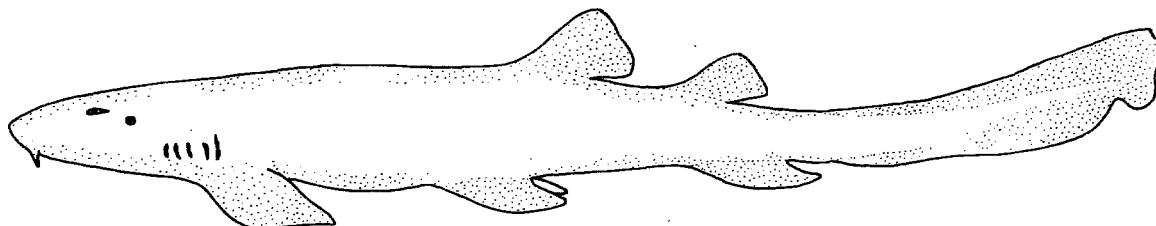


**FAO Names** : En - Bluegray carpetshark; Fr - Requin aveugle gris-bleu; Sp - Tiburón ciego gris.



**Field Marks** : A small stout shark with long barbels, nasoral grooves and perinasal grooves, a short mouth ahead of the eyes, no symphyseal groove on the chin, no dermal lobes on sides of head, large spiracles, two spineless dorsal fins and an anal fin, the first dorsal larger than the second and with origin over the pelvic bases, a short precaudal tail and moderately long caudal fin, and colour grey above, white below.

**Diagnostic Features** : See genus.

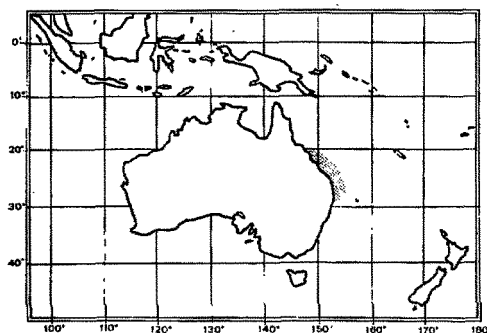
**Geographical Distribution** : Western South Pacific: Australia (southern Queensland).

**Habitat and Biology** : A little-known tropical or subtropical inshore bottom shark of the Queensland continental shelf.

**Size**: Maximum total length about 60 cm.

**Interest to Fisheries** : None at present.

**Literature** : Whitley (1940); Fowler (1941); Grant (1972).



### 7.3 FAMILY ORECTOLOBIDAE Gill, 1896

ORE

Family Orectolobidae Gill, 1896a, Proc.U.S.Natl.Mus., 18(1057):212.

**Synonymy** : Subfamily Crossorhinae Swainson, 1838 (Family Squalidae).

**FAO Names** : En - Wobbegongs; Fr - Requins-tapis; Sp - Tiburones tapiceros.

**Field Marks** : These are distinctive flattened, variegated sharks, differing from all others in having narrow dermal flaps along the side of the head (except angel sharks, Squatinidae, which differ from wobbegongs in lacking anal fins); they also have long barbels, short, nearly terminal mouths in front of the eyes, nasoral grooves and perinasal grooves and flaps, symphyseal grooves, large spiracles; and dorsolateral eyes.

**Diagnostic Features** : Body considerably depressed, without ridges on sides. Head very broad and flattened, with unique lateral flaps of skin, snout truncated; eyes dorsolaterally situated on head, with subocular pockets; spiracles very large, larger than eyes and somewhat below and lateral to them; gill slits small, fifth well separated from fourth or close to it but not overlapping; internal gill slits without filter screens; nostrils with long, pointed or branched barbels and distinct circumnarial folds and grooves around outer edges of incurrent apertures; mouth fairly large, nearly terminal on head, and nearly transverse, with a symphyseal groove on chin; teeth strongly differentiated in jaws, with three rows of fanglike teeth at the upper symphysis and two rows at the lower; teeth with a medial cusp, lateral cusplets variably present or absent, and weak labial root lobes; tooth rows 23 to 26/19. Dorsal fins equal-sized, first dorsal with origin over or slightly behind the pelvic insertions and insertion far behind the pelvic rear tips; pectoral fins moderate-sized or large, broad and rounded, slightly larger than pelvic fins, with fin radials not expanded into fin web; pelvic fins larger than dorsals and anal fin; anal fin somewhat smaller than second dorsal, with its origin about opposite rear third of second dorsal base or insertion; anal fin with broad base and subangular apex, separated by a narrow notch much less than base length from lower caudal origin; caudal fin with its upper lobe hardly elevated above the body axis, less than a fourth as long as the

entire shark, with a strong terminal lobe and subterminal notch but no ventral lobe. Caudal peduncle without lateral keels or precaudal pits. Supraorbital crests present on cranium, not laterally expanded. Valvular intestine of ring type. Colour pattern highly developed, including dark and light spots, dark saddles, rings, and reticulations on back.

**Habitat, Distribution and Biology :** These are common, largish flattened bottom sharks of warm-temperate to tropical continental waters of the western Pacific, occurring from the intertidal down to at least 110 m. They are most diverse in Australian and New Guinean waters, but occur northward to Japan. They are often found on rocky and coral reefs or on sandy bottom, where they lurk and are concealed in part by their cryptic coloration and dermal lobes on their heads. They are reportedly sluggish fishes, moving little, but can clamber around with their paired fins on the bottom and even climb partway out of the water while moving between tidepools. At least two species may attain a size of 3.2 to 3.7 m. These sharks are ovoviviparous, with large litters of 20 or more young. Wobbegongs are powerful bottom predators with heavy jaws and greatly enlarged, dagger-shaped, extremely sharp fanglike teeth in the front of their mouths. They feed on bottom fishes, crabs, lobsters, octopi, and other bottom animals. Wobbegongs can be dangerous when captured, provoked or stepped upon, and have inflicted severe lacerations on the limbs of people. There are even rare records of large wobbegongs attacking people and biting off their feet or killing them. Wobbegongs are often difficult to see against the bottom and can be contacted accidentally. These sharks should be treated with care because of their formidable dentition, even though they do not appear to be particularly aggressive unless provoked.

**Interest to Fisheries :** Wobbegongs are utilized for food in western Australia and off China, Japan, and probably elsewhere where they occur; their colorful skins are sometimes used for leather.

