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# Distribution Mapping and Analysis Portal (DisMAP)

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## INTRODUCTION

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### 1. Background

Understanding how species are distributed in space and time and the factors which drive spatial patterns in distribution and abundance are central questions in ecology and important for species conservation and management. In fisheries stock assessments species distribution knowledge is used to identify stock structure and boundaries. Species distribution information also comes into play when making large scale marine spatial planning decisions, such as Marine Protected Area designations, or locations of human activities such as off-shore wind-farms or shipping lanes. However, as climatic and environmental conditions change, fish species may see changes in their productivity or their preferred locale (Pinsky et al. 2013, Poloczanska et al. 2016, Barange et al. 2018). Shifts in species distributions are already occurring at alarming rates, with one estimate placing it at 72 km/decade on average (Poloczanska et al. 2013). Well known examples of these shifts include mackerel in the eastern Atlantic and blueline tilefish and black sea bass in the western Atlantic which have all seen northward shifts in their distributions.

These shifts in distribution pose a central challenge to fisheries managers (Karp et al. 2019) as they can and already are having significant impacts on key management decisions. For instance, if a species moves out of its historical range, it may not be adequately sampled by research surveys, leading to biases in the index of abundance obtained from the survey data. Another complication can occur when a species shifts across management boundaries. This can be particularly challenging when the species is new to the management area into which it is shifting, and therefore no management regime is in place for it. Allocation also becomes an issue when species shift across management boundaries, as the fishermen in the species' historic range may want to maintain their historical allocation, and the fishermen in the area into which it has moved may also wish to be allocated some quota.

Given the potential impacts of shifting distributions on sustainable fisheries management, marine spatial planning and the cross-jurisdictional nature of the issue, it is crucial that scientists and managers have access to information on historic and projected stock distributions for use in decision-making. In a 2016 questionnaire, information on shifts in fish distributions ranked in the top two most important information needs among both fishers and non-fishers (MAFAC 2017). Although NMFS and partners collect extensive information on the distribution of species through surveys, and are increasingly conducting research into the distributions of fish stocks, this information is not currently available in a consistent, useful, easy to access format across regions. Species distribution modeling (SDM) analysis is done within a region on an ad hoc basis for specific stocks, generally relying on data from surveys from within that region. The primary public outlet for much of this SDM research is through peer-reviewed publications, ecosystem status reports, and/or stock assessment reports. However, there are several examples of online platforms which present species distribution modeling results to the public and resource managers, such as [OceanAdapt](#) and [Mid-Atlantic Ocean Data Portal](#). These portals have shown promise as decision support tools for fisheries managers, however these existing platforms and outlets do not enable easy

comparison between stocks within and across regions, or for the interactive exploration of results. Additionally, the SDM results and information are scattered between these various outlets making it challenging to find and compare information across stocks and regions.

Considering the large amounts of research on understanding species distributions, advancements in species distribution modeling, the clear management implications of shifting distributions, and the cross-jurisdictional nature of the issue, NMFS initiated development of a new portal building off of existing platforms to pull together the wealth of information on species distributions and provide robust information on marine species distributions to support science and management spanning across regions. The goal of the portal is to enable improved data integration, access to model results, and knowledge sharing across regions, to enhance not only NMFS ability to track species distribution shifts as they move across management boundaries or out of or into survey domains, but to also track NMFS progress and efforts to understand and account for these shifts.

This NMFS Technical Memorandum summarizing the data processing, quality control, analyses, and content of the DisMAP as of **June 11<sup>th</sup> 2024**.

## 2. Revision History

March 2022:	Portal published.
December 2022:	Hawaii Deep 7 distribution products and BFISH survey data added to portal
April 2023:	Annual data update; Addition of Northern Bering Sea region; change in species filtering criteria to also have to be present in >5% of hauls each year as well as present in at least 3/4 <sup>th</sup> of survey years
June 2024:	Annual data update. Fixed several issues with the GMEX code including: (1) issues with merging of Tow (invrec) and bio (bgsrec) tables, (2) taxonomic coding issues – used a new biocodes table, (3) problematic taxa with known identification issues in the field.

## SPECIES DISTRIBUTION PRODUCTS

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### 3. Data sources and Data Processing

In this latest version of the portal, species distribution products are derived from regional fishery-independent survey data. For the continental U.S., the survey data comes from regional fishery-independent bottom-trawl surveys. Survey data for Hawai'i is for the Deep-7 species complex only and comes from the Bottomfish Fishery-independent Survey in Hawai'i (a.k.a., BFISH). When more than one survey is conducted in a region (e.g. spring, summer, and fall) we analyze each season separately.

These survey data can be accessed through regional databases (see Table 1) or through reaching out to survey leads and exist in many different tables and formats. The first step in making these data available in DisMAP and in a format which can be used to develop the subsequent species distribution products, is compiling and processing the data into a standard format with common data structure and variable names. This was carried out using an R script originally developed by the Ocean Adapt team at Rutgers University (OceanAdapt 2021) and modified to meet the needs of DisMAP. The code combines the various tables for each region, removes unnecessary columns, and renames columns as necessary to have standard column names across the regions. Additionally, for three regions (Southeast, West Coast (annual

Region	Season	Duration	Taxa > 3/4 of years	Core species	Data filtering notes	Data Source
Aleutian Islands	Summer	1991-2022	57	29	none	<a href="https://www.fisheries.noaa.gov/foss/f?p=215:28:11659615688681:::">https://www.fisheries.noaa.gov/foss/f?p=215:28:11659615688681:::</a>
Eastern Bering Sea	Summer	1982-2023	65	42	remove years 1982, 1983, 1984, 1985, 1986	
Gulf of Alaska	Summer	1993-2023	64	36	remove year 2001; strata >= 11 years	
Northern Bering Sea	Summer	2010, 2017-2023	67	59	none	
West Coast Triennial	Summer	1977-2004	51	39	keep only strata sampled all 10 years of survey	<a href="https://www.webapps.nwfsc.noaa.gov/data/map">https://www.webapps.nwfsc.noaa.gov/data/map</a>
West Coast Annual	Summer	2003-2023	100	70	Keep only strata sampled in >= 20 years	
Gulf of Mexico	Summer	1982-2022	128	90	keep years >= 2008, drop 2022; keep strata sampled 13 of years 2008-2021	<a href="https://seamap.gsmfc.org/">https://seamap.gsmfc.org/</a>
Southeast U.S. Shelf	Fall	1989-2022	69	41	Keep only strata sampled >31 years	<a href="http://www.seamap.org/datapage.html">http://www.seamap.org/datapage.html</a>
	Spring	1989-2022	63	45	keep only strata sampled >= 29 years of survey	
	Summer	1989-2022	68	42	Remove year 2021 (poorly sampled)	
Northeast U.S. Shelf	Fall	1963-2023	52	27	keep years > 1973, dropped 2017; keep strata sampled all but 2 years	<a href="https://www.fisheries.noaa.gov/inport/item/22560">https://www.fisheries.noaa.gov/inport/item/22560</a>
	Spring	1968-2023	47	30	keep years > 1973, drop 2023, 2020, 2014, 1975; keep strata sampled all but 2 years	<a href="https://www.fisheries.noaa.gov/inport/item/22561">https://www.fisheries.noaa.gov/inport/item/22561</a>
Hawai'i Islands	Fall	2016-2023	7	7	none	<a href="https://www.fisheries.noaa.gov/inport/item/20969">https://www.fisheries.noaa.gov/inport/item/20969</a>

**Table 1: NOAA Fisheries fishery-independent surveys compiled for this analysis**, including season of the survey, duration, number of taxa sampled in at least 5% of tows in a year in at least 3/4th of the survey years or every year (core species), notes on which strata and years were kept or removed through the data processing, and links to the original data source for each survey.

and triennial), and Gulf of Mexico) the wtcpue is not reported and therefore is calculated in the R script. This involves calculating the area swept for each haul associated with each weight, and then dividing the weight by the calculated area swept, to get the weight per unit effort (kg per ha). To ensure that changes in survey extent over time do not impact the estimate of distribution shifts, we also standardize each survey to a consistent spatial footprint by removing strata which have poor temporal coverage. Years with poor sampling coverage are also removed from the dataset used for analysis (see Table 1 for notes on data filtering in each region). In Alaska and the West Coast, we combine some species into species complexes due to difficulty in distinguishing them to the species level and/or to keep consistency with how they are assessed for management purposes.

After this data cleaning process, the following standard set of columns are selected for each region: region, sampleid, year, lat, lon, stratum, stratumarea, depth, spp, wtcpue. At this point the cleaned and filtered regional datasets are combined into one table, and a final taxonomic QA/QC is conducted. This QA/QC involves removing higher taxon codes (such as family or order level classifications), which are generally used as a ‘catch all’ for hard to identify specimens within those families or orders, and species that are poorly sampled by the trawl gear (see Appendix I for list of taxon removed). These higher order categories are retained only when there was an explicit decision to lump species together into species complexes (e.g., *Bathryaja* sp. or *Doryteuthis* sp). The data is further trimmed to only include species that are caught in at least 5% of tows in a year across 3/4th of the survey years in each region (see Appendix II for complete list of retained and excluded species). Lastly, the dataset is expanded to include zeros for when a species that is found in the region is not caught in a particular trawl. The compiled, filtered, trimmed and zero expanded dataset is then sent through a Python script to provide the spatial distribution products described in the following sections.

## 4. Bubble Plot

Each raw observation of wtcpue for a species from the compiled dataset is provided and can be plotted as a circle on the map, where the circle size is proportional to the wtcpue (kg per ha).

## 5. Interpolated Biomass Distributions

The distribution surface is generated by using the inverse distance weighting (IDW) interpolation method in a Python script. The IDW approach is used as it is a simple, relatively easy approach to apply across the large number of species collected in the surveys. The approach makes it possible to predict and interpolate unobserved densities at any location in the survey area. For this approach the wtcpue data from the compiled dataset described in section 2.1 is cube-root transformed prior to interpolation, and transformed back to original units (cubed back to kg/ha (wtcpue) values) for all further analysis described below. However, the raster displayed on the map is the cubed root values for improved visualization. Interpolation weights in IDW are computed as a function of the distance between observed sample sites and the site at which the prediction is to be made, with the weight being the inverse distance raised the the power of 2. The search radius used with IDW was 200,000 m (200 km), with 10 being the minimum and 15 being the maximum number of sampling sites included in the interpolation.

In addition to spatial weighting, the IDW approach used here includes temporal weighting. A five year window of data is used, with data from the mapped year having the highest weight in the interpolation and data from 2 years prior to and after the mapped year having much lower weights. This weighting is determined as follows:

$$\text{YearWeights} = 3 - (\text{abs}(\text{Tc} - \text{Ti}))$$

where Tc is the year being mapped Ti is the year of the samples. This year weighting is then applied to the weighting scheme by multiplying the year weighting by the distance weighting in the mapping. Note for surveys that don't sample annually (e.g. West Coast Tri-annual, Aleutian islands, Gulf of Alaska) this weighting results in the use of only the data for the year being mapped, as the other years are further than 2 years out on either side of the year being mapped so are given a weight of zero. The interpolation is carried out using a 2km x 2km grid cell size for the bottom trawl survey data and a 500m x 500m grid cell size for the BFISH survey. The interpolation boundaries were either provided by regional survey subject matter experts, or when not available, were determined by examination of the full survey footprint and the available observations from the trimmed dataset (e.g. in some regions the full survey footprint is trimmed to account for the removal of certain strata from the dataset due to poor temporal coverage in those strata). It is important to note that the choices of weighting, transformation, and pixel cell size, can have significant impacts on the resulting interpolation surfaces.

## 6. Single Species Distribution Metrics

### 6.1. Latitudinal center of gravity

The latitudinal center of gravity is the center of a population's distribution as indicated by the average latitude weighted by the biomass at each latitude within the survey domain. It is the geographic center of the total weight of the entire population. This metric is calculated using a Python script after the interpolated distribution surface is generated. The latitudinal center of gravity is the mean latitude of the species distribution, where each raster cell latitude is weighted by the value of wtcpue for that cell. This is shown in the formula below:

$$\text{COG}_{\text{year}} = \frac{\sum_{i=1}^k (d_i \times t_i)}{\sum_{i=1}^k t_i}$$

where  $d_i$  is a value of latitude associated with a raster (estimation) grid cell  $i$ .  $t_i$  denotes predicted (interpolated) wtcpue value at each raster (estimation) grid  $i$ .  $k$  is the total number of estimation grid cells in the study area. The result is one COG value for each year in the time series, for each species.

### 6.2. Range Limits

The species range limits are the geographic boundary beyond which a species does not occur. This can also be thought of as a measure of the location of the leading and trailing edges of a species' range. This metric is calculated based on the interpolated biomass raster layers. The min latitude (southern range limit) is the latitude where 95% of the species distribution/biomass (or latitudes where wtcpue >0) are

north or this value (so it's the 5<sup>th</sup> percentile), and the max latitude (northern range limit) is the lat where 95% of the species biomass is south of (below) this latitude.

### 6.3. Depth center of gravity

This metric is similar to the latitudinal center of gravity, but instead of being the average latitude weighted by biomass, it is the average depth weighted by biomass. This metric is calculated in Python after the interpolated distribution surface is generated. It is the mean depth where each raster cell depth, taken from bathymetry values within each 2 km grid cell, is weighted by the value of wtcpue for that cell, and follows the same formulation as Lat COG, but the di value is the depth of the grid cell, instead of lat. The result is one depth value for each year in the time series, for each species. Bathymetry data was obtained for the Aelution Islands, Eastern Bering Sea, and the Gulf of Alaska from the Alaska Fisheries Science Center, for BFISH from the Pacific Islands Fisheries Science Center for the BFISH data, and for the remaining regions from GEBCO (GEBCO 2021).

### 6.4. Area Analysis

This analysis is conducted based on the interpolated distribution surface layers, and is done in real-time based on user selected species and either selected or drawn area of interest. Two area analysis are calculated as:

- a. the proportion of the selected area where the species is present (i.e., wtcpue > 0 (or some other threshold?). Area of grid cells within selected area where wtcpue>0 divided by total area of selected area (in km<sup>2</sup>).

$$= A_{\text{area,species}} / A_{\text{area}}$$

- b. the proportion of the species biomass distribution found in (or covered by) the area of interest. This is calculated by summing the biomass for grid cells found within the area of interest, and dividing by the total biomass of the species in each year.

$$= \text{Biomass}_{\text{area,species}} / \text{Biomass}_{\text{species}}$$

## 7. Regional Summary Products

### 7.1. Species Richness Maps

Species richness maps are calculated for each region separately, and display the number of species present in each raster cell within a given region's survey domain. These maps are calculated by stacking each individual species' IDW biomass raster layers and counting the total number of species present in each cell. A species is considered present in a cell if the wtcpue > 0. It's important to note that these maps provide the predicted species richness, or number of species expected to encounter in the trawl survey at a given location, and do not reflect the species richness for the ecosystem as a whole.

### 7.2. Distribution Metric Regional Averages

For each region the average change in center of biomass is calculated (in terms of both Latitude and Depth) of a core set of species, defined as species that are caught every year in the survey. This is done by calculating the 'offset' or difference between each year's center of gravity and that of the starting year.

Thus the first year is standardized to zero and all other years are calculated as the difference from that starting year. The annual average of these individual species offsets is then calculated for the core set of species in each region, and then plotted on a time-series graph to enable evaluation of the overall change in center of biomass of species for a given region.

## **FUTURE DIRECTIONS**

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### **8. Additional data types**

This first release focuses on fisheries-independent survey data in the US, but future iterations of the portal will seek to include additional survey data and model outputs both within the US regions and Canada. We will build off existing partnerships between the Ocean Adapt team and Canadian researchers in the Department of Fish and Oceanography (DFO) to explore ways to incorporate Canadian survey data and models into the portal. In addition to expanding the surveys covered in this portal, we will also be exploring ways to bring in results of environmentally-linked species distribution models for display within the portal. Incorporating these model outputs not only will serve to improve access to and sharing of model code and results, but will also enable us to present predicted future shifts in distributions.

Our goal with working to incorporate these additional data sources and types is to help advance a community of practice among researchers and managers from around the U.S. and internationally who deal with the issue of shifting species distributions.

### **9. Additional functionality**

#### **9.1. Multispecies overlap analysis**

We expect species interactions and community composition to change along with climate-driven distribution shifts in individual species (Santora et al. 2017, Pinsky et al. 2020). These changes in species interactions can lead to changes in the productivity of predators and prey. For example, the expansion of Atlantic cod into Arctic waters resulted in increased overlap with its prey which enabled greater reproductive potential and higher biomass of cod (Howell and Filin 2014). However, in the case of walleye pollock, increased overlap with a key predator, arrowtooth flounder, resulted in higher mortality of juvenile walleye pollock (Hunsicker et al. 2013). Therefore, enabling multispecies analysis and exploration of changes in species overlap and interactions is important, as species are unlikely to shift their distributions in isolation. Future iterations of the portal will enable users to explore species interactions, such as area or range overlap, within an area of interest and evaluate how those interactions have or may change over time.

#### **9.2. Species shifts & human interactions**

As species distributions shift, target species biomass may become less available to ports that have historically targeted a species, and more available to others. Changes in species distribution can also exacerbate or mitigate the effects of regional stock declines (or increases) for specific ports (Selden et al. 2019). To allow users to examine how shifting species distributions will alter availability to focal ports, a future module will be developed to allow users to choose a target species, a port of interest, and a



specified radius from port. The analysis will then calculate the sum of the predicted biomass within the radius of the selected port as a metric of availability to port. Users will be able to examine how availability to ports has changed or is projected to change under future conditions for different ports.

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## APPENDIX I: LIST OF THE 451 UNIQUE SPECIES RETAINED AND PRESENTED ON DISMAP

SPECIES	COMMON NAME	REGION
<i>Acantholumpenus mackayi</i>	Pighead prickleback	Northern Bering Sea, Bering Sea Combined
<i>Acanthostracion quadricornis</i>	Scrawled cowfish	Gulf of Mexico
	Iridescent swimming crab	Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Achelous gibbesii</i>	Longspine swimming crab	
<i>Achelous spinicarpus</i>		Gulf of Mexico
		Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Achelous spinimanus</i>	Blotched swimming crab	Summer
<i>Actinauge verrillii</i>	Reticulate anemone	Gulf of Alaska, West Coast Annual
<i>Actinostola faeculenta</i>	Hobnail vase anemone	West Coast Annual
<i>Albatrossia pectoralis</i>	Giant grenadier	West Coast Annual
<i>Alepocephalus tenebrosus</i>	California slickhead	West Coast Annual
<i>Alosa aestivalis</i>	Blueback herring	Northeast US Spring
<i>Alosa pseudoharengus</i>	Alewife	Northeast US Fall, Northeast US Spring
		Northeast US Spring, West Coast Annual, West Coast Triennial
<i>Alosa sapidissima</i>	American shad	
<i>Aluterus schoepfii</i>	Orange filefish	Gulf of Mexico
<i>Amblyraja radiata</i>	Thorny skate	Northeast US Fall, Northeast US Spring
<i>Anarhichas lupus</i>	Atlantic wolffish	Northeast US Fall, Northeast US Spring
<i>Anasimus latus</i>	Stilt spider crab	Gulf of Mexico
<i>Anchoa hepsetus</i>	Striped anchovy	Gulf of Mexico
		Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Anchoa spp.</i>	Anchovies	
		Gulf of Mexico, Southeast US Spring, Southeast US Summer
<i>Ancylosetta quadrocellata</i>	Ocellated flounder	Aleutian Islands, Gulf of Alaska, West Coast Annual, West Coast Triennial
<i>Anoplopoma fimbria</i>	Sablefish	
<i>Anthoptilum grandiflorum</i>	Feather boa sea pen	West Coast Annual
<i>Antimora microlepis</i>	Finescale mora	West Coast Annual
<i>Aphrocallistes vastus</i>	Cloud sponge	Aleutian Islands, Gulf of Alaska
	Giant california sea cucumber	
<i>Apostichopus californicus</i>	White-knobbed sea cucumber	West Coast Annual
<i>Apostichopus leukothele</i>		West Coast Annual
<i>Apristurus brunneus</i>	Brown catshark	West Coast Annual
		Northern Bering Sea, Bering Sea Combined
<i>Arctoraja parvifera</i>	Alaska skate	
<i>Arenaeus cribrarius</i>	Speckled swimming crab	Southeast US Fall, Southeast US Summer

<i>Aspidophoroides olrikii</i>	Arctic alligatorfish	Northern Bering Sea, Bering Sea Combined
<i>Asterias amurensis</i>	North pacific seastar	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Atheresthes stomias</i>	Arrowtooth flounder	Gulf of Alaska, West Coast Annual, West Coast Triennial
<i>Atheresthes stomias</i> and <i>A. evermanni</i>	Arrowtooth and kamchatka flounders	Aleutian Islands, Eastern Bering Sea, Bering Sea Combined
<i>Axinella blanca</i>	Firm finger sponge	Aleutian Islands
<i>Bairdiella chrysoura</i>	Silver perch	Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Balistes capriscus</i>	Gray triggerfish	Gulf of Mexico
<i>Bathybembix bairdii</i>	NA	West Coast Annual
<i>Bathymaster signatus</i>	Searcher	Aleutian Islands, Eastern Bering Sea, Gulf of Alaska, Bering Sea Combined
<i>Bathyraja</i> spp.	Skate complex	Aleutian Islands, Gulf of Alaska, West Coast Annual, West Coast Triennial
<i>Bellator militaris</i>	Horned searobin	Gulf of Mexico
<i>Beringraja binoculata</i>	Big skate	Gulf of Alaska, West Coast Annual, West Coast Triennial
<i>Beringraja inornata</i>	California skate	West Coast Annual
<i>Beringraja rhina</i>	Longnose skate	Gulf of Alaska, West Coast Annual, West Coast Triennial
<i>Berryteuthis magister</i>	Magister armhook squid	Aleutian Islands, Gulf of Alaska
<i>Boltenia ovifera</i>	Stalked sea squirt	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Boreogadus saida</i>	Arctic cod	Northern Bering Sea, Bering Sea Combined
<i>Bothrocara brunneum</i>	Twoline eelpout	Combined
<i>Bothus robinsi</i>	Twospot flounder	West Coast Annual
<i>Brevoortia tyrannus</i>	Atlantic menhaden	Gulf of Mexico
<i>Brisaster latifrons</i>	Northern heart urchin	Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Buccinum angulosum</i>	Angular whelk	Gulf of Alaska, West Coast Annual
<i>Buccinum polare</i>	Polar whelk	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Buccinum scalariforme</i>	Ladder whelk	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Calamus proridens</i>	Littlehead porgy	Gulf of Mexico
<i>Calappa sulcata</i>	Yellow box crab	Gulf of Mexico
<i>Callinectes ornatus</i>	Shelling crab	Southeast US Summer
<i>Callinectes sapidus</i>	Blue crab	Gulf of Mexico, Southeast US Summer
<i>Callinectes similis</i>	Lesser blue crab	Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer

<i>Callogorgia compressa</i>	NA	Aleutian Islands
<i>Cancer borealis</i>	Jonah crab	Northeast US Fall
<i>Cancer irroratus</i>	Atlantic rock crab	Northeast US Fall, Northeast US Spring
<i>Caranx crysos</i>	Blue runner	Southeast US Fall, Southeast US Summer
<i>Careproctus melanurus</i>	Blacktail snailfish	West Coast Annual
<i>Centropristis ocyurus</i>	Bank sea bass	Gulf of Mexico
<i>Centropristis philadelphica</i>	Rock sea bass	Gulf of Mexico, Southeast US Fall
		Northeast US Fall, Northeast US Spring,
		Southeast US Fall, Southeast US Spring,
<i>Centropristis striata</i>	Black sea bass	Southeast US Summer
<i>Chaceon quinque-dens</i>	Red deepsea crab	Northeast US Fall, Northeast US Spring
		Southeast US Fall, Southeast US Spring,
<i>Chaetodipterus faber</i>	Atlantic spadefish	Southeast US Summer
<i>Chaetodon ocellatus</i>	Spotfin butterflyfish	Gulf of Mexico
<i>Chauliodus macouni</i>	Pacific viperfish	West Coast Annual
<i>Cheiraster (Luidiaster) dawsoni</i>	NA	Aleutian Islands
		Gulf of Mexico, Southeast US Fall,
		Southeast US Spring, Southeast US
<i>Chilomycterus schoepfii</i>	Striped burrfish	Summer
		Aleutian Islands, Eastern Bering Sea,
<i>Chionoecetes bairdi</i>	Tanner crab	Gulf of Alaska, Bering Sea Combined
		Eastern Bering Sea, Northern Bering Sea,
<i>Chionoecetes opilio</i>	Snow crab	Bering Sea Combined
<i>Chionoecetes tanneri</i>	Grooved tanner crab	West Coast Annual
		Gulf of Mexico, Southeast US Fall,
		Southeast US Spring, Southeast US
<i>Chloroscombrus chrysurus</i>	Atlantic bumper	Summer
	Longhorn decorator	
<i>Chorilia longipes</i>	crab	West Coast Annual
		Northern Bering Sea, Bering Sea
<i>Chrysaora melanaster</i>	NA	Combined
<i>Citharichthys arctifrons</i>	Gulf stream flounder	Northeast US Fall
		Gulf of Mexico, Southeast US Fall,
		Southeast US Spring, Southeast US
<i>Citharichthys macrops</i>	Spotted whiff	Summer
<i>Citharichthys sordidus</i>	Pacific sanddab	West Coast Annual, West Coast Triennial
		Gulf of Mexico, Southeast US Fall,
<i>Citharichthys spilopterus</i>	Bay whiff	Southeast US Summer
		Eastern Bering Sea, Bering Sea
<i>Clinopegma magnum</i>	Helmet whelk	Combined
<i>Clupea harengus</i>	Atlantic herring	Northeast US Fall, Northeast US Spring
		Eastern Bering Sea, Northern Bering Sea,
		Gulf of Alaska, West Coast Annual, West
<i>Clupea pallasii</i>	Pacific herring	Coast Triennial, Bering Sea Combined
<i>Coryphaenoides acrolepis</i>	Pacific grenadier	West Coast Annual
<i>Crossaster borealis</i>	Grooved sun star	West Coast Annual

