Table 1. Transovum transmission experiments with the entomopoxvirus of *Chironomus* #51[a].

Larval age at EPV exposure (hr)	Number of egg masses		Avg. no. infected larvae/ egg mass
	Reared	Infected larvae	
Check	20	0	—
24	16	1	1
48	18	1	2
72	19	3	3.7
120	10	3	2.7
Total:	83	8	

[a] Egg masses were reared from an initial density of 7.5 to 8.4 larvae/cm² for 20 days.

fect on the first generation, the results indicate that transovum transmission, be it from virus on or within the egg, which was not determined, is a mechanism by which the pathogen can become established in a new environment.

References Cited

Biever, K. D. 1965. A rearing technique for the colonization of chironomid midges. Ann. Entomol. Soc. Amer. 58:135–6.

Harkrider, J. R and I. M. Hall. 1978. The dynamics of an entomopoxvirus in a field population of larval midges of the *Chironomus decorus* complex. Environ. Entomol, 7:858–62.

Harkrider, J. R. and I. M. Hall. 1979. The effect of an entomopoxvirus on larval populations of an undescribed midge species in the *Chironomus decorus* complex under laboratory conditions. Environ. Entomol. 8: In press.

Mulla, M. S., R. L. Norland, D. M. Fanara, H. A. Darwazeh and D. W. McKean. 1971. Control of chironomid midges in recreational lakes. J. Econ. Entomol. 64:300–7.

Watts, D. M., S. Pantuwatana, G. R. De Foliart, T. M. Yuill and W. H. Thompson. 1973. Transovarian transmission of La Crosse virus (California encephalitis group) in the mosquito, *Aedes triseriatus*. Science 182:1140–41.

A SIMILARITY DENDROGRAM AS AN INDICATOR OF MOSQUITO BREEDING SITES

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In an investigation of effects of aquatic plants on mosquito oviposition and survival a similarity dendrogram using Hummon's (1974) similarity index was constructed for the composition of the aquatic vegetation of 9 permanent ponds in southern British Columbia where the mosquito faunas were surveyed regularly during 1975.

The dendrogram (Fig. 1) indicates that there is a relationship between the plant composition of each pond and the composition of its mosquito fauna. This points to the possibility of reducing unnecessary spray treatments by identifying through their plants which supposed mosquito breeding-grounds are in fact unsuitable.

The dominant and only form of vegetation in the Osoyoos pond, in which no mosquito larvae were found, was the alga *Chara globularis* Desv., which was not found in the other ponds. The dominant plant in the 2 Richmond ponds, which also lacked mosquito larvae, was duckweed, *Lemna minor* L. Both of these plants are suspected of containing compounds that affect both the egg-laying behavior and larval survival of mosquitoes (Angerilli, in preparation; Angerilli and Beirne, in preparation).

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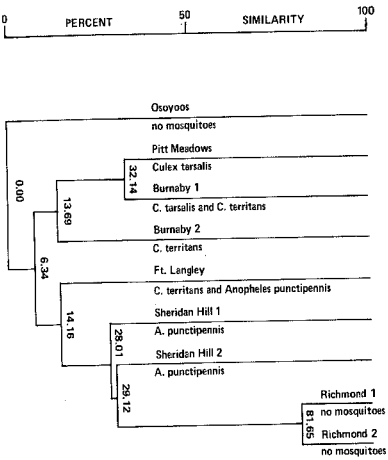

Figure 1. Similarity dendrogram for aquatic vegetation contained in indicated ponds and showing species of mosquito larvae contained therein.

References Cited

Hummon, W. D. 1974. Sh': A similarity index based on shared species diversity, used to assess temporal and spatial relations among intertidal marine Gastrotricha. Oecologia 17:203–220.

A NEW DISTRIBUTIONAL RECORD FOR *PSOROPHORA CYANESCENS* (COQUILLETT) IN IOWA[1]

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A female mosquito collected in a CDC miniature dry ice-baited light trap in Council Bluffs, Pottawattamie County, Iowa, on September 4, 1979, has been identified as *Psorophora cyanescens* (Coquillett), by Dr. R. A. Ward of the Medical Entomology Project, Smithsonian Institution, U.S. National Museum of Natural History. *Ps. cyanescens* has not been previously collected in Iowa (Knight and Wonio 1969), although records exist for the species in Illinois, Missouri, and Nebraska (Carpenter and LaCasse 1955). *Ps. cyanescens* is a holarctic and neotropical mosquito that occurs in the southeastern United States, Mexico, and Central and South America. It often is a nuisance after heavy summer rains, particularly in Alabama, Arkansas, Mississippi, and Louisiana (Carpenter and LaCasse 1955).

Council Bluffs is situated on the east bank of the Missouri River, adjacent to Omaha, Nebraska. The trap was situated in a shrub row along a cattail marsh approximately ½ mile southeast of the Missouri River. It is hoped that further trapping in this area will yield more specimens.

Literature Cited

Carpenter, Stanley J., and Walter J. LaCasse. 1955. Mosquitoes of North America. University of California Press, Berkeley. 360 pp.

Knight, Kenneth L., and Michael Wonio. 1969. Mosquitoes of Iowa (Diptera: Culicidae). Iowa Agric. Home Econ. Exp. Stn. Spec. Rep. 61. 79 pp.

[1] Journal Paper No. J-9702 of the Iowa Agriculture and Home Economics Experiment Station, Ames, Iowa 50011. Project No. 2053.

AUTOGENY IN *CULEX TARSALIS* COQUILLETT (DIPTERA: CULICIDAE)

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It has been reported by Bellamy and Kardos (1958) and Chao (1958) that certain laboratory strains of *Culex tarsalis* Coquillett will reproduce without blood meals. According to William Wilder (personal communication, October 1978), autogeny is built into *Cx. tarsalis*. We have not however, seen photographs of gravid ovaries from nulliparous *Cx. tarsalis* females.

Our colony of *Cx. tarsalis*, started from eggs furnished by William Wilder at the University of California Mosquito Control Laboratory in Fresno, was maintained in the California State University, Los Angeles Biology Department for 1 year. On 12 April 1978 one autogenous egg raft was collected from a 35°C adult cage. It appeared small and characteristically triangular in shape. The autogenous egg raft represents 0.3% of all egg rafts oviposited by the colony.