**Electronic Supplement Material**

**Title**

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***Number of studies***

The total number of studies that resulted from different searches in google scholar initial searches resulted in 32,000 independent studies from 1960-2020. All of these were pre-screened and resulted in 90 studies which evaluated fish species richness and/or abundance and/or single species abundance under the presence of kelp forests (Laminareales) (Table 1). In order to conduct the quantitative analysis, from these studies we excluded studies due to several reasons a) lack of experimental replication (in both experimental or observational designs) and b) lack of reported variation and effect sizes, and/or c) comparison between kelp forest(s) fishes with un-forested areas (i.e., thinning, removal, artificial reefs with canopy cover, urchin barrens with patches of kelp), refer to method for more information.

Table S1. Total number of studies that evaluated the effects of kelp (presence, abundance and or biomass) on reef fish single species abundance, total number of individuals within the assemblage, and fish species richness.

|  |  |  |
| --- | --- | --- |
|  | Reference study | Included |
| 1 | Anderson, M. J., and R. Millar. 2004. Spatial variation and effects of habitat on temperate reef fish assemblages in northeastern New Zealand. Journal of Experimental Marine Biology and Ecology **305**:191-221. (Anderson and Millar 2004) | Yes |
| 2 | Angel, A., and F. P. Ojeda. 2001. Structure and trophic organization of subtidal fish assemblages on the northern Chilean coast: the effect of habitat complexity. Marine Ecology Progress Series **217**:81-91.  (Angel and Ojeda 2001) | No |
| 3 | Anderson, M. J., and R. Millar. 2004. Spatial variation and effects of habitat on temperate reef fish assemblages in northeastern New Zealand. Journal of Experimental Marine Biology and Ecology **305**:191-221.(Anderson 1994) | Yes |
| 4 | Bergman, K. C., S. Svensson, and M. C. Öhman. 2001. Influence of Algal Farming on Fish Assemblages. Marine Pollution Bulletin **42**:1379-1389.  (Bergman et al. 2001) | Yes |
| 5 | Black, R., and R. J. Miller. 1991. Use of the intertidal zone by fish in Nova Scotia. Environmental Biology of Fishes **31**:109-121.  (Black and Miller 1991) | yes |
| 6 | Bodkin, J. 1986. Fish assemblages in *Macrocystis* and Nereocystis kelp forests off central California. U.S. National Marine and Fishery Service Fishery Bulletin **84**:799-807.(Bodkin 1986) | Yes |
| 7 | Carr, M. H. 1989. Effects of macroalgal assemblages on the recruitment of temperate zone reef fishes. Journal of Experimental Marine Biology and Ecology **126**:59-76.(Carr 1989) | Yes |
| 8 | Carr, M. H. 1991. Habitat selection and recruitment of an assemblage of temperate zone reef fishes. Journal of Experimental Marine Biology and Ecology **126**:59-76. (Carr 1991) | Yes |
| 9 | Carr, M. H. 1994. Effects of macroalgal dynamics on recruitment of a temperate reef fish. Ecology **75**:1320-1333.  (Carr 1994) | Yes |
| 10 | Choat, J. H., and A. Ayling. 1987. The relationship between habitat structure and fish faunas on New Zealand reefs. Journal of Experimental Marine Biology and Ecology **110**:257-284.(Choat and Ayling 1987) | Yes |
| 11 | Cole, R. G., N. K. Davey, G. D. Carbines, and R. Stewart. 2012. Fish−habitat associations in New Zealand: geographical contrasts. Marine Ecology Progress Series **450**:131-145.(Cole et al. 2012) | Yes |
| 12 | Cole, R. G., T. M. Ayling, and R. Creese. 1990. Effects of marine reserve protection at Goat Island, northern New Zealand. New Zealand Journal of Marine and Freshwater Research **24**:197-210.(Cole et al. 1990) | Yes |
| 14 | Curley, B., M. Kingsford, and B. Gillanders. 2002. Spatial and habitat-related patterns of temperate reef fish assemblages: implications for the design of Marine Protected Areas. Marine and Freshwater Research **53**:1197-1210.(Curley et al. 2002) | Yes |
| 15 | Davenport, A., and T. W. Anderson. 2007. Positive indirect effects of reef fishes on kelp performance: the importance of mesograzers. Ecology **88**:1548-1561.(Davenport and Anderson 2007) | No |
