

First dorsal fin with 2 spines and 9 to 11 rays; teeth along leading edge of spinous first dorsal ray slender, sharp, and prominent; pectoral fin rays i18 to i21; pelvic fin rays 7 or 8 (usually 8). Scales with short, conical, greatly reclined spinules in as many as 8 parallel rows on scales below second dorsal fin; underside of head almost entirely naked from snout tip to below posterior 1/4 of orbit; leading edge of snout and upper anterior margin naked; scales below midbase of first dorsal fin about 5, below second dorsal fin base 6.5 to 7.5. **Colour:** overall light greyish brown; bluish over abdomen and gill cover; mouth and gill cavities black; fins dusky to pale.

**Geographical Distribution :** Eastern North Atlantic from about 61°N to 20°N and in the western Mediterranean (Fig. 487).

**Habitat and Biology :** Benthopelagic in 831 to 2 830 m depth. Feeds on annelids, isopods and mysids.

**Size :** To at least 50 cm total length.

**Interest to Fisheries :** None.

**Literature :** Vaillant (1888); Collett (1896); Koefoed (1927); Nybelin (1948); Marshall & Iwamoto (in Marshall, 1973); Merrett (1978).

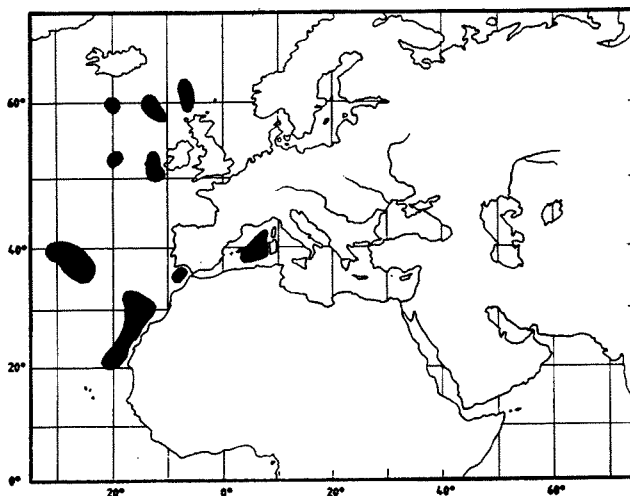


Fig. 487

***Coryphaenoides longifilis* (Günther, 1877)**

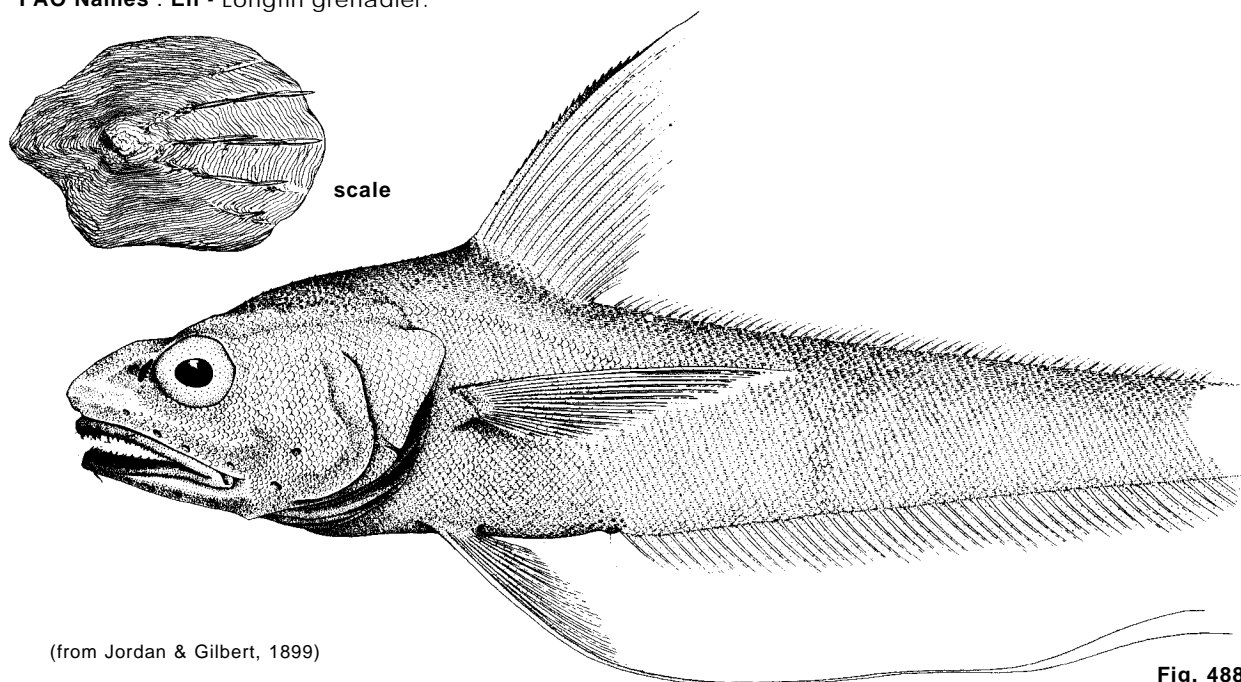
Fig. 488

**MACROUR Cory 9**

**Scientific Name with Reference :** *Coryphaenoides longifilis* Günther, 1887, Ann.Mag.Nat.Hist., ser.4,20:439 (south of Tokyo, Japan; 34°07'N. 138°00'E; 1033 m).

**Synonyms :** *Macrourus (Nematonurus) longifilis*--Günther, 1887; *Moseleya longifilis*--Goode & Bean, 1896; *Bogoslovius clarki* Jordan & Gilbert, in Jordan & Evermann, 1898; *Dolloa longifilis*--Jordan, 1900; *Cotyphaenoides (Nematonurus) longifilis*--Gilbert & Hubbs, 1916; *Nematonurus longifilis*--Kamohara, 1952.

**FAO Names :** En - Longfin grenadier.



(from Jordan & Gilbert, 1899)

