

NOMENCLATURAL CHANGES IN THE ERIOCOCCIDAE (HOMOPTERA: COCCOIDEA)

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Abstract.—A catalog of the eriococcid scale insects of the world is nearly complete and will soon be placed on the World Wide Web. Before this is done, new nomenclatural changes need to be validated in print. Therefore, this publication includes 191 new combinations, four replacement names, and one new generic synonym.

Key Words: Felt scales, Coccoidea, Eriococcidae, catalog, new combinations, replacement names

We currently are completing a systematic database and manuscript on the Eriococcidae of the World. It is part of a larger project called ScaleNet to develop a systematic database of the Coccoidea of the World. ScaleNet is funded by the United States-Israel, Binational Agricultural Research and Development Fund (project No. IS-2423-94) and is being undertaken jointly with Yair Ben-Dov, Department of Entomology, Agricultural Research Organization, The Volcani Center, Bet Dagan, Israel. The database resides in BASIS a user friendly cataloging system that resides in FoxPro and was developed by Gary Gibson, Eastern Cereals and Oil Seed Research Centre, Agriculture Canada. The database application is Microsoft FoxPro.

The purpose of this paper is to publish all new nomenclatural information that has resulted from our cataloging activities. Because we intend to make the database available through the World Wide Web, it is important that all new information be validated through publication before it is made available via the Internet.

Within the Eriococcidae, the most con-

troversial and variable generic concepts center around the status of *Acanthococcus* Signoret, *Anophococcus* Balachowsky, *Eriococcus* Targioni Tozzetti, *Greenisca* Borchsenius, *Gregoporia* Danzig, *Kaweckia* Koteja and Zak-Ogaza, and *Rhizococcus* Signoret. Hoy (1963) in his catalog of the Eriococcidae of the World treated *Acanthococcus* and *Rhizococcus* as junior synonyms of *Eriococcus*, but considered *Greenisca* to be distinct with *Anophococcus* as a junior synonym. Williams (1985) adhered to Hoy's system but also synonymized *Greenisca* and *Kaweckia*.

Other researchers have continued to recognize the various genera as separate valid entities, e.g. Kosztarab and Kozar (1988). The characters used to distinguish these genera usually involve the distribution of the enlarged setae and the presence and distribution of various kinds of dorsal sessile pores. For example, *Rhizococcus* is characterized by having enlarged setae that are restricted to the body margin, in contrast to *Acathococcus* which has the dorsal enlarged setae scattered over the dorsum. If a careful analysis is made of the species that possess

the characteristics of *Rhizococcus*, it soon becomes evident that it includes an artificial aggregation of species, many of which have independently evolved reduced dorsal enlarged setae, probably in response to ecological factors such as inhabiting a concealed habitat. The same situation is apparently true of the distribution of dorsal multilocular and cruciform pores. For the purposes of the ScaleNet project, we generally have followed the concepts of Hoy and Williams except that *Eriococcus* is restricted to the apparently monophyletic group of species that have unusually large tubular ducts on the head and that *Acanthococcus* contains the remainder of the group. This concept is consistent with the conclusions of Miller and Williams (1976).

Many new combinations are required, because most species within this group have previously been placed in the genus *Eriococcus sensu lato* and are here being transferred to *Acanthococcus*.

METHODS

Names are listed with the nomenclatural change in bold face type, followed by remarks (if any), the original combination, author, date, and pagination. In order to avoid using excess space, literature cited includes only those publications that have not previously been included in one of the Coccoidea bibliographies (Morrison and Renk 1957, Morrison and Morrison 1965, Russell et al. 1974, Kosztarab and Kosztarab 1988). In this publication, when an author is cited that has written more than one article in a year, the letter following the date is the same as the letter given in the published bibliography.

NEW COMBINATIONS

Acanthococcus abdifulis (Hoy), n. comb.

Eriococcus abditus Hoy, 1962: 32, 34.

Acanthococcus acericola (Tang & Hao), n. comb.

Eriococcus acericola Tang & Hao, 1995: 454.

Acanthococcus aceris kurdicus (Bodenheimer), n. comb.

Eriococcus aceris kurdica Bodenheimer, 1943: 21–22.

Acanthococcus acutispinatus (Hoy), n. comb.

