Inventaire/synthèse bibliographique concernant la pêche et la biodiversité des zones de mer profondes

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Liste des acronymes

ASPIM : Aire Spécialement Protégée d'Intérêt Méditerranéen

CAR/ASP : Centre d'Activités Régionales pour l Aires Spécialement Protégées

CDB : Convention sur la Diversité Biologique

CGPM : Commission Générale des Pêche pour la Méditerranée

CIESM : Commission Internationale pour l'Exploration Scientifique de la Mer Méditerranée

ICES : International Council for the Exploration of the Sea

OMI : Organisation Maritime Internationale

PNUE : Programme des Nations Unies pour l'Environnement

UICN : Union Mondiale pour la Nature

WWF : Fonds Mondial pour la Nature

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Introduction

Globalement, les zones de mer profondes sont relativement peu étudiées et les données scientifiques qui les concernent restent limitées. Il est vrai que de nombreuses publications sont disponibles, mais elles sont souvent ponctuelles dans le temps et dans l'espace. Par ailleurs la difficulté d'accès et d'échantillonnage dans ces milieux font que le nombre de chercheurs et d'institutions qui travaillent sur la biodiversité des mers profondes est relativement réduit. En outre, le régime juridique d'une grande partie des zones profondes fait que l'appui logistique et financier pour travailler sur ces zones n'est pas disponible pour des chercheurs de nombreux pays.

Depuis quelques années la question de l'exploitation et la conservation des ressources des zones de mers profondes est traitée au niveau d'instances internationales telles que la CBD et l'OMI et certaines organisations internationales ont encouragé l'élaboration de documents sur ces zones. Le plus récent de ces documents a été publié conjointement par l'UICN et le PNUE en 2006, il décrit les richesses des zones profondes et de haute mer de la planète et traite de leur conservation.

Pour la zone Méditerranée, un document conjoint de l'UICN et de WWF a été publié en 2004. Ce document fournit une description détaillée des principaux éléments de la biodiversité des zones profondes en Méditerranée et traite de quelques considérations relatives à l'exploitation et la conservation de leurs ressources.

Le présent document a été élaboré à la demande de la CGPM qui a invité son Comité Scientifique Consultatif de réaliser un inventaire et une synthèse de la documentation disponible relative aux zones de mers profondes. Il est présenté en tant que version préliminaire à la prochaine réunion du Sous-Comité de l'Environnement et des Ecosystèmes Marins (Kavala, Grèce, 17-20 septembre 2007) comme introduction aux travaux du Sous-comité sur la question. A la lumière des discussions et recommandations du Sous-comité, le présent document sera élaboré davantage et une version plus élaborée sera soumise à la prochaine réunion du Comité Scientifique.

1. Méthodologie et résultat de l'inventaire

L'essentiel de l'inventaire a été réalisé à travers des recherches sur Internet et l'analyse des documents de synthèse disponibles. A cet effet une base de données a été élaborée où les publications identifiées comme ayant un lien direct avec la biodiversité et l'exploitation des zones profondes ont été répertoriées. La base de données a été organisée de façon à pouvoir effectuer des classifications des publications répertoriées par sujet et par zone géographique.

Considérant l'objectif de ce travail, nous n'avons pas restreint l'inventaire aux publications qui traitent de la Méditerranée, nous avons toutefois accordé une attention particulière aux publications relatives à la Méditerranée.

Environ 250 publications ont été ainsi recensées et analysées dans le cadre de ce travail. Elles présentent une grande diversité de sujets et d'approches. Il est à noter que plusieurs de ces publications ne sont pas basées sur des investigations de terrain.

La liste des publications inventoriées est présentée par ordre alphabétique des auteurs à la fin du présent document.

2. Etat des connaissances sur la biodiversité des zones profondes

Pour toutes les mers du globe, il est largement admis que nos connaissances sur les écosystèmes des zones profondes sont relativement faibles. La biodiversité de ces zones est parmi les aspects les moins étudiés et les données y relatives sont souvent incomplètes pour permettre d'établir des diagnostics fiables des éléments constitutifs de cette biodiversité. Pour la Méditerranée, les données disponibles sont encore faibles, mais l'information disponible dans la bibliographie permet déjà de dresser des inventaires qualitatifs, toutefois les données sur la distribution géographique qui font défaut. En effet la majorité des publications analysées dans le cadre du présent travail se contentent de fournir des descriptions des habitats et des espèces.

Pour ce qui est des sujets traités par les publications, nous avons recensé une dizaine de thèmes liés à la biodiversité et au fonctionnement des écosystèmes des zones marines profondes. Le classement de ces thèmes selon le nombre de publications recensées est comme suit:

1. Biologie des espèces
2. Sciences de la Terre
3. Océanographies
4. Ecologie
5. Microbiologie
6. Zoologie
7. Hydrobiologie
8. Biomédecine
9. Géophysique/Géodésie
10. Géologie

Pour la Méditerranée on trouve les mêmes thèmes avec une classification légèrement différente:

1. Biologie des espèces
2. Ecologie
3. Sciences de la Terre
4. Océanographie
5. Microbiologie
6. Zoologie
7. Biomédecine
8. Hydrobiologie
9. Géologie
10. Géophysique/Géodésie

Sur le plan géographique, le nombre de publications est plus abondant pour l'Océan Atlantique suivi de l'Océan Pacifique.

3. Définition des zones de mer profonde

Certains auteurs et organisations considèrent comme zones profondes, les zones situées au-delà du plateau continental. Ceci ne fait pas l'unanimité des spécialistes, en effet les définitions disponibles dans la bibliographie comportent des différences relativement importantes et il est donc difficile d'établir une définition qui tient compte de toutes les définitions proposées. Le principal point de divergence concerne la profondeur à partir de la quelle les zones marine sont considérées comme zones profondes. Selon les auteurs et les organisations, cette profondeur varie de 200 à 400 mètres. Par example, pour l'ICES, la zone de mer profonde commence à partir de -400 de profondeur.

Pour les besoins de la gestion des ressources des zones profondes à l'échelle méditerranéenne, il est nécessaire d'établir une définition des mers profondes au niveau de la GFCM.

4. Principaux élément de la biodiversité des mers profondes en Méditerranée

Le document publié conjointement par l'UICN et le WWF en 2004 "The Mediterranean deep-sea ecosystems: an overview of their diversity,structure, functioning,and anthropogenic impacts, with a proposal for their conservation" fourni une excellente synthèse sur les éléments constitutifs de la biodiversité marine recensés dans les zones profondes de la méditerranée. Il ressort de cette synthèse que le taux endémisme des espèces des zones profondes connues en Méditerranée est, pour plusieurs taxons, supérieur au taux d'endémisme moyen en Méditerranée, qui est connu pour être un des plus élevé des océans et mers de la planète.

Sur le plan de l'Exploitation des ressources, d'après la bibliographie analysée dans le cadre du présent travail, les zones méditerranéennes de mer profonde renferment de nombreuses ressources d'intérêt pour l'exploitation. Les contraintes liées aux difficultés technologiques et à l'éloignement d'une grande partie de ces zones font que l'exploitation de telles ressources reste limitée.

Pour la pêche, le chalutage de fond fourni environ 80% des prises réalisées en zones profondes. Cependant l'apport de cette pêche ne représente pas plus de 0,25% des pêches mondiale sur le plan de tonnages débarqués et 0,5% de la valeur (données de 2001).

5. Principales menaces sur les écosystèmes profonds décrites dans la bibliographie

Les activités de pêche constituent la principale menace décrite dans la bibliographie pour les zones profondes. C'est notamment la sur-pêche et l'effet destructeur de certains engins, notamment les chaluts qui sont souvent cités. Pour certains auteurs le chalutage benthique est responsable de la destruction de 98% des coraux des montagnes sous-marine à travers le monde.

La pollution est aussi citée comme menace et en particulier les rejets en mer de déchets solides. Certains auteurs rapportent que des navires se débarrassent en mer de leurs propres déchets, ce qui est contraire aux règlements de l'OMI en la matière. D'autres auteurs indiquent que le dépôt en haute mer de produits toxiques est une pratique encore courante.

La mise en place de câble et de pipelines est aussi signalé comme une menace potentielle pour les écosystèmes des zones marines profondes.

Pour les activités pétrolières, pendant longtemps la technologie n'était pas disponible pour la réalisation d'activités pétrolières dans les zones profondes. Toutefois, d'après quelques auteurs, cette technologie est désormais disponible et plusieurs compagnies opèrent à des profondeurs de plus de 3000 mètres. Evidement, de telles activités constituent des menaces sérieuses pour les écosystèmes des zones profondes et ce à travers l'action physique directe des équipements utilisés et aussi les pollutions engendrées. Certains auteurs soulignent que les techniques d'interventions en cas d'accidents pétroliers en grandes profondeurs sont pratiquement inexistantes.

6. La recommandation CGPM/2005/1

Lors de sa 29ème session, la CGPM a adopté la recommandation CGPM/2005/1 concernant la gestion des pêcheries exploitant les espèces démersales et des eaux profondes. Concernant les eaux profondes, la dite recommandation stipule que les membres de la CGPM interdiront les engins traînants et la pêche au chalut dans les profondeurs dépassant -1000 m. La recommandation stipule aussi que le Comité Scientifique procèdera à l'évaluation de l'impact des mesures prises et proposera si nécessaire d'éventuels ajustements des mesures ou de nouvelles mesures qui s'avèrent nécessaires.

D'après la documentation disponible, la pêche au chalut n'est pas pratiquée en Méditerranée au-delà de –800 m de profondeur. L'application de la dite interdiction décidée par la CGPM en 2005 est donc relativement facile à appliquer pour le moment. D'ailleurs quelques pays, ont déjà transcrit cette interdiction dans leurs réglementions suite à la recommandation CGPM/2005/1. Celle-ci est donc une mesure de précaution qui dissuadera les éventuels développement de la pêche dans les grandes profondeurs en Méditerranée.

En vue d'avoir une idée plus précises sur l'étendue et les perspectives de développement de la pêche en zones profondes en méditerranée, il serait fort utile de recenser la flottille de pêche utilisant des arts traînants dans les profondeurs situées entre –400 et –1000 m et de collecter les données sur leurs captures et d'analyser quantitativement et quantitativement les rejets de cette pêcherie.

Pour ce qui est de la protection des éléments fragiles de la biodiversité des zones profondes, il serait judicieux d'instaurer une collaboration entre la CGPM et le CAR/ASP concernant la préservation du coralligène. Il est à noter à ce sujet qu'un plan d'action sur le coralligène a été développé par le CAR/ASP et il sera soumis pour adoption parles Parties contractantes à la convention de Barcelone en janvier 2008. La mise en place d'ASPIM pour la préservation de zones de mer profondes en Méditerranée est un autre sujet de collaboration possible entre la CGPM et le CAR/ASP.

Liste des publications inventoriées

La liste est présentée selon l'ordre alphabétique des auteurs. Elle est suivie par un catalogue indiquant la répartuion des publications selon les thèmes traités et les régions concernées.

