Biodiversity Observations

http://bo.adu.org.za/

An electronic journal published by the Animal Demography Unit at the University of Cape Town

The scope of Biodiversity Observations consists of papers describing observations about biodiversity in general, including animals, plants, algae and fungi. This includes observations of behaviour, breeding and flowering patterns, distributions and range extensions, foraging, food, movement, measurements, habitat and colouration/plumage variations. Biotic interactions such as pollination, fruit dispersal, herbivory and predation fall within the scope, as well as the use of indigenous and exotic species by humans. Observations of naturalised plants and animals will also be considered. Biodiversity Observations will also publish a variety of other interesting or relevant biodiversity material: reports of projects and conferences, annotated checklists for a site or region, specialist bibliographies, book reviews and any other appropriate material. Further details and guidelines to authors are on this website.

EXTENSION OF KNOWN DISTRIBUTION RANGE: SHORT-TAIL STINGRAY *DASYATIS BREVICAUDATA*

Arnold C van der Westhuizen and Pieter JI van der Westhuizen

Recommended citation format:
van der Westhuizen AC, van der Westhuizen PJI 2016. Extension of known distribution range: Short-tail Stingray *Dasyatis brevicaudata*. Biodiversity Observations, Vol 7.16:1-3

URL: http://bo.adu.org.za/content.php?id=209

Published online: 9 March 2016

– ISSN 2219-0341 –

EXTENSION OF KNOWN DISTRIBUTION RANGE: SHORT-TAIL STINGRAY *DASYATIS BREVICAUDATA*

Arnold C van der Westhuizen[1] and Pieter JI van der Westhuizen[2]*

[1]Animal Demography Unit, Department of Biological Sciences, University of Cape Town, Rondebosch, Cape Town
[2] PO Box 400, Moorreesburg, 7310

* Corresponding author: vdwarnold@gmail.com

The Short-tail Stingray *Dasyatis brevicaudata* (Smith no: 30.1) (Afr: Kortstert-pylstert) is a sought after game fish for South African shore anglers. It puts up a remarkable fight that can last for hours as the fish may "suck" to the seabed and is only moved with great difficulty. It is considered to be the largest stingray and can reach a weight of up to 350 kg (Duffy *et al.* 2003; Smith *et al.* 2003).

The fish is a thick, heavy stingray with a bluntly angular snout. The pectoral disc has rounded tips; the tail is thick-based and shorter than the body; disc is smooth except for the large, slender thorn on the tail in front of the sting(s); often 2 stings – of which the front one is smaller and the rear described as huge (Compagno *et al.* 1989). Dorsally the fish is grey-brown to bluish-grey (blackish – ref Fig 1) and ventrally it is white, the row small, pale blue spots at each pectoral fin base is typical (Compagno *et al.* 1989; Smith *et al.* 2003). It is reported to be venomous to humans (Halstead 1980).

The species prefers marine and brackish waters at depths ranging from 0-476 m (Compagno *et al.* 1989). The fish has adapted to a wide variety of habitats which may include shallow coastal bays,estuaries, large inlets, coastal rocky reefs, offshore islands, open sea floor and occasionally near the surface over the outer shelf (Duffy *et al.* 2003). Michael (1993) reports specimens of this species to occur *inter alia* "in harbors and near rocky reefs".

Fig 1 – A specimen of the Short-tail Stingray *Dasyatis brevicaudata* caught by a shore angler at Witklip, Varkvlei, St Helena Bay, South Africa on 5 March 2016.

Fig 2 – The distribution range of the Short-tail Stingray *Dasyatis brevicaudata* in southern African waters, with the red arrow indicating the capture location of a specimen on 5 March 2016.

Source: http://maps.iucnredlist.org/map.html?id=41796

The description of the distribution range in literature is not detailed and even somewhat vague. The authoritative Smiths' Sea Fishes (Smith *et al.* 2003) describes the distribution in southern African waters as "False Bay to Maputo" – which generally is known to be more temperate water of the Agulhas stream flowing south from the equator. Other indications of distribution in southern African waters are: southern Mozambique and South Africa (Compagno *et al.* 1989) and Zambezi River to Cape Town (Duffy *et al.* 2003). The species occur in New Zealand and "temperate and subtropical" coasts of Australia as well (Last *et al.* 1994).

