

MEDITERRANEAN FRUIT FLY
CERATITIS CAPITATA (WIEDEMANN)¹

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THE MEDITERRANEAN FRUIT FLY, CERATITIS CAPITATA (WIEDEMANN), COMMONLY CALLED THE MEDFLY, IS ONE OF THE FRUIT FLIES, FAMILY TRYPETIDAE, ORDER DIPTERA. IT HAS NO NEAR RELATIVES IN THE WESTERN HEMISPHERE, AND IT CAN BE DISTINGUISHED FAIRLY READILY FROM ANY OF THE NATIVE FRUIT FLIES OF FLORIDA, BOTH IN THE ADULT AND THE LARVAL STAGES.

IDENTIFICATION:--THE ADULT IS ABOUT TWO THIRDS THE SIZE OF A HOUSE FLY. THE GENERAL COLOR OF THE BODY IS YELLOWISH WITH A TINGE OF BROWN, ESPECIALLY THE ABDOMEN, LEGS, AND SOME OF THE MARKINGS ON THE WINGS. THE OVAL SHAPED ABDOMEN IS CLOTHED ON THE UPPER SURFACE WITH FINE, SCATTERED BLACK BRISTLES, AND HAS TWO NARROW, TRANSVERSE, LIGHT COLORED BANDS ON THE BASAL HALF. THE FEMALE CAN BE DISTINGUISHED BY ITS LONG OVIPOSITOR AT THE APEX OF THE ABDOMEN. THE OVIPOSITOR, AN EGG LAYING STRUCTURE, IS ABOUT 6 TIMES AS LONG AS ITS GREATEST WIDTH.

THE DORSAL SURFACE OF THE THORAX IS CONVEX, THE GROUND COLOR CREAMY-WHITE TO YELLOW, MARBLED WITH BLACK BLOTCHES. THE LIGHTER AREAS ARE CLOTHED WITH VERY FINE WHITE BRISTLES, AND SEVERAL PROMINENT BLACK BRISTLES ARISE FROM THE BLACK AREAS OF THE THORAX.

THE WINGS ARE BROAD, HYALINE WITH BLACK, BROWN AND BROWNISH YELLOW MARKINGS, WITH TINTS APPEARING FADED. THERE IS A FAIRLY WIDE, BROWNISH YELLOW BAND ACROSS THE MIDDLE OF EACH WING. THE EXTREME BASE IS BLOTCHED WITH BROWNISH YELLOW, WITH THE REST OF THE BASAL AREA CURIOUSLY MARKED WITH BLACK, FORMING DARK LINES OF THE RADIATING WING VEINS AND CROSS VEINS, WITH DARK SPOTS BETWEEN THEM.

THE HEAD OF THE MALE BEARS TWO LONG, BLACK BRISTLES WITH BROADLY FLATTENED, SOMEWHAT DIAMOND SHAPED TIPS, ARISING BETWEEN THE EYES NEAR THE ANTENNAE. THE EYES ARE REDDISH PURPLE.

THE LARVA CAN BE DISTINGUISHED BY THE ANTERIOR, OR THORACIC, SPIRACLES WHICH BEAR SMALL, FINGER-LIKE TUBULES RANGING FROM 7 TO 11 IN NUMBER, TYPICALLY 9 TO 10 IN NUMBER (PLATE 2, FIGURES 3-4). BY THIS STRUCTURE THE MEDFLY LARVA CAN BE DISTINGUISHED FROM THE LARVA OF THE PAPAYA FRUIT FLY, WHICH IS OTHERWISE SIMILAR IN APPEARANCE, AS EACH OF THE THORACIC SPIRACLES OF THE PAPAYA FRUIT FLY BEARS APPROXIMATELY 18 TUBULES. THE BEST CHARACTER FOR DISTINGUISHING THE MEDFLY LARVA FROM ALMOST ALL OTHER NATIVE SPECIES IS THE APPEARANCE OF THE CAUDAL SPIRACLES WHICH ARE LOCATED AT THE ANAL OR TAIL END OF THE LARVA. THE SPIRACULAR OPENINGS ARE ARRANGED IN A CHARACTERISTIC POSITION (PLATE 2, FIGURES 5-6), ARE NOT BORNE ON A RAISED SURFACE, AND DO NOT HAVE BLACK RINGS OR SEMICIRCLES AROUND THEM.

