

PIPE INSULATING CEMENT FOR CLOSING TREEHOLE BREEDING SITES OF *Aedes triseriatus*

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Attempts to control treehole mosquitoes by permanent closure techniques have been generally unsuccessful. Portman and Hall (1961) and Brannon (1964) attempted control of the western treehole mosquito, *Aedes sierrensis* (Ludlow), by filling treeholes with sand capped with cement. The procedure was considered time-consuming and physically demanding, however, and, in time, the concrete began to decay around the edges, allowing the treeholes to become productive again. Garry and DeFoliart (1975) removed water from treeholes, packed them with rocks and soil, and capped each with concrete mortar. Their lack of effective suppression of *Ae. triseriatus* (Say) was attributed to migration and/or undiscovered breeding sites in arboreal cavities and refuse.

Although these previous attempts have not met with much success, until new more effective methods become available, closing treeholes remains an option to consider when *Ae. triseriatus* control is thought to be necessary. In an attempt to improve the treehole-filling procedure, 2 materials were tested for their ability to withstand climatological and animal damage. Six treeholes were filled in New Glarus State Park, Green County, Wisconsin, 3 with foam insulation and 3 with joint and pipe insulation material. The foam insulation proved immediately susceptible to removal, presumably by small animals for nesting material. The cement material, however, has remained almost in its original condition after more than 3 years under field conditions and with no apparent toxicity to the trees.

Insulating cement is normally used to coat pipes that are subject to temperature extremes, and therefore to condensation problems. Products with varying degrees of hardness and density are available through local pipe and duct insulating companies. The one we used was Delta Maid One-Shot Insulating Cement (Rock Wool Manufacturing Co., Leeds, Alabama 35094) a material which is used primarily to insulate pipe joints. It is wetted, applied to pipes, and allowed to harden.

The use of these materials to fill treeholes has several advantages. (1) They are considerably lighter in weight than sand and cement

and thus easier to carry into forests. (2) They require little water to become pliable enough to apply and water in the treeholes can be incorporated. (3) If cracks do develop because of wind movement or growth of a tree, water that seeps into the cavity is soaked up as the materials are porous. (4) They are relatively inexpensive (ca \$9/50 lb. bag) and their 2 main components, silica and slag, are not known to be phytotoxic.

References Cited

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SOME FIELD METHODS USED IN GRAND CAYMAN FOR TRAPPING ADULT CERATOPOGONIDS (DIPTERA)

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During a 5-year survey of ceratopogonids in Grand Cayman many trapping methods were assessed. The following are those used routinely and found satisfactory.

1. MODIFIED CDC LIGHT TRAP. The battery operated CDC miniature light trap (Sudia and Chamberlain (1962) was modified for collecting midges, as shown in Fig. 1A & B. A half-pint plastic ice cream container was taken and the bottom part cut off leaving a cylinder about 6 cm long. The cut edge of this was inserted into the lower end of the CDC trap barrel and taped to the inside with "Scotch" plastic tape (Fig. 1A). The center of the snap-on lid of the same container was cut out leaving a lip about 0.5 cm wide around the edge. A circular piece

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