**Supplementary Table 1. Molecular identification and compliance of the information provided by the suppliers. The cases of interfamilial substitution have been highlighted in grey. Cases of substitution that mainly determined economic loss to the detriment of the suppliers are reported in bold. Data about the commercial interest were collected from FishBase (http://www.fishbase.us/search.php) and Sealife (http://www.sealifebase.org/) databases.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Family** | **Scientific name** | **Comm. name** | **n.****prod** | **Compliances (n.)** | **Barcoding Analysis (BOLD ID’s and BLAST or BLAST alone)** | **Final id.****(FINS)** | **Commercial name** | **Commercial value****(SeaLife, FishBase)** |
| Y | N | NV | COI | Cytb | 16S rRNA |
| Gadidae | *Gadus morhua* | Atlantic cod | 47 | 42 |  |  | *G. morhua* 100% | - | - | *Gadus morhua* | Atlantic cod | high |
|  | 5 |  | ***M. aeglefinus* 100%** | **-** | **-** | ***Melanogrammus aeglefinus*** | **Haddock** | **Medium** |
| *Gadus morhua* | “Baccalà”Atlantic cod | 1 |  | 1 |  | *G. chalcogrammus* 100-99%;*T. finnmarchica* 99-98% | - | - | *Gadus chalcogrammus* | Alaska Pollock | high |
| *Gadus macrocephalus* | “Baccalà”Pacific cod | 1 |  | 1 |  | *G. morhua* 100% | - | - | *Gadus morhua* | Atlantic cod | high |
| *Gadus chalcogrammus* | Alaska Pollock | 1 | 1 |  |  | *G.chalcogrammus* 100-99%;*T. finnmarchica* 99-98% | - | - | *Gadus chalcogrammus* | Alaska Pollock | high |
| *Pollachius virens* | Saithe | 2 | 2 |  |  | *P. virens* 100-99% | - | - | *Pollachius virens* | Saithe | high |
| Merluccidae | *Merluccius hubbsi* | Argentine hake | 1 | 1 |  |  | *M. hubbsi* 100-99% | - | - | *Merluccius hubbsi* | Argentine hake | high |
| *Merluccius capensis* | Shallow-water cape hake | 2 | 1 |  |  | *M. capensis* 100-99% | - | - | *Merluccius capensis* | Shallow-water cape hake | Medium low |
|  | 1 |  | ***M. paradoxus* 100-99%** | **-** | **-** | ***Merluccius paradoxus*** | **Deep-water cape hake** | **Medium high** |
| Lotidae | *Molva molva* | Ling | 1 | 1 |  |  | *M. molva* 100% | - | - | *Molva molva* | Ling | Medium |
| Ophidiidae | ***Brotula barbata*** | **Atl. bearded brotula** | **1** |  | **1** |  | ***M. hubbsi* 100-99%** | **-** | **-** | ***Merluccius hubbsi*** | **Argentine hake** | **high** |
| Scombridae | *Thunnus albacares* | Yellofin tuna | 37 | 36 |  |  | *-* | *T. albacares* 100-99%*T. obesus*; *T. atlanticus*; *T.tonggol*; *T thynnus* 99%; *T.maccoyii* 98% | - | *Thunnus albacares* | Yellowfin tuna | High |
|  | 1 |  | *-* | *T. obesus* 100-99%;*T.albacares*; *T.thynnus* 99%; *T. tonggol* 98%;*T. maccoyii* 98% | - | *Thunnus obesus* | Bigeye tuna | High |
| *Thunnus obesus* | Bigeye tuna | 5 | 5 |  |  | *-* | *T. obesus* 100-99%;*T.albacares*; *T.thynnus* 99%; *T. tonggol* 98%;*T. maccoyii* 98% | - | *Thunnus obesus* | Bigeye tuna | High |
|  |  | 1 |  | *-* | *T. albacares* 100-99%*T. obesus*; *T. atlanticus*; *T.tonggol*; *T thynnus* 99%; *T.maccoyii* 98% | - | *Thunnus albacares* | Yellowfin tuna | High |
| Serranidae | *Epinephelus costae* | Goldblotch grouper | 10 | 5 |  |  | *E. costae* 100-99%;*M. rubra* 100%(1 seq) | *E. costae* 100-99%; *M. rubra* 97% | - | *Epinephelus costae* | Goldblotch grouper | Medium-low |
|  | 4 |  | ***A. monroviae* 100-99%** | **-** | **-** | ***Acanthurus monroviae*** | **Monrovia Doctorfish** | **Low****(ornamental)** |
|  | 1 |  | ***B. multibarbata* 100%** | **-** | **-** | ***Brotula multibarbata*** | **Goatsbeard grouper** | **Medium low** |
| *Epinephelus diacanthus* | Spinycheek grouper | 1 |  | 1 |  | *E. undulosus* 100% | - | - | *Epinephelus undulosus* | Wavy-lined grouper |  |
