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FIRST RECORDS OF THE LONGNOSE SPINY DOGFISH *SQUALUS BLAINVILLEI* (SQUALIDAE) AND THE DEEP-WATER STINGRAY *PLESIOBATIS DAVIESI* (UROLOPHIDAE) FROM SOUTH AFRICAN WATERS

D. A. EBERT, P. D. COWLEY† and L. J. V. COMPAGNO‡*

Deep-set longline investigations of the slope waters off northern KwaZulu-Natal on the east coast of South Africa confirmed the first records of the longnose spiny dogfish *Squalus blainvillei* (Squalidae) and the deep-water stingray *Plesiobatis daviesi* (Urolophidae) from South African waters.

Key words: first records, *Plesiobatis daviesi*, *Squalus blainvillei*, South Africa

The seas around southern Africa support a diverse fauna of cartilaginous fish. The majority of elasmobranch species inhabit the continental shelf up to around 200 m deep (Compagno *et al*. 1989). There is also a varied fauna of deep-water elasmobranchs that occupy slope waters to depths in excess of 1 000 m. This slope fauna has been studied on the west coast of southern Africa between Walvis Bay, Namibia and the Agulhas Bank on the southern seaboard of South Africa (Compagno *et al*. 1991). However, relatively little research on deep-water elasmobranchs has been conducted on the east coast of South Africa.

This study reports on the first record of the longnose spiny dogfish *Squalus blainvillei* and deep-water stingray *Plesiobatis daviesi* from South African waters.

MATERIAL AND METHODS

A deep-set longline survey was conducted from the R.V. *Meiring Naude* off KwaZulu-Natal on the east coast of South Africa over a 10-day period between 23 November and 2 December 1988. The principal research areas were around the deep-water canyons between Leven Point (27°56´S, 32°43´E) and Kozi Bay (27°27´S, 32° 49´E).

The longlines consisted of four 600-m sections of 10-mm polyester line. A typical set consisted of 50 heavy gangions with Japanese tuna longline hooks, 3-mm stainless steel cable leader, and baited tuna-halibut clips.

RESULTS AND DISCUSSION

Squalus blainvillei (Risso, 1826)

On 26 November 1988, an adult female *S. blainvillei* was caught off White Sands (27°27.4´S, 32°48.7´E) at a depth of 600 m. It was 95.6 cm total length (*TL*) and weighed 6 kg (Table I). The specimen was gravid with eight embryos, four in each uterus. The left uterus had one female of 25.6 cm *TL* and three males measuring between 25.0 and 25.6 cm *TL*. The right uterus had one female of 24.9 cm *TL* and three males measuring between 25.3 and 25.6 cm *TL*. All embryos appeared to be near-term. The left ovary contained five eggs, ranging in diameter between 35 and 42 mm, and the right ovary contained three eggs ranging between 40 and 47 mm. The stomach contained an unidentified teleost.

Bass *et al*. (1976) reported *S. blainvillei* as being fairly common along the east coast of southern Africa between depths of 50 and 740 m. However, the specimen illustrated and described by those authors was in fact *S. mitsukurii*, a common squaloid from around the southern African seaboard (Compagno *et al*. 1991). *S. blainvillei* has been found in the eastern Atlantic from the Bay of Biscay to the Mediterranean and along the West African coast to Angola (Compagno 1984). In the Western Pacific, it has been recorded off southern Japan and Taiwan (Compagno 1984, Ebert 1988).

* Ocean Resource Consulting Associates, P.O. Box 281, Moss Landing, C. 95039, U.S.A. E-mail: Davide@got.net
† South African Institute for Aquatic Biodiversity (formerly J. L. B. Smith Institute of Ichthyology), Private Bag 1015, Grahamstown 6140, South Africa
‡ Shark Research Centre, South African Museum, P.O. Box 60, Cape Town 8000, South Africa

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Table I: Morphometric measurements (expressed as a percentage of total length) for a female *Squalus blainvillei*

