PROVISIONAL CHECKLIST OF THE ASTIGMATIC MITES OF THE NETHERLANDS (ACARI: ORIBATIDA: ASTIGMATINA)

Henk Siepel, Herman Cremers & Bert Vierbergen

Astigmatic mites probably form the most diverse cohort of mites. At present the former order of Astigmatina is ranked within the suborder Oribatida or moss mites. However astigmatic mites occupy a much wider range of habitats than other oribatid mites: from marine coasts to stored food, plant bulbs and houses. The vast majority live as commensals or parasites on a variety of hosts, ranging from insects to birds and mammals, inhabiting the fur, feathers, skin and even lungs and stomach. This first checklist for the Netherlands contains 262 species, but many more are to be expected. Brief data on occurrence and nomenclature are provided for each species.

INTRODUCTION

Astigmatina are nowadays placed in the suborder Oribatida of the order Sarcoptiformes (Krantz & Walter 2009). The Astigmatina form the third cohort in the supercohort Desmonomata (higher oribatids) next to the Nothrina and the Brachypilina, both cohorts that were traditionally placed in the former order of Oribatida. So, the Astigmatina appear to fit in the heart of the Oribatida and are the most diverse group in the suborder. The Astigmatina have a higher diversity in ecological strategies than the other Oribatida. Many species are phoretic on all kinds of carriers (insects, birds, mammals, reptiles), just as some oribatids, but the Astigmatina managed to develop their phoretic behaviour as an art. Not only is the vast majority of the species phoretic, some of those made their carrier their host. They adopted a parasitic way of life and spent all their life on the host (Siepel 1994). This behaviour has led to an enormous radiation in species diversity, resulting in an ecologically very diverse group (fig. 1-25). See table 1 for a concise overview and references. Free living species are found in most of the superfamilies, but a few of them are exclusively ‘free living’ and live in various habitats. The Histiostomatoidea live in wet places, where they feed on organic material. The Glycyphagoidea live on stored food and in nests of mammals, the Pyroglyphoidea live in our houses as house dust mites, and the Acaridoidea contain many species living in stored food, but they are also known as plant pests. Also some species in the Hemisarcoptoidea are free living (in stored food, on marine

Figure 1. Dermacarus sciurinus, hypopus, ventral view. From Sciurus vulgaris, Almelo. Foto Herman Cremers.

2. *Acarus siro.*  
Male, from dog food / mannetje, uit hondenvoer.  
Wageningen.

3. *Neottialges evansi.*  
Hypopus, from *Phalacrocorax carbo.* / hypopus,  
van aalscholver / Noord-Holland.

4. *Dermonoton sclerourus.*  
Female, from *Tyto alba.* / Vrouwtje, van kerkuil.  
Terwispel.

5. *Ptiloxenoides phoenicopteri.*  
Female, from *Phoenicopterus roseus.* / vrouwtje, van flamingo. Arnhem Zoo.

Male, from *Sterna hirundo.* / mannetje, van visdief.  
Blokker.

7. *Analges corvinus.*  
Female, on *Pica pica.* / vrouwtje, van ekster.  
Bodegraven.

8. *Analges corvinus.*  
Male, on *Pica pica.* / mannetje, van ekster.  
Bodegraven.

Male, on *Gallus gallus.* / mannetje, van kip.  
Bosschenhoofd.

Figure 2-26. Diversity of astigmatic mites. Ventral view. Photos Herman Cremers.  

algae and deciduous trees) but the majority of species of this superfamily are kleptoparasites.  
Parasitic are the Canestrinoidea feeding on exudates of adult beetles, and the Sarcoptoidea,  
living in the fur and skin of mammals, while the remaining superfamilies live on birds, either in  
their nests (Hypoderatoidea) or on their feathers, in the skin or even inside the birds (Pterolichoidea, Freyanoidea and Analgoidea).

**SPECIES RECORDED FROM EXOTIC HOSTS**

While making a checklist of a geographic area for a group largely confined to migrating species


(e.g. feather mites in birds), it becomes quite arbitrary which species are listed and which not. We presume that many species recorded from wild birds in Belgium by the late Alex Fain and colleagues might occur in the Netherlands as well. Some of these are actually recorded from the Netherlands, most of them from the vicinity of Nijmegen (Hater, Hamert, Heyendaal), where his friend and colleague Fritz Lukoschus worked and lived. From some birds and bats he supplied material to Fain. Given the limited number of localities (near Nijmegen and some in the southern part of the province Limburg), collecting was probably not very intensive. Later, the second author sampled more species, especially those found on domestic animals, but also on wild species sent to the Veterinary Faculty of Utrecht University. So, many more species from birds,


Identification of astigmatic mites may be a quite tedious job, as there is no basic work covering all groups. A key to the families for both adults as well as deutonymphs is provided in Krantz & Walter (2009). Thereafter you have to look for keys of the separate families (e.g. Gaud & Atyeo 1996a, b for feather mites), specific target groups (e.g. Hughes 1976, for mites in stored food and houses, Jepson et al. 1975 for mites of economic importance in the Netherlands when sampling is intensified.

In the list there is a number of species of probably foreign origin. These are recorded from birds or mammals in Dutch zoos. Although probably foreign, the species survived in the Netherlands. Because also in this ecological group from zoos one may find exotic, or now even maybe cosmopolitan species.
Table 1. Overview of host and substrate diversity of Astigmatina.
Tabel 1. Diversiteit van gastheren en substraat in de Astigmatina.

