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Nectar-feeding on Lueddemann's Cattleya, *Cattleya lueddemanniana* (Orchidaceae), by the Cuban Green Anole, *Anolis porcatus* (Squamata: Dactyloidae)

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Photographs by the author.

The Cuban Green Anole (*Anolis porcatus* Gray 1841) is a medium-sized (largest males reach 70 mm SVL) facultative omnivore that consumes a considerable diversity of food (Schwartz and Henderson 1991; Rodríguez-Schettino 1999, 2012; Henderson and Powell 2009), including cooked foods (Armas and Iturriaga 2019) and orchid flowers (Armas 2019).

Nectar feeding has been reported in several anoles (e.g., Cajigas et al. 2018; Rose-Smyth 2019), including two Cuban species, *Anolis porcatus* (Townsend 2003; Cajigas et al. 2018) and the Cuban Blue Anole, *A. allisoni* (Valido 2006). Nevertheless, field observations on the diets of those Cuban lizards are scarce and mostly fortuitous. The only known reports of nectivory by *A. porcatus* are those of Townsend (2003) on an exotic Areca Palm (*Chrysalidocarpus lutescens*) in Florida, and of Cajigas et al. (2018) on a Prickly Pear Cactus (*Opuntia* sp.). In addition to nectar, sap also is consumed by *A. porcatus* (Silva-Lee 1985) and Cuban Brown Anoles (*A. sagrei*) (Norval and Mao 2013).

Nectar contains a variety of organic nutrients (Nicolson and Fleming 2003) and can play an important role as a dietary supplement for certain animals, obviously including some lizards. However, access to angiosperms and seasonal availability determine its relative contribution to a lizard's diet (Campbell and Bleazy 2000).

Between 21 February and 10 March 2019, I observed more than 40 incidents of nectar-feeding by *A. porcatus* on

Fig. 1. Nectar feeding by Cuban Green Anoles (*Anolis porcatus*) on flowers of Lueddemann's Cattleya (*Cattleya lueddemanniana*) in the backyard of an urban home in San Antonio de los Baños, Artemisa Province. Detail of a drop of nectar on the apex of a sepal prior to opening (left). A female anole licking at the base of a flower (right).

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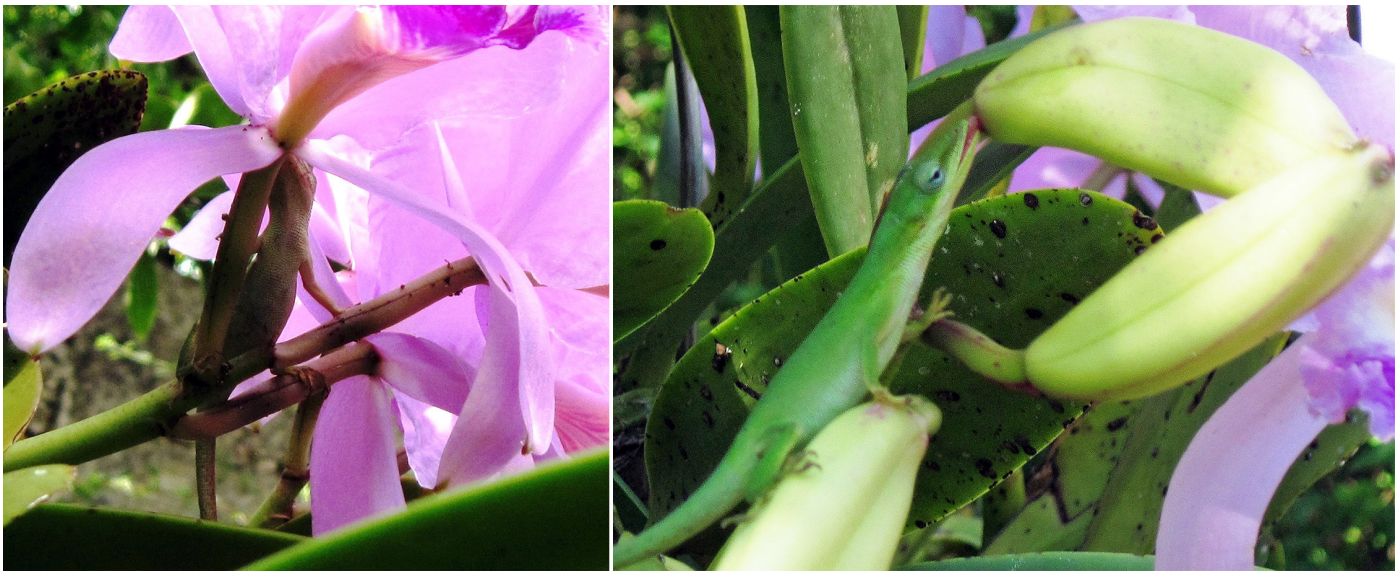

Fig. 2. Nectar feeding by Cuban Green Anoles (*Anolis porcatus*) on flowers of Lueddemann's Cattleya (*Cattleya lueddemanniana*) in the backyard of an urban home in San Antonio de los Baños, Artemisa Province. Female anoles licking at the bases of a flowers.

Lueddemann's Cattleya (*Cattleya lueddemanniana*) in the yard of an urban home in San Antonio de los Baños, Artemisa Province, Cuba (22.89347°N, 82.50978°W; 75 m asl). Those observations involved five or six male and female adults (but no juveniles) and most occurred between 0900 and 1600 h. Lizards licked nectar on extrafloral nectaries (Fig. 1) at the bases of the sepals (Figs. 1–2), the bases of pedicels, and the apices of sepals (Fig. 3). The same individuals regularly licked the same flower more than 20 times during a day. Lizards occasionally ate ants on the flowers (Armas, 2019), but I observed no attempts to consume pollen. In a few instances when lizards fought for access to nectar, the larger individuals inevitably won.

In early January 2020, I also observed adult Cuban Green Anoles licking nectar on Lueddemann's Cattleya at another site approximately 200 m from the urban yard. Also, over a period of several days in June 2018, M. Iturriaga (pers. comm., 28.II.2019) observed a female *A. porcatus* lapping nectar from the flowers of an undetermined orchid in his garden in Havana.

Valido (2006) noted that most studies on the diets of Cuban anoles were based on stomach-content analyses and that behavioral observations are rare. Consequently, records of nectivory are scarce. However, the observations recorded herein suggest that nectivory is not rare, although field studies often have overlooked this behavior.

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Manuel Iturriaga (Instituto de Ecología y Sistemática, La Habana) kindly provided some literature, data regarding his observations on this matter, and also reviewed a previous version of this manuscript.

Fig. 3. Nectar feeding by Cuban Green Anoles (*Anolis porcatus*) on flowers of Lueddemann's Cattleya (*Cattleya lueddemanniana*) in the backyard of an urban home in San Antonio de los Baños, Artemisa Province. Male anoles licking on a pedicel (left) and on the apex of a sepal (right).

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