Fig. 1—Map of Nepal showing District boundaries and the location of the Anopheles filipiniae 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 human and ruminants live.

*Anopheles* 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., 1952).

*Anopheles minimus* is presently the main vector of malaria in Nepal and W. V. King (1932) states that *A. filipiniae* falls in the so-called *minimus-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. filipiniae* was collected are apparently similar to those from which the species was collected in Nepal.

References Cited


Note on Effects of Drought on Larvae of *Aedes vexans* Meigen (Diptera: Culicidae)

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Gibson (1931) 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 controlled, an outbreak ensues (Hensel, 1936). Heavy, though isolated precipitation sometimes causes in populations of larvae that are later killed by rapid evaporation of the surface water. The fate of such larvae was investigated in the laboratory by Bick and Penn (1947), who found that third and fourth-instar larvae of A. vexans survived continuous drought for 130 and 96 hours respectively.

In 1959 heavy rainfalls occurred at Stirling, Ontario, on July 6 (24 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 that had been dry underfoot since mid-June. First-instar larvae were particularly abundant on July 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 reared, large numbers of dead larvae of A. vexans were found, some of them mummified, 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 reared. 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.

References


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**Disneyland is a unique place, and the AMCA-CMCA meeting will have unique features:**

**Tuesday, January 31**—keynote address by Dr. Malcolm H. Merrill, Director, California State Department of Public Health. Dr. Louis L. Williams of the Pan American Sanitary Bureau will then summarize our country's interest and participation in mosquito control activities throughout the world. **Wednesday,** an equipment demonstration will be held at 3:00 p.m., followed by a special luncheon to recognize the men and organizations who furnish the tools and larvicides for our mosquito control program. That afternoon the relationship of mosquito control to the public well-being will be presented by a symposium. **Thursday,** specific research papers on biological control, Chironomidae, log ponds, insecticides and insecticide problems, followed by a symposium summarizing the many research efforts throughout the world. The afternoon of the last day has been reserved for a symposium on recent developments in arthropod borne viruses in North America. Plus concurrent sessions for the submitted papers.

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