

TESSELLATED SCALE, EUCALYMNATUS TESSELLATUS (SIGNORET)
(HOMOPTERA: COCCIDAE)^{1/}

G. W. DEKLE

SYNONYMY: LECANIUM TESSELLATUM SIGNORET, 1873; EUCALYMNATUS TESSELLATUS, COCKERELL & PARROTT, 1901; EUCALYMNATUS, LINDINGER, 1943

INTRODUCTION: TESSELLATED OR PALM SCALE IS A SOFT SCALE THAT WAS FIRST DESCRIBED IN FRANCE BY V. SIGNORET IN 1873 FROM SPECIMENS COLLECTED ON A PALM HE REPORTED AS CARYOTA URSUS. THE GENUS EUCALYMNATUS, ACCORDING TO BORCHSENIUS, CONTAINS 17 SPECIES; 2 SPECIES ARE ETHIOPIAN IN ORIGIN AND THE REMAINDER NEOTROPICAL. BORCHSENIUS CONSIDERS E. TESSELLATUS (SIGN.) PROBABLY SOUTH AMERICAN IN ORIGIN AND DISSEMINATED BY MAN TO ALL PARTS OF THE WORLD ON ITS CULTIVATED HOSTS.

DESCRIPTION: THE ADULT FEMALE (♀) IS OVAL, OPAQUE, REDDISH BROWN TO DARK BROWN, AND 4-5 MM IN LENGTH. THE APEX IS ANGULATE AND THE POSTERIOR BROADLY ROUNDED (FIG. 1). THE DORSAL SURFACE APPEARS CHECKERED OR CELLULAR IN PATTERN WHEN EXAMINED WITH THE AID OF A 10-POWER HAND LENS OR MAGNIFYING GLASS. A MEDIAN, LONGITUDINAL, SMOOTH RIDGE DIVIDES THE CELLULAR PATTERN ON THE DORSAL SURFACE. THE CELLS FORMED NEARER THE RIDGE APPEAR CONCAVE, PROGRESSIVELY BECOMING FLATTENED OUTWARDLY TO THE LARGER, FLAT, MARGINAL CELLS (FIG. 2).



FIG. 1. TESSELLATED SCALE, EUCALYMNATUS TESSELLATUS (SIGNORET). ADULT FEMALES (♀) ON RIBBON BUSH (HOMALOCLADIUM PLATYCLADIUM BAILEY (SLIGHTLY ENLARGED)).

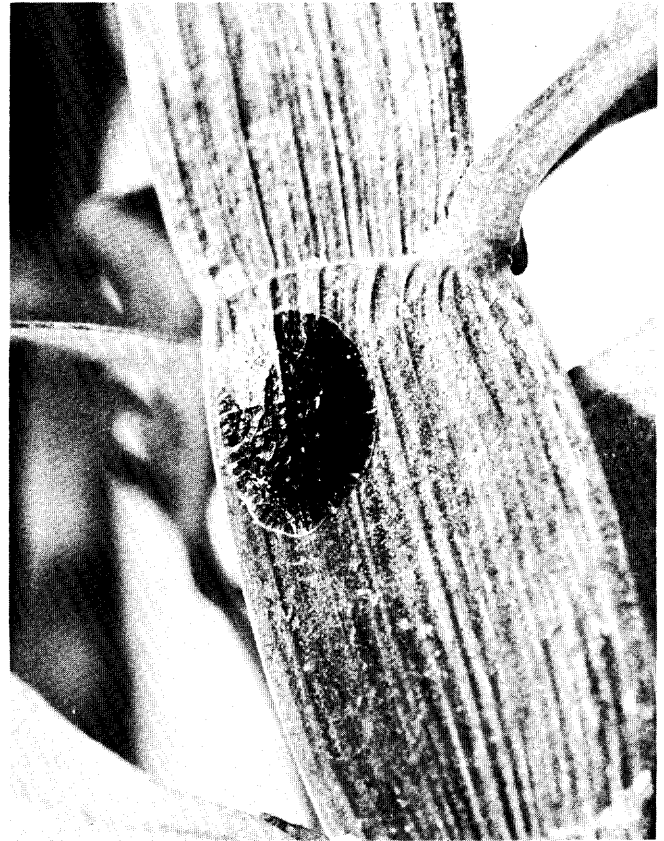


FIG. 2. FEMALE TESSELLATED SCALE (x 8).

DISTRIBUTION: IN FLORIDA, DIVISION OF PLANT INDUSTRY COLLECTIONS INCLUDE SPECIMENS FROM THE FOLLOWING COUNTIES: ALACHUA, BAKER, BREVARD, BROWARD, CHARLOTTE, CLAY, COLLIER, DADE, DIXIE, DUVAL, ESCAMBIA, FLAGLER, GLADES, GULF, HENDRY, HERNANDO, HIGHLANDS, HILLSBOROUGH, INDIAN RIVER, JEFFERSON, LAKE, LEE, LEON, MANATEE, MARION, MARTIN, MONROE, NASSAU, ORANGE, PALM BEACH, PASCO, PINELLAS, POLK, PUTNAM, ST. JOHNS, ST. LUCIE, SARASOTA, SEMINOLE, AND VOLUSIA.