| ***Epinephelus goreensis*** | **Doungat grouper** | **1** |  | **1** |  | *A. monroviae* 100-99% | - | - | *Acanthurus monroviae* | Monrovia doctorfish | Low(ornamental) |
| *Epinephelus longispinis* | Longispine grouper | 2 | 2 |  |  | *E. longispinis* 100% | - | - | *Epinephelus longispinis* | Longispine grouper | High |
| *Epinephelus malabaricus* | Malabar grouper | 1 |  | 1 |  | *E.longispinis* 100% | - | - | *Epinephelus longispinis* | Longispine grouper | High |
| *Epinephelus retouti* | Red-tipped grouper | 1 |  | 1 |  | *E. diacanthus* 100-98% | - | - | *Epinephelus diacanthus* | Spinycheek grouper | high |
| *Micteroperca rubra* | Mottled grouper | 1 |  | 1 |  | *B. multibarbata* 100% | - | - | *Brotula multibarbata* | Goatsbeard brotula | Medium-low |
| Pleuronectidae | *Pleuronectes platessa* | European plaice | 8 | 8 |  |  | *P. platessa* 100-99%;*P. quadrituberculatus* 98-97% | - | - | *Pleuronectes platessa* | European plaice | High |
| *Reinhardtius hippoglossoides* | Greenland halibut | 1 | 1 |  |  | *R. hyppoglossoides* 100% | - | - | *Reinhardtius hippoglossoides* | Greenland halibut | High |
| Paralichthydae | *Paralichthys patagonicus* | Patagonian flounder | 1 | 1 |  |  | *P. patagonicus* 100-99% | - | - | *Paralichthys patagonicus* | Patagonian flounder | Medium |
| Soleidae | *Synaptura lusitanica* | Portoguese sole | 1 | 1 |  |  | *Synaptura lusitanica 100%* | - | - | *Synaptura lusitanica* | Portoguese sole | Medium |
| Psettodidae | *Psettodes bennettii* | Spiny turbot | 2 | 2 |  |  | *P. bennettii* 100% | - | - | *Psettodes bennettii* | Spiny turbot | High |
| *Psettodes blecheri* | Spottail spiny turbot | 3 |  | 2 |  | *P. bennetti* 100% | - | - | *Psettodes bennettii* | Spiny turbot | High |
| Mullidae | *Pseudupeneus prayensis* | West African Goatfish | 3 | 2 |  |  | *P. prayensis* 100-99% | - | - | *Pseudupeneus prayensis* | West African Goatfish | High |
|  | **1** |  | ***P. indicus* 100-99%** | **-** | **-** | ***Parupeneus indicus*** | **Indian goatfish** | **Medium** |
| *Parupeneus indicus* | Indian Goatfish | 1 | 1 |  |  | *P. indicus* 100-99% | - | - | *Parupeneus indicus* | Indian goatfish | Medium |
| *Parupeneus heptacanthus* | Cinnabar Goatfish | 1 | 1 |  |  | *P. heptacanthus* 100% | - | - | *Parupeneus heptacanthus* | Cinnabar goatfish | Medium |
| Salmonidae | Salmo salar | **Atlantic salmon** | **1** |  | **1** |  | ***O. keta* 100-99%** | **-** | **-** | ***Oncorhynchus keta*** | **Chum salmon** | **Medium** |
| Oncorhynchus mykiss | Rainbow trout | 3 | 3 |  |  | *O. mykiss* 100-99% | - | - | *Oncorhynchus mykiss* | Rainbow trout | Medium |
| Triglidae | Eutrigla gurnardus | Grey gurnard | 1 | 1 |  |  | *E. gurnardus* 100-99% | - | - | *Eutrigla gurnardus* | Grey gurnard | High |
| *Chelidonichthys cuculus* | Red gurnard | 1 | 1 |  |  | *C.cuculus* 100-99% | - | - | *Chelidonichthys cuculus* | Red gurnard | High |
| *Chelidonichthys lucerna* | Tub gurnard | 1 | 1 |  |  | *C. lucerna* 100% | - | - | *Chelidonichthys lucerna* | Tub gurnard | Medium |
| Clupeidae | *Sardina pilchardus* | Sardine | 2 | 1 |  |  | *S. pilchardus* 100% | - | - | *Sardina pilchardus* | Sardine | Low |
|  | 1 |  | *S. aurita* 100% | - | - | *Sardinella aurita* | Round sardinella | Low |
| *Clupea harengus* | Herring | 1 | 1 |  |  | *C. harengus* 100-99% | - | - | *Clupea harengus* | Herring | Low |
| Scopaenidae | *Sebastes norvegicus* | Golden redfish | 2 |  |  | 2 | *S. fasciatus*; *S. mentella**S. norvegicus*; *S. viviparus* 100% | *S. mentella* , *S. norvegicus* 100-99%;*S. fasciatus*; *S. alutus* 98%; | - | *Sebastes* sp. | - | high |
