Hawaii’s Artificial Reefs

Paul Murakawa
Aquatic Biologist
Division of Aquatic Resources (DAR)
Department of Land and Natural Resources
State of Hawaii
Overview of Hawaii’s Artificial Reefs - Types

• Fishing Opportunities
• Tourist Attractions
• “Artificial reef” Projects
History of DAR’s Artificial Reef Project

- Since 1960
- Locations
- Funding
- Materials

Positives
Enhances habitat
Removes fishing and diving
pressure from natural reefs

Negatives
Fish Aggregation Area
Accidents can happen
Enhances Habitat
(Example from Maunalua Bay Artificial Reef, Oahu)

Barren limestone/sand area →
Mean fish biomass was 5.4 g/m²
Mean number of species observed was seven

Post deployment (2-3 years)
Mean biomass increased 20 fold
Mean number of species went up 5 fold
Biggest Challenges and Lessons Learned

- Permitting Process
- Type of material used
- Complete assessment
Needs Moving Forward

- Improve Permit Process (Federal and State agencies)
- Use of artificial reefs as a compensatory mitigation option
Mahalo (Thank you)

Paul Murakawa
Division of Aquatic Resources (DAR)
Paul.Y.Murakawa@hawaii.gov