

= Tasselled wobbegong =

The tasselled wobbegong (*Eucrossorhinus dasypogon*) is a species of carpet shark in the family Orectolobidae and the only member of its genus . It inhabits shallow coral reefs off northern Australia , New Guinea , and adjacent islands . Reaching 1 @.@ 8 m (5 @.@ 9 ft) in length , this species has a broad and flattened body and head . Its most distinctive trait is a fringe of branching dermal flaps around its head , which extends onto its chin . The fringe , along with its complex color pattern of small blotches and reticulations , enable it to camouflage itself against the reef environment .

During the day , the solitary tasselled wobbegong can generally be found lying inside caves or under ledges with its tail curled . Individual sharks tend to remain within a local area and have favored resting spots . While resting , it opportunistically ambushes nearby fishes and invertebrates , and also lures in prey by waving its tail to mimic the appearance of a small fish . At night , it emerges and actively forages for food . This species is aplacental viviparous , though little is known of its life history . The tasselled wobbegong has been reported to bite humans unprovoked ; attacks may result from people accidentally disturbing the shark or being misperceived as prey . The International Union for Conservation of Nature (IUCN) has listed this species as Near Threatened , as outside of Australia it is threatened by fisheries and habitat degradation .

= = Taxonomy and phylogeny = =

Dutch ichthyologist Pieter Bleeker originally described the tasselled wobbegong in an 1867 volume of Archives Néerlandaises des Sciences Exactes et Naturelles . His account was based on two Indonesian specimens , one caught off Waigeo and the other off Aru . He gave it the name dasypogon , from the Greek dasys (" hairy ") and pogon (" beard ") , and assigned it to the genus Crossorhinus (a synonym of Orectolobus) . In 1908 , Charles Tate Regan created the new genus Eucrossorhinus for this species , derived from the Greek eu (" good ") , krossoi (" tassel ") and rhinos (" nose ") . Regan subsequently reconsidered the main trait he used to separate Eucrossorhinus (the spacing of the fourth and fifth gill slits) and synonymized it with Orectolobus . Later authors have placed the tasselled wobbegong either in its own genus or in Orectolobus . Other common names for this species are bearded wobbegong and Ogilby 's wobbegong .

Morphological studies have been inconclusive about the evolutionary relationships of the tasselled wobbegong , but overall have gauged it to be among the more derived wobbegong (Orectolobidae) species . A 2009 phylogenetic analysis based on mitochondrial and nuclear DNA found otherwise , that this species was in fact basal to all other wobbegongs except the northern wobbegong (*O. wardi*) . This result supports the synonymization of Eucrossorhinus with Orectolobus . Molecular clock estimation placed the speciation of the tasselled wobbegong at 11 ? 6 Ma , coinciding with a period of significant geological rearrangement and the formation of coral reef habitats in the region .

= = Description = =

The tasselled wobbegong is a very broad , moderately flattened shark . The head is wider than long , with a distinctive fringe of branching dermal lobes running almost continuously from the snout tip to the origins of the pectoral fins , including a " beard " on the chin . The nostrils bear long , branching barbels , and have grooves surrounding them and connecting them to the mouth . There are tubercles above the eyes but not elsewhere , and behind the eyes are larger spiracles . The large mouth is positioned ahead of the eyes , almost at the end of the head . There are furrows on the lower jaw extending from the mouth corners and along the jaw median . There are 23 ? 26 upper and 19 lower tooth rows ; each tooth has a single slender , pointed cusp . The three upper and two lower rows of symphyseal (central) teeth are especially long and fang @-@ like . The five pairs of gill slits are short .

The pectoral and pelvic fins are large and rounded . The dorsal fins are short @-@ based and fairly tall ; the first is slightly larger than the second and originates over the latter quarter of the pelvic fin

bases . Behind the pelvic fins , the body rapidly tapers to the short caudal peduncle . The anal fin originates behind the midpoint of the second dorsal fin and is no more than half its size . The caudal fin is short , with no lower lobe and an upper lobe bearing a strong ventral notch near the tip . This species has a mosaic @-@ like dorsal color pattern consisting of numerous small , dark blotches and lines on a gray- or yellow @-@ brown background ; there may also be darker bands . The pattern extends to the underside of the tail and the ventral pectoral and pelvic fin margins . The ventral surface is otherwise white . The tasselled wobbegong is reliably known to reach a length of 1 @.@ 8 m (5 @.@ 9 ft) . Most authors consider an older record of a 3 @.@ 7 m (12 ft) long individual to be erroneous .

