

## 4<sup>th</sup> World Small-Scale Fisheries Congress

**4WSFC Europe** 



MPA Roadmap is to support participatory processes and co-management approaches. MedPAN, a member of Friends of SSF platform, is developing and supporting activities (small projects et pilot activities), bringing together MPA managers and involving NGOs, actors and researchers working towards supporting sustainable SSF in the Mediterranean. In particular, a recurrent training programme on sustainable SSF has been developed for MPA managers and fishers

## Gear damage profile caused by bottlenose dolphin depredation of bottom-set gillnets in the Northern Aegean Sea

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Bottlenose dolphins (*Tursiops truncatus*) are known to depredate static fishing gear throughout the Mediterranean, resulting in both catch loss and gear damage. We quantified the latter during systematic gillnet fishing trials in the Thermaikos Gulf, Northern Aegean, Greece. Specifically, after each haul we counted the holes torn in the gear, grouped by vertical position (Lower, Middle, Upper) on the net, and by size class (Tiny, Small, Medium, Large). We modelled the number of holes against the occurrence or not of dolphin depredation, vertical position, and size class (GLM, Poisson distribution). Over 44 hauls, we found that dolphins created nearly 20 times more holes than nondolphin predators. Moreover, the vertical damage profile differed between dolphin and non-dolphin depredation events, in that dolphins consistently created most holes in the lower third of the net and fewest in the upper third, for every size class. Conversely, when dolphins were not the cause of damage, most holes were observed in the upper third of the net. This difference could be attributable to dolphins targeting more benthic species, e.g. Mullus spp., which are generally caught in the lower part of the net, while other predators such as seabirds may either be less selective or restricted to shallower foraging depths. Our findings can help inform gear manufacturers as to which parts of the nets suffer the most damage and should be reinforced. As a result, gillnets will be damaged —and thus discarded— less frequently, leading to more financially and environmentally sustainable fishing practices.