

NOTA CIENTÍFICA

CEROPLASTES RUBENS MASKELL (HEMIPTERA: COCCIDAE), A NEW COCCID RECORD FOR COLOMBIA

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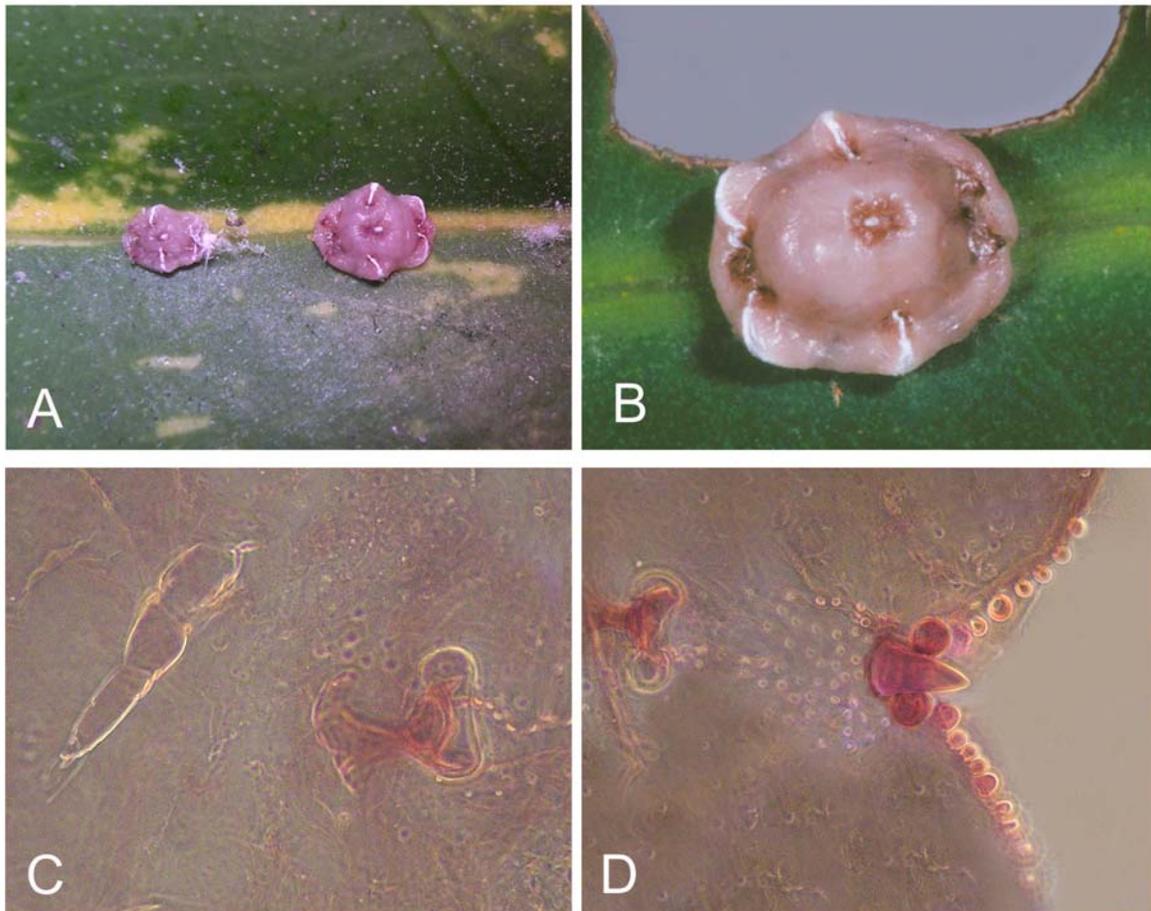


Figure 1. *Ceroplastes rubens* Maskell. A, ex *Philodendron* sp.; B, close-up. Microscopic features. C, greatly reduced legs with fused femur and tibia on left side, with spiracle on right side; D, spiracle on left side, with stigmatic setae on right side.

The family Coccidae, or soft scales (Hemiptera: Coccoidea), is composed of about 1100 species in 160 genera (Ben-Dov et al. 2008). In Colombia, 35 species of soft scales have been recorded (Kondo 2001); 29% of the total number belong to the genus *Ceroplastes* Gray. Half of the *Ceroplastes* species in Colombia are endemic and were described by Felipe Mosquera Paris (Mosquera 1979, 1984). The species of *Ceroplastes* known from Colombia are as follows: *C. boyacensis* Mosquera, *C. bruneri* Cockerell & Cockerell, *C. cirripediformis*

Comstock, *C. cundinamarcensis* Mosquera, *C. floridensis* Comstock, *C. janeirensis* Gray, *C. martiniae* Mosquera, *C. mosqueraei* Ben-Dov, *C. ocreus* Mosquera, and *C. trochezi* Mosquera (Ben-Dov 1993; Ben-Dov et al. 2008; Figueroa Potes 1952; Kondo 2001; Mosquera 1979, 1984; Posada 1989).