Crossaster papposus	Common sunstar	Aleutian Islands, Eastern Bering Sea, Northern Bering Sea, Gulf of Alaska, Bering Sea Combined
Ctenodiscus crispatus	Mud star	Eastern Bering Sea, Gulf of Alaska, Bering Sea Combined
Cucumaria fallax	Sea football	Aleutian Islands
Cyanea capillata	Lion's mane	Gulf of Alaska
Cyclopsetta chittendeni	Mexican flounder	Gulf of Mexico
Cyclopsetta fimbriata	Spotfin flounder	Gulf of Mexico
Cynoscion arenarius	Sand weakfish	Gulf of Mexico
		Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
Cynoscion nothus	Silver seatrout	Southeast US Fall, Southeast US Spring, Southeast US Summer
Cynoscion regalis	Weakfish	Eastern Bering Sea, Gulf of Alaska, Bering Sea Combined
Dasycottus setiger	Spinyhead sculpin	Gulf of Mexico
Decapterus punctatus	Round scad	Gulf of Mexico
Diplectrum bivittatum	Dwarf sand perch	Gulf of Mexico
Diplectrum formosum	Sand perch	Gulf of Mexico
Diplopteraster multipes	Pincushion star	Aleutian Islands
Dipturus laevis	Barndoor skate	Northeast US Fall, Northeast US Spring
Doryteuthis opalescens	California market squid	West Coast Annual, West Coast Triennial
Doryteuthis pealeii	Longfin inshore squid	Northeast US Fall, Northeast US Spring
		Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
Doryteuthis sp	Inshore Squid sp.	Summer
Echidnocerus foraminatus	Brown box crab	West Coast Annual
Elassochirus cavimanus	Purple hermit	Aleutian Islands
Elassochirus tenuimanus	Widehand hermit	Gulf of Alaska
		Northern Bering Sea, Bering Sea Combined
Eleginus gracilis	Saffron cod	Northern Bering Sea, Bering Sea Combined
Enophrys diceraus	Antlered sculpin	
	North pacific giant octopus	Aleutian Islands
Enteroctopus dofleini		
Eopsetta jordani	Petrable sole	West Coast Annual, West Coast Triennial
Epinephelus morio	Red grouper	Gulf of Mexico
Eques lanceolatus	Jackknife-fish	Gulf of Mexico
		Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Erimacrus isenbeckii	Hair crab	Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
Etropus crossotus	Fringed flounder	Summer
Etropus cyclosquamus	Shelf flounder	Southeast US Summer

<i>Eucidaris tribuloides</i>	Slate pencil urchin	Gulf of Mexico
<i>Eucinostomus gula</i>	Silver jenny	Gulf of Mexico
<i>Eucinostomus</i> spp.	Mojarras	Southeast US Fall, Southeast US Summer
<i>Eumicrotremus orbis</i>	Pacific spiny lumpsucker	Aleutian Islands Northern Bering Sea, Bering Sea
<i>Eunoe depressa</i>	Depressed scale worm	Combined Eastern Bering Sea, Northern Bering Sea,
<i>Eunoe nodosa</i>	Giant scale worm	Bering Sea Combined
<i>Euvola marensis</i>	Paper scallop	Gulf of Mexico Northern Bering Sea, Bering Sea
<i>Evasterias echinosoma</i>	Giant sea star	Combined
<i>Fowlerichthys radius</i>	Singlespot frogfish	Gulf of Mexico Aleutian Islands, Eastern Bering Sea,
<i>Fusitriton oregonensis</i>	Oregon triton	Gulf of Alaska, Bering Sea Combined Aleutian Islands, Eastern Bering Sea, Northern Bering Sea, Gulf of Alaska, West Coast Triennial, Bering Sea
<i>Gadus chalcogrammus</i>	Walleye pollock	Combined Aleutian Islands, Eastern Bering Sea, Northern Bering Sea, Gulf of Alaska, West Coast Triennial, Bering Sea
<i>Gadus macrocephalus</i>	Pacific cod	Combined
<i>Gadus morhua</i>	Atlantic cod	Northeast US Fall, Northeast US Spring
<i>Genyonemus lineatus</i>	White croaker	West Coast Annual Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Gibbesia neglecta</i>	Lesser mantis shrimp	Northeast US Fall, Northeast US Spring
<i>Glyptocephalus cynoglossus</i>	Witch flounder	Aleutian Islands, Eastern Bering Sea, Gulf of Alaska, West Coast Annual, West Coast Triennial, Bering Sea Combined
<i>Glyptocephalus zachirus</i>	Rex sole	Aleutian Islands, Eastern Bering Sea, Northern Bering Sea, Gulf of Alaska, West Coast Triennial, Bering Sea
<i>Gorgonocephalus eucnemis</i>	Basket star	Combined
<i>Gymnocanthus galeatus</i>	Armorhead sculpin	Aleutian Islands Northern Bering Sea, Bering Sea
<i>Gymnocanthus pistilliger</i>	Threaded sculpin	Combined
<i>Gymnothorax saxicola</i>	Honeycomb moray	Gulf of Mexico Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Gymnura micrura</i>	Smooth butterfly ray	Gulf of Mexico
<i>Haemulon aurolineatum</i>	Tomtate grunt	Gulf of Mexico
<i>Haemulon plumieri</i>	White grunt	Gulf of Mexico
<i>Halieutichthys</i> sp	Batfishes	Gulf of Mexico
<i>Halocynthia aurantium</i>	Sea peach	Aleutian Islands
<i>Harengula jaguana</i>	Scaled sardine	Gulf of Mexico, Southeast US Fall

<i>Hemilepidotus jordani</i>	Yellow irish lord	Aleutian Islands, Eastern Bering Sea, Gulf of Alaska, Bering Sea Combined
<i>Hemilepidotus papilio</i>	Butterfly sculpin	Eastern Bering Sea, Bering Sea Combined
<i>Hemitripteris americanus</i>	Sea raven	Northeast US Fall, Northeast US Spring
<i>Hemitripteris bolini</i>	Bigmouth sculpin	Eastern Bering Sea, Gulf of Alaska, Bering Sea Combined
<i>Hepatus epheliticus</i>	Calico box crab	Southeast US Spring, Southeast US Summer
<i>Heterozonias alternatus</i>	Canonball sun star	West Coast Annual
<i>Hexagrammos stelleri</i>	Whitespotted greenling	Northern Bering Sea, Bering Sea Combined
<i>Hippasteria californica</i>	Californian spiny star	West Coast Annual
<i>Hippasteria phrygiana</i>	Arctic cushion star	West Coast Annual
<i>Hippocampus erectus</i>	Lined seahorse	Gulf of Mexico
<i>Hippoglossina oblonga</i>	American fourspot flounder	Northeast US Fall, Northeast US Spring
<i>Hippoglossoides elassodon</i>	Flathead sole	Aleutian Islands, Gulf of Alaska, West Coast Annual, West Coast Triennial
<i>Hippoglossoides elassodon</i> and <i>H. robustus</i>	Flathead sole-bering flounder	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Hippoglossoides platessoides</i>	American plaice	Northeast US Fall, Northeast US Spring
<i>Hippoglossus hippoglossus</i>	Atlantic halibut	Northeast US Fall, Northeast US Spring
<i>Hippoglossus stenolepis</i>	Pacific halibut	Aleutian Islands, Eastern Bering Sea, Northern Bering Sea, Gulf of Alaska, West Coast Annual, West Coast Triennial, Bering Sea Combined
<i>Histodermella kagigunensis</i>	Spud sponge	Aleutian Islands
<i>Homarus americanus</i>	American lobster	Northeast US Fall, Northeast US Spring
<i>Hyas coarctatus</i>	Arctic lyre crab	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Hyas lyratus</i>	Pacific lyre crab	Aleutian Islands, Eastern Bering Sea, Gulf of Alaska, Bering Sea Combined
<i>Hydrolagus coliei</i>	Spotted ratfish	Gulf of Alaska, West Coast Annual, West Coast Triennial
<i>Hypanus americanus</i>	Southern stingray	Southeast US Summer
<i>Hypanus sabinus</i>	Atlantic stingray	Southeast US Fall
<i>Hypanus say</i>	Bluntnose stingray	Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Icelinus filamentosus</i>	Threadfin sculpin	West Coast Annual, West Coast Triennial
<i>Icelus spiniger</i>	Thorny sculpin	Eastern Bering Sea, Bering Sea Combined
<i>Illex illecebrosus</i>	Northern shortfin squid	Northeast US Fall, Northeast US Spring
<i>Isopsetta isolepis</i>	Butter sole	Gulf of Alaska
<i>Kathetostoma albigutta</i>	Lancer stargazer	Gulf of Mexico

Labidochirus splendescens	Splendid hermit	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Lagocephalus laevigatus	Smooth puffer	Gulf of Mexico
		Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
Lagodon rhomboides	Pinfish	Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
Larimus fasciatus	Banded drum	Gulf of Mexico
Leiolumbrus nitidus	White elbow crab	Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
Leiostomus xanthurus	Spot	Aleutian Islands, Eastern Bering Sea, Northern Bering Sea, Gulf of Alaska, West Coast Triennial, Bering Sea Combined
Lepidopsetta sp.	Rock soles	Gulf of Mexico
Lepophidium brevibarbe	Blackedge cusk-eel	Gulf of Mexico
Lepophidium jeannae	Mottled cusk-eel	Northeast US Fall
Lepophidium profundorum	Fawn cusk-eel	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Leptasterias (Hexasterias) polaris	Polar six-rayed star	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Leptasterias arctica	Arctic star	Aleutian Islands, Eastern Bering Sea, Northern Bering Sea, Gulf of Alaska, Bering Sea Combined
Lethasterias nanimensis	Black spined sea star	Northeast US Fall, Northeast US Spring
Leucoraja erinaceus	Little skate	Northeast US Fall, Northeast US Spring
Leucoraja garmani	Rosette skate	Northeast US Fall, Northeast US Spring
Leucoraja ocellata	Winter skate	Eastern Bering Sea, Northern Bering Sea, Gulf of Alaska, Bering Sea Combined
Limanda aspera	Yellowfin sole	Northern Bering Sea, Bering Sea Combined
Limanda sakhalinensis	Sakhalin sole	Northeast US Fall, Northeast US Spring, Southeast US Spring
Limulus polyphemus	Horseshoe crab	Northern Bering Sea, Bering Sea Combined
Liparis gibbus	Variegated snailfish	West Coast Annual
	Tentacle shedding anemone	Aleutian Islands
Liponema brevicorne	Golden king crab	West Coast Annual
Lithodes aequispinus	Scarlet king crab	Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
Lithodes couesi		Northeast US Fall, Northeast US Spring
Lolliguncula brevis	Atlantic brief squid	
Lophius americanus	Monkfish	



<i>Luidia clathrata</i>	Lined sea star	Gulf of Mexico
<i>Luidia foliolata</i>	Gray sand star	West Coast Annual
		Northern Bering Sea, Bering Sea
<i>Lumpenus fabricii</i>	Slender eelblenny	Combined
<i>Lutjanus campechanus</i>	Red snapper	Gulf of Mexico
<i>Lutjanus griseus</i>	Gray snapper	Gulf of Mexico
<i>Lutjanus synagris</i>	Lane snapper	Gulf of Mexico
<i>Lycenchelys crotalinus</i>	Snakehead eelpout	West Coast Annual
		Eastern Bering Sea, Gulf of Alaska,
		Bering Sea Combined
<i>Lycodes brevipes</i>	Shortfin eelpout	West Coast Annual, West Coast Triennial
<i>Lycodes cortezianus</i>	Bigfin eelpout	West Coast Annual
<i>Lycodes diapterus</i>	Black eelpout	West Coast Annual, West Coast Triennial
<i>Lycodes pacificus</i>	Blackbelly eelpout	Eastern Bering Sea, Northern Bering Sea,
		Gulf of Alaska, Bering Sea Combined
<i>Lycodes palearis</i>	Wattled eelpout	Northern Bering Sea, Bering Sea
		Combined
<i>Lycodes turneri</i>	Polar eelpout	Gulf of Alaska, West Coast Annual, West
		Coast Triennial
<i>Lyopsetta exilis</i>	Slender sole	Eastern Bering Sea, Bering Sea
		Combined
<i>Mactromeris polynyma</i>	Arctic surfclam	Aleutian Islands, Gulf of Alaska
<i>Malacocottus zonurus</i>	Darkfin sculpin	Northeast US Fall, Northeast US Spring
<i>Malacoraja senta</i>	Smooth skate	Eastern Bering Sea, Northern Bering Sea,
		Gulf of Alaska, Bering Sea Combined
<i>Mallotus villosus</i>	Capelin	West Coast Annual
<i>Mediaster aequalis</i>	Vermillion star	Northeast US Fall, Northeast US Spring
<i>Melanogrammus aeglefinus</i>	Haddock	Southeast US Fall, Southeast US Spring,
		Southeast US Summer
<i>Menticirrhus americanus</i>	Southern kingfish	Southeast US Fall, Southeast US Spring,
		Southeast US Summer
<i>Menticirrhus littoralis</i>	Gulf kingfish	Northeast US Fall, Northeast US Spring
<i>Merluccius albidus</i>	Offshore hake	Northeast US Fall, Northeast US Spring
<i>Merluccius bilinearis</i>	Silver hake	West Coast Annual, West Coast Triennial
<i>Merluccius productus</i>	Pacific hake	West Coast Annual, West Coast Triennial
<i>Metacarcinus magister</i>	Dungeness crab	Gulf of Mexico
<i>Metapenaeopsis goodei</i>	Caribbean velvet shrimp	West Coast Annual
<i>Metridium farcimen</i>	Giant plumose anemone	West Coast Triennial
<i>Microgadus proximus</i>	Pacific tomcod	Gulf of Mexico, Northeast US Fall,
		Northeast US Spring, Southeast US Fall,
		Southeast US Spring, Southeast US
		Summer
<i>Micropogonias undulatus</i>	Atlantic croaker	West Coast Annual
<i>Microstomus bathybius</i>	Deep-sea sole	Aleutian Islands, Gulf of Alaska, West
		Coast Annual, West Coast Triennial
<i>Microstomus pacificus</i>	Dover sole	

Molpadia intermedia	Sweet potato sea cucumber	West Coast Annual
Monacanthus ciliatus	Fringed filefish	Gulf of Mexico
Monanchora pulchra	Yellow leafy sponge	Aleutian Islands
Moreiradromia antillensis	Hairy sponge crab	Gulf of Mexico
Mullus auratus	Red goatfish	Gulf of Mexico
Mustelus canis	Smooth dogfish	Northeast US Fall, Southeast US Spring
Mycale (Mycale) loveni	Loven's horny sponge	Aleutian Islands
Myliobatis freminvillei	Bullnose eagle ray	Southeast US Spring Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Myoxocephalus jaok	Plain sculpin	
Myoxocephalus octodecemspinosus	Longhorn sculpin	Northeast US Fall, Northeast US Spring Aleutian Islands, Eastern Bering Sea, Northern Bering Sea, Gulf of Alaska, Bering Sea Combined Northern Bering Sea, Bering Sea Combined
Myoxocephalus polyacanthocephalus	Great sculpin	West Coast Annual
Myoxocephalus scorpius	Shorthorn sculpin	Northeast US Fall, Northeast US Spring Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Myxoderma platyacanthum	NA	
Myzopsetta ferruginea	Yellowtail flounder	West Coast Annual
Myzopsetta proboscidea	Longhead dab	Northeast US Fall, Northeast US Spring Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Nearchaster (Nearchaster) aciculosus	Needle spined fragile star	West Coast Annual
Neptunea amianta	White neptune	West Coast Annual
Neptunea borealis	NA	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Neptunea heros	Northern neptune whelk	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Neptunea lyrata	Lyre whelk	Eastern Bering Sea, Bering Sea Combined
Neptunea pribiloffensis	Pribilof whelk	Eastern Bering Sea, Bering Sea Combined
Neptunea ventricosa	Fat whelk	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Nezumia stelgidolepis	California grenadier	West Coast Annual
Nicholsina usta	Emerald parrotfish	Gulf of Mexico Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Ocella dodecaedron	Bering poacher	
Octopoteuthis deletron	Octopus squid	West Coast Annual
Ogcocephalus declivirostris	Slantbrow batfish	Gulf of Mexico
Ogcocephalus parvus	Roughback batfish	Gulf of Mexico
Oncorhynchus tshawytscha	Chinook salmon	West Coast Triennial
Ophidion holbrookii	Bank cusk-eel	Gulf of Mexico Gulf of Alaska, West Coast Annual, West Coast Triennial
Ophiodon elongatus	Lingcod	

Ophiolepis elegans	Elegant brittle star	Gulf of Mexico
Ophiopholis aculeata	Daisy brittle star	Aleutian Islands
Ophiura sarsii	Notched brittle star	Northern Bering Sea, Gulf of Alaska, Bering Sea Combined Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
Opisthonema oglinum	Atlantic thread herring	West Coast Annual
Opisthoteuthis californiana	Flapjack octopus	Aleutian Islands, Eastern Bering Sea, Gulf of Alaska, Bering Sea Combined Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
Oregonia gracilis	Graceful decorator crab	Northern Bering Sea, Bering Sea Combined Southeast US Fall, Southeast US Spring, Southeast US Summer
Orthopristis chrysoptera	Pigfish	Eastern Bering Sea, Gulf of Alaska, Bering Sea Combined
Osmerus mordax	Rainbow smelt	Aleutian Islands
Ovalipes ocellatus	Ocellate lady crab	Northern Bering Sea, Bering Sea Combined
Ovalipes stephensoni	Coarsehand lady crab	Southeast US Fall, Southeast US Spring, Southeast US Summer
Pagurus aleuticus	Aleutian hermit	Southeast US Summer
Pagurus brandti	Sponge hermit	Southeast US Fall, Southeast US Spring, Southeast US Summer
Pagurus capillatus	Hairy hermit crab	Eastern Bering Sea, Gulf of Alaska, Bering Sea Combined
Pagurus ochotensis	Alaskan hermit crab	Aleutian Islands
Pagurus pollicaris	Gray hermit crab	Northern Bering Sea, Bering Sea Combined
Pagurus rathbuni	Longfinger hermit	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
Pagurus trigonocheirus	Fuzzy hermit	Southeast US Fall, Southeast US Spring, Southeast US Summer
Pallasina barbata	Tubenose poacher	Northern Bering Sea, Bering Sea Combined
Pandalus borealis	Atlantic northern shrimp	Northern Bering Sea, Bering Sea Combined
Pandalus dispar	Sidestripe shrimp	Northeast US Fall
Pandalus eous	Northern shrimp	Gulf of Alaska
Pandalus goniurus	Humpy shrimp	Aleutian Islands, Eastern Bering Sea, Gulf of Alaska, Bering Sea Combined Northern Bering Sea, Bering Sea Combined
Pandalus jordani	Ocean shrimp	Gulf of Alaska, West Coast Annual, West Coast Triennial
Pandalus platyceros	Spot shrimp	West Coast Annual
Pandalus tridens	Yellowleg pandalid	Aleutian Islands
Paralichthys dentatus	Summer flounder	Northeast US Fall, Northeast US Spring, Southeast US Fall, Southeast US Spring, Southeast US Summer

<i>Paralichthys lethostigma</i>	Southern flounder	Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Paralithodes camtschaticus</i>	Red king crab	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Paralithodes platypus</i>	Blue king crab	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Pareques umbrosus</i>	Cubbyu	Gulf of Mexico
<i>Parmaturus xaniurus</i>	Filetail catshark	West Coast Annual
<i>Parophrys vetulus</i>	English sole	Gulf of Alaska, West Coast Annual, West Coast Triennial
<i>Pasiphaea pacifica</i>	Pacific glass shrimp	Gulf of Alaska, West Coast Annual
<i>Pasiphaea tarda</i>	Crimson pasiphaeid	West Coast Annual
<i>Penaeus aztecus</i>	Brown shrimp	Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Penaeus duorarum</i>	Pink shrimp	Gulf of Mexico, Southeast US Spring
<i>Penaeus setiferus</i>	Northern white shrimp	Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Peprilus burti</i>	Gulf butterfish	Gulf of Mexico
<i>Peprilus paru</i>	Harvestfish	Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Peprilus triacanthus</i>	American butterfish	Northeast US Fall, Northeast US Spring, Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Persephona mediterranea</i>	Mottled purse crab	Southeast US Spring, Southeast US Summer
<i>Phycis chesteri</i>	Longfin hake	Northeast US Fall, Northeast US Spring
<i>Pitarenus cordatus</i>	Corded pitar	Gulf of Mexico
<i>Placopecten magellanicus</i>	Atlantic sea scallop	Northeast US Fall, Northeast US Spring
<i>Platichthys stellatus</i>	Starry flounder	Eastern Bering Sea, Northern Bering Sea, Gulf of Alaska, Bering Sea Combined
<i>Platylambrus granulatus</i>	Bladetooth elbow crab	Gulf of Mexico
<i>Platymera gaudichaudii</i>	Armed box crab	West Coast Annual
<i>Pleurobranchaea californica</i>	NA	West Coast Annual
<i>Pleurogrammus monopterygius</i>	Atka mackerel	Aleutian Islands, Gulf of Alaska
<i>Pleuronectes quadrituberculatus</i>	Alaska plaice	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Pleuronichthys decurrens</i>	Curlfin sole	West Coast Annual
<i>Plicifusus kroyeri</i>	Arctic whelk	Eastern Bering Sea, Bering Sea Combined
<i>Pododesmus macrochisma</i>	Green falsejingle	Aleutian Islands
<i>Podothecus accipenserinus</i>	Sturgeon poacher	Aleutian Islands, Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined

<i>Podothecus veternus</i>	Veteran poacher	Northern Bering Sea, Bering Sea Combined
<i>Pollachius virens</i>	Pollock	Northeast US Fall, Northeast US Spring Northeast US Fall, Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Pomatomus saltatrix</i>	Bluefish	West Coast Annual, West Coast Triennial
<i>Porichthys notatus</i>	Plainfin midshipman	Gulf of Mexico
<i>Porichthys plectrodon</i>	Atlantic midshipman	Gulf of Mexico
<i>Prionotus alatus</i>	Spiny searobin	Northeast US Fall, Northeast US Spring, Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Prionotus carolinus</i>	Northern searobin	Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Prionotus evolans</i>	Striped searobin	Gulf of Mexico
<i>Prionotus longispinosus</i>	Bigeye searobin	Gulf of Mexico
<i>Prionotus ophryas</i>	Bandtail searobin	Gulf of Mexico
<i>Prionotus paralatus</i>	Mexican searobin	Gulf of Mexico
<i>Prionotus roseus</i>	Bluespotted searobin	Gulf of Mexico, Southeast US Fall, Southeast US Summer
<i>Prionotus rubio</i>	Blackwing searobin	Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Prionotus scitulus</i>	Leopard searobin	Gulf of Mexico
<i>Prionotus stearnsi</i>	Shortwing searobin	Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Prionotus tribulus</i>	Bighead searobin	Gulf of Mexico
<i>Pristipomoides aquilonaris</i>	Wenchman	Northeast US Fall, Northeast US Spring
<i>Pseudopleuronectes americanus</i>	Winter flounder	West Coast Annual
<i>Pseudostichopus mollis</i>	Sandy sea cucumber	Aleutian Islands
<i>Pteraster militaris</i>	Wrinkled sea star	Eastern Bering Sea, Bering Sea Combined
<i>Pteraster obscurus</i>	Obscure cushion star	Gulf of Alaska
<i>Pycnopodia helianthoides</i>	Sunflower sea star	Gulf of Mexico
<i>Raninoides louisianensis</i>	Gulf frog crab	West Coast Annual
<i>Rathbunaster californicus</i>	California sun star	Eastern Bering Sea, Bering Sea Combined
<i>Reinhardtius hippoglossoides</i>	Greenland halibut	Gulf of Mexico
<i>Renilla muelleri</i>	Mueller's sea pansy	Southeast US Fall, Southeast US Spring
<i>Rhinoptera bonasus</i>	Cownose ray	Gulf of Mexico, Northeast US Fall, Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Rhizoprionodon terraenovae</i>	Atlantic sharpnose shark	Gulf of Mexico
<i>Rhomboplites aurorubens</i>	Vermilion snapper	Aleutian Islands, West Coast Annual
<i>Rossia pacifica</i>	Eastern pacific bobtail	