1 ABELLÓ & CARTES (1992) - Population characteristics of the deep-sea lobsters Polycheles typhlops and Stereomastis sculpta (Decapoda, Polychelidae) in the Mediterranean bathyal mud community
Marine Biology, Mar. Biol., 114: 109-117.
Thème(s): mud community, deep-sea, Polycheles, Decapoda, Mediterranean bathyal

2 ABELLÓ et al. (1988) - Analysis of the structure of decapod crustacean assemblages off the Catalan coast (North-West Mediterranean
Marine Biology, Mar. Biol., 98:39-49.
Thème(s): crustacean assemblages, Catalan coast

3 ABELLÓ et al. (2001) - Notes on the distribution and biology of the deep-sea crab Bathynectes maravigna (Brachyura: Portunidae) in the Mediterranean Sea
Hydrobiologia, Hydrobiologia 449: 187–192, 2001.
Thème(s): Bathynectes maravigna, distribution, biology,Mediterranean Sea

4 ABELLÓ et al. (2003) - Geographical patterns of seabird attendance to a research trawler along the Iberian Mediterranean coast
Science Marine, Sci. Mar., 67(suppl. 2):69-75.
Thème(s): Iberian Mediterranean coast

5 ACOSTA et al . (2001) - Pockmarks in the Ibiza Channel and western end of the Balearic Promontory (western mediterranean) revealed by multibeam mapping.
Geo-Marine Letters,, Geo-Marine Letters, 21 (3): 123-130.
Thème(s): Ibiza Channel, Pockmarks, multibeam mapping

6 BACHELET et al. (2003) - An updated checklist of marine and brackish water Amphipoda (Crustacea: Peracarida) of the southern Bay of Biscay (NE Atlantic)
Cahier de Biologie Marine, Cah. Biol. Mar., 44(2): 121-151.
Thème(s): brackish water Amphipoda, southern Bay of Biscay

7 BARRIER et al. (1989) - Présence de faunes bathyales atlantiques dans le Pliocène et le Pleistocène de Méditerranée (détroit de Messine, Italie)
Bulletin de la Société de Géologie de
France, Bulletin de la Société de Géologie de France, 8(4): 787-796.
Thème(s): faunes bathyales, Méditerranée

8 BAS (2002) - El mar mediterráneo: recursos vivos y explotación
Ed. Ariel, Barcelona, Ed. Ariel, Barcelona. 518 pp.
Thème(s):

9 BAS (2003) - Variacions demogràfiques a les poblacions d'espècies demersals explotades

Institut d'Estudis Catalans, Barcelona., Barcelona. 202 pp.
Thème(s): espècies demersals,

10 BELLAN-SANTINI (1990) - Mediterranean deep-sea Amphipoda: composition, structure and affinities of the fauna.
Prog. Oceanogr, Prog.Oceanogr., 24: 275-387.
Thème(s): Mediterranean , deep-sea, Amphipoda

11 BIALEY et al (2005) - Life in a warm deep sea: routine activity and burst swimming performance of the shrimp Acanthephyra eximia in the abyssal Mediterranean
Marine Biology, Marine Biology (2005) 146: 1199–1206
Thème(s): Acanthephyra eximia,routine activity,burst swimming,deep sea, Mediterranean Sea

12 BIANCHINI & RAGONESE (1994) - Life cycles and fisheries of the deep-water red shrimps Aristaeomorpha foliacea and Aristeus antennatus
NTR-ITPP Spec. Publ, NTR-ITPP Spec. Publ., 3:1-87.
Thème(s): red shrimps, Aristaeomorpha foliacea, Aristeus antennatus, deep-water

13 BILLETT et al. (2001) - Long-term change in the megabenthos of the Porcupine Abyssal Plain (NE Atlantic)
Prog. Oceanogr.,, Prog. Oceanogr., 50: 325-348.
Thème(s): change, megabenthos, Porcupine Abyssal Plain

14 BLEND et al. (2000) - Six new species of Lepidapedon Stafford, 1904 (Digenea: Lepocreadiidae) from deep-sea macrourid fishes from the Gulf of Mexico and Caribbean Sea, with revised keys to the species of the genus
Systematic Parasitology, Systematic Parasitology 45: 29–51, 2000.
Thème(s): new specie, Lepidapedon Stafford, deep-sea, Gulf of Mexico, Caribbean Sea

15 BORGHI & PORTE (2002) - Organotin Pollution in Deep- Sea Fish from the NW Mediterranean.
Environ. Sci. Technol, Environ. Sci. Technol., 36(20): 4224-4228.
Thème(s): Deep- Sea , Fish, Organotin Pollution

16 BOUCHET & TAVIANI (1992) - The Mediterranean deepsea fauna: pseudopopulations of Atlantic species?
Deep-Sea Res., Deep-Sea Res., 39(2): 169-184.
Thème(s): Mediterranean, deepsea fauna, Atlantic species

17 BOUILLON et al. (2000) - Deep-water Hydromedusae from the Lacaze-Duthiers submarine canyon (Banyuls, northwestern Mediterranean) and description of two new genera, Guillea and Parateclaia.
Sci. Mar, Sci. Mar., 64 (suppl. 1): 87-95.
Thème(s): Deep-water, Lacaze-Duthiers submarine canyon , new genera

18 BOZZANO & SARDÀ (2002) - Fishery discard consumption rate and scavenging activity in the northwestern MediterraneanSea
ICES J. Mar. Sci., ICES J. Mar. Sci., 59(1): 15-28.

Thème(s):

19 BRANDT et al. (2005) - Southern Ocean deep-sea isopod species richness (Crustacea, Malacostraca): influences of depth, latitude and longitude
Polar Biol, Polar Biol (2005) 28: 284–289
Thème(s): Southern Ocean, deep-sea, isopod species richness

20 BUSCAIL & GERMAIN (1997) - Present-day organic matter sedimentation on the NW Mediterranean margin: importanceof off-shelf export
Limnol. Oceanogr., Limnol. Oceanogr., 42(2):217-229.
Thème(s): organic matter, Mediterranean margin

21 BUSCAIL et al. (1990) - Fluxes and budget of organic matter in the benthic boundary layer over the northwestern Mediterranean margin.
Cont. Shelf Res.,, Cont. Shelf Res., 10: 1089-1112.
Thème(s): organic matter, Mediterranean margin

22 CAMBON-BONAVITA et al. (2003) - Extremophiles, Thermophily section, species description Thermococcus atlanticus sp. nov., a hyperthermophilic Archaeon isolated from a deep-sea hydrothermal vent in the Mid-Atlantic Ridge
Extremophiles, Extremophiles (2003) 7:101–109
Thème(s): Hydrothermal , Thermophiles ,Thermococcus
, Mid-Atlantic Ridge , Proteolysis

23 CAMPILLO (1994) - Bio-ecology of Aristeus antennatus in the French Mediterranean.
NTR-ITPP Spec. Publ.,, NTR-ITPP Spec. Publ., 3: 25-26.
Thème(s):

24 CARBONELL et al. (1998) - Discards of the Western Mediterranean trawl fleet.
Rapp. Comm. int. Mer Médit., Rapp.Comm. int. Mer Médit., 35: 392-393.
Thème(s):

25 CARBONELL et al. (1999) - The red shrimp Aristeus antennatus (Risso, 1816) fishery and biology in the Balearic Islands, Western Mediterranean.
Fish. Res., Fish. Res., 44: 1-13.
Thème(s): red shrimp, Aristeus antennatus,fishery,biology, Balearic Islands

26 CARLUCCI et al. (2006) - Selectivity parameters and size at first maturity in deep-water shrimps, Aristaeomorpha foliacea (Risso, 1827) and Aristeus antennatus (Risso, 1816), from the North-Western Ionian Sea (Mediterranean Sea)
Hydrobiologia, Hydrobiologia (2006) 557:145–154
Thème(s): trawl selectivity, size at first capture, size at first maturity, Aristaeomorpha foliacea, Aristeus antennatus,
Mediterranean Sea

27 CARPINE (1970) - Ecologie de l'étage bathyal dans la Méditerranée occidentale.
Mém. Inst. Océanog. Monaco., Mém. Inst. Océanog. Monaco, 2: 1-146.
Thème(s): Ecologie , étage bathyal, Méditerranée occidentale

28 CARRASSÓN & CARTES (2002) - Trophic relationships in a Mediterranean deep-sea fish community: partition of food resources, dietary overlap and connections within the Benthic Boundary Layer.
Mar. Ecol. Prog. Ser.,, Mar. Ecol. Prog. Ser., 241:41-55.
Thème(s): Trophic relationships, deep-sea fish community, Mediterranean

29 CARTES (1993) - Deep-sea decapod fauna of the western Mediterranean: bathymetric distribution and biogeographic aspects
Crustaceana,, Crustaceana, 65: 29-40.
Thème(s): Deep-sea, decapod fauna, western Mediterranean, bathymetric

30 CARTES (1994) - Influence of depth and season on the diet of the deep-water aristeid Aristeus antennatus along the continental slope (400 to 2300 m) in the Catalan Sea.
Mar.Biol., Mar. Biol., 120: 639-648.
Thème(s): depth, deep-water, aristeid Aristeus , continental slope, Catalan Sea

31 CARTES (1998) - Dynamics of the bathyal Benthic Boundary Layer in the northwestern Mediterranean: depth and temporal variations in macrofaunal – megafaunal communities and their possible connections within deep-sea trophic webs
Prog. Oceanogr., 41: 111-139.
Thème(s): Dynamic, bathyal, northwestern Mediterranean, macrofaunal, megafaunal communities,

32 CARTES (1998) - Feeding strategies and partition of food sources in deep-water decapod crustaceans (400-2300m)
J. Mar. Biol. Assoc. U. K., J. Mar. Biol. Assoc. U. K., 78: 509-524.
Thème(s): Feeding strategies, deep-water decapod

33 CARTES & SARDÀ (1993) - Zonation of the deep-sea decapod fauna in the Catalan Sea (Western Mediterranean).
Mar. Ecol. Prog. Ser., Deep-Sea Res., 51: 263-279.
Thème(s): Zonation, deep-sea decapod fauna, Catalan Sea

34 CARTES & CARRASSÓN (2004) - The influence of trophic variables in the depth-range distribution and zonation rates of deep-sea megafauna: the case of the Western Mediterranean assemblages.
Deep-Sea Res., J. Northw. Atl. Fish. Sci., 31: 355-361.
Thème(s): trophic variables, epth-range distribution, zonation rates, deep-sea, megafauna, Western Mediterranean

35 CARTES & DEMESTRE (2003) - Estimating secondary production in the deep-water shrimp, Aristeus antennatus (Risso, 1816) in the Catalano-Balearic basin (Western Mediterranean).
J. Northw. Atl. Fish. Sci., Mar. Ecol. Prog. Ser., 171: 233-246.
Thème(s): secondary production, deep-water , Aristeus antennatus , Catalano-Balearic basin, Western Mediterranean

36 CARTES & MAYNOU (1998) - Food consumption by bathyal decapod crustacean assemblages in the western Mediterranean: predatory impact of megafauna and the food consumption-food supply balance in a deep-water food web.

