

The impact of tourist pressure on the biodiversity in the intertidal pools

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Key concepts

- To know the biodiversity of the intertidal pools
- The impact of tourism pressure on intertidal pools

Material

Waterproof camera, scale, clove oil, ethanol, spray bottle, bucket, fishing net, linen gloves, recording paper

Methods

- 1) To choose two different tourist pressure sites. Group G1 & G3 go to high pressure site. Group G2 & G4 go to low pressure.
- 2) Each group have to choose 4 tidal pools, two in high tidal zone, the other two in low tidal zone.
- 3) For each tidal pool, you need:
 - a. To collect all the animals you can see
 - b. To take picture of all animals, one animals at least one photo with scale.
 - c. Add proper amount of quantity clove oil into the tidal pools.
 - d. Wait for 5 mins. Do not scare fish in the tidal pool.
 - e. Collect the fish by the fishing net.
 - f. Take picture of all fish, one fish at least one photo with scale. Then measure the biomass and body length.
 - g. Put the animals back to the tidal pool, when finished all measurements.
- 4) Collect the data from all groups
- 5) Compare the diversity between high and low pressure site by calculate Shannon index and rarefaction curve using R and PAST3

Further reading

Chao, A., N. J. Gotelli, T. C. Hsieh, E. L. Sander, K. H. Ma, R. K. Colwell, and A. M. Ellison. 2014. Rarefaction and extrapolation with Hill numbers : A framework for sampling and estimation in species diversity studies Rarefaction and extrapolation with Hill numbers : a framework for sampling and estimation in species diversity studies. *Ecological Monographs* 84:45–67.

Hsieh, T. C., K. H. Ma, and A. Chao. 2016. iNEXT : an R package for rarefaction and extrapolation of species diversity (Hill numbers):1451–1456.