Introduction

Coral reef fish are fish which live amongst or in close relation to coral reefs. Coral reefs occupy less than one percent of the surface area of the world oceans, but still they provide a home for 25 percent of all marine fish species. There are two major regions of coral reef development recognized; the Indo-Pacific and the tropical western. Each of these two regions contains its own unique coral reef fish fauna with no natural overlap in species.

This project will define whether the species and amount of reef fish will increase with the depth of sea increase by using the dataset from the Reef Life Survey.

Data Description

This project used the dataset collected around Australia where belongs to the central Indo-Pacific, and the spatial location is from Lat/Lon -36.585, 132.429 to Lat/Lon -31.18, 139.812. This dataset contains records of body fishes and elasmobranchs collected by a combination of experienced scientists and skilled recreational divers along 50 m transects on shallow rocky and coral reefs.

Fishes within 5 m of the line are recorded separately for each side of the transect line, with each side referred to as a ‘block’. Thus, two blocks form a complete transect. Multiple transects are usually surveyed at each site, usually along different depth contours. Sites are distinguished by unique site codes with latitude and longitude recorded in decimal degrees using a handheld GPS unit, or taken from Google Earth.

In coral reefs with high fish species richness and densities, the order of priority for recording accurately is to first ensure all species observed along transects are included, then tallies of individuals of larger or rare species, then finally estimates of abundance for more common species. Only divers with the most extensive and appropriate experience undertake surveys in diverse coral reefs. Nearly all fishes observed are identified to species level, with photographs of unknown species taken with an underwater digital camera for later identification using appropriate field guides and consultation with taxonomic experts for the particular group, as necessary. However, the occurrence IDs in this dataset are currently not stable.

References

Coral reef fish. (2019, September 24). Retrieved from <https://en.wikipedia.org/wiki/Coral_reef_fish>.

Edgar, G. J., & Stuart-Smith, R. D. (2017, March 11). Reef Life Survey: Global reef fish dataset. Retrieved from

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