<table>
<thead>
<tr>
<th>Superfamily</th>
<th>Family</th>
<th>Substrate or hosts</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Histiostomatoidea</td>
<td>Histiostomatidae</td>
<td>in various wet substrates such as rotten plant tissue, dung, mud and tree holes,  Behura 1957, Bongers et al. 1985, Hughes, 1976, Heitmans &amp; Loonstra 2012</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>some associated with bees</td>
<td></td>
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<tr>
<td>Canestrinoidea</td>
<td>Canestriniidae</td>
<td>larger adult beetles</td>
<td>Haitlinger 1995</td>
</tr>
<tr>
<td>Hemisarcoptoidea</td>
<td>Carpoglyphidae</td>
<td>sweeter products, such as dried fruit</td>
<td>Chmielewski 1971, Hughes 1976</td>
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<tr>
<td></td>
<td>Chaetodactylidae</td>
<td>kleptoparasitic in nests of bees</td>
<td>Vicidomini 1996</td>
</tr>
<tr>
<td></td>
<td>Hyadesiidae</td>
<td>marine algae</td>
<td>Pugh &amp; King 1985</td>
</tr>
<tr>
<td></td>
<td></td>
<td>some are fungivorous, associated with bark beetles, shrubs and trees</td>
<td></td>
</tr>
<tr>
<td>Glycyphagoidea</td>
<td>Chortoglyphidae</td>
<td>stored herbs</td>
<td>Fang &amp; Cui 2009</td>
</tr>
<tr>
<td></td>
<td>Echimyopodidae</td>
<td>stored food</td>
<td>Van Bronswijk et al. 1973</td>
</tr>
<tr>
<td></td>
<td>Glycyphagidae</td>
<td>nests of rodents and insectivores, stored products, in houses</td>
<td>Wurst &amp; Pfister 1990, Hughes 1976</td>
</tr>
<tr>
<td>Acaroidea</td>
<td>Acaridae</td>
<td>plants, organic material, stored food and nests of various mammals</td>
<td>Hughes 1976</td>
</tr>
<tr>
<td></td>
<td>Gaudiellidae</td>
<td>nests of bumblebees</td>
<td>O'Connor 1992</td>
</tr>
<tr>
<td></td>
<td>Suidasiidae</td>
<td>stored food products, insect and birds nests</td>
<td>Hughes 1976, Krantz &amp; Walter 2009</td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>Hypoderatoidea</td>
<td>Hypoderatidae</td>
<td>in birds’ nests and subcutaneous in birds</td>
<td>Wurst &amp; Havelka 1998</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pterolichoidea</td>
<td>Eustathiidae</td>
<td>on Apodiformes or swifts</td>
<td>Peterson et al. 1980</td>
</tr>
<tr>
<td></td>
<td>Falculiferidae</td>
<td>on Columbiformes or pigeons</td>
<td>Gaud 1976</td>
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<tr>
<td></td>
<td>Gabuciniidae</td>
<td>on Falconiformes (falcons), Cuculiformes (cuckoos) and other orders</td>
<td>Gaud &amp; Ateyo 1975</td>
</tr>
<tr>
<td></td>
<td>Kramerellidae</td>
<td>Strigiformes (owls), Gruiformes (cranes), Ciconiiformes (storks) and Pelecaniformes (pelicans)</td>
<td>Ehrnsberger et al. 2001</td>
</tr>
<tr>
<td></td>
<td>Pterolichidae</td>
<td>Galliformes or gamefowl</td>
<td>Gaud &amp; Ateyo 1996a, b</td>
</tr>
<tr>
<td></td>
<td>Ptiloxenidae</td>
<td>on Charadriiformes (waders), Podicepidiformes (grebes) and Ciconiiformes (storks)</td>
<td>Dabert &amp; Ehrnsberger 1998</td>
</tr>
<tr>
<td>Freyanoidea</td>
<td>Freyaniidae</td>
<td>feathers of waterfowl</td>
<td>Gaud &amp; Ateyo 1982a, b</td>
</tr>
<tr>
<td>Analgoidea</td>
<td>Alloptidae</td>
<td>feathers of waterfowl</td>
<td>Mironov &amp; Dabert 1999</td>
</tr>
<tr>
<td></td>
<td>Analgidae</td>
<td>confined to the larger feathers of various birds</td>
<td>Gaud &amp; Ateyo 1996a, b</td>
</tr>
<tr>
<td></td>
<td>Avenzoariidae</td>
<td>feathers of waterfowl</td>
<td>Peterson 1971</td>
</tr>
<tr>
<td></td>
<td>Cytoditidae</td>
<td>in the respiratory tracts of birds</td>
<td>Baker et al. 1956</td>
</tr>
</tbody>
</table>
importance and Zhang & Liang 1997, for mites of agricultural importance), or even generic revisions (e.g. Manson 1972 and Fan & Zhang 2004, on the genus Rhizoglyphus and Zahler et al. 2000, 2001 on the genera Psoroptes and Chorioptes, respectively).

<table>
<thead>
<tr>
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<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermationidae</td>
<td>in the skin of various birds</td>
<td>Fain 196b</td>
<td></td>
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<tr>
<td>Dermoglyphidae</td>
<td>blood sucking at the basis of the feathers of various birds</td>
<td>Krantz &amp; Walter 2009</td>
<td></td>
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<tr>
<td>Epidermoptidae</td>
<td>hyperparasitic on louse flies and in the skin of birds</td>
<td>Philips &amp; Fain 1991</td>
<td></td>
</tr>
<tr>
<td>Laminosioptidae</td>
<td>subcutaneous feeding in birds</td>
<td>Smith et al. 1997</td>
<td></td>
</tr>
<tr>
<td>Proctophyllodidae</td>
<td>on the feathers of mainly Passeriformes or singing birds</td>
<td>Park &amp; Atyeo 1971</td>
<td></td>
</tr>
<tr>
<td>Psoroptoididae</td>
<td>confined to the larger feathers of various birds</td>
<td>Gaud &amp; Atyeo 1982c</td>
<td></td>
</tr>
<tr>
<td>Pteronyssidae</td>
<td>on Passeriformes or singing birds and Piciformes or woodpeckers</td>
<td>Mironov 2001</td>
<td></td>
</tr>
<tr>
<td>Trouessartiidae</td>
<td>on Passeriformes or singing birds and Caprimulgiformes or nightjars, Coraciiformes or kingfishers and bee-eaters</td>
<td>Orwig 1968, Santana 1976</td>
<td></td>
</tr>
<tr>
<td>Xolalgidae</td>
<td>confined to the larger feathers of various birds</td>
<td>Perez 1995</td>
<td></td>
</tr>
<tr>
<td>Sarcoptoidea</td>
<td>Atopomelidae in the fur of guinea pigs</td>
<td>Fain 1979</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chirodiscidae in the fur of bats, primates, rodents and martens</td>
<td>Fain &amp; Whitaker 1988</td>
<td></td>
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<tr>
<td></td>
<td>Gastronyssidae in the orbital cavity and stomach of bats</td>
<td>Stiller &amp; Sullivan 1977</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Listrophoridae in the fur of rodents and lagomorphs</td>
<td>Fain et al. 1986</td>
<td></td>
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<tr>
<td></td>
<td>Myoceptidae feeding on the body juices of mammals</td>
<td>Fain et al. 1970</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psoroptidae in the ears and on the skin of rodents and ungulates</td>
<td>Mullen &amp; OConnor 2002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sarcoptidae in the skin of various mammals</td>
<td>Klompen 1992</td>
<td></td>
</tr>
</tbody>
</table>

