

THE "LOVE-BUG," PLECIA NEARCTICA HARDY
(DIPTERA: BIBIONIDAE)^{1/}
L. A. HETRICK^{2/}

OTHER COMMON NAMES USED: HONEYMOON FLIES, TELEPHONE-BUGS, DOUBLE-HEADED BUGS, UNITED-BUGS, MARCH FLIES, ETC.

INTRODUCTION: SINCE 1965, HIGH POPULATIONS OF THIS FLY HAVE OCCURRED OVER THE NORTHERN HALF OF PENINSULAR FLORIDA. THIS IS A NATIVE INSECT THAT HAS APPARENTLY BEEN PRESENT IN THIS AREA IN INSIGNIFICANT NUMBERS. THE REASONS FOR THE CURRENT "POPULATION EXPLOSIONS" ARE UNKNOWN. PUBLIC ATTENTION IS ATTRACTED TO THESE INSECTS IN MAY AND SEPTEMBER WHEN THE ADULTS ARE IN FLIGHT IN LARGE NUMBERS. THE FLIES ARE HARMLESS AND NEITHER STING NOR BITE. AS MOTORISTS TRAVEL OUR HIGHWAYS THEY STRIKE THE DRIFTING AND FLYING PAIRS OF FLIES; THESE SPATTER AND ADHERE TO THE FRONTS OF VEHICLES. THEY ARE A NUISANCE AND MAY REQUIRE FREQUENT STOPS TO CLEAN WINDSHIELDS, LIGHTS, GRILLS, RADIATORS, ETC. POPULATIONS ARE EQUALLY HIGH OVER FIELDS, WOODS, AND LAKES AS THEY ARE ALONG HIGHWAYS. FLIGHTS OF THE FLIES HAVE BEEN ENCOUNTERED BY LIGHT AIRPLANES AT ALTITUDES UP TO 1500 FEET.

DISTRIBUTION: THIS SPECIES OCCURS IN ALL PORTIONS OF THE UNITED STATES BORDERING ON THE GULF OF MEXICO. THESE FLIES RANGE INTO MEXICO AND CENTRAL AMERICA. RECENT EXTENSIVE FLIGHTS IN FLORIDA HAVE INVOLVED HALF OF THE PENINSULA FROM THE RIDGE SECTION NORTHWARD. EXTENSIVE FLIGHTS HAVE OCCURRED IN SOME PARTS OF WEST FLORIDA IN PREVIOUS YEARS.

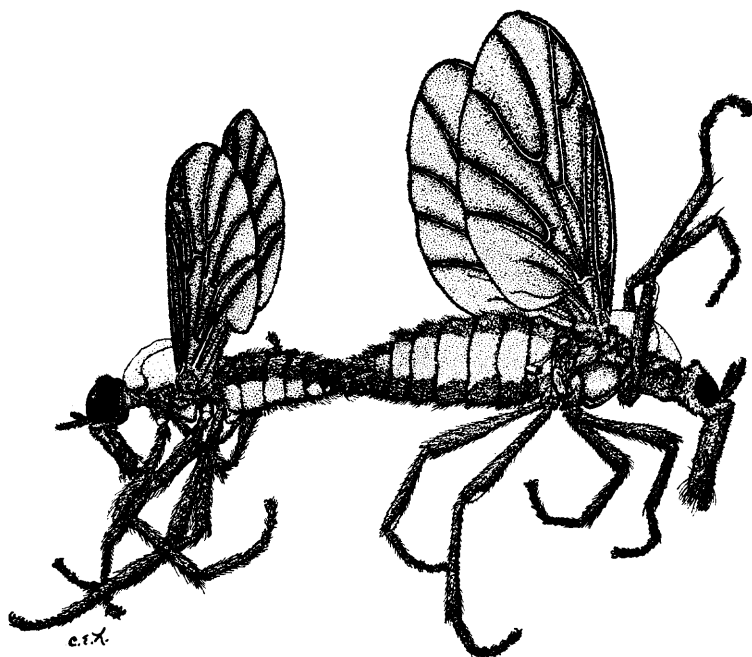


FIG. 1. MATING PAIR OF PLECIA NEARCTICA; FEMALE ON RIGHT. COLOR: BLACK WITH RED DORSAL PORTION OF THORAX. LENGTH OF MATING PAIRS, 13-15 MM. DRAWING BY C. E. LEACH.

LIFE HISTORY: THERE ARE TWO GENERATIONS EACH YEAR WITH ADULTS IN FLIGHT IN MAY AND SEPTEMBER. EACH ADULT FEMALE LAYS MORE THAN 300 EGGS IN DECAYING VEGETATION. LARVAE FEED ON DECAYING VEGETATION AND ASSIST IN REINCORPORATION OF NUTRIENTS INTO THE SOIL. IN ADDITION TO FOOD, LARVAL DEVELOPMENT REQUIRES SUITABLE MOISTURE AND FAVORABLE TEMPERATURES; DEVELOPMENT IS ACCELERATED DURING THE SUMMER MONTHS FROM MAY UNTIL SEPTEMBER. PUPATION OCCURS IN THE LOCATIONS OF LARVAL DEVELOPMENT, AND TRANSFORMATION TO ADULTS IS ACCOMPLISHED IN ABOUT ONE WEEK. MOST OF THE DEVELOPMENT OCCURS IN ACCUMULATED DEAD LEAVES ON THE SOIL SURFACE IN HARDWOOD HAMMOCKS. THE FLYING ADULTS MAY DRIFT FOR MILES ASSISTED BY LIGHT BREEZES.

