

## 2.3 Information by Species

*Glaucosoma* Temminck and Schlegel, 1844

GLAUC Glauc

**Genus:** *Glaucosoma* Temminck and Schlegel, 1844:62; 1850:317. Type species *Glaucosoma bürgeri* Richardson, 1845, by subsequent designation (Jordan, 1919:216).

**Synonyms:** *Breviperca* Castelnau, 1875:6 (type species *Breviperca lineata* Castelnau, 1875, by monotypy). *Reganichthys* Ogilby, 1915:123 (type species: *Reganichthys magnificus* Ogilby, 1915, by monotypy). *Brachyglaucosoma* Fowler, 1934:357 (type species *Brachyglaucosoma taeniatus* Fowler, 1934, by original designation).

**Diagnostic Features:** As for family.

**Remarks:** Fowler (1934) erected his new genus *Brachyglaucosoma* on the basis of possessing longitudinal dark bands parallel with the course of the lateral line, a coloration shared by most species of juvenile and adolescent *Glaucosoma*.

*Glaucosoma buergeri* Richardson, 1845

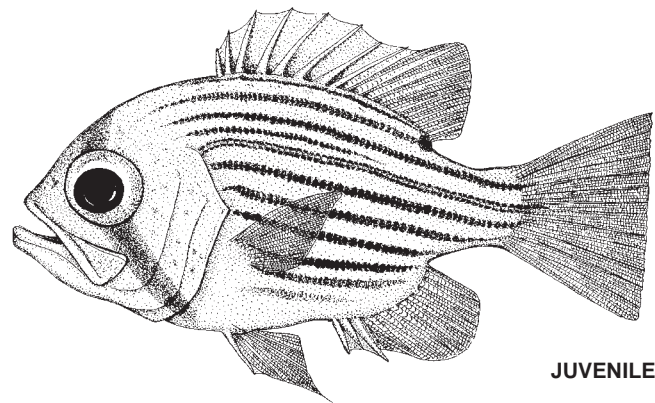
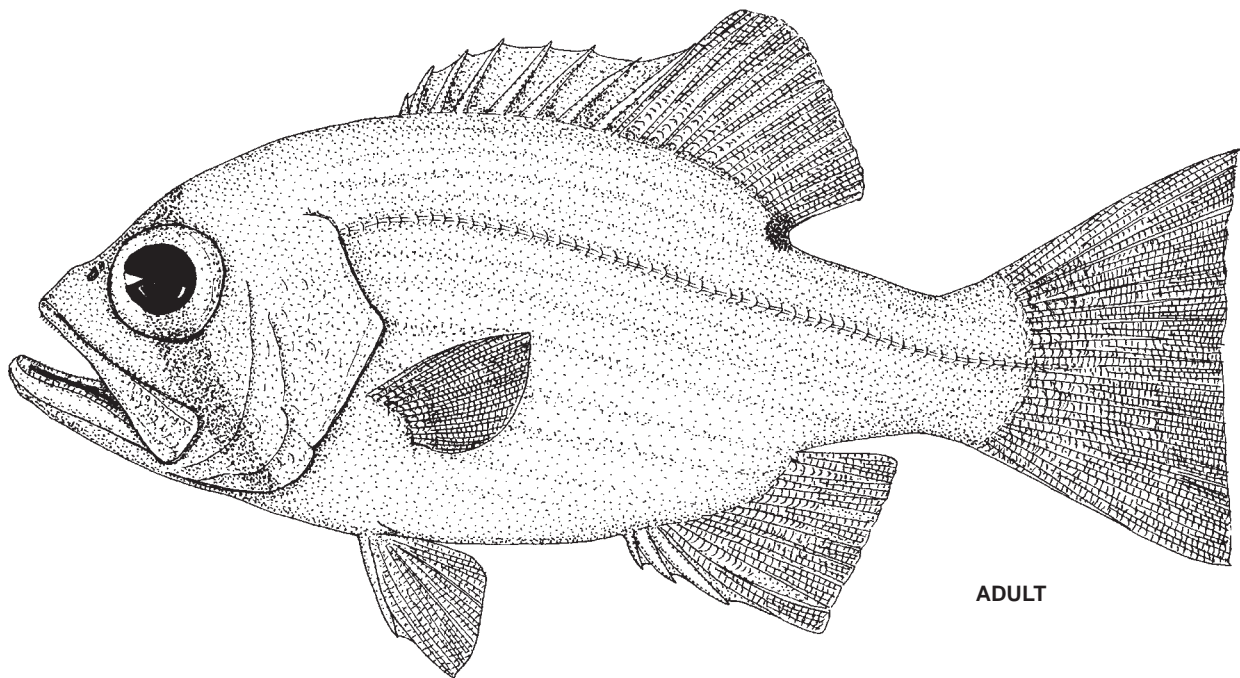
Fig. 11

GLAUC Glauc 1

*Glaucosoma bürgeri* Richardson in Richardson and Gray, 1845, Zool.Voy.Erebus and Terror, Ichth., :27 (on description and drawing *Glaucosoma* sp. Temminck and Schlegel, 1844:62, pl. 27; type locality: south west coast of Japan).

