



**GENERAL FISHERIES COMMISSION
FOR THE MEDITERRANEAN**

27 September 2013, Izmir, Turkey

GFCM Workshop on Artificial Reefs in the Mediterranean and Black Sea

by GFCM Secretariat



The GFCM is a Regional Fisheries Management Organization (RFMO) of the Food and Agriculture Organization of the UN

- It [...] promotes the conservation, the sustainable management and best utilization of living marine resources in the Mediterranean and Black sea [...]
- 23 countries + European Union
- Binding decisions for its Members
- It operates following the indications of its Scientific Advisory Committee (SAC) and its four Sub committees: *Marine environment and ecosystems, Stock assessment, Statistics and information systems, Economic and social sciences*



Why are Artificial Reefs important for the GFCM?

They are important management tool which could contribute to:

- Preserve and restore the marine environment
- Enhance fish stocks
- Improve fisheries management and enhance small-scale fisheries
- Aquaculture
- Research
- Recreation



Reduced conflicts among coastal users





Artificial reefs in the framework of FAO/GFCM

In late 80s: Working Group on Artificial Reefs and Mariculture


In 2009 and 2010, the SCMEE came back on the topic of ARs advising to:

- carry out a review of the literature on ARs to assess their effects on fisheries and ecosystems
- identify the possible technical and economical conditions to improve their effectiveness
- organize a workshop on ARs in the Mediterranean and Black Sea








First GFCM Workshop on Artificial reefs in the Mediterranean and Black Sea in January 2012


 GFCM - General Fisheries Commission for the Mediterranean
 SAC - Scientific Advisory Committee
SCMEE
Workshop on Artificial Reefs in the Mediterranean and the Black Sea
 FAO HQs, Rome, Italy, 24 January 2012

Recommendations


- ...
- To encourage the exchange of information and cooperation among scientists through the development of a **common database for ARs** in the region
- To standardize and update monitoring procedures and statistical approach to **assess effectiveness of ARs**
- To draft updated **guidelines for ARs monitoring** in the Mediterranean and Black Sea

- To draft updated guidelines for ARs monitoring in the Mediterranean and Black Sea ...

Second GFCM Workshop on Artificial Reefs in the Mediterranean and Black Sea (27 September 2013, Izmir, Turkey)

- 1) **Review the status of artificial reefs** the Mediterranean and Black Sea
- 2) Roundtable: discussion on the **Draft Guidelines for artificial reefs applications** in the context of an integrated maritime approach in the Mediterranean and Black Sea

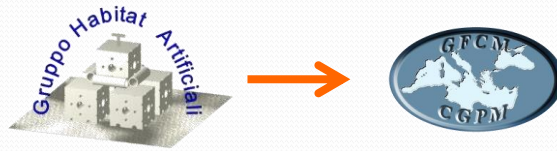




- To encourage the exchange of information and cooperation among scientists through the development of a common database for ARs in the region

New GFCM Database on Artificial Reefs in the Mediterranean and Black Sea

- 1) **Step:** Acquisition of the data from the existing Italian ARs database (www.habitatartificiali.it)



- 2) **Step:** Integration of the data within an ARCGIS Platform to present the new ARs database



General Fisheries Commission for the Mediterranean / Commission Générale des Pêches pour la Méditerranée

Comisión General de Pesca para el Mediterráneo / الهيئة العامة لمصايد أسماك البحر الأبيض المتوسط

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Artificial Reefs Dolphinfish IUU Production statistics Red Coral Stock assessment Task 1

