= Onefin electric ray =

The onefin electric ray or Cape numbfish (Narke capensis) is a common but little @-@ known species of electric ray in the family Narkidae , native to South Africa and Namibia . It is a benthic fish found in shallow coastal bays over sandy or muddy bottoms . This small species reaches 38 cm (15 in) in length , and has a nearly circular pectoral fin disc and a short , muscular tail that supports a large caudal fin . It can be identified by its single dorsal fin , which is located over the large pelvic fins . Its dorsal coloration is yellowish to dusky brown .

Like other members of its family , the onefin electric ray can defend itself with a strong electric shock produced from a pair of kidney @-@ shaped electric organs beside its head . It feeds mainly on polychaete worms , and likely gives birth to live young . The International Union for Conservation of Nature (IUCN) presently lacks enough information to assess the conservation status of this species . It is often caught incidentally by bottom trawl fisheries off South Africa , and may also be impacted by pollution from coastal development .

= = Taxonomy = =

The onefin electric ray was described by German naturalist Johann Friedrich Gmelin in 1789 , in the 13th edition of Systema Naturae . Gmelin 's name for the species was printed as Raja capensis in some copies of the book , and as Raja rapensis in others . The original spelling was probably rapensis , which modern taxonomists regard as a typesetting error as the etymology of capensis (" of the Cape [of Good Hope] ") is far more reasonable . Later sources have consistently used capensis , though to officially fix the specific epithet under that spelling would require a decision by the International Commission on Zoological Nomenclature (ICZN) . Gmelin did not refer to any type specimens . In 1826 , German naturalist Johann Jakob Kaup created the new genus Narke for this species , separating it from the other electric rays known at the time on the basis of its curved back and single dorsal fin . Later , more species were assigned to Narke .

= = Description = =

The pectoral fin disc of the onefin electric ray is wider than long and almost circular in shape . The two large , kidney @-@ shaped electric organs are visible beneath the skin on either side of the head . The eyes are small and protruding ; the larger spiracles lie closely behind and have three small finger @-@ like projections on their rims . The nostrils are placed rather close together , and between them is a long skirt @-@ like flap of skin that reaches the mouth . The small and protrusible mouth is nearly straight and surrounded by prominent furrows . The teeth are tiny and pointed . There are five pairs of small gill slits on the underside of the disc .

The large and broad pelvic fins have convex margins and originate beneath the pectoral fins . Adult males have stubby claspers . There is a single rounded dorsal fin positioned over the pelvic fins . The short and thick tail has a skin fold running along either side and terminates in a large triangular caudal fin with rounded corners , which is almost symmetrical above and below . The soft skin is completely devoid of dermal denticles . This species varies from yellowish brown to dusky brown above ; parts of the tail 's upper surface are yellowish . The underside is white to yellow with brown fin margins . It grows up to 38 cm (15 in) long and 26 cm (10 in) across , though individuals of this size are rare .

= = Distribution and habitat = =

The onefin electric ray is common off the Eastern and Western Cape Provinces of South Africa . Its range extends to central Namibia , with a single specimen recorded from Meob Bay and a second unconfirmed sighting from Walvis Bay . A historical record of this species from Madagascar may be a misidentification . Bottom @-@ dwelling in nature , the onefin electric ray mainly inhabits bays with sandy or muddy bottoms . It is most often found in waters shallower than 50 ? 100 m (160 ? 330 ft)

, though it has been recorded from as deep as 183 m (600 ft) .

= = Biology and ecology = =

Relative to its small size , the onefin electric ray can deliver an extremely powerful electric shock to defend itself against predators , which include the broadnose sevengill shark (Notorynchus cepedianus) . It propels itself using its muscular tail rather than its pectoral fins . The diet of this species consists mainly of polychaete worms . The reproductive biology of the onefin electric ray has not been documented ; presumably it is viviparous like other electric rays . Males mature sexually at somewhere between 11 and 17 cm (4 @.@ 3 and 6 @.@ 7 in) long , while females mature at around 16 cm (6 @.@ 3 in) long .

= = Human interactions = =

The shock produced by the onefin electric ray can be painful , but is not substantially dangerous to humans . Though not utilized economically , this ray is frequently caught as bycatch in bottom trawls in South African waters . Because of its inshore habits , it may also be negatively affected by water pollution from coastal development . The International Union for Conservation of Nature (IUCN) has listed this species as Data Deficient due to lack of specific data , while noting that its vulnerability to fishing and habitat degradation may merit concern .