**Synonyms:** *Glaucosoma fauvelii* Sauvage, 1881, Bull.Soc.Philomath.Paris, (7)5:104 (Swatow, China); Fowler, 1931:84 (descr. after Sauvage). *Glaucosoma taeniatus* Fowler, 1934, Proc.Acad.Nat.Sci.Philadelphia, 85:357-358 (east of Masbate Island in 80 fathoms). *Glaucosoma bürgeri*: Bleeker, 1874:150 (China); Jordan and Evermann, 1903:342, fig. 15 (Keerun, Taiwan); Jordan and Richardson, 1910:185, fig. 13 (Takao, Taiwan); Jordan and Thompson, 1911:440, fig. 1 (Keerun, Taiwan). Fowler, 1931:83-84 (part; in synonymy of *G. hebraicum*); *Glaucosoma burgeri*: Sainsbury et al., 1985:138 (col. pl.:139; *G. buergeri* in addendum); Allen and Swaintson, 1988:62, No. 347, pl. 22; *Glaucosoma buergeri*: Gloerfelt-Tarp and Kailola, 1984:141, col. pl.:140; *Glaucosoma hebraicum* non Richardson: Masuda et al., 1984:142, pl. 127-A; Lee et al., 1987:195-200.

**FAO Names:** En - Grey bigmouth bream.



**Diagnostic Features:** Body robust, moderately compressed, its depth 1.9 to 2.3 times in standard length. Head almost entirely scaled, profile with a slight concavity before eye, length 2.1 to 2.9 in standard length; snout short, its length 3.5 to 4.4 in length of head; eye large, its diameter 2.9 to 3.7 in head length; interorbital space convex, its width 3.9 to 4.8 in head length; preorbital width less than eye diameter (1.9 to 2.7 in eye) and 6.6 to 7.8 in head length; mouth large, oblique, reaching to about the posterior margin of the eye; maxillary bone scaled, with a thin supplementary bone above, its width at the end 4.7 to 5.5 in head length and 1.4 to 1.8 in eye diameter; teeth small and canine like in several rows in the upper jaw and in a single series at the side of the lower jaw, no enlarged canines; a narrow V-shaped band of fine teeth on the vomer. Gill rakers 6-9 + 13-15. Dorsal fin with VIII spines increasing in length from a small anterior spine to a long posterior one; soft dorsal rays 11, much higher than spinous part and with the anterior ray often produced into a filament; anal fin with III slender spines and 9 soft rays; pectoral rays 16; caudal fin slightly emarginate with pointed tips. Lateral line almost straight with 49 to 51 (usually 50) tubed scales extending onto base of caudal fin; 12 scale rows between lateral line and origin of dorsal fin. **Colour:** Body silvery grey with about 10 longitudinal thin bands, much less than the diameter of the pupil and less than their interspaces (bands become indistinct or completely disappear with age); a vertical broad dark band from nape, curving through eye to lower opercular angle and continued on subopercle; back at base of last dorsal ray usually with a dark blotch; roof of mouth with black mottling, coalescing lines, or completely black, tongue with black mottling, gill rakers black; peritoneum black (in dead specimens the black peritoneum may be slightly everted through the vent); fins greyish. Juveniles with the narrow dark bars and eye-stripe well defined.

**Fig. 11** *Glaucosoma buergeri*

**Geographical Distribution:** Western Australia from Koks Island, Shark Bay northwards to Cape Talbot (Fig. 12); Japan from Kochi Prefecture, Ryukyu Islands southwards and along the north China coast to Taiwan and Viet Nam.

**Habitat and Biology:** Coastal waters in moderate depths on the continental shelf, generally close to reefs or rough bottom.

**Size:** Maximum total length about 45 cm; common to 35 cm. Maximum weight about 2.5 kg.

**Interest to Fisheries:** Taken by bottom trawls and line. Marketed fresh, a small quantity is salted.

**Local Names:** AUSTRALIA: Deepsea jewfish, North-west jewfish; North-west pearl perch. JAPAN: Aobadai.

**Literature:** Burgess and Axelrod (1974:1255, col. pl. 253); Eggleston in Fischer and Whitehead (1974, Glauco 1); Gloerfelt-Tarp and Kailola (1984:141, col. pl. :140); Sainsbury et al., 1985:138, 139 col. figs.).

**Remarks:** Masuda et al. (1984), Shen (1984) and Chen and Yu (1986) treated *G. buergeri* as a junior synonym of *G. hebraicum*, but retained *G. fauvelii* as a separate species. Lee et al. (1987) compared the thin-lined juvenile of *G. buergeri* (as *G. fauvelii*) with the adult and concluded that it was indeed the juvenile, but regarded the species as *G. hebraicum*.

Although commonly called north-west pearl perch in Western Australia, this fish lacks the pearly suprascapular bone that is obvious in the pearl perch (*G. scapulare*). In the market the two species can be readily distinguished by the presence or absence of this "shoulder bone."

A series from north-western Western Australia was compared with a specimen from Viet Nam.