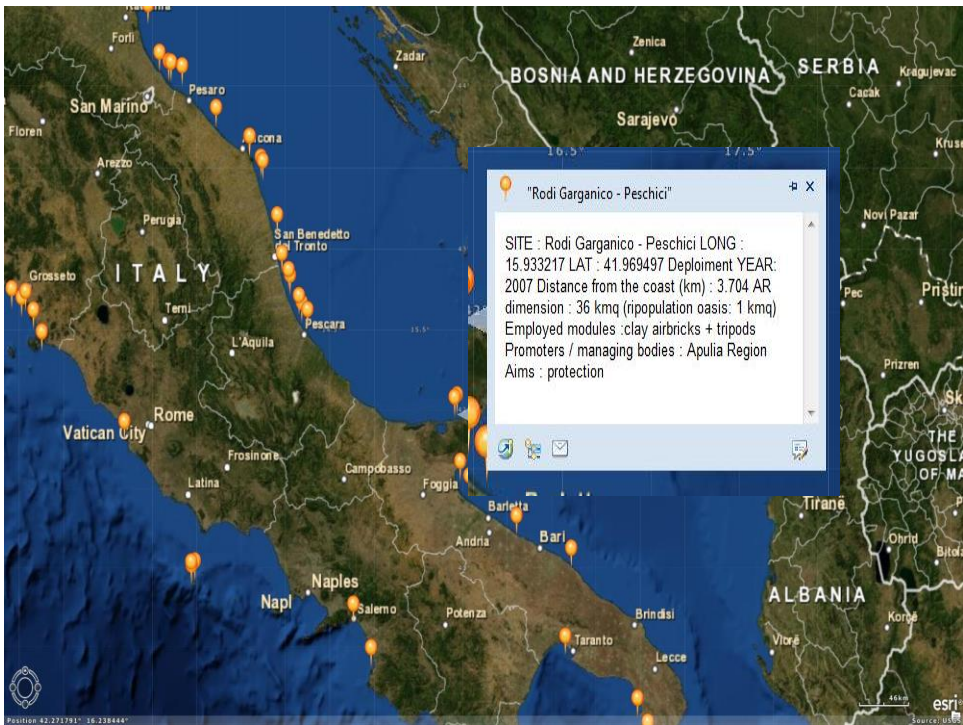
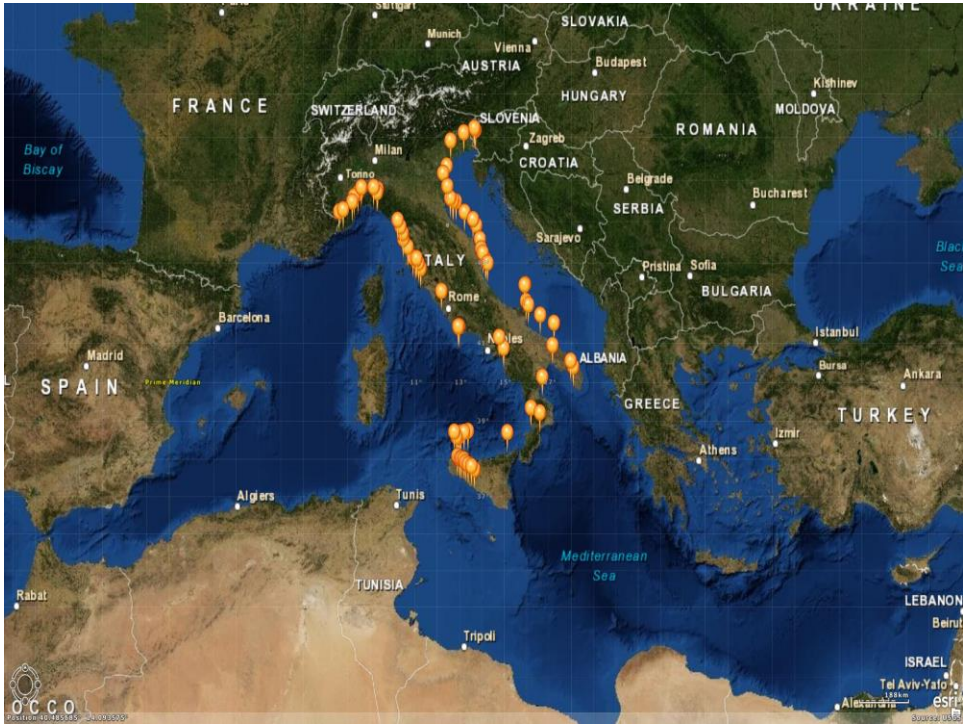
Artificial Reefs
IUU
Production statistics
Red Coral
Stock assessment
Task 1
Vessel records

No content.

