

## Grey Nurse Shark (Western Australia subpopulation), *Carcharias taurus*

|                                     |   |                                 |            |
|-------------------------------------|---|---------------------------------|------------|
| Report Card assessment              | Sustainable   |                                 |            |
| IUCN Red List Australian Assessment | Refer to Western Australian subpopulation Assessment- Near Threatened | IUCN Red List Global Assessment | Vulnerable |
| Assessors                           | Simpfendorfer, C., McAuley, R.B., Pollard, D.A. & Gordon, I.          |                                 |            |
| Report Card Remarks                 | No substantial depletion occurred however it is taken as bycatch      |                                 |            |

### Summary

The Grey Nurse Shark (Western Australia subpopulation) is a large bodied species that inhabits coastal and continental shelf waters of Western Australia. Unlike the Eastern Australia subpopulation, it was not subject to targeted fishing and substantial depletion has not occurred. It is taken incidentally as bycatch in recreational and commercial fisheries. It has been protected nationally since 1996. Prior to its protection, less than 100 individuals were captured each year with stable catch rates. Due



to its slow life history characteristics, there are still fears of declines with no information recorded since the Grey Nurse Shark was protected. Therefore, the Grey Nurse Shark (Western Australia subpopulation) is assessed as Near Threatened (IUCN) and Sustainable (SAFS). The global population is assessed as Vulnerable (IUCN).

### Distribution

The Western Australia subpopulation of Grey Nurse Sharks is found exclusively in Western Australia from Exmouth in the north to Albany in the south (Last and Stevens 2009). Known aggregation sites have been reported at Rottnest Island and Exmouth.

### Stock structure and status

Prior to its listing as a protected species throughout Australian waters, catch rates in commercial fisheries were stable (Pollard et al. 2003). There is no new information on population trends however, fishing effort has remained stable and numerous protected areas have been implemented. Therefore, the population is likely still stable. The Western Australia subpopulation of Grey Nurse Sharks is genetically distinct from the Eastern Australia subpopulation (Stow et al. 2006).

## Fisheries

Grey Nurse Sharks (Western Australian subpopulation) are taken as bycatch in commercial and recreational fisheries, but this is likely limited because they are not targeted in Western Australia, nor were they subjected to targeted historic fishing. The only source of mortality of the Grey Nurse Shark is as incidental bycatch in commercial and recreational fisheries. Stable catch rates were independently reported from the demersal gillnet fishery (McAuley and Simpfendorfer 2003). No data exists after 1997 due to the protection of Grey Nurse Sharks throughout Australian waters. It is however, highly sensitive to fishing pressure and recovery would be slow from any declines that do occur. It is recommended that a monitoring program for the Western Australia subpopulation is created due to its vulnerability to fishing pressure.

## Habitat and ecology

The Grey Nurse Shark occurs in temperate and sub-tropical waters from the surf zone to outer continental shelves. It occurs at depths of 0-200 m. It is associated with rocky reefs and beach gutters (Compagno 1984). There are no life history data specific to the Eastern Australia subpopulation, so data is inferred from other populations. Maximum age for another subpopulation was recorded to be at least 40 years (Passerotti et al. 2014). More information on the ecology and biology of the Grey Nurse Shark is required.

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|-----------------------------------|---|
| Longevity and maximum size        | Longevity: ~40 years<br>Max size: 320 cm TL |
| Age and/or size at maturity (50%) | Males: 190 cm TL<br>Females: 220 cm TL      |

**Link to IUCN Page:** <http://www.iucnredlist.org/details/3854/0>

**Link to page at Shark References:** <http://shark-references.com/species/view/Carcharias-taurus>

## References

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- McAuley, R. and Simpfendorfer, C. 2003. Catch Composition of the Western Australia temperate demersal gillnet and demersal longline fisheries, 1994 to 1999. Fisheries Research Report No. 146. Department of Fisheries Western Australia. 78 pp.
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