

# Mapping of the Shallow-water Benthic Habitats in the Republic of Palau:

## *An Interim Progress Report*



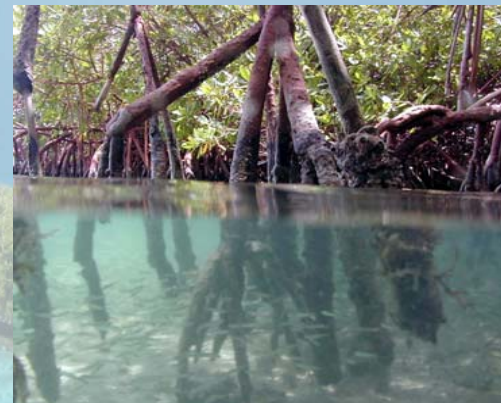
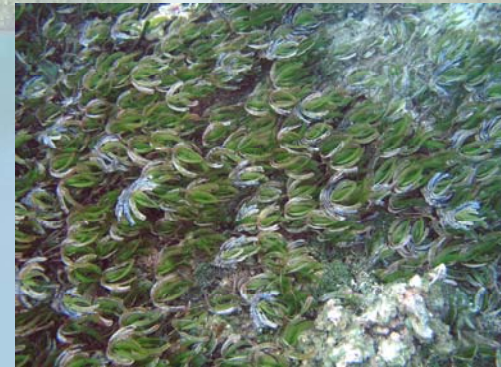
**A Presentation to the U.S Coral Reef Task Force**

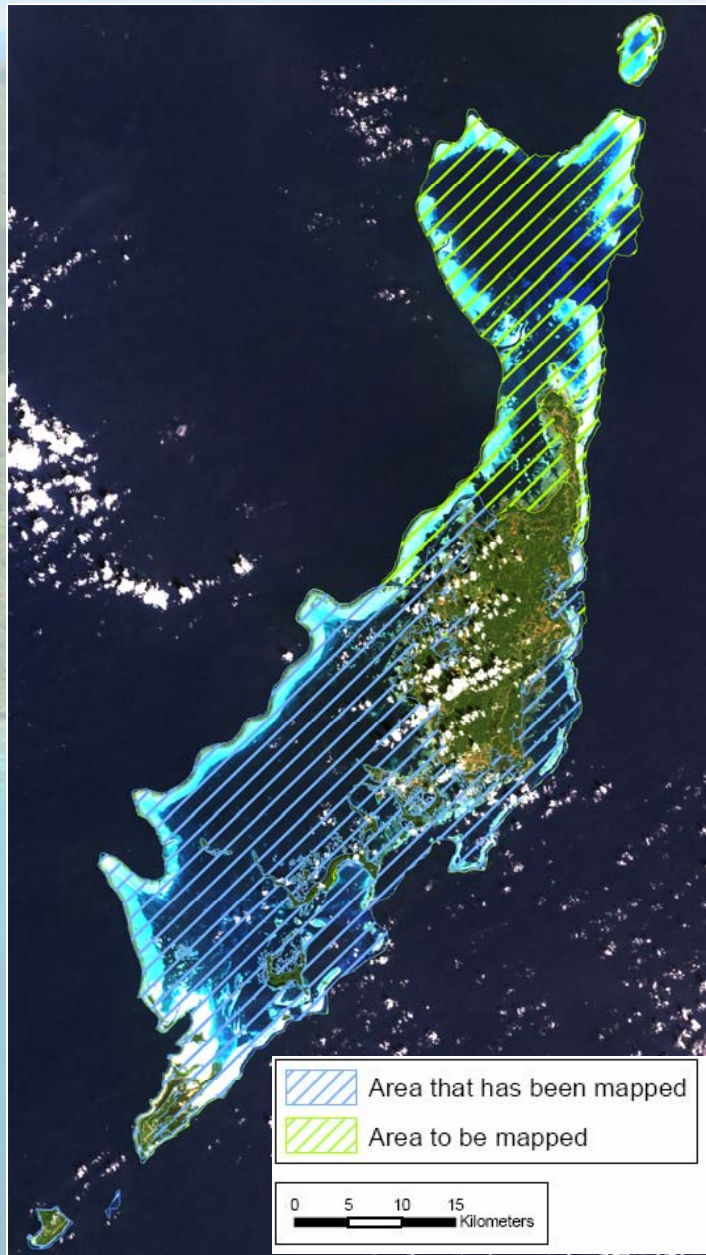
By:

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## Reasons to Map the Coral Ecosystem:

- A top priority identified by USCRTF
- A baseline assessment of the resource is needed
- It's not just the Coral – A mosaic of habitat: seagrass, macroalgae, mangroves, etc.
- Needed for more informed MPA management
- Monitor habitat changes over time
- Supports Research Activities





