

A PODOCARPUS APHID, NEOPHYLLAPHIS PODOCARPI TAK.¹

H. A. DENMARK

INTRODUCTION: NEOPHYLLAPHIS PODOCARPI TAKAHASHI IS ONE OF TWO SPECIES IN THE GENUS THAT OCCUR IN THE CONTINENTAL UNITED STATES. N. ARAUCARIAE TAKAHASHI IS THE SECOND SPECIES, AND BOTH OCCUR IN FLORIDA. N. ARAUCARIAE WAS FIRST FOUND IN FLORIDA IN 1963, AND N. PODOCARPI IN 1968. BOTH SPECIES APPEAR TO BE SPREADING IN DISTRIBUTION AND CAUSING ECONOMIC DAMAGE TO THEIR RESPECTIVE HOST PLANTS.

DISTRIBUTION: N. PODOCARPI IS KNOWN FROM AUSTRALIA, BOTEL TOBAGO, CHINA, JAPAN, LOOCHOO ISLANDS, MALAYA, TAIWAN, AND THE UNITED STATES. IN THE UNITED STATES IT IS FOUND IN CALIFORNIA, FLORIDA, AND LOUISIANA. IT IS FOUND IN THE FOLLOWING FLORIDA COUNTIES: COLLIER, DADE, HENDRY, HILLSBOROUGH, ORANGE, PALM BEACH, PINELLAS, AND VOLUSIA. IN THE FUTURE IT WILL VERY LIKELY BE FOUND IN FLORIDA WHEREVER PODOCARPUS SPP. GROW.

HOSTS: PODOCARPUS ALPINA, P. CHINENSIS, P. ELATA, P. GRACILIOR, P. HENKELII, P. MACROPHYLLA, P. MILANJIANUS, P. NAGEIA, P. NAGI, P. TOTARA, AND P. SPP. IN FLORIDA IT HAS BEEN TAKEN FROM P. MACROPHYLLA, P. NAGI, AND P. SPP.

ECONOMIC IMPORTANCE: N. PODOCARPI CAUSES A STUNTING AND CURLING OF THE NEW TERMINAL GROWTH (FIG. 1). THE APHIDS FEED UNDERNEATH THE LEAVES AND SECRETE A BLUISH WHITE WAX AND HONEYDEW. THE LEAVES FIRST LOOK BLUISH UNDERNEATH, BUT WITH PROLONGED FEEDING AND SECRETION OF HONEYDEW, THE GROWTH TURNS BLACK AS SOOTY MOLD BEGINS TO GROW ON THE HONEYDEW. THE DAMAGE IS SIMILAR TO THAT CAUSED BY AN ERIOPHYID MITE, PARACALACARUS PODOCARPI K., BUT THE MITE CAUSES THE LEAVES TO TURN REDDISH BROWN UNDERNEATH AFTER EXTENSIVE FEEDING.

CONTROL: THE UNIVERSITY OF FLORIDA, IFAS, PUBLICATION PLANT PROTECTION POINTERS No. 34 RECOMMENDS THE FOLLOWING MATERIALS FOR THE CONTROL OF APHIDS: DIAZINON, DIMETHOATE (CYGON), META-SYSTOX-R, AND MALATHION. FOLLOW THE DIRECTIONS FOR APPLICATION AS GIVEN ON THE PACKAGES OF THESE MATERIALS.

DESCRIPTION: ALATE VIVIPARAE FEMALES (FIG. 2) ARE ABOUT 1.3 MM IN LENGTH, WITH A DARK REDDISH PURPLE BODY THAT IS NARROW AND WITHOUT HAIRS. THE FOREWINGS ARE ABOUT 1.5 MM, HYALINE WITH BROWN VEINS. THE LEGS ARE MODERATELY LONG AND PALE BROWN. THE ANTENNA IS ABOUT 1 MM LONG WITH A THIRD SEGMENT COVERED WITH TRANSVERSELY NARROWED SENSORIA. THE CORNICALS ARE VERY SMALL, BUT BROADER THAN LONG. THE CAUDA IS LARGE, ROUNDED AT APEX AND CONSTRICTED AT THE BASE. THE ANAL PLATE IS SINUATE.

THE APTEROUS VIVIPARAE FEMALES (FIG. 3) ARE ABOUT 1.5 MM AND THE ANTENNAE ABOUT 0.9 MM. THE BODY IS DARK REDDISH PURPLE WITH BLACK CORNICLES AND PALE BLACK CAUDA. THE LEGS ARE PALE BROWN.

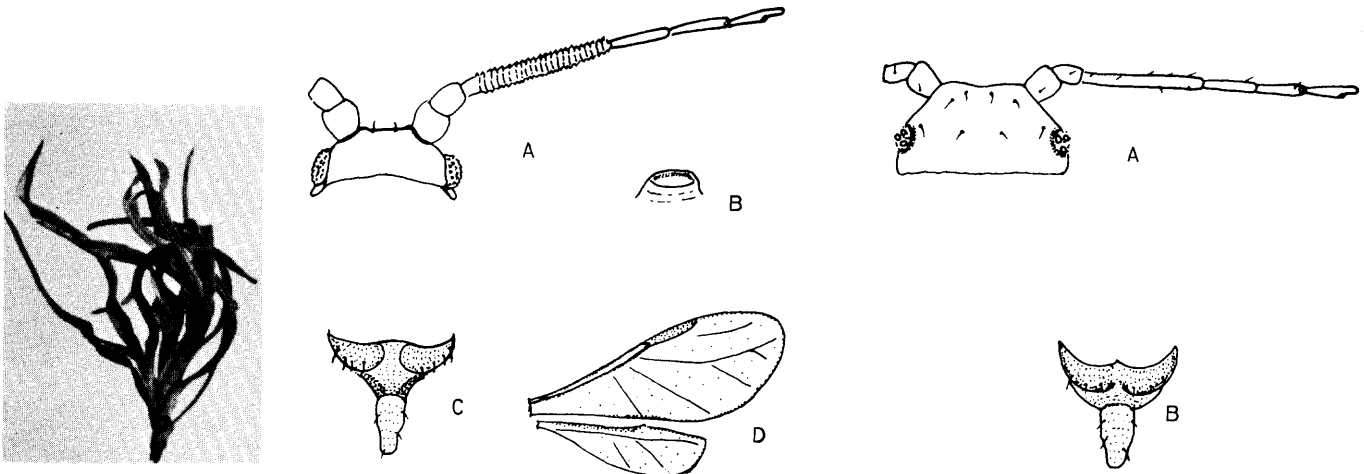


FIG. 1. DAMAGED TERMINAL GROWTH.

FIG. 2. ALATE VIVIPAROUS FEMALE. A. HEAD AND ANTENNA. B. CORNICLE. C. CAUDA. D. FORE AND HIND WINGS.

FIG. 3. APTEROUS VIVIPAROUS FEMALE. A. HEAD AND ANTENNA. B. CAUDA.

LITERATURE CITED:

- TAKAHASHI, R. 1920. A NEW GENUS AND SPECIES OF APHID FROM JAPAN (HEM.). CANAD. ENT. 52(1): 19-20, ILLUS.
RUSSELL, LOUISE M. 1967. NOTES ON AND KEY TO THE SPECIES OF NEOPHYLLAPHIS TAKAHASHI (HOMOPTERA: APHIDIDAE). CEIR 17(11): 187-194, ILLUS.

¹CONTRIBUTION NO. 156, ENTOMOLOGY SECTION.