ENTOMOLOGY CIRCULAR No. 156
MAY 1975

FLA. DEPT. AGR. & CONSUMER SERV.
DIVISION OF PLANT INDUSTRY

LANTANA LACE BUG, *TELEONEMIA SCRUPULOSA* STÅL (HEMIPTERA: TINGIDAE)[1]

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INTRODUCTION: THE LANTANA LACE BUG, *TELEONEMIA SCRUPULOSA* STÅL 1873, OCCURS NATURALLY IN FLORIDA AND TEXAS AND SOUTHWARD TO BRAZIL, PARAGUAY, AND CHILE. IT OFTEN CAUSES EXTENSIVE DAMAGE TO LANTANA, *LANTANA CAMARA* L. ALTHOUGH LANTANA IS SOMETIMES USED AS AN ORNAMENTAL, IT IS USUALLY CONSIDERED A WEED. IT OFTEN FORMS SPINY, DENSE, IMPENETRABLE THICKETS COVERING LARGE AREAS OF VALUABLE LAND. THE LANTANA LACE BUG HAS BEEN INTRODUCED INTO MANY COUNTRIES AS A BIOLOGICAL CONTROL AGENT TO COMBAT LANTANA.

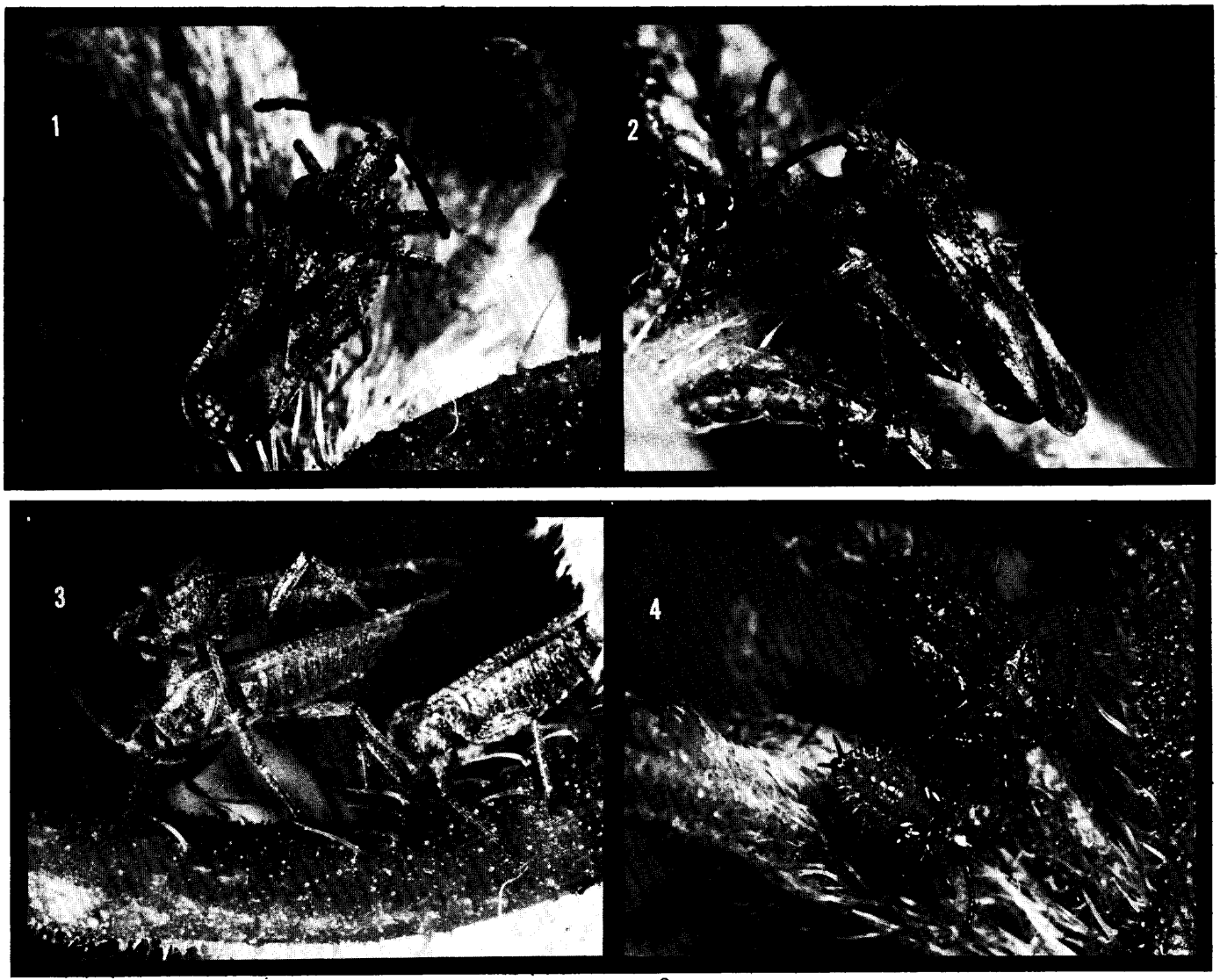

FIG. 1-4: LANTANA LACE BUG, *TELEONEMIA SCRUPULOSA* STÅL; 1-3) ADULTS, DIFFERENT ASPECTS; 4) NYMPHS.

DESCRIPTION AND IDENTIFICATION: LENGTH 3-4 MM; WIDTH 1.1-1.3 MM. DORSALLY, (FIG. 1) THE ADULT IS A SMALL, BROWN, ELONGATE-OVAL LACE BUG, APPEARING SLIGHTLY EXPANDED