

OBSERVATIONS ON A GALL-MAKING THRIPS<sup>1</sup> ON  
*CALYCANTHUS FLORIDUS* L. AND *CALYCANTHUS FERTILIS*  
WALT. IN GEORGIA

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ABSTRACT

In surveying the thrips of Georgia, a gall-making species, *Catinathrips vaccinophilus* (Hood), was discovered for the first time in the State. This species produces marginal leaf galls on the terminal leaves of *Calycanthus floridus* L. and *C. fertilis* Walt.

Key Words: Gall-making thrips, *Catinathrips vaccinophilus* (Hood), *Calycanthus* spp.

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INTRODUCTION

Thrips galls have been known since the beginning of the present century. Rübsaamen (1902) was perhaps the first to describe typical thrips galls on the leaves of *Galium* and *Stellaria* from Europe. In a study of thrips galls and gall-making thrips from 1949 to 1977, Ananthakrishnan described a number of new thrips galls on a variety of plants, as well as, a number of new genera and species of gall-making thrips. Today over 300 species of primary and secondary gall inhabiting Thysanoptera are known (Ananthakrishnan 1978); the majority of these are tropical and are common in Indo-Malaysia and Australia.

One of the first reports of a gall-making thrips in North America was published by Wood (1956) in a note on injury to blueberry sprouts by the blueberry thrips, *Frankliniella vaccinii* Morgan. Wood reported that in crop fields, leaves from infested buds did not unfold normally and leaf rolls resembling enlarged buds were formed. The thrips appeared to prefer the terminal buds. In sprout fields, the leaves on infested plants were wrapped around the stems and entire shoots were often enclosed within foliar jackets.

Wood (1960) discovered that not one but two species, *F. vaccinii* and *Taeniothrips vaccinophilus* Hood, were infesting blueberry and occurred within the same leaf galls. The life-histories of the two species are similar. Overwintered females emerge from the soil and attack the plant in late May or early June. The thrips mature in late July or August. After reaching the adult stage, the thrips leave the plant and move into the soil by late September.

Hood (1936) described a small thrips from blueberry in New York as *Taeniothrips vaccinophilus* and later O'Neill (1967) erected the genus *Catinathrips* for *T. vaccinophilus* and an additional new species.

<sup>1</sup> Thysanoptera: Thripidae

*Catinathrips vaccinophilus* (Hood) was first found in sweet shrub (*Calycanthus fertilis* Walt.) leaf galls (Fig. 1) in Macon Co., North Carolina on VI-16-1981. This collection represents a new record for that state. The galls produced by this species on sweet shrub are distinctly different from the galls it presumably produces on blueberry. The galls occur on the terminal leaves (occasionally on the two subapical leaves) and form a marginal roll or fold on both margins. During 1983, 50 infested leaves of *C. fertilis* from Rabun Co., Georgia, V-29-1983, were examined and counts revealed 284 larvae and 10 adults present in leaf galls. On June 16, 1983, ten infested leaves were examined and 152 larvae and 4 adults were found. By July 20 only 1 adult and 1 larva were found in 25 leaf galls.

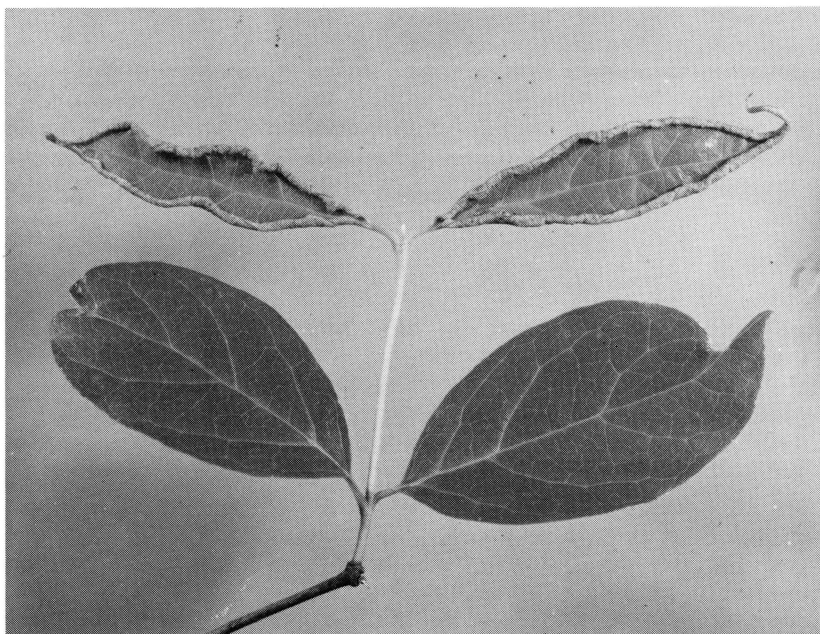


Fig. 1. Marginal leaf galls of *Calycanthus fertilis* Walt. induced by *Catinathrips vaccinophilus* (Hood).

On May 25, 1984, an infestation was discovered in *C. floridus* L. leaf galls in Henry Co., Georgia (Table 1). Twenty-five leaf samples were taken at approximately weekly intervals to determine numbers of adults and larvae present in the leaf galls. Numbers of adults decreased while larvae increased during sampling and by June 6 totalled 198 larvae and 1 adult. By June 18 no adults and 2 larvae were found in galls. Samples were not taken after June 18 because the leaves of the host were dry and beginning to fall, presumably because of hot, dry weather conditions.

The species responsible for making a gall usually live inside it, but they are sometimes accompanied by other gall-producing species as well as by non-gall-producing inquilines (Wood 1960). In this study, two additional species of thrips

Table 1. Number of thrips collected from *Calycanthus floridus* L. galls in Henry Co., Georgia, 1984.

	<i>Catinathrips vaccinophilus</i> (Hood)		<i>Haplothrips rectipennis</i> Hood	
	Adults*	Larvae*	Adults*	Larvae*
Apr. 25	36	16	1	0
May 21	9	199	4	1
May 28	3	141	5	10
June 6	1	198	0	33
June 11	0	36	0	9
June 18	0	2	13	2

\* Per 25 leaf galls.

were found in association with *C. vaccinophilus*. *Haplothrips rectipennis* Hood adults and larvae were found inside leaf galls on both host species. Since they occurred in small numbers and later in the season, they are probably inquilines. Two adult specimens of *Chaetanaphothrips orchidii* (Moulton) were collected from *C. fertilis* galls in Macon Co., North Carolina. This species is also probably an inquiline.

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