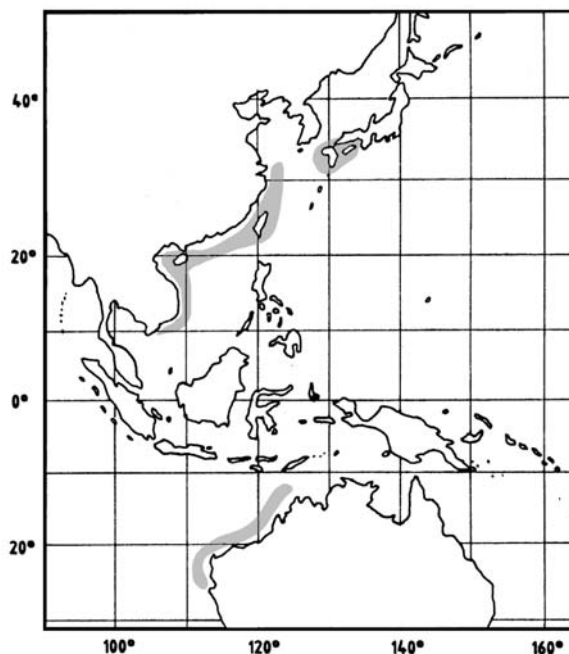


Fig. 12

*Glaucosoma hebraicum* Richardson, 1845

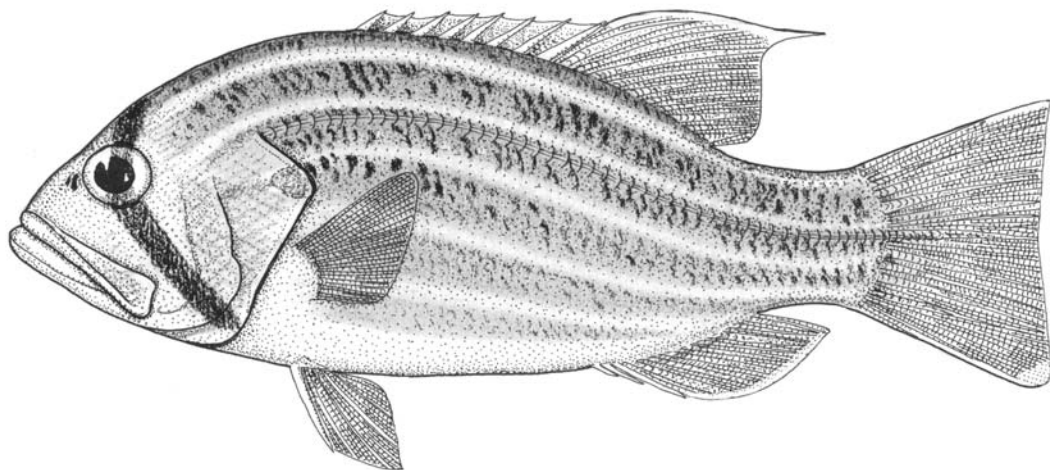
Fig. 13

GLAUC Glauc 2

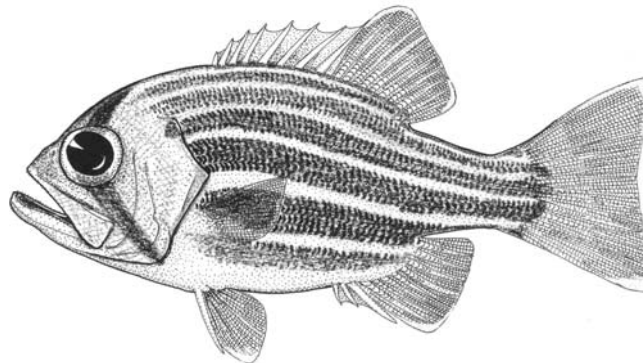
*Glaucosoma hebraicum* Richardson, 1845, *Zool.Voy.Erebus and Terror,Ichth.*:27, pl. 17 (type locality: Houtman Abrolhos, Western Australia).

**Synonyms:** *Glaucosoma bürgeri* (non Richardson): Günther, 1859:211-212 (Houtman's Abrolhos, Jewfish). *Breviperca lineata* Castelnau, 1875:6 (Swan River, Western Australia)[taxonomic decision of McCulloch (1929-30)]. *Glaucosoma hebraicum*: Macleay, 1881:33-34; McCulloch, 1929-30:198; Fowler, 1931:83-84 (part); Coleman, 1980:132 (biology, col. pl. adult); Allen, 1985:2224, col. pl. 154; Hutchins and Swainston, 1986:52, pl. 247, 247 juv.; Grant, 1987:152-153, No. 353, col. pl. 353 (juvenile coloration).

