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State of the art on the EC draft MAP in the Adriatic Sea

2018 Stock Assessments in Adriatic

No new or updated stock assessments on small pelagics in 2018 by STECF

Last meeting on Adriatic anchovy and sardine: "Data gaps and Biomass Escapement Strategy for Adriatic anchovy and sardine" in February

In 2018 STECF Stock assessments in Adriatic Sea focused on Demersal species

GFCM and STECF Stock Assessments

2018

SAC ON FISHERIES Tangiers, Morocco, 26–29 June (validated previous stock assessment)

STECF EWG 18-16 on Stock Assessment: Part 2 – European fisheries for demersal species in the Adriatic Sea, 8-12 October

WGSAD, Species in the GFCM Area of Competence 20-21 November

GFCM and STECF Stock Assessments

GSA	Species	Stock status	Scientific advice
17-18	***Mullus barbatus***	In overexploitation with relative high biomass	Reduce fishing mortality
17-18-19	***Parapenaeus longirostris***	Possibly in overexploitation	
17	*Penaeus kerathurus*	In overexploitation with absolute high biomass	
17	***Squilla mantis***	In overexploitation	
17-18	***Squilla mantis***	In overexploitation	
17-18	*Nephrops norvegicus*	In overexploitation with absolute low biomass	
17	***Sepia officinalis***	Sustainably exploited with absolute low biomass	Not to increase fishing mortality

SAC June 2018 - Stock Assessments

GSA	Species	Stock status (exploitation and biomass level)	Scientific advice
17-18	***Merluccius merluccius***	In overexploitation with relative low biomass	Reduce fishing mortality
17	***Mullus barbatus***		
17	***Solea solea***		
18	***Mullus barbatus***	Sustainably exploited with relative high biomass	Maintain the current level of fishing mortality
17-18	***Parapenaeus longirostris***		

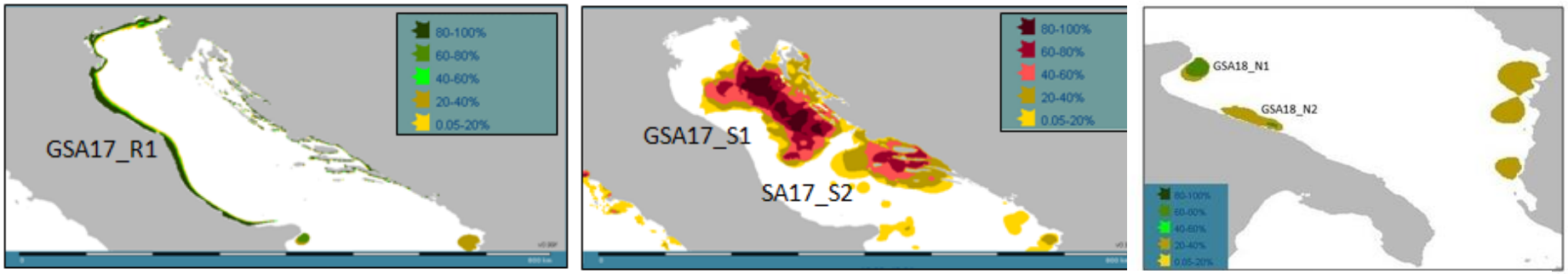
Working Group on Vulnerable Marine Ecosystems ,26-28 February 2018

⇨ List of Model-derived maps of EFH and SH for selected Priority species projects in Adriatic sea:

- ✓ **JRC Fish Habitat model** uses satellite data of surface chlorophyll content (CHL) from NASA sensors;
- ✓**MEDISEH**
- ✓**Colloca et al.2015**

