

Characterizing fish communities associated with drifting fish aggregating devices (FADs) in the Western Indian Ocean using underwater visual surveys



We adapted a visual census method, mainly used in demersal and reef fish studies, to characterize fish communities associated to drifting fish aggregating devices (FADs) in the Western Indian Ocean. Drifting FAD associated fishes from both equatorial (Seychelles) and tropical waters (Reunion Island) were examined by divers. A total of 32 species (belonging to 16 families) were observed associated with drifting FADs in equatorial waters, and 24 species (14 families) were found around FADs in tropical waters. Twenty species were found in both regions. The highest number of species observed at a single FAD was 18 (12 ± 2 , mean \pm SD) in equatorial and 13 (10 ± 3) in tropical waters, not counting circumnatan species loosely associated with the FAD. Some species like *Kyphosus vaigiensis*, *Canthidermis maculata*, *Elagatis bipinnulata*, *Acanthocybium solandri* and *Coryphaena hippurus* were observed on all or most of the surveys. In this study, the contribution in biomass of the 18 common species associated with drifting FADs (but excluding circumnatan species), represents more than 98% of the biomass. The overall biomass values of closely

associated species remains well below tuna biomass estimates for circumnatan tuna schools at FADs, estimated as high as 200 tons. The species that most significantly contribute to the by-catch in tuna purse-seines logically match those that showing the highest biomass values in our surveys (*Carcharhinus* spp., *Elagatis bipinnulata*, *Coryphaena hippurus*, *Canthidermis maculata*, and *Acanthocybium solandri*). One of the most abundant and ubiquitous species in our study was the spotted oceanic triggerfish *Canthidermis maculata* that sometimes formed massive schools of many thousands individuals around the drifting FADs. Future research is needed to explore the role of such non tuna species in the attraction and aggregation processes of tuna around drifting FADs.

Auteurs du document : Marc Taquet, Gorka Sancho, Laurent Dagorn, Jean-Claude Gaertner, David Itano, Riaz Aumeeruddy, Bertrand Wendling, Christophe Peignon

Obtenir le document : EDP Sciences

Mots clés : Pelagic fishes, Drifting FAD, Visual census, Fish aggregations, Seychelles, Reunion Island, Indian Ocean

Thème (issu du Text Mining) : MILIEU NATUREL, ENVIRONNEMENT

Date : 2008-1-24

Format : text/xml

Source : <https://doi.org/10.1051/alr:2008007>

Langue : Anglais

Télécharger les documents : <https://www.alr-journal.org/10.1051/alr:2008007/pdf>

Permalien : <https://www.documentation.eauetbiodiversite.fr/notice/characterizing-fish-communities-associated-with-drifting-fish-aggregating-devices-fads-in-the-wester0>

Evaluer cette notice: