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Demersal species in the Adriatic:

Presentation on the GFCM multi-annual plan, with a focus on Norway lobster and the closure off Civitanova

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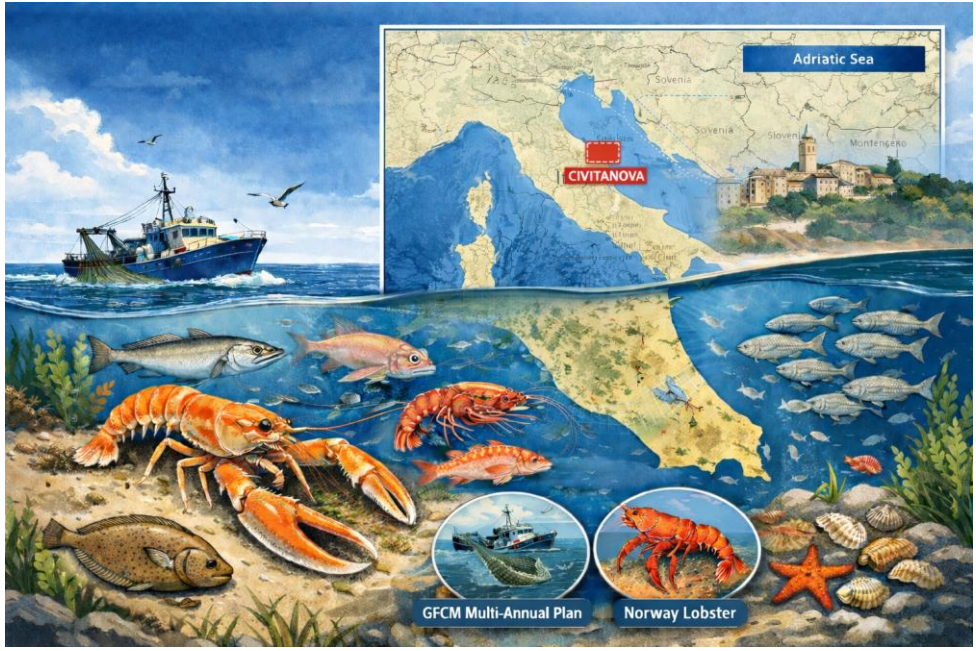
Istituto per le
Risorse Biologiche
e le Biotecnologie
Marine

- Status of demersal priority stocks in GSAs 17-18
- Focus on Norway lobster stock assessment
- Area closure in the Northern Adriatic
- GFCM Adriatic MAP 2025
- Status of non-priority stocks in GSAs 17-18



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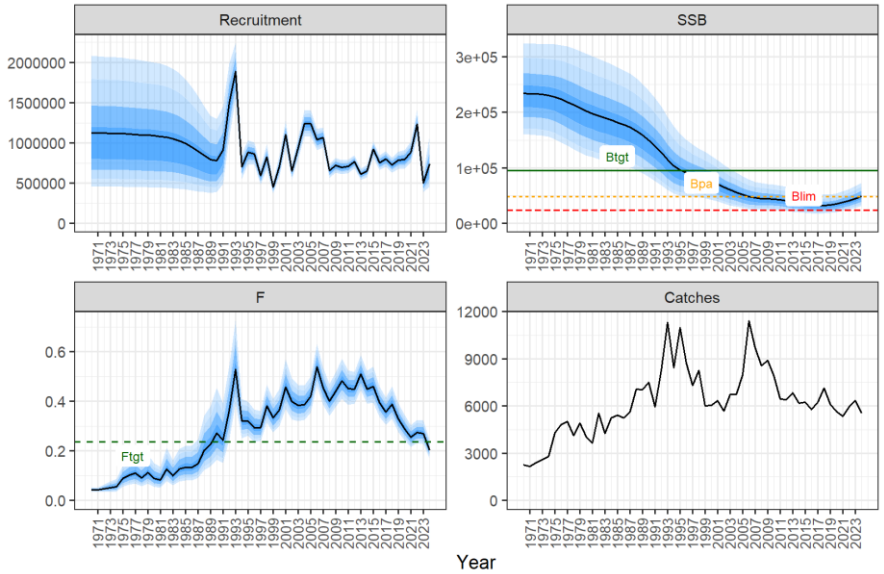
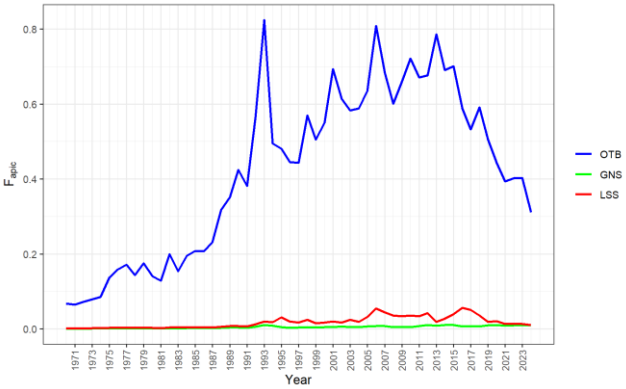
Status of demersal priority stocks in the GSAs 17-18
European hake





GSA	Species	Reference Year	Method	Current Levels	Reference Points	Quantitative Status	% F reduction *
17, 18	Merluccius merluccius	2024	SS3	Fc = 0.20, Bc = 49418	Ftgt = 0.24, Btgt = 95228, Bpa = 47614, Blim = 23807	F/Ftarget = 0.86 B/Btarget = 0.52 B/Bthreshold = 1.04 B/Blimit = 2.08	--

Stock status: Rebuilding and in sustainable exploitation

Advice and recommendations: Do not increase fishing mortality and close monitoring of the stock status.

