

Black Sea Fishes List

IUCN STATUS



Black Sea Commission Publication

Compiled by Maria Yankova

States

Bulgaria

Georgia

Romania

Russian

Federation

Turkey

Ukraine

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Abbreviations used:

-  Extinct (EX) - No individuals remaining;
-  Extinct in the Wild (EW) - Known only to survive in captivity, or as a naturalized population outside its historic range;
-  Critically Endangered (CR) - Extremely high risk of extinction in the wild;
-  Endangered (EN) - High risk of extinction in the wild;
-  Vulnerable (VU) - High risk of endangerment in the wild;
-  Near Threatened (NT) - Likely to become endangered in the near future;
-  Least Concern (LC) - Lowest risk. Does not qualify for a more at risk category. Widespread and abundant taxa are included in this category;
-  Data Deficient (DD) - Not enough data to make an assessment of its risk of extinction;
-  Not Evaluated (NE) - Has not yet been evaluated against the criteria;
-  RDB- Red Data Book of Bulgaria;
-  RBU- Red Data Book of Ukraine;
-  RBS – Red Book of the Black Sea
-  (*) rare species in the Black Sea;
-  BS states: **BG**- Bulgaria; **GE**- Georgia; **RO**- Romania; **RU**- Russian Federation; **TU**- Turkey; **UA**- Ukraine;

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References

Notes:

BG: In Bulgaria there is not research on the all listed species regarding their IUCN status, scientifically determined and categorized. On account of this, possible categorization of the species according proposed criteria is not relevant at the moment for most of the listed species.

RO: Proposals of the Department of Marine Living Resources - National Institute for Marine Research and Development “Grigore Antipa” Constanta.

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	IUCN / BS STATES CRITERIA					
Family / Species name	BG	GE	RO	RU	TU	UA
Acipenseridae						
<i>Acipenser gueldenstaedtii</i> (Brandt & Ratzeburg, 1833)	RBS, RDB	CR	VU		CR	CR
<i>Acipenser stellatus</i> (Pallas, 1771)	RBS	EN	VU		CR	CR
<i>Acipenser nudiventris</i> (Lovetsky, 1828)	RDB	CR	EN		CR	EN
<i>Acipenser ruthenus</i> (Linnaeus, 1758)					CR	CR
<i>Acipenser sturio</i> (Linnaeus, 1758)	RDB	CR	EN		CR	EN
<i>Huso huso</i> (Linnaeus, 1758)		EN	VU		CR	CR
* <i>Acipenser persicus</i> (Borodin, 1897)		EN			EN	NE
<i>Acipenser persicus colchicus</i> Marti, 1940		EN				NE
Alopiidae						
<i>Alopias vulpinus</i> (Bonnaterre, 1788)					EN	NE
Ammodytidae						
<i>Gymnammodytes cicerellus</i> (Rafinesque, 1810)			DD		DD	LC
Anguillidae						
<i>Anguilla anguilla</i> (Linnaeus, 1758)	RDB	EN	DD		CR	NE
Atherinidae						
<i>Atherina bonapartii</i> Boulenger, 1907						DD
<i>Atherina pontica</i> (Eichwald, 1831)		LC	LC		LC	LC
<i>Atherina hepsetus</i> Linnaeus, 1758			DD		LC	LC