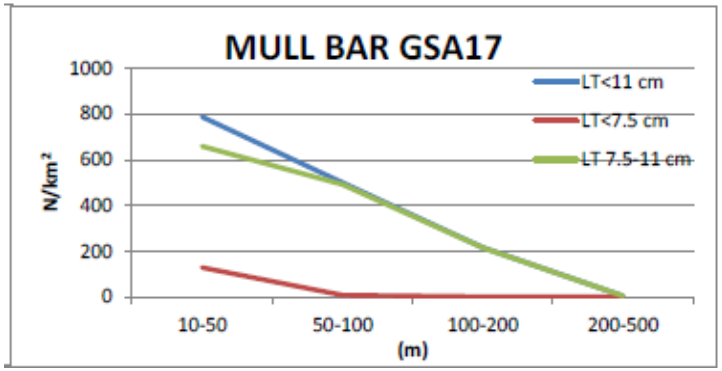
Mullus barbatus GSAs 17-18

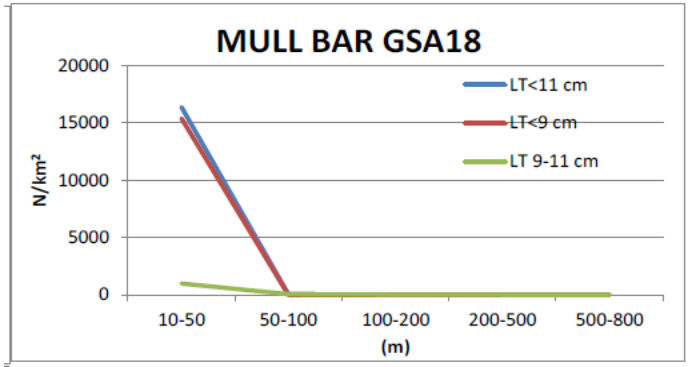
Mediterranean Sensitive Habitats (MEDISEH – 2013) – MEDITS data



Position of persistent nursery (left and right) and spawning areas (in the middle) of Red mullet in GSAs 17-18

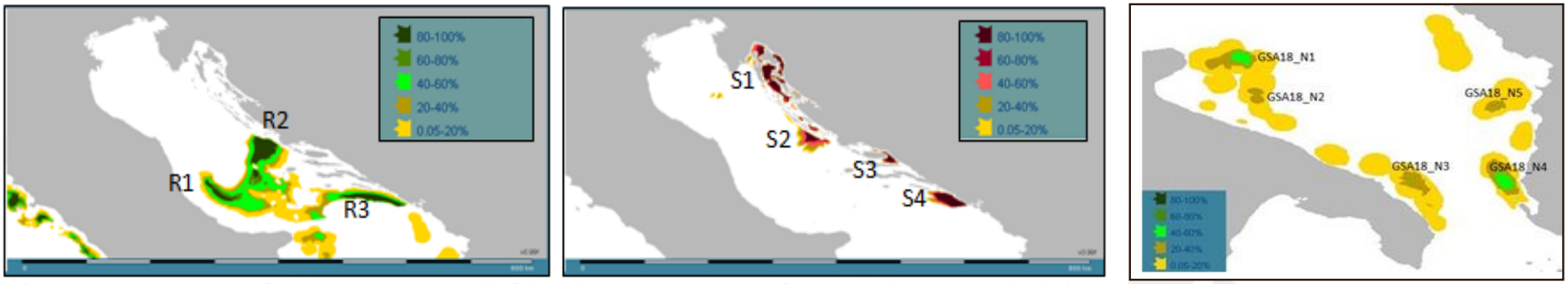
Study on the evaluation of specific management scenarios for the preparation of MAP (Spedicato et al, 2016)





