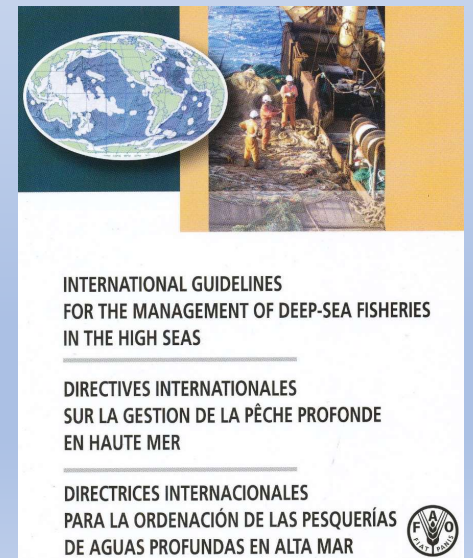




Food and Agriculture
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International Guidelines for the Management of Deep-Sea Fisheries in the High Seas

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International Guidelines for the Management of Deep-Sea Fisheries in the High Seas

- Historical background to the Guidelines
- Key actions in the Guidelines
- RFMO achievements since 2008
 - Measures relating to deep sea fisheries
 - VME protection
 - Stock assessment

UNGA Resolutions – 58/14 (2003)

52. Invites the relevant global and regional bodies, in accordance with their mandates, to investigate urgently how to better address, on a scientific basis, including the application of precaution, the threats and risks to vulnerable and threatened marine ecosystems and biodiversity in areas beyond national jurisdiction

Principal RFMO measures in 2003

Subject	CCAMLR	NEAFC	NAFO	GFCM
EAF	Yes (krill)	Scientific discussions only	Scientific discussions only	
Seabirds	Gear restrictions			
Bottom fishing	Bottom trawl bans to protect sea-floor ecosystems	Trawl/gillnet ban on Rockall Bank		
Catch		Catch level freeze in deepwater fisheries		
Sharks		National responsibility	No measures	Collects some data

UNGA Res 61/105 (2006)

Called for RFMOs, by 31 December 2008, to:

- (a) Assess if bottom fishing activities have significant adverse impacts on VMEs, and if so mitigate
- (b) Identification of VMEs, long-term sustainability of fish stocks, data collection, new and exploratory fisheries
- (c) Ban bottom fishing in VMEs until mitigation measures in place to avoid SAls
- (d) Cease fishing when VMEs encountered and report encounter

Key actions in DSF Guidelines

General

- Apply precautionary approach
- Enhance fisheries management
- Extend data collection and research programs
- Promote transparency
- Provide training
- Support RFMOs

Key actions in DSF Guidelines

Target fish

- Determine areas fished (and not fished)
- Undertake stock assessments
- Identify gears used (selectivity)
- Prevent IUU and over-fishing
- Manage fisheries sustainably

VMEs

- Surveys (description, location)
- Risk and impacts assessments
- Determine Significant Adverse Impacts
- Manage fisheries to prevent SAI on VMEs

