

RED WAX SCALE (CEROPLASTES RUBENS MASKELL)^{1/}

COCCIDAE - HOMOPTERA

G. W. DEKLE

INTRODUCTION: RED WAX SCALE, CEROPLASTES RUBENS MASKELL (FIG. 1) WAS FIRST FOUND IN AN ORANGE COUNTY NURSERY ON THE FOLIAGE AND STEM OF GREENHOUSE-GROWN AGLAONEMA PICTUM VAR. TRICOLOR AND A. OBLONGIFOLIUM 'CURTISII' BY THE LATE A. C. CREWS, PLANT SPECIALIST, IN NOVEMBER 1955. THIS COLLECTION WAS A NEW FLORIDA AND CONTINENTAL UNITED STATES RECORD OF AN INTRODUCED PLANT PEST. PLANTS FOUND INFESTED WITH RED WAX SCALE IN FLORIDA NURSERIES ARE QUARANTINED UNTIL THE INFESTATION IS ELIMINATED.



FIG. 1. RED WAX SCALE CEROPLASTES RUBENS MASKELL. ADULT FEMALE (♀) AND NYMPHS ON LEAF (3X).



FIG. 2. FEMALE RED WAX SCALE GREATLY ENLARGED (27X). NOTE CONSPICUOUS WHITE BANDS OF POWDERY WAX.

DESCRIPTION: THE WAXY COVER OF THE ADULT FEMALE IS PINKISH TO RED, CONVEX, LONGER THAN WIDE AND WITH TWO CONSPICUOUS PAIRS OF WHITE BANDS THAT EXTEND DORSALLY FROM THE SPIRACULAR AREA (FIG. 2). SIZE: 3.5 - 4.5MM. THE NYMPHS ARE PINKISH IN COLOR.

ECONOMIC IMPORTANCE: THIS SCALE HAS BEEN REPORTED TO BE AN ECONOMIC PEST ON CITRUS.

DISTRIBUTION: ANTIGUA, AUSTRALIA, BERMUDA, CAROLINE IS., CEYLON, CHINA, COOK IS., CUBA, DOMINICAN REPUBLIC, FIJI, FRANCE, GUAM, HAWAII, HONDURAS, INDIA, INDONESIA, ITALY, JAPAN, KENYA, LOYALTY IS., MALAYA, MARIANA IS., MEXICO, NEW CALEDONIA, NEW HEBRIDES, NEW ZEALAND, PHILIPPINES, SAMOA, SEYCHELLES, SOLOMON IS., TAHITI, TAIWAN, UNION OF SOUTH AFRICA, AND ZANZIBAR (FIG. 3).

CONTROL: DIMETHOATE (CYGON) HAS BEEN USED IN SPRAYS, DRENCHES, AND DIPS. CYGON GIVES GOOD CONTROL BUT IS NOT AN ERADICANT. INFESTED PLANTS SHOULD BE DESTROYED.

REMARKS: APPARENTLY ERADICATED FROM FLORIDA. INFESTATIONS WERE ESTABLISHED IN DADE, DUVAL, ORANGE, PALM BEACH, AND PINELLAS COUNTIES (FIG. 4). INTRODUCED FOLIAGE PLANTS APPARENTLY WERE RESPONSIBLE FOR THE ESTABLISHMENT OF THIS INSECT IN FLORIDA. THERE WERE 92 INTERCEPTIONS OF RED WAX SCALE REPORTED BY THE USDA PLANT QUARANTINE DIVISION, HYATTSVILLE, MARYLAND, BETWEEN 1964 - 1968. THIS INSECT, UNDER NATURAL CONDITIONS, COULD BECOME ESTABLISHED IN SOUTH FLORIDA.