| 16 | DeMartini, E. E., and D. Roberts. 1990. Effects of Giant Kelp (Macrocystis) on the Density and Abundance of Flshes in a Cobble-Bottom Kelp Forest. Bulletin of Marine Science **46**:287-300.  (DeMartini and Roberts 1990) | Yes |
| 17 | Dibble and Harrell. Assessment of Fish-Plant Interactions. American Fisheries Society Symposium (Dibble and Harrel 1997) | No |
| 18 | Ebeling, A. W., D. R. Laur, and R. J. Rowley. 1985. Severe storm disturbances and reversal of community structure in a southern California kelp forest. Marine Biology **84**:287-294. (Ebeling and Laur 1985) | Yes |
| 19 | Edgar, G., N. Barrett, A. Morton, and C. Samson. 2004. Effects of algal canopy clearance on plant, fish and macroinvertebrate communities on eastern Tasmanian reefs. Journal of Experimental Marine Biology and Ecology **312**:67-87.  (Edgar et al. 2004) | Yes |
| 20 | Feary, D., and K. D. Clements. 2006. Habitat use by triplefin species (Tripterygiidae) on rocky reefs in New Zealand. Journal of Fish Biology **69**:1031-1046.(Feary and Clements 2006) | Yes |
| 21 | Graham, M. 2004. Effects of local deforestation on the diversity and structure of southern California giant kelp forest food webs. Ecosystems **7**:341-357.(Graham 2004) | No |
| 22 | Hamilton, J., and B. Konar. 2007. Implications of substrate complexity and kelp variability for south-central Alaskan nearshore Fish communities. FIshery Bulletin **105**:189-196.  (Hamilton and Konar 2007) |  |
| 23 | Holbrook & Schmitt 1984. Experimental analyses of patch selection by foraging black surfperch (Embiotoca jacksoni Agazzi). Journal of Experimental Marine Biology and Ecology (Holbrook and Schmitt 1984) | No |
| 24 | Holbrook et al 1990Biogenic habitat structure and characteristics of temperate reef fish assemblages. Australian Journal of Ecology (Holbrook et al. 1990) | Yes |
| 25 | Holbrook et al 1994. Spatial and temporal Patterns in Assemblages of Temperate reef Fish. American Zoologist (Holbrook et al. 1994) | Yes |
| 26 | Houk & McClenegham. Effects of kelp canopy removal on young-of-the-year rockfish abundance, using two census methods (Houk and McClenegham 1993) | No |
| 27 | Ireland & Horn 1991. Effects of macrophyte secondary chemicals on food choice and digestive efficiency of Cebidichthys violaceus (Girard), an herbivorous fish of temperate marine waters. Journal of Experimental Marine Biology and Ecology(Ireland and Horn 1991) | No |
| 28 | Irigoyen et al. 2011. Alien algae *Undaria pinnatifida* causes habitat loss for rocky reef fishes in North Patagonia. Biological Invasions(Irigoyen et al. 2011) | Yes |
| 29 | Jones 1984. Population ecology of the temperate reef fish *Pseudolabrus celidotus* Bloch and Schneider (Pisces: Labridae). I. Factors influencing recruitment.(Jones 1984) | Yes |
| 30 | Jones. 1992. Interactions between herbivorous fishes and macro-algae on a temperate rocky reef. Journal of Experimental Marine Biology and Ecology (Jones 1992) |  |
| 31 | Keats et al. 1987. The role of fleshy macroalgae in the ecology of juvenile cod (Gadus morhua L.) in inshore waters off eastern Newfoundland(Keats et al. 1987) | No |
| 32 | Levin & Hay . 1996. Responses of temperate reef fishes to alterations in algal structure and species composition. Marine Ecology Progress Series (Levin and Hay 1996) | Yes |
| 33 | Levin & Hay 2002. Fish-seaweed association on temperate reefs: do small scale experiments predict large-scale patterns. Marine Ecology Progress Series (Levin and Hay 2002) | No |
| 34 | Levin 1991. Effects of microhabitat on recruitment variation in a Gulf of Maine reef fish. Marine Ecology Progress Series. (Levin 1991) | No |
| 35 | Levin, P. 1994a. Fine-scale temporal variation in recruitment of a temperate demersal fish: the importance of settlement versus post-settlement loss. Oecologia **97**:124-133.  (Levin 1994a) | No |
| 36 | Levin, P. 1994b. Small-scale recruitment variation in a temperate fish: the roles of macrophytes and food supply. Environmental Biology of Fishes **40**:271-281.  (Levin 1994b) | Yes |
| 36 | Levin, P., R. Petrik, and J. Malone. 1997. Interactive effects of habitat selection, food supply and predation on recruitment of an estuarine fish. Oecologia **112**:55-63.  (Levin et al. 1997) | No |
| 38 | Levin. 1993. Habitat structure, conspecific presence and spatial variation in the recluitment of a temperate reef fish. Oecologia. **112**:55-63.(Levin 1993) | Yes |