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Family / Species name	IUCN / BS STATES CRITERIA					
	BG	GE	RO	RU	TU	UA
<i>Atherina boyeri</i> Risso, 1810					DD	
Balistidae						
<i>Balistes capriscus</i> (Gmelin, 1789)			DD			NE
Belonidae						
* <i>Belone belone euxini</i> (Günther, 1866)	RBS	LC	LC		DD	LC
Blenniidae						
<i>Aidablennius (Blennius) sphyinx</i> (Valenciennes, 1836)	RBS	EN	NE		VU	LC
<i>Blennius ocellaris</i> (Linnaeus, 1758)		EN	DD		EN	NE
<i>Coryphoblennius galerita</i> (Linnaeus, 1758)	RBS		DD		NT	LC
* <i>Lipophrys adriaticus</i> (Steindachner & Kolombatovic, 1883)		EN			DD	NE
<i>Parablennius (Blennius) zvonimiri</i> (Kolombatovic, 1892)			NE		VU	LC
<i>Parablennius (Blennius) sanguinolentus</i> (Pallas, 1814)			DD		LC	LC
<i>Parablennius (Blennius) tentacularis</i> (Brunnich, 1768)			DD		VU	LC
<i>Parablennius gattorugine</i> (Linnaeus, 1758)					VU	NE
<i>Parablennius incognitus</i> (Bath, 1968)					VU	LC
<i>Salaria (Lipophrys) pavo</i> (Risso, 1810)	RBS	EN	DD		VU	LC
Bothidae						
<i>Arnoglossus kessleri</i> (Schmidt, 1915)		CR	DD		NT	LC

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	BG	GE	RO	RU	TU	UA
<i>Arnoglossus laterna</i> (Walbaum,1792)					VU	NE
<i>Arnoglossus thori</i> (Kyle,1913)					NT	NE
Callionymidae						
<i>Callionymus pusillus</i> (Delaroche, 1809)		VU	DD		EN	NT
<i>Callionymus risso</i> (Le Sueur,1814) = (<i>C. belenus</i>)	RBS	VU	DD		EN	NT
<i>Callionymus fasciatus</i> (Valenciennes in Cuvier & Valenciennes, 1837)					CR	NE
<i>Callionymus lyra</i> (Linnaeus,1758)		VU	DD		EN	DD
Carangidae						
<i>Lichia amia</i> (Linnaeus,1758)			DD		DD	DD
<i>Naucrates ductor</i> (Linnaeus,1758)			DD		DD	DD
<i>Trachurus mediterraneus ponticus</i> Aleev, 1956		LC	LC		VU	LC
<i>Trachurus trachurus</i> (Linnaeus,1758)			DD		DD	NE
Centracanthidae (Maenidae)						
<i>Spicara smaris</i> (Linnaeus,1758)		LC	DD		VU	DD
<i>Spicara maena</i> (Linnaeus,1758)		LC	DD		VU	NE
Clupeidae						
<i>Alosa caspia paleostomi</i> (Sadowsky, 1934)		VU				DD
<i>Alosa immaculata</i> (Bennett,1835)		LR	NT		EN	LC

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	BG	GE	RO	RU	TU	UA
<i>Alosa tanaica</i> (Grimm,1901)						DD
<i>Alosa caspia</i> (Eichwald,1838)	RDB		LC			DD
<i>Alosa falax</i> (Lacepede,1803)			DD			DD
<i>Alosa maeotica</i> (Grimm,1901)			NT		EN	DD
<i>Clupeonella cultriventris</i> (Nordmann,1840)	RBS, RDB		LC		DD	LC
<i>Sardina pilchardus</i> (Walbaum, 1792)		VU	DD	NT		LC
<i>Sprattus sprattus</i> (Linnaeus,1758)		LC	LC		VU	LC
<i>Sardinella aurita</i> (Valenciennes, 1847)		LC	DD		VU	NE
Chaetodontidae						
<i>Heniochus acuminatus</i> (Linnaeus, 1758)						NE
Congridae						
* <i>Conger conger</i> (Linnaeus, 1758)		EN	DD		DD	NE
Dactylopteridae						
* <i>Dactylopterus volitans</i> (Linnaeus, 1758)						NE
Dasyatidae						
* <i>Dasyatis pastinaca</i> (Linnaeus, 1758)		LC	LC			LC
Echeneididae						
* <i>Echeneis naucrates</i> Linnaeus, 1758						NE
Engraulidae						

