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FACTSHEET

# ECOLOGICAL STATUS OF ALOR MPA


The expedition team collecting seafloor cover data.

Situated within the Coral Triangle's Sunda Banda Seascape – one of the most diverse marine ecosystems in the world, this 400,000 hectare MPA is home to hundreds of ecologically important fish and coral species and is an important area that contributes significantly to livelihoods and food security both locally and at the national level. Marine protected areas are a widely used management tool throughout the world, so it is necessary to understand how and when MPAs benefit biodiversity and fisheries.

**2012**

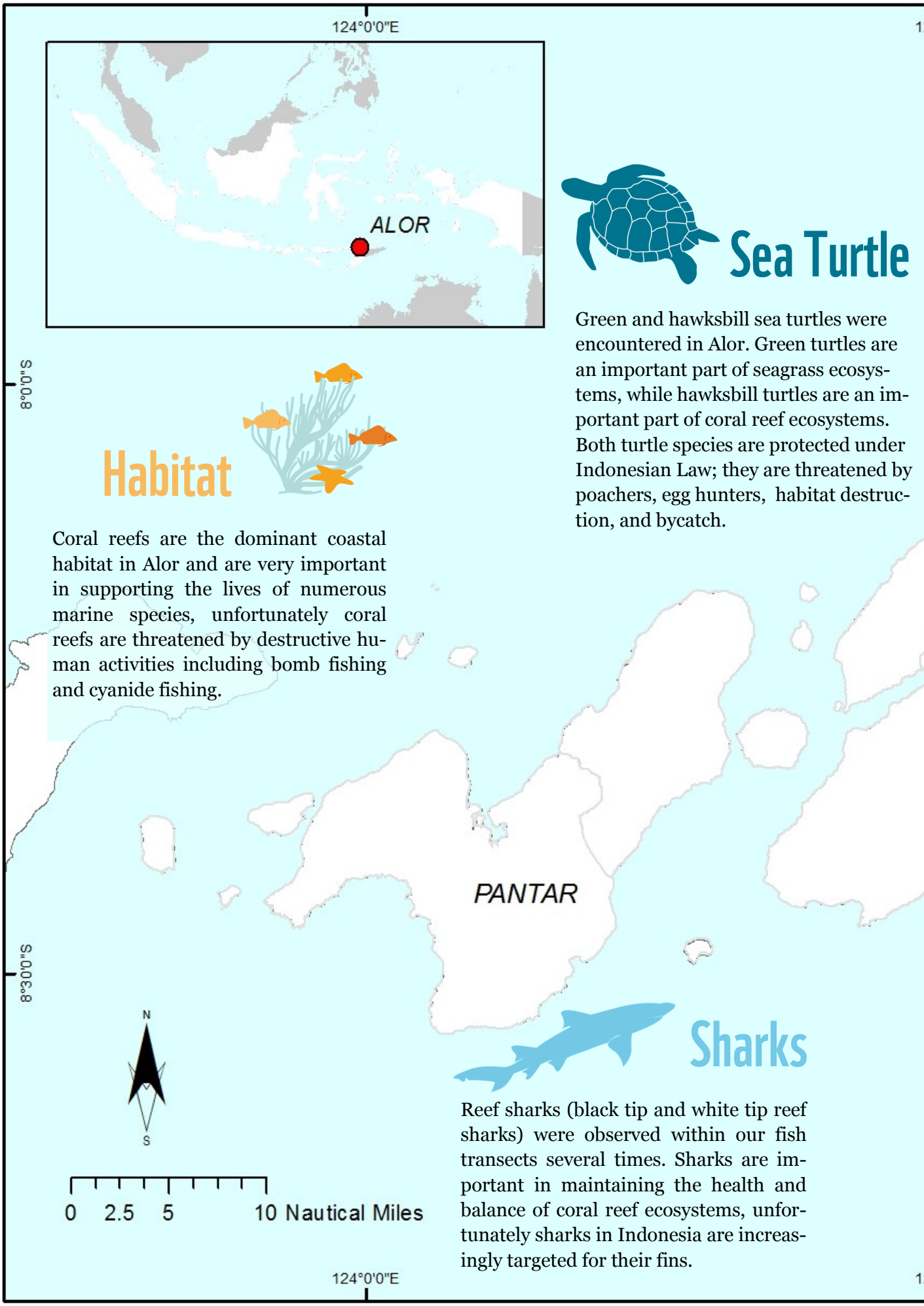
**Alor MPA was initiated, its zoning scheme was finalized in 2014**

As a first step, to determine ecological baselines in this area, a team made up of WWF-Indonesia, Wildlife Conservation Society, and the local and national government staff conducted surveys in March 2014, recording both fish sightings and the composition of benthic communities at 26 representative sites inside the Alor MPA.