**Remarks :** The arrangement of this family is modified from Ogilby & McCulloch (1908), Regan (1908, 1909), Garman (1913), Whitley (1940) and Fowler (1941).

**Key to Genera**

1a. Chin with dermal lobes. Body with a reticular pattern of narrow dark lines (Fig. 1) ..... **Eucrossorhinus**

1b. Chin without dermal lobes. Colour pattern variable, but without a reticular pattern of narrow dark lines

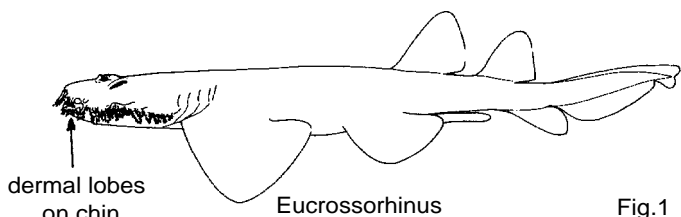


Fig.1

2a. Head and body without tubercles or with small ones or inconspicuous dermal ridges. Dorsal fins higher, height at least three-fourths of base length. Origin of first dorsal behind midbase of pelvics (Fig. 2) ..... **Orectolobus**

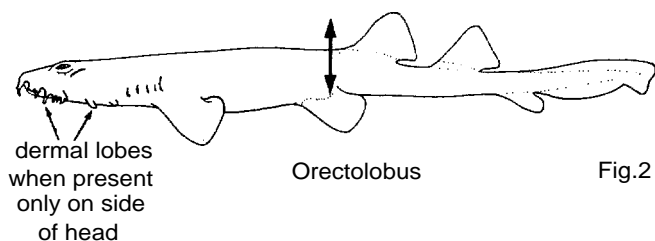


Fig.2

2b. Head and body covered by large rounded tubercles. Dorsal fins long and low, height about half base. Origin of first dorsal anterior to pelvic midbases (Fig. 3) ..... **Sutorectus**

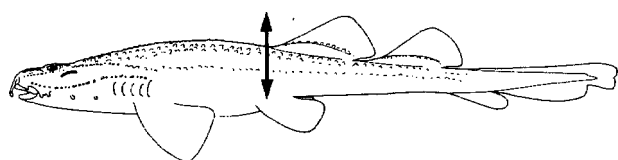


Fig.3

**Eucrossorhinus** Regan, 1908

ORE Eucro

**Genus :** Eucrossorhinus Regan, 1908a, Proc.Zool.Soc.Lond., 1908:357.

**Type Species :** Eucrossorhinus dasypogon Regan, 1908, by monotypy, equals Crossorhinus dasypogon Bleeker, 1867.

**Synonymy :** None.

**Diagnostic Features:** Head and body very broad, without enlarged tubercles on body, except for those above eyes. Trunk width across pectoral insertions about equal to head length; precaudal tail rather short, distance from pelvic insertion to lower caudal origin about equal to head length. Head width slightly greater than

its length from snout tip to fifth gill openings; chin with a bushy beard of highly branched dermal lobes; dermal lobes of sides and front of head highly branched and numerous, forming a virtually continuous fringe from snout tip to pectoral bases; nasal barbels branched, with complex multiple lobes. Dorsal fins high and short, height of first about equal to its base length, length of first dorsal base less than pelvic length from origin to free rear tip; origin of first dorsal fin opposite posterior fourth of pelvic bases; interspace between first and second dorsal fins longer than first dorsal inner margin and slightly more than half first dorsal base; pectoral and pelvic fins very large, distance from pectoral insertions to pelvic origins about equal to pectoral bases and less than pelvic bases from origins to free rear tips. Colour: dorsal surface with a reticular pattern of narrow dark lines on a light background, with scattered symmetrical enlarged dark dots at the junction of lines.

**Remarks :** This genus was originally proposed by Regan, (1908) to separate Crossorhinus dasypogon from other wobbegongs primarily because of its supposedly even-spaced gill slits, but he also mentioned that the genus differed from Orectolobus by having a broader, more depressed head, smaller eyes, and wider spiracles. However, Regan (1909) reversed himself and rejected the genus because his new, similar Orectolobus ogilbyi had the last two gill slits close together.

Ogilby & McCulloch (1908), Fowler (1941), and Stead (1963) did not recognize the genus but Garman (1913), Whitley (1940), Bigelow & Schroeder (1948), Garrick & Schultz (1963), Compagno (1973), and Applegate (1974) all retained Eucrossorhinus as a genus. Examination of material convinces me that this genus is well-distinguished from other wobbegongs (as is indicated in the section on Diagnostic Features).

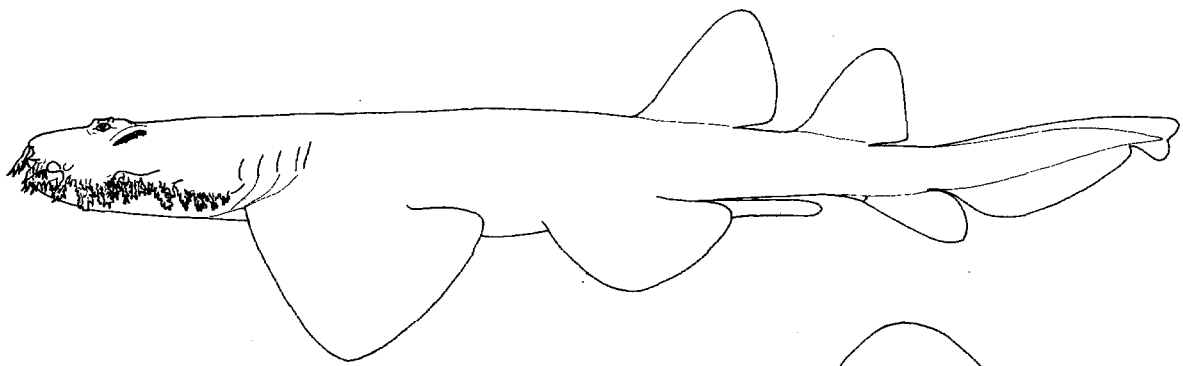
**Eucrossorhinus dasypogon** (Bleeker, 1867)

ORE Euro 1

Crossorhinus dasypogon Bleeker, 1867, Arch.Neerl.Sci.Nat., 2:400, pl. 21, fig. 1. Syntypes: British Museum (Natural History), BMNH 1867.11.28.209, 215 mm immature male, one of two described by Bleeker from Waigiu (Waigeo). Type Locality: Waigiu and Aru, Indonesia.