Parameter	% of *TL*
	TL = 95.6 cm
Precaudal length	80
Prenarial length	4
Preoral length	10
Preorbital length	6
Prespiracular length	10
Prebranchial length	16
Head length	21
Prepectoral length	21
Prepelvic length	51
Pre-first doral tin length	31
Pre-second dorsal fin length	64
Interdorsal length	26
Dorsal-caudal length	10
Pectoral-pelvic length	26
Eye length	4
Nostril width	2
Internarial length	5
Eye~spiracle length	1
Mouth length	1
Mouth width	7
Upper labial furrow length	2
Lower labial furrow length	1
First gill slit heigth	2
Third gill slit height	2
Fifth gill slit height	3
Pectoral anterior margin length	17
Pectoral base length	6
Pectoral inner margin length	7
Pectoral posterior margin length	13
Pelvic anterior margin length	6
Pelvic base length	5
Pelvic inner margin length	5
Pelvic posterior margin length	6
First dorsal anterior margin length	9
First dorsal base length	7
First dorsal height	8
First dorsal inner margin length	6
First dorsal posterior margin length	10
Second dorsal anterior margin length	8
Second dorsal base length	5
Second dorsal height	4
Second dorsal inner margin length	4
Second dorsal posterior margin length	5
Dorsal caudal margin length	19
Preventral caudal margin length	11
Body mass (kg)	6

Plesiobatis daviesi (Wallace, 1967)

Two specimens of *P. daviesi* were caught. One, an adolescent female, was caught off White Sands (27° 28´S, 32°47´E) at a depth of 650 m. It measured 201 cm *TL,* with a disc width (*DW*) of 116 cm, and weighed 46 kg (Table II). The stomach contained two unidentified crustaceans and two unidentified eel-like teleosts. The other, a juvenile female, was caught off Leven Point (27°55.2´S, 32°42.6´E) at a depth of 670 m. It measured 189 cm *TL* (106 cm *DW*) and weighed 40 kg (Table II). The stomach contents included a cephalopod, a penaeid shrimp, three unidentified crabs, an unidentified teleost, and a single clupeid, *Etrumeus teres*.

Table II: Morphometric measurements (expressed as a percentage of total length) for two female *Plesiobatis daviesi*

Parameter	% of *TL*	
	TL = 189.0 cm	*TL* = 200.5 cm
Disc width	100	100
Disc length	103	102
Precaudal length	154	148
Prenarial length	26	25
Preoral length	34	32
Preorbital length	34	31
Prespiracle length	36	34
Pregill length	43	42
Head length	55	54
Pregill width	53	47
Prepelvic length	92	90
Snout-vent length	91	89
Eye length	3	3
Eye height	2	3
Interorbital width	15	14
Nostril width	8	9
Internarial width	3	3
Interorbital width	14	14
Anterior nasal flap	6	6
Spiracle length	4	5
Spiracle height	6	3
Interspiracle width	15	15
Mouth gape width	11	12
First gill length	3	4
Second gill length	4	4
Third gill length	4	4
Fourth gill length	4	4
Fifth gill length	3	3
Distance between first pair of gill slits	22	23
Distance between fifth pair of gills	14	14
Pectoral base length	93	93
Anterior pectoral margin length	64	67
Inner pectoral margin length	10	9
Posterior pectoral margin length	66	66
Posterior pelvic margin length	16	16
Anterior pelvic margin length	12	11
Pelvic base length	12	10
Pelvic height	13	15
Pelvic inner margin	7	8
Pelvic posterior margin	11	12
pelvic span	28	28
Upper caudal fold length	40	25
Upper caudal fold height	25	2
Lower caudal fold length	2	38
Lower caudal fold height	2	2
Caudal height	4	4
Tail base width	6	6
Tail base height	4	4
Sting length	16	17
Sting width	1	1
Body mass (kg)	40	46
Spiral valve count	15	15

The only previous southern African records of *P. daviesi* were based on the holotype, paratype and three additional specimens caught off the Limpopo River, Moçambique, between 50 and 500 m deep (Wallace 1967). Elsewhere, it has been reported from Australia, the western and central Pacific Ocean, including the Hawaiian Islands (Last and Stevens 1994).

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