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PREDATION OF A DWARF GECKO (*SPHAERODACTYLUS MACROLEPIS*) BY A BRIDLED QUAIL-DOVE (*GEOTRYGON MYSTACEA*)

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Abstract: I observed a Bridled Quail-Dove (*Geotrygon mystacea*) capture and consume a dwarf gecko (*Sphaerodactylus macrolepis*) on Guana Island, British Virgin Islands. This is the first account of vertebrate prey taken by a Bridled Quail-Dove. The high density at which dwarf geckos occur and forest floor habitat where quail-doves forage may result in their frequent, if undocumented, use as food by quail-doves.

Key words: British Virgin Islands, *Geotrygon mystacea*, Guana Island, predation, *Sphaerodactylus macrolepis*

Resumen: DEREDACIÓN SOBRE EL LAGARTILLO *SPHAERODACTYLUS MACROLEPIS* POR LA PALOMA *GEOTRYGON MYSTACEA*. En la Isla Guana, Islas Vírgenes Británicas, observé a un individuo de *Geotrygon mystacea* capturar e ingerir un geco (*Sphaerodactylus macrolepis*). Este es el primer registro de consumo de una presa vertebrada por parte de esta especie de paloma terrestre. La alta densidad en que aparecen estos gecos en el suelo de los bosques donde estas palomas forrajean, puede resultar en un uso frecuente aunque no documentado, como alimento.

Palabras clave: Islas Vírgenes Británicas, *Geotrygon mystacea*, Isla Guana, depredación, *Sphaerodactylus macrolepis*

Résumé : PRÉDATION D'UN SPHÉRODACTYLE À GROSSES ÉCAILLES (*SPHAERODACTYLUS MACROLEPIS*) PAR UNE COLOMBE À CROISSANTS (*GEOTRYGON MYSTACEA*). J'ai observé une Colombe à croissants (*Geotrygon mystacea*) capturer et consommer un Sphérodactyle à grosses écailles (*Sphaerodactylus macrolepis*) sur Guana Island, Iles Vierges britanniques. Il s'agit de la première observation de prédation d'un vertébré par une Colombe à croissants. La forte densité des sphérodactyles et leur habitat forestier terrestre où les Colombe à croissants se nourrissent peuvent aboutir à leur fréquente capture comme proie, même si cela reste inaperçu.

Mots-clés : Iles Vierges britanniques, *Geotrygon mystacea*, Guana Island, prédation, *Sphaerodactylus macrolepis*

THE BRIDLED QUAIL-DOVE (*Geotrygon mystacea*) is a secretive, ground-dwelling dove endemic to the Caribbean, with a patchy distribution from eastern Puerto Rico in the west, across the Virgin Islands, and in some islands of the Lesser Antilles south to St. Lucia (Raffaele *et al*. 1998). It occupies both dry and wet forests (Terborgh *et al*. 1978) and may be found from coastal to montane forests (Raffaele *et al*. 1998). The range-wide population status of Bridled Quail Doves is poorly known, but the species is a conservation priority in Puerto Rico due to a deficiency of data (Garcia-Bermudez *et al*. 2005), and it is categorized as a territorially endangered species in the U. S. Virgin Islands (Platenberg *et al*. 2005).

Little research has been focused on the Bridled Quail-Dove (Seaman 1966, Chipley 1991), which hampers both an understanding of the dove's ecology and the initiation of conservation efforts. In this note I report an observation of a dove preying upon a lizard.

STUDY AREA

This observation took place on Guana Island (18° 30' N, 64°30' W), which lies immediately north of Tortola, the largest of the British Virgin Islands. Guana Island is small (3 km^2) compared to other inhabited islands such as Tortola (54 km^2) and Virgin Gorda (21 km^2). Guana Island is topographically rugged with elevations ranging from sea level to 246 m. Guana Island is a *de facto* nature reserve, with approximately 97% of the island unaltered by human activities (Lazell 1996). It supports a healthy population of Bridled Quail-Doves (Chipley 1991, Lazell 2005).

OBSERVATION

On 23 October 2007 from approximately 1505-1520, I observed a male Bridled Quail-Dove foraging among leaf litter below a large sea grape (*Coccoloba uvifera*) tree. Because the dove was moving about while foraging, observations were made at a distance of 10-20 m. The dove was observed moving back and forth across the leaf litter, frequently pausing to flip leaves aside with its head, and pecking and consuming small unidentifiable berries or seeds. It did not consume the fruit of the *C. uvifera* tree, possibly due to the large size of the

fruit. However, through binoculars, I observed the dove raise its head from the leaf litter with a clearly visible and identifiable dwarf gecko (*Sphaerodactylus macrolepis*) approximately 5 cm long, and ingest it.

DISCUSSION

Columbids as a group are considered primarily granivorous and frugivorous. Seaman (1966) reported the food items from crops of collected Bridled Quail-Doves as primarily fruit, flowers, and seeds. He also reported the infrequent occurrence of mollusks (e.g., slugs and snails) and invertebrates. To my knowledge, there are no previous reports of Bridled Quail-Doves consuming vertebrate prey. *Sphaerodactylus macrolepis* is reported to be the most densely occurring terrestrial vertebrate, with densities in *C. uvifera* leaf litter estimated at over 52,000/ha (Rodda *et al*. 2001). They are common in the leaf litter throughout the forested areas of Guana Island and are likely regularly encountered by foraging Bridled Quail-Doves. Consumption of *S. macrolepis* may not be uncommon for Bridled Quail-Doves, but perhaps was previously undocumented due to lack of study.

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