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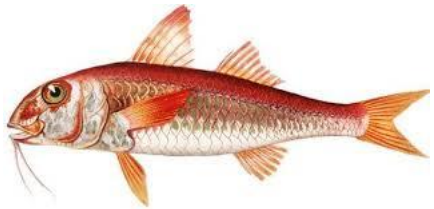
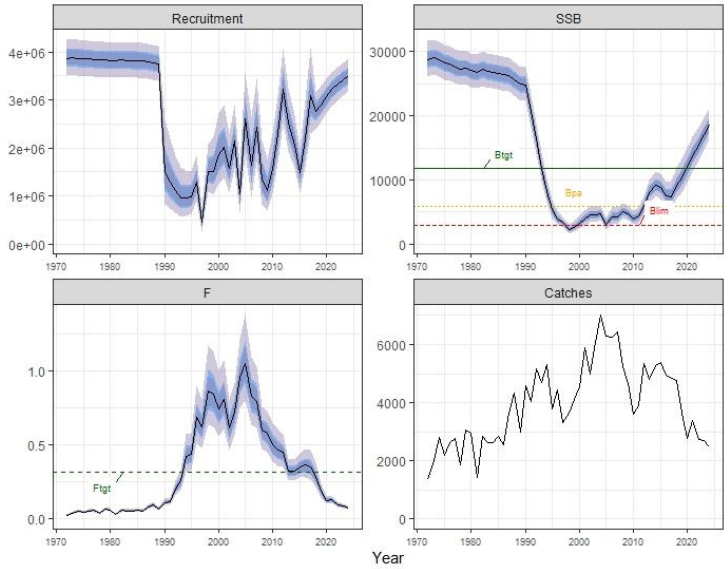
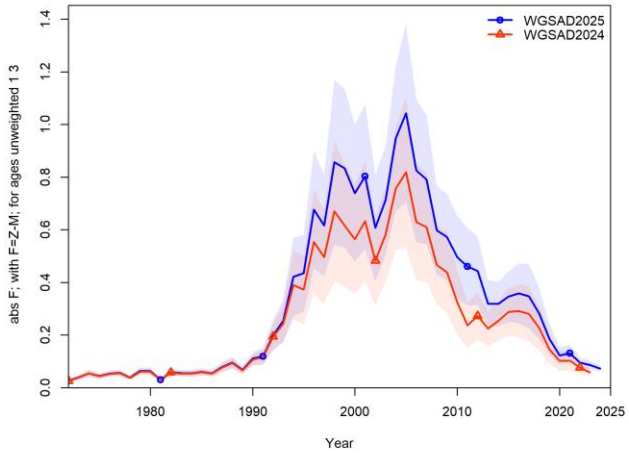
Status of demersal priority stocks in the GSAs 17-18
Red mullet







GSA	Species	Reference Year	Method	Current Levels	Reference Points	Quantitative Status	% F reduction*
17,18	Mullus barbatus	2024	SS3	Fc = 0.07, Bc = 18594	Fb35 = 0.306, B35 = 12791, Bpa = 6395, Blim = 3198	F/Ftarget = 0.24, B/Btarget = 1.45, B/Bthreshold = 2.91, B/Blimit = 5.81	--

Stock status: Sustainably exploited

Advice and recommendations: Any evaluation of new fishing opportunities should carefully consider the multispecies nature of the fishery and/or the objectives of the existing multiannual plan.

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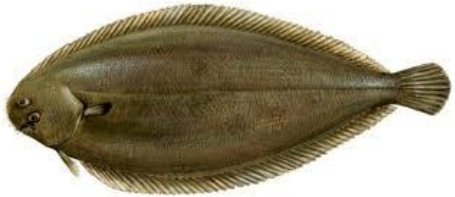
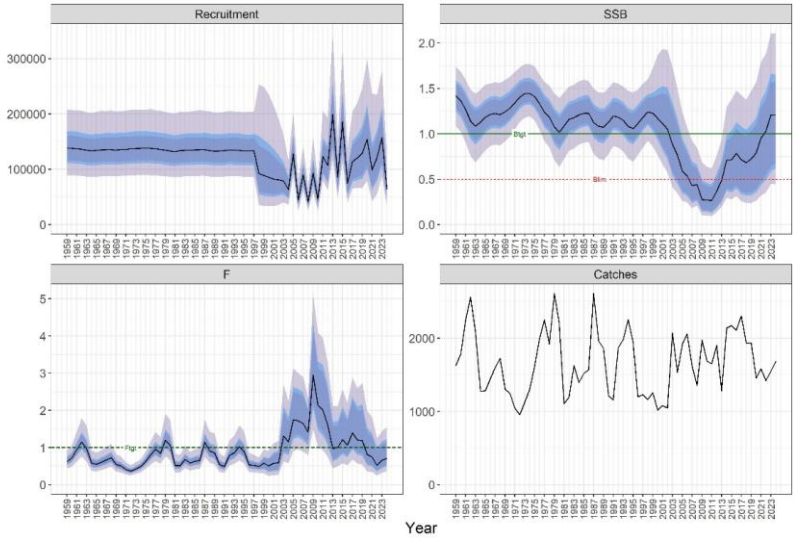
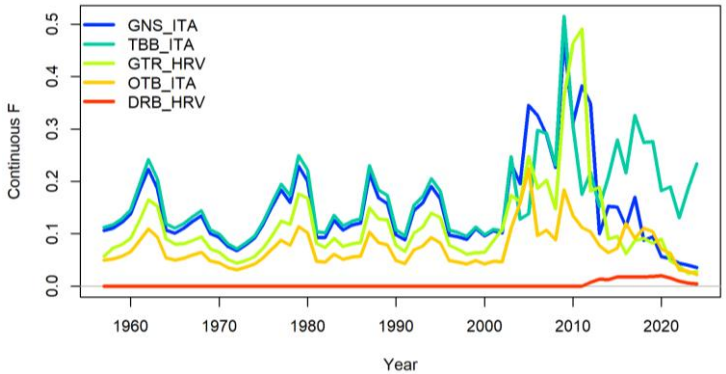
Status of demersal priority stocks in the GSAs 17-18
Common sole







GSA	Species	Reference Year	Method	Current Levels	Reference Points	Quantitative Status	% F reduction *
17	Solea solea	2024	SS3	Fc = 0.18, Bc = 4963	NA	F/Ftarget = 0.71 B/Btarget = 1.21 B/Blimit = 2.41	NA

Stock status: Sustainably exploited

Advice and recommendations: Any evaluation of new fishing opportunities should carefully consider the multispecies nature of the fishery and/or the objectives of the existing multiannual plan.

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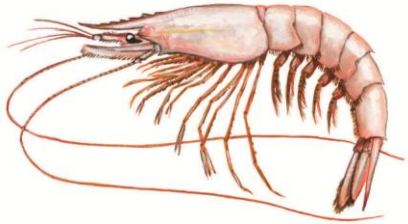
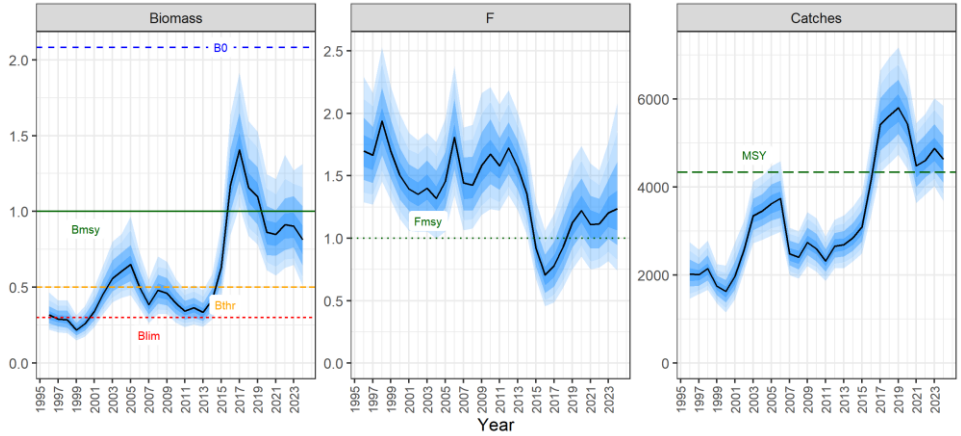
Status of demersal priority stocks in the GSAs 17-18
Deep-water rose shrimp





