

STELLATE SCALE (VINSONIA STELLIFERA (WESTW.))^{1/}

(HOMOPTERA - COCCIDAE)

G. W. DEKLE

INTRODUCTION: A SCALE INSECT NEW TO FLORIDA WAS FOUND ATTACKING ORCHIDS IN A LARGE NURSERY AT NARANJA, FLORIDA, ON SEPTEMBER 28, 1953, AND AGAIN ON APRIL 20, 1954, IN ANOTHER LARGE NURSERY AT MIAMI, FLORIDA, DURING ROUTINE INSPECTIONS BY MR. C. E. SHEPARD, PLANT INSPECTOR, STATE PLANT BOARD OF FLORIDA, NOW CHIEF PLANT INSPECTOR, DIVISION OF PLANT INDUSTRY. THE INSECT WAS IDENTIFIED BY MR. G. B. MERRILL, CHIEF ENTOMOLOGIST, STATE PLANT BOARD, NOW RETIRED, AS STELLATE SCALE, VINSONIA STELLIFERA (WESTW.), A PEST KNOWN TO OCCUR IN MANY PARTS OF THE WORLD. OTHER COMMON NAMES FOR THIS INSECT ARE STAR SCALE, GLOSSY STAR SCALE, AND GLASSY STAR SCALE. THIS SOFT SCALE IS FOUND AT LOW AND MIDDLE ALTITUDES IN ITS NATIVE HABITAT. IT IS A COMMON SPECIES IN PUERTO RICO ACCORDING TO DR. L. F. MARTORELL, HEAD, DEPARTMENT OF ENTOMOLOGY, AGRICULTURAL EXPERIMENT STATION, UNIVERSITY OF PUERTO RICO, RIO PIEDRAS, PUERTO RICO. THE INFESTATION IN MIAMI WAS TRACED TO AN ORCHID PLANT BROUGHT INTO FLORIDA FROM PUERTO RICO BY A NURSERYMAN IN 1953. THE PLANT HAD BEEN INSPECTED BY QUARANTINE AUTHORITIES BEFORE LEAVING PUERTO RICO BUT IT WAS NOT FUMIGATED AND DID NOT RECEIVE ANY OTHER TREATMENT FOR PESTS. THE PLANT WAS SEPARATED AND REPOTTED INTO FIVE CONTAINERS. THE FIVE REPOTTED SECTIONS AND TWO PLANTS ADJACENT TO THE POTTED PLANTS WERE FOUND INFESTED WITH STELLATE SCALE. THE DIVISION OF PLANT INDUSTRY CONSIDERED STELLATE SCALE ERADICATED FROM FLORIDA AS OF DECEMBER 1954. THE DANGER OF RE-INFESTATION IS MUCH LESS TODAY SINCE ALL PLANTS FOUND INFESTED BY THIS SCALE ARE FUMIGATED WITH METHYL BROMIDE BEFORE SHIPMENT TO THE MAINLAND.



FIG. 1: STELLATE SCALE (VINSONIA STELLIFERA (WESTW.)) (X6). ARROWS POINT TO NYMPHS.

DESCRIPTION: THE ADULT SOFT SCALE IS STAR-SHAPED AND COVERED BY A THIN, TRANSPARENT WAXY SECRETION (FIG. 1). THE ADULT FEMALE MEASURES 3.5 TO 4.5 MM ACROSS THE MEDIAN RAY. ONE AUTHOR DESCRIBES THE SCALE AS "RESEMBLING A TENT PEGGED DOWN IN SIX OR SEVEN PLACES"^{2/}; ANOTHER DESCRIBES ITS APPEARANCE AS BEING MUCH LIKE THAT OF AN IMMATURE STARFISH. THE COLOR OF THE LIVING INSECT IS PINK TO PURPLISH-RED WHICH DARKENS WITH AGE TO A REDDISH BROWN.

HOSTS: ACHRAS SAPOTA L. (SAPODILLA); AGAVE SISALANA PERR. (SISAL); ALLAMANDA SP. (ALLAMANDA); ALSTONIA SCHOLARIS R.BR.; ANACARDIUM OCCIDENTALE L. (CASHEW); ANTIDESMA BUNIUS SPRING. (SALAMANDER TREE); ASPIDISTRA SP. (A FERN); CITRUS SP. (CITRUS); COCCOLOBA DIVERSIFOLIA (JACQ.) (DOVEPLUM); COCCOS NUCIFERA L. (COCONUT PALM); COFFEA SP. (COFFEE); GARCINIA MANGOSTANA L. (MANGOSTEEN); GARCINIA SPICATA HOOK.F.; GARDENIA SP. (GARDENIA); GLYCOMIS PENTAPHYLLA D.C. (MALAY GLYCOSMIS); IXORA SP. (IXORA); LAURUS NOBILIS L. (SWEET BAY); LAWSONIA INERMIS LINN. (HENNA); MANGIFORA INDICA L. (MANGO); MELICocca BIJUGA L. (SPANISH LIME); MUSA SP. (BANANA); MUSA TEXTILIS NEE (MANILA HEMP); ORCHIDACEAE (ORCHID): BRASSIA CAUDATA (L.) LINDL., BRASSIA GIREOUDIANA RCHB. S. ET WARSC., BROUGHTONIA SANGUINEA R.BR., CATTLEYA SP., DENDROBIUM FIMBRIATUM OCULATUM HOOK., EPIDENDRUM COCHLEATUM L., EPIDENDRUM TAMPENSE LINDL., ONCIDIUM ALTISSIMA SEV., ONCIDIUM X GOLDIANA, VANDA SP.; PSIDIUM GUAJAVA L. (GUAVA), AND SYZYGIUM JAMBOS (L.) (ROSEAPPLE).