Rostroraja eglanteria	Clearnose skate	Gulf of Mexico, Northeast US Fall, Northeast US Spring, Southeast US Fall, Southeast US Spring
Rostroraja texana	Roundel skate	Gulf of Mexico
Sagenaster evermanni	Evermann's star	West Coast Annual
Sardinella aurita	Spanish sardine	Gulf of Mexico Aleutian Islands, Eastern Bering Sea, Bering Sea Combined
Sarritor frenatus	Sawback poacher	Gulf of Mexico
Saurida brasiliensis	Largescale lizardfish	Gulf of Mexico
Saurida normani	Shortjaw lizardfish	Gulf of Mexico Northern Bering Sea, Bering Sea Combined
Sclerocrangon boreas	Sculptured shrimp	Northeast US Spring
Scomber scombrus	Atlantic mackerel	Southeast US Fall, Southeast US Summer
Scomberomorus cavalla	King mackerel	Southeast US Fall, Southeast US Spring, Southeast US Summer
Scomberomorus maculatus	Spanish mackerel	Northeast US Fall, Northeast US Spring, Southeast US Fall, Southeast US Spring, Southeast US Summer
Scophthalmus aquosus	Windowpane flounder	Gulf of Mexico
Scorpaena agassizii	Longfin scorpionfish	Gulf of Mexico
Scorpaena brasiliensis	Barbfish	Gulf of Mexico
Scorpaena calcarata	Smoothhead scorpionfish	Gulf of Mexico
Scyllarides nodifer	Ridged slipper lobster	Gulf of Mexico
Scyllarus chacei	Chace slipper lobster	Gulf of Mexico Aleutian Islands, Gulf of Alaska, West Coast Annual, West Coast Triennial
Sebastes alutus	Pacific ocean perch	West Coast Annual
Sebastes aurora	Aurora rockfish	Gulf of Alaska, West Coast Annual, West Coast Triennial
Sebastes babcocki	Redbanded rockfish	Aleutian Islands, Gulf of Alaska
Sebastes borealis	Shortraker rockfish	Gulf of Alaska
Sebastes brevispinis	Silvergray rockfish	West Coast Annual
Sebastes chlorostictus	Greenspotted rockfish	West Coast Annual, West Coast Triennial
Sebastes crameri	Darkblotched rockfish	West Coast Annual, West Coast Triennial
Sebastes diploproa	Splitnose rockfish	West Coast Annual, West Coast Triennial
Sebastes elongatus	Greenstriped rockfish	West Coast Annual, West Coast Triennial
Sebastes entomelas	Widow rockfish	West Coast Triennial
Sebastes fasciatus	Acadian redfish	Northeast US Fall, Northeast US Spring
Sebastes flavidus	Yellowtail rockfish	West Coast Annual, West Coast Triennial
Sebastes goodei	Chilipepper rockfish	West Coast Annual, West Coast Triennial
Sebastes helvomaculatus	Rosethorn rockfish	West Coast Annual, West Coast Triennial
Sebastes jordani	Shortbelly rockfish	West Coast Annual, West Coast Triennial
Sebastes melanostictus and S. aleutianus	Blackspotted and roughey rockfish	Aleutian Islands, Gulf of Alaska, West Coast Triennial
Sebastes paucispinis	Bocaccio	West Coast Annual, West Coast Triennial

Sebastes pinniger	Canary rockfish	West Coast Annual, West Coast Triennial
Sebastes polyspinis	Northern rockfish	Aleutian Islands, Gulf of Alaska
Sebastes proriger	Redstripe rockfish	West Coast Triennial
Sebastes saxicola	Stripetail rockfish	West Coast Annual, West Coast Triennial
Sebastes semicinctus	Halfbanded rockfish	West Coast Annual
Sebastes variabilis and S. ciliatus	Dusky and dark rockfish	Aleutian Islands, Gulf of Alaska
Sebastes zacentrus	Sharpchin rockfish	Gulf of Alaska, West Coast Annual, West Coast Triennial
Sebastolobus alascanus	Shortspine thornyhead	Aleutian Islands, Gulf of Alaska, West Coast Annual, West Coast Triennial
Sebastolobus altivelis	Longspine thornyhead	West Coast Annual
Selene setapinnis	Atlantic moonfish	Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
Selene vomer	Lookdown	Southeast US Fall, Southeast US Summer
Serranus atrobranchus	Blackear bass	Gulf of Mexico
Serranus notospilus	Saddle bass	Gulf of Mexico
Serranus phoebe	Tattler	Gulf of Mexico
Serripes notabilis	Oblique smoothcockle	Northern Bering Sea, Bering Sea Combined
Sicyonia brevirostris	Brown rock shrimp	Gulf of Mexico
Sicyonia dorsalis	Lesser rock shrimp	Gulf of Mexico
Solenocera atlantidis	Dwarf humpback shrimp	Gulf of Mexico
Solenocera vioscai	Humpback shrimp	Gulf of Mexico
Sphoeroides dorsalis	Marbled puffer	Gulf of Mexico
Sphoeroides maculatus	Northern puffer	Southeast US Fall, Southeast US Spring, Southeast US Summer
Sphoeroides parvus	Least puffer	Gulf of Mexico
Sphoeroides spengleri	Bandtail puffer	Gulf of Mexico
Sphyræna guachancho	Guachanche barracuda	Southeast US Fall, Southeast US Summer
Sphyrna tiburo	Bonnethead	Southeast US Fall, Southeast US Spring, Southeast US Summer
Squalus acanthias	Spiny dogfish	Northeast US Fall, Northeast US Spring
Squalus suckleyi	Pacific spiny dogfish	Gulf of Alaska, West Coast Annual, West Coast Triennial
Squilla chydæa	Offshore mantis shrimp	Gulf of Mexico
Squilla empusa	Mantis shrimp	Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
Stegophiura ponderosa	NA	Gulf of Alaska
Stellifer lanceolatus	Star drum	Southeast US Fall, Southeast US Spring, Southeast US Summer
Stenorhynchus seticornis	Yellowline arrow crab	Gulf of Mexico
Stenotomus caprinus	Longspine porgy	Gulf of Mexico



<i>Stenotomus chrysops</i>	Scup	Northeast US Fall Gulf of Mexico, Southeast US Fall,
<i>Stephanolepis hispidus</i>	Planehead filefish	Southeast US Summer
<i>Strongylocentrotus droebachiensis</i>	Green sea urchin	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Strongylocentrotus fragilis</i>	Fragile sea urchin	Gulf of Alaska Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Styela rustica</i>	Sea potato	West Coast Annual
<i>Stylasterias forreri</i>	Velcro star	Gulf of Mexico
<i>Stylocidaris affinis</i>	Pencil urchin	Gulf of Mexico
<i>Syacium gunteri</i>	Shoal flounder	Gulf of Mexico
<i>Syacium papillosum</i>	Dusky flounder	Gulf of Mexico
<i>Symphurus diomedeanus</i>	Spottedfin tonguefish	Gulf of Mexico
<i>Symphurus plagiosa</i>	Blackcheek tonguefish	Southeast US Fall, Southeast US Spring Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Synodus foetens</i>	Inshore lizardfish	Gulf of Mexico
<i>Synodus intermedius</i>	Sand diver	Gulf of Mexico
<i>Synodus poeyi</i>	Offshore lizardfish	West Coast Annual
<i>Talismania bifurcata</i>	Threadfin slickhead	Aleutian Islands
<i>Tedania (Tedania) kagalaskai</i>	NA	Eastern Bering Sea, Northern Bering Sea, Bering Sea Combined
<i>Telmessus cheiragonus</i>	Helmet crab	Eastern Bering Sea, Gulf of Alaska, West Coast Triennial, Bering Sea Combined
<i>Thaleichthys pacificus</i>	Eulachon	West Coast Annual
<i>Thrissacanthias penicillatus</i>	NA	Gulf of Mexico
<i>Trachinocephalus myops</i>	Snakefish	Southeast US Fall
<i>Trachinotus carolinus</i>	Florida pompano	Gulf of Mexico
<i>Trachurus lathami</i>	Rough scad	Gulf of Mexico, Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Trichiurus lepturus</i>	Atlantic cutlassfish	Gulf of Mexico
<i>Trichopsetta ventralis</i>	Sash flounder	Aleutian Islands
<i>Triglops forficatus</i>	Scissortail sculpin	Northern Bering Sea, Bering Sea Combined
<i>Triglops pingelii</i>	Ribbed sculpin	Aleutian Islands
<i>Triglops scepticus</i>	Spectacled sculpin	Southeast US Fall, Southeast US Spring, Southeast US Summer
<i>Trinectes maculatus</i>	Hogchoker	West Coast Annual
<i>Tritonia tetraquetra</i>	Large orange peel nudibranch	Gulf of Mexico
<i>Upeneus parvus</i>	Dwarf goatfish	Northeast US Fall, Northeast US Spring
<i>Urophycis chuss</i>	Red hake	Gulf of Mexico
<i>Urophycis floridana</i>	Southern hake	

<i>Urophycis regia</i>	Spotted hake	Northeast US Fall, Northeast US Spring, Southeast US Spring
<i>Urophycis tenuis</i>	White hake	Northeast US Fall, Northeast US Spring
<i>Xiphopenaeus kroyeri</i>	Atlantic seabob	Southeast US Fall
<i>Xyrichtys novacula</i>	Pearly razorfish	Gulf of Mexico
<i>Zalembeius rosaceus</i>	Pink seaperch	West Coast Annual, West Coast Triennial
<i>Zaniolepis latipinnis</i>	Longspine combfish	West Coast Annual
<i>Zaprora silenus</i>	Prowfish	Aleutian Islands
<i>Zoarces americanus</i>	Ocean pout	Northeast US Fall, Northeast US Spring

## APPENDIX II: SPECIES CHANGES FROM 2023 DATA

### Species removed/changed:

<b>spp</b>	<b>common</b>	<b>FilterSubRegion</b>	<b>Reason for removal</b>
Astropecten duplicatus	Two-spined star fish	Gulf of Mexico	Astropecten combined to genus level in GMEX due to identification issues, and dropped from analysis
Astropecten cingulatus		Gulf of Mexico	Astropecten combined to genus level in GMEX due to identification issues, and dropped from analysis
Doryteuthis pealeii	Longfin inshore squid	Gulf of Mexico	Doryteuthis combined to a genus complex, and now reported as Doryteuthis sp
Doryteuthis pleii	Slender inshore squid	Gulf of Mexico	Doryteuthis combined to a genus complex, and now reported as Doryteuthis sp
Halieutichthys aculeatus	Pancake batfish	Gulf of Mexico	Halieutichthys combined to a genus complex, and now reported as Halieutichthys sp
Limanda proboscidea	Longhead dab	Eastern Bering Sea	Name change
Amusium papyraceum	Paper scallop	Gulf of Mexico	Name change
Raja texana	Roundel skate	Gulf of Mexico	Name change
Leucoraja erinacea	Little skate	Northeast	Name change
Limanda ferruginea	Yellowtail flounder	Northeast	Name change
Limanda proboscidea	Longhead dab	Northern Bering Sea	Name change
Loligo spp.	Loligo squid	Southeast	Name change
Embassichthys bathybius	Deep-sea sole	West Coast	Name change
Nearchaster aciculosus	Needle spined fragile star	West Coast	Name change
Lycodes raridens	Marbled eelpout	Eastern Bering Sea	no longer meets prevalence criteria
Bathyraja spp.	Skate complex	Eastern Bering Sea	no longer meets prevalence criteria
Metridium farcimen	Giant plumose anemone	Gulf of Alaska	no longer meets prevalence criteria
Sebastes variegatus	Harlequin rockfish	Gulf of Alaska	no longer meets prevalence criteria
Mycale (Mycale) loveni	Loven's horny sponge	Gulf of Alaska	no longer meets prevalence criteria

<i>Pseudarchaster parelii</i>	Northern scarlet star	Gulf of Alaska	no longer meets prevalence criteria
<i>Symphurus plagiatus</i>	Blackcheek tonguefish	Gulf of Mexico	no longer meets prevalence criteria
<i>Pagrus pagrus</i>	Red porgy	Gulf of Mexico	no longer meets prevalence criteria
<i>Chrysaora quinquecirrha</i>	Sea nettle	Gulf of Mexico	no longer meets prevalence criteria
<i>Leptasterias groenlandica</i>	Greenland star	Northern Bering Sea	no longer meets prevalence criteria
<i>Bathyrāja</i> spp.	Skate complex	Northern Bering Sea	no longer meets prevalence criteria
<i>Ariopsis felis</i>	Hardhead catfish	Southeast	no longer meets prevalence criteria

### Species added/changed:

<b>spp</b>	<b>common</b>	<b>FilterSubRegion</b>	<b>Reason Added</b>
<i>Anchoa</i> spp.	Anchovies	Southeast	Decided to keep higher level <i>Anchoa</i> complex in analysis
<i>Doryteuthis</i> sp	Inshore Squid sp.	Gulf of Mexico	<i>Doryteuthis</i> combined to a genus complex, and now reported as <i>Doryteuthis</i> sp
<i>Halieutichthys</i> sp	Batfishes	Gulf of Mexico	<i>Halieutichthys</i> combined to a genus complex, and now reported as <i>Halieutichthys</i> sp
<i>Myzopsetta proboscidea</i>	Longhead dab	Eastern Bering Sea	Name change
<i>Eurola marensis</i>	Paper scallop	Gulf of Mexico	Name change
<i>Rostroraja texana</i>	Roundel skate	Gulf of Mexico	Name change
<i>Myzopsetta ferruginea</i>	Yellowtail flounder	Northeast	Name change
<i>Myzopsetta proboscidea</i>	Longhead dab	Northern Bering Sea	Name change
<i>Microstomus bathybius</i>	Deep-sea sole	West Coast	Name change
<i>Nearchaster</i> ( <i>Nearchaster</i> ) <i>aciculosus</i>	Needle spined fragile star	West Coast	Name change
<i>Doryteuthis</i> sp	Inshore Squid sp.	Southeast	Name change from <i>Loligo</i> sp to <i>Doryteuthis</i> sp
<i>Arctoraja parvifera</i>	Alaska skate	Northern Bering Sea	Name change, no longer included in <i>Bathyrāja</i> complex
<i>Chilomycterus schoepfii</i>	Striped burrfish	Gulf of Mexico	Naming fix
<i>Leucoraja erinaceus</i>	Little skate	Northeast	Naming fix
<i>Pareques umbrosus</i>	Cubbyu	Gulf of Mexico	Now meets prevalence criteria
<i>Scorpaena agassizii</i>	Longfin scorpionfish	Gulf of Mexico	Now meets prevalence criteria

<i>Xyrichtys novacula</i>	Pearly razorfish	Gulf of Mexico	Now meets prevalence criteria
<i>Serranus notospilus</i>	Saddle bass	Gulf of Mexico	Now meets prevalence criteria
<i>Saurida normani</i>	Shortjaw lizardfish	Gulf of Mexico	Now meets prevalence criteria
<i>Eucinostomus gula</i>	Silver jenny	Gulf of Mexico	Now meets prevalence criteria
<i>Urophycis floridana</i>	Southern hake	Gulf of Mexico	Now meets prevalence criteria
<i>Citharichthys macrops</i>	Spotted whiff	Gulf of Mexico	Now meets prevalence criteria
<i>Limulus polyphemus</i>	Horseshoe crab	Southeast	Now meets prevalence criteria
<i>Harengula jaguana</i>	Scaled sardine	Southeast	Now meets prevalence criteria
<i>Lithodes couesi</i>	Scarlet king crab	West Coast	Now meets prevalence criteria
<i>Sebastes melanostictus</i> and <i>S. aleutianus</i>	Blackspotted and roughey rockfish	Aleutian Islands	Result of data fix
<i>Sebastes melanostictus</i> and <i>S. aleutianus</i>	Blackspotted and roughey rockfish	Gulf of Alaska	Result of data fix
<i>Solenocera atlantidis</i>	Dwarf humpback shrimp	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step
<i>Nicholsina usta</i>	Emerald parrotfish	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step
<i>Moreiradromia antillensis</i>	Hairy sponge crab	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step
<i>Solenocera vioscai</i>	Humpback shrimp	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step
<i>Stylocidaris affinis</i>	Pencil urchin	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step
<i>Ogcocephalus parvus</i>	Roughback batfish	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step
<i>Cynoscion arenarius</i>	Sand weakfish	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step
<i>Cynoscion nothus</i>	Silver seatrout	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step
<i>Cyclopsetta fimbriata</i>	Spotfin flounder	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step
<i>Symphurus diomedeanus</i>	Spottedfin tonguefish	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step
<i>Serranus phoebe</i>	Tattler	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step

Bothus robinsi	Twospot flounder	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step
Haemulon plumierii	White grunt	Gulf of Mexico	Result of fixing bsgcodes in GMEX data processing step

### APPENDIX III: REMOVED HIGHER LEVEL TAXON

Scientific name	Common
Henricia	NA
Paguridae	Hermit crabs
Porifera	Sponges
Scyphozoa	Jellyfishes
Stelletta	NA
Careproctus	NA
Hyas	NA
Actiniaria	Sea anemones
Calcigorgia	NA
Holothuroidea	Sea cucumbers
Tethya	NA
Argis	NA
Decapodiformes	NA
Myctophidae	Lanternfishes
Octopodidae	NA
Stylatula	NA
Nudibranchia	Sea slugs
Virgulariidae	NA
Thaliacea	NA
Beringius	True whelks
Neptunea	True whelks
Ascidacea	Sea squirts
Bryozoa	Moss animals
Aplidium	Sea pork
Hydroidolina	NA
Callogorgia	NA
Thouarella	NA
Bonneviella	NA
Gorgonacea	Gorgonian corals
Ophiolebes	NA
Ophioscolex	NA
Plumarella	NA
Rhabdocalyptus	NA
Bathylagidae	Deep sea smelts
Hirudinea	Leeches
Leptasterias	NA
Colus	NA
Eumicrotremus	NA
Pteraster	Slime stars
Buccinum	True whelks
Lycodes	NA



Volutopsius	NA
Muriceides	NA
Solaster	NA
Stylaster	NA
Crangon	NA
Ceramaster	NA
Liparidae	Snailfishes
Zoarcidae	Eelpouts
Mytilidae	NA
Polychaeta	Bristle worms
Anthomastus	NA
Caryophyllia	Cupcorals
Octocorallia	Octocorals
Arthrogorgia	NA
Ophidiidae	Cusk eels
Thoracica	True barnacles
Mediaster	NA
Cucumaria	NA
Gastropoda	NA
Hippasteria	NA
Isopoda	Pillbugs slaters, and woodlice
Ophiacantha	NA
Polynoidae	Scaleworms
Odontohenricia	NA
Ophiuroidea	Brittle stars
Bathyplores	NA
Metridium	NA
Stomphia	NA
Stenobrachius	NA
Rajiformes	NA
Asteroidea	Star fishes
Diaphus	NA
Hexactinellida	Glass sponges
Gastropoda	Sea snails
Polyplacophora	Chitons
Pycnogonida	Sea spiders
Errinopora	NA
Ammodytes	NA
Distichopora	NA
Ctenophora	Comb jellies
Cyclopteridae	Lumpfishes
Halocynthia	NA
Anteliaster	NA
Bathymasteridae	Ronquils

Sclerocrangon	NA
Paragorgia	NA
Psolus	NA
Myoxocephalus	Stellate sculpin
Chlamys	NA
Balanus	NA
Icelus	NA
Primnoa	NA
Pennatulioidea	Sea pens
Pandalus	NA
Florometra	NA
Pagurus	NA
Sebastes	Rockfish
Clinocardium	NA
Elassochirus	NA
Aphrodita	Sea mice
Pododesmus	NA
Velutina	NA
Naticidae	Moon snails
Nereididae	Ragworms
Leptychaster	NA
Lebbeus	NA
Lithodes	NA
Ophiopholis	NA
Stylasterias	NA
Tritonia	NA
Chirolophis	NA
Platyhelminthes	Flatworms
Decapodiforms	NA
Euplexaura	NA
Melanostomiinae	NA
Alcyonium	NA
Eunoe	NA
Actinostolidae	NA
Bivalvia	Bivalves
Notostomum	NA
Crossaster	NA
Dorididae	NA
Aurelia	Moon jellyfishes
Lepidozона	NA
Hydrozoa	Hydroids
Periphylla	NA
Macoma	NA
Lamellaria	NA

Heteropolypus	NA
Suberites	NA
Amphipoda	Amphipods
Chiasmodontidae	Snaketooth fishes
Macrouridae	Grenadiers
Mysida	Mysid shrimps
Leuroglossus	NA
Sipuncula	Peanut worms
Nemertea	Ribbon worms
Lithodidae	Stone crabs and king crabs
Octopus	NA
Zoanthidae	NA
Strongylocentrotus	NA
Lampanyctus	NA
Protomyctophum	NA
Molpadia	NA
Pachastrellidae	NA
Dendronotus	NA
Echinacea	Sea urchins
Cirripedia	Barnacles
Liparis	Snailfishes
Natica	NA
Anomiidae	Jingle shells
Scleractinia	Hard corals
Triglops	NA
Pectinidae	Scallops
Boreotrophon	NA
Alcyonacea	Soft corals
Rajidae	Skates
Dentalium	NA
Cottidae	Sculpins
Sebastolobus	NA
Mollusca	Molluscs
Stichaeidae	Pricklebacks
Crangonidae	Crangonid shrimp
Psychrolutes	NA
Pandalidae	Pandalid shrimps
Chauliodontinae	NA
Virgularia	NA
Pseudarchaster	NA
Agonidae	Alligatorfishes
Hexagrammidae	Greenlings
Aphroditidae	Sea mice
Ctenodiscus	NA

Raja	Skates
Neoberingius	NA
Melamphaidae	Bigscale fishes
Lophaster	NA
Placiphorella	NA
Boltenia	NA
Molgula	NA
Chirostylus	NA
Gersemia	NA
Synoicum	NA
Malacocottus	NA
Astrochele	NA
Pedicellaster	NA
Hippolytidae	Humpback prawns
Paraliparis	NA
Chionoecetes hybrid	NA
Bathylagus	NA
Hapalogaster	NA
Nematoda	Roundworms
Lycenchelys	Slipskin
Ascidia	Sea squirt
Majidae	Spider crabs
Yoldia	NA
Bothrocara	NA
Keratoisis	NA
Synallactes	NA
Annelida	Segmented worms
Lycodapus	NA
Polycladida	NA
Mytilus	NA
Chlamylla	NA
Beroe	NA
Cardita	NA
Citharichthys	NA
Euphausiacea	Krill
Halichondria	NA
Chrysaora	Sea nettles
Craniella	NA
Petromyzontidae	Lampreys
Stylasteridae	Lace corals
Actinostola	NA
Colossendeis	NA
Arctomelon	NA
Mycale	NA

Gonatopsis	NA
Aleutiaster	NA
Cranchiidae	Glass squids
Fusitriton	NA
Brachiopoda	Lamp shells
Eualus	NA
Sabellidae	Fanworms
Alepocephalidae	Slickheads
Ceratiidae	Seadevils
Evasterias	NA
Swiftia	NA
Gonatus	NA
Hormathiidae	NA
Bryozoichthys	NA
Orthasterias	NA
Livoneca	NA
Neomenia	NA
Cancer	Cancer crab
Caprella	NA
Leptochiton	NA
Scalpellum	NA
Cryptelia	NA
Sertulariidae	NA
Gonostomatidae	Bristlemouths
Campanulariidae	NA
Gammaridae	NA
Plumulariidae	NA
Atolla	NA
Cyanea	NA
Phacellophora	NA
Serripes	NA
Cyclohelix	NA
Asteronyx	NA
Lethotremus	NA
Japelion	NA
Aequorea	NA
Muricidae	Murex snails
Clavularia	NA
Pugettia	NA
Styela	NA
Isodictya	NA
Opisthoproctidae	Barreleyes
Arcturidae	NA
Musculus	NA

Odontaster	NA
Cheiraster	NA
Staurocalyptus	NA
Geodia	NA
Aglaophenia	Feather hydroids
Zoanthus	NA
Sergestidae	Sergestid shrimps
Polymastia	NA
Chaetopterus	NA
Alcyonidium	NA
Panomya	NA
Abietinaria	NA
Dendrobeatia	NA
Allocareproctus	NA
Emplectonema	NA
Actinoscyphia	NA
Arcturus	NA
Gymnelus	NA
Osmeridae	Smelts
Javania	NA
Echiura	Spoon worms
Leucandra	NA
Oceanactis	NA
Distaplia	NA
Nannobrachium	NA
Axinella	NA
Stylocordyla	NA
Tubulipora	NA
Serpulidae	Calcareous tubeworms
Penaeidae	Penaeid shrimps
Cladaster	NA
Scopelosaurus	NA
Latrunculia (Latrunculia)	NA
Cyclocardia	NA
Astarte	NA
Idoteidae	NA
Celleporina	NA
Serpula	NA
Actiniidae	NA
Thyonidium	NA
Isidella	NA
Notostomus	NA
Spirontocaris	NA
Cryptonatica	NA

Caryophylliidae	Cupcorals
Icelinus	NA
Hiatella	NA
Asbestopluma	NA
Diaulula	NA
Amphiodia	NA
Diplopteraster	NA
Idmidronea	NA
Margarites	Margarite snails
Cnidaria	Jellyfish and alike
Parastenella	NA
Microporina	NA
Pseudostichopus	NA
Vulcanella	NA
Onchidiopsis	NA
Chaetognatha	Arrow worms
Dipsacaster	NA
Oregonia	NA
Echinoclathria	NA
Leptagonus	NA
Demospongiae	Horny sponges
Gymnocanthus	NA
Ophiuridae	NA
Hippodiplosia	NA
Volutomitra	NA
Anthozoa	Sea anemones and corals
	Squids octopuses, nautilus, and ammonites
Cephalopoda	
Pyrulofusus	NA
BathYGONUS	NA
Tarletonbeania	NA
Paralomis	NA
Chorilia	NA
Paralepididae	Barracudinas
Benthoctopus	NA
Gorgonocephalus	NA
Protoptilum	NA
Haliclona	NA
Balticina	NA
Ophiura	NA
Acanthascus	NA
Antipatharia	Thorny corals
Parantipathes	NA
Umbellula	NA



Parastichopus	NA
Psolidae	NA
Ptilosarcus	NA
Chiridota	NA
Crepidula	NA
Luidia	NA
Cyclopecten	NA
Tubulanus	NA
Plicifusus	NA
Leucosolenia	Branching ball-sponge
Phakellia	NA
Nemichthyidae	Snipe eels
Phascolosomatidae	NA
Asteronychidae	NA
Fariometra	NA
Gephyreaster	NA
Nearchaster	NA
Cyclothone	NA
Urticina	NA
Aforia	NA
Plexauridae	NA
Neognathophausia	NA
Oneirodes	NA
Farrea	NA
Bugula	NA
Alaskagorgia	NA
Heteropora	NA
Antipathes	NA
Tedania (Tedania)	NA
Mysidae	NA
Tellina	NA
Oneirodidae	Dreamers
Porella	NA
Lethasterias	NA
Myriapora	NA
Doris	NA
Phorbas	NA
Gadidae	Cods and haddocks
Pennatulidae	NA
Hydractinia	NA
Polycheles	NA
Buccinidae	True whelks
Siliqua	NA
Nuculana	NA

