

## Predation by a White Ibis (Eudocimus albus) on a West Coast Gartersnake, Thamnophis validus (Squamata: Natricidae), at Barra de Coyuca, Guerrero, Mexico

Epifanio Blancas-Calva<sup>1</sup>, André Sebastián Fuentes-Vega<sup>2</sup>, and Marisol Castro-Torreblanca<sup>3</sup>

<sup>1</sup>Instituto de Investigación Científica de Ciencias Naturales. Ciudad Universitaria, Chilpancingo, Guerrero 39087, Mexico (ebcalva@yahoo.com.mx)

<sup>2</sup>Independiente, Carretera México-Acapulco núm. 156, Col. Paso del Limonero, Acapulco de Juárez, Guerrero 39715, México

<sup>3</sup>Programa de Posgrado en Ciencias Biológicas, Universidad Nacional Autónoma de México, Ciudad Universitaria, Coyoacán, Ciudad de México 04510, México

The White Ibis, (*Eudocimus albus*) (Threskiornithidae), is distributed along the Pacific Coast from Baja California, Mexico, to the border between Panama and Colombia, with allopatric populations on the coast of Ecuador, along the Atlantic coast from North Carolina and peninsular Florida westward to the Ouachita Mountains, Oklahoma, and, along the Gulf of Mexico, to Panama City, the Bahamas, the Greater Antilles, the northern coast of Colombia (Cartagena and Barranquilla), and parts of the Venezuelan coast, extending inland to south of Bogota, Colombia (Heath et al. 2020; BirdLife International 2021).

The White Ibis is commonly found in marshes, estuaries, mangroves, and coastal rivers and lagoons (Heath et al. 2020). It is a gregarious species, often associating with other wading birds, such as Snowy Egrets (*Egretta thula*), Great Egrets (*Ardea alba*), Roseate Spoonbills (*Platalea ajaja*), and Wood Storks (*Mycteria americana*) (pers. observ.). White Ibises fly considerable distances, often in flocks of several hundred individuals, in search of food (Germain and Ruiz-Bruce 2016; National Audubon Society 2023). Their diet is composed largely of crustaceans (crayfish and marine crabs) but also includes insects, marine worms, snails, small fishes, frogs, and snakes (Kushlan and Kushlan 1975; National Audubon Society 2023).

No recent records document ophidiophagy; however, confamilial White-faced Ibises (*Plegadis chihi*) and Buffnecked Ibises (*Theristicus caudatus*) are known to feed on dipsadid snakes (de Souza et al. 2022). Because White Ibises forage primarily by touch rather than sight, generally probing for food under the surface of the water, and the shape of its beak is not well suited for ingesting snakes, our observation of a White Ibis capturing and ingesting a snake is noteworthy.

On 11 December 2022, we were observing aquatic birds at Barra de Coyuca, Guerrero, Mexico (16,94915,

-100,11653; elev. 0 m asl), a strip of sand approximately 16 km long and 600 m wide, situated between the Coyuca Lagoon and the Pacific Ocean. Although permanent construction is present along its length, only a few wooden and palm huts, which are subject to damage by waves at high tide, are near the mouth of the lagoon. Vegetation in the Coyuca Lagoon and surrounding mangroves includes Tule



**Figure 1.** A White Ibis (*Eudocimus albus*) ingesting a West Coast Gartersnake (*Thamnophis validus*) at Barra de Coyuca, Guerrero, Mexico. Photograph by André Sebastián-Fuentes.



**Figure 2.** West Coast Gartersnakes (*Thamnophis validus*) are common along the Barra de Coyuca coast in Guerrero, Mexico. This photograph was taken 80 m from the site of the observation described herein. Photograph by Epifanio Blancas-Calva.

(*Typha dominguensis*), exotic grasses, and Common Water Hyacinths (*Eichhornia crassipes*).

At 1059 h, we noticed a White Ibis preying on an adult West Coast Gartersnake (*Thamnophis validus*) in brackish water of the Coyuca Lagoon. The ibis had captured the snake by the head and was slowly ingesting it (Fig. 1). West Coast Gartersnakes, which range from southern Sonora and Baja

California Sur to Mazunte, Oaxaca (de Queiroz and Lawson 2008), are semiaquatic, reach about 110 cm in total length, and are common in this area (Fig. 2). To the best of our knowledge, this is the first record of predation on this western Mexican endemic snake.

## Acknowledgements

Yves Eduardo Blancas Castro located the West Coast Gartersnake illustrated in Fig. 2.

## Literature Cited

- BirdLife International. 2021. Eudocimus albus. The IUCN Red List of Threatened Species 2021: e.T22697411A188454802. https://dx.doi.org/10.2305/IUCN. UK.2021-3.RLTS.T22697411A188454802.en.
- de Queiroz, A. and R. Lawson. 2008. A peninsula as an island: multiple forms of evidence for overwater colonization of Baja California by the gartersnake *Thamnophis validus. Biological Journal of the Linnean Society* 95: 409–424. https://doi.org/10.1111/j.1095-8312.2008.01049.x.
- de Souza, E., J. Lima-Santos, O.M. Entiauspe-Neto, P.R. de Moura, and E. Hingst-Zaher. 2022. Ophiophagy in Brazilian birds: a contribution from a collaborative platform of citizen science. *Ornithology Research* 30: 15–24. https://doi.org/10.1007/s43388-022-00082-5.
- Germain, P. and M. Ruiz-Bruce. 2016. Aves de las lagunas costeras de Oaxaca, México: Guía fotográfica de aves acuáticas y rapaces. Comisión Nacional para el Conocimiento y Uso de la Biodiversidad. Ciudad de México, México.
- Heath, J.A., P.C. Frederick, J.A. Kushlan, and K.L. Bildstein. 2020. White Ibis (Eudocimus albus), version 1.0. In: A.F. Poole (ed.), Birds of the World. Cornell Lab of Ornithology, Ithaca, New York, USA. https://doi.org/10.2173/bow. whiibi.01.
- Kushlan, J.A. and M.S. Kushlan. 1975. Food of the White Ibis in southern Florida. *Florida Field Naturalist* 3: 31–38.
- National Audubon Society. 2023. White Ibis. Bird Guide > Ibises and Spoonbills (text and range maps adapted from *Lives of North American Birds* by Kenn Kaufman © 1996, used by permission of Houghton Mifflin Harcourt Publishing Company, Boston, Massachusetts, USA). National Audubon Society, New York, New York, USA. <a href="https://www.audubon.org/field-guide/bird/white-ibis">https://www.audubon.org/field-guide/bird/white-ibis</a>.