ENVIRONMENTAL FACTORS INFLUENCING THE OCCURRENCE OF JUVENILE FISH IN THE MANGROVES OF PAGBILAO, PHILLIPINES

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128 fish species belonging to 54 families were collected from the mangroves Pagbilao, in a study that lasted 1½ years. *Ambassis Kopsi* Bleeker (Ambassidae) was the most abundent species.

14 environmental factors were correlated to the catch per unit time for the common species by stepwise multiple regression by STAR computer programme. The occurrence of *A.kopsi* was positively correlated to nitrate in the water, carbon in the sediments and litterfall. Out of the 8 species investigated, 6 were positively correlated to litterfall. 3 species showed positive correlation to phosphate in water, two to organic carbon in the sediments, nitrate, silicate and pH and one to salinity and carotenoids in water. The biomass of the total catch was positively correlated to carbon in the sediments and litterfall.

These temporal correlations between litterfall and fish occurrence in the mangroves is similar to what Gedney et al (1982) found for spatial correlation between the extent of mangroves and the prawn catch. Some factors are related to each other and hence such correlations could be considered as secondary effects, as in the case of decreased pH and dissolved oxygen resulting from litter decomposition (Boto & Bunt, 1981).

References

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