



Description of the clasper of the Southern Thorny Skate *Amblyraja doellojuradoi* (Pozzi, 1935) (Chondrichthyes: Rajidae)

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Abstract

This work constitutes the first description of the clasper of *Amblyraja doellojuradoi*. The characterization was based on both external morphology and the composition of the internal cartilages. A comparison based on these structures with other species of the genus is provided. Considering all of the cartilages, the basal and terminal series of *A. doellojuradoi* are more similar in shape and disposition to the equivalent series in *A. radiata* than to *A. hyperborea*. However, marked differences in clasper cartilages permit *A. doellojuradoi* to be distinguished from these congeners.

Key words: Rajiformes, morphology, male copulatory organ, systematics

Introduction

Studies of the anatomy and systematics of batoids have revealed significant variation among many anatomical systems (Compagno 1977; Miyake 1988; Miyake & McEachran 1991), particularly in the neurocranium, pectoral and pelvic girdles, and especially the male copulatory organs, which provide useful diagnostic characters at the specific level. (Ishiyama & Hubbs 1968; Hulley 1970; Stehmann 1970; Hulley 1972; McEachran 1982, 1983). Concerning these organs, special attention is paid to the distal components, as they are most useful in separating species (Ishiyama 1958). Several studies related to this subject have been carried out; however, for some genera this knowledge is scarce. Such is the case of the genus *Amblyraja*, in which the claspers have been described for only two species: *Amblyraja radiata* (Stehmann 1970; Hulley 1972) and *A. hyperborea* (Stehmann 1970).

The genus *Amblyraja*, with 10 species, has a cosmopolitan distribution (Ebert & Compagno 2007). One of the species, the southern thorny skate (*Amblyraja doellojuradoi*), inhabits the Southwest Atlantic Ocean (Menni & Stehmann 2000; Cousseau *et al.* 2007), and is distributed from 35° to 55° S in the Argentinean continental shelf. Information about the southern thorny skate is rarely encountered, referring almost exclusively to its taxonomy and distribution (Pozzi 1935; Bellisio *et al.* 1979; Menni *et al.* 1984; Menni & Stehmann 2000; Sánchez & Mabragaña 2002; Cousseau *et al.* 2007). This work constitutes the first description of the copulatory organ of *Amblyraja doellojuradoi*.

Material and methods

Specimens of the southern thorny skate were collected from research cruises carried out by the National Institute of Fisheries Research and Development in the Southwest Atlantic Ocean (SWA) from 36° to 47° S. The skates were identified as *A. doellojuradoi* through Cousseau *et al.* (2007). A total of 10 claspers belonging to mature specimens ranging from 519 to 551 mm TL were analyzed and preserved in the Laboratorio de Ictiología de la Universidad Nacional de Mar del Plata.