Non-target species

- Bycatch reduction

Vulnerable Marine Ecosystems



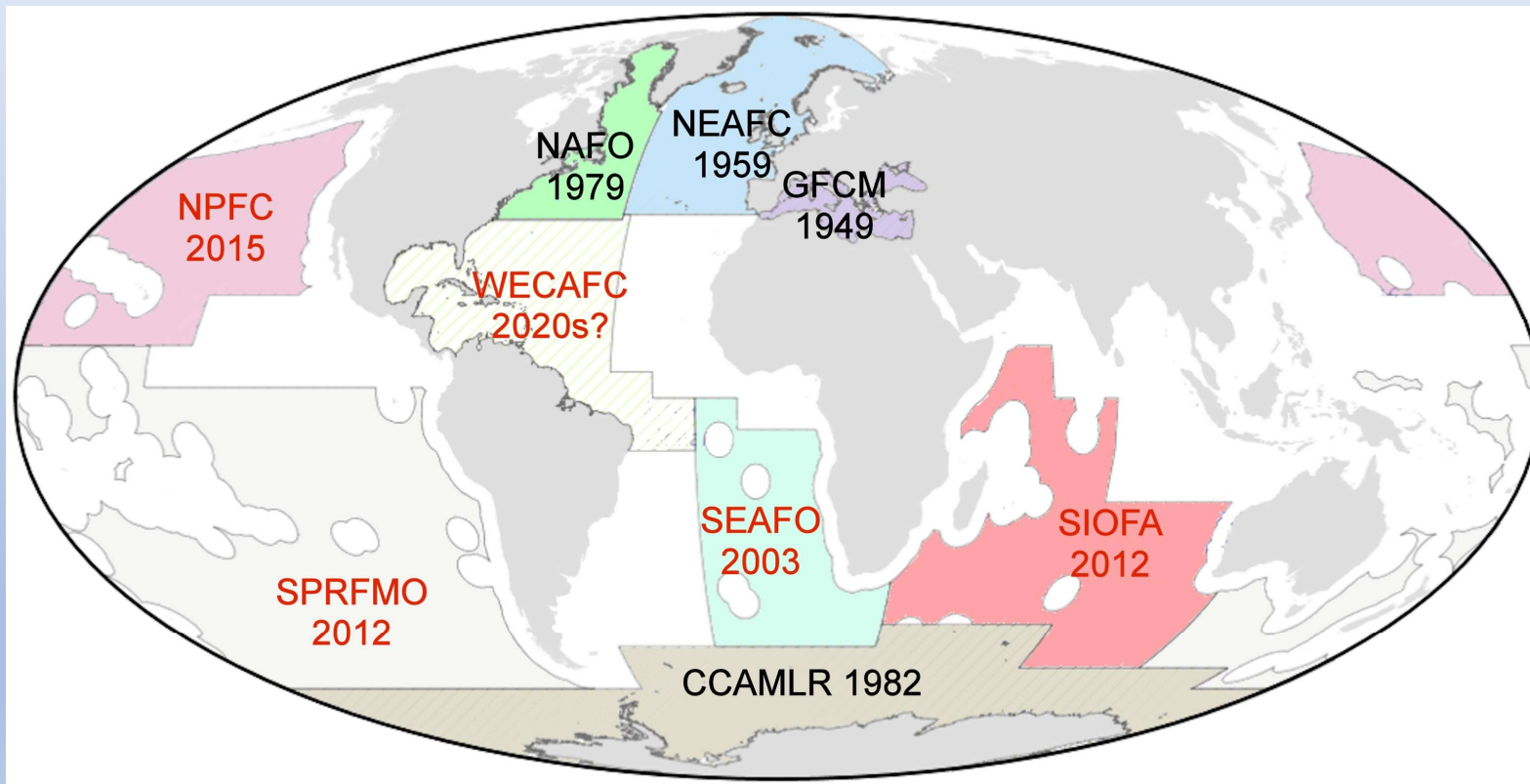
Picture from: Coral, Sponge, and Other Vulnerable Marine Ecosystem Indicator Identification Guide, NAFO Area

- DSF Guidelines provides criteria (Para. 42)
- Mostly deep-sea coral, sponge or sea pen habitats
- Vulnerable to significant adverse impacts from bottom fishing

RFMO Achievements since 2008: Application of DSF Guidelines

- UNGA Res. 61/105 stimulated many changes in RFMOs since 2006. Most notably the measures related to protecting VMEs.
- RFMOs are at different stages of development
- VMEs have been identified and protected from fisheries impacts in many regions
- Data poor and “minor” stocks (many seamount fisheries) are challenging to assess and manage
- Bycatch monitoring of deep-water sharks and other non-target species needs more support

New deep sea RFMOs since 2003



Only 4 functioning RFMOs were in place when the Secretary General made his report in 2004.

By 2015, there are 8 RFMOs in place.

