

CIESM Congress Session : Marine artificial habitats

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Moderator's Synthesis

There is a worldwide increase in adding new artificial structure and substrates linked to a wide array of human activities ranging from aquaculture, energy derived structures (gas and oil platforms, offshore wind parks), coastal urbanization and recreational activities, maritime activities (harbors, marine litter...)

The session contributions covered mostly the artificial approach of increasing biomass of fishes gathered by attraction towards new substrates. The concept of mimicking the natural substrates, either in size and materials was presented as promising management units that can minimize impacts of artificial habitats related with diving activities and eco-tourism in Crete (contribution from Doumas et al.).

Evaluating spatial and temporal aggregations of fishes around gas platforms is more effectively performed by a combination of methodologies: underwater visual census, camera records and hydroacustics (contribution from Gaetani et al). In the same regard, fish community structure reveals changes in fish abundance and size around the largest artificial reefs of the Mediterranean (contribution from Özgül & Lök). Similarly, analysing the home range and movement patterns of resident species (*Scorpaena scrofa* and *S. porcus*) can be achieved with fine-scale radiotracking (contribution from Özgül & Lök).

Future concerns deal with jumping from the traditional 'fisheries approach' (i.e. artificial reefs, fish aggregation devices FADS...) towards innovative approaches such as the design of eco-structures, biofoulings, regulations of dumping at sea, materials for foundations and artificial structures, marine litter as a new substrate, along with the consideration of accumulative effects.

Several questions arose in the debate, especially with regard to selection criteria for habitat deployment, habitat restoration with artificial reefs, links with conservation and along with recruitment processes linked to marine corridors, stepping stones and marine litter.