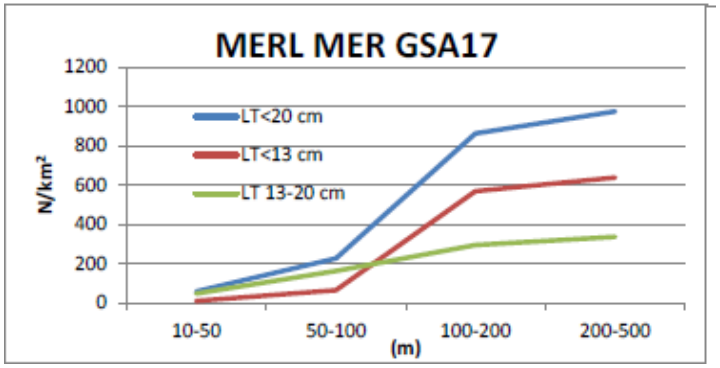
Merluccius merluccius GSAs 17-18

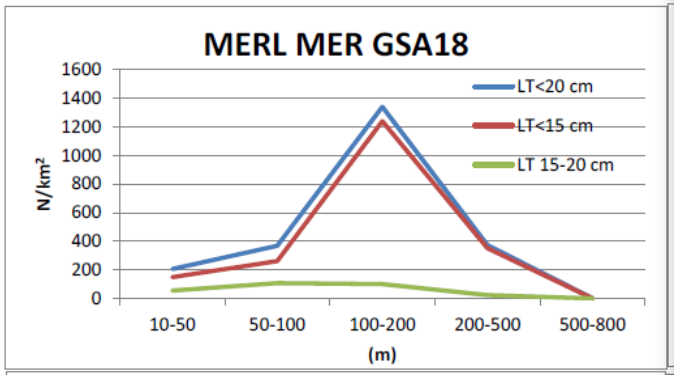
Mediterranean Sensitive Habitats (MEDISEH – 2013) – MEDITS data



Position of persistent nursery (left and right) and spawning areas (in the middle) of Hake in GSAs 17-18

Study on the evaluation of specific management scenarios for the preparation of MAP (Spedicato et al, 2016)