The author recently collected samples of a species of *Ceroplastes* on the leaves of two ornamental plant species of Araliaceae, i.e., *Philodendron* sp. in Cali, and on *Aglaonema* sp. in Palmira. Specimens were slide-mounted according to the method used by Williams & Granara de Willink (1992) and were identified as *Ceroplastes rubens* Maskell using the taxonomic keys of Gimpel et al. (1974), Hamon & Williams (1984) and Kawai (1980). *Ceroplastes rubens* is a rather characteristic species. It can be distinguished from other species of *Ceroplastes* known from Colombia, by the following combination of features: (1) waxy test (cover) pinkish to purple red in color, with two conspicuous pairs of white bands that extend ventrally towards the dorsal submargin (see Figures 1A & B); (2) by the presence of greatly reduced legs with fused femur and tibia (Figure 1C); and (3) by the presence of a conspicuous and very large, cone-shaped median stigmatic seta, with two large and conical lateral stigmatic setae, each about half the size of the median seta, followed by numerous, much smaller (about half the size of the pair of large lateral setae or smaller) hemispherical-shaped stigmatic setae in each stigmatic area (Figure 1D). The stigmatic setae are confined to the stigmatic areas and are present within the stigmatic cleft.

Ceroplastes rubens is cosmopolitan in distribution and is common in the Oriental and Australasian regions. This is the second record of *C. rubens* from the Neotropical region; previously it has been reported only from Puerto Rico in the Caribbean (Nakahara & Miller 1981). *Ceroplastes rubens* has been reported as a pest of Citrus in Japan (Kawai, 1980); however, in Colombia, the species has only been found in small numbers and in localized areas. The insect was first found on the leaves of an ornamental plant, *Aglaonema* sp. at the Corpoica research center in Palmira, where *Aglaonema* sp. is a common ornamental plant. Interestingly, out of some 10 potted plants within the premises of the center, only 3 have the scale insects, and they do not appear to cause serious damage to the plants. Furthermore, there is a citrus greenhouse less than 20 meters from the plants that host *C. rubens*, but the soft scale has hitherto not been collected on *Citrus* despite the proximity of the greenhouse to the potted plants (personal observation).

Material studied. *Ceroplastes rubens* Maskell. **Colombia:** Valle del Cauca, Palmira, Corporación Colombiana de Investigación Agropecuaria (CORPOICA), Centro de Investigación Palmira, 03°30'52.8"N, 76°18'58.3"W, 1014 m, 14.ii.2008, coll. T. Kondo, *ex* on leaves of *Aglaonema* sp. (Araliaceae), 3 slides 5 specimens; **Colombia:** Valle del Cauca, Cali, 03°18'18.3"N, 76°32'12.9"W, 1014 m, 23.iii.2008, coll. T. Kondo, *ex* on leaves of *Philodendron* sp. (Araliaceae), 2 slides 5 specimens. All material deposited at the Universidad del Valle, Department of Entomology, Cali, Colombia. (UVCO).

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LITERATURE CITED

- Ben-Dov, Y. 1993. A systematic catalogue of the soft scale insects of the world (Homoptera: Coccoidea: Coccidae) with data on geographical distribution, host plants, biology and economic importance. Flora & Fauna Handbook, No. 9. Sandhill Crane Press, Gainesville, FL.
- Ben-Dov, Y., D. R. Miller & G. A. P. Gibson. 2008. ScaleNet: a Database of the Scale Insects of the World. Scales in a Region Query Results. <http://www.sel.barc.usda.gov/scalenet/query.htm> (accessed on 18/iv/2008).
- Figueroa-Potes A. 1952. Catálogos de los artrópodos de las clases Arachnida e Insecta encontrados en el hombre, los animales y las plantas de la República de Colombia – II Acta Agronómica Colombia 2:199-223.

- Gimpel, W. F., D. R. Miller, & J. A. Davidson. 1974. A systematic revision of the wax scales, genus *Ceroplastes*, in the United States (Homoptera; Coccoidea; Coccidae). University of Maryland, Agricultural Experiment Station, Miscellaneous Publication, 841:1-85.
- Hamon, A. B. & M. L. Williams. 1984. The soft scale insects of Florida (Homoptera: Coccoidea: Coccidae). Arthropods of Florida and Neighboring Land Areas. Florida Department of Agriculture & Consumer Services. Division of Plant Industry, Gainesville.
- Kawai, S. 1980. Scale insects of Japan in colors. (In Japanese). National Agricultural Education Association, Tokyo.
- Kondo, T. 2001. Las cochinillas de Colombia (Hemiptera: Coccoidea). Biota Colombiana, 2:31-48.
- Mosquera, P. F. 1979. El género *Ceroplastes* (Homoptera: Coccidae) en Colombia. Caldasia, 12:595-627.
- Mosquera, P.F. 1984. El género *Ceroplastes* (Homoptera: Coccidae) en Colombia, II. Caldasia. Bogota 14: 125-147.
- Nakahara, S. & C. E. Millar. 1981. A list of the Coccoidea species (Homoptera) of Puerto Rico. Proceedings of the Entomological Society of Washington, 83:28-39.
- Posada, O. L. 1989. Lista de insectos dañinos y otras plagas en Colombia. Cuarta Edición, Boletín Técnico No.43. Instituto Colombiano Agropecuario.
- Williams, D. J. & C. Granara de Willink. 1992. Mealybugs of Central and South America. CAB International, London.