WECAFC has started discussions to be an RFMO.

Measures relating to Deep Sea Fisheries

- Compiled in 2016.
- SPRFMO and SIOFA now have more measures.



TABLE 23

Ocean regions and year of first implementation of various management measures. See regional chapters for details

Region	Body		Management measure					
	Name	Established	Exploratory fishing protocols	Encounter protocols	Indicator species	Thresholds	Existing fishing area	VMEs (first, current)
Northeast Atlantic Ocean	NEAFC	1959	2008	2008	2009	2009	2009	2005 (5) 2016 (19)
Northwest Atlantic Ocean	NAFO	1979	2009	2008	2009	2009	2010	2007 (4) 2016 (20)
Eastern central Atlantic Ocean	CECAF	1967	-	-	-	-	-	2016 (1)*
Western central Atlantic Ocean	WECAFC*	1973	-	-	-	-	-	2016 (5)*
Southeast Atlantic Ocean	SEAFO	2003	2008	2008	2008	2009	2011	2007 (8) 2016 (9)
Southwest Atlantic Ocean	-	-	-	-	-	-	-	-
Mediterranean and Black Seas	GFCM	1949	-	-	-	-	-	2006 (3) 2016 (4)
North Pacific Ocean	NPFC iNPFC*	2015 2006	2016 2009	2016 2009	2016 2009	2016 -	2016 2008	2016 2009 (1)**
South Pacific Ocean	SPRFMO iSPRFMO*	2012 2006	2014 -	2014 -	-	-	2011** 2011**	-
Indian Ocean	SIOFA	2012	2016	2016	-	2016**	-	-
Southern Oceans	CCAMLR	1982		2008	2008	2008	1985***	2003 (4) 2016 (46+76)****

* advisory

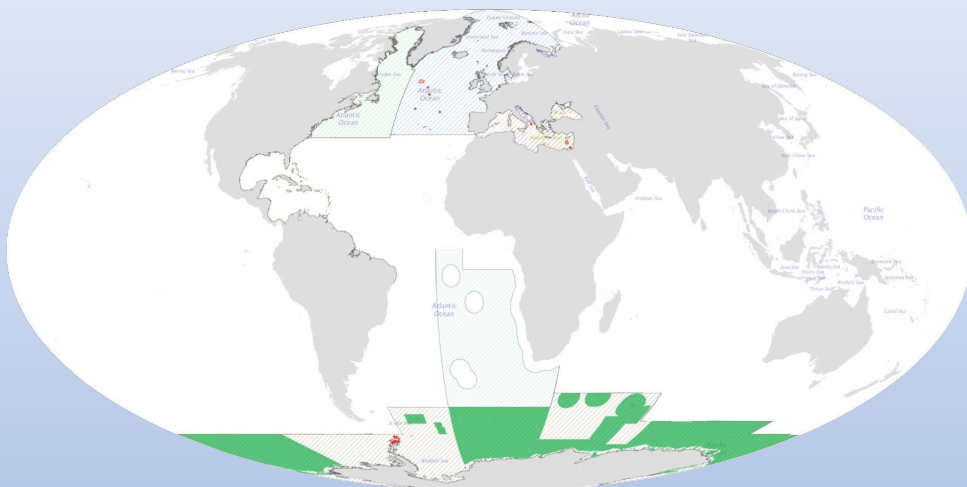
** State measure

*** CCAMLR does not define a generalized existing fishing area. The only currently permitted high seas bottom fishery is for toothfish using longlines in specific areas, other areas are closed to all bottom fishing