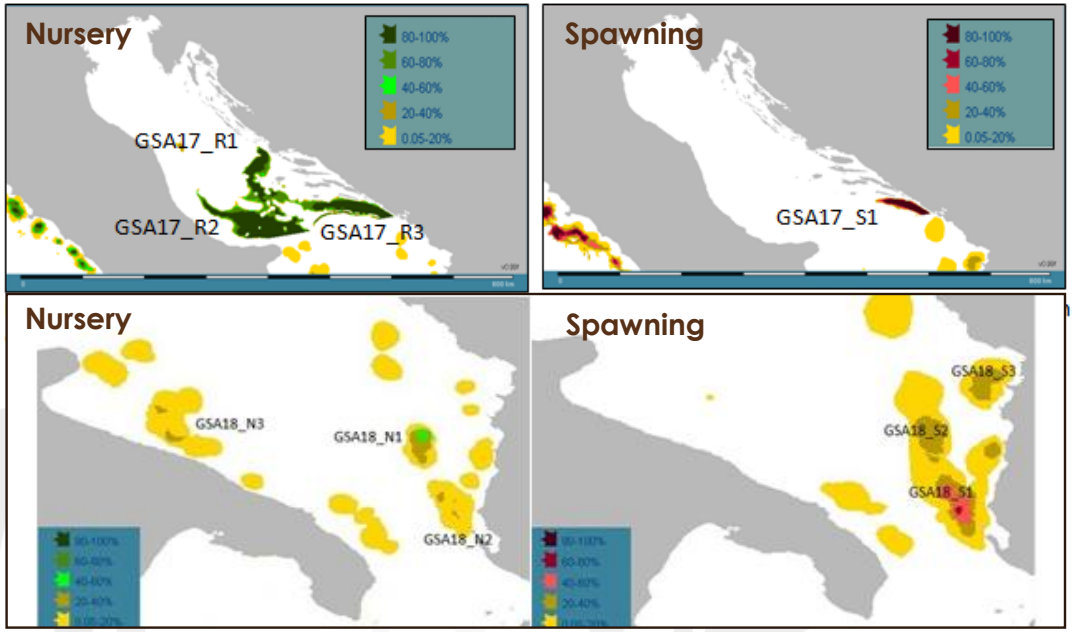




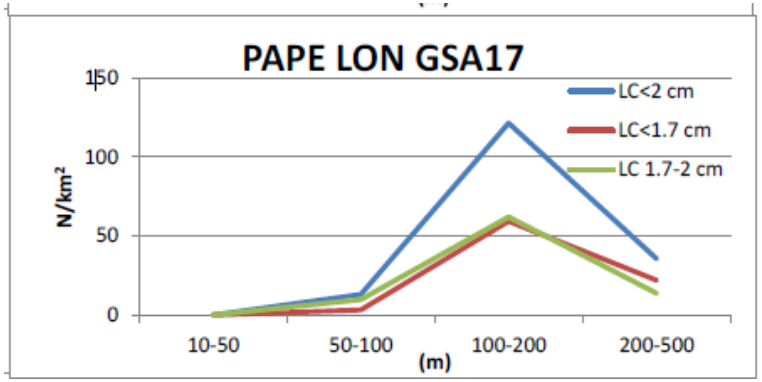
Parapeneus longirostris GSAs 17-18

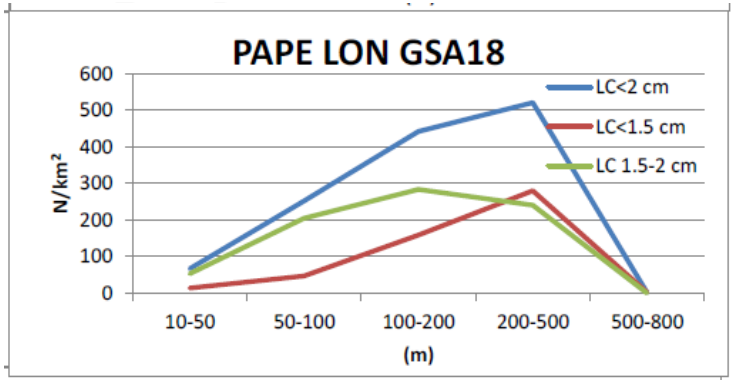
Mediterranean Sensitive Habitats (MEDISEH – 2013) – MEDITS data

Position of persistent nursery and spawning areas of Deep water rose shrimp in GSAs 17-18



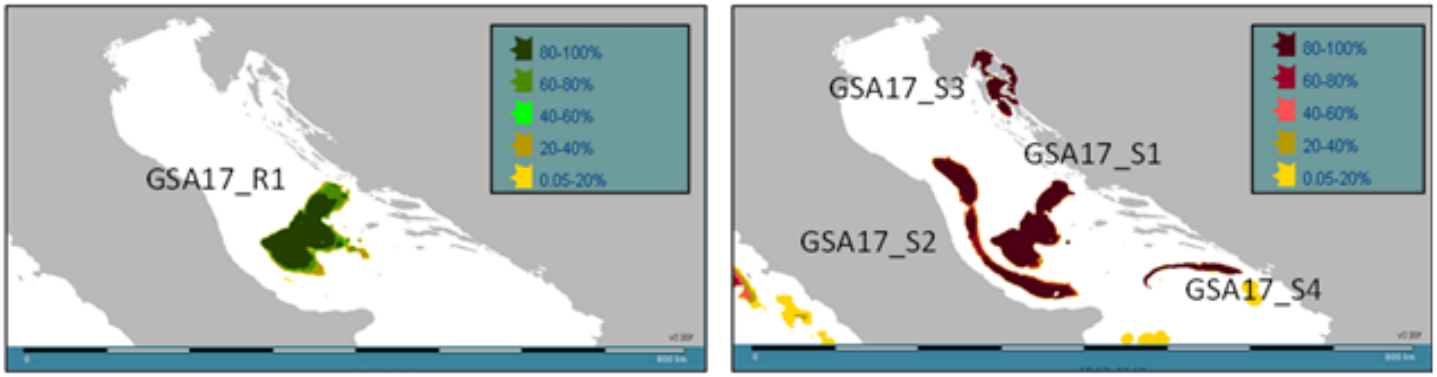
Study on the evaluation of specific management scenarios for the preparation of MAP (Spedicato et al, 2016)





