

AN UNRECORDED 19TH-CENTURY CAPTURE OF *ECHINORHINUS BRUCUS* (BONNATERRE, 1788), A FORMER RARE VISITOR TO THE NORTH SEA

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The Spinous or Bramble Shark *Echinorhinus brucus* (Bonnaterre, 1788) is a species of tropical and (warm) temperate waters in the Atlantic, the Mediterranean, the eastern Pacific and the western Indian Ocean (Wheeler, 1978). In the seas of north western Europe it is a very rare visitor and an exceptionally rare one in shallow waters like the North Sea. In the latter area it has most often been caught in Yorkshire and Scottish coastal waters.

Apart from British literature, the species is also included in the standard work on Belgian marine fishes (Poll, 1947) on the evidence of a specimen caught in the North Sea and landed in Ostend. This author considered it to be very rare in the North Sea and at that time unrecorded from the Belgian coast. Consultation of the original reference by Van Beneden (1894) revealed that the shark landed at Ostend had been acquired by Gilson, then a teacher in natural history at the athenaeum (State Grammar School) of Ostend and later director of the Musée Royal d'Histoire Naturelle de Belgique (now the Koninklijk Belgisch Instituut voor Natuurwetenschappen) at Brussels. Gilson (1921) himself did not give any further details in his popular guide to fishes: '... rarely taken in the North Sea; more often in the English Channel and on the Atlantic coasts of France, Spain, Portugal ...' (my translation).

Recently I found an old press-cutting containing considerable details of the occurrence. It was pasted into an old catalogue in the Museum of Zoology, State University, Ghent, facing the page with the registrations of some anatomical preparations of this species. The original account, published in the 'Etoile belge' of 29 January 1893 reads as follows:

'Nous apprenons que le directeur de la minque d'Ostende vient de faire don au musée de zoologie marine de l'athénée d'Ostende d'un poisson très rare, importé ici par un chalutier français, le n° 22, patron Léon Toutain, de Trouville. C'est le squalé bouclé. Sa couleur est d'un gris foncé à reflets violacés et son corps est parsemé de taches noirâtres irrégulièrement disposées. Sa peau est recouverte de tubercules épineux assez saillants, blanchâtres et disposés par groupes, de telle sorte que certaines étendues de la peau en sont privées. Sa taille est de 2m70.

'Ce squalé vit dans les eaux peu profondes; il est assez commun dans la Méditerranée; il est rare sur les côtes françaises de l'Atlantique et plus rare encore dans la mer du Nord. Celui dont nous nous occupons a été pêché près du Gallopes, banc situé près des côtes anglaises, un peu au sud de Yarmouth. La chair du squalé bouclé est de mauvais goût.'

The text speaks for itself. Thanks to this article I was able to find the stuffed skin of the specimen, still present at the school in Ostend.

There can be no doubt that the registered anatomical preparations were made from this same animal. They too are still preserved in the old collection of the Museum of Zoology. They comprise the heart (RE 2546), the brain (RE 2547), an eye (RE 2548), the shoulder girdle (RE 2549), the male urogenital system (RE 2550), some vertebrae (RE 2551), a longitudinal (RE 2552) and a transverse (RE 2554) section of vertebrae, and another with special emphasis on the neural arch (RE 2553). They were entered in the catalogue during 1893.

There is some disagreement about the length of this specimen. The newspaper report probably means that the species can grow to 2.70m or else it is a misprint for 1.70m. A footnote in the catalogue says it was 1.75m long. According to Gilson (1921) it attains only 1.50m. The stuffed skin measure 1.57m. Taking into consideration the likely shrinkage of the nearly

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one-century-old skin, the length given in the footnote must have been close to the real length.

It is clear that *Echinorhinus brucus* has never been recorded along the Belgian coast, as the Galloper Bank lies in English coastal waters. The present record however is an interesting addition to our knowledge of the species' former occurrence in the North Sea. Chances to meet it nowadays in the area indeed are small to none. There were several records in the nineteenth century around the British Isles but very few this century and none in the North Sea. In the last two decades it has been recorded once only, in August 1969 near Cornwall (Wheeler & Blacker, 1972). For this reason it is important to draw attention to the present specimen which appears to have been the most recent capture in the North Sea. Other occurrences in that area are listed.

- 1830, summer, Filey Bay, Yorkshire (54°10'N)
- 1836, 11 August, Bridlington Bay, Yorkshire (54°05'N)
- 1851, January, Gamrie, Moray Firth (57°45'N), 1.80m
- 1853, June, Scarborough, Yorkshire (54°15'N)
- 1869, —, mouth of River Tyne (55°00'N)
- 1873, July, mouth of River Ythan, Aberdeenshire (57°20'N), 2.25m
- 1876, July, mouth of River Tyne (55°00'N), 1.80m
- 1883, 31 August, 14 miles N of Aberdeen (57°20'N), 2m
- 1886, June, 50 miles off Whitby, Yorkshire (54–55°N), 3–3.60m
- 1893, c. 15 January, Galloper Bank, Suffolk (51°45'N), 1.75m.

The Belgian specimen is special in two other respects. Firstly, it represents the most southern occurrence in the North Sea. Secondly, it is one of only two occurrences recorded in winter (the 1851 record being the other).

Echinorhinus brucus lives near the bottom in rather deep water, between 400 and 900 metres. According to Bauchot & Pras (1980) it shows a summer migration to shallower waters, between 20 and 200m. The observed seasonal pattern in the North Sea, with most occurrences between June and August, fits well into this picture. It is obvious from the data that for most of the North Sea captures the sharks entered by the north, migrating along the continental shelf into shallower water. The southern Galloper catch is somewhat enigmatic. It could equally well have entered the North Sea by the deep water channel running northward from the English Channel, as a continuation of it. The species is known to have been captured several times in the latter area too.

Finally we wish to express the hope that the stuffed specimen can be acquired by a scientific institute. It is probably the only preserved animal of NW-European origin in Belgium and is thus of considerable importance.

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