Fig. 488

**Diagnostic Features** : General characters as for the subgenus *Bogoslovius* of which this is the only species. Chin barbel very small; interspace between first and second dorsal fins very short, 1.0 to 1.5 into first dorsal fin base; inner gillrakers on first arch 2 or 3 + 12 or 13 (total 14 to 16); outer rakers on second arch 1 to 3 + 11 to 13 (total 13 to 15). Measurements in percentages of head length: snout length 25 to 31; orbit diameter 20 to 25; interorbital space 23 to 24; suborbital shelf 10 to 13; upper jaw 43 to 47; barbel 2 to 4; length outer gill slit 21 to 23; preanal distance 130 to 147; isthmus to anal fin origin 74 to 87; height of first dorsal fin 72 to 87; length of pectoral fin 77 to 114; outer pelvic fin ray 136 to 192; interspace between first and second dorsal fins 11 to 15. First dorsal fin with 2 spines and 12 to 14 rays; pectoral fin rays 115 to 118; pelvic fin rays 9 or 10. Scales thin, small, cover almost all of head and body; lower jaws finely scaled; gill membranes naked; spinules on body scales short, erect, in 3 to 5 divergent rows; scales below midbase of first dorsal fin 11 to 13; below second dorsal fin 12 to 15. Pyloric caeca 10 to 12. **Colour**: light brown overall, fins dusky to somewhat swarthy, mouth and gill cavities black; lips and branchiostegal membranes blackish.

**Geographical Distribution** : Southern Japan to Bering Sea (Fig.489).

**Habitat and Biology** : Benthopelagic in 700 to 1700 m depth.

**Size** : To more than 70 cm total length.

**Interest to Fisheries** : Incidental catch; used for fish paste in Japan.

**Local Names** : JAPAN: Himodara.

**Literature** : Günther (1878); Jordan & Gilbert (1899); Gilbert & Hubbs (1916); Makushok (1964); Okamura (1970); Iwamoto & Stein (1974).