NEAR THE MIDDLE, AND BLUNTLY ROUNDED POSTERIORLY. AT LOW MAGNIFICATION, MOST SPECIMENS BEAR A SOMEWHAT OBSCURE DARK BROWN "X" PATTERN ON THE TEGMINA (FOREWINGS), USUALLY FLANKED BY A PAIR OF VARIABLY SHAPED BROWN SPOTS ON THE SWOLLEN MIDDLE AREA OF EACH TEGMEN. THE PRONOTUM HAS 3 PROMINENT LONGITUDINAL RIDGES. THE ANTENNAE ARE 4-SEGMENTED, CYLINDRICAL, AND WITH THE THIRD SEGMENT NEARLY TWICE AS LONG AS THE OTHER 3 SEGMENTS COMBINED. FOR ADDITIONAL DESCRIPTIVE DETAILS, SEE DRAKE (1918) AND BLATCHLEY (1926). IN GENERAL APPEARANCE THE NYMPHS (FIG. 4) ARE VERY DIFFERENT FROM THE ADULTS. THEY ARE DULL-COLORED

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AND BEAR SPINES WHICH ARE ESPECIALLY PROMINENT AROUND THE ABDOMEN.

DRAKE AND RUHOFF (1965) LISTED 14 SPECIES OF TELEONEMIA FROM THE UNITED STATES. MOST ARE LIMITED TO THE SOUTHWESTERN STATES. ONLY 2 OF THE 3 SPECIES REPORTED FROM FLORIDA FEED ON LANTANA. SEVERAL IMPORTANT PAPERS ON T. SCRUPULOSA ORIGINALLY APPEARED USING THE SYNONYMOUS NAME T. LANTANAE OR T. VANDUZEEI.