Mar. Ecol. Prog. Ser., J. Nat. Hist., 26: 1305-1323.
Thème(s): Food consumption, bathyal decapod crustacean , western Mediterranean

37 CARTES & SARDÀ (1992) - Abundance and diversity of decapod crustaceans in the deep-Catalan Sea (Western Mediterranean)
J. Nat. Hist., Mar. Ecol. Prog. Ser., 94: 27-34.
Thème(s): diversity of decapod crustaceans, deep-Catalan Sea, Western Mediterranean

38 CARTES & SORBE (1993) - Les communautés suprabenthiques bathyales de la mer Catalane (Méditerranée occidentale): données préliminaires sur la répartition bathymétrique et l'abondance des crustacés péracarides.
Crustaceana, Crustaceana, 64(2): 155-171.
Thème(s): suprabenthiques bathyale, mer Catalane, répartition bathymétrique,

39 CARTES & SORBE (1995) - Deep-water Mysids of the Catalan sea: species composition, bathymetric and near bottom distribution.
J. Mar. Biol. Assoc. U. K., J. Mar. Biol. Assoc. U. K., 75: 187-197.
Thème(s): Deep-water, Mysids, Catalan sea, composition

40 CARTES & SORBE (1996) - Temporal population structure of deep-water cumaceans from the western Mediterranean slope (between 400 to 1300 m)
Deep-sea Res, Deep-sea Res., 43: 1423-1438.
Thème(s): deep-water, cumaceans, western Mediterranean

41 CARTES & SORBE (1999) - Deep-water amphipods from the Catalan Sea slope (western Mediterranean): Bathymetric distribution, assemblage composition and biological characteristics.
J. Nat. Hist.., J. Nat. Hist.. 33(8): 1133-1158.
Thème(s): Deep-water, amphipods,

42 CARTES et al. (1993) - Day-night migrations by deep-sea decapod crustaceans in experimental samplings in the Western Mediterranean sea.
J. Exp. Mar. Biol. Ecol., J. Exp. Mar. Biol. Ecol., 171: 63-73.
Thème(s): Day-night migrations, deep-sea, decapod crustaceans

43 CARTES et al. (1994) - Deep-water decapod crustacean communities in the Northwestern Mediterranean: influence of submarine canyons and season.
Marine Biology, Mar. Biol., 120: 221-230.
Thème(s): Deep-water, decapod crustacean, Northwestern Mediterranean, submarine canyons

44 CARTES et al. (2001) - Contrasting lifehistories, secondary production, and trophic structure of Peracarid assemblages of the bathyal suprabenthos from the Bay of Biscay (NE Atlantic) and the Catalan Sea (NW Mediterranean).
Deep-Sea Res., Deep-Sea Res., 48: 2209-2232.
Thème(s): lifehistories, secondary production, trophic structure, Peracarid assemblages, bathyal suprabenthos, Bay of Biscay, Catalan Sea

45 CARTES et al. (2001) - Trophic structure of a bathyal benthopelagic boundary layer community south of the Balearic Islands (southwestern Mediterranean).

Mar. Ecol. Prog. Ser., Mar. Ecol. Prog. Ser., 215: 23-35.
Thème(s): Trophic structure, bathyal benthopelagic, Balearic Islands

46 CARTES et al. (2002) - Bathymetric changes in the distribution of particulate organic matter and associated fauna along a deep-sea transect down the Catalan sea slope (Northwestern Mediterranean).
Prog. Oceanogr., Prog. Oceanogr., 53: 29-56.
Thème(s): Bathymetric change, organic matter , associated fauna, deep-sea transect ,Catalan sea

47 CARTES et al. (2003) - Local changes in the composition and community structure of suprabenthic peracarid crustaceans on the bathyal Mediterranean: influence of environmental factors.
Mar. Biol., Mar. Biol., 143: 745-758.
Thème(s): change, community structure, suprabenthic peracarid, crustacean, bathyal Mediterranean, environmental factors

48 CARTES et al. (2004) - Changes in the patterns of bathymetric distribution among deep-sea fauna at local spatial scale: comparison of mainland vs. insular areas.
Prog. Oceanogr., 60: 29-45.
Thème(s): bathymetric, deep-sea fauna, insular areas, mainland

49 CHEN et al. (2005) - Arthrobacter ardleyensis sp. nov., isolated from Antarctic lake sediment and deep-sea sediment
Arch Microbiol, Arch Microbiol (2005) 183: 301–305
Thème(s): Antarctica , Arthrobacter ardleyensis, Cell wall , Deep-sea , DNA–DNA hybridization , Mol% G+C content

50 CHILDRESS (1995) - Are there physiological and biochemical adaptations of metabolism in deep-sea animals?
Trends Ecol. Evol., Trends Ecol. Evol., 10(1): 30-36.
Thème(s): physiological, biochemical adaptation, deep-sea animals

51 COCITO (2000) - First survey of sessile communities on subtidal rocks in an area with hydrothermal vents: Milos Island, Aegean Sea.
Hydrobiol, Hydrobiol., 426: 113-121.
Thème(s): sessile communitie, subtidal rocks, hydrothermal vents, Aegean Sea

52 COLEMAN & BALLARD (2001) - A highly concentrated region of cold hydrocarbon seeps in the southeastern Mediterranean Sea.
Geo-Marine Letters, Geo-Marine Letters 21: 162-167.
Thème(s): cold hydrocarbon seep, southeastern Mediterranean Sea.

53 COLLINS et al. (1998) - Acoustic tracking of the dispersal of organic matter by scavenging fishes in the deep-sea
Hydrobiologia, Hydrobiologia 371/372: 181–186, 1998.
Thème(s): deep sea, Coryphaenoides (Nematonurus) armatus, transponder, food-fall, behaviour, teleost

54 COMPANY & SARDÀ (2000) - Growth parameters of deep-water decapod crustaceans in the Northwestern Mediterranean Sea: a comparative approach
Marine Biology, Mar. Biol. 136(1):79-90.
Thème(s): Growth, deep-water, decapod crustaceans, Northwestern Mediterranean Sea

55 COMPANY et al. (2001) - Biological patterns and near-bottom population characteristics of two pasiphaeid decapod crustacean species, Pasiphaea sivado and P.multidentata, in the north-western Mediterranean Sea
Marine Biology, Mar. Biol., 139(1): 61-73.
Thème(s): Biological pattern, near-bottom population, decapod crustacean, north-western Mediterranean Sea

56 COMPANY et al. (2003) - Gaps in Mediterranean deep-sea megafaunal assemblages.
CIESM Workshop Monograph,, CIESM Workshop Monograph, 23: 31-34.
Thème(s): Mediterranean, deep-sea, megafaunal

57 CORBARI et al. (2005) - Cytherella as a tool to reconstruct deep-sea paleo-oxygen levels: the respiratory physiology of the platycopid ostracod Cytherella cf. abyssorum
Marine Biology, Marine Biology (2005) 147: 1377–1386
Thème(s): Cytherella, deep-sea paleo-oxygen, respiratory physiology, ostracod Cytherella

58 CORLISS et al. (1979) - Submarine thermal springs on the Galápagos Rift.
Science, Science, 203: 1073-1083.
Thème(s): thermal spring

59 CORSELLI & BASSO (1996) - First evidence of benthic communities based on chemosynthesis on the Napoli mud volcano (Eastern Mediterranean)
Mar. Geol., Mar. Geol. 132: 227- 239.
Thème(s): benthic communitie, chemosynthesis , Napoli mud volcano, Eastern Mediterranean

60 COSSON et al. (1997) - Community structure and spatial heterogeneity of the deep-sea macrofauna at three contrasting stations in the tropical northeast Atlantic.
Deep-sea Res., Deep-sea Res., 44(2): 247-269.
Thème(s): Community structure , deep-sea, macrofauna, tropical northeast Atlantic

61 CRASSOUS et al. (1991) - Remises en suspension sédimentaires observées en Méditerranée par 2000 m de profondeur à l'aide de pièges à particules.
Oceanol. Acta, Oceanol. Acta, 14(2) : 115-121
Thème(s):

62 D'ONGHIA et al. (1998) - Distribution, biology and population dynamics of Aristaeomorpha foliacea (Risso, 1827) (Decapoda, Natantia, Aristeidae) in the north-western Ionian Sea (Mediterranean Sea)
Crustaceana, Crustaceana, 71 (5): 518-544.
Thème(s): Aristaeomorpha foliacea, Ionian Sea

63 D'ONGHIA et al. (1999) - Reproductive strategies in macrourid fish: Seasonality or not.

Mar. Ecol. Prog. Ser., Mar. Ecol. Prog. Ser., 184: 189-196.
Thème(s): Reproductive strategies, macrourid fish,

64 D'ONGHIA et al. (2004) - Deep-water fish assemblages in the Mediterranean sea.
Sci. Mar., SCI. MAR., 68 (suppl. 3):87-99.
Thème(s): Deep-water, fish assemblage, Mediterranean sea

65 DANOVARO et al. (1995) - Meiofauna of the deep Eastern Mediterranean Sea: distribution and abundance in relation to bacterial biomass, organic matter composition and other environmental factors.
Prog. Oceanogr., Prog. Oceanogr., 36: 329-341.
Thème(s): Meiofauna, deep Eastern Mediterranean Sea, bacterial biomass,organic matter , environmental factors.

66 DANOVARO et al. (1997) - Heterotrophic Nanoflagellates, Bacteria, and Labile Organic Compounds in Continental Shelf and Deep-Sea Sediments of the Eastern Mediterranean
MICROBIAL ECOLOGY, Microb Ecol (1998) 35:244–255
Thème(s): Heterotrophic Nanoflagellates,Deep-Sea Sediments,Eastern Mediterranean

67 DANOVARO et al. (1999) - Benthic response to particulate fluxes in different trophic environments: a comparison between the Gulf of Lions- Catalan Sea (Western Mediterranean) and the Cretan Sea (Eastern Mediterranean)
Prog. Oceanogr, Prog. Oceanogr., 44: 287-312.
Thème(s):

68 DANOVARO et al. (2000) - Dynamics of meiofaunal assemblages on the continental shelf and deep-sea sediments of the Cretan Sea (NE Mediterranean): relationships with seasonal changes in food supply.
Prog. Oceanogr., Prog. Oceanogr., 46: 367-400.
Thème(s): meiofaunal assemblage, Dynamic, continental shelf , deep-sea sediment,Cretan Sea, seasonal change, food supply.

69 DANOVARO et al. (2001) - Deep-sea ecosystem response to climate changes: the Eastern Mediterranean case study.
Trends Ecol. Evol., Trends Ecol. Evol., 16(9): 505-510.
Thème(s): Deep-sea, ecosystem response, climate change, Eastern Mediterranean

70 DE BOVÉE et al. (1990) - Quantitative distribution of deep-sea meiobenthos in the northwestern Mediterranean (Gulf of Lions).
Cont. Shelf Res., Cont. Shelf Res., 10(9-11): 1123-1145.
Thème(s): meiobenthos, northwestern Mediterranean, Gulf of Lions.