GFCM 60years Links GFCM headquarters

Palazzo Blumenstihl, Via Vittoria Colonna 1 - 00193, Rome, Italy (map)
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Preliminary page prototype of the new GFCM website (ver. 23 September 2013)



SITE	LONG	LAT	Distance from the		Seabed	AR dimension	Employed modules	promoters / managing bodies	Aims
			coast (km)	coast (km)					
Ansedonia-Chiara	11.253122	42.363833	2005	5.3	soft	60 kmq	concrete blocks	Regional Agency for the Environmental Protection	antiravelling
Talonnese-P.to Sani	11.158667	42.499972	2005	2.8	soft	48 kmq	concrete blocks	Regional Agency for the Environmental Protection	antiravelling
Ombione-Talonnese	11.025033	42.577075	2005	2.8	soft	41 kmq	concrete blocks	Regional Agency for the Environmental Protection	antiravelling
Punta Ala-Ombione	10.913456	42.631828	2005	5.3	soft	80 kmq	concrete blocks	Regional Agency for the Environmental Protection	antiravelling
Piombino-Punta Ala	10.675781	42.895003	2005	7.3	soft	125 kmq	concrete blocks	Regional Agency for the Environmental Protection	antiravelling
Marina Castagneto	10.477076	43.084865	2005	4.9	soft	85 kmq	concrete blocks	Regional Agency for the Environmental Protection	antiravelling
Marina di Cecina-M	10.451955	43.227604	2000	6.2	soft	60 kmq	concrete blocks	Regional Agency for the Environmental Protection	antiravelling
Sacche di Vada	10.348696	43.391135	2000	6.1	soft	85 kmq	concrete blocks	Regional Agency for the Environmental Protection	antiravelling
Sacche della Hiera	10.232389	43.552054	2000	5.2	soft	135 kmq	concrete blocks	Regional Agency for the Environmental Protection	antiravelling
Golfo di Sant'Eufemia	16.189942	38.819806	1989				tetrapods	Calabria Region	protection
Cattolica	12.684186	44.027236	1988-89	2.778	muddy-sand	0.024 kmq	29 concrete pyramids (each made Cooperativa MARE Cattolica)		protection, antiravelling
Pescara	14.183333	42.545333	2005	5.000	sandy-muddy	13.86 kmq	268 concrete, bell-shaped blocks	Abruzzo Region	protection, antiravelling
Osogna	14.051833	42.715333	2005	5.001	sandy-muddy	4 kmq	516 concrete cubic blocks (1x1x1)	Abruzzo Region	protection, antiravelling
Semigallia	13.217763	43.747065	1987	2.2224	muddy-sand	0.006 kmq (65x95 m)	29 concrete pyramids (each made CNR-ISMAR Ancona)		protection, antiravelling, repopulation
Porto Recanati	13.721972	43.443814	1974-75	4.63	muddy-sand	0.03 kmq, surrounded by 20 kmq of	12 concrete pyramids (each made CNR-ISMAR Ancona)		protection, antiravelling, repopulation
Porto Recanati - Po	13.743271	43.421389	2001	5.556	muddy	0.545 kmq (4540 m x 120 m)	252 concrete pyramids (each made Marche Region)		protection, antiravelling, repopulation
Casteldimozzo-Moz	12.834877	44.001201	2003	5.0004	muddy	0.8 kmq (3500 x 225 m)	78 Tecno Reef pyramids (high: 3 m)	Marche Region	protection, antiravelling, repopulation
Pescara-Cupra Mare	13.90615	43.088833	2005	5.556	muddy	0.81 kmq (3200 x 225 m)	76 Tecno Reef pyramids (high: 2.4 m)	Marche Region	protection, antiravelling, repopulation
Portonovo 1	13.591264	43.571814	1983	0.926	sandy, with natur	0.0009 kmq (30x30 m)	4 concrete pyramids (each made CNR-ISMAR Ancona)		protection, antiravelling, repopulation
