

THREE SPECIES OF ARDEIDAE PREYING ON NATIVE RODENTS

Tres especies de Ardeidae depredan roedores nativos

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Ardeids have a varied diet, principally based on aquatic prey, but regularly include terrestrial vertebrates, including rodents, that are usually reported without identification at the species level (Winkler *et al.*, 2024). Little is known about the diet of Pinnated Bittern *Botaurus pinnatus*, which has been reported feeding on small aquatic prey and rodents (Hilty, 2003), exotic fish (Marín *et al.*, 2003), and opportunistically on a frog (Barroso *et al.*, 2013). Striated Heron *Butorides striata* is known to prey on fish, amphibians, adult and larval insects, spiders, crustaceans, mollusks, small reptiles, small birds, and even mice (Martínez-Vilalta *et al.*, 2024). Great Egret *Ardea alba* preys mainly on fish, but also invertebrates, amphibians, reptiles, birds, and small mammals (McCrimmon *et al.*, 2024). There is a video record (Macaulay Library ML 201786721) of one individual hunting a small mammal that looks like a rodent. Here we report three events of these species preying on native rodents (Cricetidae) observed in Manabí, Ecuador. Prey of these three records were identified to species level following Vallejo & Boada (2024), Brito *et al.* (2023), and Salazar-Bravo *et al.* (2023).

From the road that parallels a small river at Escuela Superior Politécnica Agropecuaria de Manabí (-0.83309, -80.19460; 380 m a.s.l.), on 18 August 2023, LB saw one *B. pinnatus* flopping awkwardly, flapping its wings and struggling in the tall grasses, and then viewed a rat in its bill (Fig. 1A). LB saw the event for at least 5 min until she left the site, where the bitter remained mostly hidden in the vegetation. The prey was a Peruvian Cotton Rat (*Sigmodon peruanus*), identified by its grayish clay-brown dorsal fur and a pale periocular ring, as seen in the photograph (Fig. 1A).

At Jardín Botánico de Portoviejo (-1.03793, -80.46058; 50 m a.s.l.), on 13 April 2021, LB and C. Ruiz observed one *B. striata* well camouflaged in a pond's rank grasses, sedges and giant ferns. It prowled a specific area and appeared to be stalking something. With a precise stab, it captured a rat (Fig. 1B) and began to swallow it. The prey was a Tweedy's Crab-eating Rat (*Ichthyomys tweedii*) (Fig. 1B), identified by its bright grayish-brown dorsal fur, white to yellowish-gray ventral coat, and uniform dark tail. The long paddle or wedge-shaped hindfoot had a narrow heel and broad sole.

Near the Universidad Técnica de Manabí, Lodana agricultural campus (-1.1694, -80.38109; 380 m a.s.l.), on 2 November 2023, LB and C. Ruiz witnessed an *A. alba* in a recently-plowed field, standing near the fence, eating a rat (Fig. 1C). Since observers were on a public road, they took a few photos and moved on, leaving the egret swallowing its prey. The prey was a *Sigmodon peruanus*, identified (as seen in the photograph) by the grayish-brown ventral coat contrasting with the dark gray hairs at the base; also, its tail, pale below, looked shorter than the length of the head and body combined (Fig. 1C).

Sigmodon peruanus is common in areas of herbaceous vegetation where it forages (Voss, 1922), while *I. tweedii* is a semi-aquatic and nocturnal species often difficult to record (Brito et al., 2023; Salazar-Bravo et al., 2023). Since witnessing depredation events in nature is uncommon, documenting these observations contributes to understanding each species' ecological role. Our observations represent the first diet data in Ecuador for these three ardeid species, often regarded as primarily piscivores. While rodent consumption by ardeids may be opportunistic, the present note also provides relevant information on the prey. The record of *I. tweedii* is of particular importance, since this elusive species is known from only seven localities across Costa Rica, Panama and Ecuador, always in foothill areas (Salazar-Bravo et al., 2023). In Ecuador it is known from Mindo and Pachijal (province of Pichincha), Ponce Enríquez (Azuay) and Santa Rosa and Portovelo (El Oro). Therefore, our report is the sixth locality in Ecuador and the first report from the coastal lowlands.

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Figure 1: Ardeidae species preying on native rodents. (A) Pinnated Bittern *Botaurus pinnatus*, 18 August 2021, Escuela Superior Politécnica Agropecuaria de Manabí; (B) Striated Heron *Butorides striata*, 13 April 2021, Jardín Botánico de Portoviejo; (C) Great Egret *Ardea alba*, 2 November 2023, Universidad Técnica de Manabí, Lodana campus (Lisa Brunetti).