



FIG. 1. Game camera photograph of a gravid female *Varanus panoptes* near the entrance of her nesting burrow, looking towards a Cane Toad (*Rhinella marina*) that is sitting at the base of a small tree (in shadow). The dust in the air is a result of the lizard's digging action just before the photograph was taken.

seconds), suggested that she was aware of the toad's presence. At 11 seconds the lizard turned away from the toad and burrow entrance, at which time the toad hopped quickly into the burrow, possibly in response to the lizard's movement. The lizard walked slowly about 0.5 m away from the burrow, during which time she flicked her tongue nine times; at 24 seconds the lizard ceased tongue-flicking and flattened out her body and basked in a patch of sunlight for the last 6 seconds of the video. Toads had arrived at the site during the previous wet season, sometime between November 2012 and March 2013. When we excavated the warrens in May and June most of the burrows contained 1–4 adult toads. Over the next few weeks the lizard completed her nesting in the same burrow, and was seen several times during this process, indicating that she was not a victim of toad poisoning. Excavation of her burrow revealed her eggs but no more toads.

As far as we know, this is the first direct observation of the interaction between a *V. panoptes* and a Cane Toad in nature (but see Llewelyn et al. 2013, *op. cit.*, for field experiments in which *V. panoptes* were offered toads from a noose). The lizard, which was clearly large enough to consume the toad, was not toad-naïve, but may not have experienced toad toxin. It is possible that the lizard was satiated, or that *V. panoptes* do not feed while gravid, or during the nesting process. However, it is equally likely that the lizard avoided the toad due to either innate avoidance or a learned response to toad poisoning. Further monitoring of *V. panoptes* nesting warrens as toads arrive could reveal insightful interactions that clarify the behavioral repertoire of *V. panoptes* for dealing with Cane Toads. These interactions could help disentangle competing hypotheses underpinning the surviving 10% of *V. panoptes* during the Cane Toad invasion.

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**WOODWORTHIA MACULATA (Common Gecko). LEUCISM.**

Leucism is a condition where the lack of deposition of melanin in the skin results in a white or pale coloration of the animal, but the eyes maintain normal pigmentation (cf. albinism; Bechtel 1995. *Reptile and Amphibian Variants: Colors, Patterns, and Scales*. Krieger Publishing Co., Malabar, Florida. 206 pp.). Leucism can vary from partial (<25%, also defined as piebaldism) to completely white individuals (van Grouw 2006. *Dutch Birding* 28:79–89; Rocha and Rebelo 2010. *Herpetol. Notes* 3:361–362). Occurrence of leucistic New Zealand geckos in the wild are uncommon (T. Jewell, pers. comm.) and the few observations are generally not recorded.

On 25 February 2014, several *Woodworthia maculata* were caught at dusk, under a pile of rocks close to the shoreline at an island in Whakatane, New Zealand. One of the three individuals was an adult female (SVL = 67 mm) with very pale white



FIG. 1. Leucistic female *Woodworthia maculata*, (A) lateral head showing the pigmented eyes, and (B) light patterning on the dorsal region.

coloration and dark viscera visible through the translucent skin. The eyes were pigmented, indicating that the individual was not an albino (Fig. 1A). The female also had light brown patterns on its dorsal region (Fig. 1B). This nocturnal species is generally grey, brown or olive-green in color with highly variable dorsal patterning, and has a large geographical range in New Zealand (Jewell 2008. Reptiles and Amphibians of New Zealand. New Holland, New Zealand. 143 pp.). This is one of the rare observations of leucism occurring in wild populations of *W. maculata*.

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**XANTUSIA GRACILIS (Sandstone Night Lizard). DIET AND FORAGING BEHAVIOR.** Occurrence of *Xantusia gracilis* is limited to a small range of sandstone habitat in the Anza-Borrego Desert of southern California. Due to the location and cryptic nature of *X. gracilis*, very little information has been gathered on its natural history. In captivity, these lizards have been observed eating the eggs of *Phyllodactylus nocticolus* (as *P. xanti*) (Grismer and Galvan 1986. Trans. San Diego Soc. Nat. Hist. 21:155–165). While the diet of *X. henshawi* has been extensively



FIG. 1. *Xantusia gracilis* with beetle immediately before predation.



FIG. 2. *Xantusia gracilis* showing interest in *Trimerotropis pallidipennis*.

examined through the analysis of stomach contents (Brattstrom 1952. Copeia 1952[3]:168–172), to my knowledge, the hunting behavior and prey items of *X. gracilis* have never been observed in the wild.

On 25 May 2014, we observed an adult *X. gracilis* exposed on a sandstone wall. Light was immediately taken off of the animal in an effort to prevent it from retreating. By the time I readied my camera for a photo voucher, the lizard had disappeared. I approached the last known location of the lizard and discovered it inside the crevice of an exfoliating slab of sandstone. While attempting to take a photo of the lizard through the opening, it exited and consumed an insect on the artificially illuminated sandstone surface. It quickly retreated to the crevice where it was witnessed masticating, and licking its eye. It was observed for about an hour, emerging to prey on various insects, followed by partial to full retreat to the crevice soon after each catch or miss. One of the insects consumed was identifiable as a small beetle (Coleoptera) (Fig. 1). At least one potential prey item was rejected after approach and inspection by the lizard. Interest was shown in a *Trimerotropis pallidipennis* (Pallid-winged Grasshopper) (Fig. 2), with the lizard making a sudden movement in response to the grasshopper leaping. It was difficult to distinguish whether this was a predatory strike or the lizard startled from the grasshopper movement. No physical contact was made with the lizard and it did not appear to be disturbed by human presence or artificial lights. All of the mentioned behavior was video recorded and can be viewed by request to the first author.

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## SQUAMATA — SNAKES

**AGKISTRODON CONTORTRIX (Copperhead). REPRODUCTION.** Robust estimates of lifetime reproduction in female New World pitvipers exist only for several taxa, and in particular *Crotalus horridus* (Timber Rattlesnake). Here, we present data from a wild female *Agkistrodon contortrix* that suggests this species' reproductive lifespan is protracted, similar to *C. horridus* from New York.

On 24 August 2001, a pregnant female *A. contortrix* (SVL = 62.2 cm, tail length = 8.5 cm, mass = 165 g) was captured at our study site (Fig. 1). The area is a 485-ha parcel of basalt trap rock ridge ecosystem located 4.75 km NW of Meriden, Connecticut (Smith et al. 2009. Herpetol. Monogr. 23:45–73). She produced a litter of 3 healthy offspring in the laboratory on 5 September 2001. Her post-birth mass was 99.3 g. She was subsequently PIT tagged and released at the exact location of capture.

The female was subsequently captured at the same site (within 1 m) on 25 July 2008, 28 May 2010, 26 July 2011, and 12 August 2013. On 25 July 2008 she appeared pregnant (SVL = 65.3 cm, tail length = 8.5 cm, mass = 340 g) and produced a litter of 6 healthy offspring in the laboratory on 2 September 2008. Her post-birth mass was 162 g. On 28 May 2010, although she did not appear pregnant (SVL = 65.5 cm, tail length = 9.0 cm, mass = 340 g), she was nonetheless brought back to the laboratory for observation. She did not produce a litter in 2010. On 26 July 2011 she appeared pregnant (SVL = 67.6 cm, tail length = 9.0 cm, mass = 274 g) and was brought to the laboratory. She produced a litter of 8 healthy offspring on 28 August 2011. Her post-birth mass was 199 g. On 12 August 2012 she was recaptured at the same location and appeared pregnant (SVL = 67.8 cm, tail length = 9.0 cm, mass = 262