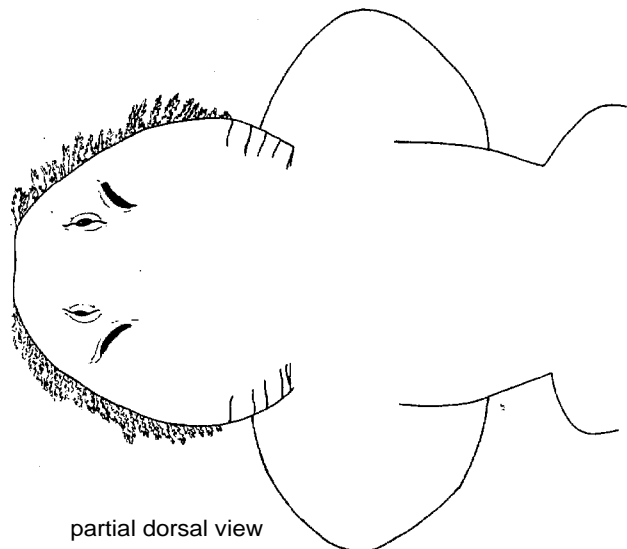
**Synonymy :** Orectolobus ogilbyi Regan, 1909 (see Remarks, below).

**FAO Names :** En - Tasselled wobbegong; Fr - Requin tapis barbu; Sp - Tapicero barbudo.



**Field Marks :** This squat, broad, angler-like shark with profuse, highly branched dermal lobes on its head, a beard of similar lobes on its chin, and reticulated colour pattern of narrow dark lines and dark spots at their junctions on a light background is unmistakable; also, mouth in front of eyes, a symphyseal groove on chin, very broad pectoral and pelvic fins, two spineless dorsal fins and an anal fin, the first dorsal origin opposite the pelvic hindbases, the anal origin well behind the second dorsal origin.

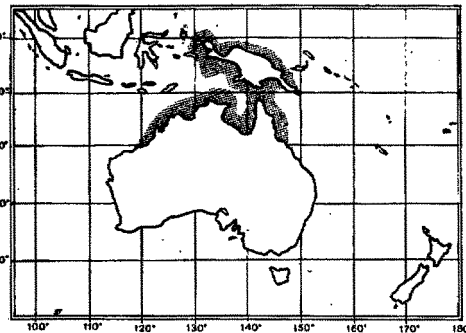
**Diagnostic Features :** See genus.



partial dorsal view

**Geographical Distribution :** Western South Pacific: Indonesia (Waigeo, Aru, Irian, Jaya), Papua New Guinea; ? Malaysia, Australia (northern Queensland, Northern Territory, Western Australia).

**Habitat and Biology :** A little-known inshore tropical bottom shark, present on coral reefs. Said to be a faster swimmer than other wobbegongs (Whitley & Pollard, 1980), but its more flattened shape and bushy beard of dermal flaps suggests the reverse, that it might be more sluggish than other wobbegongs. Probably ovoviviparous and probably feeding on bottom invertebrates and fishes. According to an informant quoted by Whitley (1940), this shark "...attacks and generally kills the natives" in Papua-New Guinea; this shark no doubt should be considered dangerous and to be treated with respect, but the fearsome reputation of this shark may be exaggerated. Divers have approached and photographed the tasselled wobbegong during the daytime, without inciting attacks, though probably stepping on or near this very well-camouflaged shark might cause it to bite at least in self-defense or by mistaking a human foot for its usual prey.



**Size :** Maximum total length said to be 366 cm but this is uncertain. An adult male examined by the writer from New Guinea is 117 cm long; the 22 cm syntype is newborn or close to it.

**Interest to Fisheries :** Uncertain, probably minimal; the tough skin with its handsome reticulated colour pattern is potentially valuable for leather.

**Literature :** Ogilby & McCulloch (1908); Regan (1908, 1909); Whitley (1940); Fowler (1941); Marshall (1965); Whitley & Pollard (1980).

**Remarks :** The separation of the Australian Eucrossorhinus ogilbyi (Regan, 1909) from this species is unsatisfactory. Regan (1909) distinguished the two as follows:

Ogilbyi. Gill slits decreasing in size from first to fourth, last larger; last two closer together than rest. Dermal lobes on sides of head in three separate groups. Origin of first dorsal fin well behind middle of total length. Distance between origins of dorsals nearly half that from origin of second dorsal to end of tail.

Dasypogon. First gill slit slightly smaller than rest, which are of equal size and equidistant. Dermal lobes on head in two separate groups. Origin of first dorsal fin in the middle of total length. Distance between origins of dorsals slightly more than 1/3 that from origin of second dorsal end of tail.

The present writer was able to compare the syntype listed above with a larger specimen of putative E. ogilbyi from northern Queensland (BMNH 1911.4.1.43, 415 mm female), as well as a much larger specimen of E. dasypogon from Papua New Guinea (Australian Museum, Sydney, AMS 14783, 117 cm adult male). This indicated that the characters supposed to separate the two species do not hold.

All three specimens had the last two gill slits more closely spaced than the other three, though the larger ogilbyi and dasypogon had them slightly closer than the small syntype. All three specimens have the first four gill slits about equal length or with the first slightly smaller; the fifth is slightly smaller than the fourth in the small dasypogon, slightly larger in the large dasypogon, and about equal to it in the ogilbyi. In the small dasypogon and the ogilbyi the first dorsal origin is actually slightly ahead of the midlength, and slightly behind in the large dasypogon (an indicator of allometric increase in abdominal length with growth). The small dasypogon has the first dorsal to second dorsal origin 2.7 in the distance from the second dorsal origin to the caudal tip, the ogilbyi 2.6, and the large dasypogon 2.4.

None of the differences listed above suggest anything more than individual and ontogenetic variation in a single species. As the three specimens examined are otherwise strikingly similar in colour pattern and general morphology, and there is nothing in the literature to suggest any significant differences between Australian, Papua New Guinean and Indonesian Eucrossorhinus, I propose to synonymize E. ogilbyi with E. dasypogon.