Eriococcus acutispinatus Hoy, 1962: 33, 36.

Acanthococcus agonis (Fuller), n. comb.

Eriococcus agonis Fuller, 1897a: 1345.

Acanthococcus albatus (Hoy), n. comb.

Eriococcus albatus Hoy, 1962: 33, 38.

Acanthococcus amomidis (Gomez-Menor), n. comb.

Eriococcus amomidis Gomez-Menor, 1935: 2152–2153.

Acanthococcus angulatus (Froggatt), n. comb.

Eriococcus angulatus Froggatt, 1916: 426.

Acanthococcus apiomorphae (Fuller), n. comb.

Eriococcus apiomorphae Fuller, 1897a: 1345.

Acanthococcus araucariae minor (Maskell), n. comb.

Eriococcus araucariae minor Maskell, 1895a: 21.

Acanthococcus araucariae nudus (Gomez-Menor), n. comb.

Eriococcus araucariae nuda Gomez-Menor, 1957: 79.

Acanthococcus arboisi (Goux), n. comb.

Eriococcus arboisi Goux, 1991: 46–47.

Acanthococcus arcanus (Hoy), n. comb.

Eriococcus arcanus Hoy, 1962: 15, 32, 42, 204.

Acanthococcus argentifagi (Hoy), n. comb.

Eriococcus argentifagi Hoy, 1962: 31, 44.

Acanthococcus armeniacus (Tang & Hao), n. comb.

Eriococcus armeniacus Tang & Hao, 1995: 456–457.

Acanthococcus artiguesi (Goux), n. comb.

Eriococcus artiguesi Goux, 1991: 48–49.

Acanthococcus asteliae (Hoy), n. comb.

Eriococcus asteliae Hoy, 1962: 32, 46.

- Acanthococcus australis* (Maskell), n. comb.
Eriococcus buxi australis Maskell, 1895b: 65.
- Acanthococcus bambusae* (Green), n. comb.
Eriococcus bambusae Green, 1922: 350.
- Acanthococcus beilschmiediae* (Hoy), n. comb.
Eriococcus beilschmiediae Hoy, 1962: 33, 48.
- Acanthococcus betulaefoliae* (Tang & Hao), n. comb.
Eriococcus betulaefoliae Tang & Hao, 1995: 460.
- Acanthococcus bezzii* (Leonardi), n. comb.
Eriococcus bezzii Leonardi, 1907b: 148–151.
- Acanthococcus bicolor* (Froggatt), n. comb.
Rhizococcus bicolor Froggatt, 1915: 1059.
- Acanthococcus boguschi* (McDaniel), n. comb.
Eriococcus boguschi McDaniel, 1964: 101.
- Acanthococcus brachypodii* (Borchsenius & Danzig), n. comb.
Greenisca brachypodii Borchsenius & Danzig, 1966: 43.
- Acanthococcus brasiliensis* (Cockerell), n. comb.
Eriococcus brasiliensis Cockerell, 1900: 363–364.
- Acanthococcus brevenniae* (Goux), n. comb.
Eriococcus brevenniae Goux, 1993: 65–69.
- Acanthococcus brittini* (Hoy), n. comb.
Eriococcus brittini Hoy, 1962: 50.
- Acanthococcus cactearum* (Leonardi), n. comb.
Eriococcus cactearum Leonardi, 1918: 206–208, 215.
- Acanthococcus campbelli* (Hoy), n. comb.
Eriococcus campbelli Hoy, 1959: 12.
- Acanthococcus campinensis* (Hempel), n. comb.
- Eriococcus campinensis* Hempel, 1937: 5–6.
- Acanthococcus cantium* (Williams), n. comb.
Eriococcus cantium Williams, 1985i: 363.
- Acanthococcus castanopus* (Tang & Hao), n. comb.
Eriococcus castanopus Tang & Hao, 1995: 463.
- Acanthococcus casuarinae* (Maskell), n. comb.
Rhizococcus casuarinae Maskell, 1893: 230.
- Acanthococcus caudatus* (Tang & Hao), n. comb.
Eriococcus caudatus Tang & Hao, 1995: 463–464.
- Acanthococcus cavellii* (Maskell), n. comb.
Gossyparia cavellii Maskell, 1890: 147.
- Acanthococcus celmisiae* (Maskell), n. comb.
Rhizococcus celmisiae Maskell, 1884: 135.
- Acanthococcus chaoticus* (Goux), n. comb.
Eriococcus chaoticus Goux, 1991: 49–50.
- Acanthococcus chathamensis* (Hoy), n. comb.
Eriococcus chathamensis Hoy, 1962: 79.
- Acanthococcus chilensis* (Miller & González), n. comb.
Eriococcus chilensis Miller & González, 1975: 140–142.
- Acanthococcus coffeae* (Hempel), n. comb.
Eriococcus coffeae Hempel, 1919: 453–457.
- Acanthococcus confluens* (Maskell), n. comb.
Gossyparia confluens Maskell, 1893b: 227.
- Acanthococcus confusus* (Maskell), n. comb.
Eriococcus confusus Maskell, 1892: 26.
- Acanthococcus consperus* (Maskell), n. comb.