**Remarks** : This species is included in a separate subgenus *Bogoslovius* Jordan & Gilbert, 1898, because of its considerable differences from other members of the genus. It shows many similarities with the subgenus *Chalinura* and has been included in that taxon, but the retia mirabilia numbers, the premaxillary dentition, the shape of the rostrum, and the elongated pectoral rays suggest a distant relationship. Aside from the dentition, these same characters and others (e.g., length of abdomen, distance between dorsal fins, and general head physiognomy) suggest an even farther separation from subgenus *Nematonurus*.

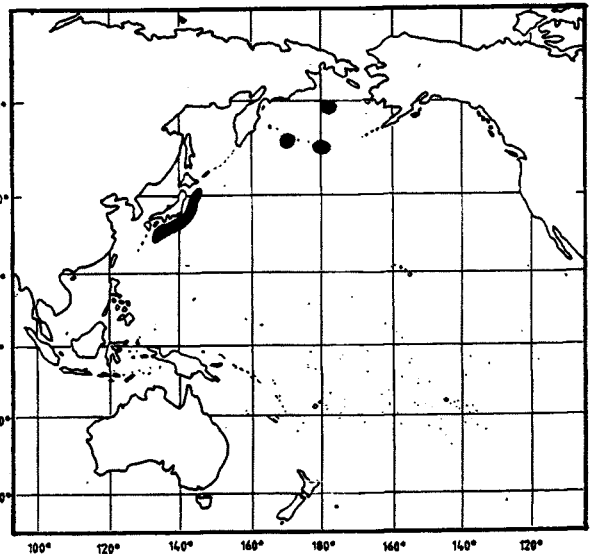


Fig. 489

***Coryphaenoides macrocephalus* (Maul, 1951)**

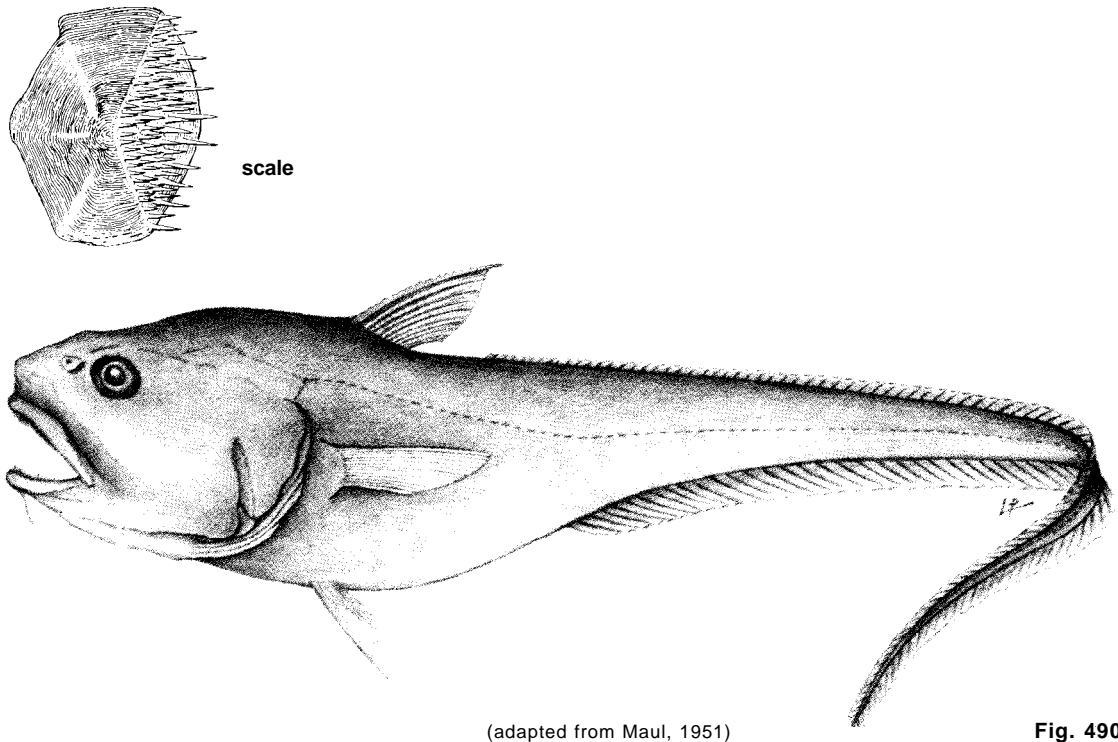
Fig. 490

**MACROUR Cory 10**

**Scientific Name with Reference** : *Nematonurus macrocephalus* Maul, 1951, *Bol.Mus.Munic.Funchal*, (5) (art.12):17, figs 3,4 (Madeira; 600 to 1 000 m).