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	BG	GE	RO	RU	TU	UA
<i>Engraulis encrasicolus maeoticus</i> (Pusanov,1926)			LC		VU	LC
<i>E. encrasicolus ponticus</i> (Alekasndrov, 1927)		LC			VU	LC
Gadidae						
<i>Merlangius merlangus</i> (Linnaeus, 1758)		LC	LC		VU	LC
* <i>Micromesistius poutassou</i> (Risso, 1827)						NE
Gasterosteidae						
<i>Gasterosteus aculeatus</i> (Linnaeus, 1758)	RDB		LC		EN	LC
<i>Pungitius platygaster</i> (Kessler, 1859)	RDB, RBS		LC		DD	LC
Gobiesocidae						
<i>Apletodon dentatus</i> (Facciola, 1887)			DD		DD	DD
<i>Diplecogaster bimaculata</i> (Bonnaterre, 1788)			DD		LC	LC
<i>Lepadogaster candollei</i> (Risso, 1810)		EN	DD		LC	LC
<i>Lepadogaster lepadogaster</i> (Bonnaterre, 1788)			DD		LC	LC
Gobiidae						
<i>Aphia minuta</i> (Risso, 1810)		EN	DD		DD	LC
<i>Benthophiloides brauneri</i> Beling & Iljin,1927	RDB, RBS		DD		DD	VU
<i>Benthophilus stellatus</i> (Sauvage,1874)	RDB		DD			VU
<i>Caspiosoma caspium</i> (Kessler,1857)			DD			EN
<i>Chromogobius quadrivittatus</i> (Steindachner,1863)	RDB					NE

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	BG	GE	RO	RU	TU	UA
<i>Gobius niger</i> Linnaeus,1758		LC	LC		LC	LC
<i>Gobius cobitis</i> Pallas,1814	RBS		DD		NT	LC
<i>Gobius bucchichi</i> Steindachner,1870	RDB		DD		LC	LC
<i>Gobius ophiocephalus</i> (Pallas,1814)	RBS		DD		DD	LC
<i>Gobius paganellus</i> (Linnaeus,1758)			LC		VU	LC
<i>Gobius auratus</i> (Risso,1810)						
<i>Gobius cruentatus</i> Gmelin,1789						LC
<i>Gobius xanthocephalus</i> Heymer et Zander,1992						LC
<i>Knipowitschia cameliae</i> Nalbant et Otel,1995						DD
<i>Knipowitschia caucasica</i> (Berg,1916)	RDB	EN	DD		VU	NT
<i>Knipowitschia longicaudata</i> (Kessler,1877)	RDB, RBS	EN				VU
<i>Mesogobius batrachocephalus</i> (Pallas,1814)	RBS	LC	LC		DD	LC
<i>Millerigobius macrocephalus</i> (Kolombatovič,1891)						NE
<i>Neogobius eurycephalus</i> (Kessler,1874)			LC		DD	LC
<i>Neogobius platyrostris</i> (Pallas,1814)			DD		DD	DD
<i>Neogobius (Gobius) cephalargoides</i> Pinchuk,1976						LC
<i>Neogobius kessleri</i> (Günther,1861)	RDB		LC		EN	LC
<i>Neogobius fluviatilis</i> (Pallas,1814)		EN	LC		DD	LC
<i>Neogobius melanostomus</i> (Pallas,1814)		LC	LC		DD	LC