| 39 | Mc Dermont & Shima. Ontogenetic shifts in microhabitat preference of the temperate reef fish Forsterygion lapillum: implications for population limitation. Marine Ecology Progress Series **320**:259-266.(McDermott and Shima 2006) | Yes |
| 40 | Moran, D., and K. D. Clements. 2002. Diet and endogenous carbohydrases in the temperate marine Herbovorous fish Kyphosus sydneyanus. ournal of Fish Biology **60**:1190-1203 (Moran and Clements 2002) | No |
| 41 | Moranta, J., M. Palmer, G. Morey, A. Ruiz, and B. Morales-Nin. 2006. Multi-scale spatial variability in fish assemblages associated with Posidonia oceanica meadows in the Western Mediterranean Sea. Estuarine, Coastal and Shelf Science **68**:579-592.  (Moranta et al. 2006) | Yes |
| 42 | Morton, J., and W. Gladstone. 2011. Spatial, temporal and ontogenetic variation in the association of fishes (family Labridae) with rocky-reef habitats. Marine and Freshwater Research **62**:870-884. (Morton and Gladstone 2011) | Yes |
| 43 | Paddack, M. J., and J. A. Estes. 2000. Kelp forest fish populations in marine reserves and adjacent exploited areas of central California. Ecological Applications **10**:855-870.  (Paddack and Estes 2000) | No |
| 44 | Pérez-Matus, A., and J. S. Shima. 2010. Disentangling the effects of macroalgae on the abundance of temperate reef fishes. Journal of Experimental Marine Biology and Ecology **388**:1-10.  (Pérez-Matus and Shima 2010) | Yes |
| 45 | Pérez-Matus, A., L. A. Ferry-Graham, A. Cea, and J. A. Vásquez. 2007. Community structure of temperate reef fishes in kelp dominated subtidal habitats of northern Chile. Marine and Freshwater Research **58**:1069-1085.  (Pérez-Matus et al. 2007) | Yes |
| 46 | Reisewitz, S. E., J. A. Estes, and C. A. Simenstad. 2006. Indirect food web interactions: sea otters and kelp forest fishes in the Aleutian archipelago. Oecologia **146**:623-631.  (Reisewithz et al. 2006) | No |
| 47 | Ruitton, S., P. Francour, and C. F. Boudouresque. 2000.Relationships between Algae, Benthic Herbivorous Invertebrates and Fishes in Rocky Sublittoral Communities of a Temperate Sea. Estuarine, Coastal and Shelf Science **50**:217-230. (Mediterranean) (Ruitton et al. 2000) | No |
| 48 | Schmidt & Scheibling 2007. Effects of native and invasive macroalgal canopies on composition and abundance of mobile benthic macrofauna and turf-forming algae. Journal of Experimental Marine Biology and Ecology **341**:110-130. (Schmidt and Scheibling 2007) | Yes |
| 49 | Shears & Babcock. 2002. Marine reserves demonstrate top-down control of community structure on temperate reefs. Oecologia **132**:131-142. (Shears and Babcock 2002) | No |
| 50 | Siddon, E. C., C. E. Siddon, and M. S. Stekoll. 2008. Community level effects of Nereocystis luetkeana in southeastern Alaska. Journal of Experimental Marine Biology and Ecology **361**:8-15.(Siddon et al. 2008) | Yes |
| 51 | Syms, C., and G. P. Jones. 1999. Scale of Disturbance and the Structure of a Temperate Fish Guild. Ecology **80**:921-940.(Syms and Jones 1999) | Yes |
| 52 | Tomas, F., E. Cebrian, and E. Ballesteros. 2011. Differential herbivory of invasive algae by native fish in the Mediterranean Sea. Estuarine, Coastal and Shelf Science **92**:27-34.(Tomas et al. 2011) | No |
| 53 | Tuya, F., A. Boyra, P. Sanchez-Jerez, C. Barbera, and R. Haroun. 2004. Relationships between rocky-reef fish assemblages, the sea urchin Diadema antillarum and macroalgae throughout the Canarian Archipelago. Marine Ecology Progress Series **278**:157-169. (Tuya et al. 2004) | No |
| 54 | Tuya, F., T. Wernberg, and M. S. Thomsen. 2009. Habitat structure affect abundances of labrid fishes across temperate reefs in south-western Australia. Environmental Biology of Fishes **86**:311-319.  (Tuya et al. 2009) | No |
| 55 | Vega Fernández, T., G. D'Anna, F. Badalamenti, and A. Pérez-Ruzafa. 2009. Effect of simulated macroalgae on the fish assemblage associated with a temperate reef system. Journal of Experimental Marine Biology and Ecology **376**:7-16.(Vega Fernández et al. 2009) | No |
