

# New fishes in the fauna of the Sukhyi Lyman (North-Western Black Sea, Ukraine)

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The Sukhyi Lyman is a brackish water bay southward from the City of Odessa, Ukraine. The central and south-eastern parts of the estuary are under the influence of the Port of Chornomorsk, almost lost the fishery importance because of intensive anthropogenic pressing. The hydrochemical regime of the Sukhyi Lyman is under the strong influence of the neighbored sites of the sea, therefore has typical for the North-Western Black Sea salinity, with exception of the desalinated north-western part of the estuary.



Fig. 1. Map of the Sukhyi Lyman and locations of the fish finding

The fish fauna of this water body at present time consists of up to 58 species. During the last two decades (1997-2021) three new fish species were registered in the fauna of this water body. The North American freshwater pumpkinseed sunfish, *Lepomis gibbosus* (Linnaeus, 1758), occurred in the central part of the estuary (46.349941N, 30.640842E) in 1997. The fish was found in the macrophyts at the 1-m depth.

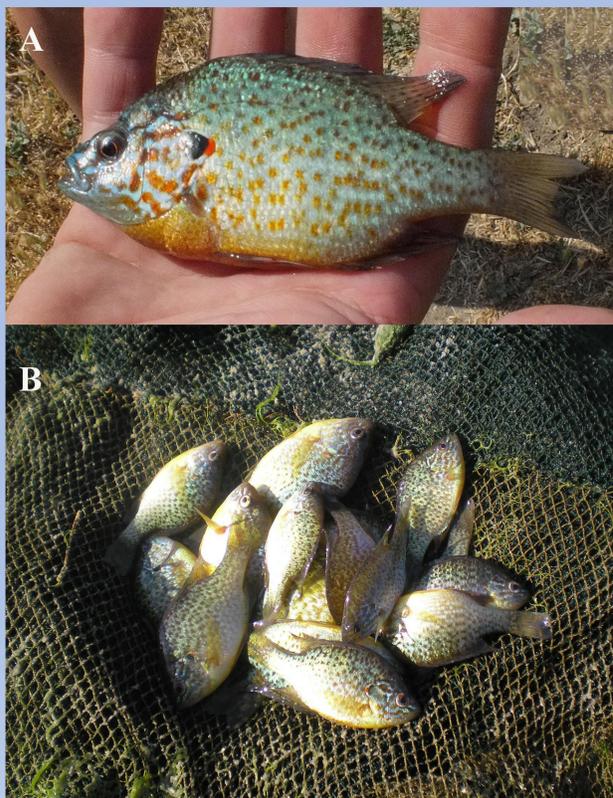


Fig. 2. The pumpkinseed (*Lepomis gibbosus*) caught in the Sukhyi Lyman. (A) One caught individual (Photograph of M. Son); (B) Fishermen catch (Photograph of Y. Kvach)

The Boreal-Atlantic species, rock goby, *Gobius bucchichi* Steindachner, 1870, were caught in the lower part of the estuary (44.334356N, 30.663461E) which is first registration of this fish in the North-Western Black Sea.

In September 2021, during a snorkelling observations of the bottom dwelling fauna, an individual of the Atlanto-Mediterranean peacock blenny, *Salaria pavo* (Risso, 1810), was pictured at the depth 0.4 m (46.332944N, 30.661555E). It was observed at the mussel bed on the rocky bottoms.

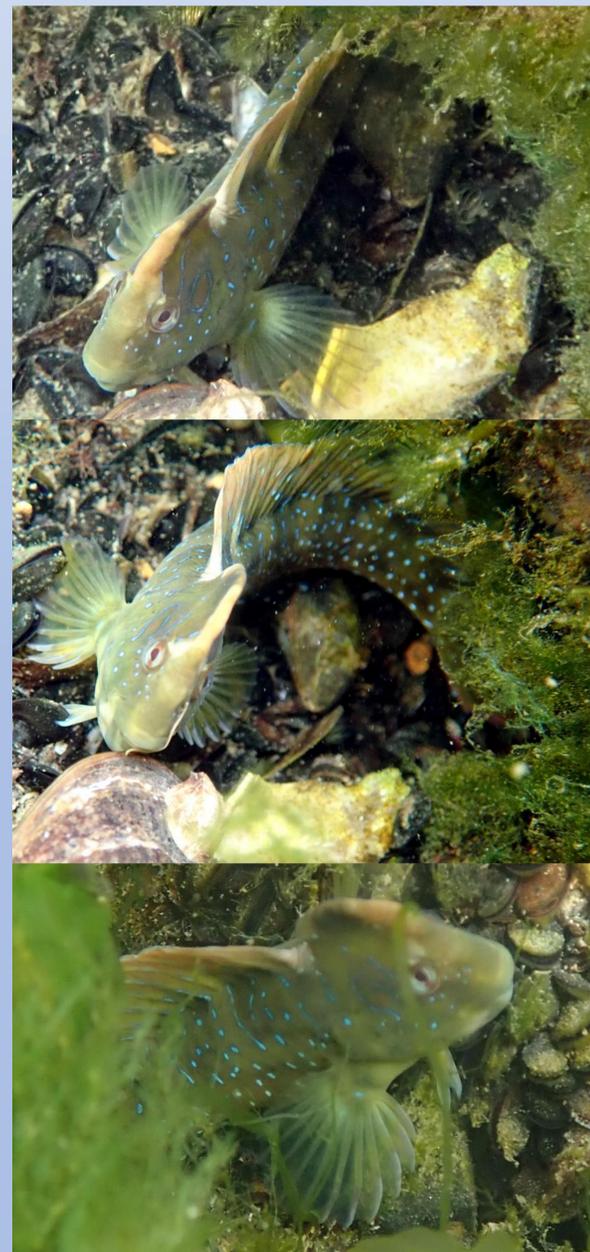


Fig. 3 (A-C). The peacock blenny (*Salaria pavo*) from the Sukhyi Lyman; same male individual view from different angles (Photographs of M. Son)

Both Bucchich's goby and peacock blenny are Mediterranean species previously recorded in Ukraine only near Crimean coasts (Movchan 2011). Recently, the peacock blenny occurred near the Snake Island, which is located southward from the Sukhyi Lyman, in the Danube delta forefront (Snigirov et al. 2020). The Sukhyi Lyman is the northernmost locality of these fish findings. The pumpkinseed is a common invasive species in many deltaic zones in Ukraine, such as the Danube, Dniester, Dnipro rivers. The finding in the Sukhyi Lyman is one of the rare ones in the mesohaline waters.

The presence of the marine port and intensive human usage of the water body makes the perspectives of the further Mediterranisation and colonisation of the Sukhyi Lyman by invasive alien species.