- Eriococcus consperus* Maskell, 1893b: 229–330.
- Acanthococcus constrictus* (Froggatt), n. comb.
Eriococcus constrictus Froggatt, 1933: 365–367.
- Acanthococcus coprosmae* (Hoy), n. comb.
Eriococcus coprosmae Hoy, 1962: 32, 60–61.
- Acanthococcus coriaceus* (Maskell), n. comb.
Eriococcus coriaceus Maskell, 1893b: 229.
- Acanthococcus corniculatus* (Ferris), n. comb.
Eriococcus corniculatus Ferris, 1950: 7.
- Acanthococcus costaricensis* (Cockerell & Robinson), n. comb.
Eriococcus costaricensis Cockerell & Robinson, 1915: 105.
- Acanthococcus crenilobatus* (Hoy), n. comb.
Eriococcus crenilobatus Hoy, 1962: 32, 64.
- Acanthococcus crispus* (Fonscolombe), n. comb.
Coccus crispus Fonscolombe, 1834: 204.
- Acanthococcus crofti* (Froggatt), n. comb.
Eriococcus crofti Froggatt, 1916: 430.
- Acanthococcus cultellus* (Hoy), n. comb.
Eriococcus cultellus Hoy, 1959: 14, 23.
- Acanthococcus curassavicus* (Reyne), n. comb.
Eriococcus curassavicus Reyne, 1964: 101–114.
- Acanthococcus dacrydii* (Hoy), n. comb.
Eriococcus dacrydii Hoy, 1962: 32, 66.
- Acanthococcus danthoniae* (Maskell), n. comb.
Eriococcus danthoniae Maskell, 1891: 21, 22.
- Acanthococcus detectus* (Hoy), n. comb.
Eriococcus detectus Hoy, 1962: 85.
- Acanthococcus diverspinus* (Leonardi), n. comb.
Eriococcus diverspinus Leonardi, 1911: 249–251.
- Acanthococcus elaeocarpi* (Hoy), n. comb.
- Eriococcus elaeocarpi* Hoy, 1962: 32, 72.
- Acanthococcus elegans* (Fuller), n. comb.
Eriococcus elegans Fuller, 1897b: 1345.
- Acanthococcus elytranthae* (Hoy), n. comb.
Eriococcus elytranthae Hoy, 1962: 32, 74, 204.
- Acanthococcus emirnensis* (Mamet), n. comb.
Eriococcus emirnensis Mamet, 1954: 25–27.
- Acanthococcus ericae* (Signoret), n. comb.
Eriococcus ericae Signoret, 1875b: 31.
- Acanthococcus etbaicus* (De Lotto), n. comb.
Eriococcus etbaicus De Lotto, 1954a: 215–216.
- Acanthococcus eucalypti* (Maskell), n. comb.
Eriococcus eucalypti Maskell, 1892: 27, 28.
- Acanthococcus erythrix* (Miller & González), n. comb.
Eriococcus erythrix Miller & González, 1975: 142–144.
- Acanthococcus evelinae* (Kozar), n. comb.
Rhizococcus evelinae Kozar, 1983: 144–146.
- Acanthococcus fagicorticis* (Maskell), n. comb.
Eriococcus fagicorticis Maskell, 1892: 27.
- Acanthococcus festucarum* (Lindinger), n. comb.
 Remarks: *Eriococcus festucarum* was proposed by Lindinger (Lindinger 1932f) as a replacement name for *E. festucae* Kuwana and Fukaya (in Kuwana 1914) which is a junior secondary homonym of *E. festucae* Targioni Tozzetti (1869).
Eriococcus festucae Kuwana, 1914: 2–3.
- Acanthococcus formicicola* (Newstead), n. comb.
Eriococcus formicicola Newstead, 1897a: 102.
- Acanthococcus fossilis* (Froggatt), n. comb.

