

Some new locality records of scale insects (Hemiptera, Sternorrhyncha, Coccoidea)

by Danièle MATILE-FERRERO¹ & Douglas J. WILLIAMS²

¹ Muséum national d'Histoire naturelle, Département Systématique et Évolution, UMR 7205 MNHN/CNRS, Entomologie, C. P. 50, 57 rue Cuvier, F – 75231 Paris cedex 05 <dmatile@mnhn.fr>

² The Natural History Museum, Department of Life Sciences, Cromwell Road, London SW7 5BD, United Kingdom <djwilliamstriloc@aol.com>

Abstract. – We list new records of 17 species of scale insects in the five families Coccidae, Conchaspidae, Diaspididae, Eriococcidae and Pseudococcidae from the Palaearctic, Afrotropical, Australasian and Neotropical regions.

Résumé. – **Quelques nouveaux signalements de Cochenilles (Hemiptera, Sternorrhyncha, Coccoidea).** Dix-sept espèces appartenant à cinq familles de Cochenilles, Coccidae, Conchaspidae, Diaspididae, Eriococcidae et Pseudococcidae, sont signalées pour la première fois de pays des régions paléarctique, afrotropicale, australasienne et néotropicale.

Keywords. – Scale insects, new records.

The following new records of scale insects are based on specimens in the Muséum national d'Histoire naturelle, Paris (MNHN), and The Natural History Museum, London (BMNH). The new records comprise 17 species in the five families Coccidae, Conchaspidae, Diaspididae, Eriococcidae and Pseudococcidae. They are from the Palaearctic, Afrotropical, Australasian and Neotropical regions. We are also taking the opportunity to list species recorded in an internal report by GUTIERREZ (1981) and collected in the Wallis and Futuna Islands, French Polynesia, specimens of which are at hand. The new records have not been listed in any of the recent printed catalogues or in ScaleNet, the online database of scale insects (BEN-DOV *et al.*, 2014).

Family Coccidae

Pulvinaria urbicola Cockerell, 1893

From the Afrotropical Region, there are new records from Burundi, Bujumbura, on *Capsicum frutescens* L. (Solanaceae), 28.IV.1980, *A. Dejean*; Gabon, Ntoum, on *Capsicum sp.*, 16.V.1986, *A. Pauly* (MNHN). We have a second new record also from the Malagasy region: Réunion Island, Beaumont, Hauts-de-Sainte-Marie, on *Fragaria sp.* (Rosaceae), 30.VII.1986, *S. Quilici*. The first record from Réunion Island was published recently by GERMAIN *et al.* (2014).

Family Conchaspidae

Conchaspis angraeci Cockerell, 1893

We record here for the first time specimens from Republic of Congo, Brazzaville, on *Ixora javanica* (Blume) DC. (Rubiaceae), 13.X.1975, *D. Matile*; on ornamental hibiscus and croton [*Codiaeum variegatum* (L.) A. Juss.] (Euphorbiaceae), 15.X.1975, *D. Matile*, and on ornamental hibiscus, 7.XII.1979, *G. Fabres* (MNHN).

Family **Diaspididae***Aonidiella aurantii* (Maskell, 1879)

From the Australasian region, Wallis and Futuna Islands, this species was recorded by GUTIERREZ (1981) from Wallis, Mata-Utu, on *Artocarpus incisa* L. (Moraceae), 16.X.1981, *J. Gutierrez* (MNHN).

Aspidiotus destructor Signoret, 1869

From the Australasian region, Wallis and Futuna Islands, this species was recorded by GUTIERREZ (1981) from Wallis, Mua, on *Cocos nucifera* L. (Arecaceae), 19.X.1981, *J. Gutierrez*, and from Futuna, on *Cocos nucifera*, 13.X.1981, *J. Gutierrez* (MNHN).

Fiorinia fioriniae (Targioni Tozzetti, 1867)

Cape Verde Islands, Santiago, Praia de Baixo, on *Cocos nucifera* L. (Arecaceae), 28.III.1979, *M. Declert* (MNHN).

