

Supplementary Table 1. Molecular identification and compliance of the information provided by the suppliers. 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	<i>Gadus morhua</i>	Atlantic cod	47	42			<i>G. morhua</i> 100%	-	-	<i>Gadus morhua</i>	Atlantic cod	high
					5			<i>M. aeglefinus</i> 100%	-	-	<i>Melanogrammus aeglefinus</i>	Haddock
	<i>Gadus morhua</i>	“Baccalà” Atlantic cod	1		1		<i>G. chalcogrammus</i> 100-99%; <i>T. finnmarchica</i> 99-98%	-	-	<i>Gadus chalcogrammus</i>	Alaska Pollock	high
	<i>Gadus macrocephalus</i>	“Baccalà” Pacific cod	1		1		<i>G. morhua</i> 100%	-	-	<i>Gadus morhua</i>	Atlantic cod	high
	<i>Gadus chalcogrammus</i>	Alaska Pollock	1	1			<i>G. chalcogrammus</i> 100-99%; <i>T. finnmarchica</i> 99-98%	-	-	<i>Gadus chalcogrammus</i>	Alaska Pollock	high
	<i>Pollachius virens</i>	Saithe	2	2			<i>P. virens</i> 100-99%	-	-	<i>Pollachius virens</i>	Saithe	high
Merlucciidae	<i>Merluccius hubbsi</i>	Argentine hake	1	1			<i>M. hubbsi</i> 100-99%	-	-	<i>Merluccius hubbsi</i>	Argentine hake	high
	<i>Merluccius capensis</i>	Shallow-water cape hake	2	1			<i>M. capensis</i> 100-99%	-	-	<i>Merluccius capensis</i>	Shallow-water cape hake	Medium low
				1			<i>M. paradoxus</i> 100-99%	-	-	<i>Merluccius paradoxus</i>	Deep-water cape hake	Medium high
Lotidae	<i>Molva molva</i>	Ling	1	1			<i>M. molva</i> 100%	-	-	<i>Molva molva</i>	Ling	Medium
Ophidiidae	<i>Brotula barbata</i>	Atl. bearded brotula	1		1		<i>M. hubbsi</i> 100-99%	-	-	<i>Merluccius hubbsi</i>	Argentine hake	high
Scombridae	<i>Thunnus albacares</i>	Yellofin tuna	37	36			-	<i>T. albacares</i> 100-99% <i>T. obesus</i> ; <i>T. atlanticus</i> ; <i>T. tonggol</i> ; <i>T. thynnus</i> 99%; <i>T. maccoyii</i> 98%	-	<i>Thunnus albacares</i>	Yellowfin tuna	High

					1	-	<i>T. obesus</i> 100-99%; <i>T.albacares</i> ; <i>T.thynnus</i> 99%; <i>T. tonggol</i> 98%; <i>T. maccoyii</i> 98%	-	<i>Thunnus obesus</i>	Bigeye tuna	High
	<i>Thunnus obesus</i>	Bigeye tuna	5	5		-	<i>T. obesus</i> 100-99%; <i>T.albacares</i> ; <i>T.thynnus</i> 99%; <i>T. tonggol</i> 98%; <i>T. maccoyii</i> 98%	-	<i>Thunnus obesus</i>	Bigeye tuna	High
					1	-	<i>T. albacares</i> 100-99% <i>T. obesus</i> ; <i>T. atlanticus</i> ; <i>T.tonggol</i> ; <i>T thynnus</i> 99%; <i>T.maccoyii</i> 98%	-	<i>Thunnus albacares</i>	Yellowfin tuna	High
Serranidae	<i>Epinephelus costae</i>	Goldblotch grouper	10	5		<i>E. costae</i> 100-99%; <i>M. rubra</i> 100%(1 seq)	<i>E. costae</i> 100-99%; <i>M. rubra</i> 97%	-	<i>Epinephelus costae</i>	Goldblotch grouper	Medium-low
				4		<i>A. monroviae</i> 100-99%	-	-	<i>Acanthurus monroviae</i>	Monrovia Doctorfish	Low (ornamental)
				1		<i>B. multibarbata</i> 100%	-	-	<i>Brotula multibarbata</i>	Goatsbeard grouper	Medium low
	<i>Epinephelus diacanthus</i>	Spinycheek grouper	1		1	<i>E. undulosus</i> 100%	-	-	<i>Epinephelus undulosus</i>	Wavy-lined grouper	
	<i>Epinephelus goreensis</i>	Doungat grouper	1		1	<i>A. monroviae</i> 100-99%	-	-	<i>Acanthurus monroviae</i>	Monrovia doctorfish	Low (ornamental)
	<i>Epinephelus longispinis</i>	Longispine grouper	2	2		<i>E. longispinis</i> 100%	-	-	<i>Epinephelus longispinis</i>	Longispine grouper	High
	<i>Epinephelus malabaricus</i>	Malabar grouper	1		1	<i>E.longispinis</i> 100%	-	-	<i>Epinephelus longispinis</i>	Longispine grouper	High
	<i>Epinephelus retouti</i>	Red-tipped grouper	1		1	<i>E. diacanthus</i> 100-98%	-	-	<i>Epinephelus diacanthus</i>	Spinycheek grouper	high
	<i>Micropoper</i>	Mottled	1		1	<i>B. multibarbata</i> 100%	-	-	<i>Brotula</i>	Goatsbeard	Medium-low