^{1/} CONTRIBUTION No. 144, ENTOMOLOGY SECTION

^{2/} THE ENTOMOLOGICAL MONTHLY MAGAZINE, VOL. 25, P. 153, 1888.

DISTRIBUTION: STELLATE SCALE IS COMMON IN THE BAHAMA AND CARIBBEAN ISLANDS AND IS KNOWN TO OCCUR IN CENTRAL AND SOUTH AMERICA, AND AFRICA. IT HAS ALSO BEEN REPORTED IN GREENHOUSES IN EUROPE. IN THE FAR EAST, IT HAS BEEN REPORTED FROM BORNEO, CEYLON, FIJI, FORMOSA, INDIA, JAPAN, JAVA, MAURITIUS, MICRONESIA, THE PHILLIPINE ISLANDS AND THAILAND.

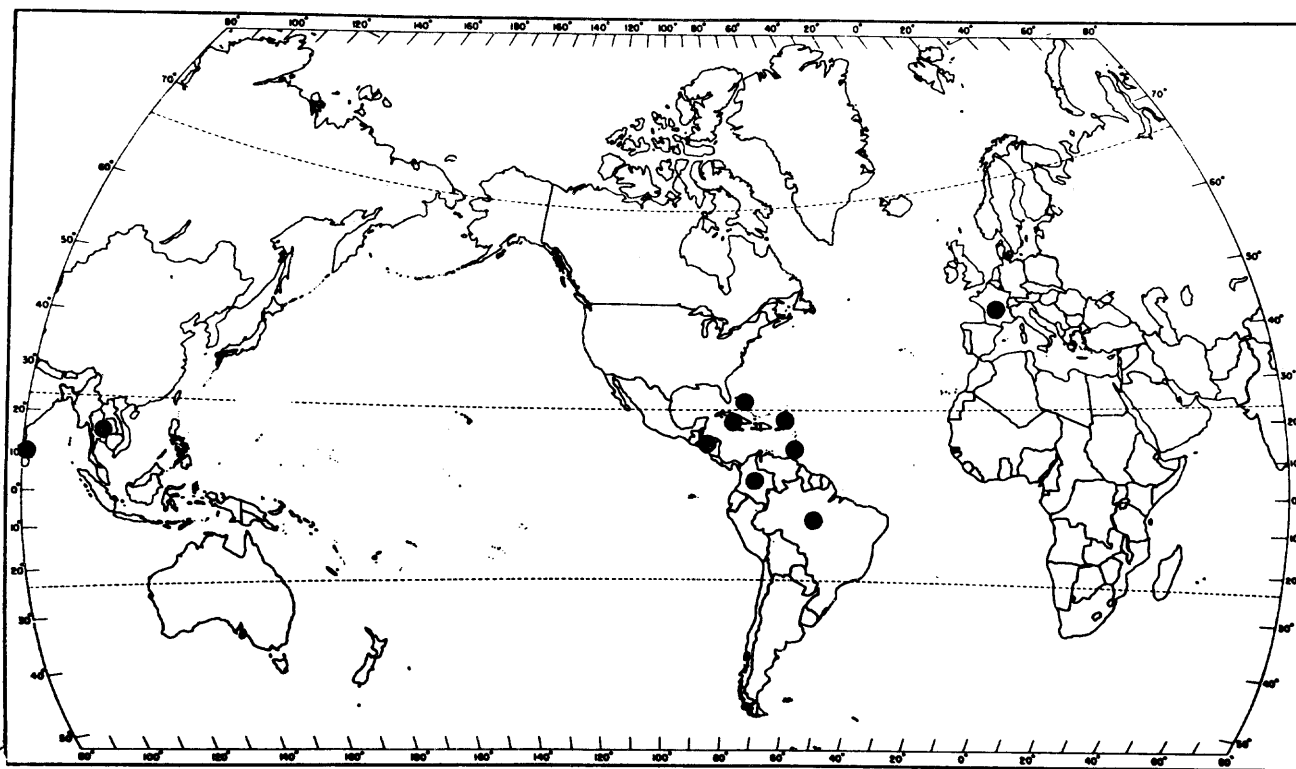


FIG. 2: GENERAL DISTRIBUTION OF *VINSONIA STELLIFERA* (WESTW.)

ECONOMIC IMPORTANCE: THIS SCALE MUST BE CONSIDERED A POTENTIAL THREAT TO THE MANGO, CITRUS AND ORNAMENTAL INDUSTRIES OF FLORIDA.

REMARKS: ERADICATING STELLATE SCALE FROM THE TWO FLORIDA NURSERIES WAS ACCOMPLISHED BY A SPRAY AND DIP PROGRAM. DR. D. O. WOLFENBARGER, ENTOMOLOGIST, SUBTROPICAL EXPERIMENT STATION, HOMESTEAD, FLORIDA, RECOMMENDED A PARATHION PLUS OIL SPRAY FOLLOWED BY TWO PARATHION SPRAYS TO ALL ORCHID PLANTS. THIS WAS FOLLOWED BY A PARATHION DIP OF ALL ORCHID PLANTS IN BOTH NURSERIES. A CHLORDANE SPRAY WAS APPLIED TO ALL BENCHES AND PLANT STORAGE AREAS BEFORE REPLACING THE PARATHION DIPPED PLANTS.

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