= Tasmanian numbfish =

The Tasmanian numbfish (Narcine tasmaniensis) is a species of electric ray in the family Narcinidae . Endemic to southeastern Australia , this common ray inhabits shallow continental shelf waters in the southern portion of its range and deeper continental slope waters in the northern portion of its range . It prefers sand and mud habitats . This species can be identified by its spade @-@ shaped pectoral fin disc with concave anterior margins , long tail with well @-@ developed skin folds along either side , and plain dark brown dorsal colouration . Its maximum known length is 47 cm (19 in) .

Bottom @-@ dwelling and sedentary , the Tasmanian numbfish feeds mainly on polychaete worms and crustaceans . As in all numbfishes , it can produce a moderate electric shock to defend itself against predators . This species gives live birth , with the unborn young sustained to term by yolk ; the litter size ranges from one to eight . The Tasmanian numbfish is a common bycatch of trawl fisheries . However , its population does not appear to be threatened by human activity and it has been assessed as Least Concern by the International Union for Conservation of Nature (IUCN) .

= = Taxonomy and phylogeny = =

Scottish naturalist John Richardson described the Tasmanian numbfish in an 1841 contribution to Proceedings of the Zoological Society of London . Classifying the new species in the genus Narcine , he gave it the specific epithet tasmaniensis as the holotype , a female 36 cm (14 in) long , was collected from Port Arthur , Tasmania . Richardson noted that the ray was known locally as " ground shark " . Other common names for this species include electric ray , electric torpedo , little numbfish , and numbfish . In a 2012 phylogenetic study based on mitochondrial DNA , Narcine was found to be polyphyletic , with the Tasmanian numbfish belonging to a different lineage than the giant electric ray (N. entemedor) .

= = Description = =

Reaching a length of at least 47 cm (19 in) , the Tasmanian numbfish has a trowel @-@ shaped pectoral fin disc with a short , blunt snout and concave leading margins . The medium @-@ sized eyes are followed by smaller , nearly circular spiracles with smooth rims . A pair of large electric organs are located on either side of the head . There is a curtain of skin between the nostrils with a three @-@ lobed posterior margin . The narrow , highly protrusible mouth is encircled by a deep groove . The teeth are small and diamond @-@ shaped with pointed tips ; they are arranged with a quincunx pattern into bands , which remain exposed when the mouth is closed . There are five pairs of gill slits beneath the disc .

The triangular pelvic fins are much longer than wide ; adult males have claspers that extend past the pelvic fin rear tips . The broad and flattened tail is about a quarter longer than the disc and bears prominent skin folds along both sides . There are two dorsal fins of roughly equal size and shape , with the first originating over the rear tips of the pelvic fins . The tail terminates in a low caudal fin ; the upper caudal fin lobe is somewhat angular , especially in adult males , while the lower lobe is rounded . The skin often bears creases and is devoid of dermal denticles . The Tasmanian numbfish is plain dark brown above , becoming lighter on the fins . The underside is white , sometimes with a few dark blotches . Many juveniles also exhibit a darker midline stripe along the back , along with darker blotches over the disc and at the dorsal fin bases .

= = Distribution and habitat = =

The Tasmanian numbfish is common off southeastern Australia ; its range extends from Coffs Harbour in New South Wales to the Esperance Plains in Western Australia , and encompasses all of Tasmania . Around Tasmania , it can be found from inshore waters to a depth of 100 m (330 ft) on the continental shelf . In more northerly waters , it inhabits the upper continental slope at depths of

200 ? 640 m (660 ? 2 @,@ 100 ft) . This bottom @-@ dwelling species favours a sandy or muddy substrate and is sometimes encountered in the vicinity of rocky reefs . Mature rays of both sexes appear to live apart from juveniles .

= = Biology and ecology = =

The Tasmanian numbfish is a fairly inactive species that spends long periods of time buried motionless in sediment . It feeds primarily on polychaete worms (particularly those of the family Maldanidae) and crustaceans (including amphipods , decapods , and tanaids) . Nematodes and sipunculids may also be consumed on rare occasions . Juvenile rays consume polychaetes and crustaceans in roughly equal proportions , while adults consume mostly polychaetes . This dietary shift may reflect increasing experience with age , as polychaetes are burrowing animals and thus more difficult to locate and capture than crustaceans . Like other members of its family , the Tasmanian numbfish can defend itself with a modest electric shock . Its predators include the broadnose sevengill shark (Notorynchus cepedianus) . The tapeworm Anthobothrium hickmani is a parasite of this species .

Reproduction in the Tasmanian numbfish is viviparous , with the developing embryos nourished to term via their yolk sacs . Females bear litters of one to eight pups (average eight) ; newborns measure 9 ? 12 cm (3 @.@ 5 ? 4 @.@ 7 in) long . Males and females attain reproductive maturity at lengths of 21 ? 26 cm (8 @.@ 3 ? 10 @.@ 2 in) and 20 ? 26 cm (7 @.@ 9 ? 10 @.@ 2 in) respectively .

= = Human interactions = =

The Tasmanian numbfish is frequently caught incidentally by trawlers of Australia 's South East Trawl Fishery , which operate throughout its range . It is discarded after capture with an unknown , but probably high , rate of survival . Since this species does not appear to be threatened by human activity , the International Union for Conservation of Nature (IUCN) has listed it under Least Concern .