

The occurrence of the invasive Marine Toad (*Rhinella marina*) on Palawan Island, Philippines

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Photograph by: Emerson Y. Sy,

Subject identified by: Emerson Y. Sy.

Location: Barangay Tabon, Municipality of Quezon, Palawan Province, Palawan Island, Philippines.

Elevation: 6 metres ASL.

Habitat: Ornamental plant garden adjacent to the beach.

Date and time: 07 September 2019, 20:30 hrs.

Identity of subject: Marine Toad, *Rhinella marina* (Amphibia: Anura: Bufonidae).

Description of records: Sixteen adult Marine Toads (SVL = 97-120mm; 5 males and 11 females) and one Philippine Toad *Ingerophrynus philippinicus* were observed within a 1,200 m² garden of a beach resort. A pair of *Rhinella marina* was photographed in amplexus (Fig. 1).



Fig. 1. *Rhinella marina* in amplexus

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Remarks:

The sixteen toads, locally called 'bullfrogs' in the Municipality of Quezon, Palawan Province, were identified as *Rhinella marina* based on (i) their large size, (ii) brownish tan colouration, (iii) a large pair of parotid glands, (iv) tubercles on the body and limbs and (v) absence of parietal crests (Alcala and Brown, 1998).

The Marine Toad was intentionally introduced as a biological control for sugarcane pests in the Philippines in 1934 (Pili et al., 2019), and is now present on the following islands: Alabat, Bohol, Calayan, Catanduanes, Cebu, Cocomo, Dinagat, Gigantes Norte, Leyte, Lubang, Luzon, Marinduque, Masbate, Mindanao, Mindoro, Naro, Negros, Palawan, Panay, Polillo, Sicogon, Samar, Sibuyan, Tablas, Ticao, and Verde (Diesmos et al., 2015, Dela Cruz & Abuid, 2019). This species was reported to be present in Puerto Princesa City, Palawan (Diesmos et al., 2015).

The Marine Toads in the Municipality of Quezon, Palawan Province, were apparently brought by a Quezon local from Dumaguete City, Negros Island to Palawan Island in 2014 who intended to release them in his farm in Barangay Ladayan as a biological control of venomous snakes (e.g. *Naja sumatrana*). However, the toads escaped confinement in Barangay Alfonso XIII (Poblacion) prior to release. According to local residents, the Marine Toads are now abundant in Barangay Tabon and Barangay Pinaglabanan. The Marine Toad may be a serious threat to Palawan wildlife by predation, direct competition for food and ecological niche, and poisoning when ingested. The larger and presumably more aggressive introduced toad may displace the endemic Philippine Toad *Ingerophrynus philippinicus* since they occupy the same habitat. An eradication program was suggested immediately by the author to the Palawan Council for Sustainable Development Staff (PCSDS) to prevent this invasive species from spreading further on Palawan.

References:

- Alcala, A.C. & Brown, W.C. (1998). Philippine amphibians: an illustrated field guide. Bookmark, Inc. Makati City, Philippines. xii + 116pp.
- Dela Cruz, C. J. P. & Abuid, F. G. P. (2019). Cane Toad *Rhinella marina* on Naro Island, Masbate Province, Bicol peninsula, Philippines. Southeast Asia Vertebrate Records 2019: 7-8.
- Pili, A. N., Supsup, C. E., Sy, E. Y., Diesmos, M. L. L. & Diesmos, A.C. (2019). Spatial dynamics of invasion and distribution of alien frogs in a biodiversity hotspot archipelago. In: Veitch, C. R., Clout, M. N., Martin, A. R., Russell, J. C. and West, C. J. (Eds.). Island Invasives: Scaling up to Meet the Challenge, pp. 337-347. Gland, Switzerland: IUCN.
- Diesmos, A. C., Watters, J. L., Huron, N. A., Davis, D. R., Alcala, A. C., Crombie, R. I., Afuang, L. E., Gee-Das, G., Sison, R. V., Sanguila, M. B., Penrod, M. L., Labonte, M. J., Davey, C. S., Leone, E. A., Diesmos, M. L., Sy, E. Y., Welton, L. J., Brown, R. M. & Siler, C.D. (2015). Amphibians of the Philippines, part I: checklist of the species. Proceedings of the California Academy of Sciences series 4, 62: 457-539.