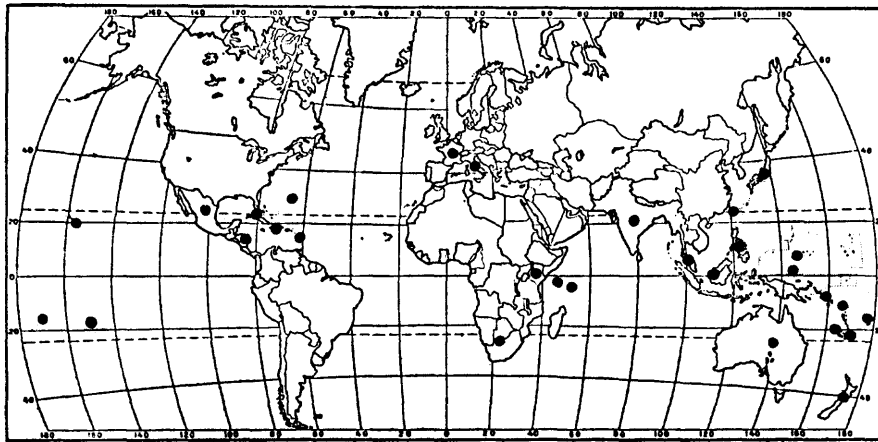


FIG. 3. WORLD DISTRIBUTION OF RED WAX SCALE (*CEROPLASTES RUBENS* MASKELL).

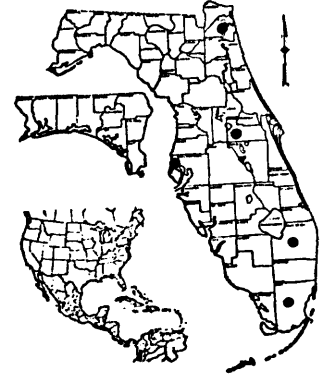


FIG. 4. FLORIDA COUNTIES WHERE RED WAX SCALE WAS ESTABLISHED AND HAS BEEN ERADICATED.

