

FIG. 2. Average maximum (pink) and minimum (blue) temperature (°C)  $\pm$  standard deviation (SD) in three *Ophisaurus ventralis* microhabitats in Florida, USA over 12 d in August 2021. More exposed microhabitats had lower minimum temperatures, higher and more variable maximum temperatures, and a greater overall temperature range.

Hist. 8:1–156) and exceed critical thermal maxima measured for other anguids (Brattstrom 1965. Am. Midl. Nat. 73:376–422; Clusella-Trullas et al. 2011. Am. Nat. 177:738–751).

These observations suggest that juvenile O. ventralis sometimes exhibit site fidelity over periods of at least several weeks. While preliminary, our temperature data suggests that they likely select thermally buffered microhabitats, which is not unexpected for ectotherms (e.g., Goller et al. 2014. Ecol. Evol. 4:3319-3329), it reinforces that microsite selection likely plays a larger role than mean ambient temperature, even in the tropics (Vickers et al. 2011. Am. Nat. 177:452-461; Clusella-Trullas and Chown 2014. J. Comp. Physiol. B 184:5-21). Finally, the small size of the individual first observed 12 July suggests that hatching probably occurs earlier in southern Florida than previously reported from more northern populations (August-September; Mount 1975. The Reptiles and Amphibians of Alabama. Alabama Agricultural Experiment Station, Auburn University, Auburn, Alabama. 360 pp.; Palmer and Braswell 1995. Reptiles of North Carolina. University of North Carolina Press, Chapel Hill, North Carolina. 444 pp.).

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*OPLURUS CUVIERI* (Cuvier's Swift Iguana). CANNIBALISM and DISTRIBUTION. *Oplurus cuvieri* is endemic to Madagascar and is restricted to the western half of the island (Glaw and Vences 2007. A Field Guide to the Amphibians and Reptiles of Madagascar. Third edition. Cologne, Germany. 310 pp.). The diet of *O. cuvieri* is typically composed of ants (Randriamahazo and Mori 2012. Curr. Herpetol. 31:8–13), but they have also been observed consuming larger prey such as *Rattus rattus* (Roza and Rakotozafy 2013. Herpetol. Notes 6:459–461) and *Furcifer rhinoceratus* (Kawai 2016. Herpetol. Rev. 47:300–301). Herein, we report on a newly introduced population of *O. cuvieri* in eastern Madagascar and a case of cannibalism.



Fig. 1. A juvenile *Oplurus cuvieri* being consumed by a larger adult in the Ankanin'ny nofy Reserve, Madagascar.



Fig. 2. An adult *Oplurus cuvieri* retreats with its juvenile conspecific prey on a nearby tree at the Ankanin'ny nofy Reserve, Madagascar.

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The privately owned Ankanin'ny nofy Reserve is ca. 35 ha and is located on a peninsula in eastern Madagascar along Lake Ampitabe. The former owner G. Gottlebe apparently released a wide variety of fauna and flora native to other regions of Madagascar to this property sometime after 1961, and we hypothesize that one of these species was *O. cuvieri*. The private reserve and hotel have since changed owners in the early 2000s and during an excursion in the Ankanin'ny nofy Reserve from 11–12 March 2022, we noted a now established population of *O. cuvieri* occurring in the reserve and adjacent Palmarium Hotel.

On the morning of 12 March 2022, at 0930 h, we observed several juvenile O. cuvieri in a highly recreated spiny forest garden on the grounds of the Palmarium Hotel at Ankanin'ny nofy Reserve (18.605°S, 49.213°E; WGS 84; ca. 24 m elev.). We captured one of these juvenile lizards, sex unknown, for closer observation and noticed a large adult O. cuvieri perched 1 m high on a tree ca. 1 m away. The adult appeared to be tracking the movements of the juvenile O. cuvieri as we held and processed it. After processing it, we released the juvenile on the ground ca. 10 m from the point of capture. Almost immediately the adult jumped down from the tree and chased down the juvenile for ca. 0.8 m for ca. 5 s before capturing the juvenile by the back just behind the head in its mouth (Fig. 1). In this position the juvenile could not defend itself as the adult partially swallowed it tail first before carrying its prey back to its original perch (Fig. 2). The adult O. cuvieri made several swallowing motions to work the prey further into its mouth and it took ca. 3 min to fully swallow the conspecific juvenile, during which time the juvenile's neck was still moving in an indication of respiration.

