

## Soundscape phenology in coral reef

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Coral reef accommodate many symbionts that made it highly biodiverse underwater ecosystem. Soundscape is one of an indicator of biodiversity since phonation of animals represent species or family specific acoustic characteristics. Using unsupervised classification algorithm developed by the second author, we found clear change of soundscape of coral reef in different season. Extensive calling of damsel fish was observed in May and June. It lasted until midnight and occurred again very early morning. On the other hand, song of humpback whales dominated soundscape in the winter time. Soundscape analysis is a tool to investigate acoustic phenology based on a long term recordings.

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