THE CHECKLIST

Such a wide range of habits results automatically in a likewise range of research specialists, which makes the completion of a checklist for such a group quite a challenge. Data had to be obtained from a variety of sources, from medics and veterinarians, agricultural consultants to inspectors.
of stored food products, next to the common sources as databases of ecologists and taxonomists. Quite a number of records originate from literature references, as the material itself is often stored in natural history museums abroad, for instance the material collected by Lukoschus and sent to Fain. This first list of astigmatic mites for the Netherlands therefore is provisional. A former count of the number of species (Siepel 2010) resulted in 208 species for the Netherlands, but at the time some species may have been listed under different names. Confusion has been severe; some species have more than ten synonyms and are transferred several times to other genera and even families. One of the reasons for this is that many species have been described from different life stages (e.g. adults, deutonymphs, hypopi). Hypopi, usually deutonymphs are the phoretic stage and were collected often from their carriers, while the adults were caught on their substrates (dung, soil, stored food). Rearing experiments later showed the relationship. The list is primarily composed based on data from collections of Naturalis, including the collections of Oudemans (Buitendijk 1945) and the parasite collection of Utrecht University, the private collection of Herman Cremers and the collection of NVWA (Netherlands Food and Consumer Product Safety Authority, this organization includes the former Plant Protection Service) and data from literature. Only species are listed, which have been identified and/or verified by various professionals in the field of astigmatic systematics. Most of the records are from a single finding on a specific location, but from knowledge about some of these species it can be assumed these species have settled and spread. Species with an asterisk (*) are known in the Netherlands only from the imported product on which they were found, from release for biological control, or from zoo animals. It is not known if these species have actually established populations somewhere in the Netherlands.

CHECKLIST

Class ARACHNIDA
Subclass ACARI
Order SARCOPTIFORMES
Cohort ASTIGMATINA
Superfamily HISTIOSTOMATOIDEA
Family HISTIOSTOMATIDAE

Anoetus Dujardin, 1842

1 alicola (Dujardin, 1842)
Hypopus alicola
Anoetus discrepans Oudemans, 1903
Netherlands, on Lasioglossum quadrinotatum (Kirby, 1802) (Hymenoptera, Halictidae) (Heitmans & Loonstra 2012), col. Naturalis.

2 teinophallus Bongers, OConnor & Lukoschus, 1985
Nijmegen, 1982, from Aphodius frater Mulsant, 1869 (Coleoptera, Scarabeidae) in cattle dung, col. Naturalis. [the identification of this beetle maybe wrong as the species is unknown for the country]

Histiostrama Kramer, 1876

3 berghi (Jensen, 1895)
Hypopus berghi
Hilversum, col. Naturalis in Oudemans collection (Buitendijk 1945).

4 brevimanus (Oudemans, 1914)
Lipstorpia brevimanus
Anoetus brevimanus
Terschelling (neotypes), v.1982, from cattle dung; Sittard, 1914 (lost holotype), col. Naturalis.

5 crenulatus Oudemans, 1909
Arnhem, col. Naturalis in Oudemans collection (Buitendijk 1945).

6 dugesi (Claparède, 1868)
Sneek, col. Naturalis.

7 feronarium (Dufour, 1839)
Hypopus feronarium
Several records col. Naturalis in Oudemans

8 insulare (Oudemans, 1914)
Anoetus insulare
Found on a Dutch island (Scheucher, 1957).

9 laevis (Oudemans, 1929)
Zschachia laevis
Valkeveen, col. Naturalis in Oudemans collection (Buitendijk 1945).

10 litoralis Oudemans, 1914
Terschelling, col. Naturalis in Oudemans collection (Buitendijk 1945).

11 maritimus Oudemans, 1914
Terschelling, col. Naturalis in Oudemans collection (Buitendijk 1945).

12 neglectus Oudemans, 1902
Haarlem, Arnhem, col. Naturalis in Oudemans collection (Buitendijk 1945).

13 phyllophorum (Oudemans, 1905)
Anoetus phyllophorus

14 phylotrichus (Berlese, 1883)
Anoetus phylotrichus
Glyphanotus phylotrichus
Velp, Ommen, col. Naturalis in Oudemans collection (Buitendijk 1945).

15 polypori Oudemans, 1914
Amsterdam, Arnhem, Oosterbeek, col. Naturalis in Oudemans collection (Buitendijk 1945).

16 radiferum (Scheucher, 1957)
Anoetus radiferum
Pijnacker, 13.VI.1888, on Gerbera in glasshouse, col. nvwa.

17 sapromyzarum (Dufour, 1839)
Hypopus sapromyzarum

Myianoeus Oudemans, 1929
18 dionychus (Oudemans, 1910)
Anoetus dionychus
Maastricht, 1910?, col. Naturalis in Oudemans collection (Buitendijk 1945).