| 56 | Williams, G., M. Cameron, J. Turner, and R. Ford. 2008. Quantitative characterisation of reef fish diversity among nearshore habitats in a northeastern New Zealand marine reserve. New Zealand Journal of Marine and Freshwater Research **42**:33-46.(Williams et al. 2008) | Yes |
| 57 | York et al 2006Fish assemblages in habitats dominated by Caulerpa taxifolia and native seagrasses in south-eastern Australia. Marine Ecology Progress Series | No |
| 58 | Zemke-White, L., C. J, and K. D. Clements. 2002. A re-evaluation of the diel feeding hypothesis for marine herbivorous fishes. Marine Biology **141**:571-579. (Zemke-White et al. 2002) | No |
| 59 | Zemke-White, W., and K. D. Clements. 2004. Relationship between long-term changes in algal community structure and herbivore diet at the Three Kings Islands, New Zealand. New Zealand Journal of Marine and Freshwater Research **38**:837-844. (Zemke-White and Clements 2004) | No |
| 60 | Krumhansl, K. A., J. N. Bergman, and A. K. Salomon. 2017. Assessing the ecosystem-level consequences of a small-scale artisanal kelp fishery within the context of climate-change. Ecol Appl **27**:799-813.(Krumhansl et al. 2017) | Yes |
| 61 | Lorentsen, S.-H., K. Sjøtun, and D. Grémillet. 2010. Multi-trophic consequences of kelp harvest. Biological Conservation **143**:2054-2062.(Lorentsen et al. 2010) | Yes |
| 62 | Murphy, M., S. Johnson, and D. J. Csepp. 2000. A Comparison of Fish Assemblages in Eelgrass and Adjacent Subtidal Habitats Near Craig, Alaska. Alaska Fishery Research Bulletin **7**:11-21. (Murphy et al. 2000) | No |
| 63 | Vanella, F. A., D. A. Fernández, M. Carolina Romero, and J. Calvo. 2006. Changes in the fish fauna associated with a sub-Antarctic Macrocystis pyrifera kelp forest in response to canopy removal. Polar Biology **30**:449-457.(Vanella et al. 2006) | No |
| 64 | Konar, B., M. Edwards, and T. Efird. 2015. Local habitat and regional oceanographic influence on fish distribution patterns in the diminishing kelp forests across the Aleutian Archipelago. Environmental Biology of Fishes **98**:1935-1951.(Konar et al. 2015) | No |
| 65 | Efird, T. P., and B. Konar. 2013. Habitat characteristics can influence fish assemblages in high latitude kelp forests. Environmental Biology of Fishes **97**:1253-1263.(Efird and Konar 2013) | No |
| 66 | Willis, T. J., and M. Anderson. 2003. Structure of cryptic reef fish assemblages: relationships with habitat characteristics and predator density. Marine Ecology Progress Series **257**:209-221. (Willis and Anderson 2003) | Yes |
| 67 | Norderhaug, k. m., h. christie, j. h. fosså, and s. fredriksen. 2005. fish–macrofauna interactions in a kelp (Laminaria hyperborea) forest. Journal of the Marine Biological Association of the United Kingdom **85**:1279-1286. | No |
| 68 | Johnson, S. W., Murphy, ML, D. J. Csepp, P. M. Harris, and J. Thedinga. 2003. A Survey of Fish Assemblages in Eelgrass and Kelp Habitats of Southeastern Alaska. NOAA Technical Memorandum NMFS-AFSC-139. (Johnson et al. 2003) | No |
| 69 | Dean, T., L. Haldorson, D. Laur, S. Jewett, and A. Blanchard. 2000. The distribution of nearshore fishes in kelp and eelgrass communities in Prince William Sound, Alaska: associations with vegetation and physical habitat characteristics. Environmental Biology of Fishes **57**:271-287. (Dean et al. 2000) | No |
| 70 | Steele, M., J. Malone, A. Findlay, M. H. Carr, and G. Forrester. 2002. A simple method for estimating larval supply in reef fishes and a preliminary test of population limitation by larval delivery in the kelp bass Paralabrax clathratus. Marine Ecology Progress Series **235**:195-203. (Steele et al. 2002) | Yes |
| 71 | Reed, D. C., S. C. Schroeter, D. Huang, T. Anderson, and R. F. Ambrose. 2006. Quatitative assessment of different artificial reef designs in mitigating losses to kelp forest fishes. Bulletin of Marine Science **78**:133-150. (Reed et al. 2006) | No |
| 72 | Granneman, J. E., and M. A. Steele. 2015. Effects of reef attributes on fish assemblage similarity between artificial and natural reefs. ICES Journal of Marine Science **72**:2385-2397. (Granneman and Steele 2015) | No |
| 73 | O'Connor, K. C., and T. W. Anderson. 2010. Consequences of habitat disturbance and recovery to recruitment and the abundance of kelp forest fishes. Journal of Experimental Marine Biology and Ecology **386**:1-10. (O'Connor and Anderson 2010) | Yes |
