



Unusual Behavior during Cannibalism of Cuban Treefrogs (*Osteopilus septentrionalis*) in a Commensal Habitat in Cuba

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The Cuban Treefrog (*Osteopilus septentrionalis*, Hylidae) is native in Cuba, the Cayman Islands, and at least eight Bahamian islands (Henderson and Powell 2009). It also has been introduced widely to many Caribbean Islands, Costa Rica, and the US states of Florida, Georgia, and Hawaii (Owen et al. 2005; Henderson and Powell 2009; Powell et al. 2011, 2013).

In the Cuban Archipelago, the Cuban Treefrog is widely distributed on the main island and on at least 15 offshore

islands, where it is relatively abundant (Estrada 2012; Rivalta González et al. 2014). It occupies both natural and anthropogenic habitats. In Cuban villages and rural areas, the Cuban Treefrog often functions as a human commensal. However, studies of this species focus largely on introduced populations (e.g., Meshaka 1996, 2001; Owen 2005; Smith 2005; Vargas Salinas 2006).

Cannibalism in frogs has been documented in many anurans (e.g., Crump 1992; Toledo et al. 2007; Measey et al.

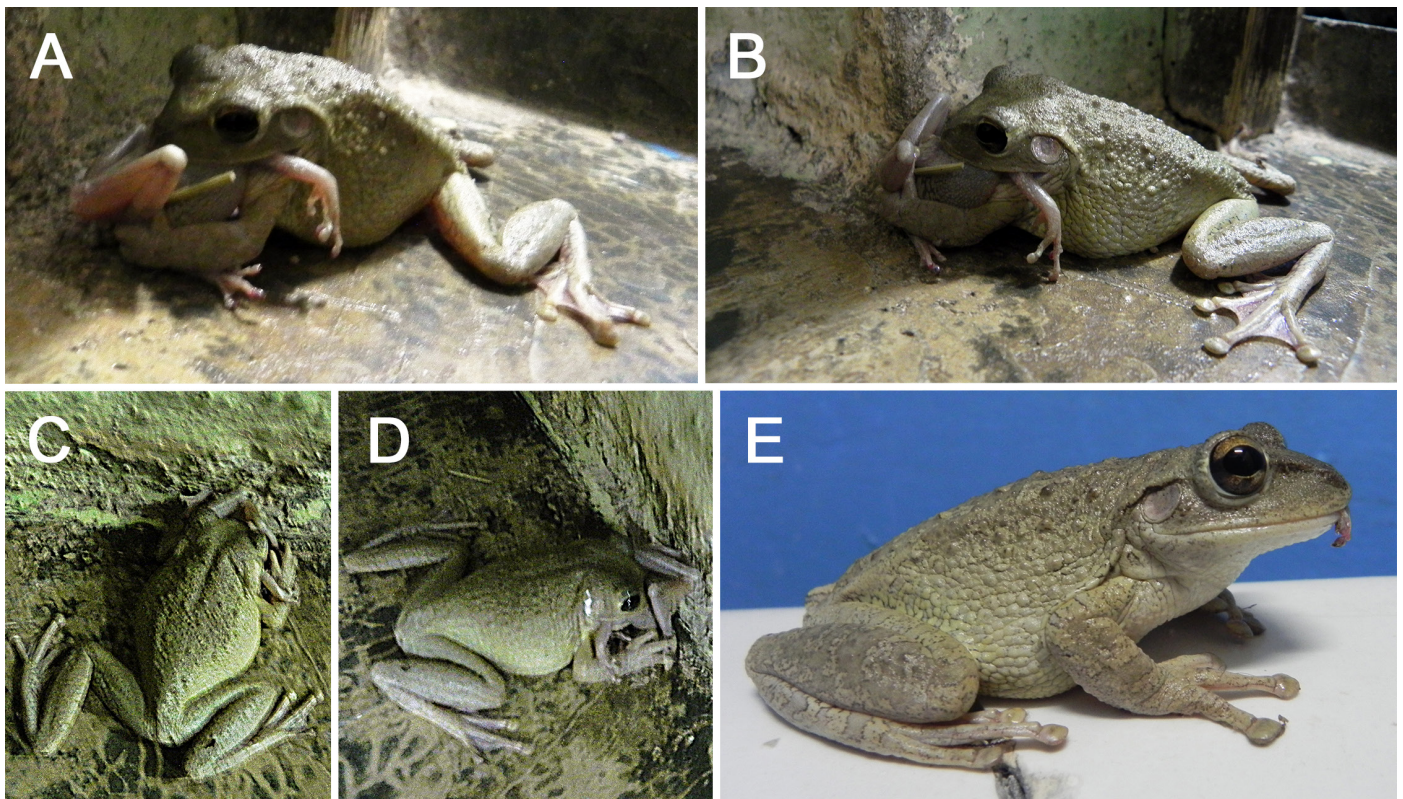


Fig. 1. Cannibalism in Cuban Treefrogs (*Osteopilus septentrionalis*) in a commensal habitat in the village of Ategorrieta, Matanzas Province. A large female partially ingesting a smaller conspecific (A), the female repeatedly pushing against a wall to facilitate ingestion of the prey (B–D), and the female 45 min later with a small portion of the prey's toe emerging from its mouth (E). Photographs by the senior author.

2015). Several instances of cannibalism by dietary opportunistic Cuban Treefrogs have been reported in introduced populations (e.g., Peters 1974; Meshaka 1996, 2001; Glorioso et al. 2012; Johnson 2013; Herman et al. 2015) but only recently in the species' native habitat in Cuba (Kaiser et al. 2016).

Herein we report a second instance of cannibalism in *Osteopilus septentrionalis* in Cuba and the first in a commensal habitat. At 2230 h on 31 December 2018, in the village of Ategorrieta village (22°56'28"N, 80°57'03"W; elev. 37 m asl), 2 km west of Marti, Matanzas Province, we observed an adult female (75 mm SVL) trying to ingest a conspecific (Fig. 1A), presumably a male based on body size. When we initially encountered the frogs, the female had ingested almost half of the body of the smaller frog (Fig. 1A–B) and was pushing it against a wall in an apparent attempt to force the prey into its mouth (Fig. 1B). Pushing against a wall was repeated three or four times (Fig. 1C–D) and was accompanied by efforts to ingest its prey using its forelimbs. After 45 min, the female entered a bathroom and climbed on to a sink and later a toilet tank with only a tip of the prey's toe emerging from her mouth (Fig. 1E). Two other frogs, both males, were on the walls of the bathroom during this encounter.

We found no other references to feeding behavior involving the use of a wall or other object to facilitate ingestion of prey by a Cuban Treefrog. A high density of conspecifics in such a commensal environment might increase the incidence of cannibalism, which provides food while simultaneously reducing competition (e.g., Kaiser et al. 2016).

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