| Carangidae | *Seriola dumerilii* | Greater Amberjack | 1 |  | 1 |  | *S. rivoliana* 100% | - | - | *Seriola rivoliana* | Yellowtail | high |
| Sparidae | *Dentex angolensis* | Angolan dentex | 1 |  | 1 |  | *D. canariensis* 100% | - | - | *Dentex canariensis* | Canary dentex | high |
| *Cheimerius nufar* | Santer seabream | 1 |  | 1 |  | *C. nufar* 100-99% | - | - | *Cheimerius nufar* | Santer seabream | Medium-high |
| Pangasiidae | *P. hypophthalm.* | Striped catfish | 1 | 1 |  |  | *P. hypophthalmus* 100% | - | - | *Pangasianodon hypophthalmus* | Striped catfish | Medium-low |
| Xiphiidae | *Xiphias gladius* | Swordfish | 1 | 1 |  |  | *X. gladius* 100% | - | - | *Xiphias gladius* | Swordfish | High |
| Percidae | *Perca fluviatilis* | European perch | 1 | 1 |  |  | *P. fluviatilis* 100-99% | - | - | *Perca fluviatilis* | European perch | Unknown |
| Latidae | *Lates niloticus* | Nile perch | 3 | 3 |  |  | *L. niloticus* 100% | - | - | *Lates niloticus* | Nile perch | Medium |
| Zeidae | *Zeus faber* | John Dory | 2 | 1 |  |  | *Z. faber* 100-99% | - | - | *Zeus faber* | John Dory | High |
|  |  | 1 |  | *Z. nebulosae* 100-99% | - | - | *Zenopsis nebulosae* | Mirror dory | High |
| Lamnidae | *Isurus oxyrinchus* | Shortfin Mako | 1 | 1 |  |  | *I. oxyrinchus* 100-99% | - | - | *Isurus oxyrhincus* | Shortfin Mako | Medium |
| Carcharhinidae | *Prionace glauca* | Blue shark | 1 | 1 |  |  | *P. glauca* 100% | - | - | *Prionace glauca* | Blue shark | Medium-low |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Loliginidae | *Loligo vulgaris* | Europ. squid | 2 | 2 |  |  | *Loligo vulgaris* 99% | - | *L. vulgaris* 100-99% | *Loligo vulgaris* | European squid | High |
| *Loligo forbesii* | Veined squid | 2 | 2 |  |  | *Loligo forbesii* 100-99% | - | - | *Loligo forbesii* | Veined squid | High |
| *Doryteuthis pealeii* | Longfin inshore squid | 2 | 2 |  |  | *Doryteuthis pealeii*100-99% | - | - | *Doryteuthis pealeii* | Longfin inshore squid | Medium |
| Ommastrephids | *Todarodes sagittatus* | European flying squid | 1 |  | 1 |  | *Todaropsis eblanae*100-99% | - | - | *Todaropsis eblanae* | Lesser flying squid | Medium |
| Octopodidae | *Eledone cirrhosa* | Horned octopus | 2 | 2 |  |  | *Eledone cirrhosa* 100-99% | - | - | *Eledone cirrhosa* | Horned octopus | High |
| *Octopus vulgaris* | Common octopus | 2 | 2 |  |  | *Octopus vulgaris* 100-99% | - | - | *Octopus vulgaris* | Common octopus | High |
| Sepiidae | *Sepia officinalis* | Common cuttlefish | 3 | 3 |  |  | *Sepia officinalis* 100-98% | - | - | *Sepia officinalis* | Common cuttlefish | High |
| *Sepia pharaonis* | Pharaoh Cuttlefish | 2 |  | 1 | (1) | *Sepia* sp. 90%*Sepia aureomaculata 89%**S. nirunda 89%**S. pharaonis 87%* | **-** | *Sepia sp 94%**S. elegans* 92%*S. lycidas*92%;*S. pharaonis* 89%; | ***Sepia* sp** | **-** | **-** |
|  |  | **1** | **(1)** | ***S. maindroni 98-97%;******S. japonica 98%;***  | **-** | ***Sepiella inermis* 97%*****S. japonica* 97%** | ***Sepiella* sp.** | **-** | **-** |
| Veneridae | *Chamelea gallina* | Striped venus clam | 1 | 1 |  |  | *Chamelea gallina 99%* | - | *C. gallina* 100-99% | *Chamelea gallina* | Striped venus clam | Medium |
| Mytilidae | *Myttilus chilensis* | Chilean mussel | 2 |  |  | 2 | *M. chilensis* 100-99%*M.edulis* 100-99%;*M. galloprovincialis* 99% | - | *M. chilensis* 99%*M. edulis* 99%*M. galloprovincialis*,*M. trossulus* 98% | *Mytilus* sp. | - | - |
| *Mytilus edulis* | Blue mussel | 1 |  |  | 1 | *M. edulis 100-99%**M. galloprovincialis 100-99%* | - | *M edulis* 100-99%*M. galloprovincialis* 100-99% | *Mytilus* sp. | - | - |