**Orectolobus** Bonaparte, 1834

ORE Ore

**Genus :** Subgenus Orectolobus Bonaparte, 1834 (Genus Scyllium Cuvier, 1817), Iconog.Fauna Italia, Pesci, 7 fasc., 1834 (no pp. nos.).

**Type Species :** Squalus barbatus Gmelin, 1789, by subsequent restriction of Gill (1896:211); a junior synonym of Squalus maculatus Bonnaterre, 1788.

**Synonymy :** Genus Crossorhinus Müller & Hanle, 1837; Genus Sutorectus Whitley, 1939.

**Diagnostic Features :** Dorsal surface of head, body and precaudal tail, and dorsal fin bases smooth or with small inconspicuous tubercles or low longitudinal ridges, not noticeably warty. Trunk moderately broad, width across pectoral insertions considerably less than head length. Precaudal tail rather long, distance from pelvic insertion to lower caudal origin much greater than head length. Head narrow, its greatest width about equal or less than distance from snout tip to first gill openings; chin smooth, without a beard of dermal lobes; dermal lobes of sides and front of head small, short, unbranched or slightly branched, and forming isolated groups that are broadly separated from one another; nasal barbels simple and unbranched or with a weak basal branch. Interspace between first and second dorsal fins usually longer than first dorsal inner margin (slightly shorter than first dorsal inner margin in one species) and varying from over half to about a fifth of first dorsal base; dorsal fins fairly high and short to moderately long, height of first over 3/4 of its base length, length of first dorsal base less than pelvic length from origin to free rear tip; origin of first dorsal fin, behind midbases of pelvics; pectoral and pelvic fins small and widely spaced from each other, distance from pectoral insertions to pelvic origins at least 1.5 times length of pectoral bases and somewhat greater than pelvic lengths from origins to free rear tips. Colour: dorsal surface with a colour pattern of regular or jagged-edged broad dark saddles separated by light areas with dusky blotches, scattered dark spots or semi-reticulated broad lines, or O-shaped light spots on a dark background; no reticulating narrow lines with spots at their junctions, but broad reticulating lines without spots are present in at least one species.

**Remarks :** The present account of this genus follows Ogilby & McCulloch (1908), Regan (1908), Whitley (1940) in many details, but is regarded as highly provisional due to the limited amount of wobbegong material that could be examined in the time available. Particularly problematical is the status of subspecies in the species Orectolobus ornatus. Also, in western Australian waters there apparently is a distinct, undescribed species of wobbegong, that is very abundant and resembles O. ornatus as well as Sutorectus tentaculatus (B. Hutchins, pers. comm.).

**Key to Species**

- 1a. Nasal barbels not branched. Dermal lobes of head very broad-based, only 2 or 3 in front of eyes. Colour pattern simple, dark rounded saddles with tight outlining widely spaced by dusky areas and with a few dark spots; saddles on head and trunk forming conspicuous eyespots ..... O. wardi
- 1b. Nasal barbels branched. Dermal flaps narrow-based and more numerous, 5 or more in front of eyes. Colour pattern with elaborate variegated spots and saddles
  - 2a. Back dark, with light O-shaped markings obscuring darker saddles. About 8 to 10 dermal flaps below and in front of eyes ..... O. maculatus
  - 2b. Back with dark colour variegated with light blotches and prominent saddle markings. About 5 or 6 dermal flaps below and in front of eyes
    - 3a. Back with light areas between dark saddles marked with broad reticulated dark lines ..... O. japonicus
    - 3b. Back with light areas between dark saddles marked with dark, light centred blotches and spots, not reticulated lines ..... O. ornatus

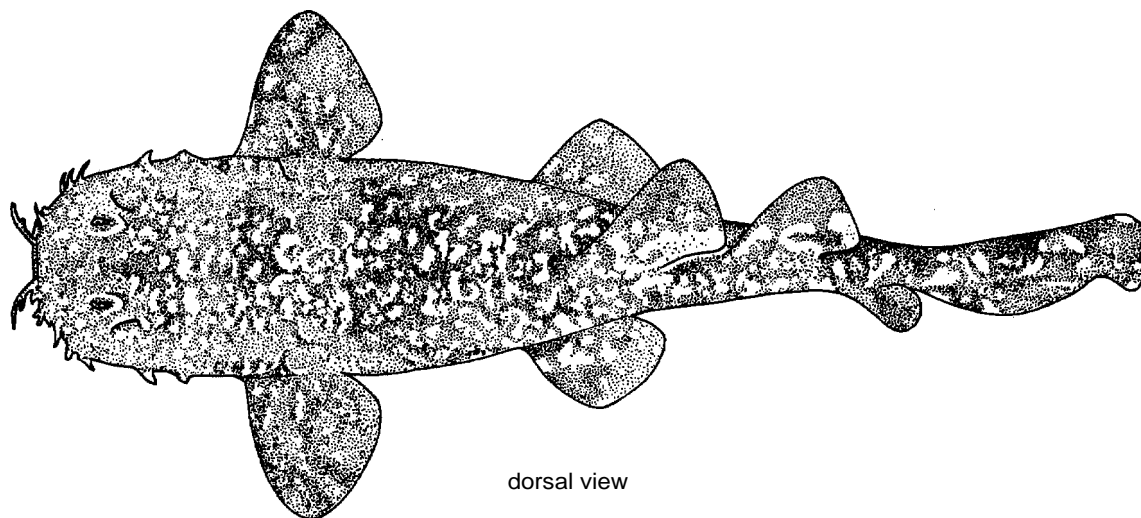
Orectolobus japonicus Regan, 1906

ORE Ore 1

Orectolobus japonicus Regan, 1906b, Ann.Mag.Nat.Hist.(Ser.7), 18:435. Syntypes: British Museum (Natural History), 2 syntypes, 1000 and 780 mm. Type Locality: Japan.

**Synonymy :** None.

FAO Names : En - Japanese wobbegong; Fr - Requin-tapis moustache; Sp - Tapicero japonés.



**Field Marks :** Flattened benthic sharks with dermal lobes on sides of head, symphyseal groove on chin, very conspicuous, variegated colour pattern of broad dark, dorsal saddles with light spots and corrugated edges, interspaced with light areas with dark broad reticular lines; also, mouth in front of eyes, long, basally branched nasal barbels, nasoral grooves and circumnarial grooves, two rows of enlarged fanglike teeth in upper jaw and three in lower jaw, first dorsal origin over pelvic bases.