- Eriococcus fossilis* Froggatt, 1933: 367.
- Acanthococcus fossor* (Maskell), n. comb.
Rhizococcus fossor Maskell, 1884: 136–137.
- Acanthococcus franceschinii* (Balachowsky), n. comb.
Eriococcus franceschinii Balachowsky, 1934b: 98–101.
- Acanthococcus fuligitectus* (Hoy), n. comb.
Eriococcus fuligitectus Hoy, 1962: 32, 80.
- Acanthococcus gassinus* (Goux), n. comb.
Eriococcus gassinus Goux, 1992: 41–46.
- Acanthococcus gaultheriae* (Hoy), n. comb.
Eriococcus gaultheriae Hoy, 1962: 31, 82.
- Acanthococcus gibbus* (Hoy), n. comb.
Eriococcus gibbus Hoy, 1959: 14.
- Acanthococcus glyceriae* (Green), n. comb.
Eriococcus glyceriae Green, 1921: 146–148.
- Acanthococcus gouxi* (Balachowsky), n. comb.
Anophococcus gouxi Balachowsky, 1954a: 61–64.
- Acanthococcus graminicola* (Borchsenius), n. comb.
Rhizococcus graminicola Borchsenius, 1949: 353, 359, 360.
- Acanthococcus grandis* (Maskell), n. comb.
Rhizococcus grandis Maskell, 1892: 29–30.
- Acanthococcus grandis spinosior* (Maskell), n. comb.
Rhizococcus grandis spinosior Maskell, 1893b: 230.
- Acanthococcus guesinus* (Goux), n. comb.
Eriococcus guesinus Goux, 1992: 41–46.
- Acanthococcus gurneyi* (Fuller), n. comb.
Eriococcus gurneyi Fuller, 1899: 441.
- Acanthococcus hakeae* (Fuller), n. comb.
Eriococcus hakeae Fuller, 1897b: 1345.
- Acanthococcus hebes* (Hoy), n. comb.
Eriococcus hebes Hoy, 1962: 33, 84.
- Acanthococcus hispidus* (Hoy), n. comb.
Eriococcus hispidus Hoy, 1962: 30, 86.
- Acanthococcus humatus* (Hoy), n. comb.
Eriococcus humatus Hoy, 1962: 32, 88.
- Acanthococcus iljiniae* (Danzig), n. comb.
Rhizococcus iljiniae Danzig, 1972c: 339.
- Acanthococcus imperfectus* (Fuller), n. comb.
Eriococcus imperfectus Fuller, 1897b: 1345.
- Acanthococcus inermis* (Green), n. comb.
Eriococcus inermis Green, 1915a: 176.
- Acanthococcus ironsidei* (Williams), n. comb.
Eriococcus ironsidei Williams, 1973a: 83.
- Acanthococcus irregularis* (Froggatt), n. comb.
Eriococcus irregularis Froggatt, 1921a: 83.
- Acanthococcus istriensis* (Kozar), n. comb.
Gregoria istriensis Kozar, 1983b: 142–144.
- Acanthococcus jorgensenii* (Morrison), n. comb.
Eriococcus jorgensenii Morrison, 1919: 69, 73–74.
- Acanthococcus kamahi* (Hoy), n. comb.
Eriococcus kamahi Hoy, 1958: 196.
- Acanthococcus kijabensis* (James), n. comb.
Eriococcus kijabensis James, 1934a: 270–272.
- Acanthococcus kondarensis* (Borchsenius), n. comb.
Rhizococcus kondarensis Borchsenius, 1949: 57, 58, 353–354.
- Acanthococcus kowhai* (Hoy), n. comb.
Eriococcus kowhai Hoy, 1962: 32, 92.
- Acanthococcus laeticoris* (Tereznikova), n. comb.
Greenisca laeticoris Tereznikova, 1965: 975.
- Acanthococcus lanatus* (Hempel), n. comb.
Eriococcus lanatus Hempel, 1932: 317–318.
- Acanthococcus latilobatus* (Hoy), n. comb.

