

Ornate Wobbegong, *Orectolobus ornatus*

| | | | |
|-------------------------------------|---|---------------------------------|---------------|
| Report Card assessment | Sustainable | | |
| IUCN Red List Australian Assessment | Least Concern | IUCN Red List Global Assessment | Least Concern |
| Assessors | Huveneers, C., Pollard, D.A., Gordon, I., Flaherty, A.A. & Pogonoski, J. | | |
| Australian Assessors | Kyne, P.M., Heupel, M.R., White, W.T. & Simpfendorfer, C.A. (Shark Action Plan) | | |
| Report Card Remarks | Management has reduced fishing pressure on this wobbegong. | | |

Summary

The Ornate Wobbegong is a medium-bodied common wobbegong species that occurs in Papua New Guinea and eastern Australia. It is susceptible to fishing pressure because it is site attached to shallow water habitats. In New South Wales (NSW), wobbegong catch declined by more than 50%



Source: Australian National Fish Collection, CSIRO. Licence: CC By Attribution.

between 1997–1998 and 2007–2008, after which it stabilised. This led to all three species of wobbegong occurring in NSW, including the Ornate Wobbegong, to be listed as Vulnerable in that state. New NSW management regulations in May 2008 introduced a daily limit of six wobbegongs. As a result, wobbegongs are no longer targeted to the same extent as they used to be in NSW and populations are believed to have recovered. Therefore, the Ornate Wobbegong is assessed as Least Concern (IUCN) (Kyne et al. 2021) in Australia, and Sustainable (SAFS).

Distribution

The Ornate Wobbegong occurs in Papua New Guinea and eastern Australian waters. It is found from Port Douglas (Queensland) south to Sydney (New South Wales) (Last and Stevens 2009).

Stock structure and status

There is currently no information on population size, structure, or trend for the Ornate Wobbegong. A phylogeographic study showed no subpopulation structure between New South Wales and Queensland (Corrigan 2009).

Fisheries

The Ornate Wobbegong is sensitive to fishing pressure due to strong site fidelity. In NSW, three wobbegong species (Ornate Wobbegong, Spotted Wobbegong and Gulf Wobbegong) are taken in the Ocean Trap and Line Fishery (OTL), in the fish and prawn sectors of the Ocean Trawl Fishery, and in the Estuary General Fishery. The majority of commercial wobbegong catches occur in the OTL

Fishery. The NSW total catch of wobbegongs declined from about 120 tonnes in 1990–1991 to about seven tonnes in 2008–2009, largely as a result of reductions in effort. Catches have now stabilized at approximately 20 tonnes per year. There is also a daily trip limit on wobbegongs and minimum size limit of 180 cm. It is not targeted in Queensland waters; however, it is recorded as bycatch in prawn trawl fisheries (Kyne et al. 2002).

Habitat and biology

The Ornate Wobbegong is found in inshore and continental shelf waters in bays, reefs and offshore islands (Compagno 2001). It prefers habitat with high topographic complexity and crevice volume and shows site attachment (Carraro and Gladstone 2006). It occurs to depths of at least 100 m (Last and Stevens 2009). Maximum size is at least 120 cm total length (TL) (Huveneers et al. 2006). Maximum age is estimated to be 20 years (Huveneers et al. 2013).

| | |
|-----------------------------------|---|
| Longevity and maximum size | Longevity: estimated 20 years Max size: at least 120 cm TL |
| Age and/or size at maturity (50%) | Both sexes: ~80 cm TL |

CAAB Code: 37 013001

Link to IUCN Page: <https://www.iucnredlist.org/species/41838/68638906>

Link to page at Shark References: <http://shark-references.com/species/view/Orectolobus-ornatus>

References

- Carraro, R. and Gladstone, W. 2006. Habitat preference and site fidelity of the ornate wobbegong shark (*Orectolobus ornatus*) on rocky reefs of New South Wales. *Pacific Science* 60: 207–224.
- Compagno, L.J.V. 2001. Sharks of the world. *An annotated and illustrated catalogue of shark species known to date. Volume 2. Bullhead, Mackerel and Carpet Sharks (Heterodontiformes, Lamniformes and Orectolobiformes)*. FAO, Rome.
- Corrigan, S. 2009. *Molecular phylogenetics, phylogeography and population genetics of wobbegong sharks (Family: Orectolobidae)*. PhD Thesis. Department of Biology, Macquarie University.
- Huveneers, C., Harcourt, R.G. and N.M. Otway. 2006. Observations of localised movements and residence times of wobbegong sharks (*Orectolobus halei*) at Fish Rock, NSW, Australia. *Cybium* 30(4): 103–111.
- Huveneers, C., Stead, J., Bennett, M.B., Lee, K.A., Harcourt, R.G. 2013. Age and growth determination of three sympatric wobbegong sharks: How reliable is growth band periodicity in Orectolobidae? *Fisheries Research* 147: 413–425.
- Kyne, P.M., Courtney, A., Campbell, M., Chilcott, K., Gaddes, S., Turnbull, C., Van Der Geest, C. and Bennet, M.B. 2002. *An Overview of the Elasmobranch By-catch of the Queensland East Coast Trawl Fishery (Australia)*. Scientific Council Meeting – September 2002. Northwest Atlantic Fisheries Organization.
- Kyne, P.M., Heupel, M.R., White, W.T. and Simpfendorfer, C.A. 2021. *The Action Plan for Australian Sharks and Rays 2021*. National Environmental Science Program, Marine Biodiversity Hub, Hobart
- Last, P.R. and Stevens, J.D. 2009. *Sharks and Rays of Australia*. Second Edition. CSIRO Publishing, Collingwood, Australia.