**Diagnostic Features :** Nasal barbels with a few branches; five dermal lobes below and in front of eye on each side of head; no dermal tubercles or ridges on back. Origin of first dorsal fin behind midbases of pelvic fins; first dorsal height about equal to base length; interspace between dorsal fins longer than inner margin of first dorsal, about half first dorsal base. Colour pattern highly variegated and conspicuous, dorsal surface of body with conspicuous broad, dark rectangular saddles with deeply corrugated margins, dotted with light spots and not ocellate in appearance; interspaces between saddles light, with numerous broad reticulated lines.

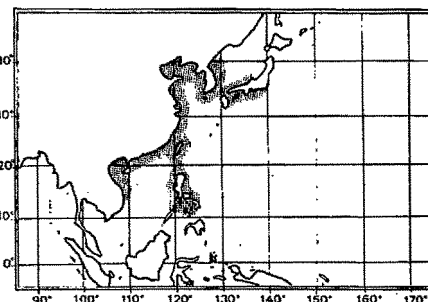
**Geographical Distribution :** Western North Pacific: Japan, the Koreas, China, including Taiwan Island, Viet Nam, Philippines.

**Habitat and Biology :** A little-known temperate to tropical inshore bottom shark, nocturnal in habits. Ovoviviparous, with litters of up to 20 young. Eats fish, and presumably bottom invertebrates.

**Size :** A male was mature at 103 cm total length, maximum uncertain.

**Interest to Fisheries :** Probably limited, caught in setnets in Japan and used for human consumption; also taken in China, the Koreas and Viet Nam.

**Literature :** Ogilby - & McCulloch (1908); Regan (1908); Fowler (1941); Herre (1953); Lindberg & Legeza (1959); Fourmanoir & Nhu-Nhung (1965); Matsubara (1955); Chen (1963); Masuda, Araga & Yoshino (1975).



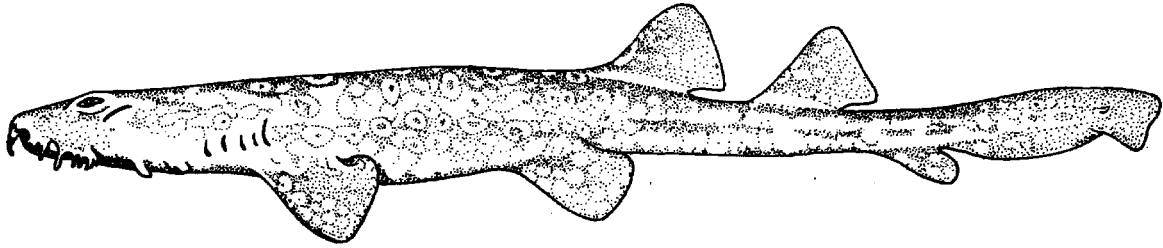
**Orectolobus maculatus** (Bonnaterre, 1788)

ORE Ore 2

**Squalus maculatus** Bonnaterre, 1788, Tabl.encyclp.méthod.trois reg.nat., Ichthyol., Paris, 8. Holotype: Unknown. Type Locality: "La mer du sud".

**Synonymy :** Squalus barbatus Gmelin, 1788; Squalus lobatus Bloch & Schneider, 1801; Squalus appendiculatus Shaw & Nodder, 1806; ? Squalus labiatus Bleeker, 1857 nomen nudum ?).

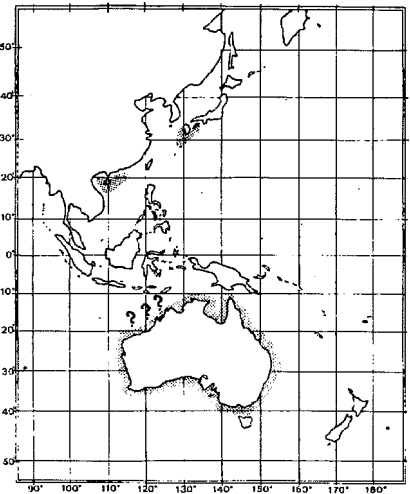
**FAO Names:** En - Spotted wobbegong; Fr - Requin-tapis tacheté; So - Tapicero manchado.



**Field Marks :** Flattened benthic sharks with dermal lobes on sides of head, symphyseal groove on chin, a rather somber, variegated colour pattern of dark back with obscure darker dorsal saddles and densely covered with prominent light 0-shaped spots; also, mouth in front of eyes, long, basally branched nasal barbels, nasoral grooves and circumnarial grooves, two rows of enlarged fanglike teeth in upper jaw. and three in lower jaw, first dorsal origin over pelvic bases.

**Diagnostic Features :** Head with 8 to 10 dermal lobes below and in front of eye on each side; nasal barbels with a few basal branches. No dermal tubercles or ridges on back. Origin of first dorsal fin about over last third of pelvic base; first dorsal height about equal to base length; interspace between dorsal fins longer than inner margin of first dorsal, about half length of dorsal base. Colour pattern variegated but more somber and less contrasting than most other wobbegongs except *O. wardi* dorsal surface of body dark with somewhat obscure, broad, darker rectangular saddles with deeply corrugated margins separated by lighter areas, the entire dorsal surface densely spotted with large, 0-shaped, light markings; saddles not ocellate in appearance; interspaces between saddles without broad reticulated lines.

**Geographical Distribution :** Western Pacific: Japan, South China Sea, Australia (Northern Territory, Western and South Australia, Queensland, New South Wales, Victoria).



**Habitat and Biology :** An abundant, temperate to tropical, inshore, bottom shark of the continental shelves of the western Pacific, occurring in the intertidal down to at least 110 m, commonly on coral and rocky reefs, under piers, and on sand bottom. It may occur in water barely deep enough to cover it, and has been seen climbing over ridges between tidepools, with its back out of water. It apparently is sluggish and inactive and is often found quiescent on the bottom, at least during the day when it is presumably resting. It is well camouflaged by its colour pattern and dermal flaps on rough bottom but is rather conspicuous on sand. This species (and wobbegongs in general) has not been studied to the extent of some nurse sharks (Ginglymostomatidae), but site specificity may be a feature of its behaviour like nurse sharks; anecdotal accounts suggest that individuals may return to the same site repeatedly. It is said to be nocturnal, and may swim and clamber about the bottom at night looking for food like nurse sharks. It is not known how important their camouflage patterns are for feeding in this and other wobbegongs; it is uncertain if wobbegongs take a substantial amount of prey that simply blunders into proximity while they sit on the bottom, or if active prowling and stalking of prey at night is more important or their primary means of obtaining food. Wobbegongs in the Sydney area, presumably this common species, were observed to slowly sneak up to a bait at night from a considerable distance, as if stalking potential prey like a cat.