**Synonyms** : *Coryphaenoides macrocephalus*--Marshall & Iwamoto, in Marshall, 1973; *Coryphaenoides (Coryphaenoides) macrocephalus*--Merrett & Marshall, 1981.

**FAO Names** : En - Bighead grenadier.



(adapted from Maul, 1951)

Fig. 490

**Diagnostic Features** : A large species. Snout low, scarcely protruding; mouth large, almost terminal, upper jaw extends to below posterior margin of orbits; teeth strong, in narrow bands in premaxillary, outer series enlarged; mandibular teeth in 3 or 4 irregular series tapering to 2 irregular rows; inner gill rakers on first arch 10 total; outer gill rakers on second arch 8 or 9. Measurements in percentage of head length: snout length 23 to 29; orbit diameter 16 to 26; interorbital space 26 to 30; upper jaw 37 to 43; barbel 10 to 23; interspace between first and second dorsal fins 16 to 31. First dorsal fin with 2 spines and 9 to 11 rays; pectoral fin rays usually i19 to i20; pelvic fin rays 9 to 11 (usually 10). Head fully scaled except exposed posterior end of interopercle and gill membranes; no suborbital ridge developed; scale spinules numerous, small, sharp, conical, arranged in irregularly divergent to roughly quincunx pattern; scales below second dorsal fin 6 or 7. Pyloric caeca 12 to 16. **Colour**: overall light to dark brown or greyish brown; fins somewhat darker.

**Geographical Distribution** : Known from Madeira, Gulf of Mexico, and Caribbean Sea, but probably more widely distributed in Atlantic (Fig. 491).