19 muscarum (Linnaeus, 1758)
Acarus muscarum
Amsterdam, Naarden, col. Naturalis

20 simplex Mahunka, 1972
Nijmegen, 1982, from cattle dung, col. Naturalis.

Rhopalanoetus Scheucher, 1957
21 fimetarius (Canestrini & Berlese, 1882)
Histiostra fimetaria (not sensu Hughes & Jackson, 1958)
Anoetus lanceocrinus Oudemans, 1914
Anoetus tienhoveni Oudemans, 1926
Nijmegen, 1982, from Aphodius fimetarius Linnaeus, 1758 and Aphodius fossor Linnaeus, 1758 (Coleoptera, Scarabaeidae) in cattle dung from a pasture, col. Naturalis

Superfamily CANESTRINIOIDEA
Family CANESTRIIIDAE

Coleopterophagus Berlese, 1882
22 megninii (Berlese, 1881)
Dermoglyphus megninii
Dermoleichus chrysomelinus C.L. Koch, 1841 sensu Oudemans, 1905
Coleopterophagus cetoniae Oudemans, 1923
Velp, 29.VI.1901, from Cetonia aurata Linnaeus, 1758 (Coleoptera, Scarabaeidae), col. Naturalis.

Percanestrinia Berlese, 1911
23 saetolata Cooreman, 1950
Arnhem, VII.1903, four specimens (sub. Canestria spec.) from Carabus violaceus (purpurascens) Linnaeus, 1758 (Coleoptera, Carabidae) col. Naturalis.
Canestrinia Berlese, 1881
24 dorcilica Berlese, 1881
Meerssen, 20.VI.1903, one specimen from Oxythyrea funesta (Poda, 1761) (Coleoptera, Scarabaeidae), col. Naturalis.

Superfamily HEMISARCOPTIOIDEA
Family CARPOGYPHIDAE

Carpoglyphus Robin, 1869
25 lactis (Linnaeus, 1767)
Acarus lactis
Amsterdam, Arnhem, col. Naturalis in Oudemans collection; Elst (Gelderland), 26.IX.1952, candied cherries; Rotterdam, 22.VI.1960, dried fruit; Rotterdam, 23.XI.1961, dried apricot; Elst (Gelderland), 3.X.1962, apple molasses; Eindhoven, 24.VII.1968, in branch canker; Tiel (De Betuwe), 21.I.1987, candied cherries; Hardinxveld-Giessendam, 30.VI.1989, dried apricot; Wageningen (glasshouse nVWA), 11.III.2015, Rhododendron (leaf), col. nVWA.

Family CHAETODACTYLIDAE

Chaetodactylus Rondani, 1866
26 birulai Zakhvatkin, 1941

27 osmiae (Dufour, 1839)
Trichodactylus osmiae
Amsterdam, Meerssen, col. Naturalis in Oudemans collection, see also Van Lith (1957); Oosterbeek, 25.IX.1970, from nest of Osmia rufa Linnaeus, 1758 (Hymenoptera, Apidae); Leiderdorp, 15.V.1987, outside window frame house; Goutum, 5.IV.2005, in package wood (on metanotum of males of Osmia rufa); Hoorn, 18.III.2008, at skylight from dead Osmia rufa, col. nVWA.

Sennertia Oudemans, 1905
28 cerambycina (Scopoli, 1763)

Pediculus cerambycinus
Trichodactylus xylocopae Donnadieu, 1868
Netherlands, on Xylocopa violacea Müller, 1776 (Hymenoptera, Apidae) (Van Eyndhoven 1952), col. Naturalis.

Family HYADESIIDAE

Hyadesia Mégnin, 1889
29 fusca (Lohmann, 1894)
Lentugula fusca
Lentugula algivorans Michael, 1893 sp. inquir.
Scheveningen, VIII.1999, feeding on green algae on pier (Fain 1979), col. Naturalis.

Family WINTERSCHMIDTIIDAE

Acalvolia Fain, 1971
30 squamata (Oudemans, 1909)
Vidia squamata
Arnhem, col. Naturalis in Oudemans collection (Buitendijk 1945).

Calvolia Oudemans, 1911
31 hagensis Oudemans, 1911
The Hague, col. Naturalis in the Oudemans collection (Buitendijk 1945).

Czernspinka Oudemans, 1923
Donndorffia Oudemans, 1911
32 transversostriata Oudemans, 1931
Acalvolia transversostriata, col. Naturalis in Oudemans collection (Buitendijk 1945); Winschoten, 19.VII.1961, between felt galls on Alnus; Winschoten, 27.VII.1961, between felt galls on Alnus; Bennekom, 29.VIII.1961, on Corylus avellana; Aalsmeer, 24.XI.1961, Peperonia; Tilburg, 29.X.2011, Carpinus (leaves), col. nVWA.

Ensliniella Vitzthum, 1925
33 kostoylevi Zakhvatkin, 1914
De Lier, Hilvarenbeek (no dates), from Allo-
dynerus rossii (Lepeletier, 1841) (Hymenoptera,
Vespidae) (Klompen & O'Connor 1995),
col. Naturalis.

34 parasitica Vitzthum, 1925
Netherlands, locality unknown, 18.viii.1950, from
Allodynerus delphinalis (Giraud, 1866) (Hymenoptera, Vespidae) (Klompen & O'Connor 1995),
col. Naturalis.

Riemia Oudemans, 1925
35 hesperidum Oudemans, 1925
Arnhem, col. Naturalis in Oudemans collection
(Buitendijk 1945).

Vidia Oudemans, 1905
36 lineata Oudemans, 1917
Arnhem, col. Naturalis in Oudemans collection
(Buitendijk 1945).

Superfamily GLYCYPHAgoIDEA
Family CHORTOGlyphidae

Chortoglyphus Berlese, 1884
37 arcuatus (Troupeau, 1879)
Bennekom, vii.1968, in litter from chicken coop,
col. NVWA.

Family EChIMYOPodidae

Blomia Oudemans, 1928
38 tjibodas (Oudemans, 1910)
Glycyphagus tjibodas
Arnhem, Friesland, col. Naturalis in Oudemans
collection (Buitendijk 1945).

