

Short communication

The Grey Triggerfish (*Balistes carolinensis* GMELIN), a balistid fish new to the Norwegian fauna

Tor J. Samuelsen & Jan S. Einarsen

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Four specimens of *Balistes carolinensis* (Balistidae, Plectognathi) were taken in Norwegian waters in autumn 1995. The first was taken 21 August in the Norwegian Sea SW of Perjohanneset (63°11' N, 04°45' E), while the three others were caught on the west coast of Norway: Ølvesvikjo (60°00'38" N, 05°48'30" E) on 16 September, Skjelangersundet (60°36'06" N, 04°57'00" E) on 19 September, and Hyllestad (61°10'30" N, 05°17'54" E) on 3 November. These are the first records of the species in Norway and also the northernmost records. The distribution of the species is described. Two of the specimens are kept alive at the Bergen Aquarium.

Tor J. Samuelsen, *Granlia 54, N-5080 Eidsvåg i Åsane, Norway.*

Jan S. Einarsen, *Ålesund Aquarium, Nedre Strandgate 4, N-6004 Ålesund, Norway.*

On 21 August 1995 the crew on board the fishing boat MS «Gunnar Longva» caught an unfamiliar fish species in their purse seine. They had been fishing between 120 m depth and the surface, SW of Perjohanneset (c. 63°11' N, 04°45' E), 84 nautical miles W of Kristiansund. The specimen was later brought to the Ålesund Aquarium in the town of Ålesund where the fish was found to be a triggerfish. After identification, the specimen was later presented to the Zoological Museum, University of Bergen where it is kept in the collection (ZMB Jour. No. V-635/95, FL 385 mm, W 1650 g).

Barely a month later, on 16 September, Mr H. Moss caught another specimen (FL 403 mm, W 1705 g) in a trammel net at a depth of 6 m on rocky bottom on the W side of Ølvesvikjo in the outer part of Hardangerfjorden (60°00'38" N, 05°48'30" E).

The fish was taken ashore and after having laid on dry land for two hours, Mr. Moss identified it as a triggerfish. He then phoned the Bergen Aquarium and, as the fish was still alive, he was asked to put it in a bucket of sea water. Some hours later the triggerfish was picked up and transported in a container with sea water to the Bergen Aquarium. The specimen is still alive in a display tank (Figure 1) sixteen months after collection.

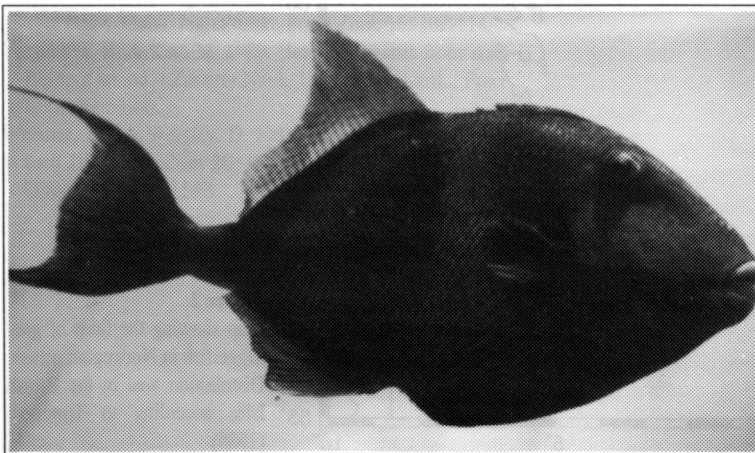


Figure 1

The first live grey triggerfish in the Bergen Aquarium.

Photo: Jan M. Lillebø, Bergens Tidende.

An additional triggerfish (FL 298 mm, W 920 g) was caught 19 September in a trammel net set on rocky bottom at a depth of 5 m E of Store Agnøy, Skjelangersundet in Hjeltefjorden, N of Bergen (60°36'06" N, 04°57'00" E). The fisherman, Mr. M. Skjelanger, had read about the find from Ølvesvikjo in the newspaper and kept the fish alive, so this one too could be transported to the Aquarium.

A fourth triggerfish was found dead on the shore on 3 November by an eleven-year old boy, S. Hatlem, at Hyllestad (61°10'30" N, 05°17'54" E) N of the inlet of

Sognefjorden. The fish was otherwise in good condition and must have died recently. His teacher, L. Handal, sent it to Bergen, where it is now kept at the Zoological Museum (ZMB Jour. No. V-723/95, FL 355 mm, W 870 g).

