouse.



Hispid Cotton Rat and the very pale Torch Key (*incautus*) Raccoon

We departed Miami the next morning and after lunch in Boca Raton, spent a few hours back at Green Cay and Wakodahatchee Wetlands in the hope of a muskrat. No luck, but plenty more **Marsh Rabbits**. It rained heavily in the late afternoon until we arrived at Three Lakes WMA near Okeechobee, a site I'd chosen for Eastern Spotted Skunk as research papers indicated remarkably high densities there. Sadly, despite no clear indications online, we found that the area was closed after 8PM due to hunting season, and we were advised that you can only drive freely at night Apr-Oct, when hunting isn't happening. A bit dejected we decided to try the nearby Peavine Rd, spending a few hours before (8-9PM) and after (11-1AM) heavy rain. This was quite productive, and we saw 2 **Virginia Opossums**, 2 **Nine-banded Armadillos**, many **Eastern Cottontails**, 3 **Marsh Rabbits**, 2 **Cotton Mice**, 3 **Hispid Cotton Rats**, 4 **Northern Raccoons**, and many **White-tailed Deer**. Two tiny mice on a marsh edge were either baby Marsh Rice

Rats or Eastern Harvest Mice, but I couldn't get photos or close views to confirm. A great area for mammals and one I'd like to revisit in better conditions – Bobcat & Coyote seem common, and the area has North American Least Shrew (prairies) and Southern Flying Squirrel, Everglades Short-tailed Shrew, and Seminole Bat (in "hammocks" = slightly elevated patches of oak or (sub)tropical hardwood/palm forest).

A morning search for 'Sherman's' Fox Squirrel near Three Lakes was unsuccessful, so we continued to Blue Spring SP for '**Florida**' **Manatee**. Although the warmer weather had reduced numbers, it was still great to see many of these spectacular mammals in the spring's clear blue waters. Returning to Orlando, a quick midday stop at Wekiwa Springs SP proved quite rewarding, with great views of '**Sherman's**' **Fox Squirrel** and Gopher Tortoise. I'd seen several photos of Round-tailed Muskrat from the Lake Apopka Wildlife Drive, so we drove the 11mi auto tour route from 3-5PM. Another thunderstorm cut into our time, but we saw 4 **Marsh Rabbits**, and I think it would be a great place to try, especially in the early morning. Huge Alligators were abundant. Note that it's only open weekends & federal holidays. We spent the night in Sand Pine scrub habitat of Ocala NF near Hopkins Prairie, focusing on rare rodents – we eventually saw 6 beautiful **Golden Mice** (climbing in scrub oak & palmettos – incredible to see this prized species so abundant here!), a **Florida Mouse** (a distinctive, robust "deer mouse" with lovely straw yellow sides, a slightly darker back & large ears; tail weakly bicolor), and 3 **Oldfield Mice** (smaller and pale grayish with very short, furred, sharply bicolored tail). We added 4 **Virginia Opossums** and several **White-tailed Deer** here, and a **Nine-banded Armadillo** while driving to our hotel in Gainesville late at night.



Marsh Rabbit and Florida (*latirostris*) Manatees

We were up at 7AM and went to Sweetwater Wetlands for a last Round-tailed Muskrat search. Although this species was seen frequently here in winter from 2017-2020, the site is no longer reliable and sightings are much rarer these days. Again, we saw several **Marsh Rabbits** but drew a blank on the muskrat, though we may have seen a nest or two. After some midday rest, we returned to the Ocala NF to look for

Southeastern Pocket Gopher (we couldn't find fresh burrows, though did see Red-cockaded Woodpecker and Florida Scrub-jay) and more night work. A short spur road (Lake George Rd) through swampy hardwood forest was great, with **Virginia Opossum**, **Nine-banded Armadillo**, a brief **Eastern Woodrat**, 3 darker brown **Cotton Mice**, and **Northern River Otter** all seen in just an hour or so. We returned to the sand scrub, eager to work the local rodents for better views & photos and spent 4 hours intensively thermal scoping by car & on foot. The night's total included 4 **Golden Mice**, 4 **Oldfield Mice**, 3 **Eastern Woodrats**, and 3 **Florida Mice** among a couple dozen cricetids thermal scoped. The scrub is dense and rodents skittish, so a lot of sightings escaped ID and photos were only record-quality (sadly, I only managed a single horrible photo of Florida Mouse). Trapping ought to be productive (and easier!) but seems illegal without a permit. Golden Mice and Eastern Woodrats were arboreal, typically scoped climbing in scrub oak and palmetto thickets. Oldfield and Florida Mice were terrestrial and associated with more open scrub on white sand, with the latter always seen near conspicuous sand mounds. We also saw a few **Virginia Opossums**, **White-tailed Deer**, and **Nine-banded Armadillo** here. We ended the night at 1AM exhausted and overslept at the campground, but luckily drove back to Orlando just in time for our flight!