GSA	Species	Reference Year	Method	Current Levels	Reference Points	Quantitative Status	% F reduction*
17, 18, 19, 20	Parapenaeus longirostris	2024	SPiCT		Fmsy Bmsy Bpa Blim	F/Ftarget =1.24, B/Btarget = 0.81, B/Bthreshold = 1.63, B/Blimit = 2.71	19.2%

Stock status: Increased risk of being overexploited and in overexploitation.

Advice and recommendations: Reduce fishing mortality.

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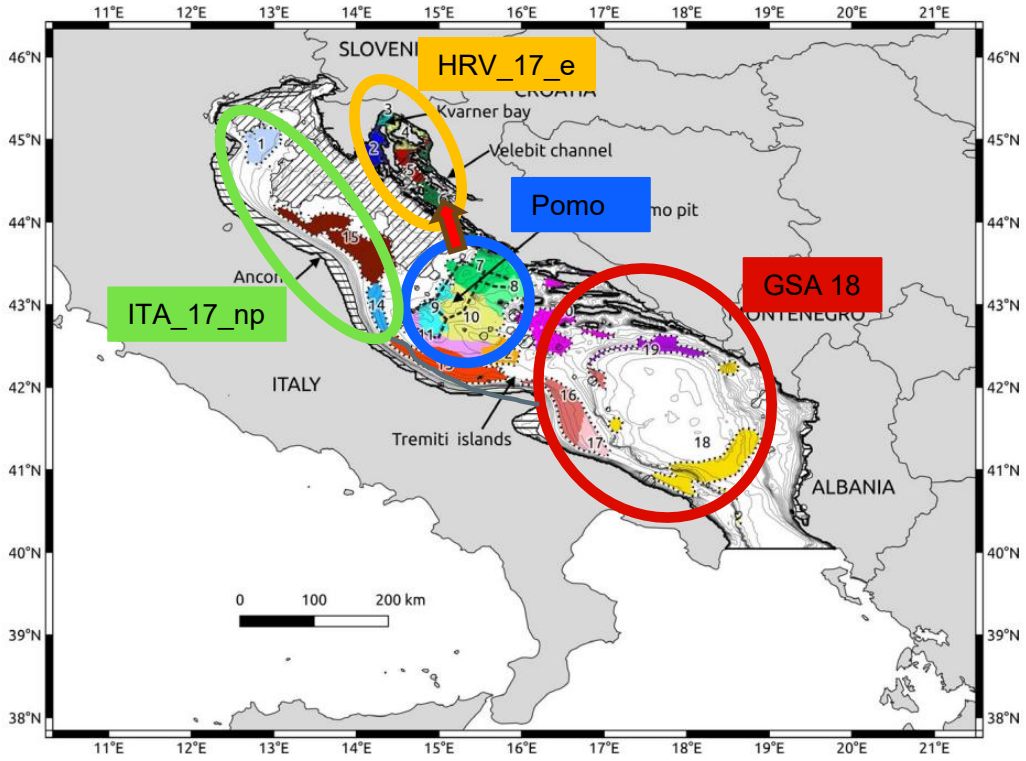
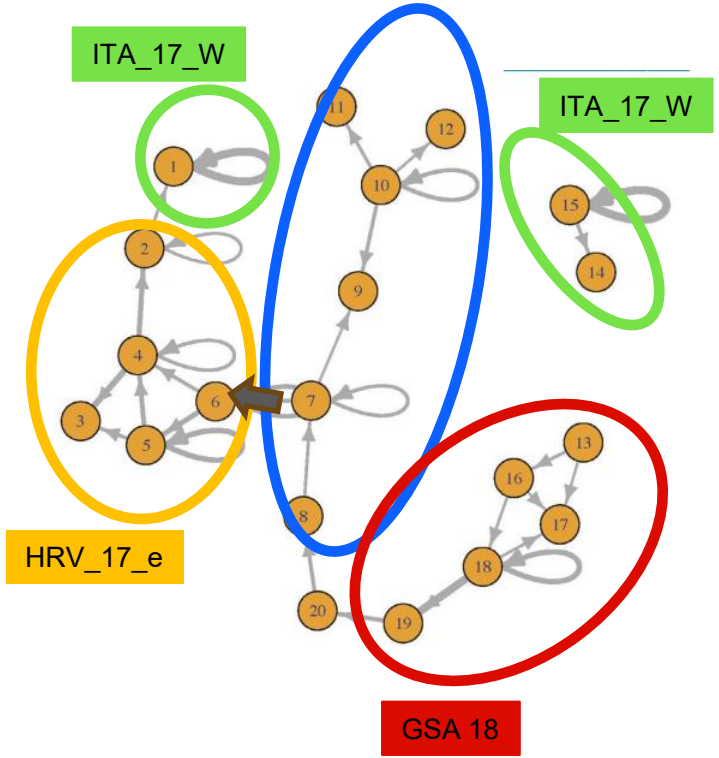
Status of demersal priority stocks in the GSAs 17-18
Norway lobster