These are the first records of the grey triggerfish in Norway (Figure 2) and also the northernmost records. The four specimens fitted completely the descriptions of the grey triggerfish *Balistes carolinensis* GMELIN, 1789 given by Pethon (1985), Tortonese (1986), and Wheeler (1978).

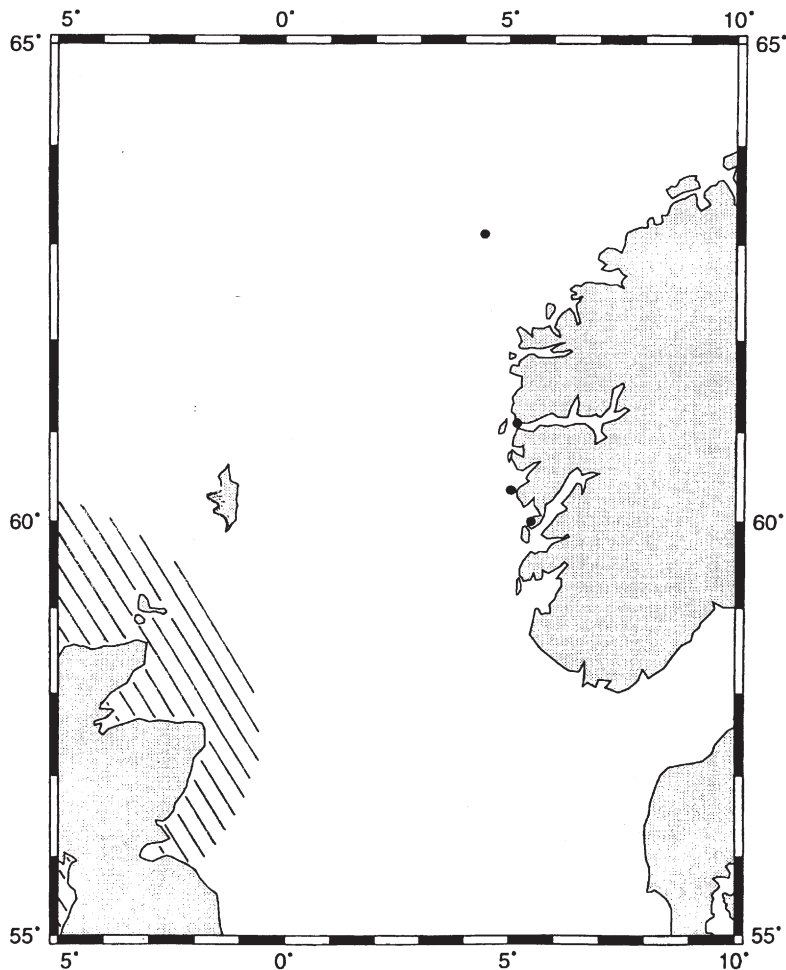


Figure 2
Map showing the finds of grey triggerfish in Norwegian waters. Distribution area in the British Isles according to Tortonese (1986).

The species is distributed on both sides of the Atlantic from Rio de la Plata in Argentina to Nova Scotia in Canada and from Angola to the British Isles. It is common in the Mediterranean, but rare in the Black Sea. The grey triggerfish is an uncommon visitor in the very northern part of its range and is reported in numbers of one or two annually, mainly in summer and early autumn. In some years (e.g., 1973) the species has been common on the Atlantic coast of the British Isles and occasionally penetrated into the North Sea, north of Scotland. This may be a result of migration, or more likely, drift in ocean currents (Wheeler, *op. cit.*).

The Norwegian specimens probably came from west of the British Isles from where they drifted with the North Atlantic Current. Three of them are likely to have drifted through the Shetland-Orkney channel with the inflow of mixed Scottish coastal and Atlantic water and followed the Dooley Current (Svendsen *et al.* 1991) across the North Sea. Another possibility is that they may have drifted with the main current north of Shetland Island. Part of this water flows southwards along the western edge of the Norwegian Trench and has east-going branches into the coastal waters (North Sea Task Force 1993, Furnes *et al.* 1986). The specimen from Perjohanneset, however, may have followed the main flow of Atlantic water northwards into the Norwegian Sea.