Lepidosaphes beckii (Newman, 1869)

From the Australasian region, Wallis and Futuna Islands, this species was recorded by GUTIERREZ (1981) from Wallis, Mua, on *Citrus* sp. (Rutaceae), 19.X.1981, *J. Gutierrez*, and from Futuna, on *Citrus* sp., 14.X.1981, *J. Gutierrez* (MNHN).

Lindingaspis kenya Williams, 1963

This species was described originally from Kenya, Nairobi, on *Calanthe volkensii* Rolfe [now *C. sylvatica* (Thouars) Lindl.] and *Rangaeris brachyceras* (Summerh.) Summerh. [now *Cribbia brachyceras* (Summerh.) Senghas] (Orchidaceae) by WILLIAMS (1963). We have specimens from Guinea-Conakri, Sérédou, on Orchidaceae, 2.XII.1959, *R. Pujol* (MNHN). The record is the first outside Kenya, the type-locality.

Parlatoria cinerea Doane & Hadden, 1909

New records from the Afrotropical region are from Burkina Faso, intercepted at Roissy-Charles-de-Gaulle airport, France, on *Citrus aurantiifolia* (Christm.) Swingle (Rutaceae), 12.II.1986, *P. Cortes*, and from Ethiopia, Diré Daoua, on *Nerium oleander* L. (Apocynaceae), 15.IV.1959, *P. Vayssière* (MNHN). From the Australasian region, we have studied specimens from the Wallis and Futuna Islands, Wallis, Mua, on *Citrus* sp., 19.X.1981, *J. Gutierrez* (MNHN).

Pseudaonidia trilobitiformis (Green, 1896)

From the Afrotropical region, Burkina Faso, we have examined specimens of this species collected on *Citrus aurantiifolia* (Christm.) Swingle (Rutaceae), 12.II.1986, *P. Cortes*, intercepted at Roissy-Charles-de-Gaulle airport, France (MNHN). This is a new record from this country.

Family **Eriococcidae***Eriococcus leptospermi* Maskell, 1891

South Africa, Stellenbosch, on *Leptospermum* sp. (Myrtaceae), *J. H. Giliomee* and *D. J. Williams*, 1.V.1984. This is the first record for South Africa. The species was described from Australia, Victoria, by MASKELL (1891) on *Leptospermum laevigatum* (Gaertn.) F. Muell. and it has been introduced into New Zealand. Specimens are at hand (BMNH) from Australia, Victoria,

Ringwood, on *L. scoparium* J. R. Forst. & G. Forst., collected by C. French, and from New Zealand, Muriwai, on *L. scoparium*, D. J. Williams, 11.XI.1978. All of these specimens examined possess two sizes of dorsal macroducts in more or less equal numbers, whereas the illustration by HOY (1962) shows only one size of macroduct.

Family **Pseudococcidae**

Atrococcus luffi (Newstead, 1901)

This species is known only from the Channel Islands, Guernsey, on roots of *Lepigonum rupestre* Kindb. (now *Spergularia rupicola* Lebel ex Le Jol.) (Caryophyllaceae). The species is known also from this island, on *Silene maritima* Host and on *Armeria vulgaris* Willd. (WILLIAMS, 1962) and from Italy, colli Euganei, valle San Giorgio, on roots of *Helianthemum* sp. (Cistaceae), 3.IX.1989, G. Pellizzari-Scaltriti (PELLIZZARI-SCALTRITI, 1991). We now record this species from France, Côtes-du-Nord (now Côtes-d'Armor), Port-Lazo, on grass roots, 10.VII.1956, G. Remaudière (MNHN).

Heliococcus bohemicus Šulc, 1912

This is a fairly common species in the Palearctic region on numerous host plants. We now record the species for the first time from Morocco, 20 km north of Cap Ghir, on *Ononis natrix angustissima* (Lam.) Sirj. (Fabaceae), 14.IV.1948, A. Balachowsky (MNHN).

Phenacoccus parvus Morrison, 1924

We record this species here from the Wallis and Futuna Islands, Wallis, Hihifo, on *Colocasia esculenta* (L.) Schott (Araceae), 23.X.1981, J. Gutierrez (MNHN), listed as *Phenacoccus* sp. in GUTIERREZ (1981).

