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Morphological variation of Local population in Japanese swimming crab *Charybdis japonica*

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Introduction

The Japanese swimming crab *Charybdis japonica*, one of 47 *Charybdis* species is distributed widely in Korea, Japan, China and Taiwan.
Genetically and morphological methods have been often used in population research for fisheries management. Population identification might be used in morphological characteristics which determined by nature and environmental phenomenon. The present study identified morphological structure of local population through the principal analysis in order to investigate the morphological variation by environmental changes in Japanese swimming crab.

Materials and methods

Samples were collected from Tean(38) and Yosu(27) in Korea and Tokyo(53), Kochi(56) and Kumamoto(20) in Japan between October 2000 and June 2001. Seventeen measurements were refer to morphometric characteristics measured to the nearest 0.001mm with calipers. The dendrogram was constructed by unweighted pair-group method with arithmetic means(UPGMA) by using these angles.

Results and summary

The results of cluster analysis indicated that five population were clustered into three distinct group; the first group included Tokyo and Tean, the second one included Yosu and Kumamoto, the third one included Kochi. The utility of morphometric measurements for discriminating local population of japanese swimming crab is demonstrated. It is guessed that it is what has the difference in the environmental factor which changes a certain character in the area of Tokyo, Yosu and others that crab was divided into three groups.

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