**Table S1.** Summary of the least-studied non-fish species in the Adriatic Sea by species group, class, and number of species. Counts based on species that do not meet criteria of between 7-8 studied biological characteristics and at least 30 records in total. Biological characteristics considered include diet, fecundity, maturity, spawning, mortality, lifespan, growth, and length-weight relationships.

|  |  |  |  |
| --- | --- | --- | --- |
| **Species group** | **Subgroup** | **Class** | **No. of species** |
| Cnidarians | Other Cnidarians | Anthozoa | 55 |
| Crustaceans | Other Malacostracans | Malacostraca | 48 |
| Crustaceans | Decapods | Malacostraca | 42 |
| Molluscs | Cephalopods | Cephalopoda | 41 |
| Molluscs | Bivalves | Bivalvia | 35 |
| Cnidarians | Corals | Anthozoa | 25 |
| Echinoderms | Starfish | Asteroidea | 20 |
| Cnidarians | Other Cnidarians | Hydrozoa | 18 |
| Echinoderms | Other echinoderms | Ophiuroidea | 17 |
| Echinoderms | Sea urchins | Echinoidea | 16 |
| Echinoderms | Sea cucumbers | Holothuroidea | 13 |
| Molluscs | Gastropods | Gastropoda | 9 |
| Seabirds | Seabirds | Aves | 5 |
| Sponges | Sponges | Demospongiae | 4 |
| Cnidarians | Jellyfishes | Scyphozoa | 2 |
| Echinoderms | Other echinoderms | Crinoidea | 2 |
| Sea turtles | Sea turtles | Reptilia | 1 |

**Table S2.** Summary of the least-studied non-fish species in the Aegean Sea by species group, class, and number of species. Counts based on species that do not meet criteria of between 7-8 studied biological characteristics and at least 30 records in total. Biological characteristics considered include diet, fecundity, maturity, spawning, mortality, lifespan, growth, and length-weight relationships.

| **Species group** | **Subgroup** | **Class** | **No. of species** |
| --- | --- | --- | --- |
| Crustaceans | Other Malacostracans | Malacostraca | 76 |
| Cnidarians | Other Cnidarians | Anthozoa | 45 |
| Crustaceans | Decapods | Malacostraca | 41 |
| Molluscs | Gastropods | Gastropoda | 36 |
| Molluscs | Bivalves | Bivalvia | 32 |
| Cnidarians | Corals | Anthozoa | 24 |
| Echinoderms | Starfish | Asteroidea | 22 |
| Molluscs | Cephalopods | Cephalopoda | 21 |
| Echinoderms | Sea urchins | Echinoidea | 16 |
| Echinoderms | Other echinoderms | Ophiuroidea | 15 |
| Echinoderms | Sea cucumbers | Holothuroidea | 12 |
| Seabirds | Seabirds | Aves | 2 |
| Cnidarians | Corals | Anthozoa | 2 |
| Echinoderms | Other echinoderms | Crinoidea | 2 |
| Cnidarians | Jellyfishes | Scyphozoa | 1 |
| Marine mammals | Marine mammals | Mammalia | 1 |
| Sea turtles | Sea turtles | Reptilia | 1 |
| Sponges | Sponges | Demospongiae | 1 |

**Table S3.** Summary of the least-studied commercial and non-commercial non-fish species in the Baltic Sea by species group, class, and number of species. Counts based on species that do not meet criteria of between 7-8 studied biological characteristics and at least 30 records in total. Biological characteristics considered include diet, fecundity, maturity, spawning, mortality, lifespan, growth, and length-weight relationships.

| **Species group** | **Subgroup** | **Class** | **No. of species** |
| --- | --- | --- | --- |
| Crustaceans | Other Malacostracans | Malacostraca | 180 |
| Molluscs | Gastropods | Gastropoda | 97 |
| Molluscs | Bivalves | Bivalvia | 92 |
| Crustaceans | Decapods | Malacostraca | 62 |
| Cnidarians | Other Cnidarians | Hydrozoa | 48 |
| Cnidarians | Other Cnidarians | Anthozoa | 20 |
| Seabirds | Seabirds | Aves | 20 |
| Marine mammals | Marine mammals | Mammalia | 13 |
| Echinoderms | Other echinoderms | Ophiuroidea | 9 |
| Echinoderms | Starfish | Asteroidea | 9 |
| Sponges | Sponges | Demospongiae | 8 |
| Echinoderms | Sea cucumbers | Holothuroidea | 8 |
| Echinoderms | Sea urchins | Echinoidea | 8 |
| Molluscs | Cephalopods | Cephalopoda | 7 |
| Molluscs | Other molluscs | Polyplacophora | 6 |
| Crustaceans | Other Crustaceans | Ostracoda | 5 |
| Crustaceans | Other Crustaceans | Hexanauplia | 3 |
| Cnidarians | Jellyfishes | Scyphozoa | 3 |
| Cnidarians | Corals | Anthozoa | 2 |
| Cnidarians | Other Cnidarians | Staurozoa | 1 |
| Echinoderms | Other echinoderms | Crinoidea | 1 |
| Sea turtles | Sea turtles | Reptilia | 1 |
| Molluscs | Other molluscs | Caudofoveata | 1 |
| Molluscs | Other molluscs | Scaphopoda | 1 |
| Molluscs | Other molluscs | Solenogastres | 1 |