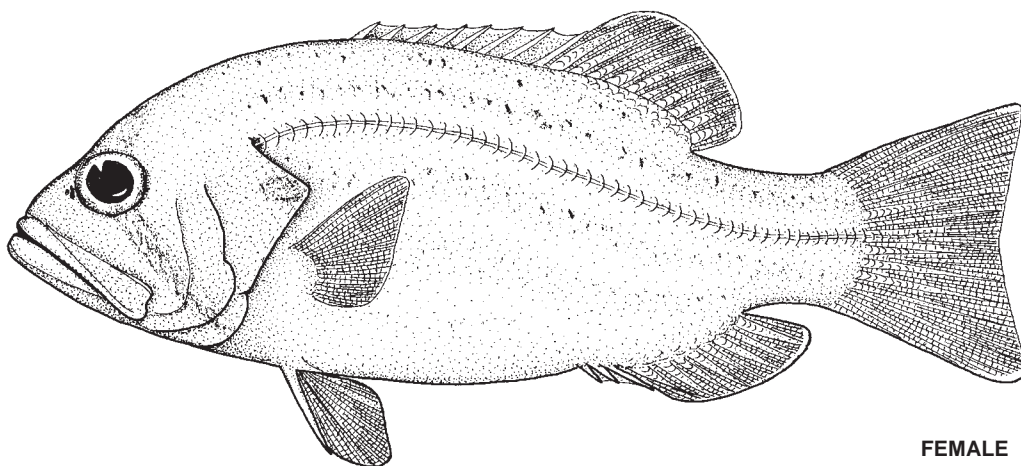
**FAO Names:** En - Western jewfish



MALE



JUVENILE



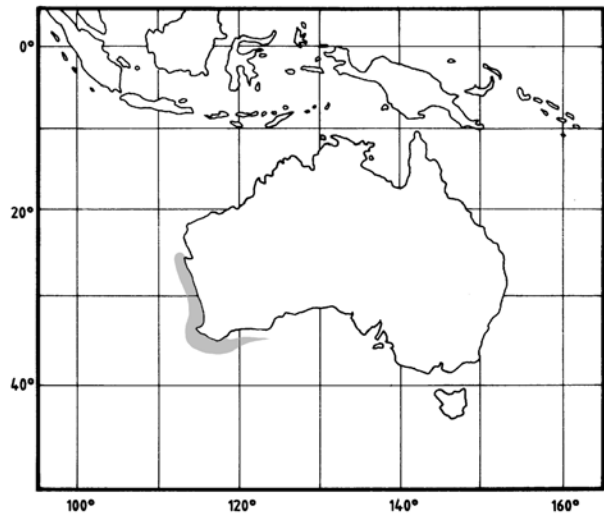
FEMALE

Fig. 13 *Glaucosoma hebraicum*

**Diagnostic Features:** Body robust, moderately compressed, its depth 2.3 to 2.5 times in standard length. Head almost entirely scaled, profile with a slight concavity before eye, length 2.6 in standard length; snout short, its length 3.6 to 3.8 in length of head; eye large, its diameter 3.7 to 4.0 in head length; interorbital space convex, its width 4.0 to 4.6 in head length; preorbital width less than eye diameter (2.0 to 2.5 in eye) and 7.3 to 10.1 in head length; mouth large, oblique, reaching to about the posterior third of the eye; maxillary bone scaled, with a thin supplementary bone above, its width at the end 5.2 to 5.8 in head length and 1.4 in eye diameter; teeth small and canine like in several rows in the upper jaw and in a single series at the side of the lower jaw, no enlarged canines; a narrow V-shaped band of fine teeth on the vomer. Gill rakers 4-6 + 11-13. Dorsal fin with VIII spines increasing in length from a small anterior spine to a long posterior one; soft dorsal rays 11, much higher than spinous part and with the 4<sup>th</sup> ray produced into a filament in mature males; anal fin with III slender spines and 9 soft rays; pectoral rays 16; caudal fin slightly emarginate with pointed tips. Lateral line almost straight with 44 to 48 (usually 45) tubed scales extending onto base of caudal fin; 10 scale rows between lateral line and origin of dorsal fin, 17 to 20 below the lateral line. **Colour:** Body silvery grey with bronze and lilac to lavender reflections, becoming spotted or with scattered small black blotches on upper sides; about 6 longitudinal broad bands along the body, wider than the diameter of the pupil and wider than their interspaces (bands become indistinct or completely disappear with age); a vertical broad dark band from nape, curving through eye to lower opercular angle and continued on subopercle; back at base of last dorsal ray without a dark spot; roof of mouth, tongue and peritoneum without black mottling, gill rakers pale; fins greyish with white margins in juveniles which persist in larger examples when alive. Mature males with the elongate fourth soft ray of the dorsal fin white. Juveniles with the broad dark bars (wider than interspaces) and eye-stripe well defined.

**Geographical Distribution:** Western Australia from Koks Island, Shark Bay southwards to Cape Leeuwin (Fig. 14) and occasionally eastwards to Albany, Recherche Archipelago and Cape Pasley.

**Habitat and Biology:** Coastal waters in moderate depths on the continental shelf, particularly close to deep submerged reefs or rough bottom. Occurring in small schools or more commonly as individuals inshore. In shallow waters to 27 m the Jewfish bites best at night, but in deeper waters to 120 m this fish may be taken at all times of the day. They rarely move away from rocky reef areas and are commonly taken near caves, overhanging ledges and on hard bottom. The fish frequents the bottom and will rarely move up into the water column. Best fishing baits are squid heads, skinned and split octopus tentacle, split parrotfish, small whiting, crayfish, and best of all, fresh hermit crab taken from lobster pots. In the Bunbury area the flesh of the estuarine plotosid catfish *Cnidoglanis* is considered a superior bait. Marr (1980) described this species as a piscivore preying primarily on reef dwelling fishes, particularly wrasses of the family Labridae and palinurid rock lobsters. Robinson (1987) found the diet to consist of fishes, mainly wrasses and reef eels (family Muraenidae), with molluscs (squid, octopus and cuttlefish) and crustaceans (rock lobster, prawns and crabs). The observations of the author at Lancelin Island indicate wrasse, octopus, moray eels and leatherjacket with rock lobster taken opportunistically when undersized lobsters are returned alive on hauling the lobster pots. Smaller jewfish have not been recorded from the gut contents of adults.



**Fig. 14**

Spawning takes place on rocky bottom in 40 to 50 m from late November to February (late March at the Houtman Abrolhos Islands), with a peak between January and February. Jewfish inhabiting deep water move up into the spawning grounds in late November and early December, males usually first, females a month later. The smallest female observed in spawning condition was 58.5 cm and weighed 5.4 kg; the smallest male observed in spawning condition measured 52.0 cm and weighed 2.5 kg, but the onset of sexual maturity probably occurs at smaller sizes (Moy, 1986). During the prespawning period males outnumber females three to one. By January the movement into the shallower spawning grounds of both sexes is well underway. Males are distinguished by the elongate white ray on the soft dorsal fin; the mature female has this part of the fin more rounded. The deepwater fish are easily recognised by their shiny appearance. During late December to early March, sometimes in late April in warmer waters, Jewfish are caught running ripe on the spawning grounds, and females may be more abundant than males. Very few ripe fish are taken in waters of less than 25 m. The fish school during the day and feed at night. Sometimes large catches can be made on "spawning patches" which are usually isolated patches of reef. The female has large roes containing a large number of very small eggs. Fecundity increases with size and up to 4 million eggs were estimated in fish of 81 to 87 cm. The observed range of absolute fecundity ranged from 300 000 to 2.9 million and the potential fecundity was up to 6.8 million (Marr, 1980 in Sudmeyer et al., 1994; Moy, 1986). Following the spawning period fishing is very poor and from late March to early May catches are down. The fish disperse and some large fish are taken close inshore as the fish recommence feeding. The very large fish are frequently males. The large fish generally take the bait first and when they are removed the smaller ones are taken. Small fishing grounds are easily overfished and require 2 to 3 years to recover. Before the appearance of aluminium boats and large outboard motors, professional fishermen jealously guarded the bearings to profitable patches that were fished only once in a season. With modern echosounding equipment and numerous recreational fishing craft the small reef areas in deeper water are now heavily exploited.