Planococcus minor (Maskell, 1897)

From the Australasian region, we record this cosmopolitan species from the Wallis and Futuna Islands, Wallis, Mata-Utu, on *Citrus* sp. (Rutaceae), 22.X.1981, J. Gutierrez; Hihifo, on *Colocasia esculenta* (L.) Schott (Araceae), 23.X.1981, J. Gutierrez (MNHN), listed as its junior synonym *Planococcus pacificus* Cox, 1981, in GUTIERREZ (1981).

Pseudococcus jackbeardsleyi Gimpel & Miller, 1996

This injurious tropicopolitan species has now been found in the Afrotropical region: Saint Helena, Turks, Cape Ridge, on *Pelargonium cotyledonis* (L.) L'Hér. (Geraniaceae), 4.II.2006, H. Mendel, and Signal House Cliff Top, on *Frankenia portulacaefolia* Spreng. (Frankeniaceae), 18.II.2006, H. Mendel (all BMNH). This is a new record for Saint Helena since the scale insect fauna of this island was listed by MATILE-FERRERO (1976).

We have studied specimens from the Australasian region, Marquesas Islands, Motu Teuana, in traps, 17.II.2008, J. L. Chapuis (MNHN).

From the Neotropical region, specimens are at hand from Peru, Iquitos, Quistococha, on *Psidium guajava* L. (Myrtaceae), 20.III.1992, G. Couturier (MNHN).

Rhodania occulta Schmutterer, 1952

This western Palearctic grass-infesting species known only from Germany (type-locality), Greece, Netherlands and Poland, is recorded here for the first time from France, Seine-et-Marne, Fontainebleau forest, Apremont, on roots of grass, 24.VI.1995, D. Matile (MNHN).

Trionymus hamberdi (Borchsenius, 1949)

This palaeartic grass-infesting species is recorded here for the first time from France, Alpes-Maritimes, Parc national du Mercantour, vallée de Caïros, tête de la Poudrière, 1992 m, from Berlese trap, 30.VI.2010, L. Deharveng, A. Bedos & Sun Xin (MNHN) (Ilya Gavrilov-Zimin det.).

REFERENCES

- BEN-DOV Y., MILLER D. R. & GIBSON G. A. P., 2014. – ScaleNet: An online Database of the Scale Insects of the World. Available from: www.sel.barc.usda.gov/scalenet/scalenet.htm
- GERMAIN J.-F., MINATCHY J., PASTOU D., BAGNY P., MÉRION S., PALLAS R., QUILICI S. & MATILE-FERRERO D., 2014. – An Updated Checklist of the Scale Insects from Réunion Island (Indian Ocean). *Acta Zoologica Bulgarica*, suppl. **6** : 21-27.
- GUTIERREZ J., 1981. – Actualisation des données sur l'entomologie économique à Wallis et à Futuna. ORSTOM, 24 p. + 2 maps.
- HOY J. M., 1962. – Eriococcidae (Homoptera: Coccoidea) of New Zealand. *Bulletin of the New Zealand Department of Science and Industrial Research*, **146** : 1-219.
- MASKELL W. M., 1891. – Further coccid notes: with descriptions of new species from New Zealand, Australia and Fiji. *Transactions of the New Zealand Institute*, **23** : 1-36.
- MATILE-FERRERO D., 1976. – Coccoidea (p. 292-318). In : La faune terrestre de l'île de Sainte-Hélène, troisième partie. *Annales du Musée royal d'Afrique centrale*, **215** : 533 p.
- PELLIZZARI-SCALTRITI G., 1991. – Recenti acquisizioni sulla fauna italiana degli Homoptera Coccoidea. *Atti XVI Congresso nazionale italiano di Entomologia, Bari-Martina Franca (Ta), 23-28 settembre 1991* : 763-769.
- WILLIAMS D. J., 1962. – The British Pseudococcidae (Homoptera: Coccoidea). *Bulletin of the British Museum (Natural History), Entomology*, **12** (1) : 1-79.
- 1963. – Synoptic revisions of I. *Lindingaspis* and II. *Andaspis* with two new allied genera (Homoptera: Coccoidea). *Bulletin of the British Museum (Natural History), Entomology*, **15** (1) : 1-31.
-