

= Longtail butterfly ray =

The longtail butterfly ray (*Gymnura poecilura*) is a species of butterfly ray , family Gymnuridae , native to the Indo @-@ Pacific from the Red Sea to southern Japan and western Indonesia . Growing up to 92 cm (36 in) across , this ray has a lozenge @-@ shaped pectoral fin disc about twice as wide as long , colored brown to gray above with many small , light spots . The spiracles behind its eyes have smooth rims . This species can be identified by its tail , which is about as long as the snout @-@ to @-@ vent distance , lacks fins , and bears nine to twelve each of alternating black and white bands .

Bottom @-@ dwelling in nature , the longtail butterfly ray frequents sandy or muddy habitats in coastal waters shallower than 30 m (98 ft) . Its diet consists of bony fishes , molluscs , and crustaceans . This species gives birth to live young ; the developing embryos are nourished first by yolk and later by histotroph (" uterine milk ") supplied by its mother . There is no defined breeding season , and females bear litters of up to seven pups . Used for its meat , the longtail butterfly ray is often caught by artisanal and commercial fisheries . The International Union for Conservation of Nature (IUCN) has listed this species as Near Threatened , citing the high levels of fishing pressure within its range and its low reproductive rate .

= = Taxonomy and phylogeny = =

The longtail butterfly ray was originally described as *Raja poecilura* by English zoologist George Shaw , in his 1804 *General Zoology or Systematic Natural History* . He did not designate a type specimen as his account was based on an illustration by Scottish naturalist Patrick Russell , published a year earlier in *Descriptions and Figures of Two Hundred Fishes Collected at Vizagapatam on the Coast of Coromandel* . The specific epithet *poecilura* is derived from the Greek *poikilos* (" of many colors ") and *oura* (" tail ") . Later authors moved this species to the genus *Gymnura* .

Further research is needed to determine whether the isolated longtail butterfly rays in French Polynesia are in fact the same species as those from the rest of its range . Phylogenetic studies based on morphology and mitochondrial DNA indicate that the longtail butterfly ray is closely related to the zonetail butterfly ray (*G. zonura*) , which shares much of its range in the Indo @-@ Pacific . Another name for the longtail butterfly ray is variegated butterfly ray .

= = Description = =

The pectoral fin disc of the longtail butterfly ray has the lozenge shape characteristic of its family , measuring around twice as wide as long . The leading margin of the disc is gently sinuous , the trailing margin is convex , and the outer corners are mildly angular . The snout is short and broad , with a tiny protruding tip . The medium @-@ sized eyes have larger , smooth @-@ rimmed spiracles behind . The nostrils are positioned close to the mouth ; between them is a short and broad curtain of skin with a smooth margin . The large mouth forms a transverse curve and contains over 50 tooth rows in each jaw , increasing in number with age ; the teeth are small , narrow , and pointed . There are five pairs of short gill slits on the underside of the disc . The pelvic fins are small and rounded .

The thread @-@ like tail lacks dorsal or caudal fins , though there are low ridges along its length above and below . Its length is about equal to the distance between the snout tip and the vent , distinguishing this species from other butterfly rays that have shorter tails . Sometimes there is a small stinging spine (very rarely two) on the upper surface of the tail near the base . The skin is devoid of dermal denticles . This species is brown to greenish brown to gray above , with many small pale spots and sometimes also a smattering of dark dots . The tail has nine to twelve black bands alternating with white bands , which often have a small , dorsally positioned dark spot within . The underside is white , darkening at the edges of the fins . The longtail butterfly ray attains a maximum width of 92 cm (36 in) .

= = Distribution and habitat = =

The most widespread member of its family in the Indo @-@ Pacific , the longtail butterfly ray is found from the Red Sea and Somalia , westward across India and Sri Lanka , to China and southern Japan , the Philippines , and the western islands of Indonesia (including Borneo , Sumatra , and Java) . It has also been reported from French Polynesia (see taxonomic note above) . It is fairly common in some areas . This bottom @-@ dwelling species inhabits coastal waters at depths of 10 ? 30 m (33 ? 98 ft) , preferring sandy or muddy bottoms . It does not appear to migrate seasonally .

= = Biology and ecology = =

The longtail butterfly ray feeds on bony fishes , in particular ponyfishes of the genus *Leiognathus* , as well as molluscs and crustaceans . It is not known to shoal in large numbers . Known parasites of this ray include the nematode *Hysterothylacium poecilurai* and the tapeworm *Acanthobothrium micracantha* . Like other butterfly rays , this species is viviparous with the young sustained initially by yolk , and later by histotroph (" uterine milk ") produced by the mother . Adult females have two functional ovaries and uteruses . Reproductive activity proceeds throughout the year , with a peak from April to October . The gestation period is unknown , though it is possible that females bear more than one litter per year . The litter size is at least seven pups and is not correlated with female size . The newborns measure 20 ? 26 cm (7 @.@ 9 ? 10 @.@ 2 in) across and look like stingless miniatures of the adult ; siblings may differ from each other in color . Males and females mature sexually at roughly 45 and 41 cm (18 and 16 in) across respectively .

= = Human interactions = =

The longtail butterfly ray is widely caught for meat and as bycatch in artisanal and commercial fisheries , including in India , Thailand , and Indonesia . It is taken using bottom trawls , bottom @-@ set gillnets , and to a lesser degree trammel nets and other fishing gear . Though specific population and catch data are lacking , the longtail butterfly ray is thought to be susceptible to overfishing due to its low reproductive rate and the fact that pregnant females often abort their young when captured . Given the high intensity of fishing pressure across most of its range , the International Union for Conservation of Nature (IUCN) has assessed this species as Near Threatened .