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	BG	GE	RO	RU	TU	UA
<i>Neogobius ratan</i> (Nordmann, 1840)	RDB, RBS	VU	DD		EN	VU
<i>Neogobius syrman</i> (Nordmann, 1840)	RDB, RBS		DD		EN	VU
<i>Neogobius gymnotrachelus</i> (Kessler,1857)		VU	LC		EN	LC
<i>Pomatoschistus marmoratus</i> (Risso,1810)			DD		NT	LC
<i>Pomatoschistus minutus</i> (Pallas,1770)	RBS		DD		NT	DD
<i>Proterorhinus marmoratus</i> (Pallas,1811)	RBS	VU	DD		DD	LC
<i>Pomatoschistus bathi</i> Miller,1982						LC
<i>Pomatoschistus pictus</i> (Malm,1865)						DD
<i>Tridentiger trigonocephalus</i> (Gill,1859)						LC
Gymnuridae						
* <i>Gymnura altavela</i> (Linnaeus, 1758)						NE
Labridae						
<i>Coris julis</i> (Linnaeus, 1758)			DD		NT	DD
<i>Ctenolabrus rupestris</i> (Linnaeus, 1758)			DD		DD	NT
<i>Labrus viridis</i> (Linnaeus, 1758)			DD		EN	VU
<i>Symphodus cinereus</i> (Bonnaterre, 1788)			DD		LC	LC
<i>Symphodus roissali</i> (Risso, 1810)			DD		LC	LC
<i>Symphodus tinca</i> (Linnaeus, 1758)	RBS		DD			LC
<i>Symphodus ocellatus</i> (Forsskål, 1775)	RBS	VU	DD		LC	LC

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	BG	GE	RO	RU	TU	UA
<i>Symphodus rostratus</i> (Bloch, 1791)			DD		VU	NT
Lophiidae						
<i>Lophius piscatorius</i> (Linnaeus, 1758)		EN	DD		VU	NE
<i>Lophius budegassa</i> (Spinola, 1807)					VU	NE
Moronidae						
<i>Dicentrarchus labrax</i> (Linnaeus, 1758)		EN	DD		VU	DD
* <i>Morone saxatilis</i> (Walbaum, 1792)						NE
Mugilidae						
<i>Chelon labrosus</i> (Risso, 1827)			NT		LC	DD
<i>Liza aurata</i> (Risso, 1810)		LC	NT		DD	LC
<i>Liza haematocheila</i> (Temminch et Schlegel, 1845)		LC	DD		NE	LC
<i>Liza ramada</i> (Risso, 1810)			NT		LC	LC
<i>Liza saliens</i> (Risso, 1810)		LC	NT		LC	LC
<i>Mugil cephalus</i> (Linnaeus, 1758)		LC	LC		LC	LC
Mullidae						
<i>Mullus barbatus</i> (Linnaeus, 1758)	RBS	LC	LC		NT	LC
<i>Mullus surmuletus</i> (Linnaeus, 1758)		LC	DD		NT	DD
Merlucciidae						
* <i>Merluccius merluccius</i> (Linnaeus, 1758)						NE

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Ophidiidae						
<i>Ophidion rochei</i> (Müller, 1845)		EN	DD		DD	LC
Percidae						
<i>Sander marinus</i> (Cuvier, 1828)	RDB, RBS					CR
Pleuronectidae						
* <i>Platichthys flesus</i> (Linnaeus, 1758)		LC	NT			LC
Pomacentridae						
<i>Chromis chromis</i> (Linnaeus, 1758)		LC	DD		NT	NT
Pomatomidae						
<i>Pomatomus saltatrix</i> (Linnaeus, 1766)		LC	NT			NT
Phycidae						
<i>Gaidropsarus mediterraneus</i> (Linnaeus, 1758)			LC		LC	LC
Rajidae						
<i>Raja clavata</i> (Linnaeus, 1758)		LC	LC		VU	LC
Salmonidae						
<i>Salmo labrax</i> (Pallas, 1814)		EN	NT		EN	EN
<i>Salmo coruhensis</i> (Turan, Kottelat & Engin, 2010)						DD
<i>Salmo risensis</i> Turan, Kottelat & Engin, 2010						DD
Sciaenidae						