**Habitat and Biology** : Benthopelagic in 600 to 2 375 m depth. Feeds on cephalopods, at least at larger sizes.

**Size** : To at least 110 cm total length.

**Interest to Fisheries** : Taken on rare occasions off Madeira on "espada" gear.

**Literature** : Maul (1951); Marshall & Iwamoto, in Marshall (1973).

**Remarks** : This species is probably a synonym of *C. paradoxus* of the Pacific.

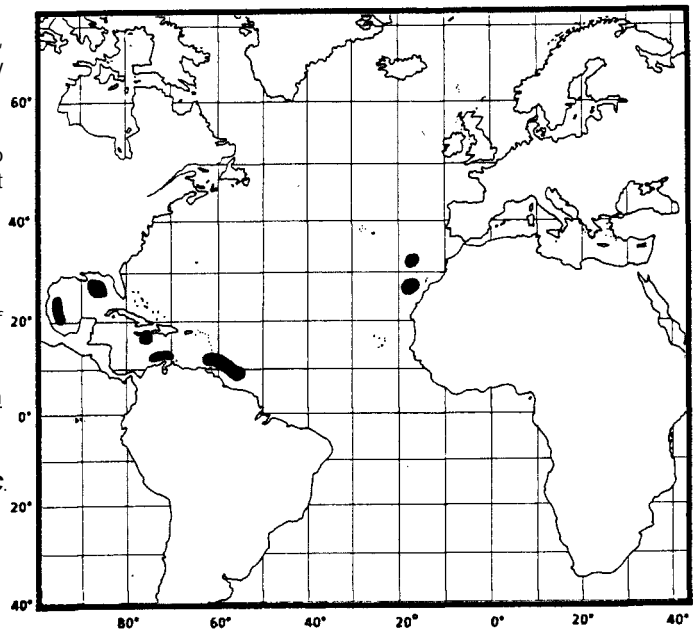


Fig. 491

***Coryphaenoides marginatus*** Steindachner & Döderlein, 1887

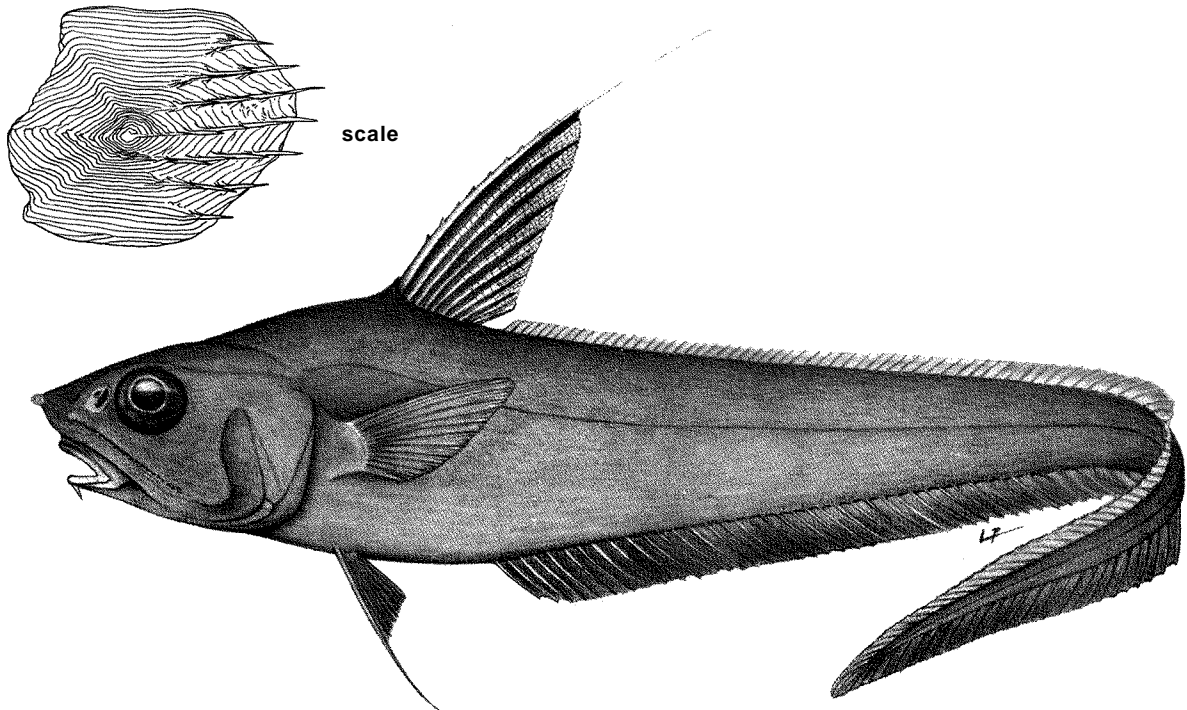
Fig. 492

MACROUR Cory 11

**Scientific Name with Reference** : *Coryphaenoides marginatus* Steindachner & Döderlein, 1887, Beiträge zur Kenntniss der Fische Japans, 4:280 (near Tokyo, Japan).

**Synonyms** : *Coryphaenoides awae* Jordan & Gilbert, 1904.

**FAO Names** : En - Amami grenadier



(after Okamura, 1970a)