The March expedition gave us a starting point to answer: *what is the current ecological status of fish and benthic communities within and surrounding this MPA?*

At each site, the percent of hard coral, soft coral, and rubble were recorded along multiple transects. Fish abundance and biomass were also recorded along multiple transects for species of key herbivore and carnivore fish families.

The findings from this expedition will be used in future evaluations of the Alor MPA in an effort to gauge the impact on increasing fish abundance and biodiversity, and improving ecosystem resilience.




## Habitat

Coral reefs are the dominant coastal habitat in Alor and are very important in supporting the lives of numerous marine species, unfortunately coral reefs are threatened by destructive human activities including bomb fishing and cyanide fishing.

## Sea Turtle

Green and hawksbill sea turtles were encountered in Alor. Green turtles are an important part of seagrass ecosystems, while hawksbill turtles are an important part of coral reef ecosystems. Both turtle species are protected under Indonesian Law; they are threatened by poachers, egg hunters, habitat destruction, and bycatch.

## Sharks

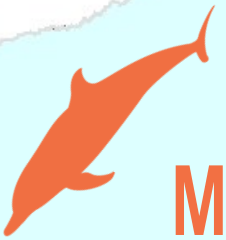
Reef sharks (black tip and white tip reef sharks) were observed within our fish transects several times. Sharks are important in maintaining the health and balance of coral reef ecosystems, unfortunately sharks in Indonesia are increasingly targeted for their fins.

## Highlights from the expedition include:

- Of the 24 fish families targeted in the survey within the MPA, the team identified 177 different species of fish. There were 25 different parrotfish species observed in just 25 sites.
- Sixty-two genera of hard and soft corals were observed inside Alor, one site had 40 coral genera!
- Lower levels of herbivore fish biomass were found on the east coast of Alor compare to most sites inside Alor, but carnivore biomass appears to be more evenly distributed across all sites and may even been higher on Alor's eastern coast.
- Live coral made up as much as 78% of the benthic (seafloor) community at sites within Alor MPA, with 15 sites with an average live coral cover above 50%. One degraded site had an average percent rubble of 78%; this was the only site within this MPA with more than 50% rubble cover in the benthic community.


## Fisheries & Aquaculture

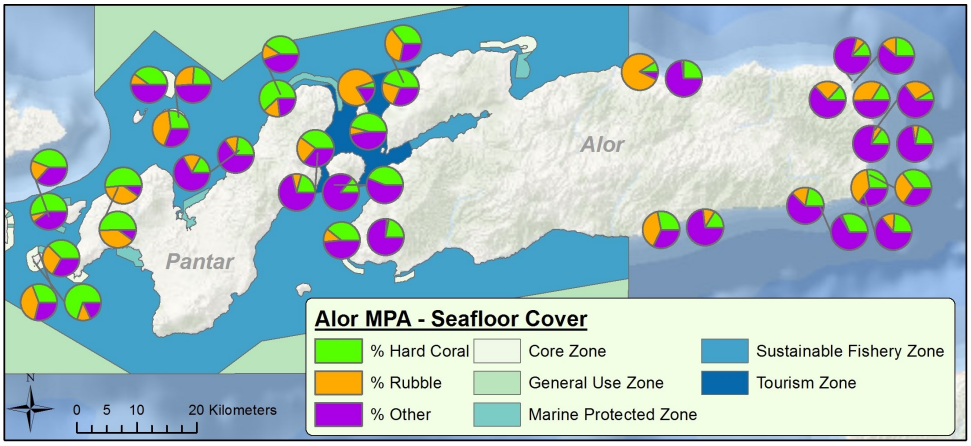
Large pelagic fishes such as tunas and skipjacks, small pelagic fishes such as scads and sardinellas, and reef fishes such as groupers and snappers are several economically important fisheries species in the area. Seaweed aquaculture are also an important source of income for many people living in Alor.



