

**Effects of monsoonal currents, rainfall and lunar phase on the abundance of *Amblygaster sirm* in the coastal waters off Negombo, Sri Lanka.**

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The trenched sardine, *Amblygaster sirm* (Walbaum) is an abundant clupeid fish in the coastal waters of the western Indian Ocean. It contributes for about 25% of the small pelagic fish production of Sri Lanka. During the present study carried out from September 1984 to August 1987, the catch per unit effort (CPUE) of *A. sirm* in the small meshed gill net fishery of the coastal waters off Negombo was found to vary from 4.5 to 109 kg boat<sup>-1</sup> day<sup>-1</sup>. CPUE was significantly higher from April to November than in other months ( $P < 0.05$ ). Since fishing mortality of this stock is proportional to the fishing effort of the gill net fishery, the CPUE reflects its abundance in this region. Thus the high abundance from April to November may be attributed to a possible increase in productivity in these waters probably due to southwest monsoonal current. The rainfall did not have a significant effect on CPUE indicating that the abundance of *A. sirm* is not affected by rainfall. CPUE values recorded during the full moon periods were found to be significantly higher than those recorded during the quarter moon and new moon periods ( $P < 0.05$ ). Therefore, results indicate that the period from April to November is a better fishing season and full moon period is a better time for a higher catch. However, since the total catch of this stock has already been recorded to exceed the level of maximum sustainable yield, intensification of fishing during these periods will impede the sustainable utilization of this fishery resource.

**Key words:** Abundance, *Amblygaster sirm*, monsoonal currents