Spatial patterns and characterization of benthic epifaunal biodiversity in Algoa Bay

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• Unconsolidated sediment

• Ecosystem services – Nurseries and food provisioning

• National Biodiversity Assessment

• Marine habitat classification
Aims

Ground-truth the existing National Biodiversity Assessment (NBA) habitat types in Algoa Bay, and test how well these broad habitat categories capture spatial patterns of epifaunal diversity.
Objectives

• Test broad scale habitat types with real data

• Determine if sediment is a predictor of biotic diversity

• Provide baseline data for potential long term monitoring within proposed MPA
  • Baseline for recovery after MPA implementation
Methodology

- Offshore habitat types in Algoa Bay:
  - Agulhas Island
  - Agulhas mixed sediment inner shelf
  - Agulhas sandy inner shelf
  - Agulhas sandy outer shelf
  - Agulhas hard inner shelf
  - Agulhas muddy outer shelf
  - Agulhas sandy shelf edge
  - Agulhas inner shelf reef

- Drop frame camera

- 40-60 drops

- Dredge
Expected outcomes

• Map of biotic diversity overlaying current NBA with sediment characteristics for Algoa Bay

• Conclusion whether biotic characteristics correlate with sediment

• Spatial analysis of biodiversity and identifying possible reference sites

• Baseline data for proposed MPA – Recovery after implementation

• Inform NBA habitat types and MSP