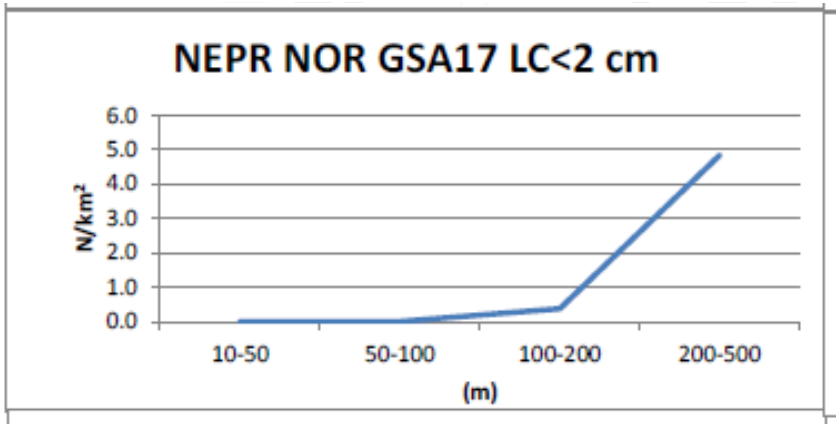
Nephrops novegicus GSAs 17-18

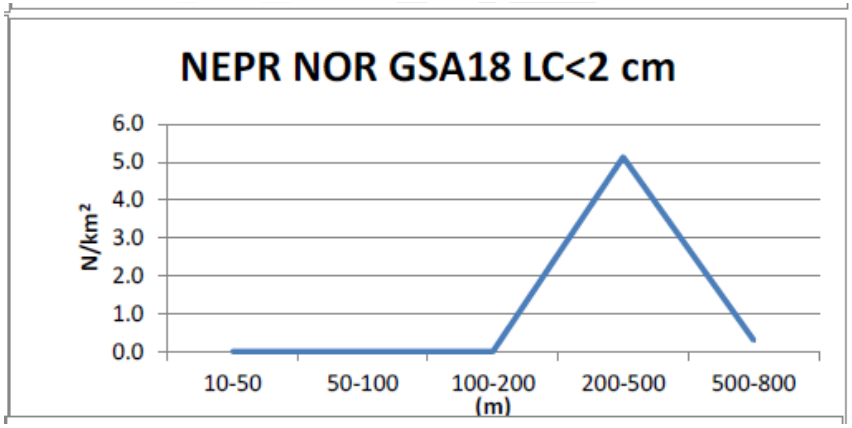
Mediterranean Sensitive Habitats (MEDISEH – 2013) – MEDITS data



Position of persistent nursery and spawning areas of *Nephrops norvegicus* GSA 17

Study on the evaluation of specific management scenarios for the preparation of MAP (Spedicato et al, 2016)

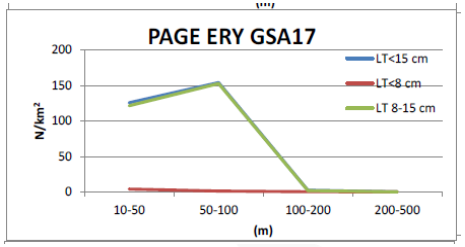


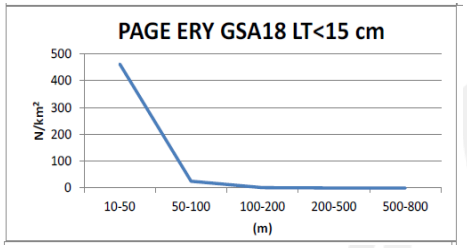


Other species GSAs 17-18

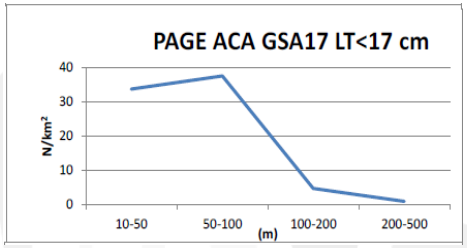
Study on the evaluation of specific management scenarios for the preparation of MAP (Spedicato et al, 2016)