Ovoviviparous, with large numbers of young per litter; one female had 37. There are anecdotal accounts that male wobbegongs from the Sydney area (and presumably this species, which is abundant there) kept in aquaria fight vigorously among themselves while courting females, and that females are bitten by males in the gill region during courtship and one clasper is inserted; in captivity, these wobbegongs copulated in July. A wild male wobbegong was said to be attracted to a female kept in a wired enclosure open to the sea and tried to enter the enclosure during the breeding season; the implication is that the female gave off an attractive stimulus, presumably a chemical pheromone but possibly something else.

The spotted wobbegong feeds on bottom invertebrates, including crabs, lobsters and octopuses, and bony fishes including sea bass (Serranidae) and luderick (Kyphosidae). Prey items may blunder right up to the mouth of a lurking wobbegong, and even nibble on its tentacles, before being caught and devoured. Presumably the short broad mouth of this and other wobbegongs aids them in sucking in prey. The powerful jaws and big, modified anterior teeth in the symphyseal region of this and other wobbegongs, with one median and two lateral rows fanglike teeth in the lower jaw that interdigitate with two rows of lateral fangs in the upper jaw, form an effective trap to impale and kill their prey.

Much has been made of the danger of this and other wobbegongs to people, often to the exclusion of much else of their life history. This species has been known to bite people that step on it or put their feet near its mouth, and can and will bite when molested or provoked, as when speared or caught by line or nets; these sharks can inflict severe lacerations, and one case was reported of a fisherman losing his foot to a spotted wobbegong that was disturbed by the person as it sat in a rock pool. At least for this species, fatal attacks are virtually unknown. The strong jaws and jaw musculature, and (unlike nurse sharks) large and effective impaling teeth of these wobbegongs, coupled with their tendency to hold on after biting; makes them a minor hazard to unwary explorers of tide-pools, fishermen and divers, but the sharks otherwise appear to be relatively unaggressive and sluggish when unprovoked, as when a diver examines them underwater. However; placing one's limb near the head of a wobbegong may be inviting trouble, as the shark may attack either from misperceiving the limb as a smaller prey item, in response to being cornered by a possibly dangerous antagonist, or even in territorial defence. Several unprovoked attacks and a number of provoked attacks by Australian wobbegongs (probably including this species) on people, and even a few boat attacks, have been reported in the literature, but it is often difficult to determine which species was involved or what the precise circumstances were that led to the attack. Wobbegongs of all sizes, but especially larger individuals, should be regarded as potentially dangerous and should be treated with due respect.

**Size :** Maximum total length about 320 cm, most individuals smaller, up to 150 to 180 cm. Adult males may mature at about 60 cm long. Size at birth about 21 cm.

**Interest to Fisheries :** Limited, sometimes utilized for human consumption and for leather; the meat is apparently excellent eating and the skin of this and other wobbegongs is tough and makes an excellent, decorative leather with its handsome patterning. Spotted wobbegongs are commonly caught in trawls, beach seines, trammel nets, in lobster pots and traps, and with line gear. Some are taken by divers with spears. These sharks are regarded as a pest by lobster fishers, because they are adept at wedging themselves into lobster pots, to eat the catch and bait.

**Literature :** Ogilby & McCulloch (1908); Whitley (1940); Fowler (1941); Matsubara (1955); Chen (1963); Garrick & Schultz (1963); Stead (1963); Marshall (1965); Grant (1972).

**Remarks :** Extra-Australian records for this species require confirmation.

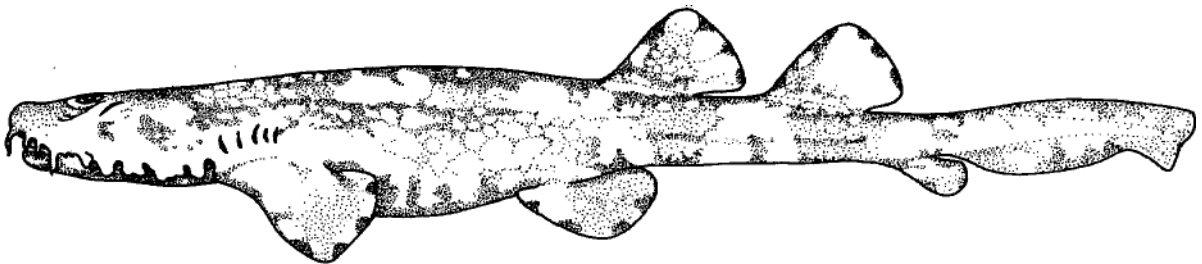
**Orectolobus ornatus** (de Vis, 1883)

ORE Ore 3

Crossorhinus ornatus de Vis, 1883, Proc.Linn.Soc.New S.Wales, 7:289. Holotype: ?. Type Locality: Queensland coast, Australia.

**Synonymy :** Orectolobus devisi Ogilby, 1916; Orectolobus ornatus halei Whitley, 1940.

**FAO Names:** En - Ornate wobbegong; Fr - Requin-traps paste; Sp - Tapicero ornamentado.



**Field Marks :** Flattened benthic sharks with dermal lobes on sides of head, symphyseal groove on chin, a strongly contrasting, variegated colour pattern of conspicuous broad dark, dorsal saddles with light spots and corrugated edges, interspaced with lighter areas and conspicuous dark, light-centred spots; also, mouth in front of eyes, long, basally branched nasal barbels, nasoral grooves and circumnarial grooves, two rows of enlarged fanglike teeth in upper jaw and three in lower jaw, first dorsal origin over pelvic bases.

**Diagnostic Features :** Head with five dermal lobes below and in front of eye on each side; nasal barbels with a few branches; no dermal tubercles or ridges on back. Origin of first dorsal fin about over last third of pelvic base; first dorsal height about equal to base length; interspace, between dorsal fins longer than inner margin of first dorsal, about half first dorsal base. Colour pattern very conspicuous and highly variegated, dorsal surface of body with conspicuous broad, dark rectangular saddles with deeply corrugated margins, dotted with light spots and not ocellate in appearance; interspaces between saddles light, with numerous broad light-centred dark blotches.