Family GLYCYPHAgoIDEA

Apodemopus Fain, 1967
39 apodemi (Fain, 1965)
Lophuromyopus apodemi
Nijmegen, 1965-1968, on Apodemus sylvaticus
(Linnaeus, 1758) (Rodentia, Muridae) (Lukoschus

Dermacarus Haller, 1878
40 hypudaei Fain, 1969
Hamert, 15.viii.1963, from Microtus arvalis (Pallas,
1778) (Rodentia, Cricetidae); 27.iii.1968, from
Microtus agrestis (Linnaeus, 1761); de Horst,
11.iii.1966, from Apodemus sylvaticus (Linnaeus,
1758) (Rodentia, Muridae); Hamert, 26.vii.1965,
Hatert, 17.viii.1965; Valkenburg, 29.xi.1965;
Heyendaal, 25.viii.1965, from Myodes glareolus
(Schreber, 1780) (Rodentia, Cricetidae); Valkenburg,
23.iii.1967, from Eliomys quercinus
(Linnaeus, 1766) (Rodentia, Gliridae); Hatert,
15.ix.1965, from Sorex araneus Linnaeus, 1758
(Rodentia, Soricidae); Hamert 31.viii.1965,
from Sorex minutus Linnaeus, 1766; Hatert,
22.ix.1965, from Crocidura russula (Hermann,
1780) (Rodentia, Soricidae) (Fain 1969),
col. Naturalis; Amsterdam-Bijlmer, 12.ix.2001,
from Crocidura russula (Hermann, 1780) (Soricomorpha,
Soricidae) (hypopus) fur, col. Cremers.

Glycyphagus Hering, 1838
42 domesticus (De Geer, 1778)
Acarus domesticus
Amsterdam, Bloemendaal, Arnhem, Mook, Epe,
Zuidwolde, col. Naturalis in Oudemanscollection
(Buitendijk 1945); De Meern (Squirrel Care Foundation),
from Sciurus vulgaris Linnaeus, 1758 (Rodentia,
Sciuridae) (hypopus) fur, col. Naturalis,
col. Cremers.

43 ornatus Kramer, 1881
Zwaagwesteinde, col. Naturalis in Oudemans collection (Buitendijk 1943).

44 pilosus Oudemans, 1906
Genemuiden, col. Naturalis in Oudemans collection (Buitendijk 1943).

45 privatus Oudemans, 1903
Amsterdam, col. Naturalis in Oudemans collection (Buitendijk 1943).

46 fusca (Oudemans, 1902)
Glycyphagus fuscus
Ferminia fusca
Arnhem, Franeker, Westdungeradeel, col. Naturalis in Oudemans collection (Buitendijk 1945).

47 platygaster (Michael, 1886)
Glycyphagus platygaster
Sittard, col. Naturalis in Oudemans collection (Buitendijk 1945).

48 talpae Kramer, 1877

49 destructor (Schrank, 1781)
Acarus destructor
Glycyphagus destructor
Acarus cadaverum Schrank, 1781

Melesodectes Fain & Lukoschus, 1968

50 auricularis Fain & Lukoschus, 1968

Orycteroxenus Zachvatkin, 1941

51 dispar (Michael, 1886)
Glycyphagus dispar
Labidophorus dispar
Arnhem, on Talpa europaea (Linnaeus, 1758) (Eulipotyphia, Talpidae), col. Naturalis in Oudemans collection (Buitendijk 1945).

52 soricis (Oudemans, 1915)
Labidophorus soricis
Hatert, 21.IX.1965; Hamert, 30.VII.1965, from Sorex araneus Linnaeus, 1758 (Soricomorpha, Soricidae); Hatert, 30.VII.1965; Hatert, 21.IX.1965, from Sorex minutus Linnaeus, 1766; Texel, 20.IX.1968, from Neomys fodiens (Pennant, 1771) (Soricomorpha, Soricidae); Heyendaal, 8.XII.1968, from Crocidura rusula (Hermann, 1780) (Soricomorpha, Soricidae); Rockanje, 2.XI.1965, O.s. ohionensis from Micromys minutus (Pallas, 1771) (Rodentia, Muridae); Heer, XII.1965, from Eliomys quercinus (Linnaeus, 1776) (Rodentia, Gliridae) (Fain 1969), col. Naturalis.

Xenoryctes Zachvatkin, 1941

53 krameri (Michael, 1886)
Glycyphagus krameri
Dermacarus krameri
Labidophorus oudemansi Türk & Türk, 1999
Labidophorus hypudaei sensu Türk & Türk, 1957 nec Koch, 1841
Xenoryctes heptneri Zachvatkin, 1941
The Hague, Sittard, Steenwijk, col. Naturalis in Oudemans collection (Buitendijk 1945); Netherlands, unknown location, IV.2001, from fur of

Superfamily acaroidea

Family acaridae

Acarus Linnaeus, 1758 54

*Tyroglyphus* Latreille, 1796

*Aleurobius* Canestrini, 1888

*siro* Linnaeus, 1758

*Acarus farinae* De Geer, 1778

*Aleurobius farris* Oudemans, 1902

*Tyroglyphus farinae* (De Geer, 1778)


*Histiogaster* Berlese, 1883 59

*Tyroglyphus* carpio (Kramer, 1882)

Amsterdam, 21.IV.1968, in decaying bark of *Alnus montana* Superba, col. NVWA.

*Kuzinia* Zachvatkin, 1941 60

*Hypopus* laevis (Dujardin, 1849)

*Tyroglyphus* laevis

*Tyroglyphus fucorum* Oudemans, 1902

Hilversum, Arnhem, Putten, col. Naturalis in Oudemans collection (Buitendijk 1945).

*Mycetoglyphus* Oudemans, 1932 61

*fungivorus* Oudemans, 1932

De Punt, Ouddorp, 16.VI.1966, in litter under see buckthorn shrub in dunes, col. NVWA.