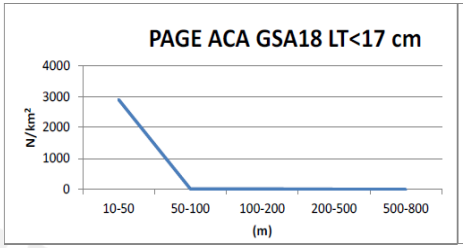
Common pandora



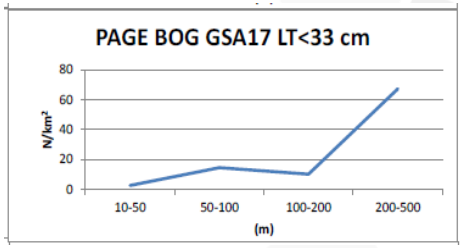


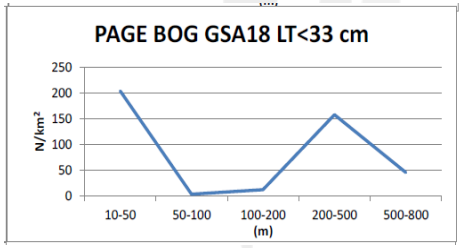
Axillary Seabream



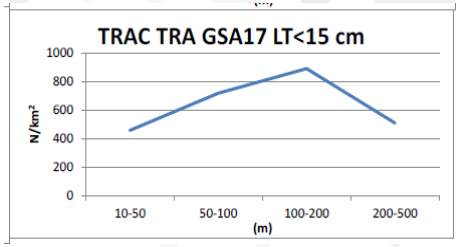


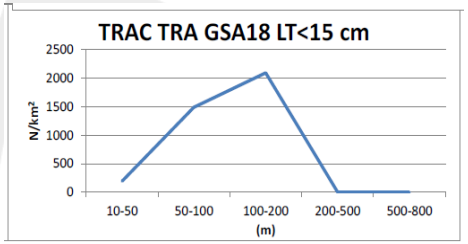
Blackspot seabream



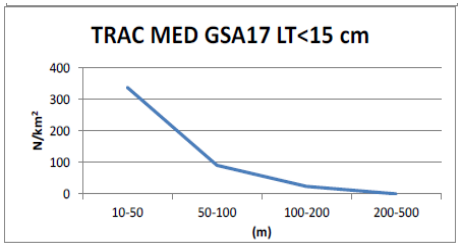


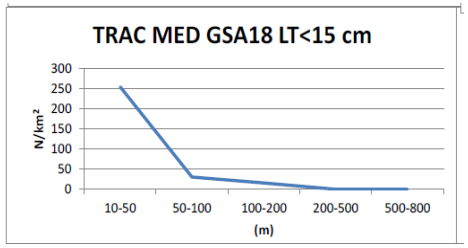