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	BG	GE	RO	RU	TU	UA
<i>*Argyrosomus regius</i> (Asso, 1801)					DD	DD
<i>Sciaena umbra</i> (Linnaeus, 1758)		LC	DD		VU	LC
<i>Umbrina cirrosa</i> (Linnaeus, 1758)		LC	DD		DD	DD
Scombridae						
<i>*Auxis rochei</i> (Risso, 1810)						DD
<i>Euthynnus alletteratus</i> (Rafinesque-Schmaltz, 1810)			DD			DD
<i>Sarda sarda</i> (Bloch, 1793)	RBS	LC	NT			NT
<i>Scomber japonicus</i> (Houttuyn, 1782)			DD			DD
<i>Scomber scombrus</i> Linnaeus, 1758		LC				DD
<i>Thunnus thynnus</i> (Linnaeus, 1758)	RBS	DD	DD		CR	DD
Scophthalmidae						
<i>Psetta maxima maeotica</i> (Pallas, 1814)		LC	NT		EN	EN
<i>Scophthalmus rhombus</i> (Linnaeus, 1758)			DD		VU	
<i>Psetta maxima torosa</i> (Rathke, 1837)						EN
Scorpaenidae						
<i>Scorpaena porcus</i> (Linnaeus, 1758)		LC	LC		LC	LC
<i>Scorpaena notata</i> (Rafinesque, 1810)			NE		VU	DD
Scyliorhinidae						
<i>Scyliorhinus canicula</i> (Linnaeus, 1758)			DD		VU	NE

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Serranidae						
<i>Serranus cabrilla</i> (Linnaeus, 1758)		EN	DD			DD
<i>Serranus scriba</i> (Linnaeus, 1758)		EN	DD		NT	LC
Soleidae						
<i>Buglossidium luteum</i> (Risso, 1810)			DD		VU	DD
<i>Microchirus variegatus</i> (Donovan, 1808)					VU	DD
<i>Pegusa nasuta</i> (Pallas, 1814)		LC	LC		VU	LC
<i>Solea solea</i> (Linnaeus, 1758) = <i>Solea vulgaris</i> (Quensel, 1806)			DD		EN	DD
Sparidae						
<i>Boops boops</i> (Linnaeus, 1758)		EN	DD		LC	LC
<i>Dentex dentex</i> (Linnaeus, 1758)			DD		VU	LC
<i>Diplodus annularis</i> (Linnaeus, 1758)	RBS	VU	DD		LC	LC
<i>Diplodus puntazzo</i> (Cetti, 1777)		VU	DD		VU	LC
<i>Diplodus sargus</i> (Linnaeus, 1758)			DD			LC
<i>Diplodus vulgaris</i> (Geoffroy Saint-Hilaire, 1817)			DD		NT	LC
<i>Lithognathus mormyrus</i> (Linnaeus, 1758)			DD			DD
<i>Oblada melanura</i> (Linnaeus, 1758)			DD		NT	DD
<i>Pagellus erythrinus</i> (Linnaeus, 1758)			DD		VU	DD
<i>Sarpa salpa</i> (Linnaeus, 1758)		VU	DD		NT	LC

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	BG	GE	RO	RU	TU	UA
<i>Spondyliosoma cantharus</i> (Linnaeus, 1758)			DD		NT	DD
<i>Sparus aurata</i> (Linnaeus, 1758)		VU	DD			LC
Sphyraenidae						
<i>Sphyraena sphyraena</i> (Linnaeus, 1758)			DD		VU	LC
<i>Sphyraena pinguis</i> (Günther, 1874)						LC
Sphyrnidae						
<i>Sphyrna zygaena</i> (Linnaeus, 1758)			DD			NE
Squalidae						
<i>Squalus acanthias</i> (Linnaeus, 1758)		LC	NT		EN	NT
<i>Squalus blainvillei</i> (Risso, 1827)			DD		EN	NE
Squatinae						
<i>Squatina squatina</i> (Linnaeus, 1758)					CR	NE
Syngnathidae						
<i>Hippocampus guttulatus</i> (Cuvier, 1829)= <i>Hippocampus hippocampus</i>	RBS	VU	LC		EN DD	VU
<i>Nerophis ophidion</i> (Linnaeus, 1758)	RBS	VU	DD		DD	LC
<i>Syngnathus abaster</i> (Risso, 1827)		VU	DD		DD	LC
* <i>Syngnathus acus</i> (Linnaeus, 1758)					NT	LC
<i>Syngnathus schmidti</i> (Popov, 1927)			DD		DD	DD
<i>Syngnathus tenuirostris</i> (Rathke, 1837)	RBS	VU	LC		DD	LC

