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NOTE

ROSTRAL ANOMALY IN A JUVENILE SPINY BUTTERFLY RAY *GYMNURA ALTAVELA* (LINNAEUS, 1758) (ELASMOBRANCHII: MYLIOBATIFORMES: GYMNURIDAE) FROM THE CANARY ISLANDS

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The Spiny Butterfly Ray *Gymnura altavela* (Linnaeus, 1758) has an amphi-Atlantic distribution, and occurs in its eastern range along the coasts of Portugal and Spain, over Morocco to Angola, the Mediterranean Sea, Black Sea, Madeira, and the Canary Islands (Ebert & Stehmann 2013; Yokota et al. 2016). It has been assessed globally as Vulnerable on the IUCN Red List (Vooren et al. 2007) and as Critically Endangered (Dulvy et al. 2016) for the European distribution. The first record of an anomaly in this species was described by Narváez & Osaer (2016) for an adult female observed in 2007 and 2008 in the northwest of the Island of Gran Canaria (Canary Islands, Spain). This observation was also remarkable for its similarity, prominent in sex, shape, location, and texture, with the partial lack of the disc in way of the rostrum in the Long-tailed Butterfly Ray *G. poecilura* from the western Indo-Pacific (Suresh & Raffi 2012).

On 29 July 2017, an unusual juvenile female *G. altavela* (41cm disc width) was observed during a visual census at 10.9m depth and 22°C water temperature in the Special Area of Conservation ‘Playa del Cabrón’ (ES7010053, 27.8709°N & 15.3822°W, Gran Canaria, Canary Islands). The right pectoral fin was not fused to the braincase, causing an opening in the anterior part of the disc from the rostral ridge to the posterior margin of the eye and a free lobe. The epidermis pigmentation was absent at the proximal part of this lobe, presenting a similar appearance in colour and texture as the white

ROSTRAL ANOMALY IN A JUVENILE SPINY BUTTERFLY RAY *GYMNURA ALTAVELA* (LINNAEUS, 1758) (ELASMOBRANCHII: MYLIOBATIFORMES: GYMNURIDAE) FROM THE CANARY ISLANDS

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epidermis from the ventral side (Image 1). The inflated peritoneal cavity of the individual may suggest a full stomach and adaption to its abnormality for successful predation (Image 1b). The species was identified following the descriptions from Yokota et al. (2016). The juvenile maturity phase was inferred from the reported size ranges in neonates (34–39 cm disc width) for the distribution off Syria (Alkusaery et al. 2014), and the maximum recorded disc width of 31.3 cm for embryos was inferred from the distribution off Tunisia (Capapé et al. 1992).

The present communication is the first record of this anomaly type in a juvenile *G. altavela*, and the second instance reported in this species and in the Canary Islands. Both cases were observed in the island of Gran Canaria, but in different regions (eastern versus northwestern) and with a 10-year time lapse. In addition, they have similar morphologic aspects, with differences limited to the extent in lack of the disc (posterior margin of the eye versus posterior margin of the spiracle) and the opening

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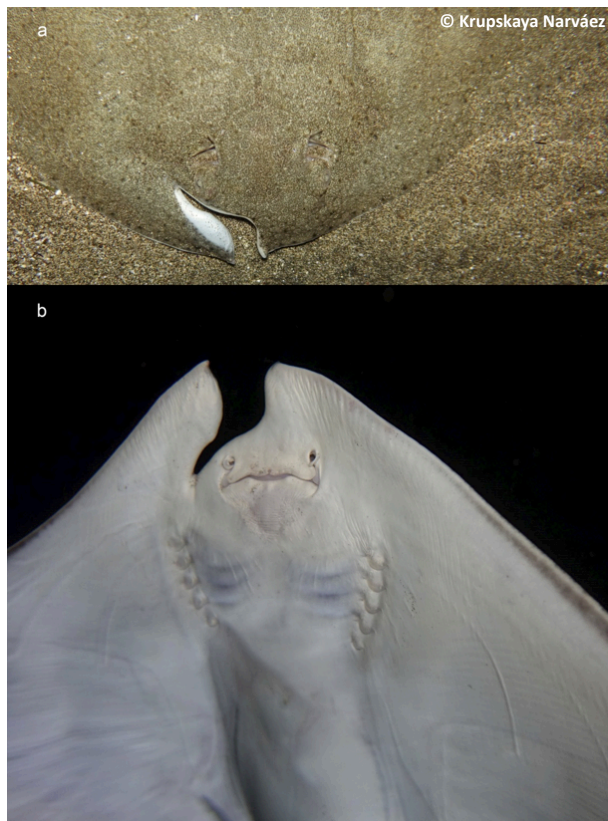


Image 1. Unfused pectoral fin to the braincase in a female, juvenile, Spiny Butterfly Ray *Gymnura altavela* (Linnaeus, 1758) with 41cm disc width observed during a visual census in the Special Area of Conservation 'Playa del Cabrón' (E57010053, 27.8709°N & 15.3822°W, Gran Canaria, Canary Islands). a - dorsal view; and b - ventral view.

ends in the way the anterior disc margin (pointed versus rounded tips). Both aspects are, however, minimal and might be caused by the size difference of the individuals (41cm versus 137cm disc width).

There is scant information available in the literature of anomaly cases in butterfly rays for individuals above the size of birth. Three instances document an unfused right pectoral fin to the snout (Suresh & Raffi 2012; Narváez & Osaer 2016; the present study) that were similar in sex, shape, location, and texture. Two cases described a dorsal fold on the tail (Nunes & Piorski 2009)

and one an absent tip of the snout (Béarez et al. 2008). The low occurrence of reported anomalies in butterfly rays during the last decade in our study region and the survival of the affected individuals could suggest that these instances are not a priority conservation concern at present. More studies, however, are required to better understand the causes for such deformations and to correctly assess this matter.

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