| 74 | Deza, A. A., and T. W. Anderson. 2010. Habitat fragmentation, patch size, and the recruitment and abundance of kelp forest fishes. Marine Ecology Progress Series **416**:229-240. (Deza and Anderson 2010) | No |
| 75 | Pondella, D. 2002. Fish production of a temperate artificial reef based on the density of embiotocids (Teleostei: Perciformes). ICES Journal of Marine Science **59**:S88-S93. (Pondella 2002) | No |
| 76 | Ambrose, R. F., and S. Swarbrick. 1989. Comparison of Fish Assemblages on Artificial and Natural Reefs off the Coast of Southern California. Bulletin of Marine Science **44**:718-733. (Ambrose and Swarbrick 1989) | No |
| 77 | Froeschke, J. T., L. G. Allen, and D. Pondella. 2006. The Fish Assemblages Inside and Outside of a Temperate Marine Reserve in Southern California. Bulletin, Southern California Academy of Sciences 105:128-142.(Froeschke et al. 2006) | No |
| 78 | Craig, M. T., F. J. Fodrie, and P. A. Hastings. 2004. The Nearshore Fish Assemblage of the Scripps Coastal Reserve, San Diego, California. Coastal Management 32:341-351. (Craig et al. 2004) | No |
| 79 | Romanuk, T. N., and C. D. Levings. 2006. Relationships between fish and supralittoral vegetation in nearshore marine habitats. Aquatic Conservation: Marine and Freshwater Ecosystems 16:115-132. (Romanuk and Levings 2006) | No |
| 80 | Støttrup, J. G., C. Stenberg, K. Dahl, L. D. Kristensen, and K. Richardson. 2014. Restoration of a Temperate Reef: Effects on the Fish Community. Open Journal of Ecology **04**:1045-1059.(Støttrup et al. 2014) | No |
| 81 | Parsons, D. F., I. M. Suthers, D. Cruz, and J. A. Smith. 2016. Effects of habitat on fish abundance and species composition on temperate rocky reefs. Marine Ecology Progress Series **561**:155-171.(Parsons et al. 2016) | No |
| 82 | Palma, A., and F. P. Ojeda. 2002. Abundance, distribution and feeding patterns of a temperate reef fish in subtidal environments of the Chilean coast: the importance of understory algal turf. Revista Chilena de Historia Natural **75**:189-200. (Palma and Ojeda 2002) | No |
| 83 | Reisewitz, S. E., J. A. Estes, and C. A. Simenstad. 2006. Indirect food web interactions: sea otters and kelp forest fishes in the Aleutian archipelago. Oecologia **146**:623-631. (Reisewitz et al. 2006) | No |
| 84 | DeMartini, E. E., and D. A. Roberts. 1989. Contrasting patterns of fish density and abundance at an artificial rock reef and a cobble-bottom kelp forest. Bulletin of Marine Science **44**:881-892. (DeMartini and Roberts 1989) | No |
| 85 | Davis, G. E., and T. W. Anderson. 1989. Population Estimates of Four Kelp Forest Fishes and an Evaluation of Three in situ Assessment Techniques. Bulletin of Marine Science **44**:1138-1151. (Davis and Anderson 1989) | No |
| 86 | Stephens, J., P. Morris, K. Zerba, and M. Love. 1984. Factors affecting fish diversity on a temperate reef: the fish assemblage of Palos Verdes Point, 19744981. Environmental Biology of Fishes **11**:259-275. (Stephens et al. 1984) | No |
| 87 | Allen, G. L., L. S. Bouvier, and R. E. J. Jensen. 1992. Abundance, Diversity, and Seasonality of Cryptic Fishes and their Contribution to a Temperate Reef Fish Assemblage off Santa Catalina Island, California. Bulletin Southern California Academy of Sciences **91**:55-69. (Allen et al. 1992) | No |
| 88 | Ebeling, A. W., D. R. Laur, and R. J. Rowley. 1985. Severe storm disturbances and reversal of community structure in a southern California kelp forest. Marine Biology **84**:287-294.  (Ebeling et al. 1985) | No |
| 89 | Kingsford, M. J., D. R. Schiel, and C. N. Battershill. 1989. Distribution and Abundance of Fish in a Rocky Reef Environment at the Subantarctic Auckland Islands, New Zealand. Polar Biology **9**:179-1869.(Kingsford et al. 1989) | No |
| 90 | Bodkin, J. L. 1988. Effects of kelp forest removal on associated fish assemblages in central California. Journal of Experimental Marine Biology and Ecology **117**:227-238. (Bodkin 1988) | Yes |

Chart, histogram

Description automatically generated

Figure S1. Total number of studies per year included that evaluated any reef fish metrics (richness, abundance, and/or single species abundance) against kelp presence and/or abundance since 1980 through 2020.

