

brackets bolted to the side panel of the cab. A piece of 2 inch pipe is welded to the well casing to hold the spray wand. Gaskets made from old bicycle tires or inner tubes are fitted to the top edge of the casing to eliminate rattles. The top of the hand sprayer is fitted with a valve which can be used for charging the sprayer with air pressure from the Essick.

The aerosol generator is fitted to a "tee" which is welded to the exhaust pipe, cut off approximately 4 inches from the manifold. A hole is cut in the fender apron just above the body frame and the pipe of the generator is coupled to the "leg" of the "tee." For greater efficiency of Jeep operation in normal driving, a quick opening gate valve is installed on the bottom "arm" of the "tee," and connected to the muffler. When this valve is open, all the exhaust gases are forced through the regular exhaust line by plugging the opening of the generator. A spring hanger, anchored to the side of the fender, is used to support the generator. An air

vent, controlled by a gate valve, is installed in the feed line to reduce carbonizing. To increase the range of the generator, 6 foot lengths of flexible tubing are used to direct the fog into culverts, buildings and other confined areas. The "Plumber's Nightmare" is a very handy gadget to have around when the going gets tough. The very positive results obtained from its proper use against both mosquito larvae and adults, are a welcome aid to good public relations.

Without minimizing the benefits of temporary relief achieved by proper larviciding and adulticiding this one man blitz will be truly effective only if steps are taken to establish sound, permanent control. A full understanding of the actual and potential mosquito problem, plus a well conceived educational program aimed at reducing sources of mosquito larvae will pay dividends to all parties concerned. Well trained personnel with a desire to achieve this end is the best security any district can have.

NOTES ON THE MOSQUITO, *URANOTAENIA SYNTHETA* DYAR & SHANNON (DIPTERA: CULICIDAE)

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The mosquito, *Uranotaenia syntheta* Dyar & Shannon was described in 1924 from a single female that had been reared from a larva collected at Mission, Texas (Dyar & Shannon 1924). The male was not known at that time, and the larva from which the female was reared was not described. The status of this species remained somewhat in doubt for many years, but in 1943 Dampf described the male, and stated that the species was rather abundant in parts of Mexico (Dampf 1943). The larva was described in 1946 from a single specimen collected

at Forth Worth, Texas (Porter 1946). Although this larva was not reared to an adult, it was thought probable that it was *Uranotaenia syntheta* since it differed from the larvae of *U. lowii* and *U. sapphirina*, the only other species of *Uranotaenia* known to occur in Texas. A male of *U. syntheta* was also collected from the same area which supported this conclusion.

Collections of this species in the United States have been relatively rare, and in most instances the mosquito has been represented by only an individual or a very few specimens. So far as could be deter-

mined, the species has not been recorded from this country except for a few localities in Texas.

During 1947 the writer made several collections of mosquitoes in Palmetto States Park, some eight miles south of Luling, Texas. A total of several dozen larvae of *Uranotaenia syntheta* in different larval instars were taken May 14, 22 and June 17. The larvae were found in small depressions along a stream that contained masses of water hyacinths. Larvae of *Culex salinarius* were also found in the same depressions, but no other species of mosquitoes were represented. The larvae of *U. syntheta* were brought into the laboratory, and although larval mortality was rather high, several adults of both sexes emerged.

These collections indicate that *U. syntheta* may not be as rare in parts of the United States as formerly supposed, and it is thought probable that more intensive collections in some areas will yield many specimens. It is possible, however, that special conditions are necessary for the breeding of the species in large numbers. The depressions mentioned above are the only places where larvae have been found,

although a large number of collections at different times of the year have been made in that vicinity. Larvae of *U. lowii* and *U. sapphirina* were collected from a grassy swamp less than 50 yards away, but no *U. syntheta* were recovered from this area.

Larvae of the same series from which adult *U. syntheta* were reared were compared with the description of the larva by Porter (1946). The larvae differed in some structures from this description, but these differences may well be individual variations that may be expected to be found in a series of most organisms. At present the writer is inclined to believe that the larva described by Porter was that of *U. syntheta*. The study of this species is continuing.

Literature Cited

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HEDGES OF *BROMELIA PINGVIN* L. A SOURCE OF MOSQUITO BREEDING IN HAITI

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In a letter to the Secretary, Leon Dalencour, Civil Engineer and Specialist in Drainage, Rue Benito Juarez, 55, Port-au-Prince, Haiti, writes:

"I have resigned from the Malaria Control Section here in Haiti. My interest, however, did not decrease concerning the activities of any organization dealing with mosquito or malaria control; and I avail of the opportunity to send you the fol-

lowing communication which may prove of publication value.

"I was going to consider as a failure the extensive drainage work carried on by the Malaria Control Section so far as mosquito control is concerned in the town of Aquin, Haiti. Although decreasing, the outbreaks of mosquitoes were rather serious seven days after any rainfall and the remaining crab holes could not be