



Redescription of the genus *Chlamydolecanium* Goux, 1933 (Hemiptera: Coccoidea: Coccidae) with a discussion of its affinities

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Abstract

The monotypic genus *Chlamydolecanium* Goux (Hemiptera: Coccoidea: Coccidae) is known only from the original collection in Corsica. The original description does not allow definite placement in any of the subfamilies in the Coccidae. Although it had been suggested that it belonged to the Cardiococcinae, no other members of this subfamily were geographically close. The adult female and 1st-instar nymph of the type species, *Chlamydolecanium conchoides* Goux are here re-described. A parsimony analysis was undertaken based on 56 morphological characters of the adult females in 29 taxa (24 genera considered to belong to the Cardiococcinae, plus *Parafairmaria bipartita* (Signoret), an *incertae sedis* monospecific genus possibly close to Cardiococcinae, plus the recently described *Kenima galilit* Ben-Dov plus two other soft scale genera as outgroups (*Coccus hesperidum* L. and *Paralecanium frenchii* (Maskell)). This analysis confirmed the placement of the genus *Chlamydolecanium* within the Cardiococcinae clade, although its sister-group relationships remain unresolved. Its geographic distribution and taxonomic relationships are discussed.

Key words: soft scales, glassy scale insects, Coccoidea, morphological analysis

Résumé

Le genre monotypique *Chlamydolecanium* Goux (Hemiptera: Coccoidea: Coccidae) est connu uniquement par sa collecte en Corse. La description originale n'a pas permis une inclusion certaine dans une des sous-familles des Coccidae. Bien qu'il ait été proposé que le genre appartienne aux Cardiococcinae, aucun membre de cette sous-famille n'est géographiquement proche de *Chlamydolecanium*. La femelle adulte et le premier stade larvaire de l'espèce-type, *Chlamydolecanium conchoides* Goux sont redécrits ci-après. Une analyse cladistique a été effectuée en utilisant 56 caractères morphologiques de femelles adultes de 29 taxons (incluant 24 genres considérés comme appartenant aux Cardiococcinae, *Parafairmaria bipartita* (Signoret), un genre monotypique *incertae sedis* et possiblement proche des Cardiococcinae, *Kenima galilit* Ben-Dov, genre récemment décrit, et deux autres genres des Coccidae comme groupe externe (*Coccus hesperidum* L. and *Paralecanium frenchii* (Maskell)). Les résultats de l'analyse confirment l'appartenance de *Chlamydolecanium* dans le clade Cardiococcinae, bien que son groupe-frère n'est pas pu être déterminé. Sa distribution géographique et relations taxonomiques sont discutées.

Introduction

The subfamily Cardiococcinae was introduced (Hodgson, 1994) to take 16 soft scale insect genera which had thin glassy tests, thus the name “glassy scale insects”. Eight of these genera were monospecific and most of the other genera had few species (maximum of 9 species in *Ceroplastodes*). Later, Hodgson & Henderson (2000) added a further 8 genera to the Cardiococcinae, all indigenous to New Zealand (although recently one of these genera has been found in Fiji (Hodgson & Lagowska, 2011)). The addition of these New Zealand genera changed the geographic understanding of the subfamily, originally having a mainly tropical distribution (Africa, South America, Central America and North America, the Oriental Region and Australia) but with almost half of the known genera now more or less restricted to New Zealand. However, the Australian Coccidae is in the process of being revised