Atlantic horse mackerel



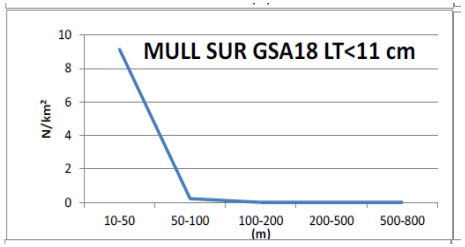


Mediterranean horse mackerel



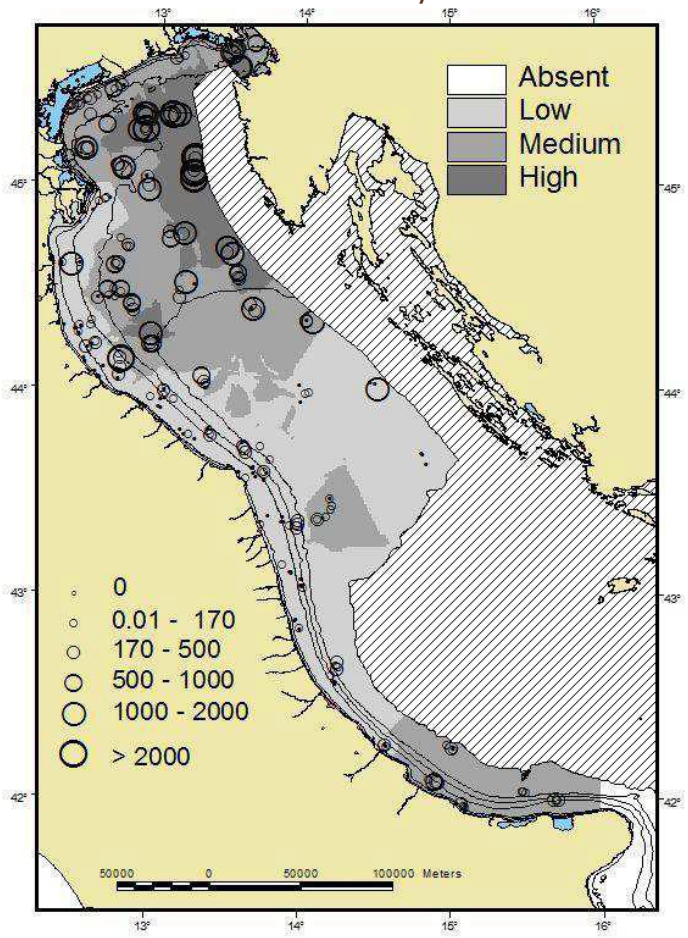


Surmullet

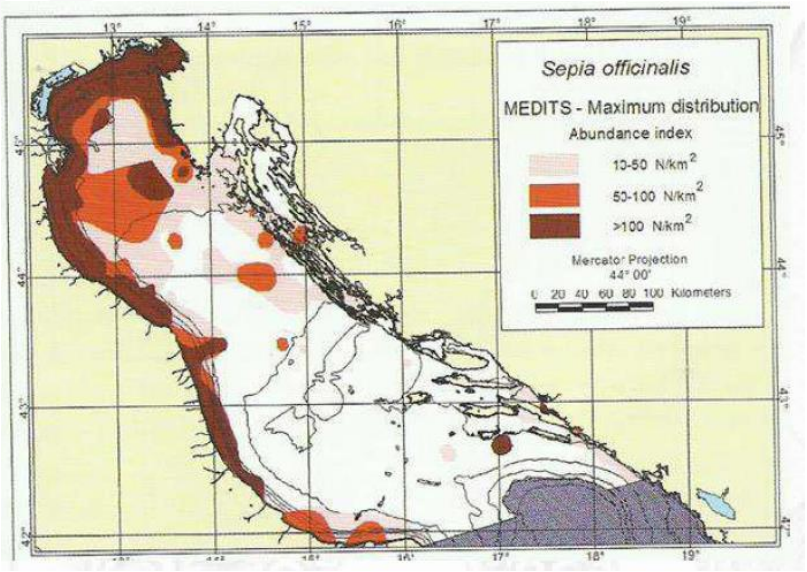


SoleMon Survey

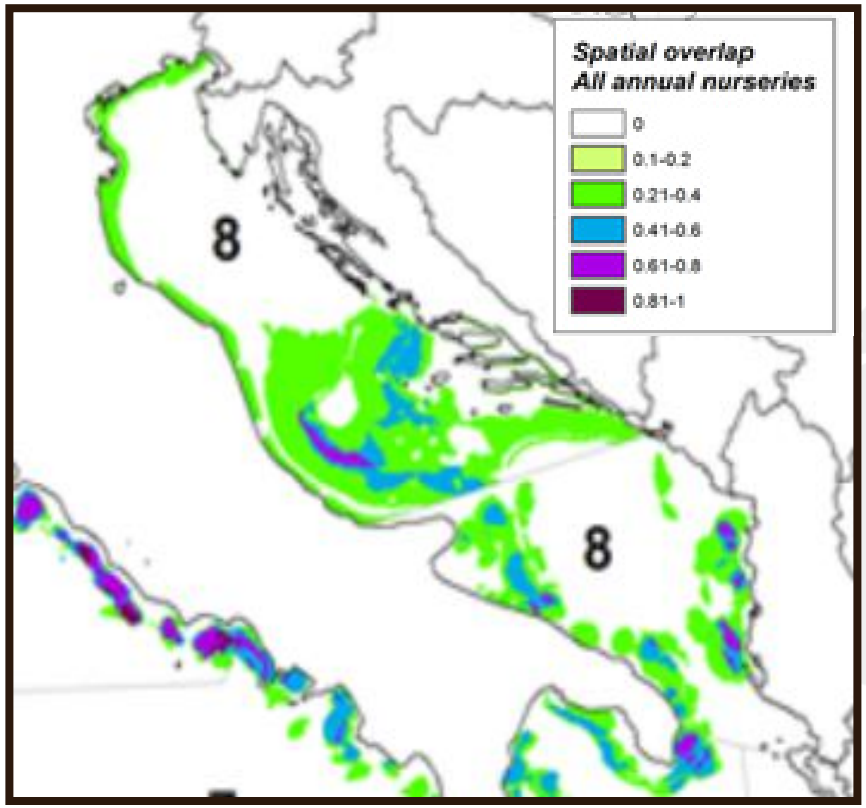
(Stock assessment of Common cuttlefish, Armelloni et al. 2018)



