



Marine Life of Exmouth Gulf

The marine biodiversity of the Ningaloo Reef is exceptional. This means that conservation values must be high in order to protect the environment. New and different annual migrations begin each season, and for Exmouth Gulf this means a constantly changing cohort using its protective waters.

Ningaloo is known worldwide for its large, annual aggregation of Whale sharks (*Rhincodon typus*) between March and June. The Whale shark migration is closely followed by Humpback whales (*Megaptera novaeangliae*) heading north to calve approximately June to July each year. The Humpbacks then head south between September and November. These migration events are highly anticipated by locals and tourists. Exmouth Gulf provides critical calving, resting and nursing grounds for Humpbacks. When they leave, and the density of Humpbacks in the Gulf decreases, Killer Whales (*Orcinus orca*) have been observed to enter its water with their young. And dolphins, especially the Humpback (*Sousa sahalensis*) and Snubfin (*Orcaella heinsohni*) dolphins are also using this habitat.

Between December and February, the waters are dotted with Green, Loggerhead, Hawksbill and Flatback turtles looking for nesting grounds, and younger ones feeding and resting in the shallows.



An estimated 10,000 nests are deposited around Ningaloo during this period.



Other reptiles that live here are the Olive Sea Snake and the endangered Short-nosed Sea Snake.

Nineteen species of sharks inhabit the Ningaloo region and many are observed in Exmouth Gulf. Large numbers of small Blacktips (*Carcharhinus* sp) are seen cruising through the nursery. The Minke, Bryde's, Southern Right and Blue whale (*Balaenoptera* sp.) are also visitors here.

The beautiful coastal manta ray (*Manta alfredi*) has a shorter migration than the oceanic manta ray, so it stays longer in certain places. Being filter feeders, they eat tiny prey (zooplankton).

Dugong graze on seagrass beds throughout Exmouth Gulf. Ten percent of the world's Dugong (*Dugong dugon*) population inhabits the waters between Shark Bay and Ningaloo, with a high number of regular sightings made in the Gulf. These populations are inter-connected, migrating along this coastline.



The Gulf and its mangrove system provides habitat and nursery grounds for fish. Large numbers of Shovelnose Rays (*Rhinobatidae* sp.) are seen high in the mangroves. And there are around 1400 species of fish that could be expected to inhabit the Gascoyne region. The high biodiversity in Ningaloo is linked to the productivity of Exmouth Gulf - Ningaloo's nursery. Large

aggregations of Tuna,

Giant Trevally - catch and release fishing

Mackerel, Sailfish, and Tuna are found closer to shore than anywhere else in the world because the area is so close to the continental shelf. Blue Bonefish (*Choerodon cyanodus*), Mangrove Jack (*Lutjanus argentimaculatus*), Giant Trevally (*Caranx ignobilis*) and Spanish Mackerel (*Scomberomorus commerson*) are prize catches in Exmouth Gulf.

Major threats:

The marine environment is a complex system. It's a large area and often appears to be an inexhaustible food supply and a useful transport route. But, everything has a limit, and human developments and activities are threatening its health. Overfishing, shipping, oil and gas ventures and pollution are all taking a toll.

- Habitat destruction or change through developments, dredging, human activities.
- Chemical spills have longterm effects, particularly in relation to bird and mammal reproduction.
- Oil isn't biodegradable, and there is the likely release of toxic compounds to the sediment, the effects of which can last for decades. If benthic grazers die, then massive algal growth occurs and can cause phytoplankton blooms.
- Heavy metals can be released into marine waters through dredging, construction, direct discharge.