Fig. 492

**Diagnostic Features** : A medium-sized species. Snout short, pointed, tipped with a stout conical tubercle at tip and lateral angles; suborbital ridge prominent; mouth small, its rictus restricted posteriorly by lip folds, extending only to below nostrils; the maxillary extends posteriorly to below anterior edge of pupil; teeth small, in broad bands in both jaws; outer series slightly enlarged in upper jaw; barbel very small, 2.1 to 4.6 times the orbit diameter; preopercle margin broadly rounded, not lobelike; interopercle exposed posteroventrally beyond preopercle; gill membranes broadly attached to isthmus, no free fold posteriorly; opercular opening restricted, scarcely extended forward to below preopercle ridge; outer gill slit small, about equal to or smaller than 1/4 of orbit diameter; inner gill rakers on first arch 0 or 1 + 9 or 10. Measurements in percentage of head length: snout 26 to 31; orbit diameter 20 to 29; interorbital space 18 to 24; upper jaw 27 to 33; barbel 6 to 10; orbit to angle of preopercle 35 to 40; body depth 75 to 83; height of first dorsal fin 171 to 219; outer pelvic fin ray 48 to 65; interspace between first and second dorsal fins 15 to 29. First dorsal fin with 2 spines and 9 to 11 rays; second spinous dorsal fin ray greatly elongated, 1.5 to 2.0 times the head length; denticulations sharp, widely spaced (reduced in large adults); pectoral fin rays i18 to i21; pelvic fin rays 7 or 8. Scales below midbase of first dorsal fin 6 or 7. Scales rather deciduous; most of head scaled, except underside of snout and anteriorly on mandibular rami; body scales with long slender spinules in 7 to 19 parallel rows. Pyloric caeca 11 to 14, short, about 1/2 of orbit diameter, directed anteriorly. **Colour**: ground colour purplish brown, paler ventrally on head and trunk; oral and branchial cavities blackish; fins blackish.

**Geographical Distribution** : Southern Japan to East China Sea (Fig. 493).

**Habitat and Biology** : Benthopelagic in sandy mud bottoms at depths of 250 to 790 m (5 to 7°C); locally abundant.

**Size** : To at least 62 cm total length.

**Interest to Fisheries** : Taken in bycatch of trawlers off Japan where it is sometimes used for fish paste.

**Local Names** : JAPAN: Heri-dara.

**Literature** : Günther (1887); Gilbert & Hubbs (1916); Okamura (1970a); Okamura (in Okamura et al. 1982); Yatou (in Okamura & Kitajima, 1984).

**Remarks** : Okamura (1970a) synonymized *C. awae* Jordan & Gilbert, 1904, with this species, attributing purported differences between *C. awae* and *C. marginatus* to size-related changes.