On 5 March 2016 three specimens of this species were captured in close proximity of each other on the shoreline of the farm Wildevarkens Valey 48 in St Helena Bay, West Coast, South Africa. Up to now anecdotal records of this species captured around here circulated amongst anglers along the West Coast. A specimen captured on 11 February 2016 during the National Ladies Championships of the South African Shore Angling Association was recorded and witnessed on the score card of one of the participants. This specimen was also captured in the same area.

The fish reported here (Fig 1) is the first known to be recorded in detail with photographic evidence along the West Coast of South Africa. The specimen was captured around 14:00 on 5 March 2016 at a spot known colloquially by anglers as Witklip (S32°46.786' E18°05.761') by Pieter van der Westhuizen of the Berg River Shore Angling Club. It was caught on fish bait in a small bay facing in a northerly direction with a rocky bottom in about 2.5 m of water as the tide was receding. The fish was a female and measured 109 cm (disc width) which equals 45.34 kg in mass (Anon, s.a.; FishWeigths). It took about 40 minutes to land the fish. After measurements were taken it was released. The other two specimens were smaller in size – a female of 12.2 kg captured by Edward Byron and a female of 7 kg caught by Ryan Aylward.

These records are approximately 230 km along the coast from False Bay which is the furthest western point of distribution previously described in literature. The habitat isgenerally more temperate/colder than waters east of False Bay, as these West Coast waters are fed by the cold Benguela upwelling. It is likely that anglers in the past did not realise the significance of their catch and therefore it was never recorded as a possible extension of the known distribution range for this species.

Author's note:
The Short-tail Stingray made news headlines in the Western Cape in 2003 when the mascot of Struis Bay harbour, known as Parrie, was released back into the harbour after being captured without the necessary permit by the Two Oceans Aquarium in the V&A Waterfront in Cape Town (Malan 2003).

A short video about the giant stingray in the Struis Bay harbour can be viewed here:
https://www.youtube.com/watch?v=tPf_03UBSVs

This fish (and a few smaller friends) in the Struis Bay harbour have become a famous tourist attraction in the small harbour town near the southern tip of Africa as reported on this tourist website:
https://xplorio.com/agulhas/en/blog/general/15101/parrie-the-stingray/

- oo0oo -

References

Anonymous, s.a. Length and weight conversion tables for the Southern African Angler. Compiled from information supplied by: ORI – Oceanographic Research Institute, NSB – Natal Sharks Board, www.fishbase.com, Gids tot Algemene Seevisse van Suider-Afrika.

Compagno, LJV, Ebert DA and Smale MJ 1989. Guide to the sharks and rays of southern Africa. New Holland (Publ.) Ltd., London. 158 p.

Duffy C, Paul L 2003 (SSG Australia & Oceania Regional Workshop, March 2003). *Dasyatis brevicaudata*. The IUCN Red List of Threatened Species 2003: e.T41796A10548942. http://dx.doi.org/10.2305/IUCN.UK.2003.RLTS.T41796A10548942.en. Accessed on 08 March 2016.

FishWeights. An online fish weight calculator by the Oceanographic Research Institute. Accessed on 9 March 2016. http://www.fishweights.net/southafrica.aspx

Halstead BW, 1980. Dangerous marine animals. Cornell Maritime Press, Inc., Maryland, U.S.A.

Last PR, Stevens JD, 1994. Sharks and rays of Australia. CSIRO, Australia. 513 p.

Malan M 2003. Parrie, die pylstert is op pad terug huis toe. http://152.111.1.87/argief/berigte/dieburger/2003/04/08/OB/3k/05.html

Michael SW 1993. Reef sharks and rays of the world. A guide to their identification, behavior, and ecology. Sea Challengers, Monterey, California. 107 p.

Smith JLB, Smith MM, Heemstra PC 2003. Smiths' Sea Fishes. 3rd Rev Ed. Struik, Cape Town. 1047p.