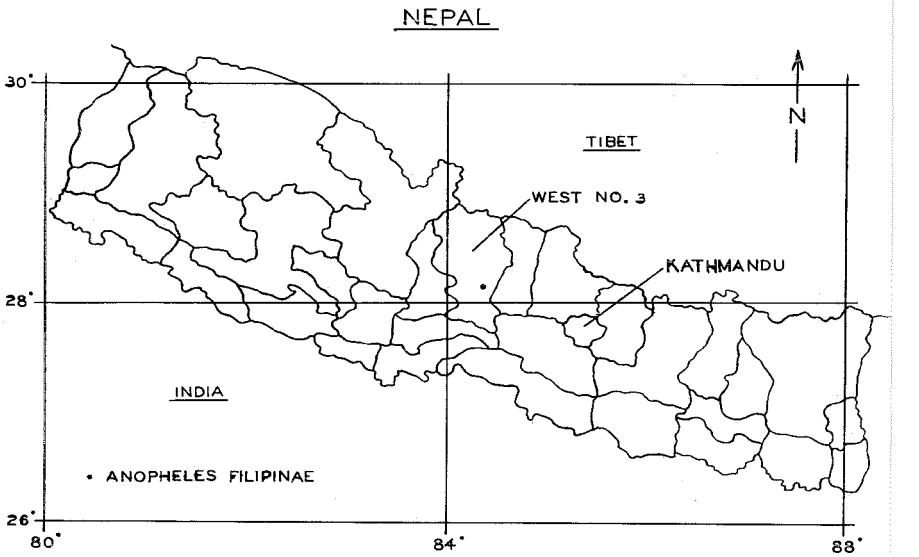

FIG. 1.—Map of Nepal showing District boundaries and the location of the *Anopheles filipinae* collection in District West No. 3 and its relation to the nation's capital, Kathmandu.

an elevation between 1,600 to 1,800 feet above sea level. The village is situated on the base of a hill near a small sparse forest and a clear spring-fed stream flows through the forest and next to the village. About one-half mile away the huge Seti Gandaki river runs toward the south. The adult specimen was collected from a building in which both humans and ruminants live.

A. filipinae is not common throughout the Philippine Islands; however, it may act as a vector in the Philippines where malaria occurs abundantly and wherever the population of the species is high. The species has been found naturally infected, but with a very low sporozoite rate. No known attempt has been made to infect the species experimentally under laboratory conditions (Foote, *et al.*, 1959).

Anopheles minimus is presently the main vector of malaria in Nepal and W. V. King (1932) states that *A. filipinae* falls in the so-called *funestus-minimus* subgroup of *Anopheles* and that it was originally known as a variety of *A. minimus*.

The literature indicates that the ecological conditions in the Philippine Islands from which *A. filipinae* was collected are apparently similar to those from which the species was collected in Nepal.

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NOTE ON EFFECTS OF DROUGHT ON LARVAE OF *Aedes vexans* MEIGEN (DIPTERA: CULICIDAE)

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Gibson (1933) and Twinn and Hay (1935) indicated that in Ontario the floodwater mosquito *Aedes vexans* Meigen occurs only in comparatively small numbers in dry summers. When

here is heavy and continuous precipitation, however, larvae become very abundant and, unless ontrolled, an outbreak ensues (Henkel, 1936).

Heavy, though isolated precipitation sometimes esults in populations of larvae that are later killed y rapid evaporation of the surface water. The ate of such larvae was investigated in the laboratory by Bick and Penn (1947), who found that hird- and fourth-instar larvae of *A. vexans* survived continuous drought for 120 and 96 hours espectively.

In 1959 heavy rainfalls occurred at Stirling, Ontario, on July 6 (.54 in.) and July 9 (.49 in.) (Canada Dept. of Transport, Meteorological Branch). These resulted in high larval populations of *Aedes vexans* four miles to the south at Chatterton (Marsh Hill), in a wooded swamp hat had been dry underfoot since mid-June. First-instar larvae were particularly abundant on uly 7, in a former semi-permanent pool as well as in several of the deeper temporary pools.

On July 14, eight days after the first flooding, however, no surface water remained in any of the pools and the larvae were unable to develop beyond the third stage. When soil samples from the semi-permanent pool were taken to the laboratory and reflooded large numbers of dead larvae of *A. vexans* were found, some of them mutilated, probably by staphylinid beetles that were numerous in the samples.

To determine whether any unhatched eggs still remained, four soil samples, each a quarter of a square metre in area, were taken from the semi-permanent pool and similar samples were taken from the margins of a temporary pool. The samples were dried further in the laboratory for eight days and then reflooded. No additional larvae were obtained from the semi-permanent pool samples, but a few larvae hatched from those of the temporary pool, possibly from soil that had not been inundated previously. This would indicate that all larvae that hatched in the flooded section in both types of pool perished. Thus, the lack of additional rain from July 9 to July 18 prevented a local outbreak of this well-known migrating mosquito.

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