Golden Mouse, Mexican Long-nosed Armadillo, Eastern Woodrat, and – an obligatory non-mammal – Gopher Tortoise

Species List:

1. Virginia Opossum (*Didelphis virginiana*) – 1 Big Cypress (Loop Rd); 1 Boca Chica Key; 1 Cudjoe Key; 2 Three Lakes WMA; 7 Ocala NF (widespread)
2. West Indian Manatee (*Trichechus manatus latirostris*) – ~20 Blue Spring SP
3. Nine-banded Armadillo (*Dasypus novemcinctus*) – 2 Three Lakes WMA; 1 Gainesville; 2 Ocala NF
4. Eastern Cottontail (*Sylvilagus floridanus*) – many Three Lakes WMA
5. Marsh Rabbit (*Sylvilagus palustris*) – 8+2 Green Cay; 2 Wakodahatchee; 3 Three Lakes WMA; 4 Lake Apopka; ~5 Sweetwater Wetlands; 4 Boca Chica Key (*hefneri* = Lower Keys M R)
6. Eastern Gray Squirrel (*Sciurus carolinensis*) – many scattered sightings throughout FL, both in urban and natural areas
7. Eastern Fox Squirrel (*Sciurus niger*) – 1 Big Cypress (Loop Rd) (*avicennia* = Big Cypress F S); 1 Wekiwa Springs SP (*shermani* = Sherman's F S)
8. Eastern Woodrat (*Neotoma floridana*) – 1 Ocala NF (Lake George); 3 Ocala NF (Hopkins Prairie)
9. Golden Mouse (*Ochrotomys nuttallii*) – 6 & 4 on successive nights in Ocala NF (Hopkins Prairie)
10. Cotton Mouse (*Peromyscus gossypinus*) – 1 Big Cypress (Loop Rd); 2 Three Lakes WMA; 3 Ocala NF (Lake George)
11. Oldfield Mouse (*Peromyscus polionotus*) – 3 & 4 on successive nights in Ocala NF (Hopkins Prairie)
12. Florida Mouse (*Podomys floridanus*) – 1 & 3 on successive nights in Ocala NF (Hopkins Prairie)
13. Northeastern Marsh Rice Rat (*Oryzomys palustris*) – 1 Everglades (marsh near Royal Palm)
14. Hispid Cotton Rat (*Sigmodon hispidus*) – 2 Big Cypress (Loop Rd); 1 Everglades NP (Long Pine Key); 3 Three Lakes WMA
15. Black Rat (*Rattus rattus*) – 2 Boca Chica Key
16. Florida Bonneted Bat (*Eumops floridanus*) – 9 at bat box roost in urban Miami
17. Mexican Free-tailed Bat (*Tadarida brasiliensis*) – Orlando bridge day-roost
18. Southeastern Myotis (*Myotis austroriparius*) – Orlando bridge day-roost
19. Northern Raccoon (*Procyon lotor*) – 7 Upper Sugarloaf Key (*incautus* = Torch Key R); 4 Three Lakes WMA
20. Northern River Otter (*Lontra canadensis*) – 1 Ocala NF (Lake George)
21. White-tailed Deer (*Odocoileus virginianus*) – several Big Pine Key + 2 Upper Sugarloaf Key (*clavium* = Key Deer); many at Three Lakes WMA & Ocala NF

What I Missed:

The 2 biggest misses were definitely Round-tailed Muskrat and Eastern Spotted Skunk, species we badly wanted to see. Both are scarce & difficult. Currently there are no even semi-reliable places known for the muskrat, and the lack of night access to its habitat makes it even harder; I wonder if it is irruptive, which may explain increased sightings in

certain years. The best chance is when you can stake out known, occupied nests; otherwise, it's largely pure luck. We did the best we could and made 7 attempts at known sites – the number of elusive marsh birds we found in the process (Least Bittern, 2 American Bittern, 4 Soras, etc.) is a testament both to how hard we tried and how difficult this mammal is to spot! Spotted Skunks can be elusive and challenging to see even where relatively common, but poor weather and the night closure of Three Lakes WMA really killed our chances as we couldn't spotlight in their preferred dry prairie habitat. I'm keen to come back and make a stronger effort, as Three Lakes seems like an amazing place for general nature too. We also missed Southeastern Pocket Gopher due to inadequate effort; Wekiwa Springs SP seemed to be the best site, with several fresh burrows, but we didn't have time to open tunnels and stake them out.

While not targets per se, I was surprised to see so few carnivores on the trip, especially given the amount of night work we did. Black Bear and Gray Fox are common in Ocala NF, while Coyote and Bobcat are regularly seen in Three Lakes WMA. Both areas were very busy with hunters, which may have pushed larger mammals away from the roads. There's always a tiny chance of seeing Puma ("Florida Panther") or 'Everglades' Mink in S FL, with both perhaps most regular on the Janes Scenic Drive in Fakahatchee Strand.

Other species I'd like to look for in the future include Everglades Short-tailed Shrew, North American Least Shrew, Eastern Mole, Gray Myotis, Northern Yellow Bat, Seminole Bat, and Rice's Whale. Two other FL endemics, Florida Salt Marsh Vole and Sherman's Short-tailed Shrew seem very rare & near-impossible to see.