

= Whiskery shark =

The whiskery shark ( *Furgaleus macki* ) is a species of houndshark , belonging to the family Triakidae , and the only member of its genus . This common shark inhabits the Australian continental shelf from Western Australia to the Bass Strait , to a depth of 220 m ( 720 ft ) . It is demersal in habits and prefers rocky and vegetated habitats . Stout @-@ bodied and almost " humpbacked " in form , the whiskery shark can be distinguished from all other members of its family by the presence of long nasal barbels . Its two moderately large dorsal fins are roughly equal in size . It is brownish gray above and lighter below , with a pattern of darker saddles and blotches in younger sharks . This species reaches 1 @. @ 6 m ( 5 @. @ 2 ft ) in length .

The diet of the whiskery shark consists almost entirely of octopuses . It is viviparous ; females bear litters of 4 ? 28 pups every other year from August to October , after a gestation period of 7 ? 9 months . This harmless shark is utilized for its meat , being one of the species marketed as " flake " in Australia . It is mainly caught by a Western Australian commercial gillnet fishery . Its numbers declined significantly from overfishing in the 1970s and early 1980s , leading to the introduction of new management measures in the mid @-@ 1980s . Since then , strict fishery management has kept the whiskery shark population stable or increasing , resulting in its listing under Least Concern by the International Union for Conservation of Nature ( IUCN ) .

= = Taxonomy and phylogeny = =

Australian ichthyologist Gilbert Percy Whitley described the whiskery shark as a new genus and species , *Fur macki* , in a 1943 issue of the scientific journal *Australian Zoologist* . As the name *Fur* was already in use for the genus *Fur* of true flies , in 1951 Whitley replaced it with *Furgaleus* . The type specimen is a 50 cm ( 20 in ) long immature male caught off Mordialloc in Victoria , Australia . Other common names for the whiskery shark include Mack 's whiskery shark , reef shark , shakey shark , and sundowner . Sharks from the western portion of this species ' range were once thought to be a separate species , *F. ventralis* , until comparative studies by Leonard Compagno found that they were not significantly different from *F. macki* .

Based on morphology , Leonard Compagno grouped *Furgaleus* with *Hemitriakis* , *Iago* , and *Gogolia* as the tribe Iagini within the subfamily Galeorhininae of the family Triakidae . A 2006 phylogenetic study by J. Andrés López and colleagues , based on four protein @-@ coding gene sequences , affirmed that *Furgaleus* and *Hemitriakis* are sister taxa ; the study was equivocal regarding the position of *Iago* and did not include *Gogolia* .

= = Description = =

The whiskery shark has a moderately stout build , with an almost " humpbacked " appearance . The short snout is rounded or wedge @-@ shaped when viewed from above . This species is the only houndshark in which the flaps of skin preceding the nostrils are elongated into thin barbels . The horizontally oval eyes are placed high on the head and are equipped with rudimentary nictitating membranes ( protective third eyelids ) . Beneath the eye is a prominent ridge , and behind it is a tiny spiracle . The mouth forms a short , wide arch , and bears somewhat long furrows at the corners . There are 24 ? 32 upper and 36 ? 42 lower tooth rows . Each upper tooth has an angled , knife @-@ like main cusp with smaller cusplets on the trailing side , while each lower tooth has a single upright cusp . There are five pairs of gill slits .

The first dorsal fin is rather large and positioned closer to the pectoral than the pelvic fins , though its origin lies posterior to the pectoral fin rear tips . The second dorsal fin roughly equals the first in size and is positioned slightly ahead of the anal fin , which is much smaller than either dorsal fin . The caudal fin has a short lower lobe and a deep ventral notch near the tip of the upper lobe . Adults are brownish gray above and lighter below ; young sharks are lighter in color and have darker saddles and blotches over the body and fins , which fade and may disappear with age . This species grows up to 1 @. @ 6 m ( 5 @. @ 2 ft ) long and 13 kg ( 29 lb ) in weight .

## = = Distribution and habitat = =

Endemic to Australia , the whiskery shark inhabits temperate continental shelf waters from the North West Cape in Western Australia to Wynyard in Tasmania . It is most common in the southwestern portion of its range between Kalbarri and Albany , and is rare off Victoria and Tasmania . Its range seems to encompass a single population . This species is found close to the bottom at depths of up to 220 m ( 720 ft ) . It favors rocky areas and kelp beds .

## = = Biology and ecology = =

The whiskery shark is an active and highly specialized predator , feeding almost exclusively on octopuses . Other cephalopods , bony fishes , small rock lobsters , spoon worms , and seagrass have also been found amongst its stomach contents . A known parasite of this species is the tapeworm *Calliobothrium pritchardae* .

Like other houndsharks , the whiskery shark is viviparous ; the developing embryos are sustained by yolk and probably also maternally produced histotroph . Males can mate every year , while females have a biennial reproductive cycle . Mating takes place in August and September ; females store sperm until late January to early April of the following year , when the ova are ready to be ovulated into the uterus . After a 7 ? 9 month long gestation period , litters of 4 ? 28 ( average 19 ) pups are born between August and October . The litter size increases with the size of the female . The newborns measure 22 ? 27 cm ( 8 @. @ 7 ? 10 @. @ 6 in ) long .

Juvenile whiskery sharks are rarely caught by commercial fishers , suggesting that nursery areas may be found in deeper water or other unfished habitats . Pups double to triple in size in the first 15 ? 17 months of life , and continue to grow rapidly until they are 3 ? 4 years old . Sexual maturity is attained at a length of 1 @. @ 1 ? 1 @. @ 3 m ( 3 @. @ 6 ? 4 @. @ 3 ft ) for both sexes , corresponding to around five years of age for males and seven years of age for females . Mature sharks exhibit negligible growth rates , perhaps due to resources being diverted towards reproduction . The maximum lifespan is estimated to be 15 years .

## = = Human interactions = =

Harmless to humans , the whiskery shark is fished commercially for its meat , which is sold fresh . It is one of the shark species marketed as " flake " . Along with the dusky shark ( *Carcharhinus obscurus* ) and the gummy shark ( *Mustelus antarcticus* ) , it is targeted by a shark fishery operating off Western Australia , currently managed as the Western Australian Joint Authority Southern Demersal Gillnet and Demersal Longline Fishery ( JASDGLF ) . The fishery began in the 1940s with a small number of demersal longline vessels , though the whiskery shark was not caught in substantial numbers until the 1970s , with the introduction of monofilament gillnets , hydraulic net haulers , and additional vessels . Catches peaked in the early 1980s , when 400 ? 600 tons were taken annually . Overfishing reduced the population to < 30 % of pre @-@ exploitation levels by the mid @-@ 1980s , prompting the Western Australian government to enact a management plan that stabilized the population at 25 ? 30 % of pre @-@ exploitation levels .

In 1995 , the management advisory committee for the Western Australian shark fishery recommended that the whiskery shark stock be rebuilt to 40 % of pre @-@ exploitation levels by the 2010 / 11 season , through a series of fishing effort reductions . Although this target was not met because the effort reductions were not completed until 2000 / 01 , preliminary catch per unit effort ( CPUE ) data indicate that the population is increasing . In 2004 / 05 , this species made up 12 % ( 153 tons ) of the fishery by weight . The whiskery shark is also a minor catch of the Southern Shark Fishery ( SSF ) , which does not threaten the species overall . Since its population is stable and regularly monitored , and the fisheries that affect it are well @-@ managed , the International Union for Conservation of Nature ( IUCN ) has assessed this species as Least Concern .