

THE TORTOISE BEETLES OF FLORIDA II, PLAGIOMETRIONA CLAVATA (FABRICIUS)  
(COLEOPTERA: CHRYSOMELIDAE)<sup>1</sup>

ROBERT E. WOODRUFF<sup>2</sup>

**INTRODUCTION:** IN A PREVIOUS ENTOMOLOGY CIRCULAR, I TREATED ONE OF THE COMMON FLORIDA TORTOISE BEETLES, HEMISPHAEROTA CYANEA (SAY), ON PALMS (WOODRUFF, 1965). IT IS MY INTENTION TO TREAT ALL OF THE FLORIDA SPECIES IN THIS SERIES. THE PRESENT SPECIES, PLAGIOMETRIONA CLAVATA (FAB.), IS COMMON AND CAN BE RECOGNIZED EASILY BY ITS HABITUS (FIG. 5).

**DESCRIPTION:** (FIG. 1-5). THE ADULT IS AN OVAL, CONVEX, TORTOISE-SHAPED BEETLE WITH TRANSLUCENT CARAPACE, EXCEPT AT THE DARK HUMERAL AREAS. LENGTH 6.5 TO 7.5 MM; WIDTH 5.5 TO 6.3 MM. COLOR VARIES FROM BRILLIANT BRASSY GREEN, GOLDEN AND BROWN IN LIFE TO A DULL YELLOW BROWN TO TAN WITH DARK MARKINGS IN DEAD SPECIMENS. IN SIDE VIEW (FIG. 1), IT IS DOME-SHAPED WITH A CONICAL PEAK NEAR THE MIDDLE, BEHIND THE SCUTELLUM. THE DORSAL SURFACE IS RUGOSE AND TUBERCULATE (NO OTHER SPECIES OF UNITED STATES TORTOISE BEETLE, SUBFAMILY CASSIDINAE, HAS SUCH A SURFACE). THE ANTENNA IS VARIABLE IN COLOR, BUT AT LEAST SOME OF THE TERMINAL SEGMENTS ARE BLACK; THE SEGMENTS ARE FREE WHEN AT REST, AND THERE IS NO ANTENNAL GROOVE ON THE UNDERSIDE OF THE PROTHORAX; THE THIRD SEGMENT IS SLIGHTLY LONGER THAN THE SECOND SEGMENT. THE HEAD IS COVERED BY THE ARCULATE FRONT MARGIN OF THE PRONOTUM. THE TARSAL CLAWS ARE ANGULARLY DILATED AT THEIR BASE. THE ILLUSTRATION OF THIS SPECIES BY DILLON & DILLON (1961) HAS THE LEGEND REVERSED WITH THAT OF METRIONA BIVITTATA (SAY); P. CLAVATA IS ACTUALLY FIGURE 9 ON PLATE 74.

THE LARVA (FIG. 2-4) IS A TYPICAL TORTOISE BEETLE TYPE, BUT VERY UNLIKE MOST OTHER BEETLE LARVAE. THE LAST ABDOMINAL SEGMENT HAS A SPECIAL "FECAL FORK" WHICH PERMITS THE ATTACHMENT OF DRIED FECAL MATTER. THIS FECAL MASS IS CARRIED OVER THE DORSUM IN THE SAME FORM AS "TRASH BUGS" (NEUROPTERA), AND PRESUMABLY OFFERS A DEGREE OF PROTECTION THROUGH CAMOUFLAGE. THE BODY IS GREEN, FLATTENED, AND ALMOST ENTIRELY FRINGED WITH WHITISH MULTISPICULATE PROJECTIONS.