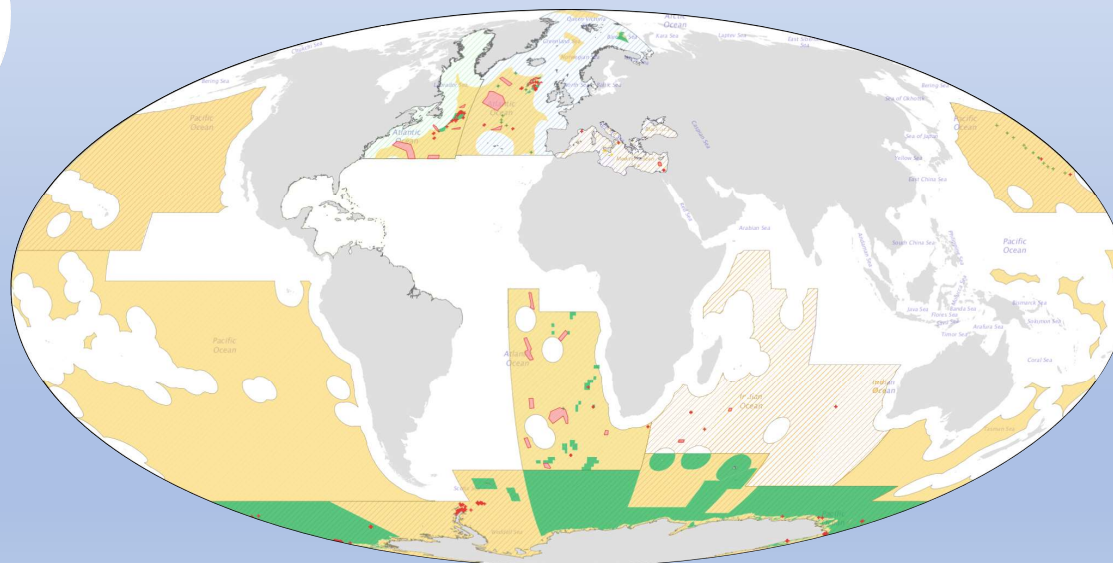
**** 46 registered VMEs and 76 VME risk areas