*Rhizoglyphus* Claparède, 1869 62

*echinopus* (Fumouze & Robin, 1868)

*Tyroglyphus echinopus*

63 **longispinus Ho & Chen, 2001**

Rijssenhout, 3.II.2003, on *Dracaena* pot plant in greenhouse, col. NVWA.

64 **robini Claparède, 1869**

*Rhizoglyphus solani* Oudemans, 1924
*Rhizoglyphus hyacinthi* Banks, 1937
*Rhizoglyphus engleri* Van Eyndhoven, 1968


65 **berlesei (Michael, 1903)**

*Tyroglyphus berlesei*

*Caloglyphus* rodionovi Zachvatkin, 1941


66 **mycophagus (Berlese, 1881)**

*Tyroglyphus mycophagus*

*Tyroglyphus mycophagus* Mégnin, 1874

Naaldwijk, Amsterdam, Velp, col. Naturalis in Oudemans collection (Buitendijk 1943); Eelde, 15.II.1993, mushroom culture; Wageningen, 1.IX.1993, culture, col. NVWA.

Schwiebea Oudemans, 1916

67 **cavernicola Vitzthum, 1932**

Ede, XI.1971 till III.1972, in straw package under *Carpinus* hedge in garden; Bunde (L.), 1.V.1969, in litter from hornbeam forest, col. NVWA.

68 **elongata (Banks, 1906)**

*Rhizoglyphus elongatus*

*Schwiebea athiaca* Fain, 1977

*Schwiebea codognoensis* Fain & Pagani, 1989


69 **eurynympha (Oudemans, 1911)**

*Tyroglyphus eurynympha*

*Acaryledon eurynympha* (Oudemans, 1911)

*Schwiebea tshernyshevi* Zachvatkin, 1941

Den Haag, 1910, decaying leaves, col. Naturalis in Oudemans collection (Buitendijk 1943); Alkmaar, Huizen, Volendam (Smit et al. 2012).

70 **lebruni Fain, 1977**

Imbosch, 14.XI.1985, found in litterbags (Siepel 1990), col. Alterra.

71 **nova (Oudemans, 1906)**

talpa Oudemans, 1916
Schwiebea pachyderma Zachvatkin, 1941

Sennertionyx Zachvatkin, 1941
manicati (Giard, 1900)
Trichotarsus manicati
Alkmaar, 2.viii.2011, from Anthidium manicatum (hypopus), col. Cremer (see also Heitmans 2013).

Thyreophagus Rondani, 1874
Michaelopus Fain & Johnston, 1974
corticalis (Michael, 1885)
Tyroglyphus corticalis
Histiohyste corticalis (Michael, 1885)

entomophagus (Laboulbène & Robin, 1862)
Acarus entomophagus
Histiohyste entomophagus
Records in the Oudemans collection col. Naturalis; Rotterdam, 20.x.1960, linseed; Westduinen (Ouddorp), 16.xi.1966, south slope soil under Hieracium pilosella; Overberg, ii.xii.2015, Polypondium vulgare (leaves); Overberg, ii.xii.2015, Dryopteris carthusiana (leaves); Ede, ii.xii.2015, Polypondium vulgare (leaf), col. NVWA.

Tyroborus Oudemans, 1924
lini Oudemans, 1924
Arnhem col. Naturalis in Oudemans collection (Buitendijk 1945).

Tyrolichus Oudemans, 1924
casei (Oudemans, 1910)
Tyroglyphus casei
Amsterdam, col. Naturalis in Oudemans collection (Buitendijk 1945); Putten, 1.x.1970, cleanings from cage Newson vison (Schreber, 1777) (Carnivora, Mustellidae), culture, col. NVWA.

Tyrophagus Oudemans, 1924
Coelognathus Turk, 1953
Povelsenia Oudemans, 1924
curvipenis Fain & Fauvel, 1993
Noordwijkerhout, 19.xi.2008, on Zantedeschia corm, col. NVWA.
fanetzhangorum Klimov & OConnor, 2009
Tyrophagus putrescentiae (Schrank), sensu Robertson, 1999
Hilversum, in humus, one male specimen (No. 17, P6984), (designated as neotype for T. putrescentiae by Robertson (1999), 22.iv.1902, col. Naturalis in Oudemans collection (Buitendijk 1945). The other records for the Netherlands given by from Fan & Zhang (2007) are unclear (Bremen is in Germany; Buitendijk 1945; ‘Zuid-Europa’ is Dutch for ‘Southern Europa’) or could not be verified due to the poor condition of Oudemans’s T. putrescentiae slides (Klimov & OConnor 2009).

longior Gervais, 1844
Tyrophagus dimidiatus Oudemans, 1924.
Tyrophagus infestans sensu Nesbitt, 1945 nec Berlese, 1884
Tyrophagus dimidiatus forma longior Oudemans, 1924.
Tyrophagus dimidiatus forma dimidiatus Oudemans, 1924.
Tyrophagus dimidiatus forma humerosus Oudemans, 1924.
Tyrophagus (Tyrophagus) dimidiatus Oudemans, 1924.
Tyrophagus dimidiatus var. humerosus Vitzthum, 1929
Tyrophagus dimidiatus var. longior Vitzthum, 1929
Tyrophagus dimidiatus var. infestans Vitzthum, 1929
Tyrophagus tenuiclavus Zakhvatkin, 1941
Coelognathus dimidiatus (Hermann, 1804?)
Coelognathus tenuiclavus (Zakhvatkin, 1941)
Gouda, 26.xii.1954, 2 males on cheese (No. 237: 3, 4), neotype male (designated by Robertson, 1999), BMNH. Several records sub T. dimidiatus, T. d. forma humerosus, T. d. forma infestans and T. d. forma longior col. Naturalis; Horst, 12.viii.1954, in...
Several records from in New Zealand imported
82     81
Kwadijk, muris Oudemans, 1965. Several records from in New Zealand imported
neiswanderi Johnston & Bruce, 1965. Several records from in New Zealand imported
Narcissus Neovison vison (Schreber, 1777) (Carnivora, Mustellidae); Zevenbergen,
4.ii.1972, Cucubis; Capelle a/d IJssel, 8.1.1999, Narcissus (bulb); Wageningen, 7.1.1988, ham, col.
Nvwa.

