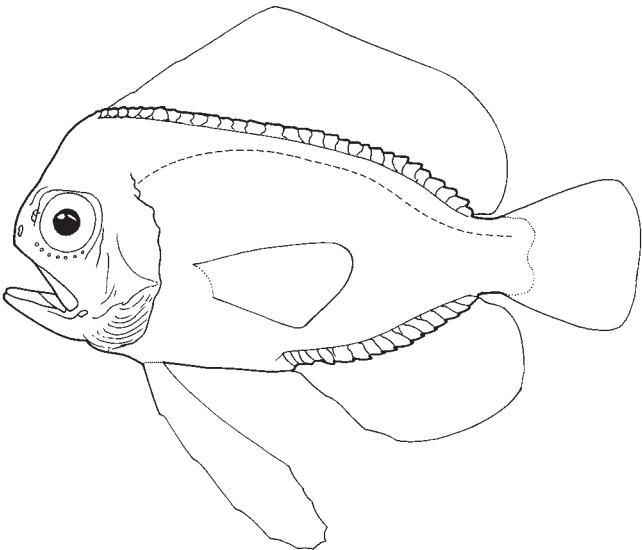


CARISTIIDAE

Manefishes

by J.R. Paxton

Diagnostic characters: Large (to 60 cm) perciform fishes, with deep, strongly compressed soft body. **Head short. Eye large. Snout usually short, very steep in large specimens.** Mouth moderate, jaws reaching level of posterior margin of eye in large specimens. Teeth as small canines in jaws and vomer, present or absent on palatines. **Fin spines poorly developed; a single dorsal fin with 28 to 36 elements, all elongate, origin over head; anal fin with 17 to 22 elements; caudal fin with 17 principal rays and procurent spines; pelvic-fin origin thoracic, the fin with 1 spine and 5 soft rays, elongate, longer than pectoral-fin rays, folding into shallow groove; pectoral fins with 16 to 21 rays. Scales cycloid, deciduous. Total vertebrae 33 to 40. Colour: body pinkish brown to brown, fins black.**



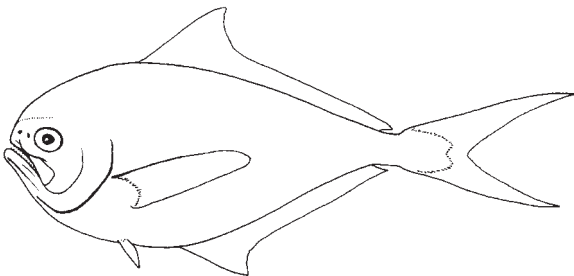
Habitat, biology, and fisheries: Juveniles epi- and mesopelagic, adults meso- and bathypelagic. Feed in association with siphonophores on zooplankton and small fishes. Rare oceanic fishes of no commercial importance.

Remarks: One or 2 genera with perhaps 4 or more species in tropical and temperate latitudes throughout the world ocean, except the northeastern Pacific. The family is in need of revision, with undescribed taxa questions about the 2 nominal genera and 5 nominal species.

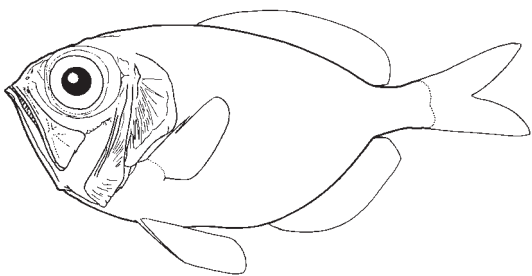
Similar families occurring in the area

Bramidae: body firm, covered with thick, adhesive scales (rather than thin, deciduous scales); pelvic fins shorter than pectoral fins; colour brownish black, bluish black, or silvery.

Diretmidae: dorsal- and anal-fin rays not exceptionally elongate, but covered with small, spinose scales; pelvic fins with laminar (rather than normal) spine and 6 soft rays.