Portonovo 2	13.597336	43.571892	1989	0.6	muddy-sand	3 areas, (each of 65x95 m)	concrete pyramids	Fishery Association of Portonovo	protection, antiravelling, repopulation
Rodi Garganico - Po	15.933217	41.969497	2007	3.704		36 kmq (repopulation oasis: 1 kmq)	clay airbricks + tripods	Apulia Region	protection, antiravelling, repopulation
Marinolfonia - Zoppo	15.969719	41.550097	2007	5.556		36 kmq (repopulation oasis: 1 kmq)		Apulia Region	protection, antiravelling, repopulation
Zappaneta - S. Mar	16.073175	41.459278	2007	5.556		22 kmq (repopulation oasis: 1.5 kmq)	concrete pyramids (each made of)	Apulia Region	protection, antiravelling, repopulation
Molfetta	16.604747	41.206228	2005	0.1-0.3	coralligenous	8 kmq (repopulation oasis: 0.4 kmq)	concrete pyramids (each made of)	Apulia Region	protection, antiravelling, repopulation
Pioggiano a mare	17.220506	40.999486	2005	0.1-0.4	coralligenous + C	10 kmq (repopulation oasis: 0.4 kmq)	concrete pyramids (each made of)	Apulia Region	protection, antiravelling, repopulation
Ugento	18.084586	39.883011	2007	1.852		15 kmq repopulation oasis: 0.02 kmq	concrete pyramids (each made of)	Apulia Region	protection, antiravelling, repopulation
Sanpao	17.967886	40.036289	2006	1.852		10 kmq (repopulation oasis: 0.02 kmq)	concrete pyramids (each made of)	Apulia Region	protection, antiravelling, repopulation
Banca di Scardone	12.419833	44.858917	2006	3.704	sandy-mud	200x100 m + 200x100 m	Tecno Reef pyramids + concrete	tal/Consorzio Delta Po Adige	protection, antiravelling, repopulation
Trine del Cimano	14.152017	42.589314	2005	5.000	sandy-muddy	4 kmq	516 concrete cubic blocks (1x1x1)	Local Authority of Teramo	protection, repopulation
Isole Chiesi	17.154438	40.437453	1999	0.926	detritic	0.02 kmq	6 concrete pyramids (each made)	University of Bari	protection, repopulation
Rossano Loc. La 2	16.699528	39.620889	2006	0.100	soft with seagrass	0.12 kmq	concrete tetrapods	Calabria Region	protection, repopulation
Verghina Maria	13.372753	38.210169	1992		mud		concrete pyramids		Provincia Regionale di Palermo
Terrasini	13.051197	38.161725	1981	0.600	sand + Posidonia	Total volume: 400 mc	concrete hollow cylinders	assemb Municipality of Terrasini	repopulation
Trappeto	13.038194	38.086144	1984	0.600	mud	2 kmq	concrete pyramids + scattered co	Municipality of Trappeto	repopulation
Balestrare	12.995903	38.064736	1994-1995		sand		concrete pyramids + scattered concrete cubes		repopulation



New GFCM Database on Artificial Reefs in the Mediterranean and Black Sea

- 1) Step: Acquiring of the data from the Italian ARs database www.habitatartificiali.it
- 2) Step: Development on a ARCGIS Platform to present the data on the (new) GFCM website
- 3) Step: Development of a data submission tool to allow scientists and researchers from all the Mediterranean and Black Sea to send the information on ARs in their countries



GFCM Workshop on Artificial Reefs in
the Mediterranean and Black Sea
27 September 2013 Izmir Turkey

Thank you for your attention!

... and special thanks to

Gianna Fabi

Altan Lok

Ozan

Ege University

and EastMed!



The 10th International Conference on
Artificial Reefs and Related Aquatic Habitats
23-27 September 2013, Izmir-TURKEY