Hemilepidotus	NA
Capulidae	Hairy snails
Mactromeris	NA
Euspira	NA
Priapulida	Priapulid worms
Asterias	NA
Artediellus	NA
Pleuronectiformes	Flatfish
Enophrys	NA
Hexagrammos	Greenlings
Lumpenus	NA
Nereis	NA
Carditidae	Cardita clams
Elassodiscus	NA
Mya	Gaper clams
Liomesus	NA
Platichthys stellatus x pleuronectes quadrituberculatus hybrid	NA
Pentamera	NA
Heptacarpus	NA
Tachyrhynchus	NA
Lamellariinae	NA
Oenopota	NA
Ancistrolepis	NA
Nephtyidae	Catworms
Hemithyrididae	NA
Teredinidae	Shipworms
Cribrinopsis	NA
Amphiuridae	NA
Maldanidae	Bamboo worms
Antiplanes	NA
Nucula	Nut clams
Solariella	NA
Calliostoma	NA
Calyptraeidae	Slipper limpets
Corallimorphus	NA
Trochidae	Top shells
Iphinoe	NA
Podothecus	NA
Oncorhynchus	NA
Nautichthys	NA
Pasiphaeidae	NA
Trachypeneus	Trachypeneid shrimps
Cynoscion	NA

Solenocera	NA
Gymnothorax	NA
Halieutichthys	NA
Aplysia	Sea hares
Caretta caretta	Loggerhead turtle
Molpida	NA
Aplysiidae	NA
Bothus	NA
Opsanus	Toadfish
Trichiuridae	NA
Diplectrum	NA
Cryptomonadaceae	NA
Cypraeidae	NA
Ellisella	NA
Gorgonidae	NA
Murex	Murex snails
Ophiothrix	NA
Parthenope	NA
Parapenaeus	NA
Prionotus	NA
Calliactis	NA
Etropus	NA
Paralichthys	Flounders
Syacium	NA
Caranx	NA
Antennarius	NA
Clypeaster	NA
Conus	Cone snails
Decodon	NA
Synodus	NA
Apogon	NA
Cyclopsetta	NA
Lepophidium	NA
Seriola	NA
Ophichthus	NA
Bothidae	Lefteye flounders
Porcellana	NA
Chicoreus	NA
Porcellanidae	Porcelain crabs
Decapoda	Ten footed
Portunidae	Swimming crabs
Echinaster	NA
Menippe	NA
Sphoeroides	NA

Laevicardium	NA
Tunicata	Sea squirts
Munida	NA
Spongiidae	NA
Cirripathes	NA
Glypturus	NA
Poriferencoth	NA
Chiton	NA
Mustelus	NA
Poriferball	NA
Poriferfinbra	NA
Pyrosoma	NA
Salpa	NA
Paralichthyidae	Large tooth flounders
Euvola	NA
Coralliidae	NA
Echinodermata	Echinoderms
Pagrus	NA
Scorpaenidae	Scorpionfishes rockfishes
Poriferbastub	NA
Urophycis	NA
Gorgonia	Sea fans
Stenocionops	NA
Aequipecten	NA
Palicus	NA
Sicyonia	NA
Amphinomidae	NA
Scorpaena	NA
Squilla	NA
Poriferbarrel	NA
Blenniidae	Combtooth blennies
Pseudoplexaura	NA
Sardinella	NA
Atrina	NA
Pteriidae	NA
Bathophilus	NA
Paraconger	NA
Exocoetidae	Flyingfishes
Crinoidea	Sea lilies and feather stars
Gobiidae	Gobies
Alpheus	NA
Bregmaceros	NA
Phaeophyceae	NA
Cucumariidae	NA

Solenoceridae	NA
Macrocoeloma	NA
Xanthidae	Mud crabs
Pitar	NA
Cynoglossidae	Tonguefishes
Petrolisthes	NA
Apogonidae	Cardinalfishes
Caridea	Shrimps
Parthenopidae	Elbow crabs
Mithrax	NA
Megalobrachium	NA
Paguristes	NA
Scyllarides	NA
Ophidion	Cusk eels
Antipathidae	NA
Ophiolepididae	NA
Palicidae	Stilt crabs
Gorgonellidae	NA
Podochela	NA
Busycon	True whelks
Echinoidea	Sea urchins
Mugil	NA
Hoplunnis	NA
Carangidae	Jacks and pompanos
Melongenidae	NA
Stenopus	NA
Tagelus	NA
Crustacea	Crustaceans
Perciformes	NA
Chloeia	NA
Engraulidae	Anchovies
Elysia	NA
Calamus	NA
Pomacanthidae	NA
Haemulon	NA
Cerithium	NA
Mullidae	NA
Rhodophyceae	NA
Cheilopogon	NA
Lepidophanes	NA
Rimapenaeus sp.	NA
Ranilia	NA
Plesionika	NA
Nephropsis	NA

Polystira	NA
Synodontidae	NA
Syngnathus	NA
Ophiolepis	NA
Paguroidea	NA
Xanthoidea	NA
Clupeidae	Herrings menhadens, sardins, shads
Pinnidae	NA
Alpheidae	Snapping shrimps
Pennatula	NA
Rhynchoconger	NA
Sphyaena	NA
Anchoa spp.	Anchovies
Symphurus	NA
Chilomycterus	NA
Dromiidae	Sponge crabs
Opistognathus	NA
Holothuria	NA
Aluterus	NA
Aequoreidae	NA
Pecten	NA
Lolliguncula	NA
Squillidae	NA
Narcine	NA
Ariomma	NA
Pleurobranchaea	NA
Ircinia	NA
Ophioderma	NA
Polyceridae	NA
Turbinidae	NA
Pinctada	NA
Scyllarus	NA
Ethusa	NA
Styelidae	NA
Astropecten	NA
Actinia	NA
Cantharus	NA
Eunicidae	NA
Harengula	NA
Isostichopus	NA
Stichopodidae	NA
Lysmata	NA
Pachycheles	NA
Terebellidae	NA

Distorsio	NA
Centropristis	NA
Stomatopoda	Mantis shrimp
Hypleurochilus	NA
Ophiothricidae	NA
Synalpheus	NA
Dendrodoris	NA
Hypselodoris	NA
Cancellaridae	NA
Gorgonocephalidae	Basket stars
Phaeoptyx	NA
Cladocora	NA
Serranidae	Seabasses (groupers and fairy basslets)
Periclimenes	NA
Brissidae	NA
Processa	NA
Manucomplanus	NA
Prognichthys	NA
Felimare	NA
Cidaridae	NA
Diogenidae	NA
Gonodactylidae	NA
Aega	NA
Phyllonotus	NA
Nodipecten	NA
Cassidae	NA
Hypoplectrus	NA
Hesionidae	NA
Cerodrillia	NA
Fasciolaria	NA
Ficus	NA
Leucosiidae	NA
Stenorhynchus	NA
Chione	NA
Crassatellidae	NA
Lytechinus	NA
Pilumnus	NA
Fusinus	NA
Goniasteridae	NA
Loliginidae	NA
Ophiomyxidae	NA
Calappa	NA
Hypoconcha	NA
Papyridea	NA

Mellita	NA
Cymatium	NA
Axiopsis	NA
Goneplax	NA
Ophiactis	NA
Cassis	NA
Lophius	NA
Parexocoetus	NA
Ophiomyxa	NA
Pinnotheridae	NA
Calappidae	NA
Limaria	NA
Cyphoma	NA
Asciidiidae	NA
Lagocephalus	NA
Phimochirus	NA
Lithophaga	NA
Pleurobranchus	NA
Tethyaster	NA
Pleurobrachidae	NA
Echeneis	NA
Spondylus	NA
Stichopus	NA
Helix	NA
Diapterus	NA
Eucidaris	NA
Pterois	NA
Vokesimurex cabritii	Cabrit murex
Gobioidei	NA
Euryalidae	NA
Canthigaster	NA
Brevoortia	NA
Choristodon	NA
Mullus	NA
Callechelys	NA
Raninoides	NA
Donatiidae	NA
Holacanthus	NA
Cerianthidae	NA
Sargassum	NA
Diadematidae	NA
Euryalina	NA
Pitho	NA
Discodoris	NA



Actaea	NA
Gillellus	NA
Umbellulidae	NA
Linckia nodosa	NA
Pleurobranchidae	NA
Ophichthidae	Snake eels
Trochus	NA
Inachidae	NA
Portunus	NA
Dendronotidae	NA
Bursatella	NA
Cymothoidae	NA
Metapenaeopsis	NA
Axiidae	NA
Anaspidea	NA
Nereidae	NA
Sipunculidae	NA
Saurida	NA
Leptogorgia	NA
Goneplacidae	Angular crabs
Dardanus	NA
Leptochela	NA
Processidae	NA
Arthropoda	NA
Scaphella	NA
Muraenidae	NA
Muricea	NA
Nettastomatidae	NA
Asteroporpa	NA
Xenophora	NA
Ophidiasteridae	NA
Ovalipes	NA
Pinnixa	NA
Libinia spp.	Spider crabs
Leptodius	NA
Pareques	NA
Homolidae	NA
Comactinia	NA
Xyrichtys	NA
Corbulidae	NA
Acmaea	NA
Iridopagurus	NA
Renillidae	NA
Arca	NA

Fissurellidae	NA
Chionoecetes	NA
Lopholithodes	NA
Scombridae	Mackerels, tuna, bonitos
Brisaster	NA
Cryptolithodes	NA
Argentinidae	NA
Anomura	NA
Neomeniomorpha	NA
Argyrolepiscus	NA
Salmonidae	NA
Terebratulina	NA
Hinnites	NA
Acoelida	NA
Gonatidae	NA
Lillipathes	NA
Phyllolithodes	NA
Spinther	NA
Hymenaster	NA
Galatheididae	NA
Actinernus	NA
Chiroteuthis	NA
Bolinopsis	NA
Glycera	Glycerine worm
Tonicella	NA
Benthalbella	NA
Histioteuthis	NA
Bathypathes	NA
Acteocina	NA
Sergestes	NA
Pycnogonum	NA
Acantholithodes	NA
Pisaster	NA
Limatula	NA
Malacosteinae	NA
Isididae	NA
Paralithodes	NA
Hyalonema	NA
Brisingidae	NA
Metacrangon	NA
Sternoptychidae	NA
Selachii	NA
Lepas	Goose barnacles
Scabrotrophon	NA

Asteriidae	NA
Pleuronectidae	NA
Glycymeris	Bittersweet clams
Gerreidae	NA
Uranoscopidae	NA
Sciaenidae	NA
Haemulidae	NA
Tetraodontidae	Puffers
Triglidae	NA
Chlorophthalmus	NA
Chlorophthalmidae	Greeneyes
Ogcocephalidae	Batfishes
Echiophis	NA
Anguilliformes	NA
Stomiidae	NA
Crustacea shrimp	Crustacean shrimp
Congridae	NA
Cancridae	NA
Merluccius	NA
Sparidae	Porgies
Stelleroidea	NA
Clypeasteroidea	Sea biscuits
Syngnathidae	Pipefishes and seahorses
Chaetodontidae	NA
Octopoda	Octopuses
Balistidae	NA
Penaeus	NA
Moridae	NA
Lutjanidae	Snappers
Sepiolidae	NA
Caproidae	NA
Stromateidae	NA
Squalidae	NA
Fistularia	NA
Selachimorpha	NA
Labridae	NA
Alepocephaliidae	NA
Atherinidae	NA
Carcharhinidae	Requiem sharks
Lophiiformes	NA
Stenotomus spp.	Porgies
Strongylura spp.	Needlefishes
Callinectes	NA
Scomberomorus	NA

Myxinidae	Hagfishes
Eptatretus	NA
Sternoptyx	NA
Scotoplanes	Sea pigs
Aplacophora	NA
Callianassa	NA
Lophogastrida	Opossum shrimps
Hexactinosida	Sponge
Carinariidae	NA
Munidopsis	Squat lobsters
Terebratellacea	Brachiopod
Antedonidae	NA
Teuthida	NA
Brachyura	NA
Rossellinae	Sea sponge
Embiotocidae	NA
Ostreoida	NA
Invertebrata	Invertebrate
Lepeta	NA
Amphaster	NA
Zoroasteridae	NA
Scyliorhinidae	NA
Rhinobatidae	NA
Amphiophiura	NA
Platyroctidae	Tubeshoulders
Hymenodiscus	NA
Polinices	NA
Triakidae	NA
Synallactidae	NA
Anoplogastridae	NA
Vesicomidae	NA
Apristurus	NA
Acanthephyra	NA
Gymnolaemata	NA
Graneledone	NA
Sicyonis	NA
Zoroaster	NA
Calocarides	NA
Saccopharyngidae	NA
Venefica	NA
Neoscopelidae	NA
Flabellidae	NA
Solemya	NA
Spatangoida	NA

Megasurcula	NA
Acanthogorgiidae	NA
Cataetyx	NA
Serrivomeridae	NA
Rhinoliparis	NA
Ophiurida	NA
Galattheoidea	NA
Chrysopathes	NA
Myliobatidae	NA
Gonostoma	NA
Stomiiformes	NA
Exilioidea	NA
Torpedinidae	Electric rays
Nematocarcinus	NA
Batrachoididae	Toadfishes
Onychoteuthidae	NA
Maulisia	NA
Anthoathecata	NA
Dasyatidae	Sting rays
Cnemidocarpa	NA
Alepocephalus	NA
Dolichopteryx	Winged spookfish
Bolitaeninae	NA
Centrolophidae	Medusafishes
Serrivomer	NA
Anthoptilum	NA
Glyphocrangonidae	Armored shrimps
Cryptacanthodidae	Wrymouths
Hydrolagus	NA
Zaniolepidinae	NA
Malacanthidae	Tilefishes
Melanonidae	NA
Leptocephalus	Eel larvae
Trachipteridae	Ribbonfishes
Saccopharynx	NA
Chondrichthyes	NA
Phoronida	Horseshoe worm
Rondeletiidae	Redmouth whalefishes
Yoldiella	NA
Nephtheidae	NA
Heterodontidae	Bullhead sharks
Squatinae	Angel sharks
Scopelarchidae	Pearleyes
Astronesthinae	NA

Caristiidae	Manefishes
Arhynchobatidae	NA
Physiculus	NA
Coryphaenoides	NA
Scomberesocidae	Sauries
Alepisauridae	NA
Ammodytidae	NA
Cyclopterinae	NA
Porifera (segregated 1)	NA
Porifera (segregated 2)	NA
Vase sponge	NA
White claypipe sponge	NA
Hemisquillidae	NA
Eurypharyngidae	Gulpers
Tetragonuridae	Squaretails
Neon yellow vase sponge	NA
Fluffy sponge	NA
Orange encrusting sponge	NA
Sebastes	NA
Scleralcyonacea	NA
Porichthys	NA
Ommastrephidae	NA
Antipatheria	NA
Benthopectinidae	NA

#### APPENDIX IV: LIST OF SPECIES FILTERED OUT OF FINAL DATASET

Spp	common
Ablennes hians	Flat needlefish
Abralia veranyi	Eye flash squid

<i>Abraliopsis felis</i>	NA
<i>Abyssocladia flagrum</i>	NA
<i>Acanthephyra curtirostris</i>	Peaked shrimp
<i>Acanthilia intermedia</i>	Granulose purse crab
<i>Acanthocarpus alexandri</i>	Gladiator box crab
<i>Acantholithodes hispidus</i>	Spiny lithode crab
<i>Acanthoptilum gracile</i>	White sea pen
<i>Acanthostracion polygonius</i>	Honeycomb cowfish
<i>Acanthurus chirurgus</i>	Doctorfish
<i>Acanthurus coeruleus</i>	Blue tang surgeonfish
<i>Acesta sponi</i>	NA
<i>Acharax johnsoni</i>	NA
<i>Achelous depressifrons</i>	Flatface swimming crab
<i>Achelous floridanus</i>	NA
<i>Achirus lineatus</i>	Lined sole
<i>Acipenser medirostris</i>	Green sturgeon
<i>Acipenser oxyrinchus</i>	Atlantic sturgeon
<i>Actinostola groenlandica</i>	NA
<i>Adelogorgia phyllosclera</i>	NA
<i>Adelosebastes latens</i>	NA
<i>Admete solida</i>	NA
<i>Aequipecten glyptus</i>	Red ribbed scallop
<i>Aequorea forskalea</i>	Many ribbed jellyfish
<i>Aetobatus narinari</i>	Spotted eagle ray
<i>Aforia circinata</i>	Keeled aforia
<i>Aforia goodei</i>	NA
<i>Agonopsis sterletus</i>	Southern spearnose poacher
<i>Agonopsis vulsa</i>	Northern spearnose poacher
<i>Agriopoma texasianum</i>	NA
<i>Akoya platinum</i>	Silvery topsnail
<i>Alaskagorgia aleutiana</i>	NA
<i>Albunea gibbesii</i>	Surf mole crab
<i>Albunea paretii</i>	Beach mole crab
<i>Alcyonidium disciforme</i>	NA
<i>Alcyonidium enteromorpha</i>	NA
<i>Alcyonidium pedunculatum</i>	Smooth leather bryozoan
<i>Alectis ciliaris</i>	African pompano
<i>Alepisaurus ferox</i>	Long snouted lancetfish
<i>Aleutihenricia beringiana</i>	Bering henricia
<i>Aleutihenricia federi</i>	NA
<i>Aliger gallus</i>	Roostertail conch
<i>Allocareproctus jordani</i>	Cherry snailfish
<i>Allocareproctus kallaion</i>	Combed snailfish
<i>Allocareproctus tanix</i>	Peach snailfish

<i>Allocareproctus unangas</i>	Goldeneye snailfish
<i>Allocareproctus ungak</i>	Whiskered snailfish
<i>Alloctytus folletti</i>	Oxeye oreo
<i>Allosmerus elongatus</i>	Whitebait smelt
<i>Allothyone mexicana</i>	NA
<i>Alopias superciliosus</i>	Bigeye thresher
<i>Alopias vulpinus</i>	Thresher
<i>Alosa chrysochloris</i>	Skipjack shad
<i>Alosa mediocris</i>	Hickory shad
<i>Alpheus armatus</i>	Brown snapping shrimp
<i>Alpheus floridanus</i>	Sand snapping shrimp
<i>Alpheus formosus</i>	Striped snapping shrimp
<i>Alpheus heterochaelis</i>	Bigclaw snapping shrimp
<i>Alpheus intricatus</i>	NA
<i>Alpheus normanni</i>	Green snapping shrimp
<i>Aluterus heudelotii</i>	Dotterel filefish
<i>Aluterus monoceros</i>	Unicorn leatherjacket filefish
<i>Aluterus scriptus</i>	Scribbled leatherjacket filefish
<i>Amaea mitchelli</i>	Mitchell's wentletrap
<i>Amauropsis islandica</i>	Iceland moon snail
<i>Amblyraja hyperborea</i>	Broad skate
<i>Americardia media</i>	Atlantic strawberry-cockle
<i>Ameritella modesta</i>	Plain tellin
<i>Amicula vestita</i>	NA
<i>Ammodytes americanus</i>	American sand lance
<i>Ammodytes dubius</i>	Northern sand lance
<i>Ammodytes hexapterus</i>	Arctic sand lance
<i>Ammodytes personatus</i>	Pacific sand lance
<i>Amphaster marianus</i>	Mariana's island star
<i>Amphilectus ovulum</i>	Beige horny sponge
<i>Amphiodia occidentalis</i>	Long armed brittle star
<i>Amphiophiura superba</i>	NA
<i>Amphisbetia greenei</i>	Fibre optic hydroid
<i>Amphistichus argenteus</i>	Barred surfperch
<i>Amphistichus rhodotus</i>	Redtail surfperch
<i>Amphiura (Amphiura) diomedea</i>	NA
<i>Anadara notabilis</i>	Eared ark
<i>Anadara secernenda</i>	Skewed ark
<i>Anadara transversa</i>	Transverse ark
<i>Anarhichas orientalis</i>	Bering wolffish
<i>Anarrhichthys ocellatus</i>	Wolf-eel
<i>Anchistoides antiguensis</i>	NA
<i>Anchoa cubana</i>	Cuban anchovy
<i>Anchoa lyolepis</i>	Shortfinger anchovy



Anchoa mitchilli	Bay anchovy
Anchoviella perfasciata	Poey's anchovy
Ancistrolepis bicinctus	NA
Ancylopsetta dilecta	Three-eye flounder
Anguilla rostrata	American eel
Anisarchus medius	Stout eelblenny
Anisotremus virginicus	Porkfish
Anomalisipho martensi	Marten's whelk
Anomalisipho verkruezeni	NA
Anomia simplex	Common jingle
Anoplagonus inermis	Smooth alligatorfish
Anoplodactylus lentus	Black sea spider
Anoplogaster cornuta	Common fangtooth
Anotopterus nikparini	North pacific daggertooth
Anteliaster microgenys nannodes	NA
Antennarius multiocellatus	Longlure frogfish
Antennarius striatus	Striated frogfish
Anthenoides peircei	NA
Anthias nicholsi	Yellowfin bass
Anthopleura xanthogrammica	Giant green anemone
Anthoptilum murrayi	NA
Anthothela grandiflora	Great flowerbud coral
Antigonia capros	Deepbody boarfish
Antigonia combatia	Shortspine boarfish
Antillimunida flinti	NA
Antillimunida hispida	Brittle squat lobster
Antimora rostrata	Blue antimora
Antiplanes catalinae	NA
Anuropus bathypelagicus	NA
Aphanopus arigato	Pacific black scabbardfish
Aphanopus carbo	Black scabbardfish
Aphanopus intermedius	Intermediate scabbardfish
Aphrodita negligens	Dishevelled sea-mouse
Aplidium californicum	California sea pork
Aplidium soldatovi	NA
Aplidium stellatum	NA
Apogon aurolineatus	Bridle cardinalfish
Apogon maculatus	Flamefish
Apogon pseudomaculatus	Twospot cardinalfish
Apogon quadrisquamatus	Sawcheek cardinalfish
Apostichopus japonicus	Japanese sea cucumber
Apostichopus parvimensis	Warty sea cucumber
Apristurus kampae	Longnose catshark
Aptocyclus ventricosus	Smooth lumpsucker

<i>Arbacia punctulata</i>	Purple-spined sea urchin
<i>Arca imbricata</i>	Mossy ark
<i>Arca zebra</i>	Turkey wing
<i>Archistes biseriatus</i>	Scaled sculpin
<i>Archistes plumarius</i>	Plumed sculpin
<i>Architectonica nobilis</i>	Common sundial
<i>Archosargus probatocephalus</i>	Sheepshead
<i>Arcinella cornuta</i>	Florida spiny jewelbox
<i>Arctica islandica</i>	Ocean quahog
<i>Arctomelon boreale</i>	NA
<i>Arctomelon stearnsii</i>	Alaska volute
<i>Arctomelon tamikoe</i>	NA
<i>Arctonoe vittata</i>	Red banded commensal scaleworm
<i>Arctozenus risso</i>	Spotted barracudina
<i>Areopaguristes hummi</i>	NA
<i>Areopaguristes oxyophthalmus</i>	NA
<i>Argentina sialis</i>	Pacific argentine
<i>Argentina silus</i>	Atlantic argentine
<i>Argentina striata</i>	Striated argentine
<i>Argis alaskensis</i>	Alaska argid
<i>Argis crassa</i>	Rough argid
<i>Argis dentata</i>	Arctic argid
<i>Argis lar</i>	Kuro shrimp
<i>Argis levior</i>	Nelson argid
<i>Argis ovifer</i>	Split-eye argid
<i>Argopecten gibbus</i>	Calico scallop
<i>Argopecten irradians</i>	Atlantic bay scallop
<i>Argyropelecus aculeatus</i>	Lovely hatchetfish
<i>Argyropelecus affinis</i>	Pacific hatchet fish
<i>Argyropelecus lychnus</i>	Tropical hatchetfish
<i>Ariomma bondi</i>	Silver rag driftfish
<i>Ariomma melana</i>	Brown driftfish
<i>Ariomma regulus</i>	Spotted driftfish
<i>Ariosoma balearicum</i>	Bandtooth conger
<i>Aristofusus couei</i>	Yucatan spindle
<i>Aristofusus excavatus</i>	Apricot spindle
<i>Aristostomias scintillans</i>	Shiny loosejaw
<i>Armases cinereum</i>	Squareback marsh crab
<i>Armina californica</i>	California armina
<i>Armina tigrina</i>	Striped sea slug
<i>Artediellus miacanthus</i>	NA
<i>Artediellus pacificus</i>	Hookhorn sculpin
<i>Artediellus scaber</i>	Rough hookear