## Current Mapping Accomplishments

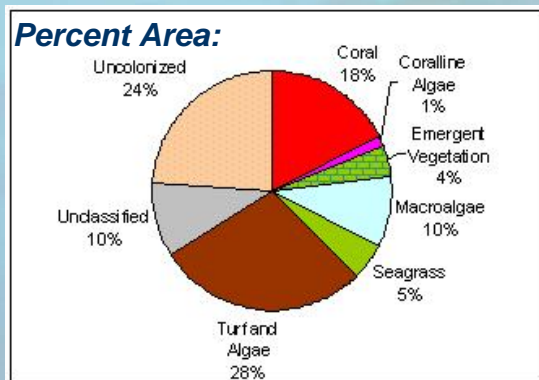
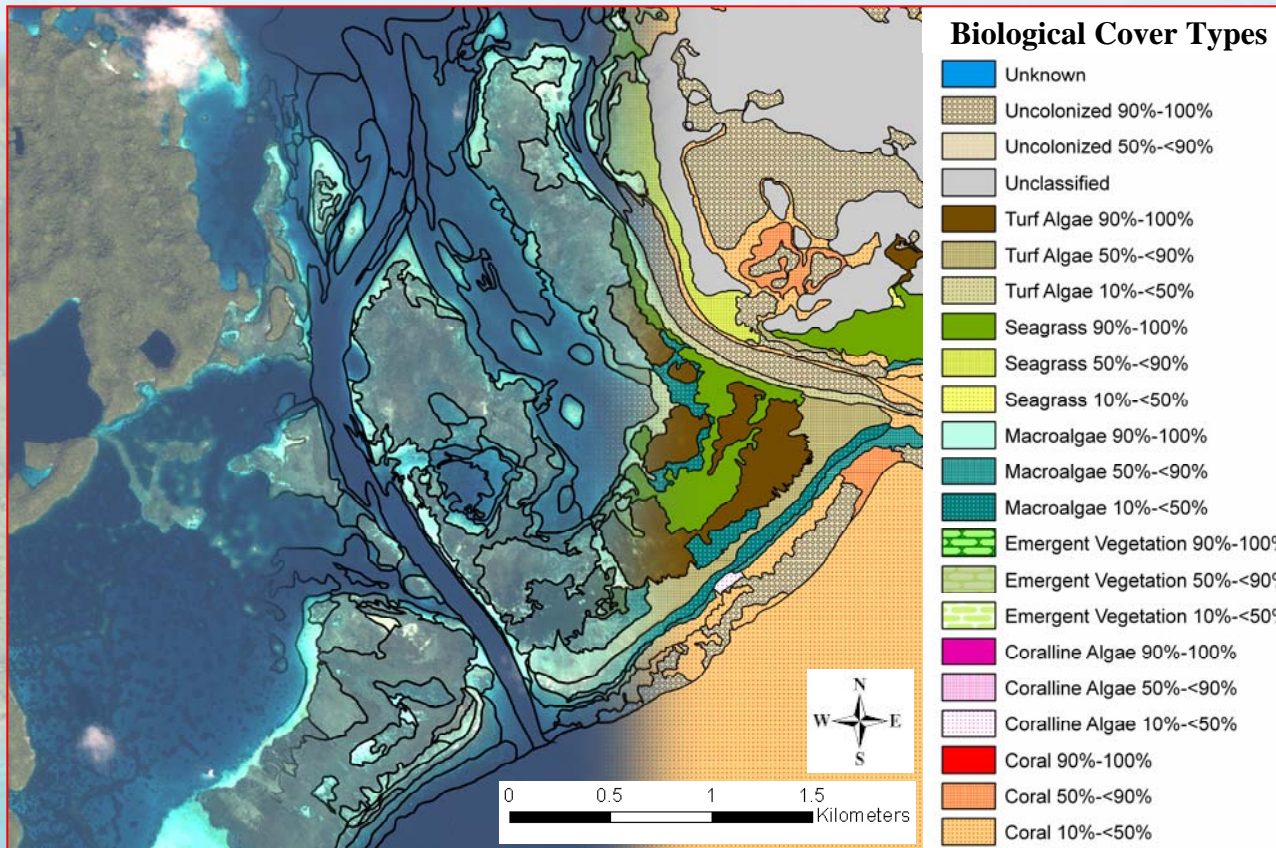
- Draft benthic habitats <30 m depth 67% complete (~ 1,500 km<sup>2</sup>)
- Updated shoreline
- Collected 1m<sup>2</sup> multispectral satellite imagery (27 scenes; 9,465 km<sup>2</sup>)
- Palauan partnership (PICRC, OERC, PALARIS, BMR, MRD, NRCS, CRRF)

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## Future Mapping Accomplishments\*

- Complete remaining mapping (~ 800 km<sup>2</sup>)
- Expert review and Technology Transfer Workshop
- Provide Final Map and Digital Products

\* Contingent on the availability of funds

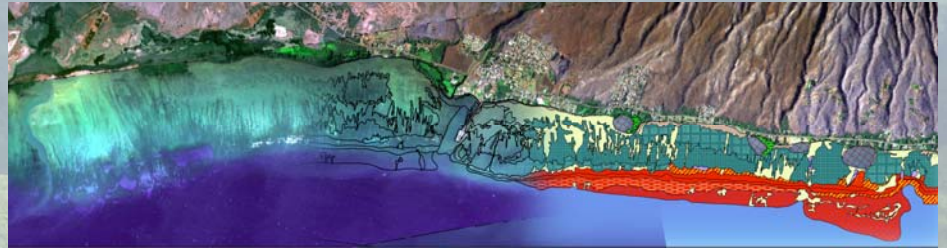


## Mapping Information:

- 7 major and 21 detailed biological cover types
- 3 major and 13 detailed geomorphological structure types
- 13 locational zones

## Application of Benthic Habitat maps to Marine Protected Areas

- Provide analytical justification in support of existing Marine Protected Area boundaries
- Evaluate the designation and effectiveness of marine reserves under various management strategies
- Define species utilization patterns across varying levels of habitat quality and protection
- Lay the groundwork for large-scale comparisons throughout the Hawaiian archipelago, Pacific islands, and US Caribbean



*Fish Habitat Utilization Patterns and Evaluation of the Efficacy of Marine Protected Areas in Hawaii: Integration and Evaluation of NOAA Digital Benthic Habitats Mapping and Coral Reef Ecological Studies. Friedlander, A.M. and E. Brown. 2005.*

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