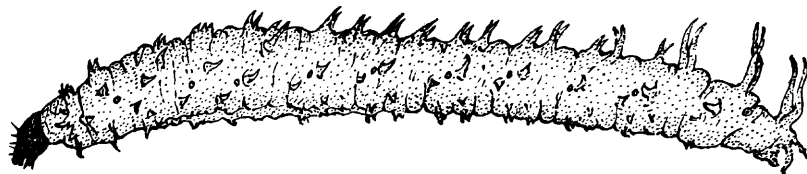


FIG. 2. LARVA OF PLECIA NEARCTICA; COLOR: SLATE GREY WITH DARKER HEAD CAPSULE. LENGTH OF FULL-GROWN LARVAE, 11-12 MM. DRAWING BY C. E. LEACH.

WHAT CAN BE DONE: THE INFESTATION OCCURS OVER SUCH A WIDE AREA THAT ANY CHEMICAL CONTROLS ARE CONSIDERED TO BE IMPRACTICAL. TRAVEL AT NIGHT; THE FLIES SIT ON VEGETATION AND REST DURING THE HOURS OF DARKNESS. REDUCE HIGHWAY SPEEDS; THE HIGHER THE SPEED, THE MORE FLIES WILL BE SPATTERED. PLACE A SUITABLE-SIZED PIECE OF WINDOW SCREEN BEHIND THE GRILL AND IN FRONT OF RADIATORS; THIS WILL PREVENT CLOGGING OF COOLING FINS AND OVERHEATING OF ENGINES. CLEAN OFF THE SPATTERED REMAINS (MOSTLY SCRAMBLED EGGS) AS SOON AS POSSIBLE; THIS WILL PREVENT DAMAGE TO MOST AUTOMOTIVE PAINTS. SEVERAL MINUTES OF SOAKING WITH PLENTY OF WATER WILL MAKE THE REMAINS MUCH EASIER TO REMOVE; SOME RUBBING WILL BE NECESSARY. EXTERIOR PAINTING OF BUILDINGS SHOULD NOT BE DONE IN MAY OR SEPTEMBER WHEN ADULTS ARE IN FLIGHT.

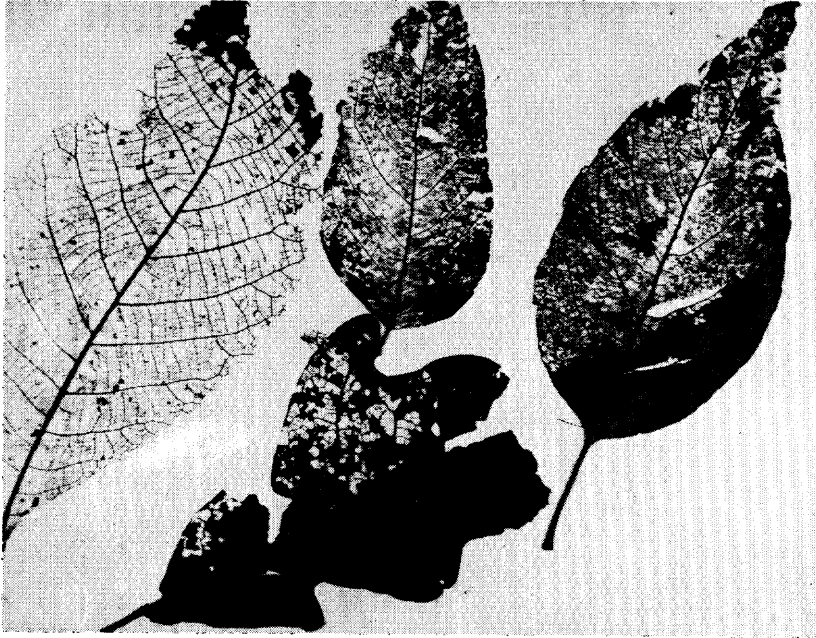


FIG. 3. DEAD LEAVES ON SOIL SURFACE SKELETONIZED BY FEEDING OF LARVAE OF PLECIA NEARCTICA. PHOTOGRAPH BY MILLEDGE MURPHY.

REFERENCES:

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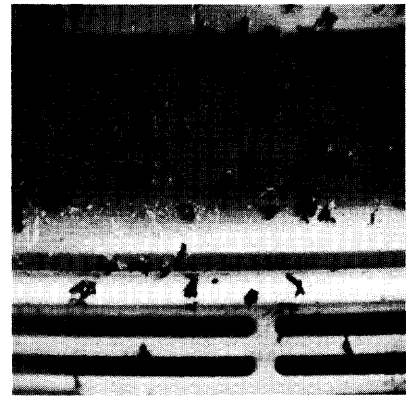


FIG. 4. DEAD "LOVE-BUGS" STUCK ON FRONT OF AUTOMOBILE.



FIG. 5. TROOPER R. S. JAMES OF THE FLORIDA HIGHWAY PATROL ENCOUNTERED THESE "LOVE-BUGS" ON GAINESVILLE AREA HIGHWAYS.