**Table S4.** Summary of the least-studied non-fish species in the Bay of Biscay/Celtic Sea/Iberian Coast by species group, class, and number of species. Counts based on species that do not meet criteria of between 7-8 studied biological characteristics and at least 30 records in total. Biological characteristics considered include diet, fecundity, maturity, spawning, mortality, lifespan, growth, and length-weight relationships.

|  |  |  |  |
| --- | --- | --- | --- |
| **Species group** | **Subgroup** | **Class** | **No. of species** |
| Crustaceans | Decapods | Malacostraca | 64 |
| Crustaceans | Other Malacostracans | Malacostraca | 46 |
| Molluscs | Bivalves | Bivalvia | 44 |
| Sponges | Sponges | Demospongiae | 40 |
| Molluscs | Gastropods | Gastropoda | 31 |
| Cnidarians | Other Cnidarians | Hydrozoa | 29 |
| Molluscs | Cephalopods | Cephalopoda | 23 |
| Cnidarians | Jellyfishes | Scyphozoa | 12 |
| Marine mammals | Marine mammals | Mammalia | 11 |
| Molluscs | Other molluscs | Scaphopoda | 9 |
| Cnidarians | Other Cnidarians | Anthozoa | 6 |
| Molluscs | Other molluscs | Polyplacophora | 5 |
| Echinoderms | Starfish | Asteroidea | 5 |
| Echinoderms | Sea cucumbers | Holothuroidea | 4 |
| Echinoderms | Other echinoderms | Ophiuroidea | 4 |
| Seabirds | Seabirds | Aves | 4 |
| Molluscs | Other molluscs | Caudofoveata | 4 |
| Echinoderms | Sea urchins | Echinoidea | 4 |
| Sea turtles | Sea turtles | Reptilia | 4 |
| Molluscs | Other molluscs | Solenogastres | 3 |
| Cnidarians | Other Cnidarians | Staurozoa | 2 |
| Echinoderms | Other echinoderms | Crinoidea | 2 |
| Cnidarians | Corals | Anthozoa | 1 |
| Crustaceans | Other Crustaceans | Hexanauplia | 1 |

**Table S5.** Summary of the-least studied non-fish species in the Black Sea by species group, class, and number of species. Counts based on species that do not meet criteria of between 7-8 studied biological characteristics and at least 30 records in total. Biological characteristics considered include diet, fecundity, maturity, spawning, mortality, lifespan, growth, and length-weight relationships.

| **Species group** | **Subgroup** | **Class** | **No. of Families** | **No. of species** |
| --- | --- | --- | --- | --- |
| Crustaceans | Other Malacostracans | Malacostraca | 12 | 24 |
| Molluscs | Bivalves | Bivalvia | 13 | 17 |
| Crustaceans | Decapods | Malacostraca | 3 | 15 |
| Molluscs | Gastropods | Gastropoda | 10 | 13 |
| Seabirds | Seabirds | Aves | 4 | 7 |
| Cnidarians | Other Cnidarians | Hydrozoa | 5 | 5 |
| Marine mammals | Marine mammals | Mammalia | 3 | 4 |
| Crustaceans | Other Crustaceans | Hexanauplia | 2 | 2 |
| Cnidarians | Jellyfishes | Scyphozoa | 1 | 2 |
| Sea turtles | Sea turtles | Reptilia | 1 | 1 |
| Crustaceans | Other Crustaceans | Branchiopoda | 1 | 1 |
| Cnidarians | Other Cnidarians | Anthozoa | 1 | 1 |
| Echinoderms | Starfish | Asteroidea | 1 | 1 |

**Table S6.** Summary of the least-studied commercial and non-commercial non-fish species in the Levantine Sea by species group, class, and number of species. Counts based on species that do not meet criteria of between 7-8 studied biological characteristics and at least 30 records in total. Biological characteristics considered include diet, fecundity, maturity, spawning, mortality, lifespan, growth, and length-weight relationships.

