variipennis was collected, of which 97.8% was female. The number of individuals collected/trap night increased from 12.0 to 155.5 when the traps were CO_2-baited.

This baffle trap is portable and less expensive than insect traps currently on the market. A complete trap weighs approximately 1.62 kg and costs less than $4.00 (U.S.) for materials. The traps can be easily dismantled, the baffles stacked and the cones nested, for storage or transport. A cover can be placed over the baffles to protect the trap and catch from sudden downpours.

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MOSQUITO PATHOGENS FROM MOUNTED COLLECTION OF THAI MOSQUITO LARVAE[1]

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Mounted mosquito larvae held in personal and laboratory taxonomic collections are potential sources of information on the occurrence and distribution of certain mosquito pathogens. While viruses, bacteria and most internal protozoans probably could not be detected in wholemounted larvae, *Coelomomyces* (fungi) and larger nematode pathogens are easily seen within larval specimens that have been cleared and mounted on microscope slides. Since collection site data for taxonomic collections often are of high quality, it should be possible to return to the site or vicinity of collection to search for infected material.

Recently, part of the collection of Thai mosquito larvae at the Department of Entomology, US Army Medical Component, Armed Forces Research Institute for Medical Science (AFRIMS) (formerly SEATO Medical Laboratory), Bangkok, Thailand, was screened in search of mosquito pathogens. These larvae had been mounted in Canada balsam mounting medium, with the posterior few segments of the specimen partially severed and laid to one side. The specimens were examined at 100X magnification. Although sporangia of *Coelomomyces* shrink when dehydrated and mounted in Canada balsam, measurements were made with a calibrated eyepiece micrometer at 1000X magnification. Because of shrinkage, the material was not suitable for species identification or description. Map coordinates of collection sites and detailed collection site data are available, but are not included here. The following host pathogen associations were found. (Where dimensions are given, they represent the mean of n = 30. Standard deviations are also given.)

1. Nematode—An apparent mermithid nematode was found coiled longitudinally in the abdomen and posterior thorax of *Anopheles nivipes* collected in a paddy field near Ban Saraphi, Nakhon Ratchasima, Thailand.

2. *Coelomomyces* sp. in *An. aconitus.* Sporangia 48.11 μm (sd 3.21) × 23.10 μm (sd 2.89). Host collected in rock pool near Ban Mae Noi, A. Chom Tong, Chiang Mai, Thailand.

3. *Coelomomyces* sp. in *An. bengalensis.* Sporangia 60.30 μm (sd 4.52) × 28.93 μm (sd 2.07). Host collected in stream margin near Ban Wung Mut, Prachinburi, Thailand.

4. *Coelomomyces* sp. in *An. nivipes.* Sporangia 51.96 μm (sd 2.69) × 30.22 μm (sd 2.05). Host collected in paddy field near Ban Pan Nua, Lampang, Thailand.

5. *Coelomomyces* sp. (no. 1) in *An. vagus.* Sporangia 30.79 μm (sd 1.81) × 17.77 μm (sd 1.28). Host collected in grassy pool near Chiang Mai, Thailand.

6. *Coelomomyces* sp. (no. 2) in *An. vagus.* Sporangia 46.58 μm (sd 3.22) × 21.82 μm (sd 2.32). Host collected in grassy pool near Chiang Mai, Thailand.

7. *Coelomomyces* sp. (no. 1) in *Aedes albopictus.* Sporangia 38.60 μm (sd 1.90) × 19.93 μm (sd 1.16). Host collected in bamboo cup at Ban Nong Plong Khong and Ban La Wa, Kanchanaburi, Thailand.

8. *Coelomomyces* sp. (no. 2) in *Ae. albopictus.* Sporangia 48.86 μm (sd 2.75) × 22.16 μm (sd

[1] The opinions or assertations contained herein are the private views of the author and are not to be construed as official or as reflecting the views of the Department of the Army or the Department of Defense.

2.11). Host collected in bamboo cup at Ban La Wa and Ban Ku Phadu, Kanchanaburi, Thailand.

9. *Coelomomyces* sp. in *Ae. mediopunctatus.* Sporangia 40.76 μm (sd 2.49) × 19.93 μm (sd 1.66). Host collected in bamboo cup at Ban Nong Plong Khong, Kanchanaburi, Thailand.