from Melaku Canu et al., 2020



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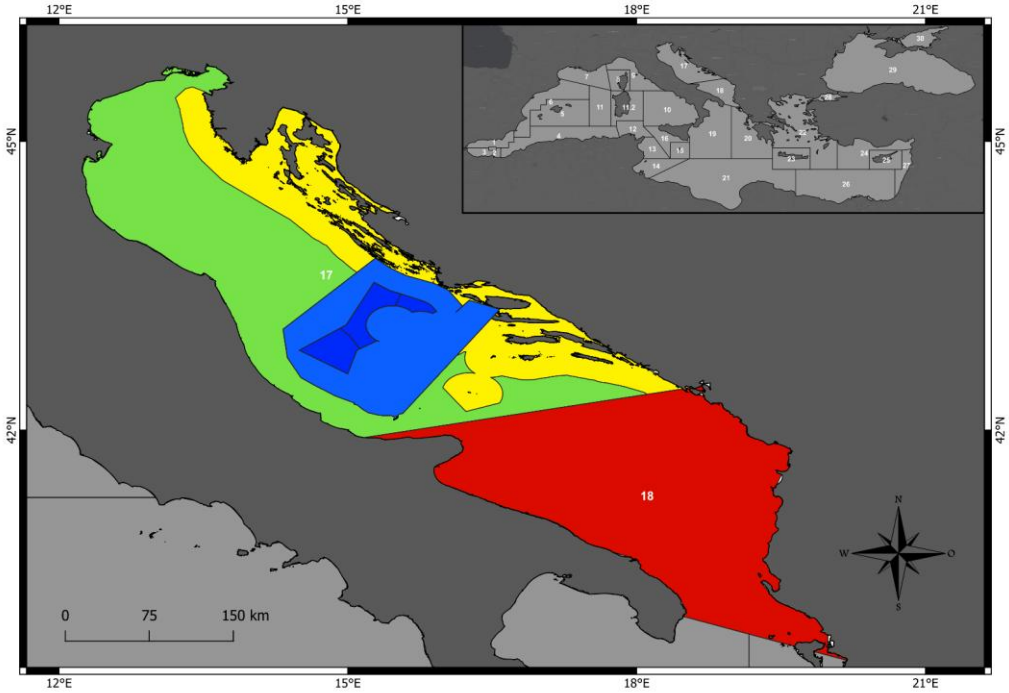
Status of demersal priority stocks in the GSAs 17-18
Norway lobster



The spatial domain was designed following recent genetics and connectivity studies by defining 4 areas:

GSA17C (Pomo),
GSA17NW (ITA),
GSA17NE (HRV),
GSA18.

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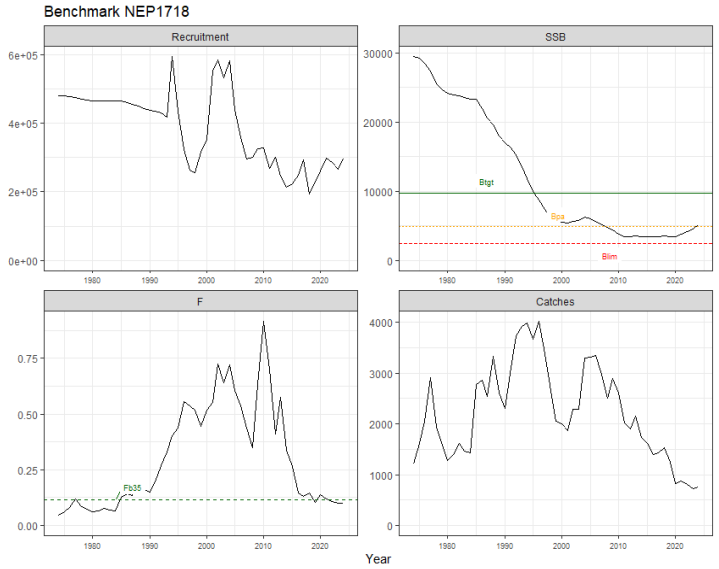
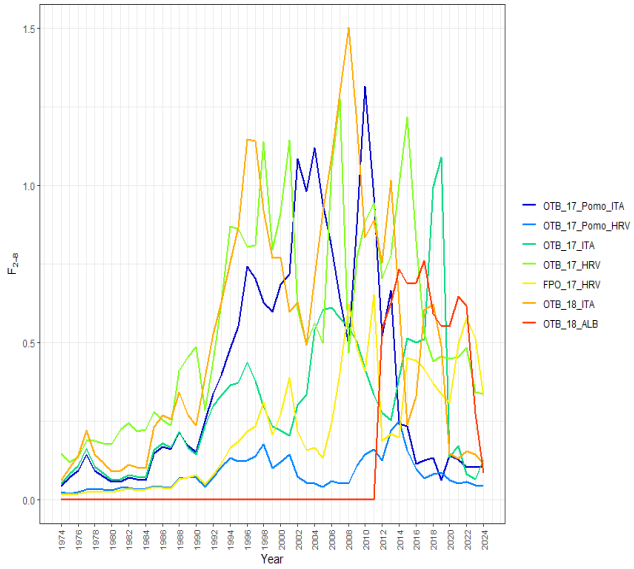
Status of demersal priority stocks in the GSAs 17-18
Norway lobster (entire Adriatic Sea)





GSA/ Area	Current Levels	Reference Points	Quantitative Status	Percentage of F reduction	Stock Status	Scientific Advice	WG Comments	Notes
17, 18	Fc = 0.1, Bc = 5169	Fb35 = 0.115, B35 = 9717, Bpa = 4859, Blim = 2429	F/Ftarget = 0.87, B/Btarget = 0.53, B/Bthreshold = 1.06, B/Blimit = 2.13	--	Increased risk of being overexploited and in sustainable exploitation	Do not increase fishing mortality and close monitoring of the stock status	New benchmark. Validated Quantitative advice based on SS3. Unique Ftgt estimated on entire stock (17+18)	feb-26

Stock status: Increased risk of being overexploited and in sustainable exploitation.

Advice and recommendations: Do not increase fishing mortality and close monitoring of the stock status

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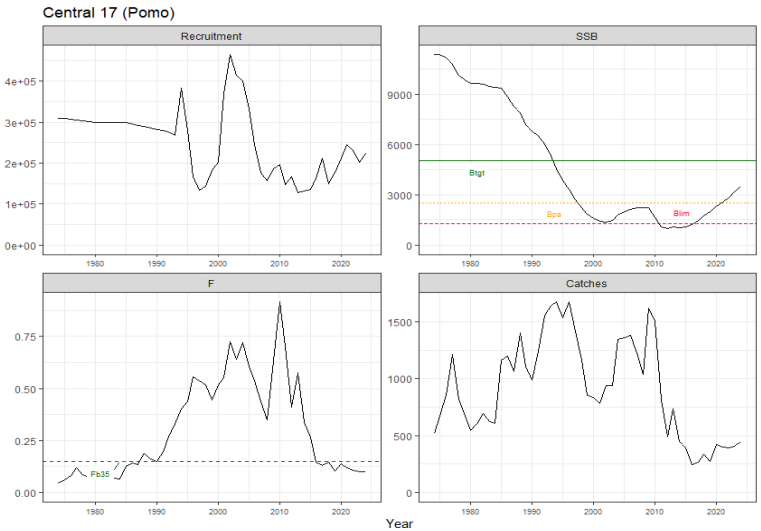
Status of demersal priority stocks in the GSAs 17-18
Norway lobster (Pomo/Jabuka pit)



GSA/ Area	Current Levels	Reference Points	Quantitative Status	Percentage of F reduction	Stock Status	Scientific Advice	WG Comments	Notes
17C (Pomo)	Fc = 0.1, Bc = 3517	Fb35 = 0.148, B35 = 5038, Bpa = 2519, Blim = 1259	F/Ftarget = 0.68, B/Btarget = 0.7, B/Bthreshold = 1.4, B/Blimit = 2.79	--	Increased risk of being overexploited and in sustainable exploitation	Do not increase fishing mortality and close monitoring of the stock status	New benchmark. Validated Quantitative advice based on SS3. Unique F target (Ftgt) estimated by functional unit.	**feb-26**

Stock status: Increased risk of being overexploited and in sustainable exploitation.