MEDITS Survey



Spatial Planning for Trawl Fisheries
(Colloca et al. 2015)



M. Merluccius - Hake
M. Barbatus – Red mullet
P. Erythrinus – Common pandora
(*R. clavata* - Thornback ray)
(*G. Melastomus* - Blackmouth catshark, GSA 18)
S. Solea (Common sole)
(*A. foliacea* – Giant red shrimp, GSA 18)
P. Longirostris - Deep water rose shrimp
N. Norvegicus - Norway lobster
E. Cirrhosa - Horned octopus
I. Coindetii - Broadtail shortfin squid

"The identification of nursery grounds and other essential fish habitats of exploited stocks is a key requirement for the development of spatial conservation planning aimed at reducing the adverse impact of fishing on the exploited populations and ecosystems."

Other relevant papers and projects

MANTIS: Marine protected Areas Network Towards Sustainable fisheries in the Central Mediterranean.

A possible management alternative: reduction of the mortality rate of juveniles by protecting the areas/habitats were they aggregate, through the implementation of marine managed areas (MMAs).

In this context, a spatial-based approach to the management of fishing effort which

✓ minimises the impact of trawlers on areas where juveniles of commercial species concentrate and

✓ **protects the habitats that play key roles for recruitment and spawning processes (Essential Fish Habitat - EFH), can achieve similar and more effective management targets to those usually linked to mesh size regulations.**

GSAs 17-18 (*Solea solea; Merluccius merluccius, Mullus barbatus, Nephrops norvegicus***).**

Other relevant papers and projects

Spatial planning for fisheries in the Northern Adriatic: working toward viable and sustainable fishing (Bastardie et al. 2017)

✓Spatially and temporally explicit fish and fisheries bio-economic model to assess the impact of a suite of spatial plans suggested by practitioners that could reduce the pressure on four demersal stocks[1] of high commercial interest in the GSA 17 and that could promote space sharing between mutually exclusive activities.

✓ Contribution to the development of effective science-based inputs to facilitate policy improvement and better governance while evaluating trade-offs in fisheries management and marine spatial planning.

[1]common sole (*Solea solea*), hake (*Merluccius merluccius*), red mullet (*Mullus barbatus*), and spottail mantis shrimp (*Squilla mantis*)

Other relevant papers and projects

AdriaMed Study Group on Jabuka/Pomo Pit and on spatial fisheries analysis Split, Croatia, 12 September 2018

- ✓Outline of the scientific monitoring activities and investigations in place in Jabuka/Pomo pit area
- ✓Proposal for specific activities to be implemented in the future within AdriaMed framework

AdriaMed - MedReAct Workshop on Essential Fish Habitats and Sensitive Habitats of the Adriatic Sea: state of knowledge and conservation opportunities.

The workshop identified a number of EFH in the Adriatic Sea having different objectives. Of these, the Drowned Karst Off Gargano includes fish conservation.

GFCM and STECF NEXT STEPS 2019

UPCOMING BENCHMARKS (Priority species)

Merluccius merluccius 2018

Parapenaeus longirostris 2020

Mullus barbatus 2019

Solea solea 2019

GFCM (WGSAD) – Benchmark session for the assessment of European hake in GSAs 17-18, January 15 - January 18, FAO HQ, Rome, Italy

STECF EWG 19-01: MAP for the fisheries exploiting demersal stocks in the Adriatic Sea, (POSTPONED to) March

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Thanks for your attention!

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