It is well known to scuba divers that the fish is territorial for most of the year, choosing a particular part of the reef. In shallow water it is not uncommon for a large fish to take residence in a cave or within a wreck and remain there for some years. Jewfish were once taken in shallow water by observing the individual fish through a glass-bottomed bucket and watching it take the bait before setting the hook. Most of the inshore fish have been taken in recent years.

**Size:** Maximum total length about 122 cm; common to 80 cm. Maximum weight reported to be about 32 kg, but the maximum recorded is 26 kg. The minimum legal length in Western Australia is 50 cm total length.

**Interest to Fisheries:** Taken by handline and to a lesser extent by spear, longlining and gill netting. Small fisheries occur throughout its range, mainly centred near Bunbury, Ledge Point-Lancelin, Abrolhos Islands and Geraldton. This very fine tablefish is eagerly sought by recreational anglers and the recreational catch may exceed the commercial catch (Sudmeyer, et al., 1994) and the stock may be in danger of overfishing. It is marketed fresh in Western Australia and fetches a high price.

The usual handline fishing practice is to locate suitable bottom and stop the boat on the upwind side and drift slowly across with lines on the bottom. Fishermen tie the hook on long nylon leaders well above the sinker so that the bait hangs just above the sinker, but drifts free when fishing. It is important to maintain sinker contact with the bottom at all times as the larger fish are very reluctant to rise up from the bottom to take the bait. The Jewfish is a finicky biter and usually holds the bait in the lips for awhile before macerating it in the pharyngeal teeth or "crunchers". The fisherman gives the fish a slack line as soon as a soft bite is felt in order to allow the fish to take the bait into the throat where a hard strike will set the hook. The most successful line fishers maintain a very gentle tension on the line at all times to feel the bite of a jewfish which is commonly referred to as a "nudge." The expert jewfisher can often feel a "nudge" undetected by the less experienced. However, it is not uncommon for the complete novice to catch fish as the bite is frequently not recognized at all and the fish is allowed to take

the bait completely; deeply hooked fish are regarded as a sign of the novice angler. The fish is hauled to the surface quickly to prevent the fish moving under a ledge or into a cave. The swimbladder expands rapidly on decompression and the fish rarely struggles at the surface. Large fish taken at night are sometimes covered with a phosphorescent mucous that quickly fades.

**Table 1**  
**Catch of Westralian jewfish in metric tonnes and value \$Aust.**

YEAR	TONNES	VALUE \$AUST.
1982-83	188	753 000
1985-86	297	1 800 000
1986-87	206	1 600 000
1987-88	216	1 800 000

Source: Sudmeyer et al. (1994).

**Local Names:** AUSTRALIA: Dhufish, Jewfish, Westralian jewfish, Jewie; JAPAN: Aobadai.

**Literature:** Grant, 1987:153, col. pl. (juvenile coloration); Allen, 1985, col. pl. 154; Hutchins and Swainson, 1986:52, pl. 247 (adult and juvenile coloration).

**Remarks:** Günther (1959:211-212) compared the two syntypes of *G. hebraicum* in the British Museum with the figure of *G. bürgeri* published by Temminck and Schlegel (1843) and, without specimens of *G. buergeri*, was unconvinced of the validity of two species. Günther synonymised *G. hebraicum* and his action was followed by Fowler (1931:83-84) who regarded *G. bürgeri* as the junior synonym. This action was followed by numerous authors. There is no doubt that the two species are valid, but confusion has resulted in identifying the adults and the striped juveniles. The illustration of "*G. fauveli*" by Tomita in Burgess and Axelrod (1974; 1255, col. pl. 252) is clearly not *G. buergeri* and is probably that of *G. hebraicum*. Specimens from Western Australia were examined for the present study.

*Glaucosoma magnificentum* (Ogilby, 1915)

Fig. 15

GLAUC Glauc 3

*Reganichthys magnificentus* Ogilby, 1915, *Mem.Qd.Mus.*, **3**:123, pl. 30 (type locality: Thursday Island, Torres Strait); 1916:182 (from Pempheridae to ?Centropomidae).

**Synonyms:** *Glaucosoma magnificentum*: Ogilby, 1916:182 (to *Glaucosoma*); McCulloch, 1929-30:198; Fowler, 1931:84 (as synonym of *G. scapulare*); Marshall, 1964:149 (key characters); Gloerfelt-Tarp and Kailola, 1984:141, col. pl.:140; Sainsbury et al., 1985:138 (col. pl.:139); Allen and Swainston, 1988:62, No. 348, pl. 22 (Australia and New Guinea).