Advice and recommendations: Do not increase fishing mortality and close monitoring of the stock status

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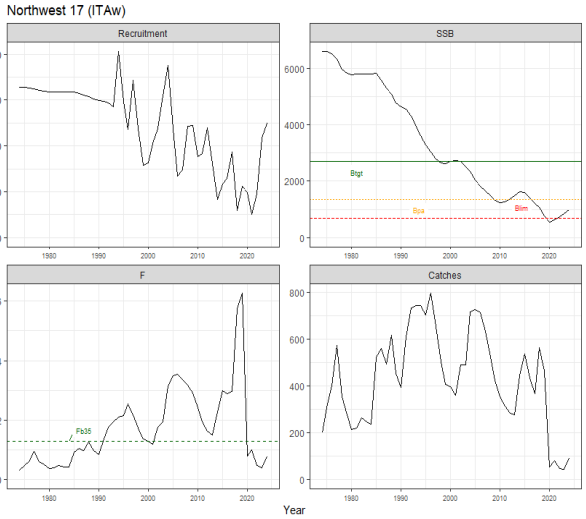
Status of demersal priority stocks in the GSAs 17-18
Norway lobster (17 NW ITA)

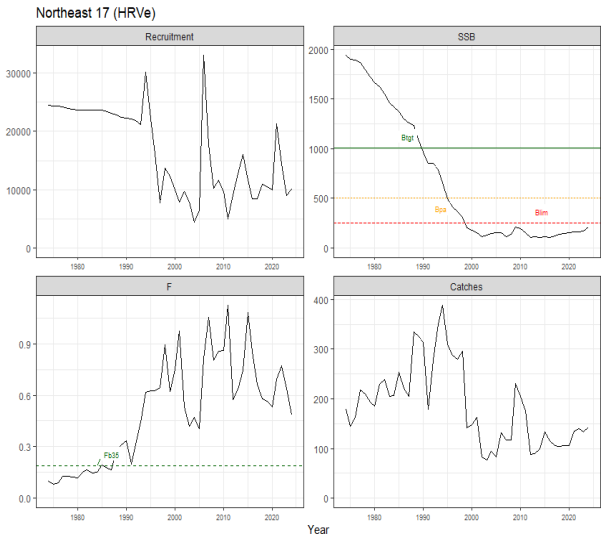


GSA/ Area	Current Levels	Reference Points	Quantitative Status	Percentage of F reduction	Stock Status	Scientific Advice	WG Comments	Notes
17NW (ITA)	Fc = 0.08, Bc = 990	Fb35 = 0.127, B35 = 2702, Bpa = 1351, Blim = 676	F/Ftarget = 0.6, B/Btarget = 0.37, B/Bthreshold = 0.73, B/Blimit = 1.46	--	Rebuilding and in sustainable exploitation	Do not increase fishing mortality	New benchmark. Validated Quantitative advice based on SS3. Unique F target (Ftgt) estimated by functional unit.	**feb-26**

Stock status: Rebuilding and in sustainable exploitation.

Advice and recommendations: Do not increase fishing mortality.

Status of demersal priority stocks in the GSAs 17-18
Norway lobster (17 NE HRV)



GSA/ Area	Current Levels	Reference Points	Quantitative Status	Percentage of F reduction	Stock Status	Scientific Advice	WG Comments	Notes
17NE (HRV)	Fc = 0.48, Bc = 212	Fb35 = 0.188, B35 = 1005, Bpa = 503, Blim = 251	F/Ftarget = 2.57, B/Btarget = 0.21, B/Bthreshold = 0.42, B/Blimit = 0.84	61.16%	Depleted and in overexploitation	Implement recovery plan	New benchmark. Validated Quantitative advice based on SS3. Unique F target (Ftgt) estimated by functional unit.	**feb-26**

Stock status: Depleted in overexploitation

Advice and recommendations: Implement recovery plan

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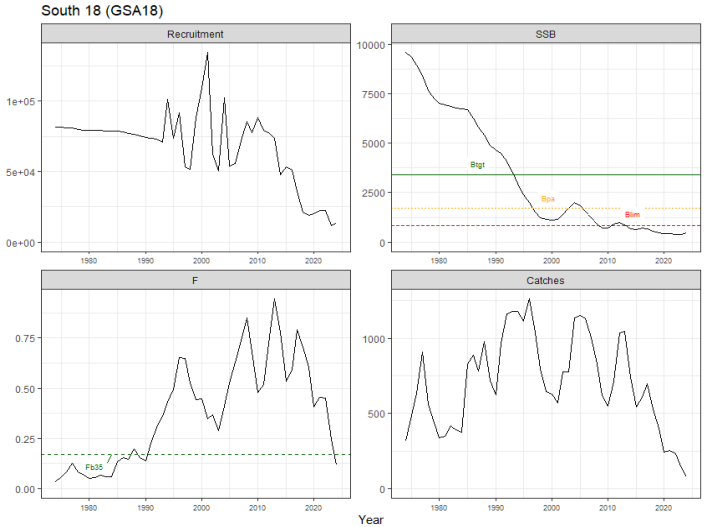
Status of demersal priority stocks in the GSAs 17-18
Norway lobster (GSA 18)



		Fleet	Fcur	Fmean	Prop
OTB_18_ITA		OTB_18_ITA	0.114	0.138	0.297
OTB_18_ALB		OTB_18_ALB	0.086	0.326	0.703

GSA/ Area	Current Levels	Reference Points	Quantitative Status	Percentage of F reduction	Stock Status	Scientific Advice	WG Comments	Notes
18	Fc = 0.12, Bc = 451	Fb35 = 0.171, B35 = 3398, Bpa = 1699, Blim = 850	F/Ftarget = 0.69, B/Btarget = 0.13, B/Bthreshold = 0.27, B/Blimit = 0.53	--	Depleted with low fishing mortality	Immediate reduction of fishing mortality and implement a recovery plan	New benchmark. Validated Quantitative advice based on SS3. Unique F target (Ftgt) estimated by functional unit.	**feb-26**