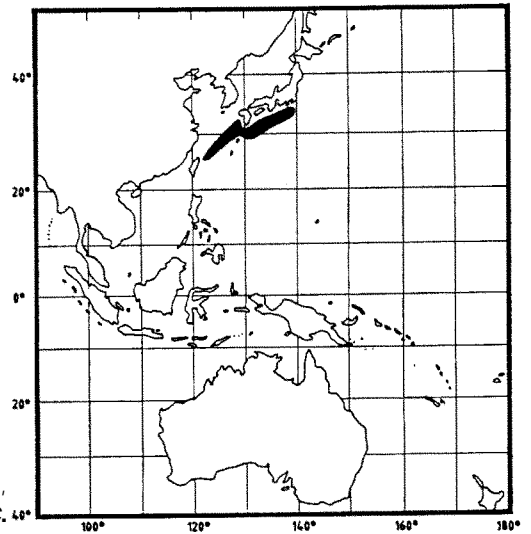


Fig. 493

***Coryphaenoides mexicanus*** (Parr, 1946)

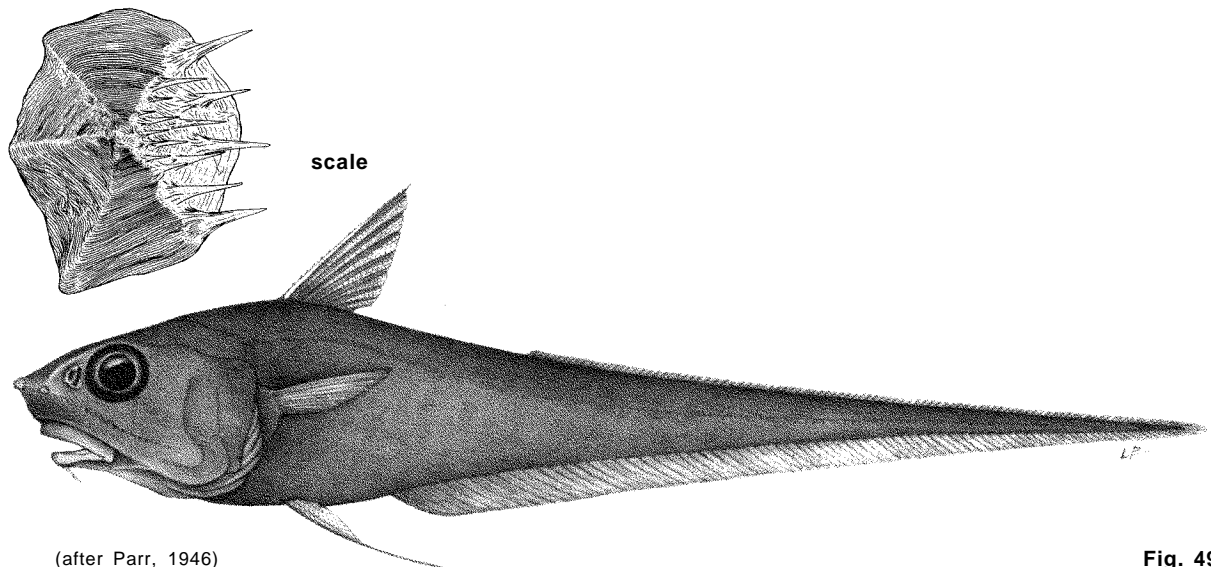
Fig. 494

MACROUR Cory 12

**Scientific Name with Reference** : *Cariburus mexicanus* Parr, 1946, Bull.Bingham Oceanogr.Coll, 10 (art.1):62, figs 9.19 (Gulf of Mexico; 29° 13'N, 87° 44'N; 841 to 924 m).

**Synonyms** : *Coryphaenoides mexicanus* --Marshall & Iwamoto, in Marshall, 1973.

**FAO Names** : En - Mexican grenadier.



(after Parr, 1946)

Fig. 494

**Diagnostic Features** : A medium-sized species. Snout broadly acute, with a stout conical tubercle at tip and lateral angles; barbel small, shorter than suborbital width; inner gill rakers on first arch 1 + 8; outer gill rakers on second arch 1 + 7;. Measurements in percentage of head length: snout length 30 to 34; preoral length 17 to 21; orbit diameter 26 to 29; interorbital space 20 to 25; upper jaw 26 to 34; barbel 6 to 10; outer gill slit 5 to 10. First dorsal fin with 2 spines and 9 to 11 rays; pectoral fin rays i19 to i21; pelvic fin rays 9 or 10 (usually 10). Scales cover all of head except lips, gill membranes, and interopercle tip; body scales with less than 20 sharp, slender spinules in widely divergent rows, or irregularly quincunx pattern; scales below midbase of first dorsal fin 6. **Colour**: pale to medium brown overall; fins similar; orbital rim and nostrils dark brown.

**Geographical Distribution** : Gulf of Mexico (and probably Caribbean Sea, but no records on hand to verify this) (Fig. 495).

**Habitat and Biology** : Benthopelagic in 730 to 1 600 m depth.

**Size** : To at least 40 cm total length.

**Interest to Fisheries** : A rather common species in the Gulf of Mexico in about 800 to 1 200 m depth, but taken only incidentally by trawlers.

