

List of scale insects of Greece

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Abstract: A list of the scale insects recorded in Greece until 2006 is presented. At present, the number of scale insects known in Greece has reached 168. The species belong to 10 families, the most numerous of which are the Diaspididae (80 species), Coccidae (33 species), Pseudococcidae (28 species), and the Eriococcidae (11 species). Most of the species has been found in 3 prefectures (Attiki, Magnisia, Thessaloniki) implying that surveys have been restricted in certain areas. Apart from the literature review, 6 new records for Greece are reported here (*Heterococcus nudus*, *Asterodiaspis variolosa*, *Lecanopsis turcica*, *Phenacoccus hordei*, *Poliaspis cycadis* and *Orthezia yasushii*).

Key words: Hemiptera, Coccoidea, distribution, biogeography.

Introduction

The scale insect fauna of Greece is poorly known. According to Kozár (1985), and Kozár *et al.* (1981) and ScaleNet 143 species have been identified. Certain species however, cited in applied literature, require further study for confirmation. In this study a complete list of scale insect recorded in Greece based on bibliographic sources and on collections made by the authors is presented. The last time such a list published was in 1983 (Argyriou, 1983). Since then several new records have been reported in the literature. The total number of recorded species in Greece has reached 168, which is relatively few in comparison with those from neighboring countries. In Italy, for instance, there are 390 species (Pellizari & Russo 2004). In the last ten years only two new species have been described from Greece, *Aonidiella yehudithae* (Ben-Dov, 2006) and *Eriococcus hellenicus* (Pellizari & Kozár, 1999). In this study, 6 new records are reported, *Heterococcus nudus* (Green), *Asterodiaspis variolosa* (Ratzeburg), *Lecanopsis turcica* (Bodenheimer), *Phenacoccus hordei* (Lindeman), *Poliaspis cycadis* Comstock and *Orthezia yasushii* Kuwana. Most of the species have been recorded in just three regions, implying that surveys have been restricted in certain areas. The number of species recorded in other parts of the country is relatively few. The species *Eumyrmococcus corinthiacus* Williams was found in the jaws of queen ants of the genus *Plagiolepis*.

As was expected, the family Diaspididae has the most species, represented with 80 species, followed by the families Coccidea and Pseudococcidae with 33 and 28 species respectively.

The number of recorded species as well as their distribution suggests that the scale insect fauna in Greece is still quite unexplored. These data improve our knowledge on the biogeography of scale insects. We consider this list to be a starting point for future investigations (Table 1).

Table 1. List of Coccoidea recorded in Greece.

Family	Species	
Acleridae	<i>Aclerda berlesii</i>	Buffa
Asterolecanidae	<i>Asterodiaspis bella</i>	(Russel)
	<i>Asterodiaspis repugnans</i>	(Russel)
	<i>Asterodiaspis variolosa</i>	(Ratzeburg)
Cerococcidae	<i>Cerococcus cistarum</i>	Balachowsky
	<i>Cerococcus longipilosus</i>	(Archangelskaya)
	<i>Pollinia pollini</i>	(Costa)