	<i>ca rubra</i>	grouper								<i>multibarbata</i>	brotula	
Pleuronectidae	<i>Pleuronectes platessa</i>	European plaice	8	8			<i>P. platessa</i> 100-99%; <i>P. quadrituberculatus</i> 98-97%	-	-	<i>Pleuronectes platessa</i>	European plaice	High
	<i>Reinhardtius hippoglossoides</i>	Greenland halibut	1	1			<i>R. hippoglossoides</i> 100%	-	-	<i>Reinhardtius hippoglossoides</i>	Greenland halibut	High
Paralichthyidae	<i>Paralichthys patagonicus</i>	Patagonian flounder	1	1			<i>P. patagonicus</i> 100-99%	-	-	<i>Paralichthys patagonicus</i>	Patagonian flounder	Medium
Soleidae	<i>Synaptura lusitanica</i>	Portoguese sole	1	1			<i>Synaptura lusitanica</i> 100%	-	-	<i>Synaptura lusitanica</i>	Portoguese sole	Medium
Psettodidae	<i>Psettodes bennettii</i>	Spiny turbot	2	2			<i>P. bennettii</i> 100%	-	-	<i>Psettodes bennettii</i>	Spiny turbot	High
	<i>Psettodes blecheri</i>	Spottail spiny turbot	3		2		<i>P. bennetti</i> 100%	-	-	<i>Psettodes bennettii</i>	Spiny turbot	High
Mullidae	<i>Pseudupeneus prayensis</i>	West African Goatfish	3	2			<i>P. prayensis</i> 100-99%	-	-	<i>Pseudupeneus prayensis</i>	West African Goatfish	High
				1			<i>P. indicus</i> 100-99%	-	-	<i>Parupeneus indicus</i>	Indian goatfish	Medium
	<i>Parupeneus indicus</i>	Indian Goatfish	1	1			<i>P. indicus</i> 100-99%	-	-	<i>Parupeneus indicus</i>	Indian goatfish	Medium
	<i>Parupeneus heptacanthus</i>	Cinnabar Goatfish	1	1			<i>P. heptacanthus</i> 100%	-	-	<i>Parupeneus heptacanthus</i>	Cinnabar goatfish	Medium
Salmonidae	<i>Salmo salar</i>	Atlantic salmon	1		1		<i>O. keta</i> 100-99%	-	-	<i>Oncorhynchus keta</i>	Chum salmon	Medium
	<i>Oncorhynchus mykiss</i>	Rainbow trout	3	3			<i>O. mykiss</i> 100-99%	-	-	<i>Oncorhynchus mykiss</i>	Rainbow trout	Medium
Triglidae	<i>Eutrigla gurnardus</i>	Grey gurnard	1	1			<i>E. gurnardus</i> 100-99%	-	-	<i>Eutrigla gurnardus</i>	Grey gurnard	High
	<i>Chelidonichthys cuculus</i>	Red gurnard	1	1			<i>C. cuculus</i> 100-99%	-	-	<i>Chelidonichthys cuculus</i>	Red gurnard	High
	<i>Chelidonichthys lucerna</i>	Tub gurnard	1	1			<i>C. lucerna</i> 100%	-	-	<i>Chelidonichthys lucerna</i>	Tub gurnard	Medium