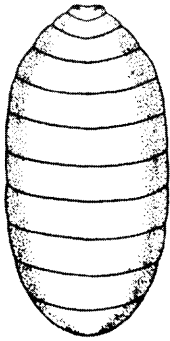
HOSTS:--PREFERRED HOSTS IN FLORIDA ARE CALAMONDIN, SURINAM CHERRY, GRAPEFRUIT, MANGO, BARBADOS CHERRY, PEACH, CEYLON PEACH, WHITE SAPOTE, KUMQUAT, SOUR ORANGE, PLUM, PEAR, ROSEAPPLE, CATTLEYA GUAVA, AND GUAVA. HOWEVER, THE KNOWN HOSTS OF THE MEDFLY NUMBER WELL OVER 100 SPECIES OF FRUITING PLANTS, INCLUDING MANY OTHERS WHICH OCCUR IN FLORIDA, SUCH AS PAPAYA, POND APPLE, PAWPAW, NATAL PLUM, PASSION FLOWER, CACTUS, PERSIMMON, WATERMELON, AND SEVERAL OTHER KINDS OF CITRUS.

DISTRIBUTION:--THE MEDFLY IS ESTABLISHED IN THE WESTERN HEMISPHERE IN HAWAII, BERMUDA, COSTA RICA, AND PARTS OF BRAZIL, ARGENTINA AND URUGUAY. IT OCCURS IN WESTERN AUSTRALIA, IN MANY COUNTRIES IN EUROPE AND AFRICA, AND IN ASIATIC COUNTRIES IN THE MEDITERRANEAN AREA, SUCH AS ISRAEL, JORDON, LEBANON AND TURKEY.

¹ CONTRIBUTION No.10, ENTOMOLOGY SECTION

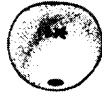
GERATITIS CAPITATA WIED.