Table S2 Taxonomic Order, Family, and Course trophic group (herbivores, omnivores, planktivores, benthic carnivores and general carnivores) of the 146 reef fish species included in the analysis.

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| --- | --- | --- | --- |
| Order | Family | Species | Trophic group |
| Carcharhiniformes | Scyliorhinidae | Schroederichthys chilensis | Benthic Carnivore |
| Acropomatiformes | Pempheridae | Pempheris compressa | General Carnivore |
| Acropomatiformes | Dinolestidae | Dinolestes lewini | General Carnivore |
| Acropomatiformes | Pempheridae | Pempheris multiradiata | Benthic Carnivore |
| Atheriniformes | Atherinopsidae | Atherinops affinis | Planktivore |
| Batrachoidiformes | Batrachoididae | Aphos porosus | Benthic Carnivore |
| Blenniiformes | Labrisomidae | Alloclinus holderi | Benthic Carnivore |
| Blenniiformes | Labrisomidae | Auchenionchus microcirrhis | General Carnivore |
| Blenniiformes | Tripterygiidae | Bellapiscis lesleyae | Benthic Carnivore |
| Blenniiformes | Tripterygiidae | Cryptichthys jojettae | Benthic Carnivore |
| Blenniiformes | Tripterygiidae | Forsterygion flavonigrum | Benthic Carnivore |
| Blenniiformes | Tripterygiidae | Forsterygion lapillum | Benthic Carnivore |
| Blenniiformes | Tripterygiidae | Forsterygion malcolmi | Benthic Carnivore |
| Blenniiformes | Tripterygiidae | Forsterygion maryannae | Planktivore |
| Blenniiformes | Tripterygiidae | Forsterygion varium | Benthic Carnivore |
| Blenniiformes | Clinidae | Gibbonsia spp | Benthic Carnivore |
| Blenniiformes | Tripterygiidae | Helcogrammoides chilensis | Benthic Carnivore |
| Blenniiformes | Clinidae | Heterostichus rostratus | General Carnivore |
| Blenniiformes | Tripterygiidae | Karalepis stewarti | Benthic Carnivore |
| Blenniiformes | Labrisomidae | Labrisomus philippii | Omnivore |
| Blenniiformes | Tripterygiidae | Notoclinops caerulepunctus | Benthic Carnivore |
| Blenniiformes | Tripterygiidae | Notoclinops segmentatus | Benthic Carnivore |
| Blenniiformes | Tripterygiidae | Notoclinops yaldwyni | Benthic Carnivore |
| Blenniiformes | Tripterygiidae | Ruanoho whero | Benthic Carnivore |
| Blenniiformes | Blenniidae | Scartichthys gigas | Omnivore |
| Blenniiformes | Blenniidae | Scartichthys viridis | Herbivore |
| Carangiformes | Carangidae | Trachurus murphyi | General Carnivore |
| Carangaria | Sphyraenidae | Sphyraena argentea | General Carnivore |
| Centrarchiformes | Kyphosidae | Medialuna californiensis | Omnivore |
| Centrarchiformes | Aplodactylidae | Aplodactylus lophodon | Herbivore |
| Centrarchiformes | Aplodactylidae | Aplodactylus punctatus | Herbivore |
| Centrarchiformes | Aplodactylidae | Aplodactylus westralis | Herbivore |
| Centrarchiformes | Chironemidae | Chironemus marmoratus | Benthic Carnivore |
| Centrarchiformes | Microcanthidae | Atypichthys strigatus | Omnivore |
| Centrarchiformes | Cheilodactylidae | Cheilodactylus fuscus | Omnivore |
| Centrarchiformes | Cheilodactylidae | Cheilodactylus spectabilis | Benthic Carnivore |
| Centrarchiformes | Cheilodactylidae | Cheilodactylus variegatus | Benthic Carnivore |
| Centrarchiformes | Girellidae | Girella laevifrons | Herbivore |
| Centrarchiformes | Girellidae | Girella nigricans | Omnivore |
| Centrarchiformes | Girellidae | Girella zebra | Herbivore |
| Centrarchiformes | Kyphosidae | Kyphosus cornelii | Herbivore |
| Centrarchiformes | Kyphosidae | Kyphosus sydneyanus | Herbivore |
| Centrarchiformes | Latridae | Nemadactylus macropterus | Benthic Carnivore |
| Centrarchiformes | Scorpididae | Scorpis lineolata | Planktivore |