**FAO Names:** En - Threadfin pearl perch.

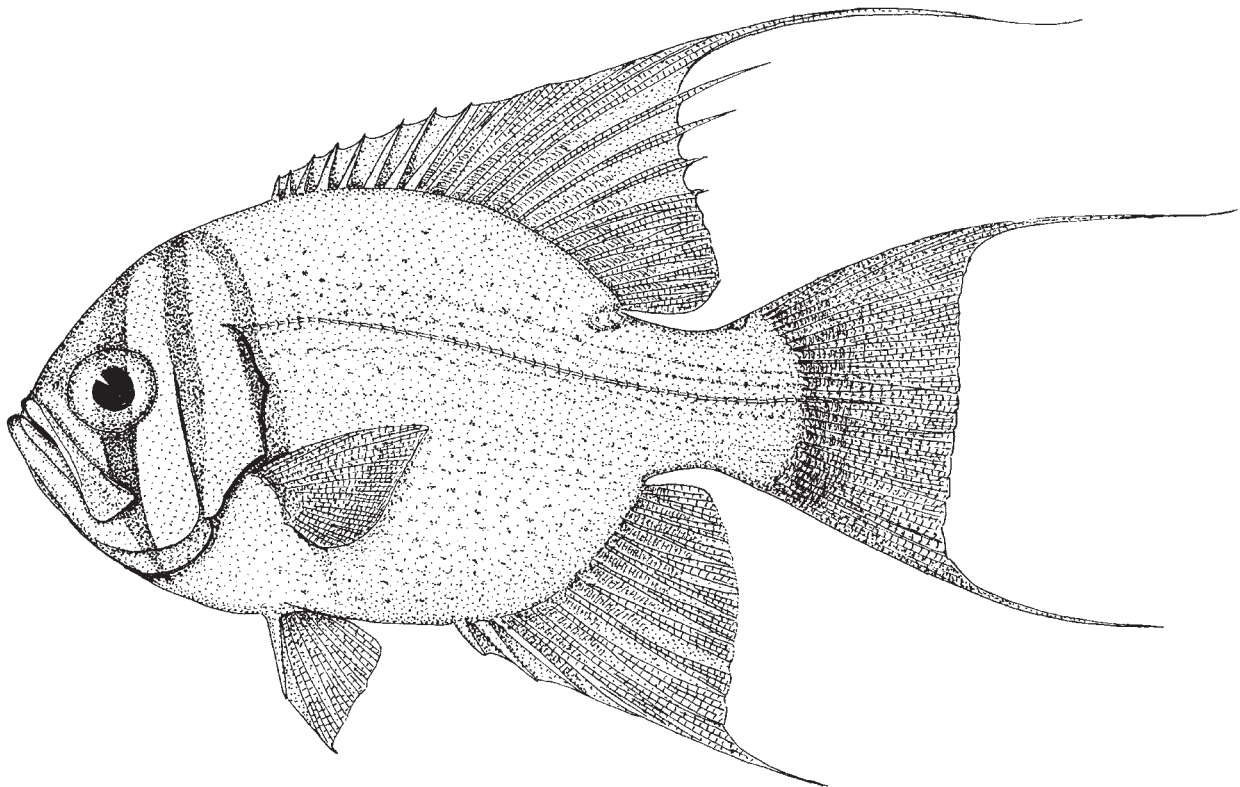


Fig. 15 *Glaucosoma magnificentum*

**Diagnostic Features:** Body robust, moderately compressed, its depth 1.6 to 1.8 in standard length. Head almost entirely scaled, profile evenly rounded, length 2.6 to 2.8 in standard length; snout short, its length 5.0 to 5.7 in length of head; eye large, its diameter 2.3 to 2.6 in head length; interorbital space convex, its width 2.9 to 3.2 in head length; preorbital width less than eye diameter and 7.8 to 9.6 in head length; mouth large, oblique, reaching to about the middle of the eye; maxillary bone scaled, with a thin supplementary bone above, its width at the end 4.9 to 5.4 in head length and 1.9 to 2.3 in eye diameter; teeth small and canine-like in several rows in the upper jaw and in a single series at the side of the lower jaw, a few short broad canines at tip of jaws, those on the bottom jaws directed outward; a narrow V-shaped band of fine teeth on the vomer. Gill rakers 5-10 + 17-19. Dorsal fin with VIII spines increasing in length from a small anterior spine to a long posterior one; soft dorsal rays 14, much higher than spinous part and with the anterior ray produced into a short filament, the 3<sup>rd</sup> ray prolonged into a long simple filament which extends past the caudal fin and the fourth and fifth rays also extended to beyond the hypural joint; anal fin with III slender spines and 12 soft rays, the second ray prolonged beyond the caudal fin and the third ray almost as long in small specimens; pectoral rays 15 to 16, the supraclavicle not noticeably enlarged, covered with silvery membrane; caudal fin slightly emarginate with long filamentous tips. Lateral line almost straight with 46 to 48 tubed scales extending onto base of caudal fin; 14 to 16 scale



rows between lateral line and origin of dorsal fin, 23 to 24 below lateral line; dorsal and anal fins with bases scaly and small interradiating scales extending on proximal half of fins. Swimbladder broad, rounded to slightly lobate anteriorly, broadly grooved dorsally, with 7 or 8 narrow diagonal grooves dorsolaterally and tapering to a fine point posteriorly; the inner trapezoid muscle band shorter than in the other species of *Glaucosoma*. **Colour:** Body silvery grey to reddish brown with middle of scales golden to yellowish; upper surface of head lavender; a broad dark brown band running through the eye to the lower margin of opercle and onto subopercle; a second narrower band from the nape down the posterior edge of the preopercle; a third narrow band from the nape behind the second band and curving on the upper sides of the back down the posterior margin of the opercle to the pectoral fin; in life with a dark or lavender edged bright silvery spot on each side of the last dorsal ray and another on the posterior dorsal surface of the caudal peduncle; roof of mouth with dark bluish to black shading on the posterior part, tongue pale to dusky; gill rakers pale, dusky, or black with pale tips; peritoneum brown; fins greyish, filaments dark.

**Geographical Distribution:** Western Australia from Exmouth Gulf, Northern Territory to Torres Straits (Fig. 16), and around Cape York to Shelburne Bay, Queensland. Almost certainly present in southern Papua-New Guinea.

