

Space invaders; biological invasions in marine conservation planning

Authors: Sylvaine Giakoumi, François Guilhaumon, Salit Kark, Antonio Terlizzi, Joachim Claudet, Serena Felling, Carlo Cerrano, Marta Coll, Roberto Danovaro, Simonetta Frascchetti, Drosos Koutsoubas, Jean-Batiste Ledoux, Tessa Mazor, Bastien Mérigot, Fiorenza Micheli and Stelios Katsanevakis

Appendix S2. List of endemic fish included in the case study with their functional traits and IUCN category.

Family	SPECIES	Red_List_Category	Vertical_Distri	Migratio_n	Reprodu_ction	Sex_shif_t	Semel_parity	Larvae	Behav_iour	Diet_t_ype
Acipenseridae	Acipenser_naccarii	VU	Demersal	Anadromous	Oviparous	no	no	Leicitotrophic	NA	Carnivorous
Acipenseridae	Acipenser_stellatus	EN	Demersal	Anadromous	Oviparous	no	no	Leicitotrophic	NA	Carnivorous
Cyprinodontidae	Aphanius_fasciatus	LC	Demersal	Amphidromous	Oviparous	no	yes	NA	Gregarious	Omnivorous
Cyprinodontidae	Aphanius_iberus	EN	Demersal	Amphidromous	Oviparous	no	yes	NA	Gregarious	Omnivorous
Bothidae	Arnoglossus_kessleri	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Carnivorous
Ipnopidae	Bathypterois_mediterraneus	np	Demersal	no	Oviparous	Hermaprodite	no	Planktotrophic	Solitary	Carnivorous
Gobiidae	Buenia_affinis	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Carnivorous
Gobiidae	Chromogobius_quadrivittatus	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Carnivorous
Gobiidae	Chromogobius_zebratus	np	Demersal	no	Oviparous	no	no	Leicitotrophic	Solitary	Carnivorous
Gobiidae	Corcyrogobius_lichestensteini	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Omnivorous
Gonostomatidae	Cyclothone_pygmaea	np	Pelagic	Amphidromous	Oviparous	no	yes	NA	NA	Carnivorous
Dasyatidae	Dasyatis_tortonesei	np	Benthic	Oceanodromous	Ovoviparous	no	no	no	Gregarious	Carnivorous
Gobiidae	Didogobius_bentuvii	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Omnivorous
Gobiidae	Didogobius_schleieneni	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Omnivorous
Gobiidae	Didogobius_splachnai	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Omnivorous
Sparidae	Diplodus_sargus	np	Benthic	Oceanodromous	Oviparous	Protandrous	no	Planktotrophic	Gregarious	Carnivorous
Engraulidae	Engraulis_encrasicolus	np	Pelagic	Oceanodromous	Oviparous	no	no	Planktotrophic	Gregarious	Carnivorous
Triglidae	Eutrigla_gurnardus	np	Benthic	Oceanodromous	Oviparous	no	no	Planktotrophic	NA	Carnivorous
Gobiidae	Gammogobius_schleinitzi	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Carnivorous
Gobiidae	Gobius_ater	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Carnivorous
Gobiidae	Gobius_fallax	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Omnivorous
Gobiidae	Gobius_geniporus	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Omnivorous
Gobiidae	Gobius_strictus	np	Demersal	no	Oviparous	no	no	Planktotrophic	Solitary	Omnivorous
Gobiidae	Gobius_vittatus	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Omnivorous
Gobiidae	Gobius_xanthocephalus	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Omnivorous
Gobiesocidae	Gouania_willdenowi	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Carnivorous
Ammodytidae	Gymnammodytes_cicerelus	np	Pelagic	NA	Oviparous	no	no	Planktotrophic	Gregarious	Carnivorous
Acipenseridae	Huso_huso	EN	Demersal	Anadromous	Oviparous	no	no	Leicitotrophic	Solitary	Carnivorous