**Geographical Distribution :** Western Pacific: Japan, Indonesia (Irian Jaya), Papua New Guinea, Australia (Queensland, New South Wales, Victoria, South and Western Australia).

**Habitat and Biology:** A common inshore bottom shark of continental waters, found on algal-covered rocky areas and coral reefs. A nocturnal shark, that rests on the bottom during the day and prowls on its reef habitat at night. Ovoviviparous. Probably feeds on bottom invertebrates and fishes as does the spotted wobbegong (*Orectolobus maculatus*). Said to attack waders and fishermen in tidepools.

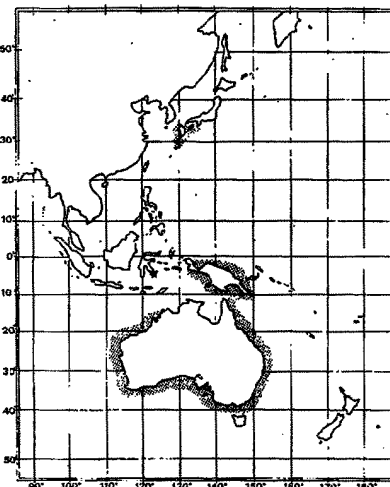
**Size :**Maximum total length about 288 cm; size at birth about 20 cm.

**Interest to Fisheries :** Very limited, skin very tough and attractively patterned, and making a good leather.

**Literature :** Ogilby & McCulloch (1908); Whitley (1940); Stead (1963); Marshall (1965); Grant (1972); Masuda, Araga & Yoshino (1975).

**Remarks :** Whitley (1940) proposed a subspecies, *O. ornatus halei*, for the ornate wobbegongs from South Australia, separable from *O. o. ornatus* of more northeastern waters by differences in its colour pattern and in the dermal flaps of the head. It remains to be seen at what level these apparent differences can be recognized.

Extra-Australian records for this species (Masuda, Araga & Yoshino, 1975, for Japan) require confirmation.



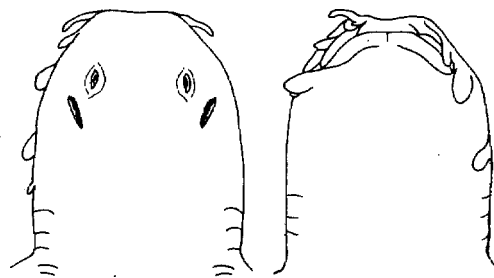
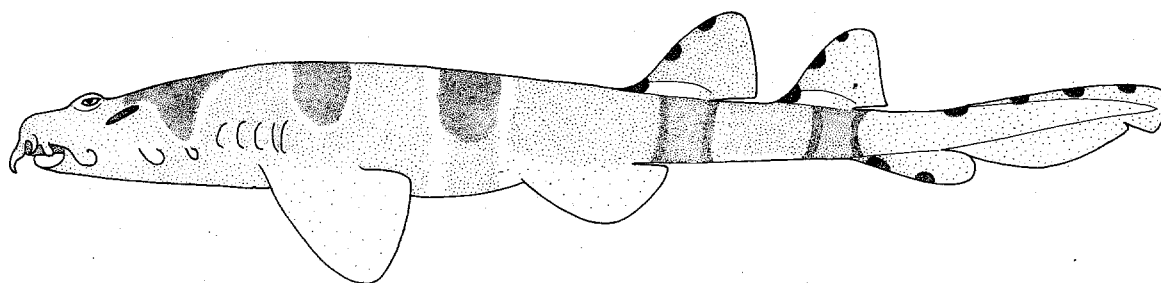
**Orectolobus wardi** Whitley, 1939

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*Orectolobus wardi* Whitley, 1939, *Rec.Australian Mus.*, 20:264. Holotype: Australian Museum, Sydney 1AAMS7784, 375 mm female. Type Locality: Cape Keith, Melville Island, northern Australia.

**Synonymy :** None

**FAO Names :** En - Northern wobbegong; Fr - Requin-tapis savetier; Sp - Tapicero, zapatilla.



dorsal view of head

underside of head

**Field Marks :** Flattened benthic sharks with dermal lobes on sides of head, symphyseal groove on chin, variegated but rather somber colour pattern of rounded, ocellate dark dorsal saddles with entire edging and light margins, interspaced with broad dusky areas without spots or reticular lines; also, mouth in front of eyes, long, basally branched nasal barbels, nasoral grooves and circumnarial grooves, two rows of enlarged fanglike teeth in upper jaw and three in lower jaw.

**Diagnostic Features :** Head with two dermal lobes below and in front of eye on each side; nasal barbels without branches. No dermal tubercles or ridges on back. Origin of first dorsal fin about over last fourth of pelvic base; first dorsal height about equal to base length; interspace between dorsal fins longer than inner margin of first dorsal, about half first dorsal base. Colour pattern variegated but dull and somber compared to

most other wobbegongs, dorsal surface of body with small, rounded, ocellate, light-edged saddle marks with entire margins, separated from each other by broad, dusky spaces without spots or broad reticulated lines.

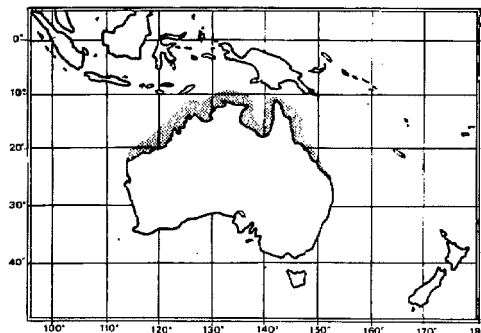
**Geographical Distribution :** Western South Pacific: Australia (Queensland, Northern Territory and Western Australia).

**Habitat and Biology :** A little-known but possibly common tropical inshore bottom shark of the Australian northern continental shelf, commoner in northern Australia than western Australia. Probably ovoviviparous. Presumably feeds on bottom invertebrates and fishes, but diet unrecorded.

**Size :** Maximum total length over 45 cm (immature specimens).

**Interest to Fisheries:** None at present.

**Literature :** Whitley (1939, 1940); Marshall (1965).



**Sutorectus** Whitley, 1939

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**Genus :** *Sutorectus* Whitley, 1939, Aust.Zool., 9(3):228.