81 muris Oudemans, 1924
Arnhem, col. Naturalis in Oudemans collection (Buitendijk 1945).

82 neiswanderi Johnston & Bruce, 1965
Several records from in New Zealand imported
Dutch products (Fan & Zhang 2007). Ooster-
meer, 15.vi.2000, grassland; Hengelo, 26.iv.2000,
grassland; Borgercompagnie, 23.ii.2001, arable
field on sandy soil; Breezand, 11.vi.2010, bulb
field; Burgerbrug, 11.vi.2010, bulb field; Sint
Maartensvlotbrug, 11.vi.2010, bulb field; Sint
Maartensdijk, 15.iv.2010, grassland on clay soil;
Oude Niedorp, 23.iii.2010, grassland on clay soil;
Kwadijk, 28.iv.2010, grassland on peat soil; Meije,
21.iv.2010, grassland on peat soil; Luttelegeist,
17.xii.1984, greenhouse Cucumis sativa; Luttele-
geest, xi.1996, Gerbera; ’s Gravezande (bos),
2.1.1987, Hippeastrum; Veenendaal, 9.1.1997, under
flower pots (indoors); Netherlands, 13.ii.1987,
Cucumis; Netherlands, 20.ii.1987, Gerbera; Naald-
wijk, 24.ii.1987, Hippeastrum; Netherlands,
2.iii.1987, Gerbera; Hendrik-Ido-Ambacht,
25.vi.1987, Cucumis; De Lier, 30.vii.1987, Gerbera;
Haren (tropical greenhouse Hortus), 19.viii.1987,
Oxalis orgiis; Haren (tropical greenhouse
Hortus), 19.viii.1987, Delosperma spec.; Netherlands,
16.ii.1987, Cactaceae; Rijsoord, 6.ii.1988,
Saintpaulia; Noordorp, 12.i.1988, Cucumis;
Wageningen, 20.i.1988, Cactaceae; Alphen aan de
Rijn, 24.ii.1988, Cyclamen; Klazienaveen, 31.iii.1988,
Cucumis; Wellerlooi, 21.x.1988, Gerbera; Lent,
19.1.1989, Ficus benjamina; Schipluiden, 24.vii.1989,
Ctenanthe spec.; Assendelft (kas), 3.1.1990, Guez-
mania sanguinea; Nijssen (greenhouse), 2.iv.1990,
Euonymus; Andijk, 18.ix.1990, Lilium (tissue
culture); Schipluiden, 25.ix.1990, Ardisia; Noord-
wijkherout, 5.ii.1991, Phlox; Huissen, 1.iii.1991,
Kalanchoe; Aarmelen, 11.vi.1991, Lilium meristemie;
Aalsmeer, 26.xi.1991, Croton; Nieuwkerk, 9.ii.1992,
Gerbera; Lent, 11.iii.1992, Cyclamen; Sappemeer,
6.xii.1992, Tillandsia cyanae; Horst, 10.iii.2005,
Cucumis sativus (leaves); Aalsmeer, 12.x.2006,
Solanium (pot plant), in glasshouse, col. Nvwa.

83 palmarum Oudemans, 1924
Arnhem, col. Naturalis in Oudemans collection (Buitendijk 1945); Bemelen (Het Hoefijzer),
2.vii.2010, calcareous grassland soil; Cadier en
Keer (Schiepersberg), calcareous grassland soil,
2.vi.2010, database Alterra; Wageningen, 3.xi.1995,
Juglans, in nuts; Kerkdriel, 17.iii.1958, mushroom
substrate; Kerkdriel, autumn 1958, mushroom
substrate; Zaltbommel, 2.1.1999, mushroom sub-
strate; P.D. Proeftuin Wageningen, 9.iv.1964, in
glass tussock, orchard; Ouddorp De Punt, in salt-
marsh, 16.v.1966, under sod of Artemisia; Lienden
Schuilenburg, 12.1.1971, caught on stem apple Cox
section iii; Lienden Schuilenburg, 12.1.1971, on
stem apple James Grieve; Ede in garden, xi.1971
till iii.1972, under hedgerow Carpinus; Schuilen-
burg, winter 1971-1972, caught on apple stems;
Noordscarwoude, 30.vi.1987, rape seed; Delft,

84 perniciosus Zakhvatkin, 1941
Schijndel, 22.xii.1986, aviary (house) (De Jonge,

85 putrescentiae (Schrank, 1781)
Acarus putrescentiae
Tyroglyphus ambonensis Oudemans, 1925
Tyroglyphus australasiae Oudemans, 1916
Tyroglyphus (Tyrophagus) putrescentiae
Tyroglyphus americanus Banks, 1906
Tyroglyphus breviceps Banks, 1906
Tyroglyphus coociphilus Banks, 1906
Tyroglyphus longior var. Castellani Hirst, 1912
Povelienia neotropicus Oudemans, 1917
Tyrophagus communis Fan & Zhang, 2007
The formerly elected neotype by Robertson (1999)
is not the right species (= T. fanetzhangorum), see
Klimov & O’Connor (2009) for new neotype
tropicus Robertson, 1959
Andijk, 6.x.1988, on Cyclamen; Netherlands, 12.II.2003, on Matricaria in greenhouse, col. NVWA.

vanheurni Oudemans, 1924*
Tyrophagus palmarum Oudemans 1924; Robertson, 1959 (misidentification).
Tyrophagus longior (Gervais, 1844); Robertson, 1946 (misidentification).

Viedebanttia Oudemans, 1929
Acotyledon (non Oudemans, 1903; part.)