- Eriococcus latilobatus* Hoy, 1962: 31, 94.
Acanthococcus lecanioides (Green), n. comb.
Rhizococcus lecanioides Green, 1915d: 47.
Acanthococcus leguminicola (Morrison), n. comb.
Eriococcus leguminicola Morrison, 1919: 71–73.
Acanthococcus leptospermi (Maskell), n. comb.
Eriococcus leptospermi Maskell, 1891: 22–23.
Acanthococcus lidgetti (Cockerell), n. comb.
Rhizococcus lidgetti Cockerell, 1899k: 88–89.
Acanthococcus mancus (Maskell), n. comb.
Rhizococcus casuarinae mancus Maskell, 1897: 316.
Acanthococcus maskelli (Hoy), n. comb.
Eriococcus maskelli Hoy, 1962: 31, 98.
Acanthococcus matai (Hoy), n. comb.
Eriococcus matai Hoy, 1962: 32, 100.
Acanthococcus mendozae (Morrison), n. comb.
Eriococcus mendozae Morrison, 1919: 68–70.
Acanthococcus meridianus (Hoy), n. comb.
Eriococcus meridianus Hoy, 1962: 32, 102.
Acanthococcus milleri (Hoy), n. comb.
Eriococcus milleri Hoy, 1962: 18–19.
Acanthococcus mimus (Hoy), n. comb.
Eriococcus mimus Hoy, 1962: 33, 104.
Acanthococcus montanus (Hoy), n. comb.
Eriococcus montanus Hoy, 1962: 33, 106.
Acanthococcus montifagi (Hoy), n. comb.
Eriococcus montifagi Hoy, 1962: 31, 108.
Acanthococcus multispinatus (Tang & Hao), n. comb.
Rhizococcus multispinatus Tang & Hao, 1995: 598–599.
Acanthococcus multispinosus (Kuhlgatz), n. comb.
- Rhizococcus multispinosus* Kuhlgatz, 1898: 185–186.
Acanthococcus myrsinae (Hoy), n. comb.
Eriococcus myrsinae Hoy, 1962: 32, 112.
Acanthococcus navarinoensis (Hoy), n. comb.
Eriococcus navarinoensis Hoy, 1962a: 510.
Acanthococcus nelsonensis (Hoy), n. comb.
Eriococcus nelsonensis Hoy, 1962: 31, 114.
Acanthococcus nematosphaerus (Hu, Xie & Yan), n. comb.
Eriococcus nematosphaerus Hu, Xie & Yan, 1981: 75.
Acanthococcus neomyrti (Hoy), n. comb.
Eriococcus neomyrti Hoy, 1962: 116.
Acanthococcus ningxianensis (Tang & Hao), n. comb.
Eriococcus ningxianensis Tang & Hao, 1995: 481–482.
Acanthococcus nitidulus (Hoy), n. comb.
Eriococcus nitidulus Hoy, 1962: 31, 118.
Acanthococcus nothofagi (Hoy), n. comb.
Eriococcus nothofagi Hoy, 1962: 31, 120.
Acanthococcus nuerae (Green), n. comb.
Eriococcus nuerae Green, 1922: 347, 349.
Acanthococcus oblongus (Borchsenius), n. comb.
Rhizococcus oblongus Borchsenius, 1949: 54, 56, 353, 358.
Acanthococcus oligacanthus (Danzig), n. comb.
Rhizococcus oligacanthus Danzig, 1972c: 341.
Acanthococcus orariensis (Hoy), n. comb.
Eriococcus orariensis Hoy, 1954: 465–474.
Acanthococcus orientalis (Borchsenius), n. comb.
Greenisca orientalis Borchsenius, 1956b: 676, 677, 679.
Acanthococcus pallidus (Maskell), n. comb.
Eriococcus pallidus Maskell, 1885a: 29, 30.

