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இலங்கை விஞ்ஞான முன்னேற்றச் சங்கம்

SRI LANKA ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE

COLOMBO 1989

Vidya Mandiraya, Vidya Mawatha, Colombo 7

A RE-APPRAISAL TO STUDY THE STATUS OF THE
AMBLYGASTER SIRM STOCKS IN THE
 INSHORE WESTERN AROUND NEGOMBO, SRI LANKA

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Using the available information on growth parameter estimates and length frequency distributions of Amblygaster sirm catch curves were designed for three consecutive periods. The total mortalities estimated from the above were 3.17, 3.13 and 2.98 for the periods 1984/85, 1985/86 and 1986/87 respectively.

A regression analysis of the total mortality vs total effort in the fishery using the above information together with some historical data gave the natural mortality as the intercept which was 2.00%.

The natural mortality estimate was used in the calculation of the exploitation rates during the study period and for the recalculation of the same with the historical data (*).

These estimates are summarized below.

| <u>Period</u> | <u>Exploitation Rate</u> |
|---------------|--------------------------|
| 1984/85 | .350 |
| 1985/86 | .340 |
| 1986/87 | .310 |
| 1990/91* | .333* |
| 1993/94* | .325* |

Equiped with these information a management strategy is suggested here.