Gobiidae	Knipowitschia_p anizae	LC	Benthic	Amphidr omous	Oviparo us	no	no	Planktot rophic	Solita ry	Omniv orous
Gobiesoci dae	Lepadogaster_le padogaster	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Moridae	Lepidion_lepidio n	np	Demers al	NA	Oviparo us	no	no	Planktot rophic	NA	Omniv orous
Gobiidae	Lesueurigobius_s uerii	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Blenniida e	Lipophrys_adriat icus	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Solita ry	Omniv orous
Blenniida e	Salaria_basilisca	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Solita ry	Omniv orous
Blenniida e	Lipophrys_nigri ceps	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Solita ry	Omniv orous
Epigonid ae	Microichthys_co coi	np	Demers al	no	NA	no	no	NA	NA	Carniv orous
Epigonid ae	Microichthys_sa nzoi	np	Demers al	no	NA	no	no	NA	NA	Carniv orous
Gobiidae	Millerigobius_m acrocephalus	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Solita ry	Omniv orous
Microsto matidae	Nansenia_iberic a	np	Pelagic	no	Oviparo us	no	no	Planktot rophic	Mix	Carniv orous
Myctophi dae	Notoscopelus_el ongatus	np	Pelagic	Oceanod romous	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Gobiidae	Odondebuena_b alearica	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Bythitida e	Oligopus_ater	np	Benthic	no	Vivipar ous	no	no	no	Solita ry	Carniv orous
Gobiesoci dae	Opeatogenys_gr acilis	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Ophichthi dae	Ophichthus_rufu s	np	Benthic	NA	Oviparo us	no	no	Planktot rophic	NA	Carniv orous
Ophidiida e	Ophidion_rochei	np	Benthic	NA	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Heterenc helyidae	Panturichthys_fo wleri	np	Benthic	NA	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Blenniida e	Parablennius_zv onimiri	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Paralepidi dae	Paralepis_corego noides	np	Demers al	Oceanod romous	Oviparo us	no	no	Planktot rophic	Solita ry	Omniv orous
Liparidae	Eutelichthys_lep tochirus	np	Demers al	no	Oviparo us	no	no	Planktot rophic	NA	Carniv orous
Liparidae	Paraliparis_muri eli	np	Demers al	no	Oviparo us	no	no	Planktot rophic	NA	Carniv orous
Ophidiida e	Parophidion_vas sali	np	Benthic	NA	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Pleuronec tidae	Platichthys_lusc us	np	Benthic	Catadro mous	Oviparo us	no	no	Planktot rophic	NA	Carniv orous
Gobiidae	Pomatoschistus_b athi	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Grega rious	Carniv orous
Gobiidae	Pomatoschistus_c anestrinii	LC	Benthic	Amphidr omous	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Gobiidae	Pomatoschistus_k nerii	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Grega rious	Carniv orous
Gobiidae	Pomatoschistus_p ictus	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Grega rious	Carniv orous
Gobiidae	Pomatoschistus_q uagga	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Grega rious	Carniv orous
Gobiidae	Pomatoschistus_t ortonesei	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Scophthta lmidae	Psetta_maxima	np	Benthic	NA	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous
Gobiidae	Pseudaphya_ferr eri	np	Demers al	no	Oviparo us	no	no	Planktot rophic	Grega rious	Carniv orous
Rajidae	Raja_melitensis	CR	Benthic	NA	Oviparo us	no	no	NA	NA	Carniv orous
Rajidae	Raja_polystigma	np	Benthic	NA	Oviparo us	no	no	NA	NA	Carniv orous
Rajidae	Raja_rondeleti	np	Benthic	NA	Oviparo us	no	no	NA	NA	Carniv orous
Scorpaeni dae	Scorpaenodes_ar enai	np	Benthic	no	Oviparo us	no	no	Planktot rophic	Solita ry	Carniv orous

Soleidae	Solea_aegyptiaca	np	Benthic	NA	Oviparous	no	no	Planktotrophic	NA	Carnivorous
Gobiidae	Speleogobius_trigloides	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Omnivorous
Sphyraenidae	Sphyraena_viridensis	np	Pelagic	Oceanodromous	NA	no	no	NA	Gregarious	Carnivorous
Clupeidae	Sprattus_sprattus	np	Pelagic	Oceanodromous	Oviparous	no	no	Planktotrophic	Gregarious	Omnivorous
Labridae	Symphodus_cinereus	np	Benthic	NA	Oviparous	Protogynous	no	Planktotrophic	Gregarious	Carnivorous
Labridae	Symphodus_doderleini	np	Benthic	NA	Oviparous	Protogynous	no	Planktotrophic	NA	Carnivorous
Labridae	Symphodus_melanocercus	np	Demersal	NA	Oviparous	Protogynous	no	Planktotrophic	NA	Carnivorous
Syngnathidae	Syngnathus_taenionotus	np	Demersal	NA	Ovoviparous	no	no	no	NA	NA
Syngnathidae	Syngnathus_tenuirostris	np	Benthic	NA	Ovoviparous	no	no	no	NA	Carnivorous
Istiophoridae	Tetrapturus_bellone	np	Pelagic	Oceanodromous	Oviparous	no	no	Planktotrophic	Solitary	Carnivorous
Gobiidae	Thorogobius_macrolepis	np	Benthic	no	Oviparous	no	no	Planktotrophic	Solitary	Carnivorous
Tripterygiidae	Tripterygion_delsaisi	np	Benthic	no	Oviparous	no	no	Planktotrophic	NA	Carnivorous
Tripterygiidae	Tripterygion_melanurus	np	Benthic	no	Oviparous	no	no	Planktotrophic	NA	Carnivorous
Tripterygiidae	Tripterygion_tripteronotus	np	Benthic	no	Oviparous	no	no	Planktotrophic	NA	Carnivorous
Gadidae	Trisopterus_luscus	np	Demersal	Oceanodromous	Oviparous	no	no	Planktotrophic	Gregarious	Carnivorous
Gobiidae	Zosterisessor_ophiocephalus	DD	Benthic	Oceanodromous	Oviparous	no	no	Planktotrophic	Solitary	Carnivorous