Artedius fenestralis	Padded sculpin
Artedius lateralis	Smoothhead sculpin
Artemisina arcigera	NA
Arthrogorgia kinoshitai	NA
Arthrogorgia otsukai	NA
Arthrogorgia utinomii	NA
Ascidia paratropa	Glassy tunicate
Asemichthys taylori	Spinynose sculpin
Aspidophoroides monopterygius	Alligatorfish
Astarte arctica	Arctic astarte
Astarte borealis	Boreal astarte
Astarte compacta	Compact astarte
Astarte crenata	Crenulate astarte
Astarte elliptica	Elliptical astarte
Astarte montagui	Narrow hinge astarte
Asterias rubens	Common starfish
Asteronyx longifissus	NA
Asteronyx loveni	NA
Asteropora (Asteropora) annulata	NA
Asteroschema sublaeve	NA
Asthenactis fisheri	Fisher's myxasterid
Astrapogon alutus	Bronze cardinalfish
Astrapogon puncticulatus	Blackfin cardinalfish
Astrochele laevis	NA
Astrocyclus caecilia	NA
Astrogordius cacaoticus	NA
Astrometis sertulifera	Fragile rainbow star
Astronebris tatafilius	NA
Astropecten antillensis	NA
Astropecten armatus	Spiny sand star
Astropecten articulatus	Royal sea star
Astropecten californicus	California sand star
Astropecten ornatissimus	Orange sand star
Astrophyton muricatum	Giant basket star
Astropyga magnifica	NA
Astroscopus guttatus	Northern stargazer
Astroscopus ygraecum	Southern stargazer
Atheresthes evermanni	Kamchatka flounder
Atherinops affinis	Topsmelt silverside
Atherinopsis californiensis	Jacksmelt
Atlantopandalus propinquus	Similar shrimp
Atrina rigida	Stiff pen shell
Atrina seminuda	Half naked pen shell
Atrina serrata	Sawtooth penshell

Aulacofusus brevicauda	Thick ribbed whelk
Aulacofusus calathus	NA
Aulacofusus herendeeni	Thin-ribbed whelk
Aulacofusus ombronius	Shady whelk
Aulacofusus periscelidus	Garter whelk
Aulorhynchus flavidus	Tube snout
Aulosaccus schulzei	NA
Aurelia aurita	Moon jelly
Aurelia labiata	Pacific moon jelly
Aurelia limbata	Brownbranded moon jelly
Auxis thazard	Frigate tuna
Avocettina infans	Avocet snipe eel
Babamunida forceps	NA
Bagre marinus	Gafftopsail catfish
Bajacalifornia burragei	Sharpchin slickhead
Bajacalifornia erimoensis	NA
Balanus balanus	Rough barnacle
Balanus nubilus	NA
Balanus rostratus	Rostrate barnacle
Balanus trigonus	NA
Baldwinella vivanus	Red barbier
Balistes vetula	Queen triggerfish
Balticina californica	Short sea whip
Balticina finmarchica	Hammer-tipped sea pen
Balticina willemoesi	Willemoes's white sea pen
Bankia setacea	Feathery shipworm
Bathophilus flemingi	Highfin dragonfish
Bathyagonus alascanus	Gray starsnout
Bathyagonus infraspinus	Spinycheek starsnout
Bathyagonus nigripinnis	Blackfin poacher
Bathyagonus pentacanthus	Bigeye poacher
Bathyanthias cubensis	NA
Bathyanthias mexicanus	Yellowtail bass
Bathybuccinum ovulum	NA
Bathylagus pacificus	Slender blacksmelt
Bathylchnops exilis	Javelin spookfish
Bathymaster caeruleofasciatus	Alaskan ronquil
Bathymaster leurolepis	Smallmouth ronquil
Bathynectes longispina	Bathyal swimming crab
Bathypathes patula	Patulous black coral
Bathypolypus arcticus	North atlantic octopus
Bathytoshia centroura	Roughtail stingray
Belknapchiton alveolus	NA
Belknapchiton belknapi	NA

Bellator brachychir	Shortfin searobin
Bellator egretta	Streamer searobin
Bellator xenisma	Splitnose searobin
Bembrops anatirostris	Duckbill flathead
Bembrops gobioides	Goby flathead
Benthalbella dentata	Northern pearleye
Benthodesmus pacificus	North pacific frostfish
Benthodesmus simonyi	Simony's frostfish
Beringius aleuticus	NA
Beringius behringii	Behring's whelk
Beringius crebricostatus	Thick cord whelk
Beringius eyerdami	NA
Beringius kennicottii	Rotund whelk
Beringius rotundus	NA
Beringius stimpsoni	Stimpson's whelk
Beringius undatus	NA
Beringraja stellulata	Starry skate
Bertella idiomorpha	NA
Blepsias bilobus	Crested sculpin
Bodianus pulchellus	Spotfin hogfish
Bolinia euryptera	Sculpin
Bollmannia boqueronensis	White eye goby
Bollmannia communis	Ragged goby
Boltenia echinata	Cactus sea squirt
Boltenia villosa	Spiny headed sea squirt
Boreogennema borealis	Northern blunt-tail shrimp
Boreoscala greenlandica	Greenland wentletrap
Boreotrophon alaskanus	NA
Boreotrophon clathratus	Clathrate trophon
Boreotrophon multicostatus	Ribbed trophon
Boreotrophon pacificus	NA
Borostomias panamensis	Panama snaggletooth
Bothrocara hollandi	NA
Bothrocara molle	Soft eelpout
Bothrocara pusillum	Alaska eelpout
Bothrocara zestum	NA
Bothus robinsi	Twospot flounder
Botryllus schlosseri	Golden star tunicate
Brama japonica	Pacific pomfret
Bregmaceros atlanticus	Antenna codlet
Bregmaceros cantori	Striped codlet
Brevoortia gunteri	Finescale menhaden
Brevoortia patronus	Gulf menhaden
Brevoortia smithi	Yellowfin menhaden

<i>Brisaster owstoni</i>	NA
<i>Brisaster townsendi</i>	Northern heart urchin
<i>Brissopsis alta</i>	NA
<i>Brissopsis atlantica</i>	NA
<i>Brissopsis pacifica</i>	Pacific heart urchin
<i>Brosme brosme</i>	Cusk
<i>Brosmophycis marginata</i>	Red brotula
<i>Brotula barbata</i>	Bearded brotula
<i>Bryozoichthys lysimus</i>	Nutcracker prickleback
<i>Bryozoichthys marjorius</i>	Pearly prickleback
<i>Buccinum aleuticum</i>	Aleut whelk
<i>Buccinum angulosum transliratum</i>	NA
<i>Buccinum bulimuloideum</i>	NA
<i>Buccinum castaneum</i>	Chestnut whelk
<i>Buccinum ciliatum</i>	NA
<i>Buccinum clarki</i>	NA
<i>Buccinum cnismatum</i>	NA
<i>Buccinum eugrammatum</i>	Lirate whelk
<i>Buccinum fringillum</i>	Finch whelk
<i>Buccinum glaciale</i>	Glacial whelk
<i>Buccinum mirandum picturatum</i>	Painted whelk
<i>Buccinum oedematum</i>	Swollen whelk
<i>Buccinum plectrum</i>	Sinuous whelk
<i>Buccinum rondinum</i>	NA
<i>Buccinum sigmatopleura</i>	NA
<i>Buccinum simulatum</i>	NA
<i>Buccinum strigillatum</i>	NA
<i>Buccinum tenellum</i>	Pleated whelk
<i>Buccinum terraenovae</i>	Solen whelk
<i>Buccinum undatum</i>	Waved whelk
<i>Buccinum viridum</i>	Turban whelk
<i>Bulbus fragilis</i>	Fragile moonsnail
<i>Bulla striata</i>	Striate bubble
<i>Bursa granularis</i>	NA
<i>Bursatella leachii</i>	NA
<i>Busycotypus spiratus</i>	Pearwhelk
<i>Cadlina luteomarginata</i>	Yellow edge cadlina
<i>Cadlina modesta</i>	Modest cadlina
<i>Calamus arctifrons</i>	Grass porgy
<i>Calamus bajonado</i>	Jolthead porgy
<i>Calamus calamus</i>	Saucereye porgy
<i>Calamus leucosteus</i>	Whitebone porgy
<i>Calamus nodosus</i>	Knobbed porgy
<i>Calamus penna</i>	Sheepshead porgy

Calappa flammea	Flame box crab
Calappa gallus	Rough box crab
Calappa ocellata	Ocellated box crab
Calappula tortugae	NA
Calcigorgia beringi	Bering sea fan coral
Calcigorgia spiculifera	Pink gorgonian
Calinaticina oldroydii	Oldroyd's fragile moon snail
Calliactis tricolor	Hermit anemone
Callianax alectona	NA
Callianax biplicata	Purple olive snail
Callidactylus asper	Spurfinger purse crab
Callinectes marginatus	Masked swimcrab
Callionymus bairdi	Lancer dragonet
Calliostoma euglyptum	Sculptured topsnail
Calliostoma jujubinum	Mottled topsnail
Calliostoma variegatum	NA
Calliotropis carlotta	NA
Callistephanus pacificus	NA
Callistephanus simplex	NA
Callogorgia fraseri	NA
Callogorgia kinoshitai	NA
Callpita eucymata	Glory of-the-seas venus
Calocarides quinqueseriatus	Keeled lobster shrimp
Cancellaria crawfordiana	Crawford nutmeg
Cancellaria reticulata	Common nutmeg
Cancer productus	Red rock crab
Cantherhines macrocerus	American whitespotted filefish
Cantherhines pullus	Orangespotted filefish
Canthidermis maculata	Rough triggerfish
Canthigaster jamestyleri	Goldface toby
Canthigaster rostrata	Caribbean sharpnose-puffer
Caraibops trispinosus	Threespine bass
Caranx bartholomaei	Yellow jack
Caranx hippos	Crevalle jack
Caranx latus	Horse eye jack
Caranx ruber	Bar jack
Carapus bermudensis	Pearlfish
Carcharhinus acronotus	Blacknose shark
Carcharhinus brevipinna	Spinner shark
Carcharhinus falciformis	Silky shark
Carcharhinus isodon	Finetooth shark
Carcharhinus leucas	Bull shark
Carcharhinus limbatus	Blacktip shark
Carcharhinus obscurus	Dusky shark

<i>Carcharhinus plumbeus</i>	Sandbar shark
<i>Carcharhinus porosus</i>	Smalltail shark
<i>Carcharias taurus</i>	Sand tiger shark
<i>Carcinus maenas</i>	Green crab
<i>Careproctus abbreviatus</i>	NA
<i>Careproctus canus</i>	NA
<i>Careproctus colletti</i>	Alaska snailfish
<i>Careproctus comus</i>	Comic snailfish
<i>Careproctus cypselurus</i>	Falcate snailfish
<i>Careproctus ectenes</i>	Shovelhead snailfish
<i>Careproctus faunus</i>	Mischievous snailfish
<i>Careproctus furcellus</i>	NA
<i>Careproctus gilberti</i>	Smalldisk snailfish
<i>Careproctus kamikawai</i>	NA
<i>Careproctus lerikimae</i>	NA
<i>Careproctus lycopersicus</i>	Tomato snailfish
<i>Careproctus ostentum</i>	NA
<i>Careproctus ovigerus</i>	Abyssal snailfish
<i>Careproctus phasma</i>	NA
<i>Careproctus rastrinus</i>	Salmon snailfish
<i>Careproctus scottae</i>	NA
<i>Careproctus simus</i>	NA
<i>Careproctus staufferi</i>	NA
<i>Careproctus zachirus</i>	NA
<i>Caribachlamys sentis</i>	Scaly scallop
<i>Carinaria cristata</i>	Glassy nautilus
<i>Caristius macropus</i>	Manefish
<i>Carpoporus papulosus</i>	Narrowfront rubble crab
<i>Caryophyllia (Caryophyllia) alaskensis</i>	Tan cup coral
<i>Caryophyllia (Caryophyllia) arnoldi</i>	Arnold's stony coral
<i>Cassiopea xamachana</i>	Upsidedown jellyfish
<i>Cassis flammea</i>	Flame helmet
<i>Cassis madagascariensis</i>	Emperor helmet
<i>Cassis tuberosa</i>	King helmet
<i>Cataetyx rubrirostris</i>	Rubynose brotula
<i>Caudina arenicola</i>	Sweet potato
<i>Caulolatilus chrysops</i>	Atlantic goldeneye tilefish
<i>Caulolatilus cyanops</i>	Blackline tilefish
<i>Caulolatilus intermedius</i>	Anchor tilefish
<i>Caulolatilus microps</i>	Grey tilefish
<i>Caulolatilus princeps</i>	Ocean whitefish
<i>Caulophryne jordani</i>	Fanfin angler
<i>Celatopesia concava</i>	NA
<i>Celleporina ventricosa</i>	NA



<i>Centroscyllium fabricii</i>	Black dogfish
<i>Centroscyllium nigrum</i>	Combtooth dogfish
<i>Centrostephanus longispinosus rubricing</i>	NA
<i>Cephalopholis cruentata</i>	Graysby
<i>Cephaloscyllium ventriosum</i>	Swell shark
<i>Ceramaster arcticus</i>	Arctic cookie star
<i>Ceramaster clarki</i>	Deep sea cookie star
<i>Ceramaster japonicus</i>	Red cookie star
<i>Ceramaster leptoceramus</i>	NA
<i>Ceramaster patagonicus</i>	Cookie star
<i>Ceramaster stellatus</i>	Stellate cookie star
<i>Ceratoscopelus maderensis</i>	Madeira lantern fish
<i>Cerebratulus californiensis</i>	Ribbon worm
<i>Cerithium atratum</i>	Dark cerith
<i>Cerithium eburneum</i>	Ivory cerith
<i>Cetorhinus maximus</i>	Basking shark
<i>Chaceon fenneri</i>	Golden deepsea crab
<i>Chaenophryne draco</i>	Smooth dreamer
<i>Chaenophryne longiceps</i>	Can opener smoothdream
<i>Chaenopsis ocellata</i>	Bluethroat pikeblenny
<i>Chaetaster nodosus</i>	NA
<i>Chaetodon sedentarius</i>	Reef butterflyfish
<i>Chama congregata</i>	Corrugate jewelbox
<i>Chama macerophylla</i>	Leafy jewelbox
<i>Charybdis hellerii</i>	Spiny hands
<i>Chauliodus danae</i>	Dana viperfish
<i>Chauliodus sloani</i>	Sloane's viperfish
<i>Chaunax stigmaeus</i>	Redeye gaper
	Red and-white-banded sea-nymph
<i>Cheilonereis cyclurus</i>	Margined flyingfish
<i>Cheilopogon cyanopterus</i>	Spotfin flyingfish
<i>Cheilopogon furcatus</i>	Mediterranean flyingfish
<i>Cheilopogon heterurus</i>	Atlantic flyingfish
<i>Cheilopogon melanurus</i>	Black croaker
<i>Cheilotrema saturnum</i>	Green sea turtle
<i>Chelonia mydas</i>	NA
<i>Chelyosoma orientale</i>	Disc top tunicate
<i>Chelyosoma productum</i>	Warty poacher
<i>Chesnonia verrucosa</i>	Black swallower
<i>Chiasmodon niger</i>	Flowery lace murex
<i>Chicoreus florifer</i>	Spotted cusk-eel
<i>Chilara taylori</i>	Bridled burrfish
<i>Chilomycterus antennatus</i>	Web burrfish
<i>Chilomycterus antillarum</i>	

<i>Chilomycterus reticulatus</i>	Spotfin burrfish
<i>Chionoecetes angulatus</i>	Triangle tanner crab
<i>Chiridota albatrossii</i>	NA
<i>Chirolophis decoratus</i>	Decorated warbonnet
<i>Chirolophis nugator</i>	Mosshead warbonnet
<i>Chirolophis snyderi</i>	Bearded warbonnet
<i>Chirolophis tarsodes</i>	Matcheck warbonnet
<i>Chirona evermanni</i>	Deepwater giant barnacle
<i>Chiroteuthis calyx</i>	NA
<i>Chitonotus pugetensis</i>	Roughback sculpin
<i>Chlamys albida</i>	White scallop
<i>Chlamys behringiana</i>	Bering scallop
<i>Chlamys erythocomata</i>	NA
<i>Chlamys hastata</i>	Spiny scallop
<i>Chlamys islandica</i>	Iceland scallop
<i>Chlamys islandica clapper</i>	NA
<i>Chlamys pseudoislandica</i>	NA
<i>Chlamys rubida</i>	Reddish scallop
<i>Chlamys unalaskae</i>	NA
<i>Chloeia viridis</i>	Fire worm
<i>Chlorophthalmus agassizi</i>	Shortnose greeneye
<i>Chondrocladia (Chondrocladia) conrescens</i>	NA
<i>Chondrocladia (Chondrocladia) grandis</i>	NA
<i>Chonospeira nuda</i>	Naked solarelle
<i>Chromis enchrysurus</i>	Yellowtail reeffish
<i>Chromis scotti</i>	Purple reeffish
<i>Chromoplexaura marki</i>	NA
<i>Chrysaora colorata</i>	Purple striped jelly
<i>Chrysaora fuscens</i>	Pacific sea nettle
<i>Chrysaora fuscescens</i>	Brown jellyfish
<i>Chrysopathes speciosa</i>	Gaudy black coral
<i>Cidarina cidaris</i>	Adam spiny margarite
<i>Ciliatocardium ciliatum</i>	Hairy cockle
<i>Cinctura hunteria</i>	Banded tulip shell
<i>Cinctura lilium</i>	Banded tulip
<i>Cistenides granulata</i>	NA
<i>Citharichthys cornutus</i>	Horned whiff
<i>Citharichthys dinoceros</i>	Spined whiff
<i>Citharichthys gymnorhinus</i>	Anglefin whiff
<i>Citharichthys stigmaeus</i>	Speckled sanddab
<i>Citharichthys xanthostigma</i>	Longfin sanddab
<i>Cladaster validus</i>	NA
<i>Cladocroce attu</i>	NA

Cladocroce infundibulum	NA
Cladocroce kiska	NA
Clathrina blanca	NA
Clavularia evagorgiacrustans	NA
Clavularia incrustans	NA
Clibanarius vittatus	Thinstripe hermit
Clinocardium nuttallii	Nuttall cockle
Clinocottus acuticeps	Sharpnose sculpin
Cnemidocarpa finmarkiensis	Shiny red sea squirt
Coanicardita ventricosa	Stout cyclocardia
Coelocerus spinosus	Channelnose spider crab
Coelorinchus caelorrhincus	Longnose grenadier
Coelorinchus scaphopsis	Shoulderspot grenadier
Coenocyathus bowersi	NA
Colga pacifica	NA
Collodes robustus	Robust crab
Collodes trispinosus	NA
Cololabis saira	Pacific saury
Colossendeis microsetosa	NA
Colus griseus	Gray whelk
Colus pulcius	NA
Comactinia meridionalis	NA
Conger oceanicus	Conger eel
Conodon nobilis	Barred grunt
Cookeolus japonicus	Longfinned bullseye
Cornulum clathriata	NA
Coronis scolopendra	NA
Coryphaena equiselis	Pompano dolphinfish
Coryphaena hippurus	Common dolphinfish
Coryphaenoides cinereus	Popeye grenadier
Coryphaenoides filifer	Filamented rattail
Coryphopterus punctipectophorus	Spotted goby
Coryrhynchus lamelligerus	NA
Coryrhynchus riisei	Longfinger neck crab
Coryrhynchus sidneyi	Shortfinger neck crab
Cosmocampus albirostris	Whitenose pipefish
Costoanachis floridana	NA
Cranchia scabra	Rough cranch squid
Crangon alaskensis	Alaska shrimp
Crangon dalli	Ridged crangon
Crangon franciscorum	California bay shrimp
Crangon septemspinosa	Sevenspine bay shrimp
Craniella arb	NA
Craniella craniana	NA

<i>Craniella sigmoancoratum</i>	NA
<i>Craniella spinosa</i>	Spiny tennis ball sponge
<i>Craniella sputnika</i>	NA
<i>Craniella villosa</i>	Tennis ball sponge
<i>Crassadoma gigantea</i>	Giant rock-scallop
<i>Crassicardia crassidens</i>	Thick cyclocardia
<i>Crassicardia crebricostata</i>	Many rib cyclocardia
<i>Crella brunnea</i>	NA
<i>Crepidula convexa</i>	Convex slippersnail
<i>Crepidula fornicata</i>	Slipper limpet
<i>Crepidula maculosa</i>	Spotted slippersnail
<i>Crepidula plana</i>	Eastern white slippersnail
<i>Cribrinopsis fernaldi</i>	Chevron tentacle anemone
<i>Crispatotrochus foxi</i>	NA
<i>Crisularia pacifica</i>	NA
<i>Cronius ruber</i>	Red swimcrab
<i>Crossata californica</i>	California frog snail
<i>Cryogorgia koolsae</i>	NA
<i>Cryptacanthodes aleutensis</i>	Dwarf wrymouth
<i>Cryptacanthodes giganteus</i>	Giant wrymouth
<i>Cryptacanthodes maculatus</i>	Wrymouth
<i>Crypthelia trophostega</i>	NA
<i>Cryptochiton stelleri</i>	Giant pacific chiton
<i>Cryptolithodes typicus</i>	Butterfly king crab
<i>Cryptonatica affinis</i>	Arctic moon snail
<i>Cryptonatica aleutica</i>	Aleutian moon snail
<i>Cryptonatica russa</i>	Rusty moon snail
<i>Cryptopsaras couesii</i>	Triplewart seadevil
<i>Cryptotomus roseus</i>	Bluelip parrotfish
<i>Crystallichthys cyclospilus</i>	Blotched snailfish
<i>Cuapetes americanus</i>	American grass shrimp
<i>Cubiceps pauciradiatus</i>	Bigeye cigarfish
<i>Cucumaria frondosa</i>	Orange footed sea cucumber
<i>Cucumaria frondosa japonica</i>	Black sea cucumber
<i>Cyclocardia borealis</i>	NA
<i>Cyclocardia ovata</i>	Ovate cyclocardia
<i>Cyclohelix lamellata</i>	NA
<i>Cyclopecten davidsoni</i>	Salmon glass-scallop
<i>Cyclopsetta fimbriata</i>	Spotfin flounder
<i>Cyclopterus lumpus</i>	Lumpfish
<i>Cyclothone acclinidens</i>	Benttooth bristlemouth
<i>Cyclothone atraria</i>	Deep water bristlemouth
<i>Cyclozodion angustum</i>	Nodose box crab
<i>Cylichna alba</i>	White cylichna

<i>Cymatium rubeculum occidentale</i>	Ruby triton
<i>Cymatogaster aggregata</i>	Shiner perch
<i>Cynoscion arenarius</i>	Sand weakfish
<i>Cynoscion nebulosus</i>	Spotted weakfish
<i>Cypraea cinerea</i>	Gray cowry
<i>Cystisoma fabricii</i>	NA
<i>Cyttopsis rosea</i>	Rosy dory
<i>Dactylopterus volitans</i>	Flying gurnard
<i>Danielum ixbauchae</i>	NA
<i>Dardanus fucosus</i>	Bareye hermit
<i>Dardanus insignis</i>	Red brocade hermit
<i>Decapterus macarellus</i>	Mackerel scad
<i>Decapterus tabl</i>	Roughear scad
<i>Decodon puellaris</i>	Red hogfish
<i>Delectopecten vancouverensis</i>	Vancouver scallop
<i>Dendraster excentricus</i>	Eccentric sand dollar
<i>Dendronotus dalli</i>	Dall's dendronotus
<i>Dendronotus frondosus</i>	Frond aeolis
<i>Dendronotus subramosus</i>	Stubby frond-aeolis
<i>Dendrophyllia californica</i>	Tree coral
<i>Dermasterias imbricata</i>	Leather star
<i>Dermaturus mandtii</i>	Wrinkled crab
<i>Dermochelys coriacea</i>	Leatherback turtle
<i>Desmodema lorum</i>	Whiptail ribbonfish
<i>Desmophyllum dianthus</i>	Cockscomb cup coral
<i>Desmophyllum pertusum</i>	Spider hazards coral
<i>Diadema antillarum</i>	Long spined sea urchin
<i>Diaphus theta</i>	California headlightfish
<i>Diapterus auratus</i>	Irish mojarra
<i>Dibranchius atlanticus</i>	Atlantic batfish
<i>Dichelopandalus leptocerus</i>	Bristled longbeak
<i>Dicrolene filamentosa</i>	NA
<i>Dimya argentea</i>	Silver dimyid
<i>Diodon holocanthus</i>	Longspined porcupinefish
<i>Diodon hystrix</i>	Spot fin porcupinefish
<i>Diodora aspera</i>	Keyhole limpet
<i>Diodora cayenensis</i>	Cayenne keyhole limpet
<i>Diplodus holbrookii</i>	Spottail seabream
<i>Diplogrammus pauciradiatus</i>	Spotted dragonet
<i>Dipsacaster anoplus</i>	NA
<i>Dipsacaster borealis</i>	Northern sand star
<i>Dipsacaster eximius</i>	Extraordinary sand star
<i>Dipturus olsenii</i>	Spreadfin skate
<i>Dirona pellucida</i>	Golden dirona

<i>Discorsopagurus schmitti</i>	Tubeworm hermit
<i>Distaplia occidentalis</i>	Mushroom tunicate
<i>Distaplia smithi</i>	Stalked compound tunicate
<i>Distichopora borealis</i>	NA
<i>Distichoptilum gracile</i>	Slender sea pen
<i>Distorsio clathrata</i>	Atlantic distorsio
<i>Distorsio mcgintyi</i>	NA
<i>Dolichopteryx longipes</i>	Brownsnout spookfish
<i>Doris montereyensis</i>	Monterey sea-lemon
<i>Doris odhneri</i>	White night doris
<i>Dorosoma cepedianum</i>	American gizzard shad
<i>Dorosoma petenense</i>	Threadfin shad
<i>Dosidicus gigas</i>	Jumbo flying squid
<i>Dromalia alexandri</i>	Sea dandelion
<i>Dysomma anguillare</i>	Shortbelly eel
<i>Dyspanopeus texanus</i>	Gulf grassflat crab
<i>Echeneis naucrates</i>	Sharksucker
<i>Echeneis neucratoides</i>	Whitefin sharksucker
<i>Echidnocerus cibarius</i>	Puget sound king crab
<i>Echinarachnius parma</i>	Common sand dollar
<i>Echinaster (Othilia) serpentarius</i>	NA
<i>Echinoclathria beringensis</i>	NA
<i>Echinolampas depressa</i>	NA
<i>Echiodon dawsoni</i>	Chain pearlfish
<i>Echiophis intertinctus</i>	Spotted spoon-nose eel
<i>Echiophis punctifer</i>	Stippled spoon-nose eel
<i>Elacatinus horsti</i>	Yellowline goby
<i>Elacatinus xanthiprora</i>	Yellowprow goby
<i>Elassochirus gilli</i>	Pacific red hermit
<i>Elassodiscus caudatus</i>	Blackbelly snailfish
<i>Elassodiscus tremebundus</i>	NA
<i>Elops saurus</i>	Ladyfish
<i>Embiotoca lateralis</i>	Striped seaperch
<i>Emblemaria atlantica</i>	Banner blenny
<i>Emblemaria piratula</i>	Pirate blenny
<i>Enchelyopus cimbrius</i>	Fourbeard rockling
<i>Encope aberrans</i>	NA
<i>Encope michelini</i>	Notched sand dollar
<i>Engina turbinella</i>	White spot engina
<i>Engraulis eurystole</i>	Silver anchovy
<i>Engraulis mordax</i>	Northern anchovy
<i>Engyophrys senta</i>	Spiny flounder
<i>Enophrys bison</i>	Buffalo sculpin
<i>Enophrys lucasi</i>	Leister sculpin