Coccidae	<i>Anapulvinaria pistaciae</i>	(Bodenheimer)
	<i>Ceroplastes cirripediformis</i>	Comstock
	<i>Ceroplastes floridensis</i>	Comstock
	<i>Ceroplastes rusci</i>	(Linnaeus)
	<i>Ceroplastes sinensis</i>	Del Guercio
	<i>Coccus hesperidum</i>	Linnaeus
	<i>Coccus pseudomagnoliarum</i>	(Kuwana)
	<i>Eulecanium ciliatum</i>	(Douglas)
	<i>Eulecanium sericeum</i>	(Lindinger)
	<i>Eulecanium tiliae</i>	(Linnaeus)
	<i>Exaeretopus hellenicus</i>	Bodenheimer
	<i>Filippia follicularis</i>	(Targioni Tozzetti)
	<i>Lecanopsis turcica</i>	(Bodenheimer)
	<i>Lichtensia viburni</i>	Signoret
	<i>Luzulaspis dactylis</i>	Green
	<i>Nemolecanium graniformis</i>	(Wunn)
	<i>Parthenolecanium corni</i>	(Bouché)
	<i>Parthenolecanium persicae</i>	(Fabricius)
	<i>Parthenolecanium rufulum</i>	(Cockerell)
	<i>Philippia follicularis</i>	Targioni Tozzetti
	<i>Physokermes hemicryphus</i>	(Dalman)
	<i>Physokermes piceae</i>	(Scharf)
	<i>Poaspis jahandiezi</i>	(Balachowsky)
	<i>Protopulvinaria pyriformis</i>	(Cockerell)
	<i>Pulvinaria floccifera</i>	(Westwood)
	<i>Pulvinaria horii</i>	Kuwana
	<i>Pulvinaria vitis</i>	(Linnaeus)
	<i>Pulvinariella mesembryanthemi</i>	(Vallot)
	<i>Saissetia coffeae</i>	(Walker)
	<i>Saissetia oleae</i>	(Olivier)
<i>Saissetia privigna</i>	De Lotto	
<i>Scythia festuceti</i>	(Šulc)	
<i>Sphaerolecanium prunastri</i>	(Boyer de Fonscolombe)	
Diaspididae	<i>Abgrallaspis cyanophylli</i>	(Signoret)
	<i>Acanthomytilus intermittens</i>	(Hall)
	<i>Acanthomytilus jablonowskyi</i>	Kozár & Matile-ferrero
	<i>Antoninella parkeri</i>	(Balachowsky)
	<i>Aonidia lauri</i>	(Bouché)
	<i>Aonidia maroccana</i>	Balachowsky
	<i>Aonidia mediterranea</i>	(Lindinger)
	<i>Aonidiella aurantii</i>	(Maskell)
	<i>Aonidiella citrina</i>	(Coquillett)
	<i>Aonidiella yehudithae</i>	Ben-Dov
	<i>Aspidiotus hedericola</i>	Leonardi
	<i>Aspidiotus nerii</i>	Bouché
	<i>Aulacaspis rosae</i>	(Bouché)
	<i>Carulaspis juniperi</i>	(Bouché)
	<i>Carulaspis minima</i>	(Signoret)
	<i>Carulaspis visci</i>	(Shrank)
	<i>Chionaspis etrusca</i>	Leonardi
	<i>Chionaspis lepinery</i>	Balachowsky

<i>Chionaspis salicis</i>	(Linnaeus)
<i>Chrysonphalus aonidum</i>	(Linnaeus)
<i>Chrysonphalus dictyospermi</i>	(Morgan)
<i>Diaspidiotus gigas</i>	(Thiem & Gerneck)
<i>Diaspidiotus ceconii</i>	(Leonardi)
<i>Diaspidiotus labiatarum</i>	(Marchal)
<i>Diaspidiotus lenticularis</i>	(Lindinger)
<i>Diaspidiotus osborni</i>	(Newell & Cockecell)
<i>Diaspidiotus ostreaeformis</i>	(Curtis)
<i>Diaspidiotus perniciosus</i>	(Comstock)
<i>Diaspidiotus thymbrae</i>	(Koroneos)
<i>Diaspidiotus zonatus</i>	(Frauenfeld)
<i>Diaspis echinocacti</i>	(Bouché)
<i>Diaspis syriaca</i>	Lindinger
<i>Discodiaspis salicorniae</i>	(Gómez-Menor Ortega)
<i>Duplacionaspis berlesii</i>	(Leonardi)
<i>Duplacionaspis natalensis</i>	Cooley
<i>Dynaspidiotus abieticola</i>	(Koroneos)
<i>Dynaspidiotus abietis</i>	(Schrank)
<i>Dynaspidiotus britannicus</i>	(Newstead)
<i>Dynaspidiotus degeneratus</i>	(Leonardi in Berlese Leonardi)
<i>Dynaspidiotus ephedrarum</i>	(Lindinger)
<i>Dynaspidioutus greeni</i>	Balachowsky
<i>Epidiaspis gennadii</i>	(Leonardi)
<i>Epidiaspis leperii</i>	(Signoret)
<i>Fiorinia fioriniae</i>	(Targioni Tozzetti)
<i>Gonaspidiotus minimus</i>	(Leonardi in: Berlese Leonardi)
<i>Hemiberlesia lataniae</i>	(Signoret)
<i>Hemiberlesia rapax</i>	(Comstock)
<i>Koroneaspis aegilopos</i>	(Koroneos)
<i>Lepidosaphes beckii</i>	(Newman)
<i>Lepidosaphes conchiformis</i>	(Gmelin)
<i>Lepidosaphes flava</i>	(Signoret)
<i>Lepidosaphes gloverii</i>	(Packard)
<i>Lepidosaphes granati</i>	Koroneos
<i>Lepidosaphes juniperi</i>	Lindinger
<i>Lepidosaphes malicola</i>	Borchsenius
<i>Lepidosaphes pinnaeformis</i>	(Bouché)
<i>Lepidosaphes ulmi</i>	(Linnaeus)
<i>Leucaspis lowi</i>	Colvée
<i>Leucaspis pini</i>	(Hartig)
<i>Leucaspis pusilla</i>	Löw
<i>Leucaspis riccae</i>	Targioni Tozzetti
<i>Lineaspis striata</i>	(Newstead)
<i>Lopholeucaspis cockerelli</i>	(Grandpré Charmoy)
<i>Lopholeucaspis japonica</i>	(Cockerell)
<i>Melanaspis inopinata</i>	(Leonardi)
<i>Mercetaspis halli</i>	(Green)
<i>Mohelnaspis massiliensis</i>	(Goux)
<i>Odonaspis ruthae</i>	Kotinsky
<i>Parlatoria oleae</i>	(Colvée)

