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First mature male record of *Bathyraja schroederi* (Elasmobranchii, Arhynchobatidae) from the South Atlantic, with descriptions of its clasper and skeletal characters

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Abstract

The first mature male of *Bathyraja schroederi* (Krefft, 1968) is reported based on a single specimen caught by longline in nearly 2000 m depth at 53°S, 57°W in the Western South Atlantic. This is only the third record after the original description of this very rare deepwater skate that is mainly found in the southwestern Atlantic and with records off southern Chile. The hitherto unknown clasper and skeletal characters of this mature male are described here and compared with the original series of seven specimens. The mature male differs in some morphometrics and meristics from the exclusively female type specimens and shows in its clasper the peculiarity of large dorsal and ventral pseudosiphons.

Key words: South Atlantic, deepwater skate, clasper characters, skeletal characters

Introduction

Bathyraja schroederi was described by Krefft (1968a) in *Breviraja*, the valid generic assignment at the time, and later reassigned by Stehmann (1970) to the genus *Bathyraja* Ishiyama, 1958 after the revision by Ishiyama & Hubbs (1968), which distinguished the Atlantic genus *Breviraja* from the (then assumed) Pacific genus *Bathyraja*. The original series of eight specimens (five types, three non-types) was trawled at three stations at 800 and 1000 m depths during the first South American expedition of the German FRV “Walther Herwig in 1966 on the continental slope off the mouth of the Rio de la Plata and southern Uruguay. The total lengths (TL) of these eight specimens ranged from 300 to 1280 mm, with the (assumed) mature female holotype the largest specimen; the larger of two males has totally immature claspers at 730 mm TL.

Only a few individual additional records of this rare deepwater skate are known since its original description. Séret & Andreato (1992) briefly listed, without identifying details, a neonate female of 246 mm TL (MNHN 1989-341) found at 2370–2380 m depth off Brazil (23°04.30'S, 40°19.85'W, off Rio de Janeiro), photographs of which are available in FishBase (www.fishbase.org). Pequeño (1997: 79, 80) listed this species for the first time off Talcahuano, Chile (“*B. schroederi* apareció en el talud, frente a Talcahuano, preservándose material cuyo estudio está en marcha por el Prof. Julio Lamilla y el autor”), and Lamilla & Saéz (2003) referred to the same records without further detail under family Pseudorajidae from off Isla Mocha, Chile, in their key to Chilean batoids. To date, Chilean authors have not published specific evidence of the records cited above, nor of *Ambyraja freirichsi* and *Rajella sadowskii* also mentioned by Pequeño (1997). If reference specimens (Pequeño 1997) had been deposited in J. Lamilla’s collection at the University of Valdivia, they would have been lost in a fire in December 2007 that totally destroyed the Ichthyology Department. As such, the Chilean records cited above can no longer be verified.

When the senior author visited the Falkland Islands in January 2006 with an Argentinean student involved in the project Ecoraya (Stehmann 2003, 2007), the junior author informed him of a strange deepwater skate kept deep

shaped dt1 but lacks a v-ps; vm with short distal process which externally not appearing as pj; inner face of ventral lobe shows no clasper components at all.

Bathyraja ishiharai (Stehmann 2005b: fig. 3; where spike [sk] as sentinel [st] and at2 as at1 mislabelled), despite a huge, capsule-shaped dt1, lacks a v-ps.

Mature claspers of other deepwater morphotype *Bathyraja* species, to our knowledge, are not yet known, or have not yet been described.

As for stomach contents, radiographs of the large female holotype show an intact bony fish skeleton about 25 cm TL in the stomach, which appears to be *Coryphaenoides subserrulatus* Makushok, 1976, taken as bycatch at the holotype's 1000 m station 413/1966 and the previous 800 m station 412/1966 during this FRV "Walther Herwig" survey. Also the non-type 82+ cm TL female of station 412/1966 has a much fragmented bony fish skeleton in its stomach that cannot be identified. It can thus be assumed that *B. schroederi* is piscivorous at least from its half-grown size onward.

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