= = Distribution and habitat = =

The range of the tasselled wobbegong encompasses the continental shelf of northern Australia from Ningaloo Reef in the west to Bundaberg in the east , as well as New Guinea , Waigeo , and the Aru Islands . Additional records from Malaysia are unconfirmed . This common bottom @-@ dweller inhabits coral reefs , perhaps exclusively , in both inshore and offshore waters from the intertidal zone to around 50 m (160 ft) deep . It is most often encountered in reef channels and faces , or atop coral heads .

= = Biology and ecology = =

Considered the most specialized member of its family , the tasselled wobbegong 's ornate coloration and complex dermal fringe grants it excellent camouflage , while it is probably a slower swimmer than related species . It is solitary and spends most of the day lying motionless inside caves or under ledges with its tail curled up . Individual sharks have a small home range , containing several preferred resting spots that are used repeatedly . This species becomes more active at night , swimming onto the reef to hunt .

The tasselled wobbegong feeds on bony and cartilaginous fishes , crustaceans , and cephalopods . Its capacious mouth allows sizeable prey to be swallowed , with one documented case of a 1 @.@ 3 m (4 @.@ 3 ft) long individual consuming a 1 @.@ 0 m (3 @.@ 3 ft) long brownbanded bamboo shark (*Chiloscyllium punctatum*) . During daytime , this species is an opportunistic ambush predator . It preys upon schooling nocturnal fishes such as squirrelfishes , soldierfishes , and sweepers that often shelter in the same cave . Tiny fishes and crustaceans have been seen settling atop the resting wobbegong 's head , attracting larger fishes that are in turn attacked by the wobbegong . Observations in captivity have further revealed that this species seems to engage in active luring behavior . When it perceives food nearby , it begins to slowly wave its tail back and forth ; its caudal fin resembles a small fish , complete with a dark eyespot at the base . The shark typically rests with its head elevated , which places it within striking distance of any prey drawn by its tail .

The tapeworm *Parachristianella monomegacantha* is a known parasite of the tasselled wobbegong . This species has been observed being attended by cleaner shrimp (*Leander urocaridella* , *Stenopus hispidus*) and bluestreak cleaner wrasse (*Labroides dimidiatus*) . Reproduction is presumably aplacental viviparous like other wobbegongs , with the developing embryos sustained by yolk . There is a report of mating being observed inside a cave at night . Newborns measure approximately 20 cm (7 @.@ 9 in) long . Size at sexual maturity is uncertain ; one recorded male was found to be adult at 1 @.@ 2 m (3 @.@ 9 ft) long .

= = Human interactions = =

With several records of apparently unprovoked attacks on people , the tasselled wobbegong has a reputation beyond other wobbegongs for aggressive behavior . Gilbert Whitley even wrote in 1940 that it " attacks and generally kills the natives " of Papua New Guinea . Though Whitley 's claim is questionable , this species is certainly capable of inflicting severe wounds . Conversely , the

tasselled wobbegong is also an ecotourism attraction and many divers have approached it without incident . Given this shark 's cryptic appearance and poor vision , humans should exercise caution to avoid accidentally harassing it or causing it to mistake a hand or foot for prey . This species adapts well to captivity and is occasionally found in the home aquarium trade .

The tasselled wobbegong has little economic value , though its attractive skin is occasionally used for leather . In Australian waters , it is not fished and faces minimal threats . However , elsewhere in its range it may be negatively affected by extensive fishery activity and habitat degradation from pollution , blast fishing , and coral removal . Because of these concerns , the International Union for Conservation of Nature (IUCN) has assessed this species as Near Threatened .