71 DE LANGE et al. (1990) - Composition of anoxic hypersaline brines in the Tyro and Bannock basins, Eastern Mediterranean.
Mar. Chem., Mar. Chem., 31: 63-88.
Thème(s): anoxic hypersaline brines, Bannock basins, Eastern Mediterranean.

72 DELIBRIAS & TAVIANI (1984) - Dating the death of Mediterranean deep-sea scleractinian corals.

Mar. Geol., Mar. Chem., 31: 63-88.
Thème(s): Mediterranean, scleractinian corals

73 Della Tommasa et al. (2000) - Resting stages in a submarine canyon: a component of shallow–deep-sea coupling.
Hydrobiologia, Hydrobiologia 440: 249–260, 2000.
Thème(s): submarine canyon, resting stages, shallow–deep-sea coupling, life cycle

74 DEMESTRE & LLEONART (1993) - Population dynamics of Aristeus antennatus (Decapoda: Dendrobranchiata) in the northwestern Mediterranean.
Sci. Mar., Sci. Mar., 57(2-3): 183-189.
Thème(s): Population dynamic, Aristeus antennatus,

75 DEMESTRE & MARTÍN (1993) - Optimum exploitation of a demersal resource in the western Mediterranean: the fishery of the deep-water shrimp Aristeus antennatus (Risso, 1816)
Sci. Mar., Sci. Mar., 57(2-3): 175-182.
Thème(s): deep-water, shrimp, Aristeus antennatus.

76 DESBRUYÈRES (2003) - Chemosynthesis-based ecosystems in the deep Atlantic – what we do know and we don't.
CIESM
Workshop Monograph, CIESM Workshop Monograph, 23: 73-76.
Thème(s): Atlantic, ecosystems

77 DIXON & TURLEY (2001) - Measuring Bacterial Production in Deep-Sea Sediments using 3H-Thymidine Incorporation: Ecological Significance
MICROBIAL
ECOLOGY, Microb Ecol (2001) 42:549–561
Thème(s): Bacterial Production, Deep-Sea Sediments, deep sea

78 DURRIEU DE MADRÓN et al. (1999) - Slope transport of suspended particulate matter on the Aquitanian margin of the Bay of Biscay
Deep-Sea Res., part II, Deep-Sea Res., part II, 46: 2003-2027.
Thème(s): Bay of Biscay, suspended particulate

79 ELLINGSEN et al. (2007) - Diversity and species distribution of polychaetes, isopods and bivalves in the Atlantic sector of the deep Southern Ocean
Polar Biol, Polar Biol (2007) 30:1265-1273
Thème(s): Benthic data, Deep-sea, Diversity, deep Southern Ocean

80 ESTEDAN et al. (2007) - Siliceous scales of Wlose-amoebae (Pompholyxophryidae, Rotosphaerida) from deep Southern Ocean sediments, including Wrst records for the Southern Hemisphere
Polar Biol, Polar Biol (2007) 30:945–950
Thème(s): Antarctica, Biogeography, Heliozoa, Scale-bearing protists, South Sandwich Islands, Southern Hemisphere

81 ESTEFANIA RODRIGUEZ & LOPEZ-GONZALEZ (2005) - New record of the sea anemone Kadosactis antarctica (Carlgren, 1928): re-description of an Antarctic deep-sea sea anemone, and a discussion of its generic and familial placement
Helgol Mar Res, Helgol Mar Res (2005) 59: 301–309
Thème(s): Kadosactis , Kadosactidae , Sagartiogeton ,
Actiniaria ,Deep-sea , South Shetland Islands

82 FANELLI & CARTES (2004) - Feeding habits of Pandalid shrimps in the Alboran Sea (SW Mediterranean): Influence of biological and environmental variables.
Mar. Ecol. Prog. Ser., Mar. Ecol. Prog. Ser., 280: 227-238.
Thème(s): Feeding habits, shrimp

83 FEMEX et al (2001) - Entrapment of pollutants in Mediterranean sediments and biogeochemical indicators of their impact
Hydrobiologia, Hydrobiologia 450: 31–46, 2001.
Thème(s): contamination, detrital transfer to the deep-sea, diagenetic processes, sediment quality

84 FIALA-MÉDIONI (2003) - Sources of energy for deep-sea benthos in Mediterranean mud volcanoes.
CIESM Workshop Monograph, CIESM Workshop Monograph, 23: 77-80.
Thème(s):

85 FIEGE et al (2000) - High abundance of Myriochele fragilis Nilsen & Holthe, 1985 (Polychaeta: Oweniidae) in the deep sea of the Eastern Mediterranean
Hydrobiologia, Hydrobiologia 426: 97–103, 2000.
Thème(s): Eastern Mediterranean Sea, deep sea, Oweniidae, Myriochele fragilis, high abundance

86 FIORENTINO et al. (1998) - Remarks about the optimal harvest strategy for red shrimps (Aristeus antennatus, Risso 1816) on the basis of the Ligurian experience.
Cahiers Options méditerranéennes, Cahiers Options méditerranéennes, 35: 323-333
Thème(s): red shrimps,Aristeus antennatus

87 FISHELSON & GALIL (2001) - Gonad structure and reproductive cycle in the deep sea hermaphrodite tripodfish, Bathypterois mediterraneus (Chlorophthalmidae, Teleostei).
Copeia, Copeia, 2001(2): 556-560.
Thème(s): Gonad structure, reproductive cycle, hermaphrodite tripodfish, deep sea.

88 FLACH & HEIP (1996) - Vertical distribution of macrozoobenthos within the sediment on the continental slope of the Goban Spur area (NE Atlantic).
Mar. Ecol. Prog. Ser., Mar. Ecol. Prog. Ser., 141: 55-66.
Thème(s): Vertical distribution, macrozoobenthos,sediment , Goban Spur area

89 FONT et al. (1988) - Permanent features of the circulation in the Catalan Sea
Oceanol. Acta, Oceanol. Acta, 9: 51- 57.
Thème(s): Catalan Sea, circulation

90 FREDJ & LAUBIER (1985) - The deep Mediterranean benthos. In: Mediterranean marine ecosystems.
M. Moraitou- Apostolopoulou and V. Kiortsis (eds.). Plenum Press, New York.. pp. 109-146.
Thème(s): deep Mediterranean benthos

91 FREDJ et al. (1992) - État des connaissances sur la faune marine méditerranéenne.
Bull. Inst. Ocean. Monaco,, Bull. Inst. Ocean. Monaco, nº spécial 9, pp. 133-145.
Thème(s): méditerranéenne, fauen marine

92 GAD (2003) - A new genus of Nanaloricidae (Loricifera) from deep-sea sediments of volcanic origin in the Kilinailau Trench north of Papua New Guinea
Helgol Mar Res, Helgol Mar Res (2004) 58:40–53
Thème(s): Meiofauna · Loricifera · Deep sea ·
Zoogeography · Expedition SO-133 EDISON II

93 GAGE & TYLER (1991) - Deep-sea Biology: a natural history of organisms at the deep-sea floor.
Cambridge University Press, Cambridge., Cambridge University Press, Cambridge. 504 pp.
Thème(s): deep-sea, biology, Mediterranean.

94 GALIL & CLARK (1993) - A new genus and species of axiid (Decapoda, Thalassinidea) from the Levantine basin of the Mediterranean.
Crustaceana, Crustaceana, 64(1): 45-55.
Thème(s): Mediterranean, new genus, Decapoda,evantine basin, Mediterranean

95 GALIL & GOREN (1994) - The deep sea Levantine fauna – new records and rare occurrences.
Senckenbergiana Marit., Senckenbergiana Marit., 25(1/3): 41-52.
Thème(s):

96 GALIL & ZIBROWIUS (1998) - First benthos samples from Eratosthenes seamount, Eastern Mediterranean.
Senckenbergiana Marit, Senckenbergiana Marit., 28(4/6): 111-121.
Thème(s): benthos, Eratosthenes seamount, Eastern Mediterranean.

97 GALIL et al. (1995) - Litter at the bottom of the sea: A sea bed survey in the eastern Mediterranean.
Mar. Pollut. Bull., Mar. Pollut. Bull., 30(1): 22-24.
Thème(s): eastern Mediterranean, Litter,

98 GEBCO (2003) - General Bathymetric Chart of the Ocean.
British Oceanographic Data Center., British Oceanographic Data Center.
Thème(s):

99 GILI et al. (1998) - Origin and biogeography of the deep-water Mediterranean Hydromedusae including the description of two new species collected in submarine canyons of NorthWestern Mediterranean.
Sci. Mar., Sci. Mar., 62: 113-134

Thème(s): biogeography, deep-water, Hydromedusae, new species, NorthWestern Mediterranean

100 GILI et al. (2000) - A multidisciplinary approach to the understanding of hydromedusan populations inhabiting Mediterranean submarine canyons.
Deep-Sea Res., Deep-Sea Res., 47(8): 1513-1533.
Thème(s): hydromedusan populations, Mediterranean, submarine canyons.

101 GIULIANO et al. (2003) - Deep-sea bacteria: The Mediterranean sea as a model environment.
CIESM Workshop Monograph, CIESM Workshop Monograph, 23: 61-66.
Thème(s): Deep-sea bacteria

102 GOFFREDI et al. (2003) - Evolutionary relationships of deep-sea vent and cold seep clams (Mollusca: Vesicomyidae) of the ‘‘pacifica/lepta ’’ species complex
Marine Biology, Marine Biology (2003) 142: 311–320
Thème(s): cold seep clams, Deep-sea, Mollusca,Vesicomyidae

103 GOODAY et al. (1992) - The role of benthic foraminifera in deep-sea food webs and carbon cycling. In: Deep-Sea food chains and the global carbon cycling.
G . T. Rowe and V. Pariente (eds.). Kluwer Academic
Publishers, Dordrecht. pp., G . T. Rowe and V. Pariente (eds.). Kluwer Academic Publishers, Dordrecht. pp. 63-92.
Thème(s): benthic foraminifera, deep-sea, food web, carbon cycling, food chain.

104 GORDON & DUNCAN (1985) - The biology of fish of the Family Moridae in the deep-water Rockall Trough.
Mar. Biol. Assoc. U. K., J. Mar. Biol. Assoc. U. K., 65: 475-485.
Thème(s): biology, fish, deep-water

105 GRASSLE (1977) - Slow recolonization of deep-sea sediment.
Nature, Nature, 265: 618-619.
Thème(s): recolonization, deep-sea, sediment.

106 GRASSLE (1991) - Deep-sea benthic biodiversity.
Bio- Science,, Bio-Science, 41(7): 464-469.
Thème(s): Deep-sea, benthic, biodiversity.