	<i>Parlatoria pergandii</i>	Comstock
	<i>Parlatoria theae</i>	Cockerell
	<i>Parlatoria ziziphi</i>	(Lucas)
	<i>Poliaspis cycadis</i>	Comstock
	<i>Prodiaspis tamaricicola</i>	(Malenotti)
	<i>Pseudaulacaspis pentagona</i>	(Targioni Tozzetti)
	<i>Rhizaspidiotus donacis</i>	(Leonardi)
	<i>Salicicola kermanensis</i>	(Lindinger)
	<i>Salicicola pistaciae</i>	(Lindinger)
	<i>Targionia vitis</i>	(Signoret)
	<i>Unaspis euonymi</i>	(Comstock)
Eriococcidae	<i>Eriococcus agropyri</i>	(Borchsenius)
	<i>Eriococcus araucariae</i>	Maskell
	<i>Eriococcus buxi</i>	(Boyer de Fonscolombe)
	<i>Eriococcus cynodontis</i>	Kiritchenko
	<i>Eriococcus evelinae</i>	(Kozár)
	<i>Eriococcus greeni</i>	Newstead
	<i>Eriococcus hellenica</i>	(Kozár in Pellizzari Kozár)
	<i>Eriococcus munroi</i>	(Baratynski)
	<i>Eriococcus herbaceus</i>	(Danzig)
	<i>Eriococcus spurius</i>	(Modeer)
	<i>Pseudochermes fraxini</i>	(Kaltenbach)
Kermesidae	<i>Kermes ilicis</i>	(Linnaeus)
	<i>Kermes quercus</i>	(Linnaeus)
	<i>Kermes vermilio</i>	Planchon
Margarodidae	<i>Dimargarodes mediterraneus</i>	(Silvestri)
	<i>Gueriniella serratulae</i>	(Fabricius)
	<i>Icerya purchasi</i>	Maskell
	<i>Marchalina hellenica</i>	(Gennadius)
	<i>Matsucoccus josephi</i>	Bodenheimer & Harpazi in Bodenheimer & Neumark
Ortheziidae	<i>Palaeococcus fuscipennis</i>	(Burmeiher)
	<i>Newsteadia Susannae</i>	Kozár & Foldi
	<i>Orthezia urticae</i>	(Linnaeus)
	* <i>Orthezia yasushii</i>	Kuwana
Pseudococcidae	<i>Chaetococcus phragmitis</i>	(Marchal)
	<i>Eumyrmococcus corinthiacus</i>	Williams
	<i>Heterococcus nudus</i>	(Green)
	<i>Hypogeococcus pungens</i>	Granara de Willink
	<i>Mirococcopsis elongatus</i>	Borchsenius
	<i>Mirococcus inermis</i>	(Hall)
	<i>Peliococcopsis priesneri</i>	Borchsenius
	<i>Peliococcus kimmericus</i>	Kiritchenko
	<i>Peliococcus turanicus</i>	(Kiritchenko)
	<i>Pellizzaricoccus gabrielis</i>	Kozár
	<i>Phenacoccus bicerarius</i>	Borchsenius
	<i>Phenacoccus hordei</i>	(Lindeman)
	<i>Phenacoccus interruptus</i>	Green
	<i>Phenacoccus yerushalmi</i>	Ben-Dov
	<i>Planococcus citri</i>	(Risso)
	<i>Planococcus ficus</i>	(Signoret)

<i>Planococcus vovae</i>	(Nasonov)
<i>Pseudococcus calceolariae</i>	(Maskell)
<i>Pseudococcus longispinus</i>	(Targioni Tozzetti)
<i>Pseudococcus viburni</i>	Signoret
<i>Puto superbus</i>	(Leonardi)
<i>Rhizoecus albidus</i>	Goux
<i>Ripersiella palestinae</i>	Hambleton
<i>Ritsemia pupifera</i>	Lichtenstein
<i>Spilococcus halli</i>	(McKenzie & Williams)
<i>Trionymus aberrans</i>	Goux
<i>Trionymus cynodontis</i>	(Kiritshenko)
<i>Vryburgia amaryllidis</i>	(Bouché)

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