

MORPHOMETRIC STUDY ON THE *LUTJANUS* *SANGUINEUS* (C.&V.) FROM THE SOUTH CHINA SEA¹

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ABSTRACT

Morphometric measurements are compared for 1076 *Lutjanus sanguineus* from the Gulf of Tonkin (S1), the Northern Sunda Shelf (S2), the outlet of the Gulf of Siam (S3), the Western Sunda Shelf (S4) and the Eastern Sunda Shelf (S5). The measurements are head length; pectoral fin length; upper jaw length; snout length; length of dorsal fin base and anal fin base; and the distances from the tip of snout to insertion of the dorsal fin, to pectoral fin, to ventral fin, and to hard margin of preopercle. Each measurement is related to fork length by regression analysis, and each relationship is considered as a individual character. Comparison are first made by covariance analysis on each character individually; then a multiple characters comparison is made by canonical multivariate analysis.

The results reveal that the sample from the Gulf of Tonkin is different from those in the other areas mentioned above; the sample from the Northern Sunda Shelf is different from those in the outlet of the Gulf of Siam, the Western Sunda Shelf, and the Eastern Sunda Shelf; samples from the outlet of the Gulf of Siam and the Western Sunda Shelf are seemly no significantly different between them; and the sample from the Eastern Sunda Shelf is possibly a different one.

INTRODUCTION

Among the catches of the trawl fisheries of the South China Sea, those for red snapper are the most important, usually occupying more than 20% of the total catch. (Liu, 1973; Senta et al, 1973) The most important red snapper belong in the genus *Lutjanus* is *L. sanguineus* (C.&V.), often exceeding 70% of all red snapper caught by trawl. (Lai et al, 1974) Other important red snapper is *L. sebae* (C.&V), and *L. altifrontalis* (Chan).

Several researches had been published on the age and growth; reproductive ecology and feeding habits in the waters from the Gulf of Tonkin to the Sunda Shelf. (Lai et al, 1974; Senta et al, 1973; Senta and Peng 1973; Senta et al, 1973; Vien, 1968) It been suggested that the stock of this fish in the Gulf of Tonkin is different from

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