107 GUBBAY (2003) - Seamounts of the North-East Atlantic.
Project OASIS. World Wildlife Fund, Frankfurt., World Wildlife Fund, Frankfurt. 38 pp.
Thème(s): Seamounts, North-East Atlantic

108 HAEDRICH (1996) - Deep-water fishes: evolution and adaptation in the earth’s largest living spaces.
J. Fish Biol., J. Fish Biol., 49(suppl. A): 40-53.
Thème(s): Deep-water, fish, evolution, addaptation

109 HAEDRICH & MERRETT (1988) - Summary atlas of deep-living demersal fishes in the North Atlantic Basin.

J.Nat. Hist., J.Nat. Hist., 22: 1325-1362.
Thème(s): deep-living, demersal, fishes, North Atlantic Basin.

110 HAEDRICH et al. (1975) - Zonation of faunal composition of epibenthic population on the continental slope south of New England.
J. Mar. Res., J. Mar. Res., 33: 191-212.
Thème(s): epibenthic,continental slope , New England.

111 HAEDRICH et al. (1980) - The megabenthic fauna in the deep sea south of New England,
USA. Mar. Biol., Mar. Biol., 57: 165-179.
Thème(s): megabenthic fauna, deep sea , south of New England

112 HECKER (1990) - Variation in megafaunal assemblages on the continental margin south of New England.
Deep-Sea
Res, Deep-Sea Res., 37(1): 35-57.
Thème(s): megafaunal assemblage, continental margin, New England.

113 HECKER (1990) - Photographic evidence for the rapid flux of particles to the sea floor and their transport down the continental slope.
Deep-Sea Res., Deep-Sea Res., 37: 1773-1782.
Thème(s): sea floor,

114 HEIJS et al. (2006) - Microbial Community Structure in Three Deep-Sea Carbonate Crusts
MICROBIAL ECOLOGY, Microb Ecol (2007) 52, 451–462
Thème(s): microbial community structure and function, Deep-Sea

115 HEIJS et al. (2007) - Use of 16S rRNA Gene Based Clone Libraries to Assess Microbial Communities Potentially Involved in Anaerobic Methane Oxidation in a Mediterranean Cold Seep
MICROBIAL ECOLOGY, Microb Ecol (2001) 49, 367–378
Thème(s): microbial community structure and function, Deep-Sea

116 HEIKOOP et al. (2002) - Potential climate signals from the deep-sea gorgonian coral Primnoa resedaeformis
Hydrobiologia, Hydrobiologia 471: 117–124, 2002
Thème(s): deep-water corals, 14C, δ13C, δ15N, SIMS, climate record, productivity

117 HENRY et al. (1996) - Fluid flow in and around a mud volcano field seaward of the Barbados Accretionary Wedge: results from Manon Cruise.
J. Geophys. Res., J. Geophys. Res., 101(B9): 20297-20323.
Thème(s): Fluid flow, mud volcano

118 HERRING & WIDDER (2004) - Bioluminescence of deep-sea coronate medusae (Cnidaria: Scyphozoa)
Marine Biology, Marine Biology (2004) 146: 39–51
Thème(s): Bioluminescence,deep-sea, medusae, deep-sea

119 HOPKINS (1985) - Physics of the sea. In: Key Environments: Western Mediterranean. R. Margalef (ed.). Pergamon
Press, New York., R. Margalef (ed.). Pergamon Press, New York. pp. 100-125.
Thème(s):

120 HOPPER (1995) - Deep water fisheries of the North Atlantic Ocean.
Kluwer Academic Publishers, Dordrecht., HOPPER, A. G. (ed.) Kluwer Academic Publishers, Dordrecht.
Thème(s): Deep water, fisheries, North Atlantic Ocean.

121 INAGAKI et al. (2001) - Archaeology of Archaea: geomicrobiological record of Pleistocene thermal events concealed in a deep-sea subseafloor environment
Extremophiles, Extremophiles (2001) 5:385–392
Thème(s): Subseafloor environment, Pleistocene ·
Archaea, 16S rDNA , T-RFLP, DGGE

122 INTERNATIONAL COMMISSION FOR THE EXPLORATION OF THE SEA, (2003) - Is time running out for deepsea fish?
Available at http://www.ices.dk/marineworld/deepseafish.asp.
Thème(s): deepsea, fish

123 INTERNATIONAL HYDROGRAPHIC ORGANIZATION (2001) - Standardization of undersea feature names.
Bathymetric Publication, Bathymetric Publication, 6, 3rd Edition.
Thème(s): Standardization

124 ISLA et al. (2006) - Relationships between Antarctic coastal and deep-sea particle fluxes: implications for the deep-sea benthos
Polar Biol, Polar Biol (2006) 29: 249–256
Thème(s): Antarctic coastal, deep-sea , particle fluxes, benthos

125 JOHNSON & HILL (2003) - Sediment Microbes of Deep-Sea Bioherms on the Northwest Shelf of Australia
MICROBIAL ECOLOGY, Microb Ecol (2003) 46:55–61
Thème(s): Sediment Microbes, Deep-Sea, Northwest Shelf, of Australia

126 KALLIANOTIS (2000) - Demersal fish and megafaunal assemblages on the Cretan continental shelf and slope (NE Mediterranean): seasonal variation in species density, biomass and diversity.
Prog. Oceanogr., Prog. Oceanogr., 46: 429-455.
Thème(s): Demersal fish, megafaunal assemblage, Cretan continental shelf, NE Mediterranean

127 KENNICUTT II et al. (1985) - Vent-type taxa in a hydrocarbon seep region on the Louisiana slope.
Nature, Nature, 317: 351-353.
Thème(s): hydrocarbon seep , Louisiana slope

128 KLAUSEWITZ (1989) - Deep sea and deep water fish of the Eastern Mediterranean, collected during the Meteor Expedition

Senckenbergiana Marit., Senckenbergiana Marit., 20: 251-263.
Thème(s): Deep sea, fish, Eastern Mediterranean

129 KOBAYASHI et al. (2007) - New violet 3,3¢-bipyridyl pigment purified from deep-sea microorganism Shewanella violacea DSS12
Extremophiles, Extremophiles (2007) 11:245–250
Thème(s): Shewanella violacea , Indigoidine ,
Deep-sea , Violet pigment , Crystal structure

130 KOSLOW (1997) - Seamounts and the ecology of deep-sea fisheries.
Am. Scient., Am. Scient., 85: 168-176
Thème(s): Seamount, ecology ,deep-sea, fisheries

131 KOSLOW et al. (2000) - Continental slope and deepsea fisheries: implications for a fragile ecosystem.
ICES J. Mar. Sci., ICES J. Mar. Sci., 57: 548-557.
Thème(s): Continental slope, deepsea fisheries,

132 KOYAMA et al. (2003) - Tissue culture of the deep-sea eel Simenchelys parasiticus collected at 1,162 m
Extremophiles, Extremophiles (2003) 7:340
Thème(s): deep-sea, Simenchelys parasiticus.

133 KRESS (1993) - Monitoring the disposal of coal fly ash at a deep water site in the eastern Mediterranean Sea.
Mar. Pollut. Bull.,, Mar. Pollut. Bull., 26(8): 447-456.
Thème(s): Monitoring, coal fly, deep water, eastern Mediterranean Sea.

134 LABROPOULOU & PAPACONSTANTINOU (2000) - Community structure of deep-sea demersal fish in the North Aegean Sea (northeastern Mediterranean)
Hydrobiologia, Hydrobiologia 440: 281–296, 2000.
Thème(s): demersal fish, depth zonation, species diversity, habitat width, Eastern Mediterranean

135 LACK et al. (2003) - Managing risk and uncertainty in deep-sea fisheries: lessons from Orange Roughy
Traffic Oceania and World Wildlife Fund,, Traffic Oceania and World Wildlife Fund, 73 pp.
Thème(s): Orange Roughy, deep-sea fisheries

136 LAMPADARIOU et al. (2003) - Community structure of meiofauna and macrofauna in Mediterranean Deep-Hyper-saline Anoxic Basins.
CIESM Workshop
Monograph, CIESM Workshop Monograph, 23: p. 55-60.
Thème(s): Meiofauna, macrofauna , Mediterranean ,Deep-Hyper-saline Anoxic Basins.

137 LAMPITT et al. (1986) - Biomass of the invertebrate megabenthos from 500 to 4100 m in the northeast Atlantic Ocean.
Mar. Biol., Mar. Biol., 93: 69-81.

Thème(s): Biomass, invertebrate megabenthos, northeast Atlantic Ocean.

138 LAURO & BARTLETT (2007) - Prokaryotic lifestyles in deep sea habitats
Extremophiles, 2007
Thème(s): Psychrophiles Ecology Comparative genomics Piezophysiology Piezophiles High pressure biosciences Biodiversity Genomics

139 LAURO et al. (2004) - Pressure effects on Clostridium strains isolated from a cold deep-sea environment
Extremophiles, Extremophiles (2004) 8:169–173
Thème(s): Clostridium , Clostridium bifermentans ,Deep sea , Japan Trench , Pressure

140 LI et al. (1999) - Bacterial diversity in deep-sea sediments from diferent depths
Biodiversity and Conservation, Biodiversity and Conservation 8: 659 - 677, 1999.
Thème(s): bacterial diversity, barophilic bacteria, deep-sea, Pseudomonas sp., unculturable bacteria

141 LOPEZ-GONZALEZ (2006) - A new gorgonian genus from deep-sea Antarctic waters (Octocorallia, Alcyonacea, Plexauridae
Helgol Mar Res, Helgol Mar Res (2006) 60: 1–6
Thème(s): Cnidaria , Octocorallia , Alcyonacea , Plexauridae , Antarctica ,Mesogligorgia

142 LOUBRIEU & SATRA (2001) - Cartographie par sondeur multifaisceaux de la Ride Méditerranéenne et des domaines voisins
Comité Français de Cartographie,, Comité Français de Cartographie, n°168, pp. 15-21.
Thème(s): Cartographie, sondeur multifaisceaux, Ride Méditerranéenne

143 LOUBRIEU et al. (2000) - Cartography by multibeam echosounder of Mediterranean Ridge and surrounding areas.
Ifremer/CIESM. Ed. Ifremer,, Ifremer/CIESM. Ed. Ifremer, Maps & Atlases, 2 map.
Thème(s): Cartography , multibeam echosounder,Mediterranean Ridge

144 LUTZ & HAYMON (1994) - Rebirth of a deep-sea vent.
Nat. Geogr. Mag., Nat. Geogr. Mag., 186(5): 115-126.
Thème(s): deep-sea vent

145 MACPHERSON (1979) - Ecological overlap between Macrourids in the western Mediterranean Sea.
Marine Biology, Mar. Biol., 53: 149-159
Thème(s): Ecological overlap, western Mediterranean Sea.

