



UNIVERSITY OF THE PHILIPPINES

Master of Science in Environmental Science

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*Trends in fry occurrence and abundance in a milkfish fry collection ground
in Puerto Princesa, Palawan: Implications in fisheries management*

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ABSTRACT

TRENDS IN FRY OCCURRENCE AND ABUNDANCE IN A MILKFISH FRY COLLECTION GROUND IN PUERTO PRINCESA, PALAWAN: IMPLICATIONS IN FISHERIES MANAGEMENT

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The milkfish fry fishery is an important industry in the Philippines; however, reports on declining supply of milkfish fry in the wild have been reported. In this study, the milkfish fry collection ground in Maryugon, Puerto Princesa, Palawan has been assessed and trends in seasonal changes of fry occurrence and abundance was investigated. Results have led to the assumption that the wild milkfish fry supply in the area may not actually be decreasing, but that the production is only declining because of fewer fry gatherers engaged in fry gathering due to the declining cost of milkfish fry in the market. Moreover, results also showed that a large number of bycatch is being produced in the said fishery. A different assemblage of fry was found to be present among the Habagat (Southwest monsoon), Amihan (Northeast monsoon) and monsoon break seasons. Redundancy analysis indicated that salinity was the most important environmental parameter affecting fishes, wherein the temporal variation in species richness is influenced by species-specific tolerance to salinity levels. A total of 36 species belonging to 26 genera of 21 families of fishes in its juvenile stage, almost all of which are potential marketable food fish and aquaculture species, were identified as bycatch to the fishery that is discarded and destroyed on coastal shores during the sorting process. The most abundant bycatch species recorded is terapon

and the most commercially important were black tiger shrimp and green tiger prawn. The need for a comprehensive milkfish fry assessment program as well as effective management and conservation plans on bycatch and discarding to ensure sustainable fishery has been made apparent in this study.

Keywords: milkfish fry fishery, bycatch, discarding, Palawan