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### BITING FLIES COLLECTED FROM RECURRENT BLUETONGUE-INFECTED SHEEP IN IDAHO

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A severe outbreak of bluetongue (BT) disease occurred in a flock of sheep near Bruneau, Owyhee Co., Idaho, August, 1973: 25% of 650 ewes and 12% of their lambs died. The probable vector was the biting midge or gnat, *Culicoides variipennis* (Coquillett), as reviewed by Jones and Foster (1978).

The presence of recumbent BT-infected sheep allowed the recovery of biting flies attacking sheep by mouth aspirator. The number of flies collected in 3 morning collections at about sunrise on August 24 and 27 and on September 12, 1973 are as follows:

#### CERATOPOGONIDAE

##### *Culicoides*

- variipennis* (Coquillett) 27  
*owyheensis* Jones and Wirth 7

##### *Leptoconops*

- americanus* Carter 4

#### SIMULIIDAE

##### *Simulium*

- vittatum* Zetterstedt 89

#### CULICIDAE

##### *Anopheles*

- freeborni* Aitken 13

##### *Aedes*

- dorsalis* (Meigen) 6  
*nigromaculis* (Ludlow) 4

Two additional species of *Leptoconops* were recovered on August 26, 1973, in an evening collection just before dusk: 1 *L. knowltoni* Clastrier and Wirth, and 15 *L. reesi* Clastrier and Wirth.

Bluetongue virus was recovered from parous females of *C. variipennis* collected during the outbreak (Barber and Jochim 1975), but not from any other species of biting fly.

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#### A SECURITY MODIFICATION FOR THE "AMERICAN MODEL" MOSQUITO LIGHT TRAP

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The San Mateo County Mosquito Abatement District employs 15 modified "American Model" light traps (Mulhern 1953) in its adult mosquito surveillance program (Fig. 1). The District, composed largely of suburban type communities with middle income families, has experienced increased problems of light trap security in the past few years. On occasion, traps placed in some areas have been the target of vandals. More importantly, to this District, was the potential hazard to unauthorized personnel who may tamper with the exposed cyanide kill jars used in the traps. These con-