**Type Species:** *Crossorhinus tentaculatus* Peters, 1864, by original designation.

**Synonymy :** None.

**Diagnostic Features :** Dorsal surface of head, body and precaudal tail, and dorsal fin bases, with rows of large, conspicuous dermal tubercles, resembling warts. Head rather narrow, its greatest width slightly less than distance from snout tip to first gill openings; chin smooth, without a beard of dermal lobes; dermal lobes of sides and front of head small, short, unbranched, and forming isolated groups that are broadly separated from one another; nasal barbels simple and unbranched. Trunk moderately broad, width across pectoral insertions considerably less than head length; precaudal tail rather long, distance from pelvic insertion to lower caudal origin much greater than head length. Dorsal fins low and long, height of first about half its base length, length of first dorsal base greater than pelvic length from origin to free rear tip; origin of first dorsal fin in front of midbases of pelvics; interspace between first and second dorsal fins much shorter than first dorsal inner margin and less than a fifth of first dorsal base; pectoral and pelvic fins small and widely spaced from each other, distance from pectoral insertions to pelvic origins about twice length of pectoral bases and somewhat greater than pelvic lengths from origins to free rear tips. Colour: dorsal surface with a colour pattern of jagged-edged broad dark saddles and scattered dark spots on a light background, no reticulating narrow lines with spots at their junctions.

**Remarks :** Whitley (1939) proposed the genus *Sutorectus* on the simple nasal barbels, tuberculate back, and narrower interdorsal space of the type and only species. This was recognized by Whitley (1940); Bigelow & Schroeder (1948), and Whitley & Pollard (1980) but considered a synonym of *Orectolobus* by Stead (1963) and Applegate (1974). The writer was inclined to Applegate's classification (e.g. Compagno, 1973c) prior to examining specimens of *Sutorectus tentaculatus*, but found additional characters by which this species may be distinguished from typical *Orectolobus*. The species *tentaculatus* is sufficiently aberrant to require some distinction from *Orectolobus* proper, but the Whitley-Bigelow & Schroeder generic arrangement adopted here may be alternatively downgraded to a subgenus of *Orectolobus*.

There is an undescribed species of *Orectolobus* from western Australia (B. Hutchins, pers.comm.) that the writer has examined, that shows a few characters, like its narrow interdorsal space, slightly lower dorsal fins, and longitudinal rows of small dermal knobs, that suggest that it is intermediate between typical *Orectolobus* and the bizarre *Sutorectus tentaculatus*. Further study of its morphology may indicate that *Sutorectus* should be ranked as a subgenus with the new species included in it, or the new species assigned to either the genus *Orectolobus* or *Sutorectus*.

Additional characters for *Sutorectus* are given in the Diagnostic Features section above. *Sutorectus* as a genus is phenetically closer to *Orectolobus* than the very distinct, highly derived and specialized *Eucrossorhinus*.

**Sutorectus tentaculatus** (Peters, 1864)

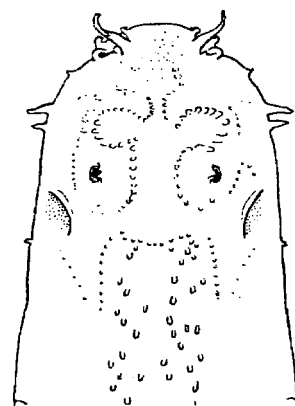
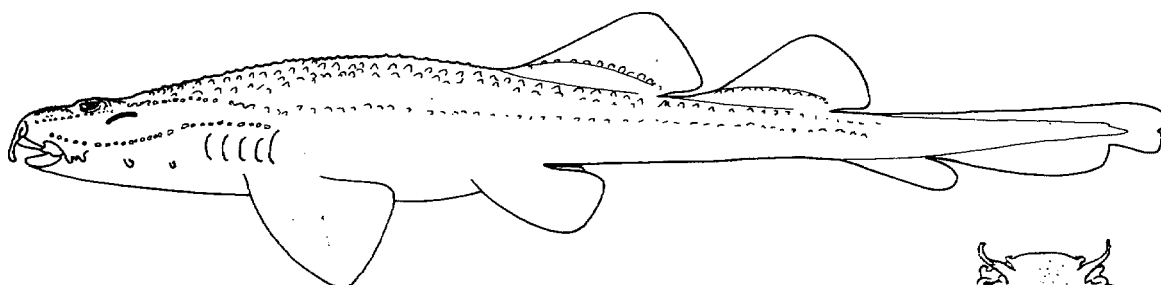
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Crossorhinus tentaculatus Peters, 1864, Monatsb.Akad.Wiss.Berlin, 123. Holotype: 900 mm. Type Locality: Port Adelaide, South Australia.

**Synonymy** : None.

**Other Scientific Names Recently In Use** : Orectolobus tentaculatus (Peters, 1864).

**FAO Names** : En - Cobbler wobbepong; Fr - Requin-tapis cordonnier; Sp - Tapicero zapatudo.



dorsal view of head

**Field Marks** : A rather slender wobbepong, less flattened than most, with a few slender dermal lobes on sides of head, simple, unbranched nasal barbels, symphyseal groove on chin, conspicuous warty tubercles in rows on the dorsal surface of the body and dorsal fin bases, dorsal fins very low and long, with heights half their base lengths, first dorsal origin in front of pelvic midbases, striking variegated colour pattern of broad dark, dorsal saddles with jagged, corrugated edges, interspaced with light areas with irregular dark spots; also, mouth in front of eyes, nasoral grooves and circumnarial grooves present, two rows of enlarged fanglike teeth in upper jaw and three in lower jaw.

**Diagnostic Features** : See genus.

**Geographical Distribution** : Western South Pacific: Confined to Australian waters (Western and South Australia).

**Habitat and Biology** : A little-known but probably common inshore bottom shark of temperate continental waters, on rocky and coral reefs. Biology almost unknown: presumably ovoviviparous and preying on bottom invertebrates and fishes.

**Size** : Maximum total length recorded 92 cm, but said to grow as large as the spotted wobbepong (Orectolobus maculatus) and hence possibly to 2 or 3 m length (Stead, 1963 ; near full-term young, still with sizeable yolk sacs, were 18 cm long.

**Interest to Fisheries** : Probably limited.

**Literature** : Ogilby & McCulloch (1908); Whitley (1940); Stead (1963).

