

ATTEMPTED CONSUMPTION ON A WHITE-WINGED DOVE (*ZENAIDA ASIATICA*) CHICK BY A COMMON GREEN IGUANA (*IGUANA IGUANA*)

INTENTO DE CONSUMO DE UN POLLUELO DE PALOMA DE ALAS BLANCAS (*ZENAIDA ASIATICA*) POR UNA IGUANA VERDE (*IGUANA IGUANA*)

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Resumen.— La iguana verde (*Iguana iguana*) habita selvas neotropicales desde el norte de México hacia Centroamérica y noreste de Suramérica. Se considera principalmente herbívora, sin cambios ontogenéticos en su dieta. Sin embargo, se conoce que ocasionalmente consume materia de origen animal. Aquí reportamos un intento de consumo de un polluelo de la paloma de alas blancas (*Zenaida asiatica*) por *I. iguana*. Desconocemos si el evento se trató de un intento de depredación o de un comportamiento carroñero.

Palabras clave.— Dieta, Carroña, Iguana, Zoológico, Mérida, Yucatán

Abstract.— The Common Green Iguana (*Iguana iguana*) inhabits neotropical forests from northern Mexico to Central America and northeastern South America. It is considered mainly herbivorous, with no ontogenetic changes in its diet. However, it is known that it occasionally consumes matter of animal origin. Here we report an attempted consumption of a chick of the White Pigeon (*Zenaida asiatica*) by *I. iguana*. We do not know if the event was an attempt at predation or scavenging behavior.

Key words.— Diet, Carrion, Iguana, Zoo, Mérida, Yucatán

The Common Green Iguana (*Iguana iguana*) is a large neotropical diurnal lizard with a snout-vent length up to 58 cm in adults (van den Burg et al., 2022), distributed from northern Veracruz and Sinaloa in Mexico, southward to Central America and the northeast of South America to Paraguay and southeastern Brazil, including some Caribbean islands but it has been introduced to over 20 countries around the world (Bock et al., 2022). In the Yucatán Peninsula, Mexico, *I. iguana* occurs in Tabasco, Campeche, and Quintana Roo States, and although there are records from Mérida, Yucatán, these are not considered within its natural distribution because many specimens that were kept as pets have been released elsewhere (Díaz-Gamboa et al., 2020). *Iguana iguana* is considered a mainly herbivorous species (Díaz-Gamboa et al., 2020) but there are reports on the ingestion of

invertebrates such as insects (Hirth, 1963; Savage, 2002) and snails (Towsend et al., 2005), bird eggs (Arendt, 1986; Lazell, 1973; Schwartz & Henderson, 1991), and carrion of mammals and birds (Loftin & Tyson, 1965; Anderson & Enge, 2012; Morales-Mávil & González-Solórzano, 2020). Here we report the attempted consumption of a chick of White-winged Dove (*Zenaida asiatica*) in Mexico.

On 12 May 2022 at 14:24 h we observed a free-living adult female *I. iguana* attempting to engulf a *Z. asiatica* chick in the facilities of the Parque Zoológico del Centenario, Mérida, Yucatán, Mexico (20.96947° N, 89.64013° W; WGS 84; 22 m a.s.l.). The iguana was located on the ground, next to a decapitated chick of *Z. asiatica* whose cause of death was unknown. The



Figura 1. Hembra adulta de iguana verde (*Iguana iguana*) intentando engullir el cadáver de un polluelo de paloma de alas blancas (*Zenaida asiatica*) en el Parque Zoológico del Centenario, Mérida, Yucatán, México: A) Momento en que la iguana recogió al polluelo del suelo; B) Momento en que la iguana llegó a un estanque donde intentó engullir a la presa desde la cintura escapular. Foto: Roger Naim Carballo Cauich

Figure 1. Adult female of a Common Green Iguana (*Iguana iguana*) attempting to engulf the carcass of a White-winged Dove (*Zenaida asiatica*) chick at Parque Zoológico del Centenario, Mérida, Yucatán, Mexico: A) Moment when the iguana picked up the chick from de ground; B) Moment when the iguana reached a pond where it attempted to engulf the prey from the shoulder girdle. Photo: Naim Carballo Cauich



Figura 2 Paloma de alas blancas (*Zenaida asiatica*) anidando con dos polluelos, en una cochera de la zona urbana de Chetumal, Quintana Roo, México (abril, 2017). Foto: J. Rogelio Cedeño Vázquez

Figure 2. Nesting adult female of White-winged Dove (*Zenaida asiatica*) with two chicks, at a garage in the urban zone of Chetumal, Quintana Roo, Mexico (April, 2017). Photo: J. Rogelio Cedeño Vázquez.



Figura 3. Macho adulto de un garrobo (*Ctenosaura similis*) depredando un polluelo de la paloma de alas blancas (*Zenaida asiatica*) en una barda de la zona urbana de Chetumal, Quintana Roo, México (28 mayo, 2021). Foto: Roger Naim Carballo Cauich.