KEY TO FLORIDA SPECIES OF TELEONEMIA

1. DISCOIDAL AREA FINELY PUBESCENT; COSTAL AREA WITH WIDER, PREDOMINANTLY SQUARISH CELLS; IN FLORIDA PRIMARILY IN THE PENINSULA ON LANTANA . . . . . TELEONEMIA SCRUPULOSA STÅL
1'. DISCOIDAL AREA GLABROUS; COSTAL AREA WITH NARROWER, RECTANGULATE CELLS 2
2. GENERAL COLOR DARK BROWN, THE ELYTRA WITH FUSCOUS MARKINGS; FRONT MARGIN OF PRONOTUM SUBTRUNCATE, ITS MIDDLE ONLY SLIGHTLY PROLONGED FORWARD; COASTAL AREAS FROM PALM BEACH COUNTY SOUTHWARD; FLORIDA HOSTS UNKNOWN BUT RECORDS ELSEWHERE INCLUDE LANTANA SPP., VERBESINA SP. AND SACCHARUM OFFICINARUM L. . . . . TELEONEMIA SACCHARI (FABRICIUS)
2'. GENERAL COLOR PALE BROWNISH YELLOW, WITH DARKER BROWN MARKINGS; FRONT MARGIN OF PRONOTUM BISINUATE, ITS MIDDLE FORMING AN ANTERIORLY PRODUCED TRIANGLE; RANGES OVER MOST OF FLORIDA ON BEAUTY BERRY (=FRENCH MULBERRY), CALLICARPA AMERICANA L. . . . TELEONEMIA BELFRAGII STÅL

DISTRIBUTION: THE LANTANA LACE BUG RANGES NATURALLY FROM FLORIDA AND TEXAS SOUTHWARD THROUGH MEXICO AND CENTRAL AMERICA TO SOUTHERN BRAZIL, PARAGUAY, AND NORTHERN CHILE. IT WAS INTENTIONALLY INTRODUCED INTO FIJI, AUSTRALIA, NEW CALEDONIA, NORFOLK ISLAND, JAVA, INDIA, KENYA, ZANZIBAR, TANZANIA, UGANDA, SOUTH AFRICA, CENTRAL AFRICA, ZAMBIA, MAURITIUS, AND MANY PACIFIC AND INDIAN OCEAN ISLANDS (HARLEY & KASSULKE, 1971). IN FLORIDA IT HAS BEEN RECORDED FROM ALACHUA, BROWARD, COLLIER, DADE, GADSDEN, HILLSBOROUGH, LAKE, LEE, MANATEE, MARION, PINELLAS, POLK, AND VOLUSIA COUNTIES, ALTHOUGH IT UNDOUBTEDLY OCCURS THROUGHOUT MOST OF THE STATE.

BIOLOGY AND HOST PLANTS: THE BIOLOGY OF THE LANTANA LACE BUG HAS BEEN STUDIED IN FIJI (SIMMONDS 1929), INDIA (KHAN 1945, ROONWAL 1952), AND AUSTRALIA (FYFE 1937). THERE ARE 5 NYMPHAL INSTARS CHARACTERIZED BY SPINES AROUND THE LATERAL MARGIN. THE WING PADS BECOME PROMINENT IN THE LAST 2 INSTARS. DURATION OF THE NYMPHAL STAGES WAS 15-18 DAYS AT 70-77 F AND 12-15 DAYS AT 77-85 F (FYFE 1937). FEMALES BEGIN OVIPOSITING 5 OR 6 DAYS AFTER BECOMING ADULTS. EGGS ARE INSERTED INTO THE UNDERSIDE OF LEAVES, USUALLY IN CLUSTERS OF 10-30 EGGS. THE EGGS HATCH IN 7-8 DAYS.

ABOUT 15 PLANT SPECIES ARE RECORDED AS HOSTS OF THE LANTANA LACE BUG (HARLEY AND KASSULKE 1971); HOWEVER, DAMAGE TO PLANTS OTHER THAN LANTANA HAS BEEN SLIGHT AND TRANSITORY WITH ONE EXCEPTION. IN EAST AFRICA AFTER DEFOLIATING LANTANA, LANTANA LACE BUGS MOVED TO SESAME (SESAMUM INDICUM L.) CAUSING ECONOMIC LOSSES TO THE CROP (GREATHEAD 1968).

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