

by Richard N. Uchida

Valid name *Parupeneus multifasciatus* (Quoy and Gaimard 1824) (Fig. 67)
Synonymy *Mullus multifasciatus* Quoy and Gaimard 1824
Pseudupeneus multifasciatus Jenkins 1902
Upeneus multifasciatus Fowler 1922
Mullus trifasciatus (not Lacepède) Cuvier 1829
Upeneus trifasciatus Lay and Bennett 1839
Upeneus velifer Smith and Swain 1882
Upeneus bifasciatus (not Lacepède) Sauvage 1891
Upenoides vittatus (not Forsskål) Sauvage 1891
Parupeneus trifasciatus Steindachner 1901
 (from Fowler 1933)

Common and vernacular names Red and black banded goatfish; moano

Distribution

Occurs commonly in waters around all major islands. In the NWHI, distributed from Middle Bank to Kure Atoll in waters from 1 to 77 m.

Distinguishing characteristics

D. VIII, 9; A. 7; LLs. 37. Body rather short, deep, compressed, head rather large, snout long, projecting; mouth slightly oblique, large; maxillary broad at tip; teeth rather large, wide set in a single row in each jaw, none on vomer or palatines; eye small, in posterior half of head; barbels long, reaching nearly to base of ventrals; interorbital space high, convex; opercular spine small, flat; scales large, not firm, edges finely and obscurely ctenoid; lateral line parallel with back, pores not numerous branched (Jordan and Evermann 1905).

Pale rosy red; snout and head smoky red; broad dark red band covering body from eye to origin of spinous dorsal, followed by a pale red band as broad as base of spinous dorsal. A double dark red band extending from the last dorsal spine to the eighth dorsal ray with much black above but scarcely any below the lateral line, followed by a pale band around the anterior end of caudal peduncle, and a dark band around the midregion of the caudal peduncle. Spinous dorsal fin rosy at base, black on distal portion, and a little yellowish in center. Soft dorsal greenish yellow at base, outer three-fourths blackish. Pectorals yellow, rosy on base and in axil; anal fin rosy with cross lines of whitish and anterior border blackish; and caudal dull rosy, edges black (Jordan and Evermann 1905).

Life history

Included among species that occurred in the outer nearshore zone of all the islands in the NWHI surveyed by the HDAR (Okamoto and Kawamoto 1980), the moano is included in this atlas as a representative species of the Family Mullidae which contains many members highly prized in the commercial and recreational fisheries in the Hawaiian Islands.

Moano feeds heavily on crabs and shrimps. At Midway, 95% of the gut content of moano consists of xanthid crabs, mainly *Lepidodius exaratus*, and 65% portunid crabs, mostly *Thalamita integra*, and *T. admete* (Sorden 1983). The shrimps include unidentified carideans, alpheids, and *Rhynchocinetes rugulosus*, the latter found only in the moano among several species of goatfish diets studied. Polychaetes including glycerids, *Glycera tessellata*, opheliids, *Armandia intermedia* and *Polyophthalmus pictus*, and two nereid species are other food items in the sample.

Moano occurs over reef and sand pockets either solitarily or in groups of two or three and actively probes cracks and crevices on the reef and pockets of sand with their barbels (Hobson 1974). The species is active through twilight and inactive after dark, but on bright moonlit nights some individuals swim over the reef.

The species spawns at dusk 2 days before the full moon (Lobel 1978). Moano aggregates about a meter above sandy areas 10 m deep next to reefs. The largest fish, presumably the male, is darker than the others and darts conspicuously around and through the aggregation until another fish joins it. The pair then ascends, side by side, spawns while swimming forward just beneath the surface, then descends to the reef.

Gear and catch

Species is taken mainly by trap and handline. In 1961-79, the annual catch fluctuated from 3,206 to 9,528 kg and averaged 5,074 kg. There is no fishery for the species in the NWHI.

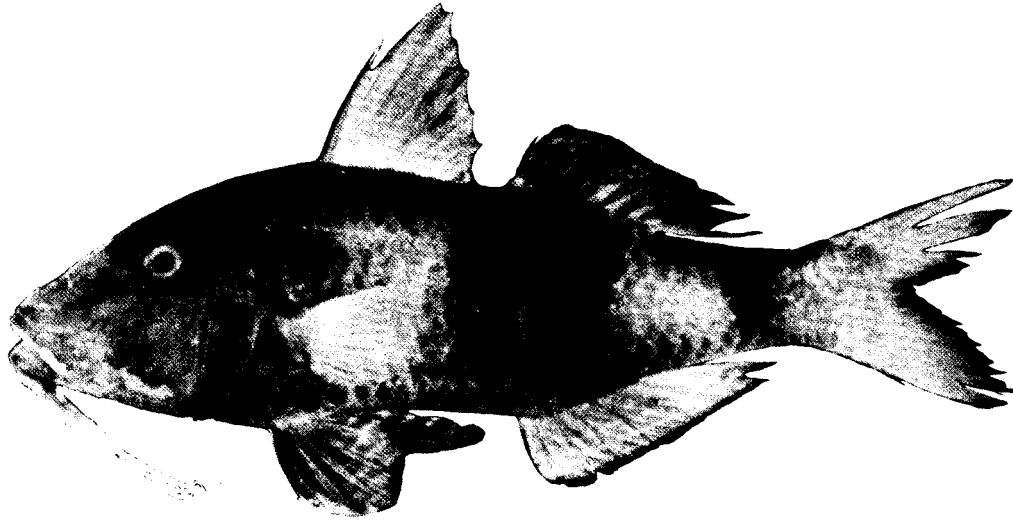


Figure 67.—*Parupeneus multifasciatus*.