Stock status: Depleted with low fishing mortality

Advice and recommendations: Immediate reduction of fishing mortality and implement a recovery plan

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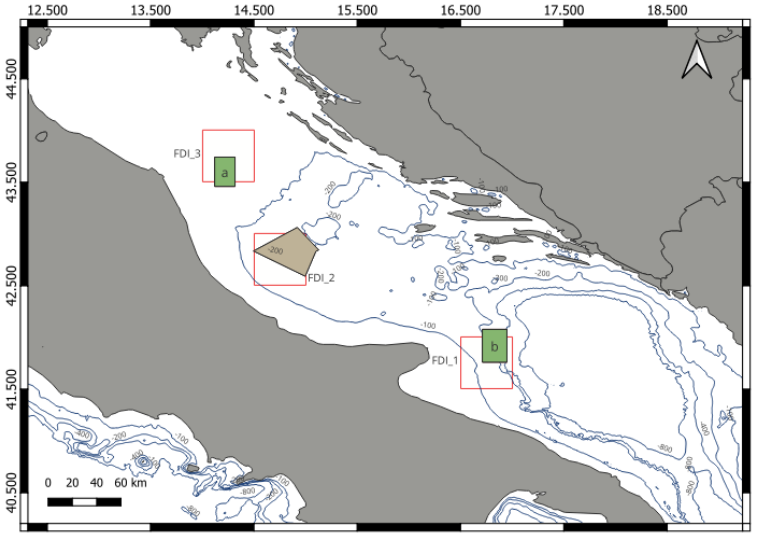
Status of demersal priority stocks in the GSAs 17-18
Norway lobster – Area Closure (off Civitanova)

Adriatic Demersal MAP (end of 2025)
Rationale for Area Closures
Italy proposes the temporary closure of **three areas** in the Adriatic:

- **Zone A**
- **Zone B**
- **Western Pomo Pit**



Zona	Area_km2
A	499.8
B	695.4
Pomo West	1330.9
FDI_1	2309.5
FDI_2	2273.7
FDI_3	2237.2

Main objectives:
Strengthen protection of **Norway lobster** (2024 assessment) and contribute to a reduction in **hake fishing mortality** (2024 assessment).
According to the 2024 GFCM hake assessment, fishing mortality should be reduced by about **10%** to reach **FMSY in 2026**
For 2026, the EU has already requested a **5% reduction in fishing opportunities** for Italian otter trawlers in GSAs 17 and 18, while the remaining reduction is expected to come from **additional measures**, including area closures.

Key Question
Can the proposed closures provide a scientifically justified contribution to:
Norway lobster protection
reduced hake fishing mortality?

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Status of demersal priority stocks in the GSAs 17-18
Norway lobster – Area Closure (off Civitanova)

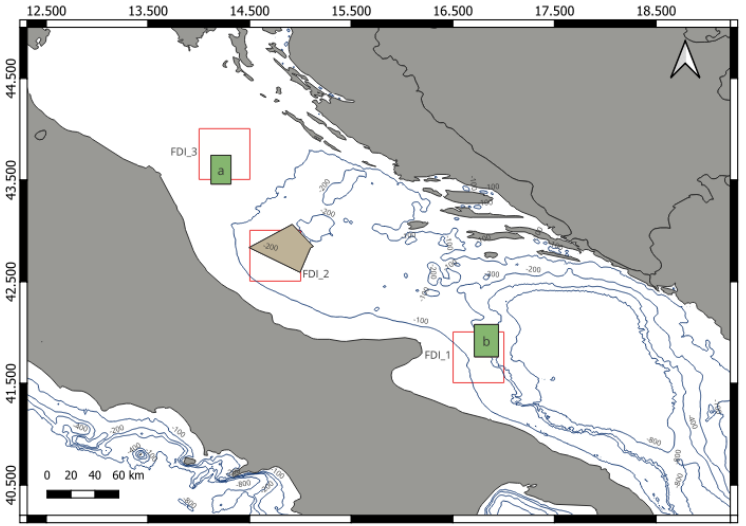
Data and Analytical Approach

Analysis based on **FDI data from 2019–2024** provided by Italy in response to EU data calls

The closure areas were approximated using **3 FDI c-squares.** Because the FDI grid covers an area larger than the actual proposed closures, effort was scaled into **three scenarios** grounds

Closure Scenarios

- **3-month closure** → equivalent to closure of all 3 FDI squares **839 fishing days removed**
- **2-month closure** → equivalent to about two-thirds of the FDI squares **559 fishing days removed**
- **1-month closure** → equivalent to about one-third of the FDI squares **280 fishing days removed**



Zona	Area_km2
A	499.8
B	695.4
Pomo West	1330.9
FDI_1	2309.5
FDI_2	2273.7
FDI_3	2237.2

Method

Estimate the relationship between:

- **fishing effort (fishing days)**
- **total demersal catches**

Then accounted for **effort displacement**, assuming effort removed from closed areas would shift to surrounding fishing grounds

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Status of demersal priority stocks in the GSAs 17-18
Norway lobster – Area Closure (off Civitanova)

Main Results

All scenarios produce a reduction in total demersal catches of about **6.0–6.3%** compared with 2024 levels. The proposed closure areas account for about **14% of total Norway lobster catches and** about **8% of total hake catches** in GSA 17 and 18

Estimated hake catches in 2026 under the closure scenarios range from about **3,118 to 3,126 tonnes**

Interpretation

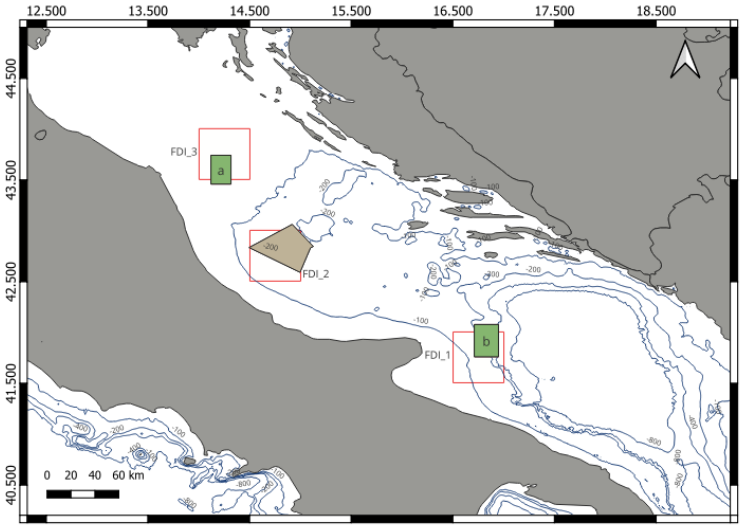
The proposed closures appear capable of delivering a hake reduction comparable to the effect expected from an approximately **5% reduction in current fishing mortality** for the Italian otter trawl fleet