Existing fishing areas and exploratory fishing protocols

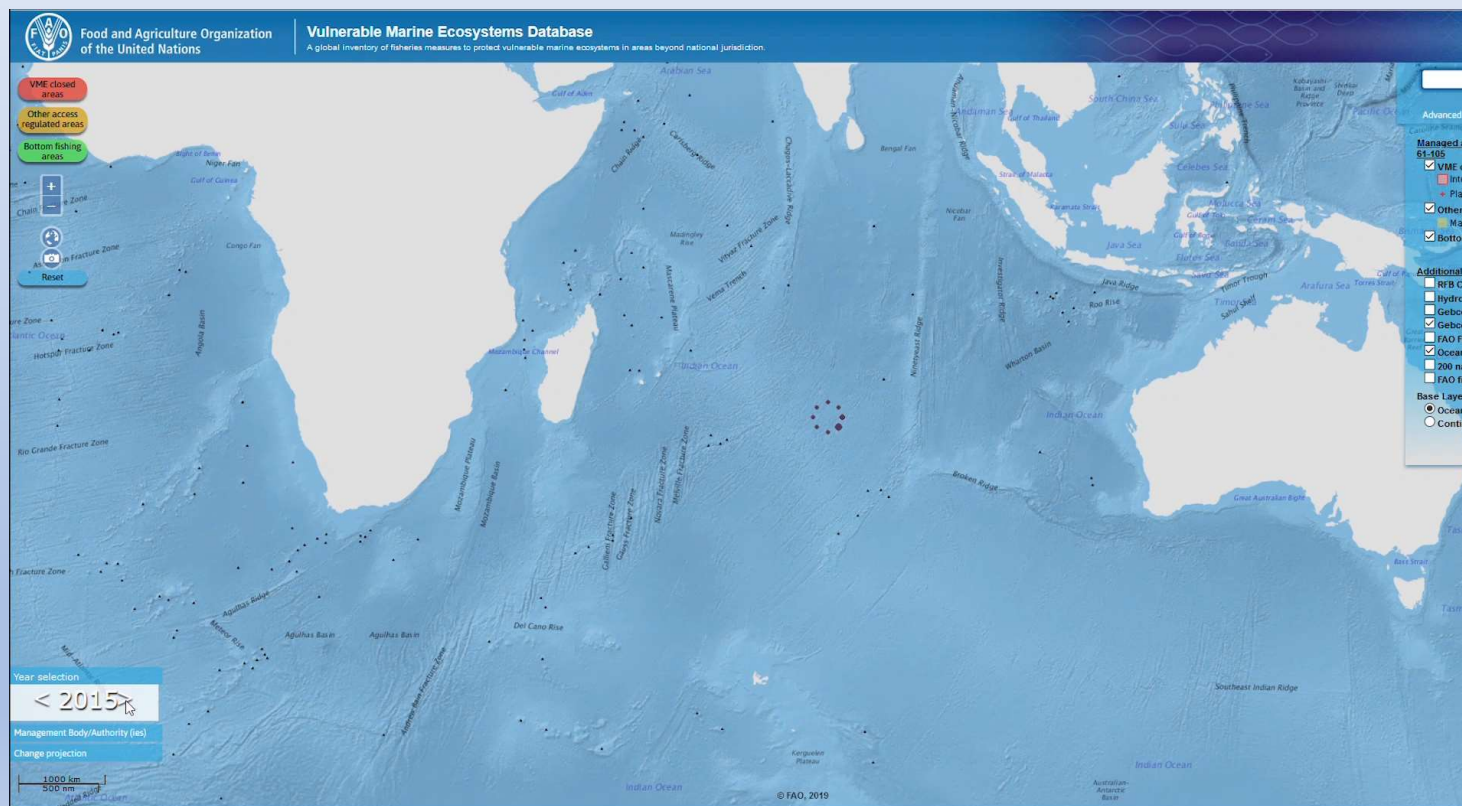
2006



2019



SIOFA VME PROTECTION



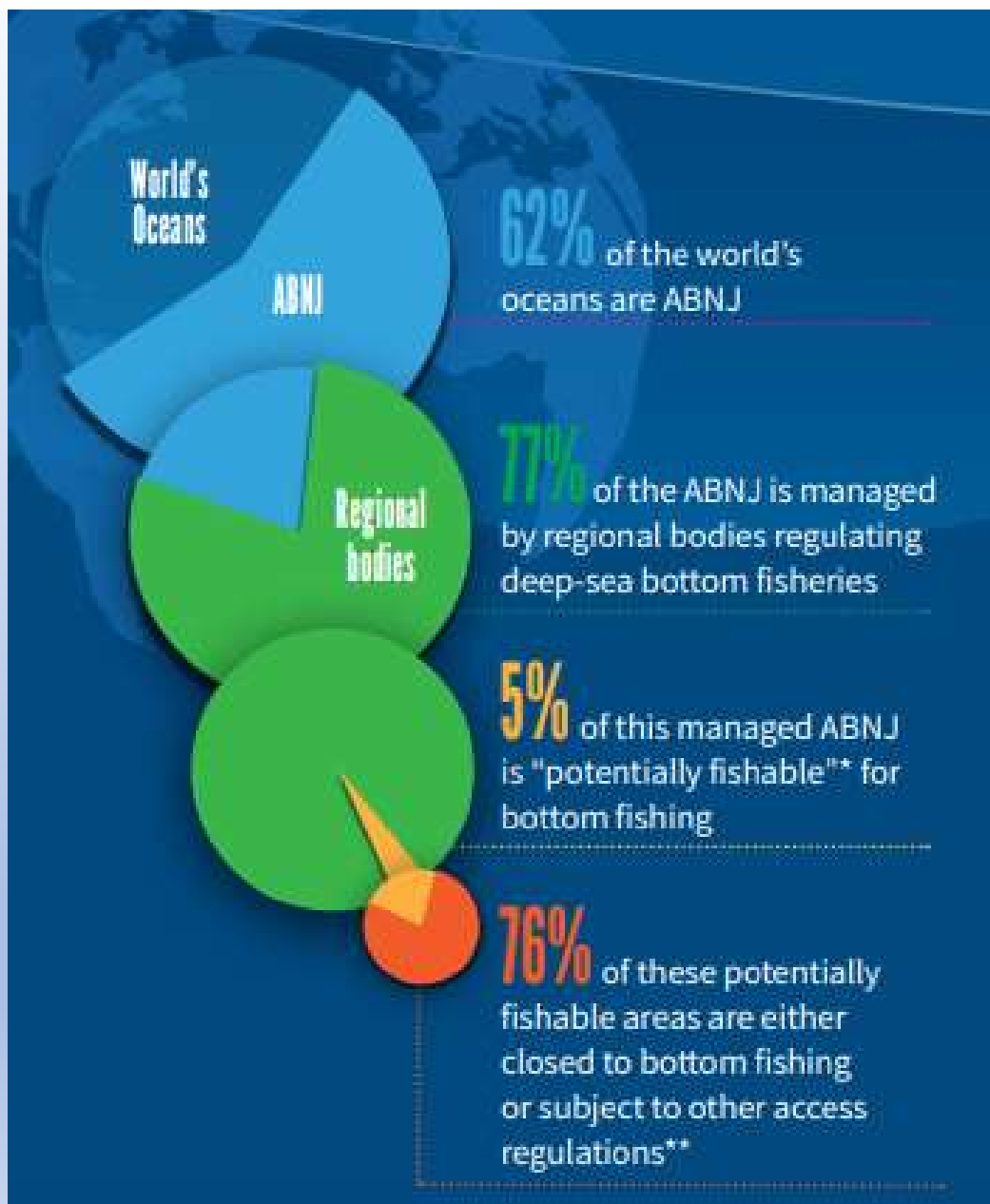
Assessment of 51 deep sea fish stocks

- Methodologies improved, particularly in NE Atlantic
- Exploratory toothfish fisheries opened up in Southern ocean to assess unfished stocks
- 47% unknown status (but does not mean they are in the red)

FAO. In prep. *Worldwide review of bottom fisheries in the high seas in 2016*. FAO Fish. Aquac. Tech. Pap., No. XXX. Rome, FAO. 409 pp.

Stock status	%
Good	23
OK?	8
Not OK?	14
Bad	8
unknown	47

Region	Species	Resource	Status
NE Atlantic	alfonsino	All areas	Unknown
	black scabbardfish	Other stocks	Catch stable
	blue ling	SA 5b, 6, 7	Catch down
	orange roughy	MAR	Depleted, zero TAC
	roundnose grenadier	MAR	Catch down
	roundnose grenadier	SA 5b, 6, 7, 12b	Catch down
	tusk	SA6b	Catch down
NW Atlantic	deepwater sharks	All areas	unknown
	redfish	3M Flemish Cap	biomass high but trending down as cod rebuild
	redfish	2LMNO Grand Bank	biomass high and increasing
	Atlantic cod	3M Flemish Cap	rebuilding from depletion, reopened
	Atlantic cod	2J3KL, 3NO Grand Bk	rebuilding from past depletion but not yet reopened
	Greenland halibut	Flemish Pass	biomass declining as ecosystem recovers
	thorny skate	Grand Bk, Flemish Cap	unknown
	yellowtail flounder	Southeast Shoal	rebuild from depletion and reopened
	Atlantic halibut	continental slope	catches and catch rates stable, biomass high
	northern shrimp	Division 3L	biomass declining as ecosystem recovers
	snow crab	Grand Bank	catches high but resource declining as water warms
