

THE RED-BANDED THRIPS, SELENOTHRIPS RUBROCINCTUS (GIARD),
IN FLORIDA (THYSANOPTERA: THRIPIDAE)¹

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INTRODUCTION: SELENOTHRIPS RUBROCINCTUS WAS DESCRIBED BY GIARD (1901) AS PHYSOPUS RUBROCINCTUS. HE RECEIVED SPECIMENS FROM GUADELOUPE, WEST INDIES, WHERE IT WAS CAUSING CONSIDERABLE DAMAGE TO CACAO. IT WAS REFERRED TO EARLIER AS THE CACAO THRIPS. THE EARLIEST REPORT RELATING TO THIS THRIPS WAS A REPORT BY W. E. BROADWAY IN 1898, WHEN HE CALLED ATTENTION TO THE "BLIGHT" OF CACAO.

DISTRIBUTION: THERE IS SOME QUESTION ABOUT THE ORIGIN OF THIS THRIPS. ALTHOUGH IT WAS DESCRIBED FROM SPECIMENS ORIGINATING IN THE WEST INDIES, IT MAY HAVE BEEN FIRST OBSERVED IN CEYLON. CEYLON IS NOT GIVEN AS PART OF THE DISTRIBUTION BECAUSE THE THRIPS HAS NEVER BEEN REPORTED FROM THERE SINCE THE FIRST RECORD BY E. E. GREEN (TROP. AGRIC. 27: 248, 1906). IT IS A TROPICAL-SUBTROPICAL SPECIES AND IS FOUND IN THE FOLLOWING AREAS: ASIA--CHINA, FORMOSA, MALAYA AND THE PHILIPPINE ISLANDS; AFRICA--CONGO, FERNANDO, GHANA, IVORY COAST, NIGERIA, PRINCIPE, REPUBLIC OF CONGO, SAN THOME, SIERRA LEONE, TANGANYIKA, UGANDA, ZANZIBAR; AUSTRALASIA AND PACIFIC ISLANDS--HAWAIIAN ISLANDS, MARIANA ISLANDS, NEW CALEDONIA, PAPUA, NEW GUINEA, AND SOLOMON ISLANDS; NORTH AMERICA--FLORIDA, MEXICO; CENTRAL AMERICA--COSTA RICA, HONDURAS, PANAMA; WEST INDIES; SOUTH AMERICA--BRAZIL, BRITISH GUIANA, ECUADOR, PERU, SURINAM, AND VENEZUELA. IN FLORIDA IT IS FOUND FROM KEY WEST TO MACCLENNY, BUT MORE GENERALLY IT IS FOUND FROM THE ORLANDO AREA SOUTH.

HOSTS: THIS THRIPS IS A PEST OF MANY PLANTS. THE LOCALITY AND ITS FLORA USUALLY DETERMINE THE MORE PREVALENT HOSTS. IN THE WEST INDIES IT HAS BEEN A SERIOUS PEST OF CACAO AND MANGO. THE SPECIES OF TROPICAL FRUIT TREES, ORNAMENTALS AND SHADE TREES THAT IT ATTACKS ARE TOO NUMEROUS TO LIST HERE. THE FAVORITE TROPICAL FRUIT HOSTS IN FLORIDA ARE MANGO AND AVOCADO.

ECONOMIC IMPORTANCE: THE LARVAE AND ADULTS FEED ON THE FOLIAGE AND THE FRUIT BY PIERCING THE EPIDERMIS WITH THEIR MOUTHPARTS. THEY PREFER THE YOUNG FOLIAGE. THE THRIPS DESTROYS THE CELLS ON WHICH IT FEEDS, CAUSES SOME LEAF DISTORTION (FIG. 1), CAUSES INJURY TO THE FRUIT, AND LEAVES UNSIGHTLY DARK COLORED DROPLETS OR BLOTCHES OF EXCREMENT ON THE LEAF SURFACE (FIG. 2). A MORE SERIOUS INJURY IS LEAF DROP, WHICH MAY DENUDE TREES. HONEYDEW EXCRETORY PRODUCTS FROM RED-BANDED THRIPS AND OTHER INSECT INFESTATIONS FALL TO LEAVES, FRUITS OR OBJECTS BENEATH, GIVING RISE TO THE OBJECTIONABLE FRUIT-DEGRADING, BLACK SOOTY MOLD.

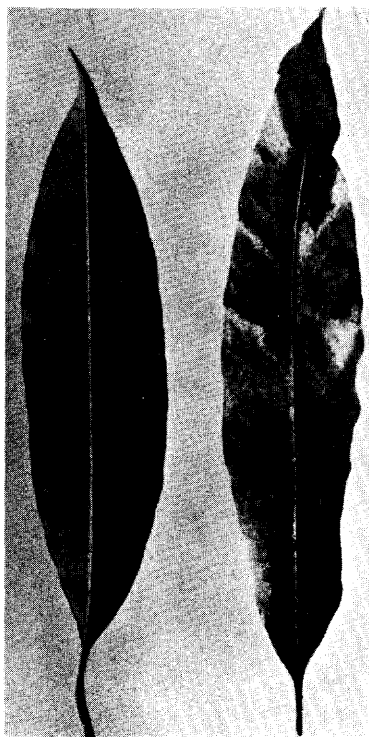


FIG. 1. INJURY TO MANGO LEAVES BY RED-BANDED THRIPS.

