# Anomastraea irregularis, ecology of an coral of Watamu Marine National Park, Kenya

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### Introduction

Watamu Marine National Park (WMNP) has uniquely rich and diverse stretches of intertidal rocky platforms. The diversity of this area include a rich assemblage of corals such Anomastraea irregularis which is a zooxanthellate coral species that is endemic to the Western Indian Ocean.

Anomastraea irregularis is classified as Vulnerable on the IUCN Redlist (Sheppard et al, 2008) and listed on Appendix II of CITES (CITES, 2015). It is categorized as an EDGE<sup>1</sup> (Evolutionary Distinct and Globally Endangered) species; it is the only species in its genus making it highly evolutionary distinct (Obura 2012).

# Methods

Transects and quadrats were used to assess the population of Anomastraea, other coral genera and rockpool substrate type. Participatory Observation was employed to assess human activities (Musembi et al 2014).

## Results

- 145 Anomastraea irregularis colonies were assessed over an area of 1800m2.
- 350 colonies of 13 other coral genera were recorded. Colonies density of Anomastraea irregularis was
- highest in the south and decreased northwards. Turf algae was the most dominant substrate type in rockpools while sand was the substrate most
- commonly associated with Anomastraea colonies.

# References

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# Human Activities

- Various human activities were observed in or around rock pools including sports, beach walking, recreational rock pooling and curio selling.
- Some species including corals were identified as a target of some recreational activities such as rockpooling.
- Activities observed that were threats to corals include trampling and touching corals, rainwater run off and pollution from motorized boats anchored around these areas.





Future research and conservation work will focus on detailed studies of species assemblage of corals found in the intertidal zone as well as their associated habitats.

Capacity building of local research and management staff should be promoted including working with the local guide "industry" which has little understanding of the ecology of those habitats

area.

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# Conclusion

Anomastraea irregularis populations in Watamu Marine National Park are variably distributed but more common in the south of the park than the north.

Unrestricted human activities around this area might pose a threat to the population of this rare coral as well as other coral populations.

## **Future work**

We will also establish long term monitoring of the species, the conditions of the area and activities in the

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