- Acanthococcus papillosus* (Morrison), n. comb.
Eriococcus papillosus Morrison, 1924a: 145–147.
- Acanthococcus parabilis* (Hoy), n. comb.
Eriococcus parabilis Hoy, 1962: 32, 126–127, 200.
- Acanthococcus parisetus* (Lindinger), n. comb.
Eriococcus parvispinus Goux, 1948: 5–6.
- Acanthococcus parvulus* (Hoy), n. comb.
Eriococcus parvulus Hoy, 1962: 31, 128.
- Acanthococcus perplexus* (Hempel), n. comb.
Eriococcus perplexus Hempel, 1900a: 381–382.
- Acanthococcus philippinensis* (Morrison), n. comb.
Rhizococcus philippinensis Morrison, 1920: 161–164.
- Acanthococcus phyllocladi* (Maskell), n. comb.
Eriococcus phyllocladi Maskell, 1892: 25.
- Acanthococcus picta* (Froggatt), n. comb.
Eriococcus picta Froggatt, 1916: 573.
- Acanthococcus pimeliae* (Hoy), n. comb.
Eriococcus pimeliae Hoy, 1963: 31, 132–133.
- Acanthococcus piptadeniae* (Hempel), n. comb.
Eriococcus piptadeniae Hempel, 1937: 6–8.
- Acanthococcus placidus* (Green), n. comb.
Eriococcus placidus Green, 1921: 148–149.
- Acanthococcus podocarpi* (Hoy), n. comb.
Eriococcus podocarpi Hoy, 1962: 31, 134, 198, 206.
- Acanthococcus pohtukawa* (Hoy), n. comb.
Eriococcus pohtukawa Hoy, 1958: 179, 193, 199.
- Acanthococcus popayanensis* (Balachowsky), n. comb.
Eriococcus popayanensis Balachowsky, 1959a: 365–366.
- Acanthococcus pseudinsignis* (Green), n. comb.
- Eriococcus pseudinsignis* Green, 1921: 149–150.
- Acanthococcus pustulatus* (Maskell), n. comb.
Rhizococcus pustulatus Maskell, 1893b: 231.
- Acanthococcus puymorensis* (Goux), n. comb.
Eriococcus puymorensis Goux, 1992: 41–46.
- Acanthococcus raithbyi* (Maskell), n. comb.
Eriococcus raithbyi Maskell, 1890: 145–146.
- Acanthococcus rata* (Hoy), n. comb.
Eriococcus rata Hoy, 1958: 191–193.
- Acanthococcus reynei* (Schmutterer), n. comb.
Eriococcus reynei Schmutterer, 1952: 378, 413, 414–417.
- Acanthococcus rhadinothrix* (Miller & González), n. comb.
Eriococcus rhadinothrix Miller & González, 1975: 146–147.
- Acanthococcus rhodomryti* (Green), n. comb.
Eriococcus rhodomryti Green, 1922: 352.
- Acanthococcus rosaceus* (Balachowsky), n. comb.
Eriococcus rosaceus Balachowsky, 1932e: 233–234.
- Acanthococcus rosannae* (Tranfaglia & Esposito), n. comb.
Eriococcus rosannae Tranfaglia & Esposito, 1985: 130–132.
- Acanthococcus rotundus* (Hoy), n. comb.
Eriococcus rotundus Hoy, 1962: 31, 42.
- Acanthococcus rubrus* (Matesova), n. comb.
Greenisca rubra Matesova, 1960a: 205, 209–212.
- Acanthococcus rubrifagi* (Hoy), n. comb.
Eriococcus rubrifagi Hoy, 1962: 31, 144.
- Acanthococcus rugosus* (Froggatt), n. comb.
Eriococcus rugosus Froggatt, 1933: 367–368.
- Acanthococcus rusapiensis* (Hall), n. comb.