<i>Enophrys taurina</i>	Bull sculpin
<i>Entosphenus tridentatus</i>	Pacific lamprey
<i>Epigonus pandionis</i>	Bigeye
<i>Epinephelus adscensionis</i>	Rock hind
<i>Epinephelus drummondhayi</i>	Speckled hind
<i>Epinephelus itajara</i>	Atlantic goliath grouper
<i>Epizoanthus scotinus</i>	Orange encrusting anemone
<i>Eptatretus deani</i>	Black hagfish
<i>Eptatretus stoutii</i>	Pacific hagfish
<i>Ericerodes gracilipes</i>	Unicorn neck crab
<i>Erilepis zonifer</i>	Skilfish
<i>Errinopora dichotoma</i>	NA
<i>Errinopora fisheri</i>	NA
<i>Errinopora nanneca</i>	NA
<i>Errinopora pourtalesii</i>	Pourtales's lace hydrocoral
<i>Errinopora undulata</i>	NA
<i>Errinopora zarhyncha</i>	NA
<i>Escharopsis sarsi</i>	NA
<i>Etelis oculatus</i>	Queen snapper
<i>Ethusa microphthalma</i>	Broadback sumo crab
<i>Etmopterus gracilispinis</i>	Broadbanded lanternshark
<i>Etmopterus princeps</i>	Great lanternshark
<i>Etropus microstomus</i>	Smallmouth flounder
<i>Etropus rimosus</i>	Gray flounder
<i>Etrumeus sadina</i>	Round herring
<i>Eualus barbatus</i>	Barbed eualid
<i>Eualus biunguis</i>	Deepsea eualid
<i>Eualus fabricii</i>	Arctic eualid
<i>Eualus gaimardii</i>	Circumpolar eualid
<i>Eualus macilentus</i>	Greenland shrimp
<i>Eualus macrophthalmus</i>	Big eyed shrimp
<i>Eualus suckleyi</i>	Shortscale eualid
<i>Eualus townsendi</i>	Townsend eualid
<i>Eucramus praelongus</i>	Olivepit porcelain crab
<i>Euchirograpsus americanus</i>	American talon crab
<i>Eucinostomus argenteus</i>	Silver mojarra
<i>Eucinostomus gula</i>	Silver jenny
<i>Eucinostomus harengulus</i>	Tidewater mojarra
<i>Eucinostomus jonesii</i>	Slender mojarra
<i>Eucinostomus melanopterus</i>	Flagfin mojarra
<i>Eucratea loricata</i>	Feathery bryozoan
<i>Eucryphycus californicus</i>	Persimmon eelpout
<i>Eudistoma obscuratum</i>	NA
<i>Eugorgia rubens</i>	NA

<i>Eumesogrammus praecisus</i>	Fourline snakeblenny
<i>Eumicrotremus andriashevi</i>	Pimpled lumpsucker
<i>Eumicrotremus asperrimus</i>	NA
<i>Eumicrotremus barbatus</i>	NA
<i>Eumicrotremus gyrinops</i>	NA
<i>Eumicrotremus phrynoides</i>	Toad lumpsucker
<i>Eumicrotremus spinosus</i>	Atlantic spiny lumpsucker
<i>Eunoe senta</i>	Thorny scaleworm
<i>Euphrosine multibranchiata</i>	Multi branched porcupine-worm
<i>Euphrosynoplax clausa</i>	Craggy bathyal crab
<i>Eurymen gyrinus</i>	Smoothcheek sculpin
<i>Eurypanopeus depressus</i>	Flatback mud crab
<i>Eurypharynx pelecانoides</i>	Pelican eel
<i>Euryplax nitida</i>	Glabrous broadface crab
<i>Eurytellina nitens</i>	NA
<i>Eurytium limosum</i>	Broadback mud crab
<i>Eusergestes similis</i>	Constant prawn
<i>Eusirus cuspidatus</i>	NA
<i>Euspira pallida</i>	Pale moonsnail
<i>Euthynnus alletteratus</i>	Little tunny
<i>Euthyonacta solida</i>	NA
<i>Euvola chazaliei</i>	NA
<i>Euvola laurentii</i>	NA
<i>Euvola raveneli</i>	Round rib scallop
<i>Evasterias retifera</i>	Western star
<i>Evasterias troschelii</i>	Mottled star
<i>Evermannichthys spongicola</i>	Sponge goby
<i>Exhippolysmata oplophoroides</i>	Redleg humpback shrimp
<i>Exilioidea rectirostris</i>	NA
<i>Facciolella gilbertii</i>	Dogface witch-eel
<i>Farrea beringiana</i>	NA
<i>Farrea convolvulus</i>	NA
<i>Fasciolaria tulipa</i>	True tulip
<i>Felimare picta</i>	Florida regal doris
<i>Felimare picta</i>	Regal sea goddess
<i>Ficus ficus</i>	Atlantic figsnail
<i>Ficus papyratia</i>	NA
<i>Fistularia petimba</i>	Red cornetfish
<i>Fistularia tabacaria</i>	Cornetfish
<i>Florometra acrima</i>	NA
<i>Florometra asperrima</i>	Rough feather star
<i>Florometra serratissima</i>	Common feather star
<i>Flustrellidra corniculata</i>	Spiny leather bryozoan
<i>Foetorepus agassizii</i>	Spotfin dragonet



<i>Fowlerichthys ocellatus</i>	Ocellated frogfish
<i>Fowlerichthys radiusus</i>	Singlespot frogfish
<i>Frevillea hirsuta</i>	Tufted broadface crab
<i>Frieleia halli</i>	NA
<i>Fulguropsis plagosa</i>	NA
<i>Fulvia laevigata</i>	Eggcockle
<i>Funiculina quadrangularis</i>	Tall sea pen
<i>Gadella imberbis</i>	Beardless codling
<i>Gaidropsarus ensis</i>	Threadfin rockling
<i>Galathea rostrata</i>	NA
<i>Galeocerdo cuvier</i>	Tiger shark
<i>Galeorhinus galeus</i>	Tope shark
<i>Galiteuthis phyllura</i>	NA
<i>Gari californica</i>	NA
<i>Gasterosteus aculeatus</i>	Three spined stickleback
<i>Gastropsetta frontalis</i>	Shrimp flounder
<i>Gastropteron pacificum</i>	Pacific stomach wing
<i>Gastroptychus spinifer</i>	NA
<i>Gattyana ciliata</i>	Ciliated scale worm
<i>Gemophos tinctus</i>	NA
<i>Gempylus serpens</i>	Snake mackerel
<i>Geodia gibberosa</i>	NA
<i>Geodia mesotriaena</i>	Armoured ball sponge
<i>Geodia starki</i>	NA
<i>Geodinella lendenfeldi</i>	NA
<i>Gephyreaster swifti</i>	Gunpowder star
<i>Gephyroberyx darwinii</i>	Darwin's slimehead
<i>Gersemia rubiformis</i>	Sea strawberry
<i>Gibbonsia metzi</i>	Striped kelpfish
<i>Gigantactis microdantis</i>	NA
<i>Gigantactis vanhoeffeni</i>	NA
<i>Ginglymostoma cirratum</i>	Nurse shark
<i>Glebocarcinus oregonensis</i>	Pygmy rock crab
<i>Glycymeris septentrionalis</i>	Northern bittersweet
<i>Glyptocephalus stelleri</i>	Korean flounder
<i>Glyptolithodes cristatipes</i>	Peruvian centolla
<i>Glyptoplax smithii</i>	Truncate rubble crab
<i>Glyptoxanthus erosus</i>	Eroded mud crab
<i>Gnatholepis thompsoni</i>	Goldspot goby
<i>Gnathophis bracheatopos</i>	Longeye conger
<i>Gobiesox strumosus</i>	Skilletfish
<i>Gobioides broussonnetii</i>	Violet goby
<i>Gobionellus oceanicus</i>	Highfin goby
<i>Gobiosoma bosc</i>	Naked goby

<i>Gobiosoma ginsburgi</i>	Seaboard goby
<i>Gonatopsis borealis</i>	Boreopacific gonate squid
<i>Gonatus berryi</i>	Berry armhook squid
<i>Gonatus middendorffi</i>	Shortarm gonate squid
<i>Gonatus onyx</i>	Clawed armhook squid
<i>Gonatus pyros</i>	Fiery armhook squid
<i>Goniaster tessellatus</i>	Giant sunfish
<i>Gonostoma atlanticum</i>	Atlantic fangjaw
<i>Gorgonocephalus arcticus</i>	Northern basket star
<i>Grandicrepidula grandis</i>	Great slippersnail
<i>Graneledone boreopacifica</i>	NA
<i>Grimothea planipes</i>	Pelagic red crab
<i>Grimothea quadrispina</i>	Pinch bug
<i>Guyanacaris hirsutimana</i>	NA
<i>Gymnachirus melas</i>	Naked sole
<i>Gymnachirus nudus</i>	Flabby sole
<i>Gymnachirus texae</i>	Fringed sole
<i>Gymnelus hemifasciatus</i>	Halfbarred pout
<i>Gymnelus viridis</i>	Fish doctor
<i>Gymnocanthus detrisus</i>	NA
<i>Gymnocanthus tricuspis</i>	Arctic staghorn sculpin
<i>Gymnothorax kolpos</i>	Blacktail moray
<i>Gymnothorax nigromarginatus</i>	Blackedge moray
<i>Gymnura altavela</i>	Spiny butterfly ray
<i>Habevolutopsius attenuatus</i>	Threaded whelk
<i>Habevolutopsius hirasei</i>	NA
<i>Hadroconus altus</i>	NA
<i>Haemulon plumierii</i>	White grunt
<i>Haemulon sciurus</i>	Bluestriped grunt
<i>Haemulon striatum</i>	Striped grunt
<i>Halargyreus johnsonii</i>	Slender codling
<i>Halicardia perplicata</i>	NA
<i>Halichoeres bathyphilus</i>	Greenband wrasse
<i>Halichoeres bivittatus</i>	Slippery dick
<i>Halichoeres caudalis</i>	Painted wrasse
<i>Halichoerus grypus</i>	Grey seal
<i>Halichondria (Eumastia) sitiens</i>	Green tinged sponge
<i>Halichondria (Halichondria) oblonga</i>	NA
<i>Halichondria (Halichondria) panicea</i>	Breadcrumb sponge
<i>Haliclona digitata</i>	NA
<i>Haliphron atlanticus</i>	Seven-arm octopus
<i>Halocynthia dumosa</i>	NA
<i>Halocynthia igaboja</i>	Bristly tunicate
<i>Halosydna brevisetosa</i>	Short scaled worm

<i>Hamatoscalpellum columbianum</i>	NA
<i>Haminoea succinea</i>	Amber glassy-bubble
<i>Hapalogaster grebnitzkii</i>	Soft crab
<i>Harriotta raleighana</i>	Pacific longnose chimaera
<i>Hedgpethia dofleini</i>	NA
<i>Helicolenus dactylopterus</i>	Blackbelly rosefish
<i>Heliometra glacialis</i>	NA
<i>Hemanthias aureorubens</i>	Streamer bass
<i>Hemanthias leptus</i>	Longtail bass
<i>Hemicaranx amblyrhynchus</i>	Bluntnose jack
<i>Hemilepidotus gilberti</i>	Gilbert's irish lord
<i>Hemilepidotus hemilepidotus</i>	Red irish lord
<i>Hemilepidotus spinosus</i>	Brown irish lord
<i>Hemilepidotus zapus</i>	Longfin irish lord
<i>Hemipolygona mcgintyi</i>	Mcginty's latirus
<i>Hemiramphus balao</i>	Balao halfbeak
<i>Hemisquilla californiensis</i>	Blueleg mantis shrimp
<i>Hemithiris psittacea</i>	NA
<i>Henricia aspera</i>	Sandpaper henricia
<i>Henricia asthenactis</i>	NA
<i>Henricia clarki</i>	NA
<i>Henricia dyscrita</i>	NA
<i>Henricia leviuscula</i>	Pacific blood star
<i>Henricia leviuscula leviuscula</i>	NA
<i>Henricia leviuscula spiculifera</i>	NA
<i>Henricia lineata</i>	NA
<i>Henricia longispina</i>	Long spined henricia
<i>Henricia longispina aleutica</i>	NA
<i>Henricia rhytisma</i>	NA
<i>Henricia sanguinolenta</i>	Blood sea star
<i>Henricia tumida</i>	Fat henricia
<i>Hepatus princeps</i>	NA
<i>Hepatus pudibundus</i>	Flecked box crab
<i>Heptacarpus flexus</i>	Slenderbeak coastal shrimp
<i>Heptacarpus maxillipes</i>	Aleutian coastal shrimp
<i>Hermisenda crassicornis</i>	Hermisenda
<i>Hermodice carunculata</i>	Bearded fireworms
<i>Hesperibalanus hesperius</i>	Crab barnacle
<i>Heterochone calyx</i>	Fingered goblet sponge
<i>Heterochone tenera</i>	Tender glass sponge
<i>Heterocrypta occidentalis</i>	Sandflat elbow crab
<i>Heterodontus francisci</i>	Horn shark
<i>Heteropolypus ritteri</i>	Ritter's soft coral
<i>Heteropriacanthus cruentatus</i>	Glasseye snapper

Hexagrammos decagrammus	Kelp greenling
Hexagrammos lagocephalus	Rock greenling
Hexagrammos octogrammus	Masked greenling
Hexanchus griseus	Bluntnose sixgill shark
Hexapanopeus angustifrons	Smooth mud crab
Hexapanopeus paulensis	Knobbed mud crab
Hexaplex fulvescens	Giant eastern murex
Hiatella arctica	Arctic hiatella
Hippasteria heathi	Heath's spiny star
Hippasteria leiopelta	NA
Hippasteria lepidonotus	Pebbly star
Hippocampus erectus	Lined seahorse
Hippocampus reidi	Longsnout seahorse
Hippocampus zosterae	Dwarf seahorse
Hippoglossina stomata	Bigmouth flounder
Hippoporina insculpta	NA
Hirundichthys rondeletii	Black wing flyingfish
Histioteuthis heteropsis	NA
Histrio histrio	Sargassumfish
Holacanthus bermudensis	Blue angelfish
Holocentrus adscensionis	Squirrelfish
Holothuria (Theelothuria) princeps	NA
Holothuria (Vaneyothuria) lentiginosa	NA
Homola barbata	Homole crab
Hoplostethus mediterraneus	Mediterranean slimehead
Hoplostethus occidentalis	Atlantic roughy
Hoplunnis diomediana	Blacktail pikeconger
Hoplunnis macrura	Freckled pike-conger
Hoplunnis tenuis	Spotted pike-conger
Hormathiidae sp. A	NA
Howella brodiei	Pelagic basslet
Howella sherborni	Sherborn's pelagic bass
Humilaria kennerleyi	Kennerley venus
Hygophum reinhardtii	Reinhardt's lantern fish
Hymeniacidon assimilis	NA
Hymenodiscus exilis	NA
Hyperoglyphe perciformis	Barrelfish
Hyperprosopon anale	Spotfin surfperch
Hypleurochilus bermudensis	Barred blenny
Hypleurochilus geminatus	Crested blenny
Hypoconcha arcuata	Granulate shellback crab
Hypoconcha parasitica	Rough shellback crab
Hypoconcha spinosissima	Spiny shellback crab
Hypomesus pretiosus	Surf smelt

<i>Hypoplectrus puella</i>	Barred hamlet
<i>Hypoplectrus unicolor</i>	Butter hamlet
<i>Hyporhamphus meeki</i>	American halfbeak
<i>Hyporhamphus unifasciatus</i>	Common halfbeak
<i>Hyporthodus flavolimbatus</i>	Yellowedge grouper
<i>Hyporthodus nigritus</i>	Warsaw grouper
<i>Hyporthodus niveatus</i>	Snowy grouper
<i>Hypsagonus quadricornis</i>	Fourhorn poacher
<i>Hypsoblennius hentz</i>	Feather blenny
<i>Icelinus borealis</i>	Northern sculpin
<i>Icelinus burchami</i>	Dusky sculpin
<i>Icelinus fimbriatus</i>	Fringed sculpin
<i>Icelinus oculatus</i>	Frogmouth sculpin
<i>Icelinus tenuis</i>	Spotfin sculpin
<i>Icelus canaliculatus</i>	Blacknose sculpin
<i>Icelus euryops</i>	NA
<i>Icelus spatula</i>	Spatulate sculpin
<i>Icelus uncinalis</i>	NA
<i>Icichthys lockingtoni</i>	Medusafish
<i>Icosteus aenigmaticus</i>	Ragfish
<i>Idiacanthus antrostomus</i>	Pacific blackdragon
<i>Iliacantha liodactylus</i>	NA
<i>Iliacantha sparsa</i>	Shouldered purse crab
<i>Iliacantha subglobosa</i>	Longfinger purse crab
<i>Inflatella globosa</i>	NA
<i>Iridonida angulata</i>	NA
<i>Iridonida irrasa</i>	NA
<i>Iridonida pusilla</i>	Common squat lobster
<i>Iridonida spinifrons</i>	NA
<i>Isodictya palmata</i>	Common palmate sponge
<i>Isodictya rigida</i>	Orange finger sponge
<i>Isostichopus badionotus</i>	Chocolate chip sea cucumber
<i>Isurus oxyrinchus</i>	Shortfin mako
<i>Janetogalatea californiensis</i>	NA
<i>Japellion aleutica</i>	NA
<i>Japetella diaphana</i>	Diaphanous pelagic octopod
<i>Javania borealis</i>	NA
<i>Javania cailleti</i>	Caillet's stony coral
<i>Jordania zonope</i>	Longfin sculpin
<i>Kali indica</i>	NA
<i>Kali kerberti</i>	NA
<i>Kalolophus speciosus</i>	Beautiful crassatella
<i>Kathetostoma avertuncus</i>	Smooth stargazer
<i>Keenocardium blandum</i>	Low rib cockle

Keenocardium californiense californiense	Aleutian cockle
Kellia laperousii	Suborbicular kellyclam
Kyphosus incisor	Yellow sea chub
Labrisomus nuchipinnis	Hairy blenny
Lachnolaimus maximus	Hogfish
Lactophrys trigonus	Buffalo trunkfish
Laemonema barbatulum	Shortbeard codling
Laevicardium mortoni	Yellow eggcockle
Laevicardium pictum	Painted eggcockle
Lamellaria perspicua	Transparent lamellaria
Lamna ditropis	Salmon shark
Lampanyctus jordani	Brokenline lanternfish
Lampanyctus regalis	Pinpoint lampfish
Lampanyctus ritteri	Broadfin lampfish
Lampetra ayresii	Western river lamprey
Lamprogrammus niger	NA
Laqueus californianus	California lamp shell
Latisipho aphelus	Oblique whelk
Latisipho hallii	Shrew whelk
Latisipho hypolispus	NA
Latisipho jordani	NA
Latrunculia (Uniannulata) oparinae	NA
Leander tenuicornis	Brown grass shrimp
Lebbeus grandimanus	Candy striped shrimp
Lebbeus groenlandicus	Spiny lebbeid
Lebbeus polaris	Polar lebbeid
Lebbeus washingtonianus	Slope lebbeid
Leieschara subgracilis	NA
Leirolambrus granulatus	NA
Leodia sexiesperforata	Six holed keyhole urchin
Leodice valens	White banded bobbit worm
Leopecten diegensis	San diego scallop
Lepidochelys kempii	Kemp's ridley turtle
Lepidocybium flavobrunneum	Escolar
Lepidopus caudatus	Silver scabbardfish
Lepidopus fitchi	Pacific scabbardfish
Lepophidium entomelan	Blackthroat cusk-eel
Lepophidium jeannae	Mottled cusk-eel
Leptagonus decagonus	Atlantic poacher
Leptasterias (Hexasterias) camtschatica	Kamchatha six-rayed star
Leptasterias (Hexasterias) coei	Coe's six-rayed star
Leptasterias coei truculenta	NA
Leptasterias hexactis	Delicate six-rayed star
Leptasterias hylodes	Aleutian star

Leptasterias katharinae	NA
Leptasterias stolacantha	Rough skirted star
Leptoclinus maculatus	Daubed shanny
Leptocottus armatus	Pacific staghorn sculpin
Leptogorgia chilensis	Red gorgonian
Leptychaster anomalus	Pentagonal sand star
Leptychaster arcticus	Arctic sand star
Leptychaster pacificus	Pale star
Lestidiops ringens	Slender barracudina
Letharchus velifer	Sailfin eel
Lethotremus muticus	Docked snailfish
Leucandra heathi	Bristly case sponge
Leucandra tuba	NA
Leucoraja lentiginosa	Freckled skate
Leukoma staminea	Pacific littleneck
Leuroglossus schmidtii	Northern smoothtongue
Leuroglossus stilbius	California smoothtongue
Libinia dubia	Longnose spider crab
Libinia emarginata	Portly spider crab
Lillipathes lillei	NA
Limaria pellucida	NA
Limneria prolongata	Elongate lamellaria
Limneria undata	Wavy lamellaria
Limopsis akutanica	Akutan limops
Limopsis vaginata	Vaginate limops
Lindafulgur candelabrum	Splendid whelk
Lindafulgur lyonsi	NA
Lindapecten muscosus	Mossy scallop
Liopsetta glacialis	Arctic flounder
Liparis atlanticus	Atlantic seasnail
Liparis bathyarticus	Nebulous snailfish
Liparis bristolensis	Bristol snailfish
Liparis callyodon	Spotted snailfish
Liparis dennyi	Marbled snailfish
Liparis fucensis	Slipskin snailfish
Liparis inquilinus	Inquiline snailfish
Liparis marmoratus	Festive snailfish
Liparis ochotensis	NA
Liparis pulchellus	Showy snailfish
Liparis tunicatus	Kelp snailfish
Lipariscus nanus	Pygmy snailfish
Lipolagus ochotensis	Eared blacksmelt
Lirophora latilirata	NA
Lirophora oblitterata	Clench venus

Lissocrangon stylirostris	Smooth bay shrimp
Lithodes couesi	Scarlet king crab
Lithodes maja	Norway king crab
Lithophaga antillarum	Giant datemussel
Lithopoma americanum	American star snail
Lithopoma phoebium	NA
Litoscalpellum ursum	NA
Livoneca ovalis	NA
Lobopilumnus agassizii	Areolated hairy crab
Lobotes surinamensis	Tripletail
Lonchopisthus micrognathus	Swordtail jawfish
Lophaster furcilliger	Pink crested star
Lophiodes reticulatus	Reticulated goosefish
Lophius gastrophysus	Blackfin goosefish
Lophogastrida sp. A	Opossum shrimps
Lopholatilus chamaeleonticeps	Great northern tilefish
Lovenia cordiformis	Sea porcupine
Loxorhynchus crispatus	Moss crab
Loxorhynchus grandis	Sheep crab
Lucinoma annulata	Ringed lucine
Luidia alternata	Banded sea star
Luidia asthenosoma	Fringed sand star
Luidia lawrencei	NA
Luidia ludwigi scotti	NA
Luidia sagamina aciculata	NA
Luidia senegalensis	Nine armed sea star
Lumpenella longirostris	Longsnout prickleback
Lumpenus lampraeformis	Snakeblenny
Lumpenus sagitta	Snake prickleback
Lunarca ovalis	Blood ark
Lutjanus analis	Mutton snapper
Lutjanus vivanus	Silk snapper
Lycenchelys camchatica	NA
Lycenchelys jordani	Shortjaw eelpout
Lycenchelys verrillii	Wolf eelpout
Lycodapus dermatinus	NA
Lycodapus endemoscotus	Deepwater slipskin
Lycodapus fierasfer	Blackmouth eelpout
Lycodapus mandibularis	Pallid eelpout
Lycodapus parviceps	Smallhead eelpout
Lycodes akuugun	NA
Lycodes beringi	Bering eelpout
Lycodes concolor	Ebony eelpout
Lycodes mucosus	Saddled eelpout