**Habitat and Biology:** Coastal waters in moderate depths on the continental shelf particularly close to submerged reefs or rough bottom. Schools of threadfin pearl perch can be observed in 8 to 10 m. Feeds on crustaceans; gut contents of a specimen from Torres Strait was a prawn *Metapenaeopsis* sp. Small cuttlefish are also taken.

**Size:** Maximum total length about 32 cm; common to 20 cm.

**Interest to Fisheries:** This small fish is sometimes taken in quantity by bottom trawls. The larger specimens are considered good eating.

**Local Names:** AUSTRALIA: Threadfin pearl-perch.

**Literature:** Burgess and Axelrod (1974:1254, col. pl. 251; Gloerfelt-Tarp and Kailola (1984:141, col. pl.:140); Sainsbury et al. (1985:138, col. pl.:139).

**Remarks:** Numerous specimens from Torres Straits were examined for the present study.

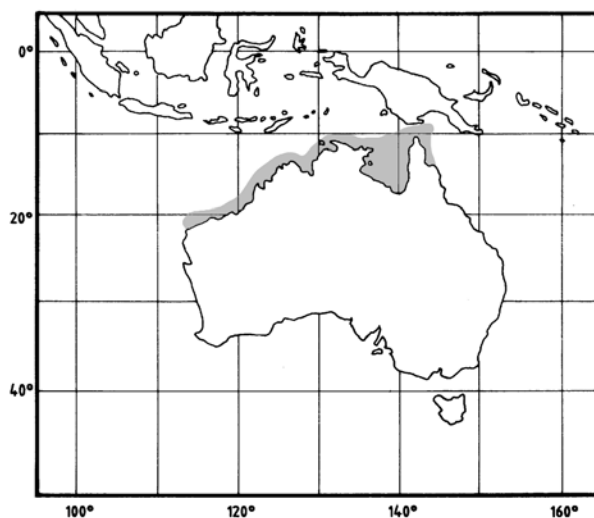


Fig. 16

*Glaucosoma scapulare* Ramsay, 1881

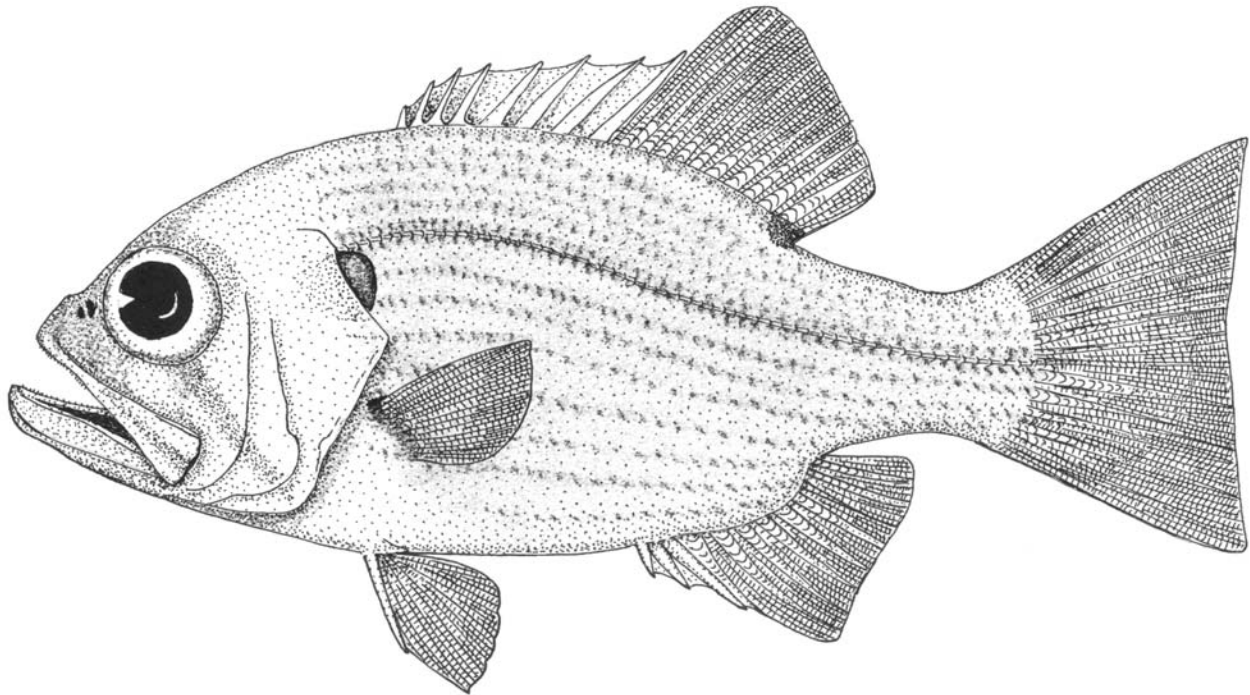
Fig. 17

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*Glaucosoma scapulare* Ramsay in Macleay, 1881, Proc.Linn.Soc.N.S.W., 5:334-335, pl. 13 (type locality: Port Jackson).

**Synonyms:** *Glaucosoma scapulare*: Ogilby, 1893:15-16, pl. 3 (to 2 feet); 1916:182; Roughley, 1916:83; McCulloch, 1919:54, pl. 23, fig. 198 (New South Wales); McCulloch, 1929-30:198; Fowler, 1931:84; Marshall, 1964:149, pl. 33; Coleman, 1980:133 (behaviour, col. pl. adult); Hutchins and Swainston, 1986:52, col. pl. 248 (Yeppoon, Qld., to Seal Rocks, N.S.W.); Grant, 1987:152, No.352, col. pl. 352.