PLATE 1

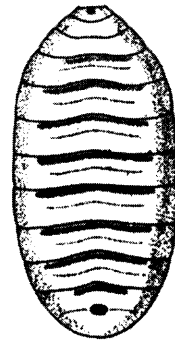


1 dorsal view

PUPA

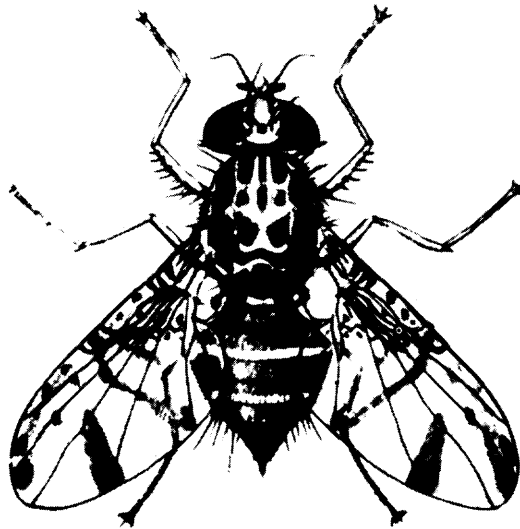


2 posterior end

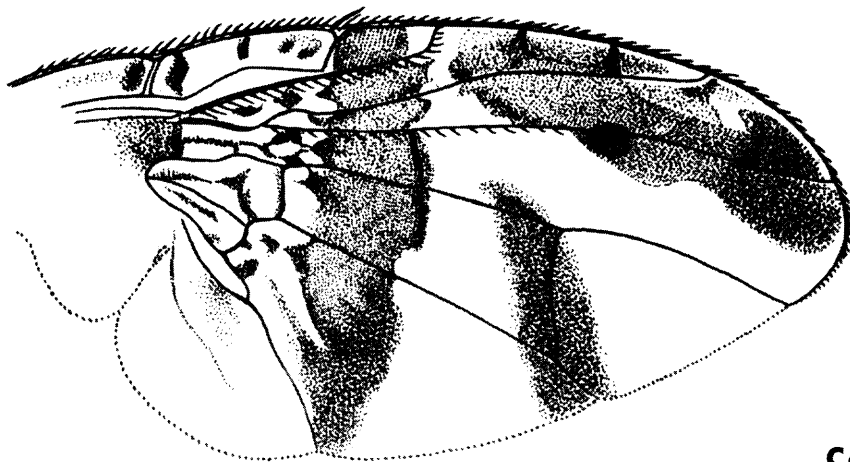


3 ventral view

4 ADULT FLY



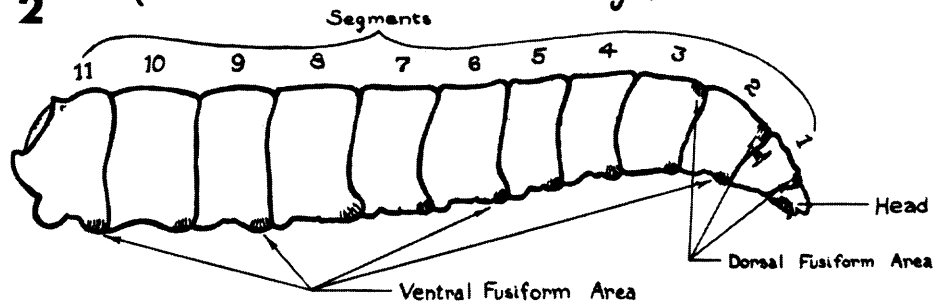
5 WING OF ADULT FLY



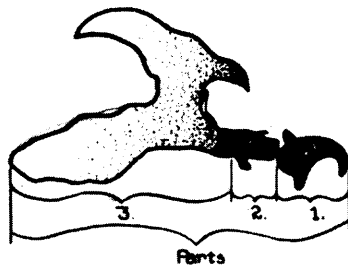
CERATITIS CAPITATA (WIED.)

(Mediterranean fruit fly)

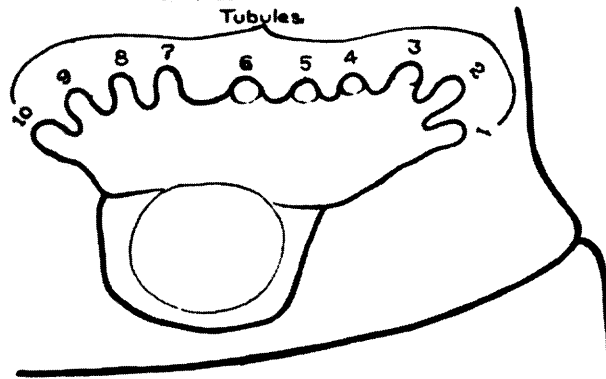
PLATE 2



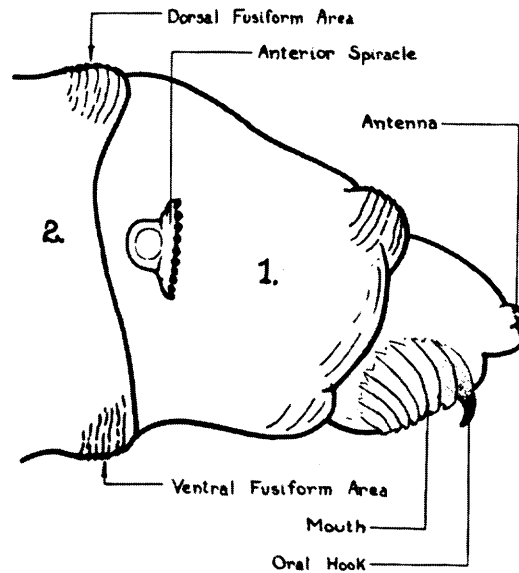
1. Lateral View of Mature Larva.



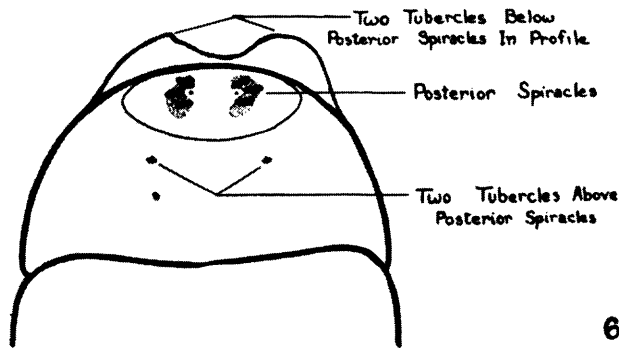
3. Lateral View of Oral Hook of Mature Larva.



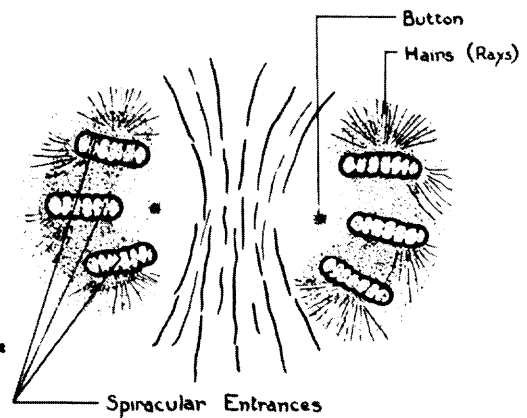
4. Lateral View of Anterior Spiracle of Mature Larva.



2. Lateral View of Head of Mature Larva.



5. Dorsal View of Posterior End of Mature Larva.



6. Posterior Spiracles of Mature Larva.

Courtesy USDA