To our knowledge this is the first instance of cannibalism in *O. cuvieri*, and we note that this observation is not within the species natural Madagascan range, but we suspect this is a type of predation not limited to the introduced population. It is not clear if the introduced *O. cuvieri* are outcompeting or preying on native lizards in the area and further work is needed to determine this.

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**PHELSUMA INEXPECTATA** (Manapany Day Gecko). DIET. *Phelsuma inexpectata* is a small-bodied, diurnal, and arboreal gecko endemic to Reunion Island, where it is restricted to an 11 km band along the coastline on the southern part of the island. This species is a dietary generalist known to feed on insects, nectar, pollen and fruits (Sanchez and Caceres 2019. Plan national d'actions en faveur des Geckos verts de La Réunion *Phelsuma borbonica* et *Phelsuma inexpectata*. NOI/ONCFS/DEAL, Reunion Island, France. 173 pp.). Herein, we report a novel foraging behavior and prey item to the diet of *P. inexpectata*.

On 14 September 2021, at 1112 h, near Saint-Joseph (21.378°S, 55.641°E; WGS 84; 101 m elev.), we observed a female *P. inexpectata* (ca. 55 mm SVL) that appeared to be foraging



FIG. 1. Female *Phelsuma inexpectata* approaching the dead snail shell, red circle indicates the position of the shell (A) and eating the snail shell (B, C), on Saint Joseph, Reunion Island.

on the ground in an agricultural area dominated by *Pandanus utilis, Cocos nucifera,* and *Acanthophoenix rubra.* The gecko slowly moved and seemed to be searching for prey among rocks, gravel, and low herbaceous plants (Fig. 1A). As it searched, it opened its mouth several times and sticking its tongue out. After 1 min, we observed the gecko picking up a snail's shell (ca. 10 mm length) in its mouth (Fig. 1B), it then broke the shell with its jaws, and swallowed it (Fig. 1C). While chewing the shell, a small fragment fell to the ground and the lizard quickly picked it up and swallowed in the same manner. After consuming the shell, the gecko continued to search the area for a few more seconds before it turned around and climbed up a nearby tree. The observation time in total was ca. 2 min and 63 sec of video was recorded (video available at: http://dx.doi.org/10.26153/tsw/41405).

Based on the consumed shells whitish color, we surmise it was empty and from a dead snail because live snails have a distinct yellowish tinge. We also harvested ten snail shells from the surrounding area, ca. 0.25 m<sup>2</sup>, and all were whitish and empty and of two species. Both species from our collection were non-native, introduced species to Reunion Island: *Subulina octona* (native to tropical Americas including the Caribbean) and *Striosubulina striatella* (native to West Africa; Griffiths and Florens 2006. A Field Guide to the Non-Marine Molluscs of the Mascarene Islands [Mauritius, Rodrigues and Réunion] and the Northern Dependencies of Mauritius. Bioculture Press, Mauritius. 185 pp.), and we are not sure which species the observed *P. inexpectata* had eaten.

To our knowledge, this is the first report of *P. inexpectata* eating snail shells, although snail shells as well as gecko eggshells and/or coral sand have been reported in the diet of *P. grandis* on Reunion Island (Dervin et al. 2013. Cah. Sci. Océan Indien Occident. 4:29–38) and *P. astriata* on Praslin, Seychelles (Gardner 1984. Ph.D. Thesis, University of Aberdeen, Aberdeen, Scotland. 391 pp.). The consumption of calcium rich food items such as