- Eriococcus rusapiensis* Hall, 1937: *Acanthococcus sutepensis* (Takahashi), n. comb.
124–125.
- Acanthococcus saboteneus* (Kuwana & Tanaka), n. comb.
Eriococcus saboteneus Kuwana & Tanaka, 1922: 215–221.
- Acanthococcus sachalinensis* (Siraiwa), n. comb.
Eriococcus sachalinensis Siraiwa, 1939: 65–66.
- Acanthococcus salsolae* (Borchsenius), n. comb.
Rhizococcus salsolae Borchsenius, 1949: 53, 56, 353, 363.
- Acanthococcus sanguinairensis* (Goux), n. comb.
Eriococcus sanguinairensis Goux, 1993: 68–69.
- Acanthococcus serratilobis prominens* (Green), n. comb.
Eriococcus serratilobis prominens Green, 1915d: 46.
- Acanthococcus serratilobis serratilobis* (Green), n. comb.
Eriococcus serratilobis Green, 1915d: 45.
- Acanthococcus setulosus* (Hoy), n. comb.
Eriococcus setulosus Hoy, 1962: 115.
- Acanthococcus simplex* (Maskell), n. comb.
Eriococcus simplex Maskell, 1897: 317.
- Acanthococcus socialis* (Goux), n. comb.
Eriococcus socialis Goux, 1931a: 63, 64–67.
- Acanthococcus sophorae* (Green), n. comb.
Eriococcus sophorae Green, 1929: 375.
- Acanthococcus sordidus* (Green), n. comb.
Eriococcus sordidus Green, 1904: 68.
- Acanthococcus spiniger* (Maskell), n. comb.
Eriococcus spiniger Maskell, 1896b: 398.
- Acanthococcus stenoclini* (Mamet), n. comb.
Eriococcus stenoclini Mamet, 1950: 18, 21, 26–28.
- Acanthococcus sutepensis* (Takahashi), n. comb.
Eriococcus sutepensis Takahashi, 1942b: 8–10.
- Acanthococcus targassonensis* (Goux), n. comb.
Eriococcus targassonensis Goux, 1993: 67–69.
- Acanthococcus tavignani* (Goux), n. comb.
Eriococcus tavignani Goux, 1991: 46.
- Acanthococcus tenuis* (Green), n. comb.
Eriococcus tenuis Green, 1922: 351, 352.
- Acanthococcus tepperi* (Maskell), n. comb.
Eriococcus tepperi Maskell, 1892: 29.
- Acanthococcus tessellatus* (Froggatt), n. comb.
Eriococcus tessellatus Froggatt, 1916: 576.
- Acanthococcus tholothrix* (Miller & González), n. comb.
Eriococcus tholothrix Miller & González, 1975: 146–149.
- Acanthococcus thymi* (Schrank), n. comb.
Coccus thymi Schrank, 1801: 146.
- Acanthococcus timidus* (Hulden), n. comb.
Eriococcus timidus Hulden, 1985: 59–61.
- Acanthococcus tricarinatus* (Fuller), n. comb.
Eriococcus tricarinatus Fuller, 1897b: 1345.
- Acanthococcus tripartitus* (Fuller), n. comb.
Rhizococcus tripartitus Fuller, 1897b: 1345.
- Acanthococcus trispinatus* (Wang), n. comb.
Eriococcus trispinatus Wang, 1974: 329–333.
- Acanthococcus tucurincae* (Laing), n. comb.
Eriococcus tucurincae Laing, 1929a: 467–469.
- Acanthococcus valenzuelae* (Balachowsky), n. comb.
Eriococcus valenzuelae Balachowsky, 1959a: 363–465.

***Acanthococcus variabilis* (Goux), n. comb.**

Eriococcus variabilis Goux, 1940: 62–65.

***Acanthococcus veyrensis* (Goux), n. comb.**

Eriococcus veyrensis Goux, 1991: 47–48.

***Acanthococcus villosus* (Froggatt), n. comb.**

Eriococcus villosus Froggatt, 1916: 577.

***Acanthococcus zygophylli* (Archangelskaya), n. comb.**

Eriococcus zygophylli Archangelskaya, 1931: 72–73.

REPLACEMENT NAMES

***Acanthococcus danzigae* Miller and Gimpel, n. name.**

Remarks: *Acanthococcus danzigae* is a replacement name for *A. confusus* Danzig (1962a) which is a junior secondary homonym of *A. confusus* Maskell (1892).

Rhizococcus confusus Danzig, 1962a: 854.

***Acanthococcus dziedzickae* Miller and Gimpel, n. name**

Remarks: *Acanthococcus dziedzickae* is a replacement name for *Acathococcus palustris* (Dziedzicka & Koteja) (1971) which is a junior secondary homonym of *A. palustris* Dodds (1923).

Rhizococcus palustris Dzeidzicka & Koteja, 1971: 573.