	Arctic surfclam	Grand Bank	not currently harvested
	Iceland scallop	Grand Bank	not currently harvested
Central Atlantic	alfonsino	seamounts	unknown
SE Atlantic	alfonsino	Valdivia Bank	unknown
	southern boarfish	Valdivia Bank	unknown
	Patagonian toothfish	southern seamounts	unknown
SW Atlantic	Argentine hake	Patagonian shelf	under management
	hoki	Patagonian shelf	under management
	longtail southern cod	Patagonian Shelf	unknown
	Argentine shortfin squid	Patagonian Shelf	under management
	Patagonian scallop	Patagonian Shelf	under management
	Patagonian toothfish	continental slopes	unknown
Mediterranean	"red shrimp"	various	fishing mortality above target
	European hake	various	fishing mortality above target
N Pacific	pelagic armourhead	Emperor Seamounts	unknown, possibly severely depleted
	alfonsino	Emperor Seamounts	unknown
	rockfish, oreos, mirror dory	Emperor Seamounts	unknown
	sablefish	NE Pacific seamounts	unknown
S Pacific	orange roughy	various	depleted but severity unknown
	alfonsino	various	unknown
	oreos, cardinalfish	various	unknown
	bluenose, hapuku, etc.	various	unknown
	Patagonian toothfish	Hjort Trh, Pac.-Ant. R	unknown
Indian Ocean	dame berri	Saya de Malha	catch rates stable, catches below estimated MSY
	crimson jobfish	Saya de Malha	unknown
	alfonsino	seamounts	unknown
	orange roughy	seamounts	depleted but severity unknown
	rubyfish	seamounts	unknown
	ocean blue-eye trevalla	seamounts	unknown
	Portuguese dogfish	southern ridges	unknown
Southern Ocean	Patagonian toothfish	southern ridges	unknown
	Pat. & Antarc. toothfish	Ross Sea and others	under cautious development