## Marine Mammals

Marine mammals including whales, dolphins, and dugongs can be found in the waters around Alor. Several dolphin species including spinner, bottlenose, and common dolphins, as well as pilot whales, are residents to these waters and were regularly observed during the expedition.

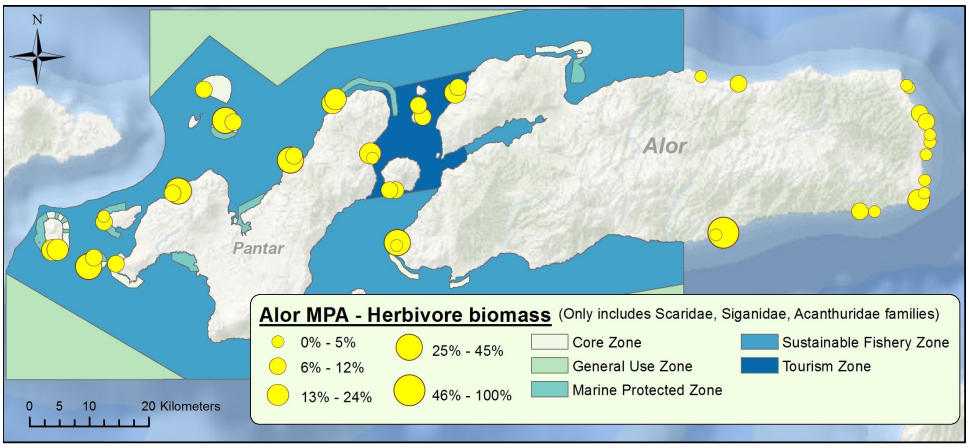
Map: Seafloor Cover of sampling sites in the waters of Alor




**40 Coral Genera**

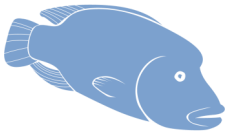
**Was recorded at one sampling site**

Map: Biomass of target herbivorous fish species at the sampling sites in the waters of Alor

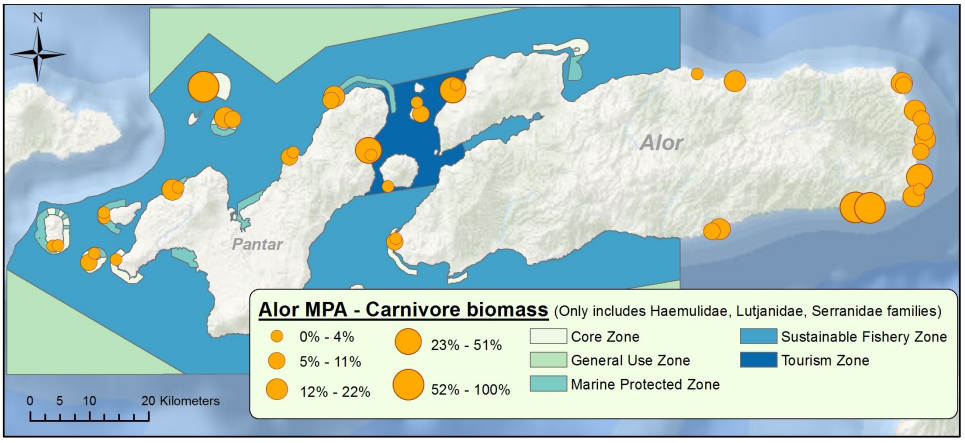



**25**

**Different parrotfish species were observed in just 25 sampling sites**

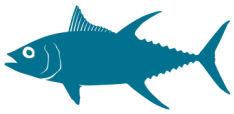


Map: Biomass of target carnivorous fish species at the sampling sites in the waters of Alor




**177**

**Target fish species were recorded all over Alor MPA**



Suggested Citation: Provost, M., Estraidvari, G.N. Ahmadia (2014) WWF Factsheet: Ecological Status of Alor MPA. World Wide Fund for Nature, Jakarta, Indoensia and Washington, D.C., United States. DOI: 10.6084/m9.figshare.6913289

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