| Eupercaria | Haemulidae | Anisotremus davidsonii | General Carnivore |
| Eupercaria | Haemulidae | Anisotremus scapularis | Benthic Carnivore |
| Eupercaria | Haemulidae | Haemulon californiensis | Planktivore |
| Eupercaria | Labridae | Achoerodus viridis | Benthic Carnivore |
| Eupercaria | Labridae | Austrolabrus maculatus | Benthic Carnivore |
| Eupercaria | Sciaenidae | Cheilotrema fasciatum | Planktivore |
| Eupercaria | Sciaenidae | Cheilotrema saturnum | General Carnivore |
| Eupercaria | Sciaenidae | Cilus gilberti | General Carnivore |
| Eupercaria | Sparidae | Diplodus holbrookii | Omnivore |
| Eupercaria | Labridae | Eupetrichthys angustipes | Benthic Carnivore |
| Eupercaria | Labridae | Halichoeres bivittatus | General Carnivore |
| Eupercaria | Labridae | Halichoeres dispilus | General Carnivore |
| Eupercaria | Labridae | Halichoeres semicinctus | Benthic Carnivore |
| Eupercaria | Haemulidae | Isacia conceptionis | Omnivore |
| Eupercaria | Sciaenidae | Menticirrhus ophicephalus | Benthic Carnivore |
| Eupercaria | Labridae | Notolabrus celidotus | Benthic Carnivore |
| Eupercaria | Labridae | Notolabrus fucicola | Benthic Carnivore |
| Eupercaria | Labridae | Notolabrus gymnogenis | Benthic Carnivore |
| Eupercaria | Labridae | Notolabrus parilus | Benthic Carnivore |
| Eupercaria | Labridae | Notolabrus tetricus | Benthic Carnivore |
| Eupercaria | Odacidae | Odax pullus | Herbivore |
| Eupercaria | Odacidae | Olisthops cyanomelas | Herbivore |
| Eupercaria | Labridae | Ophthalmolepis lineolata | Benthic Carnivore |
| Eupercaria | Labridae | Oxyjulis californica | Benthic Carnivore |
| Eupercaria | Labridae | Pictilabrus laticlavius | Benthic Carnivore |
| Eupercaria | Monodactylidae | Schuettea scalaripinnis | Planktivore |
| Eupercaria | Labridae | Semicossyphus pulcher | Benthic Carnivore |
| Eupercaria | Sciaenidae | Stellifer minor | General Carnivore |
| Eupercaria | Labridae | Tautogolabrus adspersus | Detritivore |
| Gadiformes | Gadidae | Gadus macrocephalus | General Carnivore |
| Gadiformes | Gadidae | Gadus morhua | General Carnivore |
| Galaxiiformes | Galaxiidae | Aplochiton taeniatus | Planktivore |
| Kurtiformes | Apogonidae | Apogon spp. | General Carnivore |
| Mugiliformes | Mugilidae | Mugil cephalus | Omnivore |
| Mulliformes | Mullidae | Parupeneus spilurus | Benthic Carnivore |
| Mulliformes | Mullidae | Upeneichthys lineatus | General Carnivore |
| Ovalentaria | Embiotocidae | Brachyistius frenatus | Benthic Carnivore |
| Ovalentaria | Pomacentridae | Chromis crusma | Benthic Carnivore |
| Ovalentaria | Pomacentridae | Chromis dispilus | Planktivore |
| Ovalentaria | Pomacentridae | Chromis hypsilepis | Omnivore |
| Ovalentaria | Pomacentridae | Chromis punctipinnis | Omnivore |
| Ovalentaria | Embiotocidae | Embiotoca jacksoni | Benthic Carnivore |
| Ovalentaria | Embiotocidae | Embiotoca lateralis | Benthic Carnivore |
| Ovalentaria | Embiotocidae | Hypsurus caryi | Benthic Carnivore |
| Ovalentaria | Pomacentridae | Hypsypops rubicundus | Benthic Carnivore |
| Ovalentaria | Pomacentridae | Mecaenichthys immaculatus | Herbivore |
| Ovalentaria | Pomacentridae | Nexilosus latifrons | Omnivore |
| Ovalentaria | Pomacentridae | Parma alboscapularis | Herbivore |
| Ovalentaria | Pomacentridae | Parma microlepis | Omnivore |
| Ovalentaria | Embiotocidae | Phanerodon furcatus | Omnivore |
| Ovalentaria | Embiotocidae | Phanerodon vacca | Benthic Carnivore |
| Ovalentaria | Embiotocidae | Rhacochilus toxotes | Benthic Carnivore |
| Ovalentaria | Plesiopidae | Trachinops taeniatus | Benthic Carnivore |
