Grey Reef Shark, *Carcharhinus amblyrhynchos*

Report Card assessment	**Recovering**		
IUCN Red List Australian Assessment	Near Threatened	IUCN Red List Global Assessment	Near Threatened
Assessors	Espinoza, M.		
Report Card Remarks	Increasing numbers in the Great Barrier Reef Marine Park following rezoning and reduced Indonesian fishing pressure in the Timor Box		

Summary

The Grey Reef Shark is a common, medium bodied species that inhabits coastal waters and oceanic atolls throughout the tropical Indo-Pacific. Site fidelity, restricted habitat, small litters and late age at maturity have made it sensitive to increasing fishing pressure. Declines in local populations of over 90% have been recorded in the Indian Ocean and Western Central Pacific Ocean in recent decades. In Northern Australia, Indonesian fishermen considerably reduced the number of Grey Reef Sharks at Scott Reef in the 1990's. In the Great Barrier Reef Marine Park, there have been some declines in Grey Reef Shark but the levels of decline are uncertain. Rezoning of the Marine Park in 2004 appears to have promoted an increase in numbers of Grey Reef Sharks. To better understand threats of fishing to the Grey Reef Shark within Australian waters, more information on species population structure and connectivity is required. Globally, the Grey Reef Shark is assessed as Vulnerable (IUCN) and in Australia as Near Threatened (IUCN). Due to increasing numbers following Marine Park Zoning, the Grey Reef Shark is assessed as Transitional Recovering (SAFS).

Distribution

The Grey Reef Shark is a widespread, common species that occurs in the central Pacific and Indian Ocean (Last and Stevens 2009). It is found in Madagascar, Seychelles and Reunion Island regions in the Indian Ocean. In the Pacific, it extends from southern China and Hawaii in the north to northern Australia in the south, and as far east as Easter Island. It is found in Northern Australia from south as Carnarvon (Western Australia), across the Northern Territory to Bundaberg (Queensland) and Lord Howe Island (Last and Stevens 2009).

Stock structure and status

Within Australia, there is differing abundance levels of Grey Reef Shark depending on location. In northwest Australia at Scott Reef (within the Memorandum of Understanding [MOU] 1974 Box in the Timor Sea, where access by Indonesian fishers using traditional artisanal fishing techniques is permitted), the Indonesian fishermen caused substantial declines in Grey Reef Sharks throughout the 1990's to the point where Indonesian shark fishing vessels became uncommon (Wallner and McLoughlin 1996, Fox and Sen 2002, Meekan and Cappo 2004, Field et al. 2009). In the Great Barrier Reef Marine Park, there were significantly fewer Grey Reef Sharks in areas open to fishing and further declines in their population predicted (Robbins et al. 2006). A ten-year survey (2000-2010) that encompassed later years than the Robbins (et al. 2006) study found the numbers of Grey Reef Sharks increased following a major rezoning of the Marine Park in 2004, suggesting the zoning changes benefited the Grey Reef Shark and has led to increasing numbers (Espinoza et al. 2014). Globally, declines of over 90% have been recorded in the Indian and Western Central Pacific Oceans (White 2007, Graham et al. 2010, Nadon et al. 2012). It is estimated that the Grey Reef Shark has declined by 30% or more globally.

Fisheries

The Grey Reef Shark is sensitive to fishing pressure due to high site fidelity, small litter size and late age at maturity. The species is retained for their fins and meat (Kumoru 2003). In Northern Australia, they have been fished heavily within the Timor Box and illegal, unregulated and unreported (IUU) fishing was a large and prevalent threat during the early 2000s (Field et al. 2009). However, the IUU fishing has declined significantly since 2006 due to increased border surveillance, international agreements and possibly increased fuel prices and the reduction in target species such as the Grey Reef Shark (Field et al. 2009, Haward and Bergin 2016). The Grey Reef Shark has a strong affinity for sites with high coral cover (Espinoza et al. 2014), making them sensitive to habitat degradation. Even if fishing is well managed, threats affecting the quality of coral reef habitats may affect the population of Grey Reef Sharks. Within Australia, Grey Reef Sharks are taken in low numbers as bycatch in line fisheries targeting Coral Trout, especially in the Great Barrier Reef Marine Park.

Habitat and biology

The Grey Reef Shark is found in tropical reef and continental shelf waters, occurring to depths of 280 m (Last and Stevens, 2009). It inhabits fringing reefs, lagoons and coral reef atolls selecting for areas with high coral cover and low turbidity (Wetherbee et al. 1997, Speed et al. 2011; Espinoza et al. 2014). The maximum recorded size is 190 cm total length (TL) and maximum age estimated is 19 years (Robbins 2006). Males mature at about 9 years and females at 11 years (Robbins 2006). Litters are small with mostly 3-4 pups (Robbins 2006).

Longevity and maximum size	Longevity: estimated 19 years Max size: 190 cm TL
Age and/or size at maturity (50%)	Males: 9 years, 120-140 cm TL Females: 11 years, 125-140 cm TL

Link to IUCN Page: http://www.iucnredlist.org/details/39365/0
Link to page at Shark References: http://shark-references.com/species/view/Carcharhinus-amblyrhynchos

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