

## A bramble shark, *Echinorhinus brucus*, caught near the Patagonian coast, Argentina

Un tiburón de hebillas, *Echinorhinus brucus*, capturado cerca de las costas de Patagonia, Argentina

Guillermo M. Caille<sup>1,2</sup> and Elsie K. Olsen<sup>3</sup>

<sup>1</sup>Facultad de Ciencias Naturales, Universidad Nacional de la Patagonia, Belgrano 504 (CP 9100) Trelew, Chubut, Argentina.

<sup>2</sup>Fundación Patagonia Natural, Marcos Zar 760 (CP 9120), Puerto Madryn, Chubut, Argentina.

<sup>3</sup>Dirección General de Intereses Marítimos y Pesca Continental, Provincia del Chubut, 9 de Julio 280 (CP 9103) Rawson, Chubut, Argentina. gcaille@wup.edu.ar

**Resumen.**- Se reporta la captura en noviembre de 1997, de una hembra de *Echinorhinus brucus* de 3,26 metros de longitud total, en aguas costeras de la Patagonia argentina (43° 41' S - 65° 04' W). Esta especie poco conocida no ha sido previamente reportada en la zona.

Palabras clave: Tiburón de hebillas, *Echinorhinus brucus*, Echinorhinidae, Squaliformes, Patagonia, Atlántico sudoccidental.

Keywords: Bramble shark, *Echinorhinus brucus*, Echinorhinidae, Squaliformes, Patagonia, southwest Atlantic.

The family Echinorhinidae or bramble sharks (Squaliformes, Echinorhinidae) includes two species of large and poorly known sharks: *Echinorhinus brucus* (Bonaterre 1788) and *Echinorhinus cookei* Pietschmann 1928, that range from cold-temperate to tropical seas. References on their presence suggest they have a wide distribution on continental shelves and slopes, near the bottom up to 900 meters of depth. They are harmless sharks, and there are no records of attacks on people.

The bramble shark reported here presented spineless dorsal fins; the first one behind the origin of the pelvic fins. Dermal denticles of varied sizes were scattered all over the body and fins, and some of them were fused into plates with not stellates bases. It corresponded to an adult female of *Echinorhinus brucus* and had a total length of 3.26 meters and a total weight of more than 250 kilograms. It was caught on November 13, 1997, at night, with a bottom trawl net used for fishing hake *Merluccius hubbsi* Marini 1933 (Gadiformes, Merlucciidae) by the coastal vessel "La Paloma". The trawl was made near Isla Escondida, at less than 15 nautical miles from the coast (43° 41' S - 65° 04' W) and at a depth of between 50 and 55



Figure 1

Site of capture of the bramble shark, *Echinorhinus brucus*, on November 1997.

Sitio de captura del tiburón de hebillas, *Echinorhinus brucus*, en noviembre de 1997.

meters (Fig. 1).

The shark was gutted on board by the fishermen (Fig. 2), and the skipper of "La Paloma" mentioned that the stomach contents included elephant fish *Callorhynchus callorhynchus* (Linné 1758) (Chimaeriformes, Callorhynchidae), grouper *Acanthistius brasilianus* (Valenciennes 1828) (Perciformes, Serranidae) and squids.

It is possible that the squids found were *Illex argentinus* Castellanos 1960 (Teuthoidea, Ommastrephidae) present on the intermediate shelf between 42 and 46° S at the beginning of the southern summer (Brunetti & Perez Comas 1989). Unfortunately the stomach, together with its contents, were discarded at sea.

Bramble sharks feed on fish, crabs, octopuses and squids (Compagno 1984), moreover the relative small size of their mouth and large pharynx suggest they suck in their prey expanding their mouth and pharynx (Fig. 3).

*Echinorhinus brucus* is only relatively common in the northeast Atlantic, from the North Sea to Portugal, where is caught as a by-catch in bottom trawls (Compagno 1984). In the southwest Atlantic its distribution is uncertain, and although it is assumed to be restricted to the Argentine sea between 40 and 42° S (Menni *et al.* 1984, Cousseau & Denegri 1997) this species is not known by Patagonian fishermen (Caille *et al.* 1997, Van der Molen *et al.* 1998). The bramble shark captured near Isla Escondida is possibly the largest reported to date and confirms its presence in the Southwest Atlantic up to 44° South.



Figure 3

Detail of the mouth and pharynx of *Echinorhinus brucus*.

Detalle del área bucal y faríngea de *Echinorhinus brucus*.



Figure 2

Lateral view of the *Echinorhinus brucus* female caught near Isla Escondida.

Vista lateral del ejemplar de *Echinorhinus brucus* capturado cerca de Isla Escondida.

## Acknowledgments

We are grateful to Mario Mataresse, a fishing inspector of Chubut, and to Hugo Techí, skipper of "La Paloma".

## Literature cited

**Brunetti NE & JA Perez Comas. 1989.** Abundancia, distribución y estructura poblacional del calamar (*Illex argentinus*) en aguas de la plataforma patagónica en diciembre de 1986 y enero-febrero de 1987. Frente Marítimo 5: 61-70.

**Caille G, R González, A Gosztanyi & N Ciocco. 1997.** Especies capturadas por las flotas de pesca costera en Patagonia. Programa de biólogos observadores a bordo, 1993 - 1996. Informes Técnicos del Plan de Manejo Integrado de la Zona Costera Patagónica (Fundación Patagonia Natural, Puerto Madryn, Argentina) 27: 1-21.

**Compagno L J V . 1984.** FAO Species Catalogue. Sharks of the world. FAO Fisheries Synopsis 125, 4: 1-655.

**Cousseau MB & MA Denegri. 1997.** Peces/Fishes. In: Cousseau MB (ed), Peces, Crustáceos y Moluscos registrados en el Sector del Atlántico Sudoccidental comprendido entre 34° y 55° S, con indicación de las especies de interés pesquero. INIDEP (Mar del Plata, Argentina) Informe Técnico 5: 9-47.

**Menni RC, RA Ringuélet & RH Arámburu. 1984.** Peces Marinos de la Argentina y Uruguay, 359 p. Ediciones Hemisferio Sur, Buenos Aires.

**Van Der Molen S, G Caille & R González. 1998.** By-catch of sharks in Patagonian coastal trawl fisheries. Marine and Freshwater Research 49: 641 - 644.