Entomology Circular No. 263
July 1984

Fla. Dept. Agric. & Consumer Serv.
Division of Plant Industry

A CACTUS MEALYBUG, HYPOGEOCOCCUS FESTERIANUS (LIZER Y TRELLES), IN FLORIDA (HOMOPTERA:COCCOIDEA:PSEUDOCOCCIDAE)[1]

Avas B. Hamon[2]

SYNONYMY: Pedronia festeriana Lizer y Trelles, 1942:24.

INTRODUCTION: This mealybug was collected recently in a Hollywood, Florida nursery. The plants have been destroyed, and no known infestation exists in Florida. Previously recorded only from Argentina, it is not known how or when it arrived in Florida. Confined to cacti, it has been suggested as a possible biological control agent of cacti (Williams 1973).

DESCRIPTION: The adult female lives inside a white waxy covering (Fig. 1A). The adult female body is rotund at maturity, about 2 mm long, and has poorly developed anal lobes (Fig. 1B). Antennae are 7-segmented. Translucent pores on the hind legs are well defined and located on the outer half of each coxae and in 2 small groups on the outer distal edge of the tibia. The anal ring is wide, with 3 rows of pores and 6 setae about 1.5 times as long as diameter of anal ring. Three circuli are present (Fig. 2A). The 2 anterior circuli are oval and the posterior one is larger and usually notched on the posterior margin. Multilocular disc pores occur in single or double rows at the anterior and posterior of abdominal segments but are scattered on thorax and head.

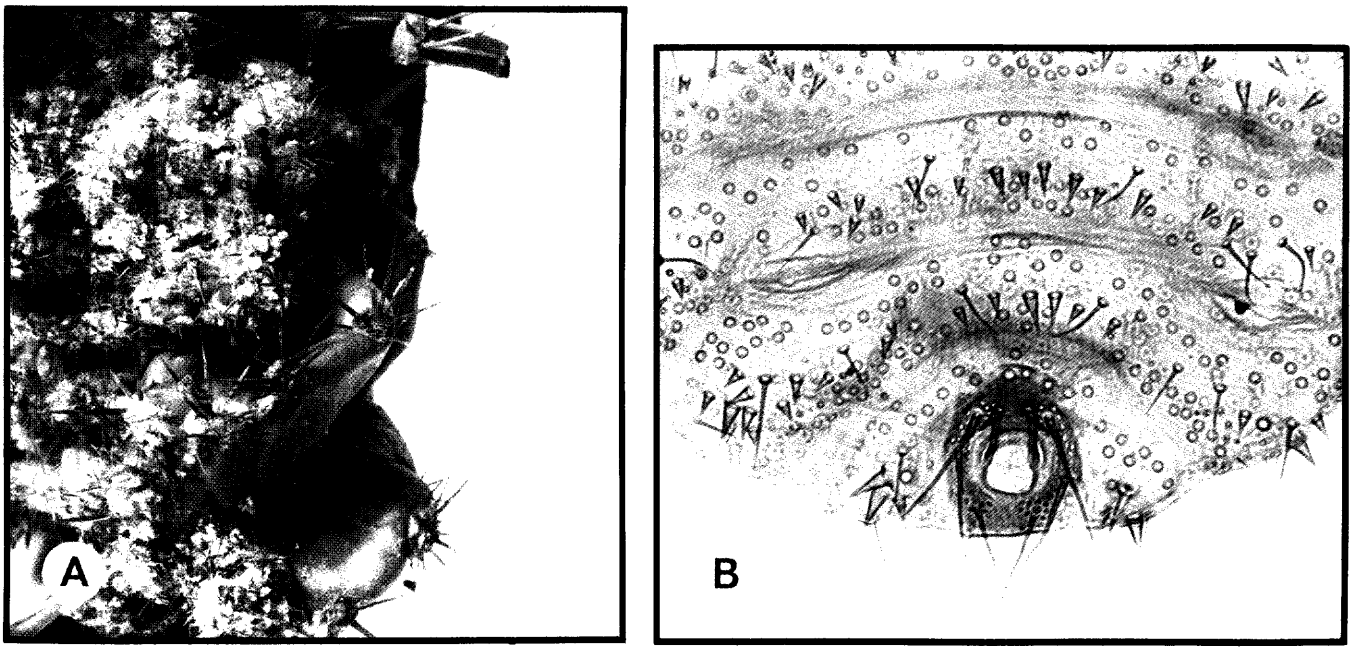

Fig. 1. Hypogeococcus festerianus. A) Patches of wax covering females (near natural size). B) Microscope slide mounted specimen showing anal lobes, dorsal setae, ventral multilocular pores, and anal ring (ca. 100 X). DPI Photo #702965-12 and #702985-15 by V. Jane Windsor.

1/Contribution No. 591, Bureau of Entomology.
2/Taxonomic Entomologist, Division of Plant Industry, P. O. Box 1269, Gainesville, FL 32602.

