

# Carnivory by a *Gecarcinus ruricola* (Linnaeus, 1758) on a hatchling *Iguana iguana* (Linnaeus, 1758) on Saba, Dutch Caribbean

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Knowledge on species-interactions aids our understanding of the natural world, although collecting data on these interactions in the wild can be challenging. This holds especially for species in low- and mid-trophic levels like many amphibians and reptiles, which are often small and cryptic, and which can be locally abundant (e.g., Rodda et al., 2001).

The Green Iguana, *Iguana iguana* (Linnaeus, 1758), is a widely distributed herbivorous species that can attain high local population densities (Bock et al., 2016; 2022). *Iguana iguana* is regarded as a species complex given high intraspecific genetic diversity (Stephen et al., 2013), with the Saba population being part of mtDNA Clade IV (van den Burg et al., 2026). Recently, based on an in-depth survey of natural history literature (see van den Burg, 2020), van den Burg and Kaiser (2026) provided an overview of species that have been reported to predate on *I. iguana*, which included vertebrate species of amphibian, birds, mammals, and reptiles, but did not include any invertebrate species as a predator. Here, we provide a report of carnivory by an invertebrate on a hatchling *I. iguana* on the island of Saba in the Lesser Antilles.

On 15 June 2025, at 19:52 h, an adult *Gecarcinus ruricola* was observed on the edge of a trail during a night survey for hatchling iguanas on Saba, Dutch Caribbean (17.6194°N, -63.2496°E; 105 m elevation). On closer inspection, the crab was holding a recently deceased hatchling *I. iguana* by the head and tail, and

consuming it posteriorly (Fig. 1); we do not know whether the crab caught the hatchling while it was alive. After taking some photos, we left the crab alone, and we later returned to the scene to see whether the hatchling had been consumed. At 20:28 h the crab had consumed the entire tail, much of the lower abdomen and at least a hindleg. Hereafter the crab was left alone and not visited again.

Gecarcinid land crabs are primarily herbivorous, feeding mainly on terrestrial plant litter (e.g., Greenaway and Raghaven, 1998; Linton and Greenaway, 2007). Some cases of carnivory have been documented and may take place either through incidental consumption of small insects attached to or among plant matter, scavenging on carrion or animal feed products or targeted predation, whereby predation on conspecifics (cannibalism) may also occur (e.g., Wolcott and Wolcott, 1984). Notwithstanding its wide occurrence and being the most harvested land crab throughout the Caribbean (Maitland, 2002; Baine et al., 2007; McGaw et al., 2025), very little is actually known about the



**Figure 1.** *Gecarcinus ruricola* feeding on a hatchling *Iguana iguana* on Saba. Photo by Matthijs P. van den Burg.

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biology or food habits of *G. ruricola*. True predation by *G. ruricola* has been observed whereby these crabs carried squeaking tern chicks from their nests (Burger and Gochfeld, 1988), and findings by Shealer and Burger (1992) suggest that *G. ruricola* might be a major overlooked predator in ground-nesting seabird colonies. In addition, one instance of the consumption of high-protein animal pet food has been documented from St. Eustatius (Anonymous, 2009). The related and sympatric gecarcinid *Hartnollius* (= *Gecarcinus*: see Guinot et al., 2025) *lateralis*, has been documented to prey on Whistling Frogs *Eleutherodactylus johnsoni* and insects (Wolcott and Wolcott, 1984).

*Iguana iguana* hatchlings go to their sleeping spots generally before sunset and sleep mostly on branches below 4 meters from the ground (Burghardt and Rand, 1985). The observation site lies within an area of mostly shrubs and few trees, and is scattered with discarded materials, including car wrecks, which are mostly overgrown by the Coral Vine (*Antigonon leptopus*). We have observed *G. ruricola* walking on top of such overgrown car wrecks, as well as few hatchling *I. iguana* that sleep on these overgrown car wrecks. The likelihood of predation on hatchling iguanas by *G. ruricola* is presumably low as these large crabs appear to infrequently climb small bushes and branches, although some boulders are also overgrown by vines. However, since we have seen both *I. iguana* hatchlings and *G. ruricola* in the same type of vegetation at similar heights, we cannot rule out that the crab caught the hatchling while it was sleeping.

The recent predator overview of *I. iguana* did not include *Gecarcinus ruricola* (van den Burg and Kaiser, 2026). This overview included all identified cases in which a predator was observed feeding or holding an iguana (or a part thereof or eggs); including cases where it was not known if the predator indeed caught the iguana alive. Although we are not sure whether the *G. ruricola* in our observation captured the hatchling alive, we cannot rule it out and likely occurs at most sporadically. This report adds a new unusual observation to help unravel the sometimes rare or unexpected ecological relationships between under-studied island taxa.

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