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FLORAL BIOLOGY AND POLLINATION OF THREE MANGROVE SPECIES (Aegiceras floridum Roem. & Schults., Scyphiphora hydrophyllacea Gaertn. f., AND Xylocarpus granatum Koen.) IN PAGBILAO MANGROVE FOREST, QUEZON PROVINCE, PHILIPPINES

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ABSTRACT - The flowering phenology of Aegiceras floridum, Scyphiphora hydrophyllacea,and Xylocarpus granatum and the effects of pollinators on fruit set and germination were evaluated in Pagbilao Mangrove Swamp Experimental Forest. The flowers were observed from bud formation until fruiting stage. Bagging technique was used to determine the effects of pollinators on fruit set and germination.

The flowering seasons of Aegiceras floridum and Scyphiphora hydrophyllacea occurred once a year. The onset of anthesis was at 0530h with a peak at 0900h-1100h. Xylocarpus .granatum, had two to three flowering seasons in a year. The anthesis started at 1800h with a peak at 2200h.

Aegiceras floridum and Scyphiphora. hydrophyllacea shared common pollinator species, Apis dorsata and Xylocopa spp. The pollinators foraged actively during anthesis. Since Xylocarpus granatum flowers opened at night, the primary pollinators were moth species, which are generally nocturnal. The activities of the pollinators were synchronized with anthesis.

The percent fruit set of Aegiceras floridum and Scyphiphora. hydrophyllacea was 100% in both bagged and unbagged inflorescences. However, fruit abortion rates were higher in bagged flowers. In Xylocarpus granatum, low fruit set was observed in unbagged flowers and none in bagged flowers. This indicates that the species was an obligate outcrosser and requires pollinating agents.

Keywords: Floral biology, pollination, Aegiceras floridum, Scyphiphora hydrophyllacea, Xylocarpus granatum

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