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Family / Species name	IUCN / BS STATES CRITERIA					
	BG	GE	RO	RU	TU	UA
<i>Syngnathus typhle</i> (Linnaeus, 1758)	RBS	LC	LC		NT	LC
<i>Syngnathus variegatus</i> (Pallas, 1814)		VU	DD		DD	LC
Trachinidae						
<i>Trachinus draco</i> (Linnaeus, 1758)	RBS	LC	LC		VU	LC
Triglidae						
<i>Chelidonichthys (Aspitrigla) cuculus</i> (Linnaeus, 1758)			DD		NT	DD
<i>Eutrigla gurnardus</i> (Linnaeus, 1758)					VU	DD
* <i>Chelidonichthys lucernus</i> (Linnaeus, 1758)	RBS	EN	DD		VU	VU
Trichiuridae						
<i>Lepidopus caudatus</i> (Euphasen, 1788)						LC
Tripterygiidae						
<i>Tripterygion tripteronotus</i> (Risso, 1810)			DD		VU	LC
Uranoscopidae						
<i>Uranoscopus scaber</i> (Linnaeus, 1758)	RBS	LC	DD		VU	LC
Xiphiidae						
<i>Xiphias gladius</i> (Linnaeus, 1758)	RBS	EN	DD			DD
Zeidae						
<i>Zeus faber</i> (Linnaeus, 1758)			DD		NT	DD

Continued

References:

Bat, L., Erdem, Y., Ustaoglu, S., Yardim, Ö., Satılmış, H., 2005. A Study on the Fish of the Central Black Sea Coast of Turkey. J.Black Sea /Mediterranean Environment. 11(3): 287-302.

*Bat, L., Demirci G. G., Öztürk, M., 2006. Occurrence of *Apletodon dentatus bacescui* (Murgoci, 1940) (Gobiesocidae) and *Coryphoblennius galerita* (Linnaeus, 1758) (Blenniidae) at the central Black Sea coast of Turkey. *Black Sea/ Mediterranean Environment*, 12 (1), 59-65.*

Bat, L., Erdem, Y., Ustaoglu-Tiril, S., Yardim, Ö., 2008. Balık Sistematiği (Fish Systematic). Nobel Yayın Dağıtım Ltd. Şti., Ankara, Nobel Yayın No: 1330, ISBN 978-605-395-127-8, 1. Baskı, XVIII + 270 p. (In Turkish).

*Bilecenoglu, M., Taskavak, E., Mater, S., Kaya, M., 2002. Checklist of the marine fishes of Turkey. *Zootaxa* 113: 1-194.*

Dumont, H., Mataev, V., Zaitsev, Y., (Eds.), 1999. Black Sea Red Data Book, GEF, UNDP, UNOPS.

Karapetkova, M., Zhivkov, M., 2010. The fishes of Bulgaria. (In Bulgarian).

*Keskin, Ç., 2010. A review of fish fauna in the Turkish Black Sea. *Black Sea/ Mediterranean Environment*, 16 (2), 195-210.*

Red Data Book of Bulgaria, 1985. Bulgarian Academy of Sciences, 2, 1-31.

*Zhivkov, M., Prodanov, K., Trichkova, T., Rajkova-Petrova, G., Ivanova, P. 2005. The Fishes in Bulgaria – investigations, protection and stable using. In: Petrova, A., Contemporary state of biodiversity in Bulgaria – problems and perspectives. *Drakon, Sofia*, 247-282.*