Category: Fish fauna - species
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Sabrefish *Pelecus cultratus* Linnaeus, 1758

Species description

Sabrefish is a semi migratory fish which belongs to cyprinid family. It reaches total length of 50 cm and weights up of 1 kg. Usually, it is 35 cm long and weighs 400 g. Its body is laterally flattened, elongated with horizontal back line (Photo 1). The edge of the ventral side is arched and flattened forming a distinctive “sharp” keel free of scales. One of the feature of sabrefish is the irregular lateral line and a mouth situated upward. Back is dark-coloured while sides of the body and ventral surface are silver. Fins are grey (Terlecki 2004).

Photo. 1 Sabrefish collected at the site called Elbląska Bay and Elbląg River in 2016 (photo by T. Kuczyński, Maritime Institute in Gdańsk)

Sabrefish (except population in the Vistula Lagoon) is on the list of animals being under partial protection in Poland (Regulation of the Minister of the Environment of 6 October 2014 on the protection of animals species, Journal of Laws 2014, item 1348). It is also a species of the European Community interest and therefore it is listed in the Annex II of the Habitat Directive (Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora).

Biology

Sabrefish is a riverine species, typical of lower parts of river mouths. It occurs also in bays and lagoons with salinity up to 5. In spring (April-July), when temperature is about 15-20ºC, sabrefish gathers numerously to spawn. The process of spawning pelagic eggs takes place in rivers. The embryo develops for about 3.5 day in 19ºC. Juveniles and adult fish, which are up to 20 cm long, feed on small crustacean and

larvae of water insects. Later, when sabrefish reaches about 16 cm, it starts feeding on small fish and becomes a facultative predator (Terlecki 2004).

Habitat

Sabrefish prefers estuaries of big rivers, however, it is also noted in the river bed. It lives in a pelagic waters of bays, where salinity is up to 5 (Terlecki 2004).

Distribution

Sabrefish can be found in the catchments of Caspian Sea, Black Sea and eastern Baltic being the western limit of sabrefish occurrence. The species forms stable population in the Vistula Lagoon, where it is commonly caught by Polish and Russian fishermen (Psuty and Wilkońska 2009, Psuty 2010 and 2012). Additionally, sabrefish is seldom observed in the coastal lagoons and in the Szczecin Lagoon. The historic sources (Demel 1925 after Seligo 1902) indicates that sabrefish was present in the mouth of Vistula River. However, Seligo (1902) probably refers to the state before the regulation of tributaries of Vistula River estuary, what took place at the turn of the centuries XIX and XX. The recent studies carried out in the estuary of Vistula River have not confirmed the occurrence of sabrefish in Wisła Śmiała, Martwa Wisła and in Wisła Przekop (PROEKO 2011, Kuczyński et al. 2013, Grochowski et al. 2012).

Sabrefish is monitored at 1 site in the Vistula Lagoon: Elbląg Bay and Elbląg River, within the framework of the project ”Pilot monitoring studies of marine habitats and protected species in 2015-2018”.

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