<i>Lycodes polaris</i>	Canadian eelpout
<i>Lyconema barbatum</i>	Bearded eelpout
<i>Lysiosquilla campechiensis</i>	NA
<i>Lysiosquilla scabricauda</i>	Smooth mantis shrimp
<i>Lysmata wurdemanni</i>	Peppermint shrimp
<i>Lytechinus pictus</i>	White sea urchin
<i>Lytechinus variegatus</i>	Variegated sea urchin
<i>Macoma brota</i>	Heavy macoma
<i>Macoma calcarea</i>	Chalky macoma
<i>Macoma inquinata</i>	Pointed macoma
<i>Macoma nasuta</i>	Bent nose macoma
<i>Macoploma pulleyi</i>	Delta macoma
<i>Macoploma yoldiformis</i>	Yoldia macoma
<i>Macrocoeloma camptocerum</i>	Florida decorator crab
<i>Macrocoeloma eutheca</i>	NA
<i>Macrocoeloma nodipes</i>	NA
<i>Macrocoeloma trispinosum</i>	Spongy decorator crab
<i>Macrocypraea cervus</i>	NA
<i>Macropinna microstoma</i>	Barreleye
<i>Macroramphosus scolopax</i>	Longspine snipefish
<i>Macroregionia macrochira</i>	Long clawed spider crab
<i>Macrostrombus costatus</i>	Milk conch
<i>Macrourus berglax</i>	Roughhead grenadier
<i>Magnisudis atlantica</i>	Duckbill barracudina
<i>Maguimithrax spinosissimus</i>	Channel clinging crab
<i>Malacocephalus laevis</i>	Softhead grenadier
<i>Malacocephalus occidentalis</i>	Western softhead grenadier
<i>Malacocottus aleuticus</i>	Whitetail sculpin
<i>Malacocottus kincaidi</i>	Blackfin sculpin
<i>Malleus candeanus</i>	Caribbean hammer-oyster
<i>Mangelia carlotta</i>	NA
<i>Manucomplanus unguatus</i>	NA
<i>Margarites costalis</i>	Boreal rosy margarite
<i>Margarites pupillus</i>	Little margarite
<i>Maulisia maui</i>	Maul's searsid
<i>Maurolicus weitzmani</i>	Atlantic pearlside
<i>Mediaster tenellus</i>	Delicate star
<i>Megalocottus platycephalus</i>	Belligerent sculpin
<i>Megalops atlanticus</i>	Tarpon
<i>Megangulus luteus</i>	Alaskan great tellin
<i>Megapitaria maculata</i>	Calico clam
<i>Megasurcula carpenteriana</i>	NA
<i>Megayoldia thraciaeformis</i>	Broad yoldia
<i>Meiosquilla quadridens</i>	NA

Melamphaes lugubris	Highsnout melamphid
Melanocetus johnsonii	Humpback anglerfish
Melanonus zugmayeri	Arrowtail
Melanostigma atlanticum	Atlantic soft pout
Melanostigma pammelas	Midwater eelpout
Mellita quinquiesperforata	Keyhole sand dollar
Membras martinica	Rough silverside
Menidia beryllina	Inland silverside
Menidia menidia	Atlantic silverside
Menippe adina	Gulf stone crab
Menippe mercenaria	Florida stone crab
Menticirrhus saxatilis	Northern kingfish
Meoma ventricosa	Red heart urchin
Mesocentrotus franciscanus	Red sea urchin
Mesopenaeus tropicalis	Salmon shrimp
Metacarcinus anthonyi	Yellow rock crab
Metacarcinus gracilis	Graceful rock crab
Metacrangon variabilis	Deepsea spinyhead
Metoporphaphis calcarata	False arrow crab
Metridium senile	Clonal plumose anemone
Microcottus sellaris	Brightbelly sculpin
Microporina articulata	NA
Microspathodon chrysurus	Yellowtail damselfish
Minyorhyncha crassa	Inflated spiny crab
Mithraculus forceps	Red ridged clinging crab
Mithrax hispidus	Coral clinging crab
Mithrax pleuracanthus	Shaggy clinging crab
Mobula hypostoma	Devil ray
Modiolus americanus	Tulip mussel
Modiolus modiolus	Northern horsemussel
Moira atropos	NA
Mola mola	Ocean sunfish
Molgula griffithsii	NA
Molgula occidentalis	NA
Molgula retortiformis	Sea clod
Moloha faxoni	Pacific carrier crab
Molpadia barbouri	NA
Molpadia cubana	NA
Monanchora alaskensis	Alaskan horny sponge
Monolene sessilicauda	Deepwater flounder
Monoplex parthenopeus	Giant triton
Mopalia egretta	Egret plumped mopalia
Mopalia swanii	Swan's mopalia
Moreiradromia antillensis	Hairy sponge crab

<i>Morone saxatilis</i>	Striped bass
<i>Mugil cephalus</i>	Flathead grey mullet
<i>Mugil curema</i>	White mullet
<i>Mulloidichthys martinicus</i>	Yellow goatfish
<i>Munidopsis hystrix</i>	NA
<i>Munidopsis quadrata</i>	Four-cornered squat lobster
<i>Munidopsis robusta</i>	NA
<i>Munidopsis</i> sp. A	NA
<i>Muraena retifera</i>	Reticulate moray
<i>Muriceides nigra</i>	NA
<i>Musculus discors</i>	Discordant mussel
<i>Musculus niger</i>	Black mussel
<i>Mustelus californicus</i>	Gray smooth-hound
<i>Mustelus henlei</i>	Brown smooth-hound
<i>Mustelus lunulatus</i>	Sicklefin smooth-hound
<i>Mustelus norrisi</i>	Narrowfin smooth-hound
<i>Mustelus sinuatus</i>	Gulf smooth-hound
<i>Muusoctopus leioderma</i>	Smoothskin octopus
<i>Muusoctopus oregonensis</i>	NA
<i>Muusoctopus sibiricus</i>	NA
<i>Mya arenaria</i>	Softshell clam
<i>Mya baxteri</i>	NA
<i>Mya elegans</i>	NA
<i>Mya pseudoarenaria</i>	False softshell
<i>Mya truncata</i>	Truncate softshell
<i>Mycale (Aegogropila) adhaerens</i>	Smooth scallop sponge
<i>Mycale (Carmia) carlilei</i>	NA
<i>Mycale (Mycale) tylota</i>	NA
<i>Mycteroperca microlepis</i>	Gag
<i>Mycteroperca phenax</i>	Scamp
<i>Mycteroperca venenosa</i>	Yellowfin grouper
<i>Myctophum punctatum</i>	Spotted lanternfish
<i>Myliobatis californica</i>	Bat eagle ray
<i>Myliobatis goodei</i>	Southern eagle ray
<i>Myoxocephalus aeneus</i>	Grubby
<i>Myoxocephalus quadricornis</i>	Fourhorn sculpin
<i>Myoxocephalus scorpioides</i>	Arctic sculpin
<i>Myriapora orientalis</i>	NA
<i>Myrichthys ocellatus</i>	Goldpotted eel
<i>Myriotrochus rinkii</i>	Rink's footless sea cucumber
<i>Myrophis punctatus</i>	Speckled worm-eel
<i>Myropsis quinquespinosa</i>	Fivespine purse crab
<i>Mytilus californianus</i>	California mussel
<i>Mytilus edulis</i>	Blue mussel

<i>Mytilus trossulus</i>	Foolish mussel
<i>Myxilla (Ectyomyxilla) parasitica</i>	Parasitic horny sponge
<i>Myxilla lacunosa</i>	Sulphur horny sponge
<i>Myxine glutinosa</i>	Atlantic hagfish
<i>Myxoderma sacculatum</i>	Giant slimy star
<i>Nalbantichthys elongatus</i>	NA
<i>Nannobrachium regale</i>	Pinpoint lampfish
<i>Nanoplax xanthiformis</i>	Rough squareback crab
<i>Nansenia candida</i>	Bluethroat argentine
<i>Narcine bancroftii</i>	Lesser electric ray
<i>Narcine brasiliensis</i>	Brazilian electric ray
<i>Narcissia trigonaria</i>	NA
<i>Naria spurca</i>	NA
<i>Naticarius canrena</i>	Colorful moonsnail
<i>Naucrates ductor</i>	Pilotfish
<i>Nautichthys oculofasciatus</i>	Sailfin sculpin
<i>Nautichthys pribilovius</i>	Eyeshade sculpin
<i>Nautichthys robustus</i>	Shortmast sculpin
<i>Nearchaster pedicellaris</i>	Pedicillate fragile star
<i>Nearchaster variabilis</i>	Variable fragile star
<i>Nectoliparis pelagicus</i>	Tadpole snailfish
<i>Nemausa acuticornis</i>	Sharphorn clinging crab
<i>Nemichthys larseni</i>	Pale snipe eel
<i>Nemichthys scolopaceus</i>	Slender snipe eel
<i>Neoberingius frielei</i>	NA
<i>Neobythites gilli</i>	Twospot brotula
<i>Neoclinus blanchardi</i>	Sarcastic fringehead
<i>Neoconger mucronatus</i>	Ridged eel
<i>Neocrangon abyssorum</i>	Abyssal crangon
<i>Neocrangon communis</i>	Gray shrimp
<i>Neopinnula americanus</i>	American sackfish
<i>Neognathophausia gigas</i>	NA
<i>Neognathophausia ingens</i>	Giant red mysid
<i>Neognathophausia sp. A</i>	NA
<i>Neogonodactylus bredini</i>	Split-thumb mantis shrimp
<i>Neogonodactylus torus</i>	NA
<i>Neophinoe coronata</i>	Crowned hairysnail
<i>Neolithodes diomedae</i>	NA
<i>Neomenia efgamatoi</i>	NA
<i>Neomenia yamamotoi</i>	NA
<i>Neomerinthe hemingwayi</i>	Spinycheek scorpionfish
<i>Neoterebra dislocata</i>	Eastern auger
<i>Neotrypaea californiensis</i>	Bay ghost shrimp
<i>Neoturris brevicornis</i>	Blob top jelly

<i>Nephropsis aculeata</i>	Florida lobsterette
<i>Neptunea alexeyevi</i>	NA
<i>Neptunea gyroscopoides</i>	NA
<i>Neptunea humboldtiana</i>	NA
<i>Neptunea insularis</i>	NA
<i>Neptunea middendorffii</i>	NA
<i>Neptunea phoenicea</i>	Phoenician whelk
<i>Neptunea smirnia</i>	Smirnia whelk
<i>Neptunea stilesi</i>	NA
<i>Neptunea tabulata</i>	Tabled whelk
<i>Nerocila acuminata</i>	NA
<i>Nesiarchus nasutus</i>	Black gemfish
<i>Neverita duplicata</i>	Shark eye
<i>Neverita lewisii</i>	Lewis's moonsnail
<i>Nezumia bairdii</i>	Marlin spike grenadier
<i>Nezumia liolepis</i>	Smooth grenadier
<i>Nibilia antilocapra</i>	Shorthorn spiny crab
<i>Nicholsina usta</i>	Emerald parrotfish
<i>Niso aeglees</i>	Brown line niso
<i>Nodipecten fragosus</i>	NA
<i>Nodipecten nodosus</i>	Lion's paw
<i>Nodulotrophon coronatus</i>	Crown trophon
<i>Noetia ponderosa</i>	Ponderous ark
<i>Nothria conchylega</i>	NA
<i>Notostomum cyclostomum</i>	NA
<i>Notostomus japonicus</i>	Japanese spinyridge
<i>Nucella lamellosa</i>	Frilled dogwinkle
<i>Nuculana pernula</i>	Northern nutclam
<i>Nudibranchia sp. A</i>	Sea slug
<i>Oceanactis diomedae</i>	NA
<i>Ocnus pygmaeus</i>	NA
<i>Octopus briareus</i>	Caribbean reef octopus
<i>Octopus californicus</i>	North pacific bigeye octopus
<i>Octopus joubini</i>	Atlantic pygmy octopus
<i>Octopus rubescens</i>	East pacific red octopus
<i>Octopus vulgaris</i>	Common octopus
<i>Oculina diffusa</i>	Diffuse ivory bush coral
<i>Ocyurus chrysurus</i>	Yellowtail snapper
<i>Odontaster crassus</i>	NA
<i>Odontohenricia ahearnae</i>	NA
<i>Odontohenricia fisheri</i>	Fisher's toothed henricia
<i>Odontopyxis trispinosa</i>	Pygmy poacher
<i>Odontoscion dentex</i>	Reef croaker
<i>Ogcocephalus corniger</i>	Longnose batfish

Ogcocephalus cubifrons	NA
Ogcocephalus nasutus	Shortnose batfish
Ogcocephalus pantostictus	Spotted batfish
Ogcocephalus parvus	Roughback batfish
Ogcocephalus radiatus	Polka-dot batfish
Ogcocephalus rostellum	Palefin batfish
Ogcocephalus vespertilio	Seadevil
Okutania anonycha	Smallfin gonate squid
Oligoplites saurus	Leatherjacket
Oliva fulgurator	NA
Oliva sayana	Lettered olive
Oliva scripta	Caribbean olive
Ommastrephes bartramii	Neon flying squid
Onchidiopsis brevipes	Spherical blob snail
Onchidiopsis clarki	NA
Onchidiopsis glacialis	Icy lamellaria
Onchidoris bilamellata	Barnacle eating onchidoris
Oncorhynchus gorbuscha	Pink salmon
Oncorhynchus keta	Chum salmon
Oncorhynchus kisutch	Coho salmon
Oncorhynchus mykiss	Rainbow trout
Oncorhynchus nerka	Sockeye salmon
Oneirodes acanthias	Spiny dreamer
Oneirodes bulbosus	Bulb fish
Oneirodes thompsoni	Alaska dreamer
Onychoteuthis banksii	Clawed calamary squid
Onychoteuthis banksii	Hooked squid
Onychoteuthis borealijaponica	Boreal clubhook squid
Onykia robusta	Robust clubhook squid
Ophiacantha diplasia	NA
Ophiacantha enneactis	NA
Ophichthus cruentifer	Margined snake eel
Ophichthus gomesii	Shrimp eel
Ophichthus puncticeps	Palespotted eel
Ophichthus rex	King snake eel
Ophidion antipholus	Longnose cusk-eel
Ophidion dromio	Shorthead cusk-eel
Ophidion grayi	Blotched cusk-eel
Ophidion josephi	Crested cusk-eel
Ophidion marginatum	Striped cusk-eel
Ophidion scrippsae	Basketweave cusk-eel
Ophidion selenops	Mooneye cusk-eel
Ophidion welshi	Crested cusk-eel
Ophioderma appressum	Harlequin brittle star

<i>Ophioderma brevispinum</i>	NA
<i>Ophioderma devaneyi</i>	NA
<i>Ophiomusa lymani</i>	NA
<i>Ophiomyxa flaccida</i>	Limy brittle star
<i>Ophiopholis japonica</i>	NA
<i>Ophiopholis kennerlyi</i>	NA
<i>Ophiopholis longispina</i>	NA
<i>Ophiophthalmus cataleimmoidus</i>	NA
<i>Ophiophthalmus normani</i>	NA
<i>Ophioplocus esmarki</i>	NA
<i>Ophiophthalmus normani</i>	NA
<i>Ophioscolex corynetes</i>	NA
<i>Ophiosemmotes brevispina</i>	NA
<i>Ophiosemmotes pachybactra</i>	NA
<i>Ophiosemmotes tylota</i>	NA
<i>Ophiosphalma jolliense</i>	Brittle star sp.
<i>Ophiostigma isocanthum</i>	NA
<i>Ophiothrix (Ophiothrix) angulata</i>	Angular brittle star
<i>Ophiothrix (Ophiothrix) spiculata</i>	Pacific spiny brittlestar
<i>Ophiura cryptolepis</i>	NA
<i>Ophiura luetkenii</i>	Gray brittle star
<i>Ophiura quadrispina</i>	NA
<i>Opisthoteuthis albatrossi</i>	NA
<i>Opsanus tau</i>	Oyster toadfish
<i>Oreaster reticulatus</i>	Cushioned star
<i>Oregonia bifurca</i>	Splitnose crab
<i>Orthasterias koehleri</i>	Rainbow star
<i>Osachila semilevis</i>	Thinlip jewelbox crab
<i>Oscarella lobularis</i>	Bubble oscar sponge
<i>Ostichthys trachypoma</i>	Bigeye soldierfish
<i>Ostrea equestris</i>	Crested oyster
<i>Ostrea permollis</i>	NA
<i>Otophidium dormitator</i>	Sleeper cusk-eel
<i>Otophidium omostigma</i>	Polka-dot cusk-eel
<i>Otukaia beringensis</i>	NA
<i>Ovalipes floridanus</i>	Florida lady crab
<i>Oxylebius pictus</i>	Painted greenling
<i>Oxyporhamphus micropterus</i>	Bigwing halfbeak
<i>Pachycheles ackleianus</i>	Red reef porcelain crab
<i>Pachycheles rugimanus</i>	Sculptured porcelain crab
<i>Paelopatides confundens</i>	Disguised sea cucumber
<i>Paguristes lymani</i>	NA
<i>Paguristes sericeus</i>	Blue-eyed hermit
<i>Paguristes tortugae</i>	Band-eye hermit

Paguristes triangulatus	NA
Paguristes turgidus	Orange hairy hermit
Pagurus annulipes	NA
Pagurus armatus	Armed hermit
Pagurus beringanus	Bering hermit
Pagurus bullisi	NA
Pagurus carolinensis	Wormreef hermit
Pagurus caurinus	Greenmark hermit
Pagurus confragosus	Knobbyhand hermit
Pagurus cornutus	Hornyhand hermit
Pagurus dalli	Whiteknee hermit
Pagurus defensus	NA
Pagurus hirsutiusculus	Hairy hermit
Pagurus impressus	Palmate hermit crab
Pagurus kennerlyi	Bluespine hermit
Pagurus longicarpus	Longwrist hermit crab
Pagurus samuelis	Blueband hermit
Pagurus setosus	Setose hermit
Pagurus stevensae	Stevens hermit
Pagurus tanneri	Longhand hermit
Pagurus townsendi	NA
Palicus affinis	Antillian stilt crab
Palicus alternatus	Labile stilt crab
Palicus faxoni	Finned stilt crab
Pandalus aleuticus	Aleutian bigeye
Pandalus amplus	Deepwater bigeye
Pandalus danae	Dock shrimp
Pandalus hypsinotus	Coonstriped shrimp
Pandalus lamelligerus	NA
Pandalus longirostris	Northern longbeak
Pandalus montagui	Aesop shrimp
Pandalus stenolepis	Roughpatch shrimp
Pannychia moseleyi	NA
Panomya norvegica	Arctic roughmya
Panopea abrupta	Pacific geoduck clam
Panopea generosa	Pacific geoduck
Panopeus herbstii	Atlantic mud crab
Panopeus occidentalis	Furrowed mud crab
Panulirus argus	Caribbean spiny lobster
Panulirus interruptus	Mexican spiny lobster
Parablennius marmoreus	Seaweed blenny
Parabornia squillina	Squillaclam
Paracaudina chilensis obesacauda	NA
Paraclinus marmoratus	Marbled blenny



Paraconger caudilimbatus	Margintail conger
Paracrangon echinata	Horned shrimp
Paractaea rufopunctata	Nodose rubble crab
Paragorgia arborea	Bubblegum coral
Paragorgia pacifica	Bubblegum coral
Parahollardia lineata	Jambeau
Paralabrax nebulifer	Barred sand bass
Paralepis coregonoides	Sharpchin barracudina
Paralichthys albigutta	Gulf flounder
Paralichthys californicus	California flounder
Paralichthys squamilentus	Broad flounder
Paraliparis adustus	NA
Paraliparis albeolus	NA
Paraliparis cephalus	Swellhead snailfish
Paraliparis dactylosus	Red snailfish
Paraliparis deani	Prickly snailfish
Paraliparis holomelas	Ebony snailfish
Paraliparis pectoralis	NA
Paraliparis rosaceus	Pink snailfish
Paraliparis ulochir	Broadfin snailfish
Paralithodes brevipes	Brown king crab
Paralithodes californiensis	California king crab
Paralithodes rathbuni	Forknose king crab
Paralomis manningi	NA
Paralomis multispina	NA
Paranthus rapiformis	Sea onion
Parapasiphae sulcatifrons	Grooveback shrimp
Parapenaeus americanus	NA
Parapenaeus politus	Rose shrimp
Paraphelliactis pabista	NA
Parascombrops spinosus	Keelcheek bass
Parasquilla coccinea	NA
Parasudis truculenta	Longnose greeneye
Pareques acuminatus	High hat
Pareques iwamotoi	Blackbar drum
Pareques umbrosus	Cubbyu
Parexocoetus brachypterus	Sailfin flyingfish
Paricelinus hopliticus	Thornback sculpin
Paroncheilus affinis	Bigtooth cardinalfish
Parthenope agona	Elbow crab
Parvamussium alaskense	Alaska glass-scallop
Pasiphaea multidentata	Pink glass shrimp
Patinopecten caurinus	Weathervane scallop
Patiria miniata	Bat star

Pedicellaster magister	Soft orange star
Pelia mutica	Cryptic teardrop crab
Peltodoris lentiginosa	Mottled pale sea-lemon
Peltodoris nobilis	Pacific sea-lemon
Penaeopsis serrata	Megalops shrimp
Penaeus monodon	Giant tiger prawn
Penaeus vannamei	Whiteleg shrimp
Pennatula phosphorea	Phosphorescent sea pen
Pentamera lissoplaca	NA
Pentamera pulcherrima	Splendid sea cucumber
Peprilus simillimus	Pacific pompano
Percis japonica	Dragon poacher
Peribolaster biserialis	Fuzzy star
Periphylla periphylla	Merchant cap
Peristedion gracile	Slender searobin
Peristedion miniatum	Armored searobin
Persephona crinita	Pink purse crab
Petrasma pervernicosa	NA
Petrochirus diogenes	Giant hermit
Petrolisthes armatus	Green porcelain crab
Petrolisthes galathinus	Banded porcelain crab
Petromyzon marinus	Sea lamprey
Phacellophora camtschatica	Fried egg jellyfish
Phaeoptyx conklini	Freckled cardinalfish
Phaeoptyx pigmentaria	Dusky cardinalfish
Phaeoptyx xenus	Sponge cardinalfish
Phanerodon atripes	Sharpnose seaperch
Phanerodon furcatus	White seaperch
Phanerodon vacca	Pile perch
Phidolopora pacifica	Lattice work bryozoan
Philine bakeri	Baker paper-bubble
Phimochirus holthuisi	Red striped hermit
Pholis gunnellus	Rock gunnel
Pholis laeta	Crescent gunnel
Phorbas paucistylifer	NA
Photonectes margarita	NA
Phrontis vibex	Bruised nassa
Phtheichthys lineatus	Slender suckerfish
Phyllolithodes papillosus	Flatspine triangle crab
Phyllonotus pomum	Apple murex
Physiculus fulvus	Hakeling
Physiculus rastrelliger	Hundred fathom mora
Pilumnus dasypodus	Shortspined hairy crab
Pilumnus floridanus	Plumed hairy crab

<i>Pilumnus pannosus</i>	Beaded hairy crab
<i>Pilumnus sayi</i>	Spineback hairy crab
<i>Pinnaxodes floridensis</i>	Polkadotted pea crab
<i>Pinnixa lunzi</i>	Lunz pea crab
<i>Pisaster brevispinus</i>	Giant pink sea star
<i>Pisaster giganteus</i>	Giant spined star
<i>Pisaster ochraceus</i>	Purple star
<i>Placetron wosnessenskii</i>	Scaled crab
<i>Placiphorella pacifica</i>	NA
<i>Placiphorella rufa</i>	Red veiled chiton
<i>Placopecten magellanicus</i> clapper	Atlantic sea scallop
<i>Plakina atka</i>	Atka membrane sponge
<i>Plakina tanaga</i>	NA
<i>Planes minutus</i>	Gulfweed crab
<i>Platybelone argalus</i>	Keeltail needlefish
<i>Platytroctes apus</i>	Legless searsid
<i>Plectobranhus evides</i>	Bluebarred prickleback
<i>Plectrypops retrospinis</i>	Cardinal soldierfish
<i>Pleoticus robustus</i>	Royal red shrimp
<i>Plesionika acanthonotus</i>	Lesser striped shrimp
<i>Plesionika edwardsii</i>	Soldier striped shrimp
<i>Plesionika longicauda</i>	NA
<i>Pleurobranchaea inconspicua</i>	NA
<i>Pleurobranchus areolatus</i>	Atlantic sidegill slug
<i>Pleuronectiform larvae</i>	NA
<i>Pleuronichthys coenosus</i>	C o sole
<i>Pleuronichthys ritteri</i>	Spotted turbot
<i>Pleuronichthys verticalis</i>	Hornyhead turbot
<i>Plicifusus oceanodromae</i>	NA
<i>Plicifusus olivaceus</i>	NA
<i>Plicifusus rodgersi</i>	Strombiform whelk
<i>Plinthaster dentatus</i>	NA
<i>Plumarella aleutiana</i>	NA
<i>Plumarella echinata</i>	NA
<i>Plumarella hapala</i>	NA
<i>Plumarella nuttingi</i>	NA
<i>Plumarella robusta</i>	NA
<i>Plumarella superba</i>	NA
<i>Poecilopsetta beanii</i>	Deepwater dab
<i>Pogonias cromis</i>	Black drum
<i>Polyclinum planum</i>	Elephant ear tunicate
<i>Polydactylus octonemus</i>	Atlantic threadfin
<i>Polydactylus virginicus</i>	Barbu
<i>Polygona infundibulum</i>	Brown line latirus