THERE ARE OVER

19 international instruments

THAT ARE RELEVANT TO

DEEP-SEA FISHING

and its impacts on
BIODIVERSITY IN THE AREAS BEYOND
NATIONAL JURISDICTION

and **8** conventions and agreements
of the regional bodies*
with a mandate for the
management and conservation of
deep-sea fishing

Convention on International Trade
in Endangered Species of Wild
Fauna and Flora

UN Convention on the Law of the Sea

Convention on the Conservation of
Migratory Species of Wild Animals

The International Convention for the
Prevention of Pollution from Ships

Convention on Biological Diversity

UN Fish Stocks Agreement

FAO Code of Conduct for
Responsible Fisheries

FAO International Plan of Action for the
Conservation and Management of Sharks

FAO International Plan of Action for the
Management of Fishing Capacity

FAO International Plan of Action
for Reducing Incidental Catch
of Seabirds in Longline Fisheries

FAO International Plan of Action to Prevent,
Deter and Eliminate Illegal, Unreported and
Unregulated Fishing

UN General Assembly Resolutions 61/105,
64/72, and 66/68

FAO Agreement to Promote Compliance
with International Conservation and
Management Measures by Fishing
Vessels on the High Seas

Agreement on the Conservation of
Albatrosses and Petrels

FAO Guidelines to Reduce Sea Turtle
Mortality in Fishing Operations

FAO International Guidelines for the
Management of Deep-sea Fisheries
in the High Seas

FAO International Guidelines on Bycatch
Management and Reduction of Discards

FAO Guidelines for Flag State Performance

FAO Port State Measures Agreement

**The regional bodies are: the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the General Fisheries Commission for the Mediterranean (GFCM), the North Pacific Fisheries Commission (NPFC), the Northwest Atlantic Fisheries Organization (NAFO), the North East Atlantic Fisheries Commission (NEAFC), the South Pacific Regional Fisheries Management Organisation (SPRFMO), the South East Atlantic Fisheries Organisation (SEAFO), and the Southern Indian Ocean Fisheries Agreement (SIOFA).*



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CONCLUSIONS

- Significant progress in the management of deep sea fisheries in the high seas since the adoption of the Guidelines in 2008.
- Most progress achieved for measures to protect VMEs (rather than for fish stocks)
- Measures at the national level not closely monitored (Guidelines apply to high seas)

Thank you