Conclusion

The proposed management package seems scientifically justified as a measure to:

1. protect **Norway lobster**
2. support a reduction in **hake fishing mortality**

However, this alone does **not guarantee that F in 2026 will reach FMSY**, because the final outcome also depends on the activity of **other fleets operating in the area**



Zona	Area_km2
A	499.8
B	695.4
Pomo West	1330.9
FDI_1	2309.5
FDI_2	2273.7
FDI_3	2237.2

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GFCM Adriatic MAP 2025

Appendix 9

Recommendation GFCM/48/2025/6 on the implementation of a fishing effort regime for key demersal stocks in the Adriatic Sea (geographical subareas 17 and 18) in 2026, stemming from Recommendation GFCM/43/2019/5

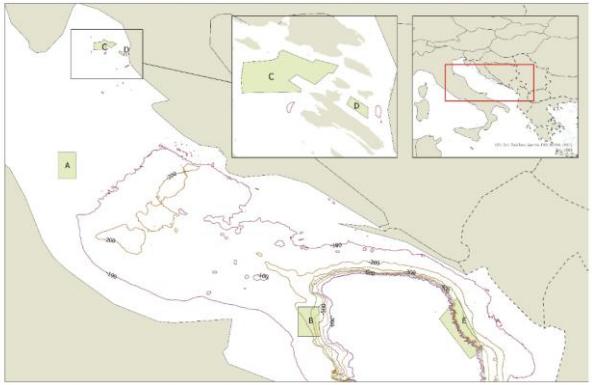
EU OTB EFFORT RECUTION FROM 2025 ≈ 8-13%

EU TBB EFFORT INCREASE FROM 2025 ≈ 3%

SPATIAL TEMPORAL CLOSURES:

- Zone A May-Nov
- Zone B May-Nov

Norway lobster spatio-temporal closures in the Adriatic Sea



Transitional fishing effort allocation for concerned contracting parties and cooperating non-contracting parties, expressed in fishing days and effort group code, for the period of 1 January 2026 to 31 December 2026

Fishing gear type	Geographical subarea(s)	Stocks concerned	Vessel length overalls	Effort group code	Fishing days for 2026		
					European Union	Albania	Montenegro[1]
Otter trawls (OTB)	17–18	Red mullet; European hake; deep-water rose shrimp; Norway lobster	< 12 m	OTB12<	11494	0	
			≥ 12 m and < 24 m	OTB12–24	77286	14913	
			≥ 24 m	OTB>24	6817	5318	
Beam trawls (TBB)	17	Common sole	< 12 m	TBB12<	200	0	0
			≥ 12 m and < 24 m	TBB12–24	3744	0	0
			≥ 24 m	TBB>24	3723	0	0

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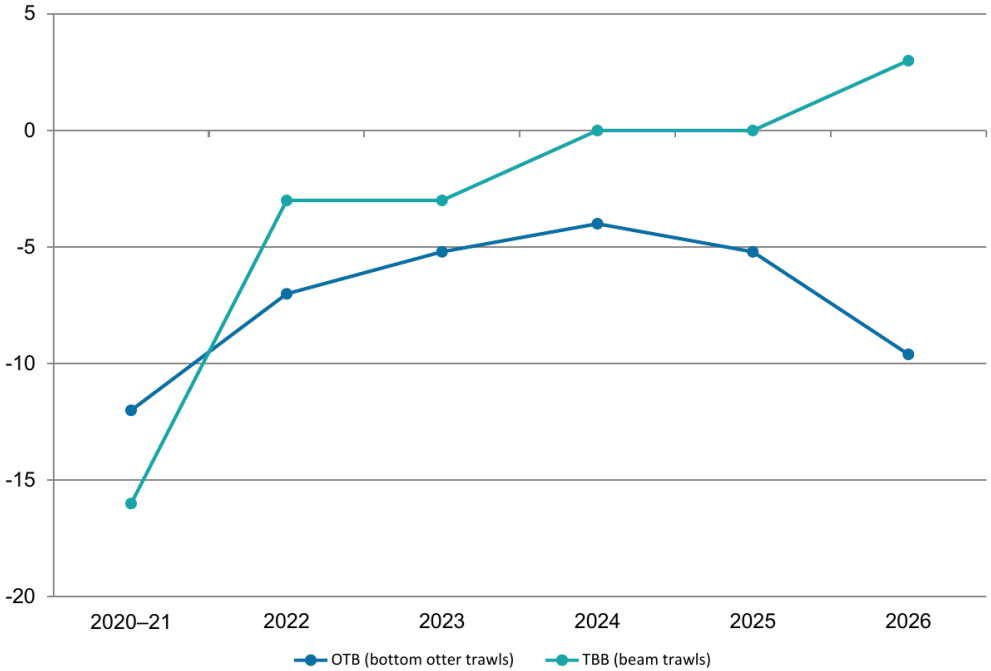
GFCM Adriatic MAP

Annual adjustments to allowable effort (fishing days)



Reading the chart

- OTB sees steady cuts (science-driven)
- TBB is held flat in 2024–25
- 2026 increases TBB (+3%) while cutting OTB harder (–9.6%)

What "working" looks like for an effort HCR

- Clear annual update cycle
- Adjusts by gear & fleet segment
- Tracks a path toward FMSY
- Can loosen/tighten when signals change

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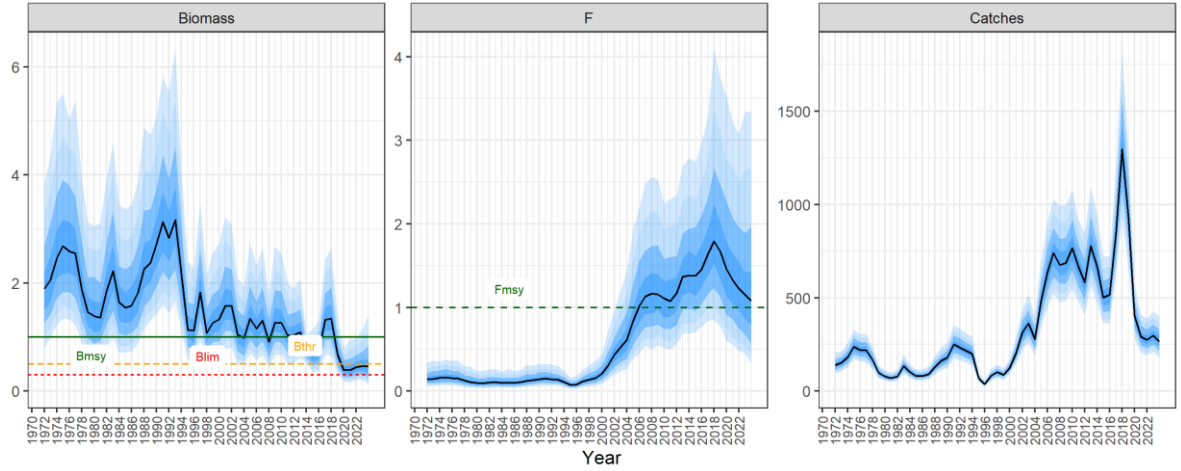
Status of demersal non-priority stocks in the GSAs 17-18
Horned octopus (GSA 18) – accepted as qualitative