| **Species group** | **Subgroup** | **Class** | **No. of species** |
| --- | --- | --- | --- |
| Molluscs | Bivalves | Bivalvia | 116 |
| Molluscs | Gastropods | Gastropoda | 92 |
| Crustaceans | Decapods | Malacostraca | 61 |
| Molluscs | Cephalopods | Cephalopoda | 44 |
| Crustaceans | Other Malacostracans | Malacostraca | 21 |
| Seabirds | Seabirds | Aves | 12 |
| Marine mammals | Marine mammals | Mammalia | 12 |
| Cnidarians | Other Cnidarians | Anthozoa | 6 |
| Cnidarians | Other Cnidarians | Hydrozoa | 5 |
| Cnidarians | Corals | Anthozoa | 5 |
| Echinoderms | Sea urchins | Echinoidea | 4 |
| Cnidarians | Jellyfishes | Scyphozoa | 3 |
| Echinoderms | Sea cucumbers | Holothuroidea | 2 |
| Echinoderms | Starfish | Asteroidea | 2 |
| Molluscs | Other molluscs | Polyplacophora | 2 |
| Molluscs | Other molluscs | Scaphopoda | 2 |
| Sea turtles | Sea turtles | Reptilia | 2 |
| Sponges | Sponges | Demospongiae | 1 |
| Molluscs | Other molluscs | Caudofoveata | 1 |

**Table S7.** Summary of least-studied non-fish species in the North Sea by species group, class, and number of species. Counts based on species that do not meet criteria of between 7-8 studied biological characteristics and at least 30 records in total. Biological characteristics considered include diet, fecundity, maturity, spawning, mortality, lifespan, growth, and length-weight relationships.

| **Species group** | **Subgroup** | **Class** | **No. of species** |
| --- | --- | --- | --- |
| Crustaceans | Other Malacostracans | Malacostraca | 229 |
| Molluscs | Gastropods | Gastropoda | 142 |
| Molluscs | Bivalves | Bivalvia | 135 |
| Cnidarians | Other Cnidarians | Hydrozoa | 116 |
| Crustaceans | Other Crustaceans | Hexanauplia | 105 |
| Crustaceans | Decapods | Malacostraca | 98 |
| Seabirds | Seabirds | Aves | 54 |
| Marine mammals | Marine mammals | Mammalia | 27 |
| Sponges | Sponges | Demospongiae | 22 |
| Crustaceans | Other Crustaceans | Ostracoda | 20 |
| Molluscs | Cephalopods | Cephalopoda | 20 |
| Cnidarians | Other Cnidarians | Anthozoa | 18 |
| Echinoderms | Starfish | Asteroidea | 18 |
| Echinoderms | Sea cucumbers | Holothuroidea | 16 |
| Echinoderms | Sea urchins | Echinoidea | 12 |
| Cnidarians | Jellyfishes | Scyphozoa | 11 |
| Echinoderms | Other echinoderms | Ophiuroidea | 10 |
| Molluscs | Other molluscs | Scaphopoda | 8 |
| Molluscs | Other molluscs | Polyplacophora | 4 |
| Sea turtles | Sea turtles | Not assigned | 4 |
| Cnidarians | Corals | Anthozoa | 2 |
| Cnidarians | Other Cnidarians | Staurozoa | 2 |
| Echinoderms | Other echinoderms | Crinoidea | 2 |
| Molluscs | Other molluscs | Caudofoveata | 2 |
| Crustaceans | Other Crustaceans | Branchiopoda | 1 |
| Molluscs | Other molluscs | Solenogastres | 1 |

**Table S8.** Summary of least-studied non-fish species in the western Mediterranean Sea by species group, class, and number of species. Counts based on species that do not meet criteria of between 7-8 studied biological characteristics and at least 30 records in total. Biological characteristics considered include diet, fecundity, maturity, spawning, mortality, lifespan, growth, and length-weight relationships.

| **Species group** | **Subgroup** | **Class** | **No. of species** |
| --- | --- | --- | --- |
| Molluscs | Bivalves | Bivalvia | 91 |
| Molluscs | Gastropods | Gastropoda | 77 |
| Crustaceans | Decapods | Malacostraca | 77 |
| Cnidarians | Other Cnidarians | Hydrozoa | 60 |
| Molluscs | Cephalopods | Cephalopoda | 46 |
| Crustaceans | Other Malacostracans | Malacostraca | 37 |
| Seabirds | Seabirds | Aves | 18 |
| Cnidarians | Corals | Anthozoa | 11 |
| Sponges | Sponges | Demospongiae | 6 |
| Cnidarians | Other Cnidarians | Anthozoa | 6 |
| Echinoderms | Starfish | Asteroidea | 6 |
| Echinoderms | Sea urchins | Echinoidea | 5 |
| Sea turtles | Sea turtles | Reptilia | 5 |
| Cnidarians | Jellyfishes | Scyphozoa | 4 |
| Echinoderms | Sea cucumbers | Holothuroidea | 3 |
| Molluscs | Other molluscs | Scaphopoda | 3 |
| Marine mammals | Marine mammals | Mammalia | 3 |
| Echinoderms | Other echinoderms | Ophiuroidea | 2 |
| Cnidarians | Jellyfishes | Cubozoa | 1 |
| Crustaceans | Other Crustaceans | Branchiopoda | 1 |
| Sponges | Sponges | Demospongiae | 1 |
| Molluscs | Other molluscs | Polyplacophora | 1 |