ECONOMIC IMPORTANCE: TESSELLATED SCALE IS PRIMARILY A LEAF-INFESTING SOFT SCALE AND A GREENHOUSE PEST. IN SOUTH FLORIDA IT IS FREQUENTLY FOUND OUT-OF-DOORS ON PALMS, CRAPE-JASMINE, AND MANGO. INFESTATIONS ARE OFTEN OF ECONOMIC IMPORTANCE IN COMMERCIAL NURSERIES WHENEVER PEST MANAGEMENT PROGRAMS ARE NEGLECTED.

CONTROL: DIAZINON, DIMETHOATE, MALATHION, AND META-SYSTOX-R ARE SOME OF THE AVAILABLE INSECTICIDES FOR SCALE INSECT CONTROL IN FLORIDA. THE COUNTY AGRICULTURAL EXTENSION AGENT SHOULD BE INFORMED OF THE HOST INVOLVED AND CONSULTED AS TO THE BEST MATERIAL AND DOSAGE. READ CAREFULLY AND FOLLOW LIMITATIONS AND PRECAUTIONS GIVEN ON MANUFACTURERS' LABELS.

HOSTS: ACHRAS ZAPOTA L. (SAPODILLA), AJUGA REPTANS L. (BUGLE WEED), ALLAMANDA NERIIFOLIA Hook., ALOCASIA SP., ALPINIA SPECIOSA (WENDL.) SCHUM. (SHELL GINGER), ANNONA MURICATA L. (SOUSOP), A. RETICULATA L. (COMMON CUSTARD-APPLE, BULLOCKS-HEART), ANTHURIUM ANDRAEANUM LIND., A. MAGNIFICUM LIND., ARCHONTOPHOENIX ALEXANDRAE WENDL. & DRUDE (ALEXANDER PALM), ARDISIA ESCALLONIOIDES SCHIEDE & DEPPE (MARLBERRY), A. PICKERINGIA TORR. & GRAY, ARECA CATECHU L. (BETELNUT PALM), ARECASTRUM ROMANZOFFIANUM BECC. (QUEEN'S PALM), ASPLENIUM NIDUS L. (BIRD'S NEST FERN), BACCHARIS ANGUSTIFOLIA MICHX. (GROUNDSEL), BISCHOFIA JAVANICA TOOG., BRUNSFELSIA SP. (LADY-OF-THE-NIGHT), CACTUS (UNKNOWN), CALLISTEMON SPP. (BOTTLEBRUSH), CALOCARPUM SAPOTA MERR. (SAPOTA), CALOPHYLLUM SP. (BEAUTY-LEAF), CARISSA SP., CARYOTA MITIS LOUR. (FISH-TAIL PALM), C. URENS L. (WINE-PALM), CESTRUM SP. (JESSAMINE), CHAMAEDOREA ELEGANS MART. (NEANTHE BELLA PALM, DWARF PALM, PARLOR PALM), C. TENELLA H. WENDL., CHRYSALIDOCARPUS LUTESCENS WENDL. (ARECA PALM), CHRYSOHYLLUM CAINITO L. (STAR-APPLE), CHRYSOHYLLUM SP. (SATINLEAF), CINNAMOMUM CASSIA NEES & EBERM. (CASSIA BARK TREE), CINNAMOMUM SP. (CINNAMON), CLEYERA JAPONICA THUNB. (SAKAKI), COCOS NUCIFERA L. (COCONUT PALM), CORNUS SPP. (DOGWOOD), DICTYOSPERMA ALBUM WENDL. & DRUDE, DIEFFENBACHIA SP., DIOSPYROS EBENASTER RETZ., DIPHOLIS SALICIFOLIA (L.) A. DC. (WILLOW BUSTIC), DIZYGOTHECA ELEGANTISSIMA (VEITCH) VIG. & GUILL. (ARALIA), DRACAENA SP., ELAEOCARPUS CYANEUS SIMS, ERVATAMIA CORONARIA STAFF. (GRAPE-JASMINE), EUGENIA HOOKERIANA HORT. (AUSTRALIAN BRUSH CHERRY), EUPHORIA LONGANA LAM. (LONGAN, LUNGAN), EURYA SP., FATSHEDERA LIZEI (COCHOT) GUILL., FATSIA SP., FEIJOA SELLOWIANA BERG., FICUS JACQUINIAEFOLIA A. RICH (JACQUINIA FIG), F. RUBIGINOSA VENT. (RUSTY FIG), GARDENIA JASMINOIDES ELLIS (CAPE JASMINE), GENIPA CLUSIAEFOLIA (JACQ.) GRISEB. (SEVEN-YEAR APPLE), GERBERA JAMESONII BOLUS (AFRICAN DAISY), GORDONIA LASIANTHUS (L.) ELLIS (LOBLOLLY BAY), HEDERA SP. (ENGLISH IVY, IVY), HEDYCHIUM SP. (GINGERLILY), HOMALOCADIUM PLATYCLADIUM BAILEY (RIBBON PLANT, RIBBON BUSH, TAPEWORM PLANT), ILEX CASSINE L. (FLORIDA HOLLY, DAHOON HOLLY, YAUPON HOLLY), I. CORNUTA LINDL. (CHINESE HOLLY), I. CORNUTA LINDL. 