**Literature** : Parr (1946); Marshall & Iwamoto, *in* Marshall (1973).

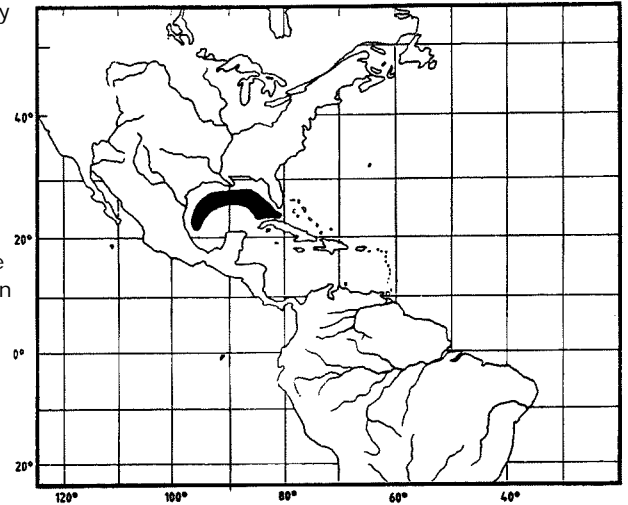


Fig. 495

***Coryphaenoides nasutus* Günther, 1877**

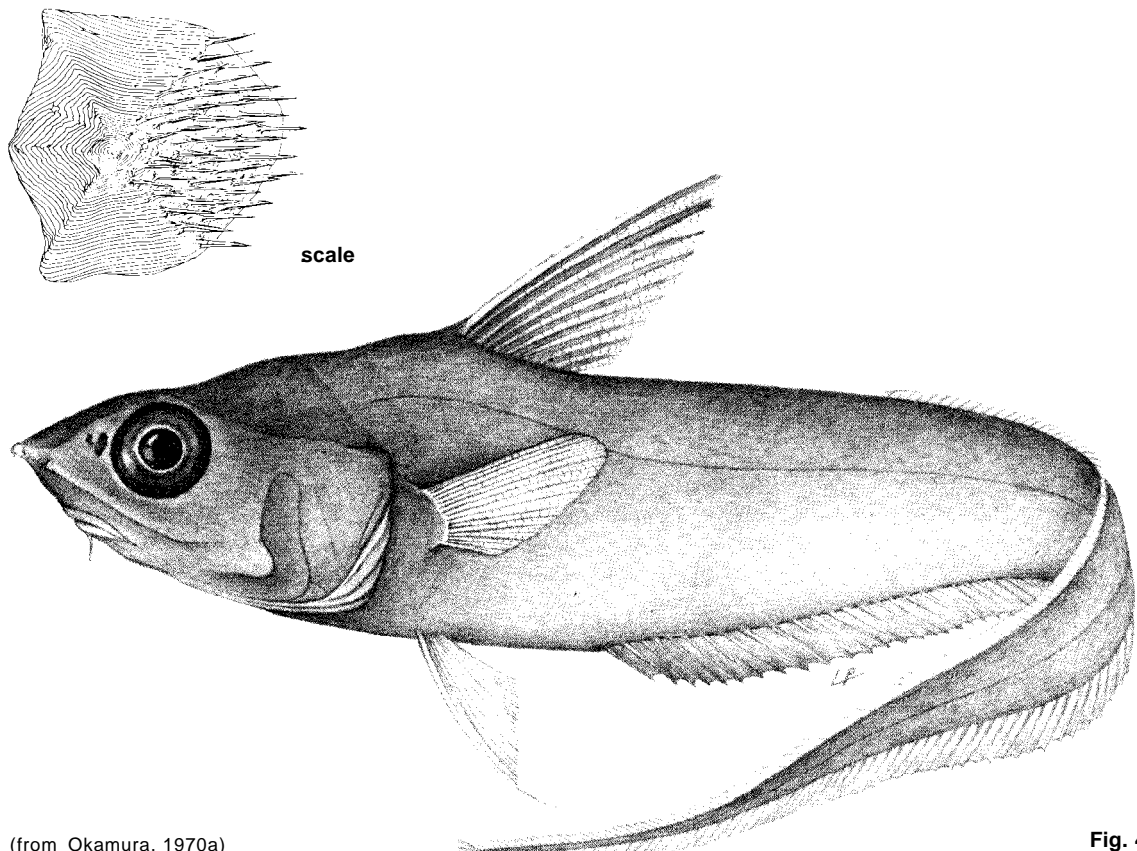
Fig. 496

**MACROUR Cory 13**

**Scientific Name with Reference** : *Coryphaenoides nasutus* Günther, 1877, *Ann.Mag.Nat.Hist.*, ser.4, 20:440 ( south of Tokyo).

**Synonyms** : *Macrurus nasutus*-Günther, 1887.

**FAO Names** : En - Largenose grenadier



(from Okamura, 1970a)

Fig. 496