Clupeidae	<i>Sardina pilchardus</i>	Sardine	2	1		<i>S. pilchardus</i> 100%	-	-	<i>Sardina pilchardus</i>	Sardine	Low
					1	<i>S. aurita</i> 100%	-	-	<i>Sardinella aurita</i>	Round sardinella	Low
	<i>Clupea harengus</i>	Herring	1	1		<i>C. harengus</i> 100-99%	-	-	<i>Clupea harengus</i>	Herring	Low
Scopaeinae	<i>Sebastes norvegicus</i>	Golden redfish	2		2	<i>S. fasciatus</i> ; <i>S. mentella</i> <i>S. norvegicus</i> ; <i>S. viviparus</i> 100%	<i>S. mentella</i> , <i>S. norvegicus</i> 100-99%; <i>S. fasciatus</i> ; <i>S. alutus</i> 98%;	-	<i>Sebastes</i> sp.	-	high
Carangidae	<i>Seriola dumerilii</i>	Greater Amberjack	1		1	<i>S. rivoliana</i> 100%	-	-	<i>Seriola rivoliana</i>	Yellowtail	high
Sparidae	<i>Dentex angolensis</i>	Angolan dentex	1		1	<i>D. canariensis</i> 100%	-	-	<i>Dentex canariensis</i>	Canary dentex	high
	<i>Cheimereus nufar</i>	Santer seabream	1		1	<i>C. nufar</i> 100-99%	-	-	<i>Cheimereus nufar</i>	Santer seabream	Medium-high
Pangasiidae	<i>P. hypophthalmus</i>	Striped catfish	1	1		<i>P. hypophthalmus</i> 100%	-	-	<i>Pangasianodon hypophthalmus</i>	Striped catfish	Medium-low
Xiphiidae	<i>Xiphias gladius</i>	Swordfish	1	1		<i>X. gladius</i> 100%	-	-	<i>Xiphias gladius</i>	Swordfish	High
Percidae	<i>Perca fluviatilis</i>	European perch	1	1		<i>P. fluviatilis</i> 100-99%	-	-	<i>Perca fluviatilis</i>	European perch	Unknown
Latidae	<i>Lates niloticus</i>	Nile perch	3	3		<i>L. niloticus</i> 100%	-	-	<i>Lates niloticus</i>	Nile perch	Medium
Zeidae	<i>Zeus faber</i>	John Dory	2	1		<i>Z. faber</i> 100-99%	-	-	<i>Zeus faber</i>	John Dory	High
					1	<i>Z. nebulosae</i> 100-99%	-	-	<i>Zenopsis nebulosae</i>	Mirror dory	High
Lamnidae	<i>Isurus oxyrinchus</i>	Shortfin Mako	1	1		<i>I. oxyrinchus</i> 100-99%	-	-	<i>Isurus oxyrinchus</i>	Shortfin Mako	Medium
Carcharhinidae	<i>Prionace glauca</i>	Blue shark	1	1		<i>P. glauca</i> 100%	-	-	<i>Prionace glauca</i>	Blue shark	Medium-low
Loliginidae	<i>Loligo vulgaris</i>	Europ. squid	2	2		<i>Loligo vulgaris</i> 99%	-	<i>L. vulgaris</i> 100-99%	<i>Loligo vulgaris</i>	European squid	High

	<i>Loligo forbesii</i>	Veined squid	2	2			<i>Loligo forbesii</i> 100-99%	-	-	<i>Loligo forbesii</i>	Veined squid	High	
	<i>Doryteuthis pealeii</i>	Longfin inshore squid	2	2			<i>Doryteuthis pealeii</i> 100-99%	-	-	<i>Doryteuthis pealeii</i>	Longfin inshore squid	Medium	
Ommastrephids	<i>Todarodes sagittatus</i>	European flying squid	1			1	<i>Todaropsis eblanae</i> 100-99%	-	-	<i>Todaropsis eblanae</i>	Lesser flying squid	Medium	
Octopodidae	<i>Eledone cirrhosa</i>	Horned octopus	2	2			<i>Eledone cirrhosa</i> 100-99%	-	-	<i>Eledone cirrhosa</i>	Horned octopus	High	
	<i>Octopus vulgaris</i>	Common octopus	2	2			<i>Octopus vulgaris</i> 100-99%	-	-	<i>Octopus vulgaris</i>	Common octopus	High	
Sepiidae	<i>Sepia officinalis</i>	Common cuttlefish	3	3			<i>Sepia officinalis</i> 100-98%	-	-	<i>Sepia officinalis</i>	Common cuttlefish	High	
	<i>Sepia pharaonis</i>	Pharaoh Cuttlefish	2			1	(1)	<i>Sepia</i> sp. 90% <i>Sepia aureomaculata</i> 89% <i>S. nirunda</i> 89% <i>S. pharaonis</i> 87%	-	<i>Sepia</i> sp 94% <i>S. elegans</i> 92% <i>S. lycidas</i> 92%; <i>S. pharaonis</i> 89%;	<i>Sepia</i> sp	-	-
						1	(1)	<i>S. maindroni</i> 98-97%; <i>S. japonica</i> 98%;	-	<i>Sepiella inermis</i> 97% <i>S. japonica</i> 97%	<i>Sepiella</i> sp.	-	-
Veneridae	<i>Chamelea gallina</i>	Striped venus clam	1	1			<i>Chamelea gallina</i> 99%	-	<i>C. gallina</i> 100-99%	<i>Chamelea gallina</i>	Striped venus clam	Medium	
Mytilidae	<i>Mytilus chilensis</i>	Chilean mussel	2				<i>M. chilensis</i> 100-99% <i>M. edulis</i> 100-99%; <i>M. galloprovincialis</i> 99%	-	<i>M. chilensis</i> 99% <i>M. edulis</i> 99% <i>M. galloprovincialis</i> , <i>M. trossulus</i> 98%	<i>Mytilus</i> sp.	-	-	
	<i>Mytilus edulis</i>	Blue mussel	1				<i>M. edulis</i> 100-99% <i>M. galloprovincialis</i> 100-99%	-	<i>M. edulis</i> 100-99% <i>M. galloprovincialis</i> 100-99%	<i>Mytilus</i> sp.	-	-	