Figure 3. Adult male of a Black Iguana (*Ctenosaura similis*) preying upon a White-winged Dove (*Zenaida asiatica*) chick, at a fence in the urban zone of Chetumal, Quintana Roo, Mexico (28 May, 2021). Photo: Roger Naim Carballo Cauich.

reptile picked up the bird and held it in its snout (Fig. 1A), and then it moved approximately 3 m to the neighboring enclosure until it reached a pond where it attempted to engulf the prey from the shoulder girdle (Fig. 1B), but it fell into the water. No attempt of the iguana to recover the pigeon's carcass from the water was observed, probably due to our presence. We had to leave the site; thus, we did not know if later the lizard tried to rescue the pigeon's body from the water in order to consume it (Videos 1 & 2).

Although opportunistic scavenging on chicks of the Cattle Egret (*Bulbucus ibis*) by *I. iguana* has already been reported (Morales-Mávil & González-Solórzano, 2020), to our knowledge, this is the first record of attempted consumption of a White-winged Dove by *I. iguana*.

It is worth mentioning that along their distribution, White-winged Doves are abundant, and they are frequently found in or near urban areas (MacKinnon, 2013; BirdLife International, 2016), where they commonly nest (Fig. 2), which facilitates their consumption by these reptiles, including other iguana species like the Black Iguana (*Ctenosaura similis*) as we observed (Fig. 3), and reported by Astorga-Acuña and Mora (2023).

Video 1 available at: <https://youtu.be/lOxg-jQGL4o>

Video 2 available at: <https://youtu.be/fLGlDNHL7EU>

CITED LITERATURE

- Anderson, C. & K.M. Enge. 2012. *Ctenosaura similis* (Gray's Spiny-tailed Iguana) and *Iguana iguana* (Green Iguana), Carrion feeding. *Herpetological Review* 43:131
- Arendt, W. 1986. An observation of *Iguana iguana* feeding on eggs of the cattle egret (*Bulbucus ibis*) at Fox's Bay, Montserrat, West Indies: a case of predation or scavenging. *Caribbean Journal of Science* 22:221-222
- Astorga-Acuña, J.D.D., & J.M. Mora. 2023. White-winged Dove (*Zenaida asiatica*), a new specific item in the diet of *Ctenosaura similis* (Squamata: Iguanidae). *Revista Latinoamericana de Herpetología* 6:74-79.
- BirdLife International. 2016. *Zenaida asiatica*. The IUCN Red List of Threatened Species 2016: e.T22733956A95231875. <https://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T22733956A95231875.en> [Accessed on 25 January 2024].
- Bock, B., C.L. Malone, C. Knapp, J. Aparicio, T.C.S. Avila-Pires, P. Cacciali, J.R. Caicedo, G. Chaves, D.F. Cisneros-Heredia, P. Gutiérrez-Cárdenas, W. Lamar, J. Moravec, P. Perez, L.W. Porras, G. Rivas, N. Scott, A. Solórzano & J. Sunyer. 2022. *Iguana iguana*, in: IUCN The Red List of Threatened Species. Version 2022. <https://dx.doi.org/10.2305/IUCN.UK.2022-2.RLTS.T174481A218317281.en> [Accessed on 06 March 2023].
- Díaz-Gamboa, L., D. Herrera, A. Gallardo, R. Cedeño-Vázquez, V.H. González-Sánchez, X. Chiappa-Carrara & C. Arenas. 2020. Catálogo de reptiles de la península de Yucatán. Gobierno del Estado de Yucatán / Universidad Nacional Autónoma de México, Mérida, Yucatán, México.
- Hirth, H.F. 1963. Some aspects of the natural history of *Iguana iguana* on a tropical strand. *Ecological Society of America* 44:613-615
- Lazell, J.D. 1973. The lizard genus *Iguana* in the Lesser Antilles. *Bulletin of the Museum of Comparative Zoology at Harvard College* 145:1-28
- Loftin, H. & E.L. Tyson. 1965. *Iguanias* as carrion eaters. *Copeia* 1965:515
- MacKinnon H., B. 2013. Sal a pajarear Yucatán [guía de aves]. La Vaca Independiente S.A. de C.V., México, D.F., México.
- Morales-Mávil, J.E. & M. González-Solórzano. 2020. *Iguana iguana* (Green iguana), Diet and scavenging. *Herpetological Review* 51:600-601
- Savage, J.M. 2002. *The Amphibians and Reptiles of Costa Rica: A Herpetofauna Between Two Continents, Between Two Seas*. University of Chicago Press, Chicago, Illinois.
- Schwartz, A. & R.W. Henderson. 1991. *Amphibians and Reptiles of the West Indies: Descriptions, Distributions, and Natural History*. University of Florida Press, Gainesville, Florida.
- Townsend, J.H., J. Slapcinsky, K.L. Krysko, E.M. Donlan & E.A. Golden. 2005. Predation of a tree snail *Drymaeus multilineatus* (Gastropoda: Bulimulidae) by *Iguana iguana* (Reptilia: Iguanidae) on Key Biscayne, Florida. *Southeastern Naturalist* 4:361-364.
- van den Burg, M.P., H. Madden & A.O. Debrot. 2022. Population estimate, natural history and conservation of the melanistic *Iguana iguana* population on Saba, Caribbean Netherlands. *bioRxiv preprint* 2022.05.19.492665.