146 MACQUART-MOULIN & PATRITI (1996) - Accumulation of migratory micronekton crustaceans over the upper slope and submarine canyons of the North-western Mediterranean.
Deep-Sea Res, Deep-Sea Res., 43: 579-601.
Thème(s): crustaceans, submarine canyon, North-western Mediterranean

147 MADURELL & CARTES (2003) - Suprabenthic peracarid fauna collected at bathyal depths of the Ionian Sea (Eastern Mediterranean)
Crustaceana, Crustaceana, 76(5): 611-624.
Thème(s): Suprabenthic, peracarid fauna, bathyal depths, Ionian Sea, Eastern Mediterranean,

148 MADURELL & CARTES (2005) - Temporal changes in feeding habits and daily rations of Hoplostethus mediterraneus in the bathyal Ionian Sea (eastern Mediterranean)
Marine Biology, Marine Biology (2005) 146: 951–962
Thème(s): Hoplostethus mediterraneus, demersal fish, feeding habits, bathyal Ionian Sea,eastern Mediterranean

149 MADURELL & CARTES (2006) - Trophic relationships and food consumption of slope dwelling macrourids from the bathyal Ionian Sea (eastern Mediterranean)
Marine Biology, Marine Biology (2006) 148: 1325–1338
Thème(s): Trophic relationships, Macrourids, Bathyal Ionian Sea, Eastern Mediterranean

150 MADURELL et al. (2004) - Spatiotemporal changes in the bathyal-fish assemblages of the Ionian Sea (Eastern Mediterranean)
Fish. Res., Fish. Res., 66: 245-260.
Thème(s): bathyal-fish assemblages, Ionian Sea, Eastern Mediterranean

151 MANNING & HOLTHUIS (1989) - Two new genera and nine new species of Geryonid crabs (Crsutacea, Decapoda, Geryonidae)
Proc. Biol. Soc. Washington,, Proc. Biol. Soc. Washington, 102(1):50-77
Thème(s): new genera, Geryonid crabs, Crsutacea, Decapoda

152 MASSUTÍ et al. (1995) - Distribution of five grenadier fish (Pisces: Macrouridae) from the upper and middle slope of the northwestern Mediterranean.
Deep-Sea Res., Deep-Sea Res., 42(3): 307-330.
Thème(s): grenadier fish , northwestern Mediterranean

153 MASTROTOTARO et al. (2002) - Un mare di coralli nel mar Ionio
Biol. Mar. Medit., Biol. Mar. Medit., 9(1): 616-619.
Thème(s): Coral, Ionian Sea

154 MATARRESE et al. (1997) - Vulnerabilità e resilienza di Aristaeomorpha foliacea (Risso, 1827) e Aristeus antennatus (Risso, 1816) (Crostacei, Decapodi) nel Mar Ionio.
S.It.E. Atti,, S.It.E. Atti, 18: 535-538.
Thème(s): Decapodes

155 MATSURA & NISHIDA (2000) - Fine structure of the "button setae" in the deep-sea pelagic copepods of the genus Euaugaptilus (Calanoida : Augaptilidae)
Marine Biology, Marine Biology (2000) 137: 339-345
Thème(s): Deep-sea pelagic, copepods,

156 MAYNOU & CARTES (1998) - Daily ration estimates and comparative study of food consumption in nine species of deep-water decapod crustaceans of the NW Mediterranean.
Mar. Ecol. Prog. Ser., Mar. Ecol. Prog. Ser., 171: 221-231.
Thème(s): deep-water, decapod crustaceans, NW Mediterranean.

157 MAYNOU & CARTES (2000) - Community structure of bathyal decapod crustaceans off south-west Balearic Islands (western Mediterranean): seasonality and regional patterns in zonation.
J. Mar. Biol. Assoc. U.K., J. Mar. Biol. Assoc. U.K., 80: 789-798
Thème(s): Community structure, bathyal decapod crustacean, Balearic Island, western Mediterranean,

158 MEDERNACH (2000) - Relations entre la matière organique et la faune benthique dans le golfe du Lion. Associationde plusieurs approches à différentes échelles de temps et d'espace.
Thèse Doctorat Université Pierre et Marie Curie, Thèse Doctorat Université Pierre et Marie Curie,386 pp.
Thème(s): matière organique, faune benthique, golfe du Lion.

159 MEDINAUT/MEDINETH SHIPBOARD SCIENTIFIC PARTIES (2000) - Linking Mediterranean brine pools and mud volcanism.
EOS Trans., Am. Geophy. Union,, EOS Trans., Am. Geophy. Union, 81: 631-633.
Thème(s): brine pools, volcan mud

160 MERRETT & HAEDRICH (1997) - Deep-Sea demersal fish and fisheries.
Chapman and Hall, London., Chapman and Hall, London. 282 pp.
Thème(s): Deep-Sea, demersal fish, fisheries.

161 MILLER et al. (1970) - Mediterranean sea atlas of Temperature, Salinity, Oxygen. Profiles and data from cruises of RV Atlantis and RV Chain.
The Woods Hole Oceanographic Institution,
Woods Hole, Mass., Vol. III. The Woods Hole Oceanographic Institution, Woods Hole, Mass.
Thème(s): Mediterranean sea, Temperature, Salinity,Oxygen.

162 MIQUEL et al. (1994) - Dynamics of the downward flux of particles and carbon in the open North Western Mediterranean Sea.
Deep-Sea
Res., Deep-Sea Res., 41: 243-261.
Thème(s): Dynamics, Western Mediterranean Sea

163 MIROSHNICHNICHENKO & OSMOLOVSKAY (2006) - Recent developments in the thermophilic microbiology of deep-sea hydrothermal vents
Extremophiles, Extremophiles (2006) 10:85–96
Thème(s): Deep-sea hydrothermal vents , Thermophilic prokaryotes , Biodiversity

164 MIURA et al. (2001) - Purification and characterization of novel extracellular endopolygalacturonases from a deep-sea yeast, Cryptococcus sp. N6, isolated from the Japan Trench

Biotechnology Letters, Biotechnology Letters 23: 1735–1739, 2001.
Thème(s): copper-tolerant yeast, deep-sea yeast, endopolygalacturonase, glycoprotein, Cryptococcus

165 MONACO et al. (1999) - Origin and variability of downward biogeochemical fluxes on the Rhone continental margin (NW Mediterranean).
Deep-Sea Res, Deep-Sea Res., 46(9): 1483-1511.
Thème(s): biogeochemical, continental margin, NW Mediterranean

166 MONNIOT et al. (1990) - Revision of the class Sorberacea (benthic tunicates) with descriptions of seven new species.
Zool. J. Linn. Soc., Zool. J. Linn. Soc., 99: 239-290.
Thème(s): benthic tunicates, new species

167 MORALES-NIN et al. (2003) - Size influence in zonation patterns in fishes and crustaceans from deep-water communities of the Western Mediterranean.
J. Northw. Atl. Fish. Sci., J. Northw. Atl. Fish. Sci., 31:413-430.
Thème(s): fishes, crustaceans, deep-water , Western Mediterranean.

168 MORANTA et al. (1998) - Fish community structure and depth-related trends on the continental slope of the Balearic Islands (Algerian Basin, Western Mediterranean) Mar. Ecol. Prog.
Ser., J. Northw. Atl. Fish. Sci., 31:413-430.
Thème(s): Fish, continental slope, Balearic Islands, Algerian Basin, Western Mediterranean

169 MORANTA et al. (2003) - Differences in biomass composition and size-related structure between Mediterranean and Atlantic deep-sea assemblages
CIESM Workshop Monograph, CIESM Workshop Monograph, 23: 35-42.
Thème(s): biomass composition

170 MORRI et al (1999) - Biodiversity of marine sessile epifauna at an Aegean island subject to hydrothermal activity: Milos, eastern Mediterranean Sea
Marine Biology, Marine Biology (1999) 135: 729-739
Thème(s): Sessile macroepifauna;marine biodiversity; deep sea; Aegean island

171 MURA (2006) - Reproduction strategy of the deep-sea hermit crabs Pagurus alatus and Pagurus excavatus of the Central-Western Mediterranean Sea
Hydrobiologia, Hydrobiologia (2006) 557:51–57
Thème(s): fecundity, hermit crab, Pagurus alatus, Pagurus excavatus, reproductive biology, spawning

172 MYERS & WORM (2003) - Rapid worldwide depletion of predatory fish communities.
Nature, Nature, 423: 280-283.
Thème(s): Predator fish, Stock depletion

173 MYTILINEOU & POLITOU (1997) - New records for the presence of the red shrimp, Aristaeomorpha foliacea
(Risso, 1827) in the Greek waters.

Proc. 5th Panhel. Symp.Ocean., Proc. 5th Panhel. Symp.Ocean. Fish., Kavala, April 1997, vol. II: 87-89.
Thème(s):

174 NAGAHAMA et al. (2001) - Distribution and identification of red yeasts in deep-sea environments around the northwest Pacific Ocean
Antonie van Leeuwenhoek, Antonie van Leeuwenhoek 80: 101–110, 2001.
Thème(s): deep-sea, distribution, identification, ITS, red yeasts, 5.8S rDNA

175 NAKASONE et al. (1998) - Mechanisms of gene expression controlled bye pressure in deep-sea microorganisms
Extremophiles, Extremophiles (1998) 2:149–154
Thème(s): Barophilic bacteria, Deep-sea bacterium, electrophoretic mobility shift assay (EMSA), Gene expression, Pressure-regulated operon, trans-acting factors

176 ORSI RELINI & RELINI (1985) - The red shrimps fishery in the Ligurian Sea: Mismanagement or not.
FAO Fish. Rep., FAO Fish. Rep., 336: 99-106.
Thème(s): red shrimp, fishery, Ligurian Sea,

177 ORSI RELINI & RELINI (1988) - An uncommon recruitment of Aristeus antennatus (Risso) (Crustacea Decapoda Aristeidae) in the Gulf of Genova.
Rapp. Comm. int. Mer
Médit., Rapp. Comm. int. Mer Médit., 31(2): 10.
Thème(s): Aristeus antennatus, Gulf of Genova.