10. *Coelomomyces* sp. in *Ae. pseudalbopictus.* Sporangia 41.75 μm (sd 3.97) × 20.55 μm (sd 1.45). Host collected in bamboo cup at Ban La Wa, Ban Ku Phadu, and Ban Nong Plong Khong, Kanchanaburi, Thailand.

11. *Coelomomyces* sp. in *Culex fuscocephala.* Sporangia 55.39 μm (sd 5.01) × 27.65 μm (sd 2.73). Host collected in paddy field near Ban Rim On, Chiang Mai, Thailand.

12. *Coelomomyces* sp. in *Cx. tritaeniorhynchus.* Sporangia 43.43 μm (sd 4.31) × 26.77 μm (sd 2.18). Host collected in paddy field near Ban Rim On, Chiang Mai, Thailand.

13. *Coelomomyces* sp. in *Cx. vishnui.* Sporangia 69.81 μm (sd 3.99) × 44.39 μm (sd 2.41). Host collected from ground pool near Bang Phra, Chonburi, Thailand.

14. *Coelomomyces* sp. in *Armigeres longipalpis.* Sporangia 43.44 μm (sd 2.33) × 22.57 μm (sd 2.41). Host collected in bamboo stump near Ban Wang Mo, Nan, Thailand.

15. *Coelomomyces* sp. in *Uranotaenia campestris.* Sporangia 31.50 μm (sd 1.61) × 17.69 μm (sd 1.41). Host collected in small pool in dry stream bed near Ban Pa Daeng, Lampang, Thailand.

16. *Coelomomyces* sp. in *Toxorhynchites gravelyi.* Sporangia 49.64 μm (sd 3.78) × 22.85 μm (sd 1.51). Host collected in bamboo cup near Ban La Wa, Kanchanaburi, Thailand.

17. *Coelomomyces* sp. in *Toxorhynchites* sp. Sporangia 36.25 μm (sd 2.70) × 21:17 μm (sd 1.49). Host collected in bamboo stump near Ban La Wa, Kanchanaburi, Thailand.

The number of species of *Coelomomyces* involved could not be determined. It is possible that one of the forms of *Ae. albopictus* (#7) and that in *Ae. mediopunctatus* (#9) and in *Ae. pseudalbopictus* (#10) were the same species. The sporangial dimensions were very similar, and the hosts were collected from bamboo cups near villages within a few kilometers of each other. The species in *Cx. fuscocephala* (#11) and *Cx. tritaeniorhynchus* (#12) possibly were the same. The spores were essentially the same size and were collected from the same site, although at different dates.

According to Petersen (1977), there is no previous report of a parasitic nematode in *An. nivipes.* McNitt and Couch (1977) included no previous reference to *Coelomomyces* from *An. bengalensis, An. nivipes, Ae. mediopunctatus, Ae. pseudalbopictus, Cx. fuscocephala, Cx. vishnui, Ar. longipalpis, Ur. campestris,* or *Tx. gravelyi* and no previous reference to *Coelomomyces* from Thailand.

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DRIFT RESPONSE OF BLACK FLY LARVAE TO DIMILIN

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Large increases in drift of black fly larvae occur immediately after lethal dosages of chemical larvicides are applied to streams. Both laboratory (Muirhead-Thomson 1978) and field studies (Fredeen 1974, Wallace and Hynes 1975) have shown most of the increased drift occurs within a few hours.

Results of two field tests conducted with Dimilin in northern British Columbia during 1977 showed increased drift of black fly larvae was less dramatic (McKague et al. 1978). In one test numbers of larvae in samples collected 500 m downstream reached a maximum 4 days after a 15-min application of 1 ppm Dimilin. The proportion of larvae with morphological abnormalities also increased to 59% of the sample 6 days following the test. These results, combined with visual observations in the test area, indicated larvae did not detach upon exposure to Dimilin but were gradually removed as they attempted to molt.

During 1978 an additional test was performed using an application rate of 0.7 ppm Dimilin for 15 min. Most of the larvae were final instar *Simulium venustum* at the time of the test. Drift was measured 20 m downstream from the treatment point. During the second 24-hr period following the test a 4–5 fold increase occurred in numbers of larvae captured in the sampler (Figure 1). On the same day the