Bramidae



Diretmidae

List of species occurring in the area

- Caristius macropus* (Bellotti, 1903)
- Platyberyx* cf. *opalescens* Zugmayer, 1911

Reference

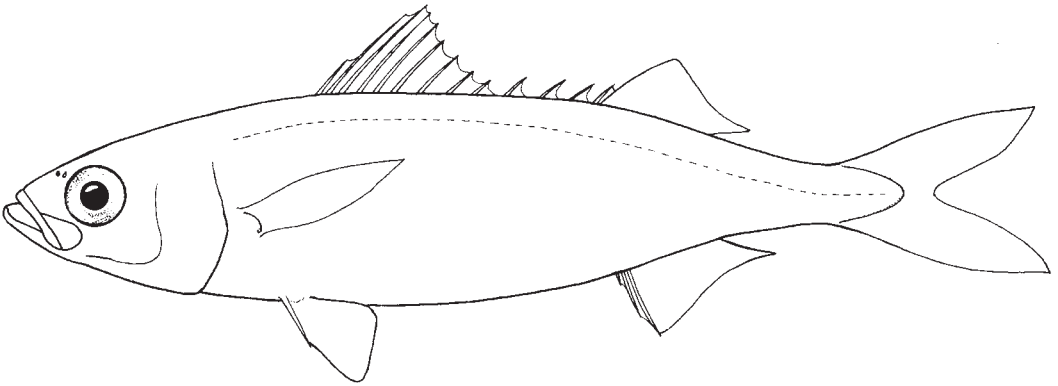
Heemstra, P.C. 1986. Family Caristiidae. In *Smiths' sea fishes*, edited by M.M. Smith and P.C. Heemstra. Johannesburg, Macmillan South Africa, pp. 636-637.

EMMELICHTHYIDAE

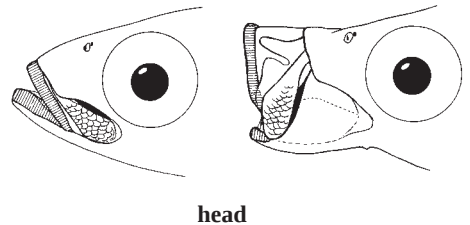
Rovers (rubyfishes)

by K.E. Carpenter

Diagnostic characters (for species found in the area): Moderate-sized (to 58 cm) **fusiform** perciform fishes. Body moderately slender, body depth 3.2 to 6 times in standard length. Upper and lower profiles of head nearly equally sloping and gently curved, head length 2.9 to 3.9 times in standard length. Rear margin of opercle with 2 flat spines and sometimes an additional smaller spine dorsally. Eye large, its bony orbit diameter 2.5 to 3.7 times in head length, nearly bisected by a horizontal from tip of snout to middle of caudal-fin base. **Mouth small, upper jaw highly protrusible, premaxilla with a long median ascending process and prominent midlateral process; maxilla expanded distally, scaly, and not covered by preorbital bone; a distinct supramaxillary bone** dorsal to maxilla; jaws toothless or with a few small teeth in front, vomer and palatines toothless or with a few small teeth. **Dorsal fin deeply notched, or separated by a gap with 0 to 3 short isolated spines, with XI to XIII spines and 10 to 12 soft rays.** Anal fin with III spines and 9 to 10 soft rays. Caudal fin deeply forked. Pelvic fins with I spine and 5 soft rays. Body and most of head covered with small finely ctenoid scales. **Colour:** typically reddish, reddish brown, pinkish, silvery pink, or orange-red, lighter ventrally; *Erythrocles taeniatus* with a distinct red stripe laterally.



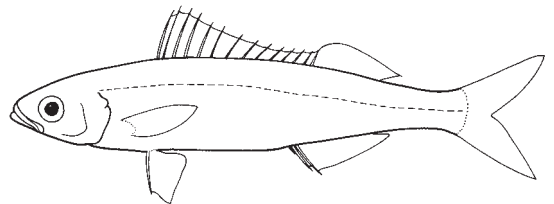
Habitat, biology, and fisheries: Found near the bottom in depths between 100 and 400 m, although sometimes found in shallower waters, especially at night. They typically feed on small mesopelagic fishes and zooplankton such as sergestid shrimps. Because of their generally deep distribution and rarity, they are not considered important to fisheries. Emmelichthyids are tropical and temperate species but in the Indo-Pacific typically found between the latitudes of 20°N and 45°S. The distribution of emmelichthyids in the Western Central Pacific is patchy with each species reported from a single general location. *Emmelichthys karnellai* is reported from Guam, *E. strusakeri* is reported from the Philippines, *Erythrocles scintillans* is reported from Tahiti, *E. schlegeli* is reported from the central South China Sea, and *E. taeniatus* is known only from New Caledonia.