178 ORSI RELINI & RELINI (1994) - Biological characteristics of Aristeus antennatus as highlighted by long-term observations in the Ligurian Sea.
NTR-ITPP Spec. Publ., NTR-ITPP Spec. Publ., 3: 27-28.
Thème(s): Biological characteristic, Aristeus antennatus, Ligurian Sea

179 PALANQUES et al. (2004) - Sediment gravity flows induced by trawling in the Palamós (Fonera) canyon.
Rapp. Comm. int. Mer
Médit., Rapp. Comm. int. Mer Médit., 37: 63.
Thème(s): trawling, Palamóscanyon

180 PALOMERA (1992) - Spawning of anchovy Engraulis encrasicolus in the Northwestern Mediterranean relative tohydrographic features in the region.
Mar. Ecol. Prog. Ser., Mar. Ecol. Prog. Ser., 79(3): 215-223.
Thème(s): anchovy, Engraulis encrasicolus, Northwestern Mediterranean,

181 PATHOM-AREE et al. (2006) - Diversity of actinomycetes isolated from Challenger Deep sediment (10,898 m) from the Mariana Trench
Extremophiles, Extremophiles (2006) 10:181–189
Thème(s): Mariana trench , Actinomycetes ,
Deep-sea , 16S rRNA genes , Phylogenetic analysis , NRPS , PKS I , PKS II , Dermacoccus

182 PEEK et al. (1997) - Evolutionary relationships of deep-sea hydrothermal vent and cold-water seep clams (Bivalvia: Vesicomyidae): results from the mitochondrial cytochrome oxidase subunit I
Marine Biology, Marine Biology (1997) 130: 151-161
Thème(s): Deep-sea, hydrothermal vent, Bivalvia, Vesicomyida, Deep sea

183 PÉRÈS (1985) - History of the Mediterranean biota and the colonization of the depths. In: Key environments: Western Mediterranean.
R. Margalef (ed.). Pergamon Press, New
York., R. Margalef (ed.). Pergamon Press, New York. pp. 198-232.
Thème(s): Mediterranean, colonization, Western Mediterranean

184 PÉRÈS & PICARD (1964) - Nouveau manuel de bionomie benthique de la Méditerranée.
Rec. Trav. St. Mar. Endoume, Rec. Trav. St. Mar. Endoume, 47(31): 1-137.
Thème(s): bionomie

185 PIETSCH (2005) - Dimorphism, parasitism, and sex revisited: modes of reproduction among deep-sea ceratioid anglerfishes (Teleostei: Lophiiformes)
Ichthyological
Research, Ichthyol Res (2005) 52: 207–236
Thème(s): Teleostei, Lophiiformes, Ceratioidei, Anglerfishes, Deep sea, Reproductive strategies, Sexual dimorphism, Sexual parasitism

186 POLITOU et al. (2003) - Fisheries Resources in the Deep Waters of the Eastern Mediterranean (Greek Ionian Sea).
J. Northw. Atl. Fish. Sci., J. Northw. Atl. Fish. Sci., Vol. 31: 35-46.
Thème(s): Ionian Sea, Eastern Mediterranean, Deep Sea Fisheries

187 POLUNIN et al. (2001) - Feeding relationships in Mediterranean bathyal assemblages elucidated by stable nitrogen and carbon isotope data.
Mar. Ecol. Prog. Ser., Mar. Ecol. Prog. Ser., 220: 13-23.
Thème(s): Feeding relationship, Mediterranean, stable nitrogen, carbon isotope

188 POLYMENAKOU et al (2003) - Links between Geographic Location, Environmental Factors, and Microbial Community Composition in Sediments of the Eastern Mediterranean Sea
MICROBIAL ECOLOGY, Microb Ecol (2001) 49, 367–378
Thème(s): bacterial community,Geographic Location, deep sea, Eastern
Mediterranean Sea

189 PORTE et al. (2000) - Xenobiotic metabolising enzymes and antioxidant defences in deep-sea fish: relationship with contaminant body burden.
Mar. Ecol. Prog. Ser.,, Mar. Ecol. Prog. Ser., 192: 259-266.
Thème(s): Xenobiotic, antioxidant defence, deep-sea fish, body burden.

190 PROKOFEVA et al. (2005) - Cultivated anaerobic acidophilic/acidotolerant thermophiles from terrestrial and deep-sea hydrothermal habitats
Extremophiles, Extremophiles (2005) 9: 437–448

Thème(s): Acidic hot springs , Deep-sea hydrothermal vents , Thermophiles , Anaerobes ,Acidophiles , Acidotolerant microorganisms

191 PUIG et al. (2001) - Responses of deep-water megafaunal populations to the presence of nepheloid layers on the continental margins
Deep- Sea Res., Deep- Sea Res., 48: 2195-2207.
Thème(s): deep-water, megafaunal,

192 PUTTMAN (1994) - Community ecology.
Chapman and Hall, London., Chapman and Hall, London. 178 pp.
Thème(s): Ecology, Deep Sea Communities

193 QUETGLAS et al (2001) - Biology of the deep-sea octopus Bathypolypus sponsalis (Cephalopoda: Octopodidae) frim the western Mediterranean Sea
Marine Biology, Marine Biology (2001) 138: 785-792
Thème(s): Deep-sea octopus; Biology; Western Mediterranean Sea

194 RAGONESE & BIANCHINI (2006) - Trawl selectivity trials on the deep-water rose shrimp (Parapenaeus longirostris) in Sicilian waters
Hydrobiologia, Hydrobiologia (2006) 557:113–119
Thème(s): trawl net selectivity, rose shrimp, Parapenaeus longirostris, Mediterranean Sea

195 RAGUENES et al. (2001) - Effect of codend mesh size on the performance of the deep-water bottom trawl used in the red shrimp fishery in the Strait of Sicily (Mediterranean Sea)
Hydrobiologia, Hydrobiologia 449: 279–291, 2001.
Thème(s): bottom trawl, codend retention, deep-water shrimp, Aristaeomorpha foliacea, Mediterranean Sea

196 RAGUENES et al. (2003) - A Novel, Highly Viscous Polysaccharide Excreted by an Alteromonas Isolated from a Deep-Sea Hydrothermal Vent Shrimp
CURRENT MICROBIOLOGY, CURRENT MICROBIOLOGY Vol. 46 (2003), pp. 448–452
Thème(s): heterotrophic microorganism, deep-sea, mesophilic, aerobic,Hydrothermal Vent Shrimp

197 RAVAUX et al. (2003) - Comparative degradation rates of chitinous exoskeletons from deep-sea environments
Marine Biology, Marine Biology (2003) 143: 405–412
Thème(s): Hydrothermal vent, Degradation rate,Riftia pachyptila ,

198 RELINI & RELINI ORSI (1987) - The decline of red shrimp stocks in the Gulf of Genoa.
Invest. Pesq., Invest. Pesq., 51 (suppl. 1): 245-260.
Thème(s): decline, red shrimp, Gulf of Genoa, West Mediterranean

199 RELINI et al. (2000) - An offshore buoy as a small artificial island and a fish-aggregating device (FAD) in the Mediterranean
Hydrobiologia, Hydrobiologia 440: 65–80, 2000.

Thème(s): macrofouling, settlement, offshore, buoy, fishes, FAD, Ligurian Sea

200 REX (1977) - Zonation in deep-sea gastropods: the importance of biological interactions to rates of zonation.
B. F. Keenan, P. O. Ceidigh and P. J. S. Boaden (eds). Biology of benthic organisms, 11th European Symposium on Marine Biology, Galway, In: B. F. Keenan, P. O. Ceidigh and P. J. S. Boaden (eds). Biology of benthic organisms, 11th European Symposium on Marine Biology, Galway, pp. 521-529
Thème(s): deep-sea, gastropod, biological interaction

201 RIEMANN - ZURNEK (2000) - Oractis bursifera sp. Nov., Arctic deep-sea anemone with peculiar invagination of its oral disc (Cnidaria : Actiniaria)
Polar Biol, Polar Biol (2000) 23: 604–608
Thème(s): Oractis bursifera, Arctic deep-sea ,anemone

202 RICHER DE FORGES et al. (2000) - Diversity and endemism of the benthic seamount fauna in the southwest Pacific.
Nature, Nature, 405: 944-947.
Thème(s): Diversity, endemism, benthic seamount fauna

203 RISSO (1816) - Histoire naturelle des crustacés des environs de Nice
Paris, Paris, 175 pp.
Thème(s): crustacé

204 ROBERTS (2002) - Deep impact: the rising toll of fishing in the deep sea
Trends Ecol. Evol.,, Trends Ecol. Evol., 17(5): 242-245.
Thème(s): fishing, deep sea, Deep impact

205 ROBERTS & MOORE (1997) - Tentacular diversity in deep-sea deposit-feeding holothurians: implications for biodiversity in the deep sea
Biodiversity and Conservation, Biodiversity and Conservation 6, 1487 - 1505 (1997)
Thème(s): biodiversity, deep sea, deposit-feeding, holothurian

206 ROGERS (1994) - The biology of seamounts.
Adv. Mar. Biol., Adv. Mar. Biol., 30: 305-350.
Thème(s): Seamounts

207 ROWE & MENZIES (1969) - Zonation of large benthic invertebrates in the deep-sea off the Carolinas.
Deep-Sea Res., 16: 531-537.
Thème(s): benthic invertebrate, deep-sea, Carolinas,

208 RUFFO (1998) - The Amphipoda of the Mediterranean.
Part 4. Mém. Inst. Océanog. Monaco, Part 4. Mém. Inst. Océanog. Monaco, 13: 1-959.
Thème(s): Amphipoda, Mediterranean

209 SALAS (1996) - Marine bivalves from off the southern Iberian peninsula collected by the BALGIM and Fauna 1 Expeditions
Haliotis, Haliotis, 25: 33-100.
Thème(s): Marine bivalves, southern Iberian peninsula

210 SARÀ (1985) - Ecological factors and their biogeographic consequences in the Mediterranean Ecosystems.
Mediterranean Marine Ecosystems. M. Moraitou-Apostolopoulou and V. Kiortsis (eds.). Plenum Press, New York. pp.1-17.
Thème(s): Ecological factor, Ecosystem, Mediterranean, biogeographic consequence

211 SARDÀ & CARTES (1993) - Relationship between size and depth in decapod crustacean populations on the slope between 900 and 2200 m in the Western Mediterranean.
Deep-Sea Res., 40 (11-12): 2389-2400.
Thème(s): decapod crustacean, slope, Western Mediterranean,

212 SARDÀ et al. (1994) - Spatio-temporal structure of the deep-water shrimp Aristeus antennatus (Decapoda: Aristeidae) population in the western Mediterranean,
Fish. Bull., Fish. Bull., 92: 599-607.
Thème(s): deep-water, shrimp, western Mediterranean,

213 SARDÀ et al. (2003) - Intraspecific aggregation structure of a shoal of a western Mediterranean (Catalan coast) deep-sea shrimp, Aristeus antennatus (Risso, 1816), during the reproductive period.
J. Shellfish Res., 22: 569-579.
Thème(s): western Mediterranean, deep-sea shrimp, Aristeus antennatus

214 SARDÀ et al. (2003) - Deep-sea shrimp (Aristeus antennatus Risso 1816) in the Catalan sea, a review and perspectives.
J. Northw. Atl. Fish. Sci., J. Northw. Atl. Fish. Sci., 31: 127-136
Thème(s): Deep-sea, shrimp, Catalan sea.

215 SARDÀ et al. (2004) - An introduction to Mediterranean deep-sea biology.
Sci. Mar., Sci. Mar. (in press)
Thème(s): deep-sea, biology, Mediterranean.

216 SARDÀ et al. (2004) - Maximum deep-sea distribution and ecological aspects of Aristeus antennatus (Risso, 1816) in the Balearic and Ionian Mediterranean Sea.
Sci. Mar., Sci. Mar. (in press).
Thème(s): deep-sea distribution, ecological aspect, Aristeus antennatus, Balearic,Ionian Mediterranean Sea.

217 SARDOU & MASCLE (2003) - Cartographie par sondeur multifaisceaux du Delta sous marin du Nil et des domaines voisins
Publication spéciale IESM / Géosciences-Azur, série Carte et Atlas., Publication spéciale CIESM/Géosciences-Azur, série Carte et Atlas.
Thème(s): Cartographie, sondeur multifaisceaux,Nil.