**FAO Names:** En - Pearl perch.



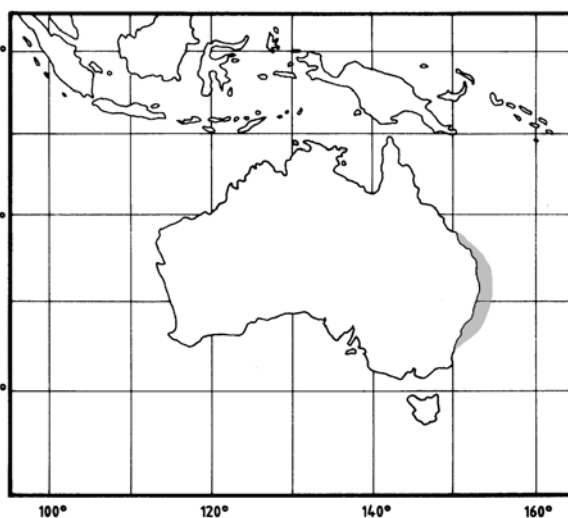
**Fig. 17** *Glaucosoma scapulare*

**Diagnostic Features:** Body robust, moderately compressed, its depth 2.4 times in standard length. Head almost entirely scaled, profile with a slight concavity before eye, length 2.6 in standard length; snout short, its length 4.0 in length of head; eye large, its diameter 3.2 in head length; interorbital space convex, its width 4.0 in head length; preorbital width less than eye diameter, 7.7 in head length and 2.4 in eye diameter; mouth large, oblique, reaching to about the posterior margin of the eye; maxillary bone scaled, with a thin supplementary bone above, its width at the end 5.3 in head length and 1.7 in eye diameter; teeth small and canine like in several rows in the upper jaw and in a single series at the side of the lower jaw, no enlarged canines; a narrow V-shaped band of fine teeth on the vomer. Gill rakers 6 + 15-17. Dorsal fin with VIII spines increasing in length from a small anterior spine to a long posterior one; soft dorsal rays 11, much higher than spinous part; anal fin with III slender spines and 9 soft rays; pectoral-fin rays 16, the supraclavicle (suprascapular) large, dome-shaped and covered with a black membrane when alive, but exposed as a pearly-white smooth bone in the market; caudal fin slightly emarginate with pointed tips. Lateral line almost straight with 49 to 50 tubed scales extending onto base of caudal fin; 10 scales between lateral line and origin of dorsal fin, 20 to 22 below. **Colour:** Body silvery grey, scales with a small indistinct golden-brown spot at base; head and back with lavender reflections; an indistinct curved brown band from nape passing through eye to lower opercular angle and continued on subopercle is present on juveniles only; tip of lower jaw dark; supraclavicle deep iridescent blue-black or steel-grey, becoming pearl-

white when the thin membrane is removed; scales of back and upper sides with a small indistinct golden-brown to dark fawn spot; dorsal surface at base of last dorsal ray usually with a dark blotch; pectoral fin hyaline with a small brown or black spot on inner base (axillary spot); membranes of dorsal and caudal fin pale, the rays white; anal fin hyaline with rays silvery or pale fawn; pelvic fins hyaline, rays milk-white. Roof of mouth posterior to vomer, pharyngeals, gill rakers and hyoid area black; tongue pale, with very fine black striations; inner jaws pale cream; inner and outer branchiostegal membranes white; mandibular frenum and associated membranes white; peritoneum brown to smoky; fins greyish. Juveniles with the narrow dark bars and eye-stripe well defined.

**Geographical Distribution:** Queensland from Rockhampton southwards to Port Jackson, New South Wales (Fig. 18).

**Habitat and Biology:** Coastal waters in moderate depths to 90 m on the continental shelf particularly close to submerged reefs, rock ledges or rough bottom. Reported to move into shallow offshore waters during the day, usually adjacent to rock faces, gutters and terraces of bombooras and islands. It seems to prefer places of high water movement in shallow water, yet seeks the protection of isolated reefs in gutters and channels when observed by divers in deeper waters. The pearl perch tends to stay in one area for up to six months, and although individuals are observed, most are seen in small groups or schools (Coleman, 1980). Catches of up to 20 individuals may be taken in quick succession. This species is stated to be a midwater feeder moving well up from the bottom in a shoal to take a bait during the night until about 10 pm (Grant, 1987). Most fish are taken on the bottom during the day.



**Fig. 18**

The inside of the mouth is black and may be luminescent at night.

**Size:** Maximum total length about 70 cm; common to 35 cm. Two large pearl perch were taken on the 35 fathom reefs east of Moreton Bay, July, 1991 weighing 5.4 kg and 7.3 kg (12 lbs and 16 lbs).

**Interest to Fisheries:** Taken by handline. The pearl perch is highly regarded as a foodfish in Queensland and New South Wales. Incidental catches are taken throughout its range with some large catches off Mooloolaba, southeast Queensland.

**Local Names:** AUSTRALIA: Pearl perch, Epaulette fish, Nannygai (Queensland only).

**Literature:** Grant (1987).

**Remarks:** Ogilby (1916) cited the author of *G. scapulare* as Ramsay in Macleay. All authors since McCulloch (1929-30) have cited Macleay as the author of this species (Paxton et al., 1989). The 1985 edition of the *International Code of Zoological Nomenclature* states in Article 50(a) "If it is clear from the contents of the publication that only one of joint authors, or some other person, is alone responsible for both the name and for satisfying the criteria of availability other than publication, then that person is the author of the name". The original description of *G. scapulare* gives the name as "*Glaucosoma scapulare*, Ramsay, (M.SS.)" and states below "One specimen of this curious fish was brought to Mr. Ramsay of the Australian Museum a few weeks ago. As far as is known it is unique." This clearly defines Ramsay as the author of the species as was the intention of Macleay.