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## Differences in magnitude and spatial extent of impact of tuna farming on benthic macroinvertebrate assemblages

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### *Abstract*

Differences in magnitude and spatial extent of impact of three tuna farms located in Malta on polychaete and amphipod assemblages associated with soft sediment habitat were assessed using a hierarchical spatial design that incorporated different spatial scales, from tens of meters to a few kilometers. Spatial variation in impact was significant at the scale of location, at which farm size and local environmental factors differed. The magnitude of impact was higher at the larger farm, as indicated by elevated levels of sediment fish bone content, significantly lower number of polychaete families, and the

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