218 SBRANA et al (2006) - Fishery of the deep-water rose shrimp Parapenaeus longirostris (Lucas, 1846) (Crustacea: Decapoda) in the northern Tyrrhenian Sea (western Mediterranean)
Hydrobiologia, Hydrobiologia (2006) 557:135–144

Thème(s): Parapenaeus longirostris, deep-water rose shrimp, fishery, selectivity, discard, western Mediterranean

219 SCOTTO DI CARLO et al. (1991) - Atlantis II cruise: uniformity of deep copepod assemblages in the Mediterranean sea.
J. Plankton Res., J. Plankton Res., 13(2): 263-277.
Thème(s): deep copepod, Mediterranean sea

220 SMITH et al. (2004) - Mitochondrial DNA sequence variation in deep-sea bamboo coral (Keratoisidinae) species in the southwest and northwest Pacific Ocean
Marine Biology, Marine Biology (2004) 144: 253–261
Thème(s): Mitochondrial DNA, deep-sea, bamboo coral, Pacific Ocean

221 SOLÉ et al. (2001) - Hydrocarbons, PCBs and DDT in the NW Mediterranean deep-sea fish Mora moro.
Deep-Sea Res., Deep-Sea Res., 48(2): 495-513.
Thème(s): Hydrocarbon,DDT, PCB, NW Mediterranean, deep-sea fish, Mora moro.

222 STEFANESCU et al. (1992) - Depth-size trends in western Mediterranean demersal deep-sea fishes.
Mar. Ecol. Prog. Ser., Mar. Ecol. Prog. Ser., 81: 205-213.
Thème(s): western Mediterranean, deep-sea, demersal fishes

223 STEFANESCU et al. (1993) - Deep-fish assemblages in the Catalan Sea (western Mediterranean) below a depth of 1000 m.
Deep-Sea Res.,, Deep-Sea Res., 40(4): 695-707
Thème(s): Deep-fish, Catalan Sea

224 STEFANESCU et al. (1994) - Fish assemblages on the slope in the Catalan Sea (Western Mediterranean): Influence of a submarine canyon.
J. Mar. Biol.
Assoc. U. K, J. Mar. Biol. Assoc. U. K., 74: 499-512.
Thème(s): Fish assemblage, Catalan Sea , submarine canyon, Catalan Sea, Western Mediterranean,

225 STORA et al. (1999) - The deep-sea macrobenthos on the continental slope of the northwestern Mediterranean Sea: a quantitative approach
Deep-Sea Res., Deep-Sea Res., 46: 1339-1368.
Thème(s): deep-sea, macrobenthos, continental slope, northwestern Mediterranean Sea

226 TAKAI et al. (2004) - Geochemical and microbiological evidence for a hydrogen-based, hyperthermophilic subsurface lithoautotrophic microbial ecosystem (HyperSLiME) beneath an active deep-sea hydrothermal field
Extremophiles, Extremophiles (2004) 8:269–282
Thème(s): Central Indian Ridge , Deep-sea hydrothermal vent , Hydrogen-oxidizing , Hyperthermophilic , Methanogen , Subsurface

227 TAKAMI et al. (2004) - Genomic characterization of thermophilic Geobacillus species isolated from the deepest sea mud of the Mariana Trench
Extremophiles, Extremophiles (2004) 8:351–356

Thème(s): Deep-sea isolate , Genome analysis , Geobacillus kaustophilus, Geobacillus stearothermophilus , 16S rDNA sequence , Thermophile.

228 TAVIANI et al (2005) - First geo-marine survey of living cold-water Lophelia reefs in the Ionian Sea (Mediterranean basin)
Facies, Facies (2005) 50:409–417
Thème(s): Deep coral, Living Lophelia reefs, Ionian Sea · Mediterranean · Recent

229 TER BRAAK et al. (1988) - A theory of gradient analysis
Adv. Ecol. Res.,, Adv. Ecol. Res., 18: 272-217.
Thème(s): Oceanography, Deep-Sea

230 THATJE et al. (2005) - Larvae of the deep-sea Nematocarcinidae (Crustacea: Decapoda: Caridea) from the Southern Ocean Received
Polar Biol, Polar Biol (2005) 28: 290–302
Thème(s): Nematocarcinus longirostris, south-western Atlantic Ocean, Southern Ocean,

231 THIELl (2002) - Cindy Lee Van Dover: The ecology of deep-sea hydrothermal vents
Helgol Mar Res, Helgol Mar Res (2002) 55:308–309
Thème(s): Deep-sea, hydrothermal vents, ecology

232 THISTLE (2001) - Harpacticoid copepods are successful in the soft-bottom deep sea
Hydrobiologia, Hydrobiologia 453/454: 255–259, 2001.
Thème(s): deep sea, Harpacticoida

233 TIEFENBACHER (2001) - Recent samples of mainly rare decapod Crustacea taken from the deep-sea floor of the southernWest Europe Basin
Hydrobiologia, Hydrobiologia 449: 59–70, 2001.
Thème(s): NE-Atlantic, deep-sea floor, Crustacea, Decapoda, Reptantia, Natantia

234 TORTONESE (1985) - Distribution and ecology of ecology s in the Mediterranean fauna (Fishes and Echinoderms).
Mediterranean marine ecosystems. M. Moraitou-Apostolopoulou and V. Kiortsis (eds.). Plenum Press, New York. pp. 57-83.
Thème(s): Distribution, ecology , Mediterranean fauna

235 TSELEPIDES & ELEFTHERIOU (1992) - South Aegean (Eastern Mediterranean) continental slope benthos: Macroinfaunal - Environmental relationships.
In: Deep-sea food chains and the global carbon cycle. G. T. Rowe and V. Pariente (eds.). Kluwer Academic Publisher, Dordrecht. p. 139-156.
Thème(s): South Aegean, Eastern Mediterranean, benthos, Macroinfaunal.

236 TSELEPIDES & LAMPADARIOU (2004) - Deep-sea meiofaunal community structure in the Eastern Mediterranean: are trenches benthic hotspots.
Deep-Sea Res.,, Deep-Sea Res., 51: 833-847.
Thème(s): Deep-sea, meiofaunal community, Eastern Mediterranean.

237 TSELEPIDES et al. (2000) - Macrobenthic community structure over the continental margin of Crete (South Aegean Sea,NE Mediterranean)

Prog. Oceanogr., Prog. Oceanogr., 46(2-4): 401-428.
Thème(s): Macrobenthic community, continental margin, Crete , NE Mediterranean

238 TURLEY et al. (2000) - Relationships between primary producers and bacteria in an oligotrophic sea – the Mediterranean and biogeochemical implications.
Mar. Ecol. Prog. Ser., Mar. Ecol. Prog. Ser., 193: 11-18.
Thème(s): primary producer, bacteria, oligotrophic sea, Mediterranean, biogeochemical implications.

239 TURSI et al. (2004) - Biodiversity of the white coral reefs in the Ionian Sea (Central Mediterranean).
Chemistry and Ecology, 20 (suppl. 1): 107-116.
Thème(s): white coral reef, Biodiversity, Ionian Sea

240 UNEP (2006). Ecosystems and Biodiversity in Deep Waters and High Seas.
UNEP Regional Seas Reports and Studies No. 178. UNEP/ IUCN, Switzerland 2006.
ISBN: 92-807-2734-6
Job Number: DEP/0850/CA
Thème(s): deep-sea ecosystems, Deep-sea fisheries, biodiversity, seamounts, vents, brine pools, coral

241 WANG el al. (2005) - Phylogenetic analysis of Archaea in the deep-sea sediments of west Pacific Warm Pool
Extremophiles, Extremophiles (2005) 9:209–217
Thème(s): Crenarchaeota marine group I , Deep-sea ,
Novel archaea, West Pacific , Diversity

242 WAYLAND et al. (1999) - Echinorhynchus brayi n. sp. (Acanthocephala: Echinorhynchidae) from Pachycara crassiceps (Roule) (Zoarcidae), a deep-sea fish
Systematic Parasitology, Systematic Parasitology 43: 93–101, 1999.
Thème(s): Echinorhynchus brayi, benthic marine fishes, deep-sea

243 WENNER & BOESCH (1979) - Distribution patterns of epibenthic decapod Crustacea along the shelf-slope coenocline, middle Atlantic Bight, USA.
Bull. Biol. Soc. Washington,, Bull. Biol. Soc. Washington, 3: 106-133.
Thème(s): epibenthic, decapod Crustacea, shelf-slope coenocline, middle Atlantic Bight

244 WHITEHEAD et al. (1989) - Fishes of the north-eastern Atlantic and the Mediterranean.
UNESCO, Paris., Vols. 1-3. UNESCO, Paris.
Thème(s): Fish, north-eastern Atlantic, Mediterranean

245 WILSON (1988) - Biodiversity
National Academic Press, Washington, DC., National Academic Press, Washington, DC.
Thème(s): Biodivesity Deep-sea

246 WILSON (1992) - The diversity of life

The Belknap Press of Harvard University Press, Cambridge, Mass., The Belknap Press of Harvard University Press, Cambridge, Mass.
Thème(s): Biodivesity Deep-sea

247 WISHNER (1980) - The biomass of the deep-sea benthopelagic plankton.
Deep-Sea Res., Deep-Sea Res., 27(3-4A): 203-216.
Thème(s): benthopelagic plankton, biomass, deep-sea

248 WWF/IUCN (2004). The Mediterranean deep-sea ecosystems: an overview of their diversity, structure, functioning and anthropogenic impacts, with a proposal for conservation.
IUCN, Málaga and WWF, Rome. 66pp
Thèmes(s): Mediterranean, deep-sea ecosystems, biodiversity, seamounts, vents, brine pools, coral, Deep-sea fisheries

249 YAKIMOV et al. (2007) - Microbial Community of a Hydrothermal Mud Vent Underneath the Deep-Sea Anoxic Brine Lake Urania (Eastern Mediterranean)
Orig Life Evol Biosph, Orig Life Evol Biosph (2007) 37:177–188
Thème(s): deep-sea hypersaline anoxic basins, hydrothermal mud fluids, 16S rRNA, microbial community structure and function

250 ZABALA (1993) - Epibiotic bryozoans on deep-water scleractinian corals from the Catalonian slope (western Mediterranean, Spain, France).
Sci. Mar., Sci. Mar., 57(1): 65-78.
Thème(s): Epibiotic bryozoan, deep-water, scleractinian coral, Catalonian slope, western Mediterranean

251 ZENG et al. (2006) - Characterization and gene cloning of a cold-active cellulase from a deep-sea psychrotrophic bacterium Pseudoalteromonas sp. DY3
Extremophiles, Extremophiles (2006) 10:79–82
Thème(s): Deep sea , Pseudoalteromonas , Cold-active, cellulase

252 ZIBROWIUS (1980) - The scleractinian corals of the Mediterranean and the North-East Atlantic.
Mém. Inst. Océanog. Monaco, Mém. Inst. Océanog. Monaco, 11: 1-391.
Thème(s): scleractinian corals, Mediterranean, North-East Atlantic