It is interesting to point out that as many as four grey triggerfishes were recorded in Norwegian waters for the first time the very same autumn. Other guest species from warmer waters have usually been found for the first time as single specimens. This was the case for the pompano (Samuelsen 1983) and the barrelfish (Pethon 1983, Samuelsen 1987). That probably means that the grey triggerfish was common at the west coast of the British Isles this year, and that the conditions were especially favorable when they drifted across. This is supported by the fact that the surface temperature in the waters concerned was 1-3 °C higher than normal for each of the months July, August, and September 1995 (Sætre 1996). If one takes into account the current speed (Svendsen *et al.* *op.cit.*), the triggerfish would need about two to three months to reach the coast of Norway by passive drift only.

The temperature in the sea at Ølvesvikjø and Skjelangersundet, from where the live specimens were taken, was about 16 °C and 14 °C, respectively. In the Aquarium they were first placed into a tank with corresponding sea water temperatures, which over the course of the first day were raised slowly to about 24 °C. Both fishes had been treated roughly before they came to the Aquarium. The skin and fins were damaged causing effusion of blood. Ozone was added to the tank to reduce the danger of severe infection, and after some days these hardy specimens recovered. After three days they were eating live deep-sea prawns, and on the fourth they took prawns from the keeper's hand.

The triggerfish, of which there are many species, are often kept in public aquariums. Most of the species, however, are extremely aggressive against their own kind and must be kept singly or together with other fish species of same size (Probs & Lange 1975). The grey triggerfish is an exception, and the two specimens in the Bergen Aquarium get along well in a 2 200 l display tank.

SAMMENDRAG

Avtrekkerfisk (*Balistes carolinensis* GMELIN), en ny fiskeart for Norge

Høsten 1995 ble det gjort fire funn av avtrekkerfisk i norske farvann. Det første eksemplaret ble tatt 21 august i Norskehavet SV for Perjohanneset (63°11' N, 04°45' E), mens de tre andre ble funnet på kysten av Vestlandet. Ølvesvikjø (60°00'38" N, 05°48'30" Ø), 16 september, Skjelangersundet (60°36'06" N, 04°57'00" Ø), 19 september, og Hyllestad (61°10'30" N, 05°17'54" Ø), 3 november. Avtrekkerfisken lever på begge sider av Atlanterhavet. På østsiden er den utbredt fra Angola til De britiske øyer. Enkelte år er avtrekkerfisken vanlig i den nordlige delen av sitt utbredelsesområde. De norske eksemplarene har trolig drevet fra Scotland med Atlanterhavsstrømmen som sommeren 1995 var varmere enn normalt. To av avtrekkerfiskene ble fanget levende og brakt til Akvariet i Bergen hvor de fortsatt lever etter seksten måneder.

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Age determination of Eurasian otter (*Lutra lutra* L.) cubs

Thrine Moen Heggberget

Thrine Moen Heggberget, Norwegian Institute for Nature Research, Tungasletta 2, N-7005 Trondheim, Norway.

INTRODUCTION

Births of Eurasian otters (*Lutra lutra* L.) vary geographically from seasonal to non-seasonal (Chanin 1985, Mason and Macdonald 1986). Consequently, ontogenetic criteria for age determination of wild-living cubs of this species become particularly important, as their age in many cases can not be inferred relative to a known, restricted, birth season. Moreover, morphological age criteria for cubs facilitate determination of birth seasons. Such criteria for cubs up to about 6 months of age are established in the present communication, based on previously published information as well as own observations on captive cubs. Discontinuous characteristics were preferred when possible.

CRONOLOGY OF ONTOGENETIC STAGES

Cubs born in captivity have been described as blind and toothless, with sleek, silvery grey fur (Pechlaner 1980, Reuther 1986, Mason & Macdonald 1986). Based on data compiled by Rogoschik (1992, 1995, pers comm.) the mean age (\pm SD) when the first deciduous tooth erupted was 19 ± 6 days ($n=7$), with minimum and maximum age 13 and 29 days. From the same source the mean age at eye opening was 30 ± 6 days ($n=14$), with minimum and maximum age 21 and 41 days, while the permanent canines erupted at age 106 days in two litters.

In addition to the above information on cub development, I made the following ontogenetic observations on live cubs: 1) Two captive-born, 8-week-old, sibling cubs from Otter-Zentrum, Hankensbüttel, Germany, had shed their deciduous incisors, but the permanent ones had not yet emerged. 2) A wild-born cub from