head

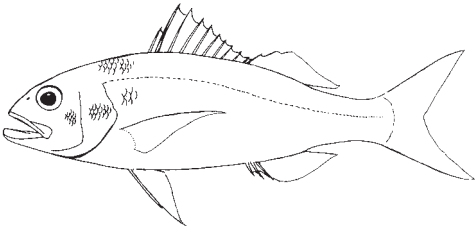
Similar families occurring in the area

Caesionidae: maxilla scaleless and partially covered by preorbital bone; no supramaxilla; most caesionids have 14 to 22 soft dorsal-fin rays (10 to 12 soft dorsal-fin rays in emmelichthyids) except *Dipterygonotus balteatus* which most closely resembles an emmelichthyid (and previously was included in the Emmelichthyidae), however, *D. balteatus* most often has XIV dorsal-fin spines (rarely XII or XIII; emmelichthyids with XI to XIII dorsal-fin spines).



Caesionidae

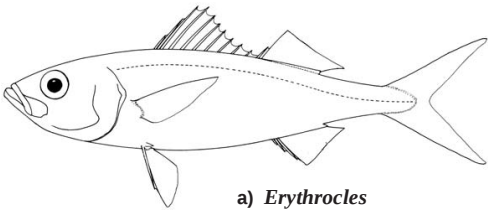
Lutjanidae: maxilla scaleless and partially covered by pre-orbital bone; no supramaxilla; teeth typically well developed in jaws, vomer, and palatines (toothless or with a few small teeth in emmelichthyids).



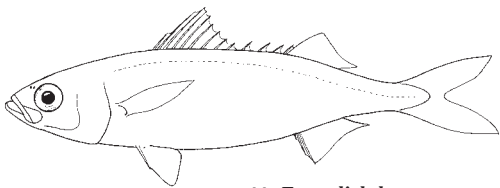
Lutjanidae

Key to species of Emmelichthyidae occurring in the area

- 1a. Dorsal fin continuous but deeply notched before last spine; dorsal-fin spines XI (Fig. 1a) (*Erythrocles*) → 2
- 1b. First and second dorsal fins separated, the gap between them with 0 to III isolated spines; typically XII or XIII (rarely XI) dorsal-fin spines (Fig. 1b) (*Emmelichthys*) → 4



a) *Erythrocles*



b) *Emmelichthys*

Fig. 1 dorsal fins

- 2a. Fleshy protuberance on rear margin of gill cavity *Erythrocles schlegelii*
(in the area so far only reported from South China Sea)
- 2b. No fleshy protuberance on rear margin of gill cavity → 4
- 3a. Most frequently XII (less frequently XI) dorsal-fin spines; a distinct red stripe midlaterally on body when fresh *Erythrocles taeniatus*
(New Caledonia)
- 3b. Most frequently XI (less frequently X) dorsal-fin spines; no red strip on sides when fresh *Erythrocles scintillans*
(in the area so far only reported from Tahiti)
- 4a. Gap between first and second dorsal fin with I to III short isolated spines . . . *Emmelichthys strusakeri*
(in the area so far only reported from the Philippines)
- 4b. Gap between first and second dorsal fin without isolated spines, scales continuous across gap between dorsal fins *Emmelichthys karnellai*
(in the area so far only reported from Guam)

List of species occurring in the area

Emmelichthys karnellai Heemstra and Randall, 1977
Emmelichthys strusakeri Heemstra and Randall, 1977
Erythrocles scintillans Jordan and Thompson, 1912
Erythrocles schlegelii Richardson, 1846
Erythrocles taeniatus Randall and Rivaton, 1992

References

Heemstra, P.C. and J.E. Randall. 1977. A revision of the Emmelichthyidae (Pisces: Perciformes). *Aust. J. Mar. Freshwater Res.*, 28:361-396.
Nor, L.A., N.N. Kykharev, A.K. Zaytiev. 1985. The biology of *Erythrocles schlegelii* (Richardson) (Emmelichthyidae) of the South China Sea. *J. Ichthyol.*, 25(2):146-149.
Randall, J.E. and J. Rivaton. 1992. *Erythrocles taeniatus*, a new emmelichthyid fish from New Caledonia. *Copeia*, 1992(4):1028-1032.