HOSTS: ACANTHACEAE, ACER SP. (MAPLE), ACROSTICHUM SP. (FERN), AGLAONEMA COMMUTATUM SCHOTT, A. MODESTUM SCHOTT, A. NITIDUM (JACK) KUNTH ('CURTISII', A. PICTUM 'TRICOLOR', A. COMMUTATUM SCHOTT 'PSEUDOBRACTEATUM', A. ROEBELINII (LIND.) GENTIL., A. TREUBII ENGL., ALLAMANDA CATHARTICA L. 'SCHOTTII', ALPINIA PURPURATA K. SCHUM., ALYXIA OLIVAEFORMIS GAUDICH., ANTHURIUM SP., ANTIDESMA SP. (CHINA LAUREL), ARTEMISIA VULGARIS L. (MUGWORT), ARDISIA JAPONICA BLUME, ASPLENIDIUM NIDUS L. (BIRD NEST FERN), AUCUBA SP. (GOLDDUST PLANT), BERBERIS SP. (BARBERRY), BRASSICA ACTINOPHYLLA ENDL. (SCHEFFLERA), BUXUS SP. (BOXWOOD), B. MICROPHYLLA SIEB., CALOPHYLLUM TOMENTOSUM WIGHT. (BEAUTYLEAF), CAMELLIA JAPONICA L., C. JAPONICA L., SSP. RUSTICANA (HONDA) KITAMURA, C. SINENSIS (L.) KUNTZE (TEA), CAPSICUM ANNUM L. (PEPPER), CELOSIA ARGENTEA L., VAR. CRISTATA (L.) KUNTZE, CHAENOMELES JAPONICA (THUNB.) LINDL. (FLOWERING QUINCE), CHRYSANTHEMUM SINENSE SABINE, CIBOTIUM SP. (FERN TREE), CINNAMOMUM PEDUNCULATUM PRESL. (CINNAMON), CITRUS RETICULATA BLANCO (MANDARIN ORANGE), C. SINENSIS (L.) OSBECK (SWEET ORANGE), CLEYERA JAPONICA THUNB., COCOS NUCIFERA L. (COCONUT), COFFEA SP. (COFFEE), COTONEASTER SP. (ORNAMENTAL), CRASSULA ROSULARIS HAW. (SUCCULENT), CRATAEGUS SP. (HAW, HAWTHORN, MAYHAW), CYCAS REVOLUTA THUNB. (SAGO PALM), CYDONIA OBLONGA MILL. (QUINCE), CYTISUS SCOPARIUS LINK (SCOTCH BROOM), DAPHNE ODORA THUNB., DIEFFENBACHIA SP. (ORNAMENTAL), DIOSCOREA VIOLACEA MART. EX BENTH., DIOSPYROS KAKI L.F. (JAPANESE PERSIMMON), DIZYGOTHECA ELEGANTISSIMA VIG. & GUILL. (FALSE ARALIA), DURANTA REPENS L. (SKYFLOWER), ELAECARPUS BIFIDUS HOOK. & ARN., ELAPHOGLOSSUM RETICULATUM GAUD. (FERN), EPIDENDRUM SP. (ORCHID), ERIOBOTRYA JAPONICA LINDL. (LOQUAT), EUCALYPTUS GLOBULUS LABILL. (TASMANIAN BLUEGUM), EUGENIA SMITHII POIR., EUONYMUS EUROPAENS L. (SHRUB), E. JAPONICUS THUNB. (JAPANESE EVERGREEN), E. ALATA MAXIM., EURYA EMARGINATA (THUNB.) MAKINO, FATSIA JAPONICA DECNE. & PLANCH. (ARALIA), FICUS CARICA L. (FIG), F. FAVEOLATA WALL., GARCINIA SPICATA HOOK.F., GARDENIA JASMINOIDES ELLIS (GARDENIA, CAPE JASMINE), GRAMMATOPHYLLUM SP. (ORCHID), HEDERA HELIX L. (ENGLISH IVY), ILEX SERRATA THUNB. (HOLLY), ILICIIUM ANISATUM L. (ANISE TREE), IRESINE SP. (BLOODLEAF), IXORA SP. (EVERGREEN SHRUB), KADSURA JAPONICA (THUNB.) DUNAL. (KATSURA TREE), LAURUS NOBILIS L. (LAUREL), LIGUSTRUM JAPONICUM THUNB. (PRIVET), LINDERA CITRIDORA HEMSL. (SPICE BUSH), LITCHI CHINENSIS SONN. (LYCHEE, LEECHIE), LITSEA GLAUCA SIEB., LYCIUM CHINENSE MILL. (CHINESE MATRIMONY VINE), MACHILUS THUNBERGII SIEB., MAGNOLIA SALICIFOLIA (BAY), M. OBOVATA THUNB. (BAY), MALUS SP. (APPLE), MANGIFERA INDICA L. (MANGO), MEDINILLA SP., MELIA AZEDARACH L. (CHINABERRY, CHINA TREE), METROSIDEROS VILLOSA SM., MONSTERA DELICIOSA LIEBM., MORUS ALBA L. (WHITE MULBERRY), MYRSINE SP., NANDINA DOMESTICA THUNB., NERIUM OLEANDER L. (OLEANDER), PALTONIUM LANCEOLATUM PRESL. (RIBBON FERN), PEPEROMIA SP. (PEPEROMIA), PERSEA AMERICANA MILL. (AVOCADO), PHILLODENDRON GIGANTEUM SCHOTT, PHOTINA GLABRA MAXIM., PILEA L., PINUS DENSIFLORA SIEB. & ZUCC., P. PAVIFLORA SIEB. & ZUCC. (JAPANESE WHITE PINE), PITTOSPORUM TOBIRA (THUNB.) AIT. (PITTOSPORUM), PODOCARPUS NAGI (THUNB.) MAKINO (PODOCARPUS), POLYPODIUM SP. (FERN), PONCIRUS TRIFOLIATA (L.) RAF. (TRIFOLIATE ORANGE), PRUNUS DOMESTICA L. (PEACH OR PRUNE), P. MUME SIEB. & ZUCC., PSYCHOTRIA SP. (WILD COFFEE), PTERIS SP. (BRAKE FERN), PYRUS PYRIFOLIA (BURM.F.) NAKAI (SAND PEAR), RHODODENDRON INDICUM SWEET (AZALEA), RHUS SUCCEDANEA L. (WAX-TREE), ROSA SP. (ROSE), SCHIMA SP., SPARTIUM JUNCHEUM L. (SPANISH BROOM), SPIREA THUNBERGII SIEB. (SPIREA, BRIDALWREATH), STANHOPEA SP., STRAUSSIA SP., STROBILANTHES JAPONICUS MIQ. (LAVENDER-BELL), SYMPLOCOS JAPONICA DC., TODEA BARBARA (L.) MOORE, TAMARIX CHINENSIS LOUR. (SALT CEDAR, TAMARIX), WISTERIA SP. (WISTERIA), ZANTDESCHIA SP. (CALLA).

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