<i>Polyipnus clarus</i>	Slope hatchetfish
<i>Polymastia boletiformis</i>	Nipple sponge
<i>Polymastia fluegeli</i>	NA
<i>Polymastia pachymastia</i>	Black orange spud sponge
<i>Polymastia pacifica</i>	Aggregated nipple sponge
<i>Polymetme thaeocoryla</i>	NA
<i>Polymixia lowei</i>	Beardfish
<i>Polymixia nobilis</i>	Stout beardfish
<i>Polymyces montereyensis</i>	NA
<i>Polyonyx gibbesi</i>	Eastern tube crab
<i>Polystira albida</i>	White giant-turris
<i>Polystira tellea</i>	Delicate giant-turris
<i>Pomacanthus arcuatus</i>	Gray angelfish
<i>Pomacanthus paru</i>	French angelfish
<i>Pontinus longispinis</i>	Longspine scorpionfish
<i>Pontinus rathbuni</i>	Highfin scorpionfish
<i>Pontophilus norvegicus</i>	Norwegian shrimp
<i>Poraniopsis inflata</i>	Spiny sea star
<i>Porcellana sayana</i>	Spotted porcelain crab
<i>Porcellana sigsbeiana</i>	Striped porcelain crab
<i>Porella compressa</i>	Flattened bryozoan
<i>Porichthys myriaster</i>	Specklefin midshipman
<i>Proclinus rothrocki</i>	Whitebarred prickleback
<i>Poromitra cristiceps</i>	NA
<i>Poromitra curilensis</i>	Alaskan crested bigscale
<i>Portunus ordwayii</i>	Redhair swimming crab
<i>Portunus sayi</i>	Sargassum swimming crab
<i>Priacanthus arenatus</i>	Atlantic bigeye
<i>Primnoa pacifica</i>	Red tree gorgonian coral
<i>Primnoa pacifica</i> var. <i>willeyi</i>	Red tree coral
<i>Primnoa resedaeformis</i>	Red trees
<i>Primnoa wingi</i>	NA
<i>Prionace glauca</i>	Blue shark
<i>Prionotus alatus</i>	Spiny searobin
<i>Prionotus martis</i>	Gulf of mexico barred searobin
<i>Prionotus stephanophrys</i>	Lumptail searobin
<i>Pristigenys alta</i>	Short bigeye
<i>Processa profunda</i>	NA
<i>Prognathodes aya</i>	Bank butterflyfish
<i>Prognatholiparis ptychomandibularis</i>	Wrinkle jaw snailfish
<i>Prognichthys gibbifrons</i>	Bluntnose flyingfish
<i>Promethichthys prometheus</i>	Roudi escolar
<i>Pronotogrammus martinicensis</i>	Roughtongue bass
<i>Propebela nobilis</i>	Noble lora

<i>Propeleda conceptionis</i>	NA
<i>Protomyctophum thompsoni</i>	Bigeye lanternfish
<i>Psammotreta brevifrons</i>	Short macoma
<i>Psathyrometra fragilis</i>	NA
<i>Psenes pellucidus</i>	Bluefin driftfish
<i>Psettichthys melanostictus</i>	Pacific sand sole
<i>Pseudarchaster alascensis</i>	Aleutian scarlet star
<i>Pseudarchaster dissonus</i>	Giant brown pseudarchaster
<i>Pseudarchaster pusillus</i>	NA
<i>Pseudobathylagus milleri</i>	Stout blacksmelt
<i>Pseudobatos lentiginosus</i>	Atlantic guitarfish
<i>Pseudobatos productus</i>	Shovelnose guitarfish
<i>Pseudoliomesus ooides</i>	Nut whelk
<i>Pseudomedeus agassizii</i>	Rough rubble crab
<i>Pseudomedeus distinctus</i>	NA
<i>Pseudomyrophis fugesae</i>	Diminutive worm eel
<i>Pseudomyrophis nimius</i>	NA
<i>Pseudorhombila quadridentata</i>	Flecked squareback crab
<i>Pseudosuberites montiniger</i>	Peachball sponge
<i>Pseudupeneus maculatus</i>	Spotted goatfish
<i>Psolidium bullatum</i>	NA
<i>Psolus chitonoides</i>	Slipper sea cucumber
<i>Psolus fabricii</i>	Scarlet psolus
<i>Psolus japonicus</i>	NA
<i>Psolus phantapus</i>	Arctic armored cucumber
	White creeping pedal sea cucumber
<i>Psolus squamatus</i>	Tadpole sculpin
<i>Psychrolutes paradoxus</i>	Blob sculpin
<i>Psychrolutes phrictus</i>	NA
<i>Pteraster coscinopeplus</i>	Jordan's cushion star
<i>Pteraster jordani</i>	Prickly cushion star
<i>Pteraster marsippus</i>	NA
<i>Pteraster octaster</i>	Orange cushion star
<i>Pteraster pulvillus</i>	Rough cushion star
<i>Pteraster temnochiton</i>	Tesselated slime star
<i>Pteraster tessellatus</i>	NA
<i>Pteraster tessellatus arcuatus</i>	NA
<i>Pteraster trigonodon</i>	NA
<i>Pteraster willsi</i>	NA
<i>Pteria colymbus</i>	Atlantic wing-oyster
<i>Pterois volitans</i>	Red lionfish
<i>Ptilosarcus gurneyi</i>	Gurney's sea pen
<i>Pugettia gracilis</i>	Graceful kelp crab
<i>Pugettia producta</i>	Northern kelp crab

<i>Pugettia richii</i>	Cryptic kelp crab
<i>Puncturella major</i>	Great puncturella
<i>Puncturella rothi</i>	NA
<i>Pungitius pungitius</i>	Ninespine stickleback
Purple striated anemone	Purple striated anemone
<i>Pusula pediculus</i>	Coffeebean trivia
<i>Puzanovia rubra</i>	NA
<i>Pyromaia cuspidata</i>	Dartnose pear crab
<i>Pyrosoma atlanticum</i>	NA
<i>Pyrulofusus deformis</i>	Warped whelk
<i>Pyrulofusus dexius</i>	NA
<i>Pyrulofusus harpa</i>	Left-hand whelk
<i>Pyrulofusus melonis</i>	Giant melon whelk
<i>Pyura haustor</i>	Warty tunicate
<i>Rachycentron canadum</i>	Cobia
<i>Radulinus asprellus</i>	Slim sculpin
<i>Ranilia muricata</i>	Muricate frog crab
<i>Raninoides loevis</i>	Furrowed frog crab
<i>Rastrinus scutiger</i>	Roughskin sculpin
<i>Rathbunella hypoplecta</i>	Stripefin ronquil
<i>Rathbunixa occidentalis</i>	Western pea crab
<i>Raymanninus schmitti</i>	Sharpoar swimming crab
Red striated anemone	NA
<i>Regadrella okinoseana</i>	Lacy basket sponge
<i>Remora remora</i>	Shark sucker
<i>Renilla reniformis</i>	Sea pansy
<i>Retifusus roseus</i>	Rosy whelk
<i>Retifusus virens</i>	Green whelk
<i>Retiometra alascana</i>	NA
<i>Rhacochilus toxotes</i>	Rubberlip seaperch
<i>Rhacostoma atlanticum</i>	NA
<i>Rhamphocottus richardsonii</i>	Grunt sculpin
<i>Rhamphostomella costata</i>	Ribbed bryozoan
<i>Rhinoliparis attenuatus</i>	Slim snailfish
<i>Rhinoliparis barbulifer</i>	Longnose snailfish
<i>Rhinolithodes wosnessenskii</i>	Rhinoceros crab
<i>Rhinoptera brasiliensis</i>	Brazilian cownose ray
<i>Rhithropanopeus harrisi</i>	Harris mud crab
<i>Rhynchoconger flavus</i>	Yellow conger
<i>Rhynchoconger gracilior</i>	Whiptail conger
<i>Rhynchoconger guppyi</i>	NA
<i>Rhynocrangon alata</i>	Saddleback shrimp
<i>Rhynocrangon sharpi</i>	NA
<i>Rimopenaeus constrictus</i>	Roughneck shrimp

Risor ruber	Tusked goby
Rocinela angustata	NA
Romaleon antennarium	Pacific rock crab
Romaleon branneri	Furrowed rock crab
Ronquilus jordani	Northern ronquil
Rossia spp.	Benthic bobtail squid
Rypticus bistrispinus	Freckled soapfish
Rypticus maculatus	Whitespotted soapfish
Rypticus subbifrenatus	Spotted soapfish
Sagamichthys abei	Shining tubeshoulder
Salmo salar	Atlantic salmon
Salvelinus malma	Dolly varden
Sarda orientalis	Striped bonito
Sarda sarda	Atlantic bonito
Sardinella brasiliensis	Brazilian sardinella
Sardinops sagax	South american pilchard
Sargocentron bullisi	Deepwater squirrelfish
Sarritor leptorhynchus	Longnose poacher
Sasakiopus salebrosus	Rough octopus
Saurenhelys cognita	Longface eel
Saurida caribbaea	Smallscale lizardfish
Saurida normani	Shortjaw lizardfish
Saxidomus gigantea	Washington butterclam
Scabrotrophon stuarti	Winged trophon
Scaphella junonia	Junonia
Scarus taeniopterus	Princess parrotfish
Scelidotoma bella	Elegant emarginula
Schizaster orbignyanus	NA
Sciaenops ocellatus	Red drum
Sclerasterias heteropaes	Banded sea star
Scomber colias	Atlantic chub mackerel
Scomber japonicus	Chub mackerel
Scomberesox saurus	Atlantic saury
Scomberomorus regalis	Cero
Sconsia grayi	Royal bonnet
Scopelengys tristis	Pacific blackchin
Scopelosaurus adleri	NA
Scopelosaurus harryi	Scaly paperbone
Scorpaena agassizii	Longfin scorpionfish
Scorpaena dispar	Hunchback scorpionfish
Scorpaena guttata	California scorpionfish
Scorpaena plumieri	Spotted scorpionfish
Scorpaenichthys marmoratus	Cabazon
Scyliorhinus retifer	Chain catshark

Scyllarides aequinoctialis	Spanish slipper lobster
Scyllarus americanus	American slipper lobster
Scyllarus depressus	Scaled slipper lobster
Scyra acutifrons	Sharpnose crab
Sebastes aleutianus	Rougheye rockfish
Sebastes atrovirens	Kelp rockfish
Sebastes auriculatus	Brown rockfish
Sebastes carnatus	Gopher rockfish
Sebastes caurinus	Copper rockfish
Sebastes constellatus	Starry rockfish
Sebastes dallii	Calico rockfish
Sebastes diaconus	Deacon rockfish
Sebastes emphaeus	Puget sound rockfish
Sebastes ensifer	Swordspine rockfish
Sebastes eos	Pink rockfish
Sebastes gilli	Bronzespotted rockfish
Sebastes hopkinsi	Squarespot rockfish
Sebastes lentiginosus	Freckled rockfish
Sebastes levis	Cowcod
Sebastes macdonaldi	Mexican rockfish
Sebastes maliger	Quillback rockfish
Sebastes melanops	Black rockfish
Sebastes melanostictus	Blackspotted rockfish
Sebastes melanostomus	Blackgill rockfish
Sebastes miniatus	Vermillion rockfish
Sebastes miniatus and S. crocotulus	Vermillion and sunset rockfish
Sebastes miniatus and S. pinniger	Vermillion and canary rockfish
Sebastes moseri	Whitespeckled rockfish
Sebastes mystinus	Blue rockfish
Sebastes nigrocinctus	Tiger rockfish
Sebastes ovalis	Speckled rockfish
Sebastes phillipsi	Chameleon rockfish
Sebastes rastrelliger	Grass rockfish
Sebastes reedi	Yellowmouth rockfish
Sebastes rosaceus	Rosy rockfish
Sebastes rosenblatti	Greenblotched rockfish
Sebastes ruberrimus	Yelloweye rockfish
Sebastes rubrivinctus	Flag rockfish
Sebastes rufus	Bank rockfish
Sebastes serranoides	Olive rockfish
Sebastes serriceps	Treefish
Sebastes simulator	Pinkrose rockfish
Sebastes umbrosus	Honeycomb rockfish
Sebastes wilsoni	Pygmy rockfish



Sebastolobus macrochir	Broadbanded thornyhead
Selachii sharks	NA
Selar crumenophthalmus	Bigeye scad
Semicassis granulata	Scotch bonnet
Semicossyphus pulcher	California sheephead
Semirossia tenera	Lesser shining bobtail
Semisuberites cribrosa	Vase sponge
Seriola dumerili	Greater amberjack
Seriola fasciata	Lesser amberjack
Seriola rivoliana	Longfin yellowtail
Seriola zonata	Banded rudderfish
Seriphus politus	Queen croaker
	Red trumpet calcareous tubeworm
Serpula columbiana	Serpulid worm
Serpula vermicularis	Pygmy sea bass
Serraniculus pumilio	Orangeback bass
Serranus annularis	Saddle bass
Serranus notospilus	Belted sandfish
Serranus subligarius	NA
Serratiflustra serrulata	Greenland cockle
Serripes groenlandicus	Broad smoothcockle
Serripes laperousii	Crossthorat sawpalate
Serrivomer jespersenii	Sawtooth eel
Serrivomer sector	Spiny rock shrimp
Sicyonia burkenroadi	Ridgeback rock shrimp
Sicyonia ingentis	Notched tidal rock shrimp
Sicyonia laevigata	NA
Sicyonia parri	Eyespot rock shrimp
Sicyonia stimpsoni	Kinglet rock shrimp
Sicyonia typica	Elongated bristlemouth fish
Sigmops elongatus	Slender fangjaw
Sigmops gracilis	Alaska razor
Siliqua alta	Pacific razor
Siliqua patula	Snubnosed eel
Simenchelys parasitica	Perverse whelk
Sinistrofulgur perversum	Prickly whelk
Sinistrofulgur pulleyi	Lightning whelk
Sinistrofulgur sinistrum	Brown baby ear
Sinum maculatum	Beau's murex
Siratus beauui	Obscure solarelle
Solariella obscura	Morning sun star
Solaster dawsoni	NA
Solaster dawsoni arcticus	Northern sun star
Solaster endeca	

<i>Solaster exiguus</i>	NA
<i>Solaster hexactis</i>	NA
<i>Solaster hypothrissus</i>	White sun star
<i>Solaster paxillatus</i>	Orange sunstar
<i>Solaster spectabilis</i>	NA
<i>Solaster stimpsoni</i>	Stimpson's sun star
<i>Solecurtus cumingianus</i>	Corrugate solecurtus
<i>Solenastrea hyades</i>	Knobby star coral
<i>Solenosteira cancellaria</i>	Cancellate cantharus
<i>Somniosus pacificus</i>	Pacific sleeper shark
<i>Sparisoma atomarium</i>	NA
<i>Spatangus californicus</i>	California heart urchin
<i>Spathochlamys benedicti</i>	Yellow spot scallop
<i>Spengleria rostrata</i>	Rostrate gastrochaenid
<i>Speocarcinus carolinensis</i>	NA
<i>Speocarcinus lobatus</i>	Gulf squareback crab
<i>Sphenia fragilis</i>	NA
<i>Sphoeroides nephelus</i>	Southern puffer
<i>Sphoeroides pachygaster</i>	Blunthead puffer
<i>Sphoeroides testudineus</i>	Checkered puffer
<i>Sphyaena argentea</i>	Pacific barracuda
<i>Sphyaena barracuda</i>	Great barracuda
<i>Sphyaena borealis</i>	Northern sennet
<i>Sphyrna lewini</i>	Scalloped hammerhead
<i>Sphyrna mokarran</i>	Great hammerhead
<i>Sphyrna zygaena</i>	Smooth hammerhead
<i>Spinolambrus fraterculus</i>	Rough elbow crab
<i>Spinolambrus pourtalesii</i>	Spinous elbow crab
<i>Spirinchus starksi</i>	Night smelt
<i>Spirinchus thaleichthys</i>	Longfin smelt
<i>Spirontocaris arcuata</i>	Rathbun blade shrimp
<i>Spirontocaris lamellicornis</i>	Dana's blade shrimp
<i>Spirontocaris liljeborgii</i>	Friendly blade shrimp
<i>Spirontocaris phippisii</i>	Punctuate blade shrimp
<i>Spisula solidissima</i>	Atlantic surfclam
<i>Spondylus americanus</i>	Atlantic thorny oyster
<i>Spondylus tenuis</i>	Digitate thorny oyster
<i>Squatina californica</i>	Pacific angelshark
<i>Squatina dumeril</i>	Sand devil
<i>Squilla deceptrix</i>	NA
<i>Squilla edentata</i>	NA
<i>Squilla rugosa</i>	NA
<i>Stachyptilum superbum</i>	Exquisite sea pen
<i>Staurostoma mertensii</i>	Whitecross jellyfish

<i>Stegastes fuscus</i>	Brazilian damsel
<i>Stegastes leucostictus</i>	Beaugregory
<i>Stegastes partitus</i>	Bicolor damselfish
<i>Stegastes variabilis</i>	Cocoa damselfish
<i>Stegocephalus inflatus</i>	NA
<i>Stegophiura nodosa</i>	NA
<i>Steindachneria argentea</i>	Luminous hake
<i>Stelodoryx oxeata</i>	NA
<i>Stenobranchius leucopsarus</i>	Northern lampfish
<i>Stenobranchius nannochir</i>	Garnet lanternfish
<i>Stenocionops coelatus</i>	Furcate spider crab
<i>Stenocionops furcatus</i>	Furcate spider crab
<i>Stenocionops spinimanus</i>	Prickly spider crab
<i>Stenocionops spinosissimus</i>	Tenspine spider crab
<i>Stenopus scutellatus</i>	Yellowbanded coral shrimp
<i>Stephanasterias albula</i>	Odd rayed star
<i>Stephanolepis setifer</i>	Pygmy filefish
<i>Stereomastis sculpta</i>	Flatback blind lobster
<i>Sternoptyx diaphana</i>	Diaphanous hatchet fish
<i>Stichaeus punctatus</i>	Arctic shanny
<i>Stichopathes luetkeni</i>	Black wire coral
	North pacific flowervase jewel
<i>Stigmatoteuthis dofleini</i>	squid
	South pacific flowervase jewel
<i>Stigmatoteuthis hoylei</i>	squid
<i>Stoloteuthis leucoptera</i>	Butterfly bob tail
<i>Stomias atriventer</i>	Black-belly dragonfish
<i>Stomias boa</i>	Boa dragonfish
<i>Stomolophus meleagris</i>	Cannonball jellyfish
<i>Stomphia coccinea</i>	Swimming anemone
<i>Stomphia didemon</i>	Cowardly anemone
<i>Stramonita haemastoma</i>	Red mouthed rock shell
<i>Strombus alatus</i>	Florida fighting conch
<i>Strongylocentrotus pallidus</i>	Pale urchin
<i>Strongylocentrotus polyacanthus</i>	NA
<i>Strongylocentrotus purpuratus</i>	Purple urchin
<i>Strongylocentrotus sp. cf. fragilis</i>	NA
<i>Strongylura marina</i>	Atlantic needlefish
<i>Styela plicata</i>	Pleated sea squirt
<i>Stylaster alakanus</i>	NA
<i>Stylaster brochi</i>	NA
<i>Stylaster campylecus</i>	White branching hydrocoral
<i>Stylaster crassiseptum</i>	NA
<i>Stylaster elassotomus</i>	NA

<i>Stylaster parageus</i>	NA
<i>Stylaster repandus</i>	NA
<i>Stylaster stejnegeri</i>	NA
<i>Stylaster trachystomus</i>	NA
<i>Stylaster venustus</i>	Fuchsia lace hydrocoral
<i>Stylaster verrillii</i>	Pink branching lace hydrocoral
<i>Stylatula gracilis</i>	NA
<i>Stylocidaris affinis</i>	Pencil urchin
<i>Stylocordyla borealis</i>	Boreal horny sponge
<i>Stylocordyla borealis eous</i>	NA
<i>Suberites domuncula</i>	Sea orange
<i>Suberites ficus</i>	Fig sponge
<i>Suberites montalbidus</i>	NA
<i>Sulcosinus taphrius</i>	NA
<i>Syacium micrurum</i>	Channel flounder
<i>Sycon compactum</i>	Betrothed calcareous sponge
<i>Symbolophorus californiensis</i>	Bigfin lanternfish
<i>Symphurus atricauda</i>	California tonguefish
<i>Symphurus civitatum</i>	Offshore tonguefish
<i>Symphurus diomedeanus</i>	Spottedfin tonguefish
<i>Symphurus marginatus</i>	Margined tonguefish
<i>Symphurus minor</i>	Largescale tonguefish
<i>Symphurus pelicanus</i>	Longtail tonguefish
<i>Symphurus urospilus</i>	Spottail tonguefish
<i>Synagrops bellus</i>	Blackmouth bass
<i>Synallactes challenger</i>	Challenger cucumber
<i>Synalpheus fritzmuelleri</i>	Speckled snapping shrimp
<i>Synalpheus longicarpus</i>	NA
<i>Synalpheus minus</i>	Minor snapping shrimp
<i>Synalpheus townsendi</i>	Townsend snapping shrimp
<i>Synchiropus goodenbeani</i>	Palefin dragonet
<i>Syngnathus floridae</i>	Dusky pipefish
<i>Syngnathus fuscus</i>	Northern pipefish
<i>Syngnathus louisianae</i>	Chain pipefish
<i>Syngnathus pelagicus</i>	Broadnosed pipefish
<i>Syngnathus springeri</i>	Bull pipefish
<i>Synodus lucioceps</i>	California lizardfish
<i>Synodus macrostigmus</i>	Largespot lizardfish
<i>Synodus synodus</i>	Diamond lizardfish
<i>Tachyrhynchus erosus</i>	Eroded turretsnail
<i>Tactostoma macropus</i>	Longfin dragonfish
<i>Tamoya haplonema</i>	NA
<i>Taningia danae</i>	Dana octopus squid
<i>Taonius borealis</i>	NA

Taonius pavo	Peacock cranch squid
Tarletonbeania crenularis	Blue lanternfish
Tarsaster alaskanus	Alaskan star
Tautoga onitis	Tautog
Tautogolabrus adspersus	Cunner
Tedania (Tedania) dirhaphis	NA
Tegula pulligo	Dusky tegula
Tellinella listeri	Speckled tellin
Temnocora candida	Bigeye snailfish
Tentorium semisuberites	Pavilion horny sponge
Terebratalia transversa	Common lamp shell
Terebratulina unguicula	Snake's head lamp shell
Tethyaster grandis	NA
Tetragonurus cuvieri	Smalleye squaretail
Tetronarce californica	Pacific electric ray
Tetronarce nobiliana	Electric ray
Thetys vagina	Virgin salpa
Thouarella cristata	NA
Thunnus alalunga	Albacore
Thyonella gemmata	Green sea cucumber
Thyonella pervicax	NA
Thyriscus anoplus	Sponge sculpin
Tochuina gigantea	Giant orange tochui
Tonicella insignis	White line chiton
Tonna galea	Giant tun
Torellivelutina ammonia	NA
Tozeuma serratum	Serrate arrow shrimp
Trachipterus altivelis	King of-the-salmon
Trachurus symmetricus	Jack mackerel
Travisia pupa	NA
Tremoctopus violaceus	Violet blanket octopods
Tresus capax	Fat gaper
Triakis semifasciata	Leopard shark
Trichocottus brashnikovi	Hairhead sculpin
Trichodon trichodon	Pacific sandfish
Trichotropis bicarinata	Two keel hairysnail
Trididemnum opacum	NA
Triglops macellus	Roughspine sculpin
Triglops metopias	Alaskan sculpin
Triglops murrayi	Moustache sculpin
Triglops xenostethus	Scaly breasted sculpin
Triopha catalinae	Sea clown triopha
Triplofusus giganteus	Florida horse conch
Tripoplax abyssicola	NA

Tripoplax beringiana	NA
Tripoplax trifida	Three rib chiton
Tritonia festiva	Diamondback tritonia
Tubicolixa chaetoptera	Tube pea crab
Tubulanus polymorphus	NA
Tumidotheres maculatus	Squatter pea crab
Turbo castanea	NA
Turritella exoleta	Eastern turretnail
Tyche emarginata	Fourhorn crab
Ulvaria subbifurcata	Radiated shanny
Umbrina coroides	Sand drum
Upogebia pugettensis	Blue mud shrimp
Uraspis secunda	Cottonmouth jack
Urobatis jamaicensis	Yellow stingray
Uroconger syringinus	Threadtail conger
Urophycis cirrata	Gulf hake
Urophycis eairlii	Carolina hake
Urophycis floridana	Southern hake
Urosalpinx cinerea	Atlantic oyster drill
Urticina columbiana	Crusty red anemone
Urticina coriacea	Leathery anemone
Urticina crassicornis	Mottled anemone
Urticina eques	Spotted red anemone
Vampyroteuthis infernalis	Vampire squid
Velella velella	By the-wind sailor
Velutina plicatilis	Oblique lamellaria
Velutina velutina	Smooth lamellaria
Venefica tentaculata	NA
Vermicularia knorrii	Florida wormsnaill
Vesicomys pacifica	NA
Vilasina seminuda	Partly sculptured crenella
Vokesimurex bellegladeensis	Belleglade murex
Vokesimurex tryoni	NA
Volutomitra groenlandica	NA
Volutopsis castaneum	Chestnut whelk
Volutopsius castaneus	Volute whelk
Volutopsius fragilis	Fragile whelk
Volutopsius middendorffi	Tulip whelk
Volutopsius pallidus	NA
Volutopsius regularis	Regular whelk
Volutopsius simplex	Volute whelk
Volutopsius stefanssoni	NA
Volutopsius trophonius	Frilled whelk
Warenia elegantula	NA

Weberella bursa	NA
Xeneretmus latifrons	Blacktip poacher
Xeneretmus leiops	Smooth eye poacher
Xeneretmus triacanthus	Bluespotted poacher
Xenocephalus egregius	Freckled stargazer
Xenolepidichthys dalgleishi	Spotted tinseltail
Xenophora caribaea	Caribbean carriersnail
Xenophora conchyliophora	American carriersnail
Xiphias gladius	Swordfish
Xyrichtys martinicensis	Rosy razorfish
Xyrichtys novacula	Pearly razorfish
Xyrichtys splendens	Green razorfish
Xystreus liolepis	Fantail flounder
Yoldia aeolica	Oblique lined yoldia
Yoldia hyperborea	Northern yoldia
Zameus squamulosus	Velvet dogfish
Zaniolepis frenata	Shortspine combfish
Zapteryx exasperata	Banded guitarfish
Zenopsis conchifer	Silvery john dory
Zesticelus profundorum	Flabby sculpin
Zoroaster ophiurus	NA