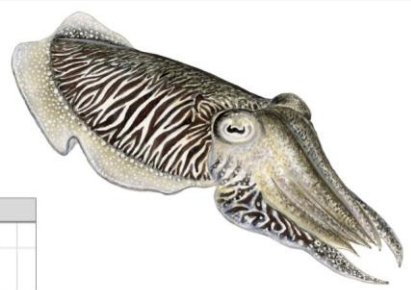


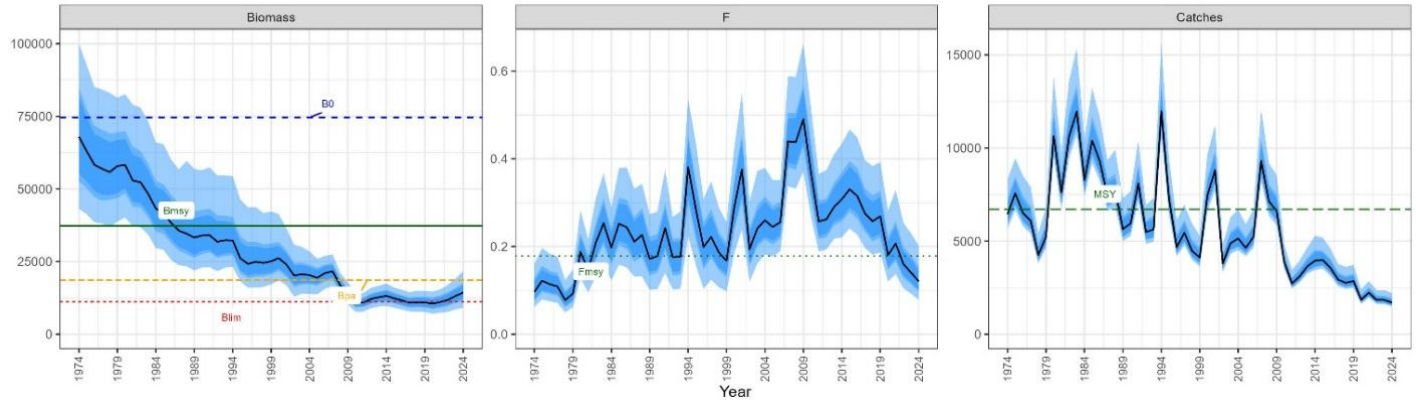
GSA	Species	Reference Year	Method	Current Levels	Reference Points	Quantitative Status	% F reduction*
18	Eledone cirrhosa	2024	SPiCT		Fmsy Bmsy Bpa Blim		NA

Stock status: Possibly overexploited.

Advice and recommendations: Reduce fishing mortality

Status of demersal non-priority stocks in the GSAs 17-18
Common cuttlefish (GSA 17)



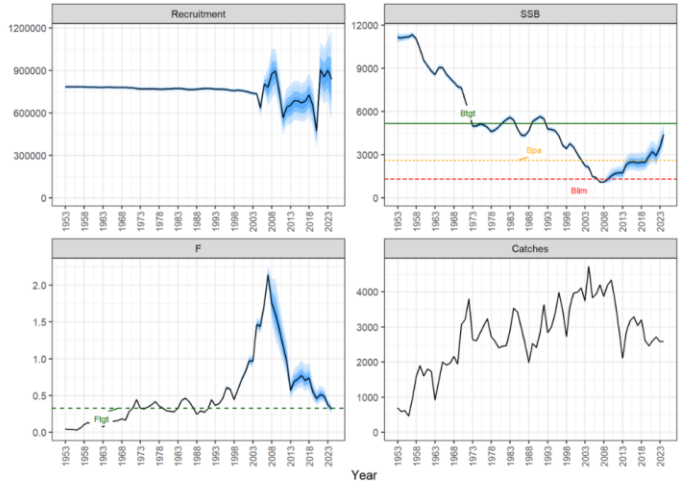


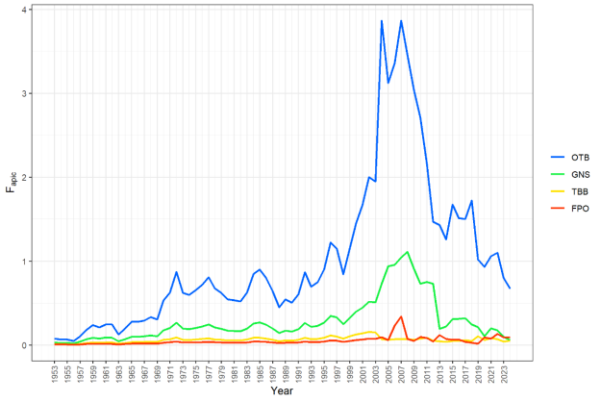
GSA	Species	Reference Year	Method	Current Levels	Reference Points	Quantitative Status	% F reduction*
17	Sepia officinalis	2024	JABBA		Fmsy Bmsy Bpa Blim	F/Ftarget = 0.69, B/Btarget = 0.38, B/Bthreshold = 0.76, B/Blimit = 1.27	--

Stock status: Rebuilding and in sustainable exploitation.

Advice and recommendations: Do not increase fishing mortality

Status of demersal non-priority stocks in the GSAs 17-18
Mantis shrimp (GSA 17)





GSA	Species	Reference Year	Method	Current Levels	Reference Points	Quantitative Status	% F reduction*
17	Squilla mantis	2024	SS3	Fc = 0.32, Bc = 4394	Fb40 = 0.328, B40 = 5114, Bpa = 2583, Blim = 1291	F/Ftarget = 0.96, B/Btarget = 0.85, B/Bthreshold = 1.7, B/Blimit = 3.4	--

Stock status: In sustainable exploitation and biomass around target reference point.

Advice and recommendations: Do not increase fishing mortality and close monitoring of the stock status.

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Thank you!

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