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### LARVAL/PUPAL CONCENTRATOR

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To collect large numbers of mosquito larvae and pupae for laboratory study the Jefferson Parish Department of Mosquito Control has constructed a larval/pupal concentrator which can be constructed in about one hour and can save many hours in field collecting. Take a standard 8 in. tin funnel and with a soldering iron remove the spout from the bottom of the funnel, then solder the outer portion of a Mason jar lid to the bottom side of the funnel. Flatten approximately 1½ in. of one end of an 18 in. long piece of ¾ in. electrical conduit. This is easily done by placing in a vise and tightening.

Next take a piece of strap metal 1 in. wide and 23 in. long, bend the ends at a 90° angle ¾ in. from each end. Then drill two 3/16 in. holes in each angle. Secure with 3/16 x 2½ in. stove bolts. When bolted together it forms a ring into which funnel fits. Opposite the bolts in this strap drill two holes and attach to the flattened portion of the conduit with rivets. Then take a piece of 3/8 in. copper tubing 16 in. long and bend in the shape of a "J" to form a spout. About 1½ in. of the short end should extend below the Mason jar lid.

Drill a hole into the funnel into which the copper tubing spout will fit snugly; hole should be as close as possible above the top of the Mason jar lid. Next cut 2 windows in funnel in areas opposite each other just above top of hole for copper tubing spout. Two cuts will be approximately 1½ in. on the bottom cut and 2½ in. on the top cut with 1 in. separating the 2 cuts. Place over each window a piece of 1½ x 3 in. copper screening (50 mesh) and solder; then copper tubing should be fitted and soldered into place on the funnel. Make sure that the tube is parallel with the electric conduit stake. Now place a piece of hardware cloth over the top of the funnel and fold down to approximately 1 in. to 1½ in. over outside of the funnel. When funnel with hardware cloth is placed into the 1 in. strap, bolts should be tightened snugly. Then fasten copper tubing to conduit with electrical tape. Next place piece of copper screen 1¼ in. x

3 in. (50 mesh) over the short end of the copper tubing spout, which extends down into the jar. This is best done by making tube from the screen by rolling around the copper tubing and soldering. Lower end of screen should extend about ¾ in. below the bottom of siphon. Pinch the lower end and solder closed. This will retain the larvae/pupae in the jar while the siphoning removes excess water from the jar.

MATERIALS—1 Piece Copper Tubing (16 x ¾ in., 8 in. Tin Funnel, 1 Qt. Mason Jar, 3 Pieces Copper Screen 1¼ x 3 in. (50 Mesh), 1 Piece Hardware Cloth (12 in. Circle Cut), 1 Metal Strap 1 x 23 in., 1 Piece Conduit ¾ x 18 in., 2 Rivets, 2 Stove Bolts 3/16 x 2½ in.

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### INITIATION OF A NEOTROPICAL SAND FLY COLONY IN THE U.S.

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Sherlock and Sherlock (1972) have reviewed the methods employed in the laboratory culture of phlebotomine sand flies (Diptera, Psychodidae). In general, the current methods of culture are laborious, and the rearing of New World species is more difficult than the rearing of Old World species. Colonies of the Old World species *Phlebotomus papatasi* and *P. argentipes* were formerly maintained at the Walter Reed Army Institute of Research in Washington, D.C. (Eldridge et al. 1963). To our knowledge, these were the first self-sustaining colonies of phlebotomine sand flies to be established within the U.S.

Killick-Kendrick (1973) announced the establishment of a colony of *Lutzomyia longipalpis* at the Imperial College, London, England, representing the first self-sustaining colony of a New World phlebotomine species to be established outside the Neotropics. The purpose of the present paper is to report the establishment of a colony of this species at the Letterman Army Institute of Research, Presidio of San Francisco, California. This is the first self-sustaining colony of a New World phlebotomine species to be established within the U.S.

Eggs of *L. longipalpis* were received by air from Dr. R. Killick-Kendrick in London on 19 May 1975 and were immediately placed into culture. This parent generation yielded a total of 35 replete female sand flies. At the time of the