

TABLE 1. RESPONSE OF CARIBBEAN FRUIT FLIES TO JACKSON TRAPS: EFFECT OF INCORPORATING ARC YELLOW COLOR.

Trap type (color pattern)	Mean ( $\pm$ S.E.) no. flies captured <sup>1</sup>
A-Plain (no color added)	6.9 ( $\pm$ 1.1) a
B-Outside only (entire surface)	11.7 ( $\pm$ 2.1) a
C-Inside only (entire surface, incl. insert)	21.1 ( $\pm$ 3.8) b
D-Entire trap (inside & outside)	25.0 ( $\pm$ 3.3) b
E-Inside (incl. insert) & 2.5 cm stripe on ends	32.9 ( $\pm$ 4.7) c

<sup>1</sup>Means followed by different letters differ significantly at the 5% level by Duncan's new multiple range test.

Assuming these results can be confirmed in field tests with wild flies, we believe it may be possible to significantly enhance the effectiveness of Jackson traps employed for survey and detection of various tephritid species. It is also possible that trap effectiveness could be synergized by combining visual and chemical attractants. Mention of a commercial or proprietary product does not constitute an endorsement by the USDA.— P. D. GREANY, A. K. BURDITT, JR.<sup>1</sup>, AND D. L. CHAMBERS, Insect Attractants, Behavior and Basic Biology Research Laboratory, ARS, USDA, Gainesville, FL 32604.

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*DATANA PERSPICUA* (LEPIDOPTERA: NOTODONTIDAE) ATTACKS *COTINUS OBOVATUS*, A NATIVE WOODY ORNAMENTAL— The sumac caterpillar, *Datana perspicua* Dyar (Lepidoptera: Notodontidae), has been thought to be restricted to members of the sumac genus, *Rhus* (Anacardiaceae). C. P. Kimball (1965, The Lepidoptera of Florida, an Annotated Checklist, Florida Dept. of Agric., Gainesville, 363 p.) merely listed "sumac" as its food, whereas H. M. Tietz (1972, An Index to the Described Life Histories, Early Stages and Hosts of the Macrolepidoptera of the Continental United States and Canada, I.A.C. Allyn, Sarasota, 536 p.) specified *R. aromatica* Ait. (fragrant sumac), *R. copallina* L. (shining sumac), and *R. typhina* L. (staghorn sumac) as hosts. Other members of genus *Datana*, namely *D. major* Grote and Robinson, *D. ranaeiceps* Guréin-Ménéville, and *D. integerrima* Grote and Robinson (walnut caterpillar), also appear to be closely tied to a single host genus each. However, *D. ministra* (Drury) (yellownecked caterpillar), *D. angusi* Grote and Robinson, and *D. contracta* Walker attack fairly diverse hosts (Kimball 1965, *in loc cit.*).

*Cotinus obovatus* Raf. (American smoketree) (Anacardiaceae) is an uncommon shrub or slender tree up to 10 m high found naturally on rocky limestone hills in Texas, Oklahoma, Arkansas, Missouri, Alabama, Tennessee, and Kentucky (Vines, R. A. 1960, Trees, Shrubs, and Woody Vines of the Southwest, Univ. of Texas Press, Austin, 1104 p.). There appear to be no previous records of arthropods damaging *C. obovatus*.

Data were collected in 1979-1981 from a lone specimen of *C. obovatus*

growing as a solitary tree (d.b.h. = 6.35 cm, height = 3.0 m, drip line = 2.5 m from trunk) in a 0.55 x 2.5 m outdoor bed delimited by railroad cross-ties in Branch Community, Collin County, Texas. The bed was examined to a depth of ca. 10 cm and the location of each pupa was plotted.

Mature larvae of *D. perspicua* (laboratory-reared adults det. R. W. Poole, Systematic Ent. Lab., USDA, Beltsville, Maryland) first were detected on *C. obovatus* foliage in Branch Community, 28 September 1979. Four specimens taken to the laboratory pupated by 4 October; within this same period all larvae disappeared from the tree. A 3 December 1979 excavation of the bed disclosed 12 pupae of *D. perspicua* in earthen cells around the base of the tree. The mean distance of pupae from the trunk was  $23.2 \pm$  SE of 2.5 cm (range = 10.2-36.7 cm) and the mean depth was  $1.9 \pm$  SE of 0.2 cm (range = 0.9-3.8 cm). The lateral distribution indicates that the larvae had climbed down the trunk to the ground; if they had dropped from the branch tips they would have been nearer the drip line (2.5 m from the trunk). Equal numbers of larvae dispersed north and south from the trunk, but nine went to the west vs. three to the east.

In 1980, but not in 1981, the plant at Branch Community was attacked again by *D. perspicua*. Several specimens each of *Rhus virens* (Gray) (evergreen sumac) and *R. glabra* L. (scarlet sumac) were ca. 70 and 5 m, respectively, from the *C. obovatus*; no larvae or feeding damage were found on these plants 1979-1981. Five *C. obovatus* in Dallas, Dallas Co., Texas were not attacked in any of these 3 years. Because *D. perspicua* apparently is univoltine and because *C. obovatus* is a relatively small plant under most circumstances, any necessary control of the pest on domesticated *C. obovatus* should be relatively easy. Texas Agricultural Experiment Station Journal Series No. TA-16747.—ROBERT L. CROCKER, AND BENNY J. SIMPSON, Texas A&M University Research and Extension Center, 17360 Coit Road, Dallas, TX 75252.

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A LINEAR PITFALL TRAP FOR MOLE CRICKETS AND OTHER SOIL ARTHROPODS—Although adult mole crickets (*Scapteriscus acletus* and *S. vicinus*) can be readily trapped by electronic calling devices (Walker 1982, Florida Ent. 65: 105-10) a reliable and easy collecting technique for immatures has yet to be developed. Although mole crickets do extensive surface burrowing and surface feeding, conventional pitfall traps are largely ineffective.

To provide large numbers of mole cricket nymphs for research, an easily constructed and inexpensive linear pitfall trap was developed and tested for trapping potential. A 2.5 cm slot was cut lengthwise from a piece of 7.6 cm diam. PVC pipe ca. 2.5 m long. A 5 cm section was left uncut at each end and at the midpoint for reinforcement. An end cap was placed over one end of the pipe and 0.318 cm drainage holes drilled opposite the slot at ca. 30 cm intervals. A hole large enough to insert the PVC pipe was cut in the side of a 19 L plastic pail, ca. 7 cm from the top. (Pails that contained dry-wall joint compound or paint work well). A hole to accommodate the PVC pipe was cut in the side of a 3.78 liter plastic jug used to collect the specimens; a plastic milk jug or chlorox bottle works well. Drainage holes were drilled in the bottoms of the pail and plastic collection jug.