***Acanthococcus matesovae* Miller and Gimpel, n. name**

Remarks: *Acanthococcus matesovae* is a replacement name for *A. multispinosus* Matesova (1976) which is a junior secondary homonym of *A. multispinosus* Kuhlgatz (1898).

Acanthococcus multispinosus Matesova, 1976: 24–26.

***Acanthococcus wangii* Miller and Gimpel, n. name**

Remarks: *Acanthococcus wangii* is a replacement name for *Eriococcus rugosus* Wang which is a junior

primary homonym of *Eriococcus rugosus* Froggatt (1933).

Eriococcus rugosus Wang, 1982c: 441–442.

NEW SYNONYMY

***Gregoporia* Danzig, new synonymy**

Remarks: This genus is considered to be a junior subjective synonym of *Acanthococcus* Signoret, 1875b. The diagnostic characters of *Gregoporia* of 8-segmented antennae and dorsal quinquelocular pores are within the range of variation expected within *Acanthococcus*.

Gregoporia Danzig 1979: 46.

ACKNOWLEDGMENTS

We are especially grateful to Gary Gibson and Jennifer Read, Agriculture Canada for their extensive assistance and guidance in inputting data into the ScaleNet database. The BASIS cataloging system that they developed and improve is a wonderful tool, without which we would not be able to undertake the ScaleNet project. We thank the following individuals for their comments and suggestions relative to improvements of this manuscript: Yair Ben-Dov, Department of Entomology, Agricultural Research Organization, The Volcani Center, Bet Dagan, Israel; Michael E. Schauff and David R. Smith, Systematic Entomology Laboratory, Agricultural Research Service, USDA, c/o National Museum of Natural History, Washington, DC.; and Douglas J. Williams, Department of Entomology, The Natural History Museum, London, UK

LITERATURE CITED

- Goux, L. 1991. Remarques sur l'importance de certains caractères morphologiques fondamentaux des *Eriococcus* avec description de cinq espèces nouvelles (51ème note sur les coccides de France). Bulletin de la Société Linnéenne de Provence 42: 45–55.
- . 1992. Description de trois cochenilles nouvelles appartenant au genre *Eriococcus* (52ème note sur les coccides de France). Bulletin de la Société Linnéenne de Provence 43: 41–460.

- _____. 1993. Description de trois espèces nouvelles d'*Eriococcus* appartenant à la fauna française (53e note sur les coccides de France). Bulletin de la Société Linnéenne de Provence 44: 65–69.
- Hoy, J. M. 1963. A catalogue of the Eriococcidae of the World. New Zealand Department of Scientific and Industrial Research, Bulletin 150, 260 pp.
- Kosztarab, M. and M. P. Kosztarab. 1988. A selected bibliography of the Coccoidea. Third supplement (1970–1988). Virginia Polytechnic Institute and State University, Agricultural Experiment Station Bulletin No. 88-1, 252 pp.
- Kosztarab, M. and F. Kozar. 1988. Scale insects of Central Europe. Akadémiai Kiadó, Budapest. 456 pp.
- Miller, D. R. and D. J. Williams. 1976. Proposed conservation of the family-group name Eriococcidae Cockerell, 1899 and the designation of a type-species of *Eriococcus* Targioni-Tozzetti, 1868 under the plenary powers Z.N. 2140. Bulletin on Zoological Nomenclature 33: 118–123.
- Morrison, H. and E. R. Morrison. 1965. A selected bibliography of the Coccoidea. First supplement. United States Department of Agriculture, Miscellaneous Publication No. 987, 44 pp.
- Morrison, H. and Renk. 1957. A selected bibliography of the Coccoidea. United States Department of Agriculture, Miscellaneous Publication No. 734, 222 pp.
- Russell, L. M., M. Kosztarab, and M. P. Kosztarab. 1974. A selected bibliography of the Coccoidea. Second supplement. United States Department of Agriculture, Miscellaneous Publication No. 1281, 122 pp.
- Tang, F. and J. Hao. 1995. The Margarodidae and others of China. Chinese Agricultural Science and Technology Press, Beijing. 738 pp.
- Williams, D. J. 1985. The British and some other European Eriococcidae. Bulletin of the British Museum (Natural History), Entomology Series 51: 347–393.

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