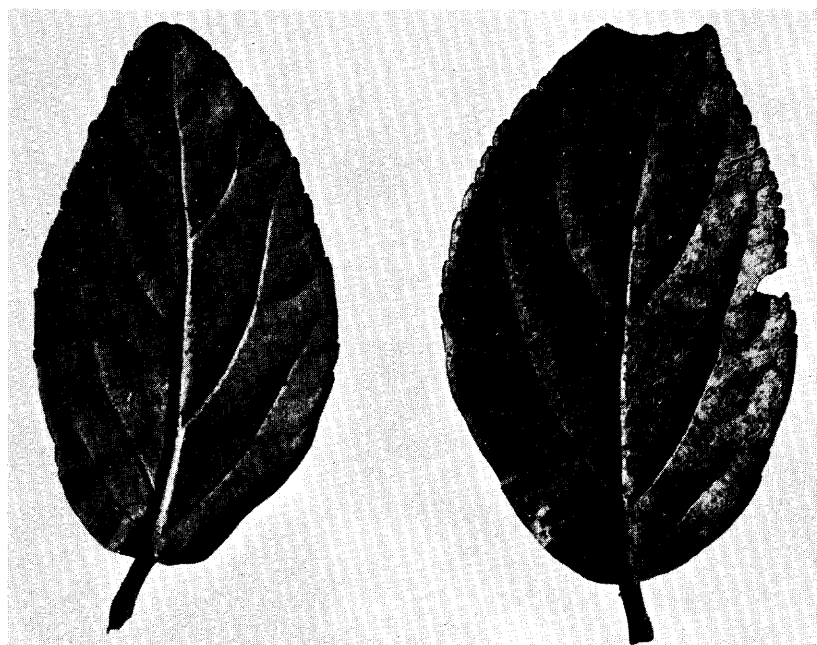


FIG. 2. RED-BANDED THRIPS' EXCREMENT ON VIBURNUM.

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DESCRIPTION: THE FEMALE IS ABOUT 1.20 MM IN LENGTH AND HAS A DARK BROWN TO BLACK BODY UNDERLAIN BY RED PIGMENT CHIEFLY IN THE FIRST 3 ABDOMINAL SEGMENTS; THE ANAL SEGMENTS RETAIN A REDDISH BLACK COLOR, AND THE WINGS ARE DARK (FIG. 3). THE MALE IS SIMILAR BUT SMALLER AND IS SELDOM COLLECTED. THE LARVA IS LIGHT YELLOW TO ORANGE WITH ABDOMINAL SEGMENTS 1 AND 2 AND ANAL SEGMENTS BRIGHT RED (FIG. 4). THE NYMPH AND PUPA ARE LIGHT YELLOW TO ORANGE WITH FIRST THREE AND LAST SEGMENTS OF THE ABDOMEN BRIGHT RED. THE LIFE CYCLE IS COMPLETED IN FLORIDA IN ABOUT 3 WEEKS, AND THERE ARE SEVERAL GENERATIONS A YEAR.

CONTROL: THE UNIVERSITY OF FLORIDA IFAS AGRICULTURAL RESEARCH AND EDUCATION CENTER, HOMESTEAD, RECOMMENDS MALATHION, 4 LBS. 25% WP OR 1 QT. 5% EC; ETHION, 4% EC, 1 PT.; DIMETHOATE, 2.67%EC, 1 PT. OR 25% WP, 1 LB. OR CARBARYL, 80% WP, 1-1/4 LBS. PER 100 GALLONS OF WATER TO WET THE INFESTED PORTIONS OF THE TREES. CHEMICAL CONTROLS ARE NOT ALWAYS NECESSARY FOR THIS THRIPS, AS NATURAL CONTROLS ARE APPARENTLY EFFECTIVE MOST OF THE TIME.

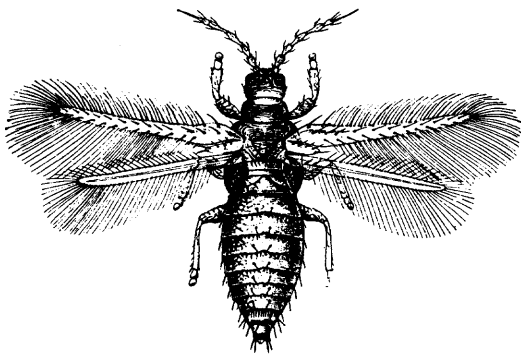


FIG. 3. RED-BANDED THRIPS ADULT
(AFTER R. M. RUSSELL).

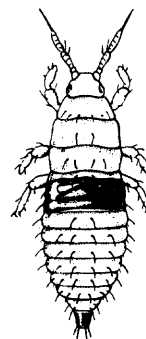


FIG. 4. RED-BANDED THRIPS LARVA.

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