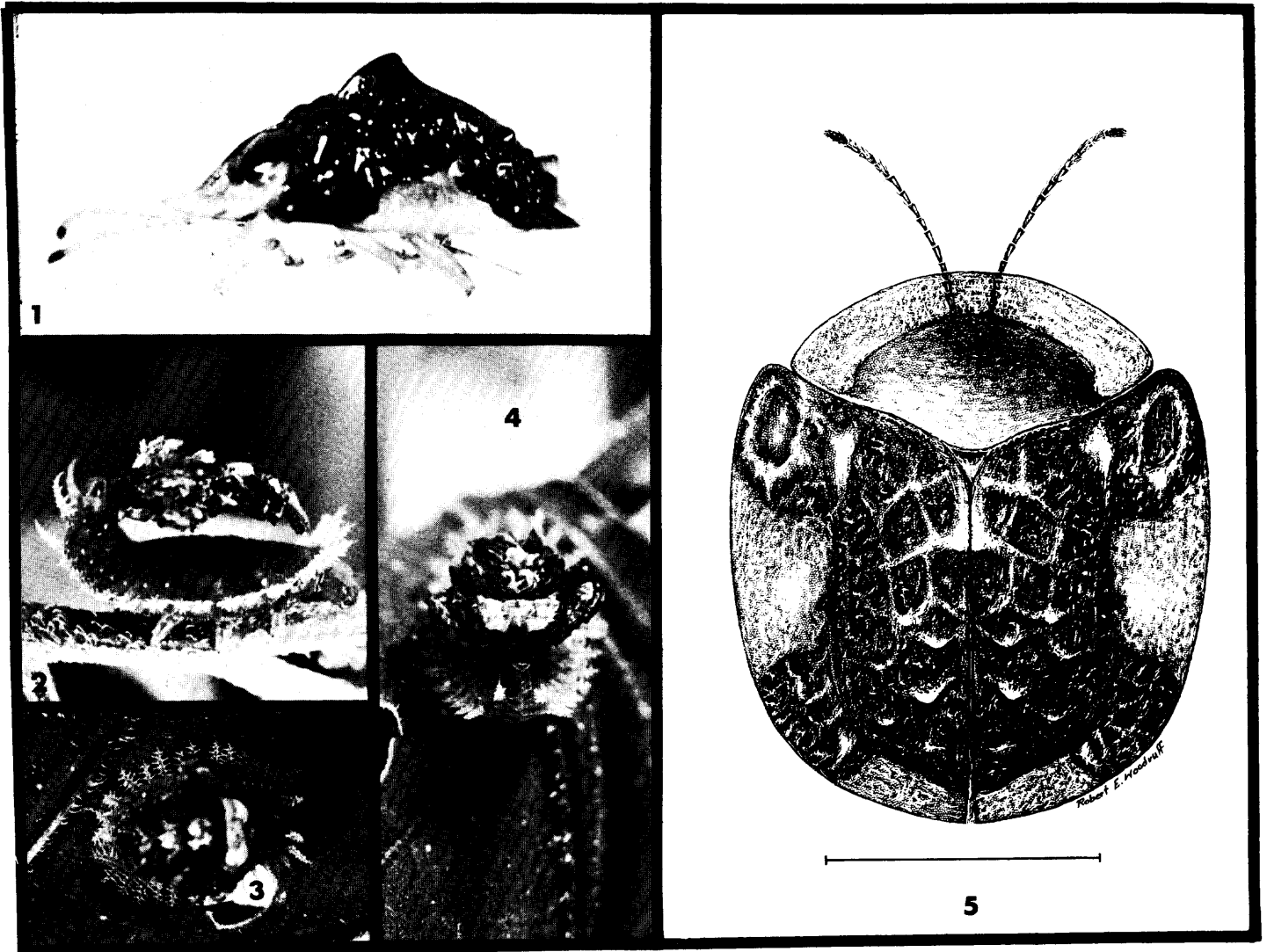


FIG. 1-5 PLAGIOMETRIONA CLAVATA (FAB.): 1) ADULT, LATERAL VIEW; 2) LARVA, LATERAL VIEW; 3) LARVA, DORSAL VIEW; 4) LARVA, CAUDAL VIEW; 5) ADULT, DORSAL VIEW, LINE 3MM.

1/ CONTRIBUTION No. 335, BUREAU OF ENTOMOLOGY.

2/ TAXONOMIC ENTOMOLOGIST, DIV. PLANT IND., P.O. BOX 1269, GAINESVILLE, FL 32602

TAXONOMY: UNFORTUNATELY THIS RELATIVELY COMMON BEETLE HAS GONE UNDER SEVERAL NAMES, CREATING SOME CONFUSION. THE FORMAL SYNONYMY FOLLOWS:

CASSIDA CLAVATA FABRICIUS 1798:398.

DELOYALA CLAVATA (FAB.). DEJEAN 1837:371; BARBER 1918:124.

COPTOCYCLA CLAVATA (FAB.). BOHEMAN 1855:391; BLATCHLEY 1910:1232, 1924:46.

PLAGIOMETRIONA CLAVATA (FAB.). FATTIG 1948:44; HINCKS 1952:342; WILCOX 1954:477;

DILLON & DILLON 1961:726.

SOME OF THE TAXONOMIC CONFUSION HAS BEEN DISCUSSED BY BARBER (1918, 1946) AND HINCKS (1952). ALTHOUGH THERE ARE NO SPECIFIC SYNONYMS LISTED, BARBER (1918) SUGGESTED THE POSSIBILITY THAT DELOYALA TESTUDINARIA FROM CENTRAL AMERICA MAY INTERGRADE WITH CLAVATA IN TEXAS, NEW MEXICO, AND ARIZONA.

HOSTS & BIOLOGY: LIKE MANY OTHER MEMBERS OF THE SUBFAMILY CASSIDINAE, THIS SPECIES APPEARS TO PREFER PLANTS OF THE FAMILY SOLANACEAE. THE LARVAE ILLUSTRATED HERE WERE FOUND ON SOLANUM GRACILE LINK AT GAINESVILLE, FLORIDA. HOST RECORDS IN THE LITERATURE ARE MOSTLY FOR ADULTS AND MAY NOT REPRESENT ACTUAL FEEDING: LINDEN AND OAK (BLATCHLEY 1910); SYCAMORE, OAK, LINDEN, AND JAPANESE LANTERN (WILCOX 1954); MORNING GLORY (DILLON & DILLON 1961); OAK, VARIOUS SPECIES OF SOLANACEAE (BLATCHLEY 1924).

DISTRIBUTION: THE MOST EXTENSIVE DISTRIBUTION RECORDS WERE PROVIDED BY BARBER (1918): ARIZONA, FLORIDA, KANSAS, KENTUCKY, LOUISIANA, MARYLAND, MASSACHUSETTS, MICHIGAN, MISSOURI, NEBRASKA, NEW JERSEY, NEW MEXICO, RHODE ISLAND, TENNESSEE, AND TEXAS. BLATCHLEY RECORDED IT FROM LAKE, WELLS, PUTNAM, AND POSEY COUNTIES, INDIANA (1918) AND FROM LAKE WORTH, ENTERPRISE, EUSTIS, AND GAINESVILLE, FLORIDA (1924), SUGGESTING THAT IT IS APPARENTLY CONFINED TO THE NORTHERN HALF OF THE STATE. FATTIG (1948) RECORDED IT FROM ATLANTA, GEORGIA, BALSBAUGH AND HAYS (1972) LISTED IT FROM LEE, MADISON, AND MOBILE COUNTIES, ALABAMA, AND WILCOX (1954) REPORTED IT AS COMMON IN OHIO.

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