VORACITY AND PREY PREFERENCE OF PHILIPPINE POPULATION OF *TOXORHYNCHITES SPLENDENS* WIEDEMANN (DIPTERA: CULICIDAE) AMONG *AEDES* SPP (DIPTERA: CULICIDAE) AND *CULEX QUINQUEFASCIATUS* SAY (DIPTERA: CULICIDAE)

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Abstract. Mosquito-borne diseases are a major burden in the Philippines for centuries due to the lack of effective and sustainable vector control measures. Sightings of the elephant mosquito, *Toxorhynchites splendens* in the country were recorded since the 1940's. It has not been mentioned, however, in any control programs to date. The prey consumption by this larval predator for *Aedes aegypti* (Linnaeus, 1762) (Diptera: Culicidae), *Ae. albopictus* (Skuse, 1894) (Diptera: Culicidae), and *Culex quinquefasciatus* Say (1823) (Diptera: Culicidae) was, therefore, studied under a "with choice" and "without choice" situation to initially assess its capability under local conditions. The average cumulative voracity of larval *Tx. splendens* was higher for *Ae. aegypti* than for *Ae. albopictus* at all densities, with 70% consumed by the fourth instar. An increase in predation relative to increase in density was observed for all *Toxorhynchites* instars. Consumption of males and females did not vary in both prey species. Percent preys consumed per number of preys offered declined as density increased suggesting a satiation point. When offered a mix of different instars of *Ae. aegypti* larvae, *Tx. splendens* first and second instar larvae consumed the younger instars, but fourth instar *Tx. splendens* preferred older larvae and pupa, and when offered a mix of larvae belonging to three different species, the majority of *Tx. splendens* instars preferred *Ae. aegypti* and *Ae. albopictus* over *Cx. quinquefasciatus*. Our results suggest that *Tx. splendens* has very good potential in controlling dengue-carrying mosquitoes under Philippine conditions.

Keywords: *Aedes* spp, *Toxorhynchites splendens*, mosquito control, prey preference, voracity

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