'BURFORDII' (BURFORD HOLLY), I. GLABRA (L.) A. GRAY (GALLBERRY), I. LATIFOLIA THUNB. (LUSTERLEAF HOLLY), IXORA PARVIFLORA VAHL. (GIANT IXORA), IXORA SP. (WHITE IXORA), JASMINUM SP. (JASMINE), KENTIA BELMOREANA F. MUELL., KIGELIA PINNATA DC. (SAUSAGE TREE), LAURUS NOBILIS L. (SWEET BAY TREE), LITCHI CHINENSIS SONNER (LYCHEE), LUCUMA NERVOSA A. DC. (CANISTEL, EGGFRUIT), MACROZAMIA PEROFFSKYANA MIQ. (A CYCAD), MAGNOLIA VIRGINIANA L. (WHITE BAY), MANGIFERA INDICA L. (MANGO), MASCARENA SP., MELALEUCA LEUCADENDRON L. (PUNK TREE, CAJEPUT), MIMUSOPS EMARGINATA L. (WILD SAPODILLA), M. ROXBURGHIANA WIGHT (BULLEWOOD), MUEHLENBECKIA SP. (INCH PLANT, MAIDENHAIR VINE, WIRE PLANT), MUSA SP. (BANANA), MYRTUS SP., NERIUM SP. (OLEANDER), OCHROSIA SP. (KOPSIA), OCOTEA CATESBYANA (MICHX.) SARG., PELTANDRA VIRGINICA KUNTH (GREEN ARROW-ARUM), PERSEA AMERICANA MILL. (AVOCADO), PHILODENDRON SP., PHOENIX ROEBELENI O'BRIEN (PIGMY DATE PALM), PHORADENDRON FLAVESCENS NUTT. (MISTLETOE), PILEA SP. (ALUMINUM PLANT), PTYCHOSPERMA ELEGANS (R. BR.) BLUME (SOLITAIRE PALM), RAPANEA GUAYANENSIS AUBL., RHAPIS EXCELSA (THUNB.) HENRY (LADY PALM), RHAPHIDOPHORA DECURSIVA SCOTT, RHODOMYRTUS SP. (DOWNY MYRTLE), SCHINUS TEREBINTHIFOLIUS RADDI (BRAZILIAN PEPPER TREE), SCINDAPSUS SP. (POTHOS), STIGMAPHYLLON SP., STROBILANTHES SP., SYZGIUM JAMBOS ALSTON (ROSE APPLE), TETRAPANAX PAPHYRIFERUS KOCH (CHINESE RICE PAPER PLANT), THEVETIA PERUVIANA (PERS.) SCHUM. (LUCKYNUIT), THUNBERGIA SP., TRACHYCARPUS FORTUNEI H. WENDL. (WINDMILL PALM), TREVESIA PALMATA VIS. 'MICHOLITZII' (DEVIL'S TONGUE), VIBURNUM ODORATISSIMUM KER.

REFERENCES:

- BORCHSENIUS, N. S. 1957. FAUNA OF USSR, HOMOPTERA, COCCIDAE [IN RUSSIAN]. AKAD. NAUK ZOOL. INST. (N.S. 66)9:1-493; ILLUS.
- DIETZ, H. T., AND H. MORRISON. 1916. THE COCCIDAE OR SCALE INSECTS OF INDIANA. 8TH ANN. RPT. STATE ENT. INDIANA 8:195-321.
- MERRILL, G. B. 1953. A REVISION OF THE SCALE INSECTS OF FLORIDA. FLORIDA STATE PLANT BOARD BULL. 1:1-143.
- SANDERS, J. G. 1909. THE IDENTITY AND SYNONYMY OF SOME OF OUR SOFT SCALE-INSECTS. J. ECON. ENT. 2:428-448; 6 FIG.
- SIGNORET, V. 1873. ESSAI SUR LES COCHENILLES OU GALLINSECTES. ANN. SOC. ENT. FRANCE (SER. V) 3:395-448; PL. 12-13.
- ZIMMERMAN, E. C. 1948. INSECTS OF HAWAII, VOL. 5, HOMOPTERA: STERNORHYNCHA. UNIV. OF HAWAII PR., HONOLULU. 464 P.