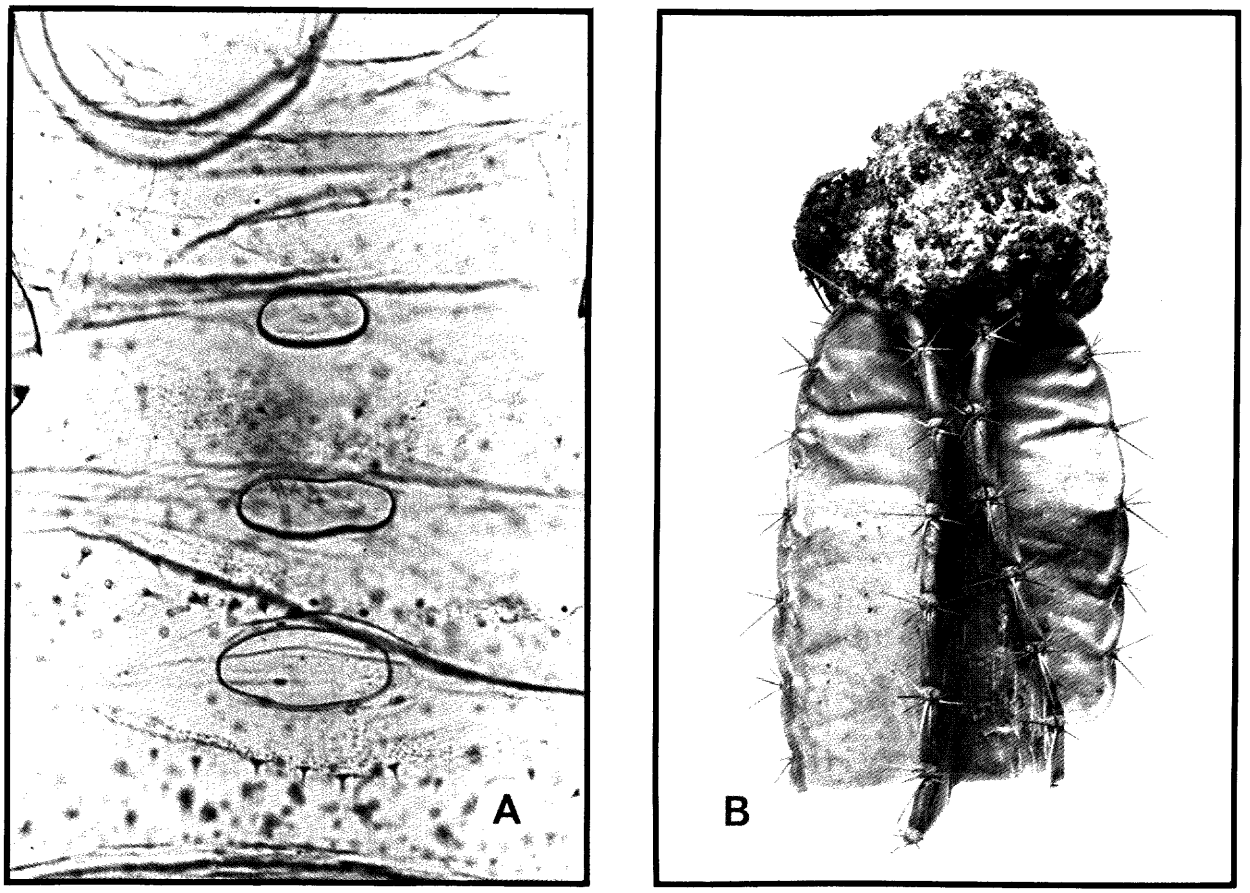

Fig. 2. Hypogeococcus festerianus. A) Ventral view, showing the 3 circuli (ca. 400 X). B) Severely distorted and calloused growing tip of Cereus peruvianus. DPI Photo #702985-0 and #702965-9 by V. Jane Windsor.

BIOLOGY: No life history studies have been carried out on this mealybug. Males are known. In Florida, crawlers were present on 7-III-1984.

DISTRIBUTION: Argentina, Florida (plants were destroyed).

HOSTS: Apparently restricted to cacti. Cereus peruvianus (L.) Mill., Florida; C. aethiops Haw., Argentina; Cereus spp., Argentina; Cleistocactus baumannii Lem., Argentina; Harrisia martinii (Labour.) Britt. & Rose, Argentina; H. bonplandii (Parm.) Britt. & Rose, Argentina.

ECONOMIC IMPORTANCE: This mealybug causes the growing tips to become severely distorted and calloused (Fig. 2B). The damage is severe and growth is halted.

SURVEY AND DETECTION: Inspect cacti carefully for distorted and calloused growing tips. White wax secreted by this mealybug, as a protective covering, should be evident. Submit small portions of calloused area with white wax patches (without cactus spines if possible) in a plastic bag or alcohol to Gainesville for identification.

LITERATURE CITED

Lizer y Trelles, C. A. 1942. Pedronia festeriana n. sp. (Homoptera:Coccoidea: Pseudococcidae). Revta. Fac. Agron. Vet. Univ. B. Aires 10:24-28.

Williams, D. J. 1973. Two cactus-feeding mealybugs from Argentina (Homoptera: Coccoidea:Pseudococcidae). Bull. Entomol. Res. 62:565-570, illus.