| Perciformes | Monacanthidae | Acanthaluteres vittiger | Omnivore |
| Perciformes | Serranidae | Acanthistius patachonicus | General Carnivore |
| Perciformes | Serranidae | Acanthistius pictus | General Carnivore |
| Perciformes | Agonidae | Agonopsis chiloensis | Benthic Carnivore |
| Perciformes | Aulorhynchidae | Aulorhynchus flavidus | General Carnivore |
| Perciformes | Serranidae | Centropristis striata | General Carnivore |
| Perciformes | Channichthydae | Champsocephalus esox | General Carnivore |
| Perciformes | Bovichtidae | Cottoperca gobio | General Carnivore |
| Perciformes | Eleginopsidae | Eleginops maclovinus | Omnivore |
| Perciformes | Hemilutjanidae | Hemilutjanus macrophthalmos | General Carnivore |
| Perciformes | Serranidae | Hypoplectrodes maccullochi | Benthic Carnivore |
| Perciformes | Cottidae | Myoxocephalus scorpius | General Carnivore |
| Perciformes | Nototheniidae | Notothenia trigramma | General Carnivore |
| Perciformes | Zaniolepididae | Oxylebius pictus | Benthic Carnivore |
| Perciformes | Serranidae | Paralabrax clathratus | General Carnivore |
| Perciformes | Serranidae | Paralabrax humeralis | General Carnivore |
| Perciformes | Serranidae | Paralabrax nebulifer | General Carnivore |
| Perciformes | Nototheniidae | Paranotothenia magellanica | General Carnivore |
| Perciformes | Pinguipedidae | Parapercis colias | General Carnivore |
| Perciformes | Nototheniidae | Patagonotothen brevicauda | Benthic Carnivore |
| Perciformes | Nototheniidae | Patagonotothen cornucola | Benthic Carnivore |
| Perciformes | Nototheniidae | Patagonotothen longipes | Benthic Carnivore |
| Perciformes | Nototheniidae | Patagonotothen sima | Benthic Carnivore |
| Perciformes | Nototheniidae | Patagonotothen tessellata | Benthic Carnivore |
| Perciformes | Pholidae | Pholis gunnellus | Benthic Carnivore |
| Perciformes | Pholidae | Pholis laeta | Benthic Carnivore |
| Perciformes | Pinguipedidae | Pinguipes brasilianus | General Carnivore |
| Perciformes | Pinguipedidae | Pinguipes chilensis | Benthic Carnivore |
| Perciformes | Pinguipedidae | Prolatilus jugularis | Benthic Carnivore |
| Perciformes | Pinguipedidae | Pseudopercis semifasciata | Omnivore |
| Perciformes | Bathymasteridae | Ronquilus jordani | Benthic Carnivore |
| Perciformes | Sebastidae | Sebastes atrovirens | General Carnivore |
| Perciformes | Sebastidae | Sebastes carnatus | General Carnivore |
| Perciformes | Sebastidae | Sebastes melanops | General Carnivore |
| Perciformes | Sebastidae | Sebastes mystinus | General Carnivore |
| Perciformes | Sebastidae | Sebastes oculatus | General Carnivore |
| Perciformes | Sebastidae | Sebastes paucispinis | General Carnivore |
| Perciformes | Sebastidae | Sebastes pinniger | General Carnivore |
| Perciformes | Sebastidae | Sebastes serranoides | General Carnivore |
| Perciformes | Sebastidae | Sebastes serriceps | General Carnivore |
| Perciformes | Stichaeidae | Stichaeus punctatus | Benthic Carnivore |
| Pleuronectiformes | Paralichthyidae | Paralichthys microps | General Carnivore |
| Scombriformes | Scombridae | Sarda chiliensis | General Carnivore |
| Scombriformes | Scombridae | Scomber japonicus | General Carnivore |
| Scombriformes | Scombridae | Scomberomorus maculatus | General Carnivore |
| Scombriformes | Gempylidae | Thyrsites atun | Planktivore |
| Syngnathiformes | Syngnathidae | Leptonotus blainvilleanus | Benthic Carnivore |
| Tetraodontiformes | Monacanthidae | Meuschenia scaber | Benthic Carnivore |
| Trachichthyiformes | Trachichthyidae | Optivus elongatus | Benthic Carnivore |

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