89 schmitzi Oudemans, 1929
Robinisca macrocnemis Zachvatkin, 1941
Sittard, from a nest of the mole Talpa europaea Linnaeus, 1758 (Soricomorpha, Talpidae) (type specimen), col. Naturalis in Oudemans collection (Buitendijk 1945, Fain 1985); Hackfort (Vorden), 5.VII.1962, soil sample Quercus forest, col. NVWA.

Family GAUDIOELIDAE

Cerophagus Oudemans, 1902
90 granulatus Dujardin, 1849
Glycyphagus bomborum Oudemans, 1902
Cerophagus boborum
Cerophagus gracilis Vitzthum, 1912
Arnhem, col. Naturalis in Oudemans collection (Buitendijk 1945).

Family SUIDASIIDAE

Suidasia Oudemans, 1905
91 pontifica Oudemans, 1905
Meerssen, 23.XII.2011, in culture of Macrocheles robustulus Berlese, 1904 (Mesostigmata, Macrocheelidae), col. NVWA.

Superfamily HYPODERATOIDEA

Family HYPODERATIDAE

Amazonectes Fain, 1967
92 psittaci (Fain & Vercammen-Grandjean, 1966)*
Gabucinia psittaci Fain & Vercammen-Grandjean, 1966

Hypodectes Filippi, 1861
93 propus (Nitzsch, 1861)
Hypoderas propus
Amsterdam (Artis Zoo), 17.X.1981, from Tauraco spec. (Musophagiformes, Musophagidae), (hypopus) subcutis thorax; XII.1990, from Mycteria leucocephala (Pennant, 1769) (Ciconiiformes, Ciconiidae), (zoo) (hypopus) subcutis (sub Hypodectes propus bubulci Fain, 1967a); Rotterdam 19.X.1965, from Ptilinopus spec. (Columbiformes, Columbidae) (hypopus) subcutis thorax, 1.X.1967, from Columba livia dom. (Columbiformes, Columbidae) (hypopus) subcutis thorax; XII.1990, from Mycteria leucocephala (hypopus) subcutis thorax, col. Naturalis; Arnhem (Burgers Zoo) 17.X.2005, from Ducula pinon (Quoy & Gaimard, 1824) (Columbiformes, Columbidae) (hypopus) subcutis thorax; Arnhem (Burgers Zoo) 26.VI.2010, from Goura victoria (Fraser, 1844) (Columbiformes, Columbidae) (hypopus) subcutis legs, col. Cremers.

Neottialges Fain, 1966
94 eurafer Fain, 1966
Netherlands, unknown location, 1976, from Ptilinopus occipitalis Gray, 1844 (Columbiformes, Columbidae) (hypopus) subcutis thorax; unknown location, 1977, from Columba palumbus Linnaeus, 1758 (Columbiformes, Columbidae), (hypopus) subcutis thorax, col. Cremers.

95 evansi Fain, 1966
Netherlands, 26.VIII.1986, 14.XII.2013, from

Montagui Fain, 1967*  

Phalacrodocetes Fain, 1966  
97 Whartoni Fain, 1967*  

Passerodectes Fain, 1966  
98 Pittae Fain, 1967*  

Picidectes Fain, 1967  
99 Ramphastos (Fain, 1968)*  
Toucaneetes ramphastos  

Eustathia Oudemans, 1905  
101 Cultrifer (Robin in Robin & Mégnin, 1877)  
Pterolichus cultrifer  

Family FALCULIFERIDAE

Falcifer Railliet, 1896  
102 Rostratus (Buchholz, 1869)  
Dermaleichus rostratus Falciger rostratus Trouessart, 1885  
Utrecht, 17.v.1950, from Columba livia domestica (Columbiformes, Columbidae) on (3 x m); Utrecht (Uithof), 12.x.1977, (f) in stable, 11.viii.1986 (larva), col. Naturalis; Amsterdam (Artis), 20.viii.2008; Boxtel 20.xi.2012, from Columba livia domestica (Columbiformes, Columbidae, feathers (m & f), col. Cremers.

Pterophagus Mégnin in Robin & Mégnin, 1877  
103 Strictus Mégnin in Robin & Mégnin, 1877  

Family GABUCINIIDAE

Coraciacarus Dubinin, 1956  
104 Cuculi (Mégnin & Trouessart, 1884)  
Pterolichus cuculi  
Sneek, col. Naturalis in Oudemans collection (Buitendijk 1943). The validity of these records is doubtful, as mentioned hosts are Prunella modularis (Linnaeus, 1758), Corvus cornix Linnaeus, 1758, Alauda arvensis Linnaeus, 1758 and Porzana porzana (Linnaeus, 1766), instead of the real host Cuculus canorus Linnaeus, 1758.
Gabucinia Oudemans, 1905

delibata (Mégnin in Robin & Mégnin, 1877)
Pterolichus delibatus
Arnhem, Sneek, from Corvus cornix Linnaeus, 1758 (Passeriformes, Corvidae), col. Naturalis in Oudemans collection (Buitendijk 1945); Nieuwe Ter Aar, 16.vi.2015, from Corvus corone Linnaeus, 1758 (Passeriformes, Corvidae), feathers (f), col. Cremers.

urogalli (Nörner, 1883)

Dimorphus urogalli

Hieracolichus Gaud & Atyeo, 1975

nisi (Canestrini, 1878)
Pterolichus nisi
Utrecht, col. Naturalis in Oudemans collection (Buitendijk 1945); Epe, 8.vi.2015, from Accipiter nisus Linnaeus, 1758 (Falconiformes, Accipitridae), feathers (m & f), col. Cremers.

Family kramerellidae

Dermonoton Gaud & Mouchet, 1959

parallelilobus (Trouessart, 1886)*
Pterolichus parallelilobus
Lopik, 4.iii.2014, from Strix nebulosa J.R.Forster, 1772 (Strigiformes, Strigidae), feathers (m & f), col. Cremers.

sclerourus Gaud, 1980


Freyanopterolichus Dubinin, 1953

anacrotichus Gaud, 1982*

Apeldoorn (Zoo), 28.xi.2011, from Geronicus eremita (Linnaeus, 1758) (Ciconiformes, Threskiornithidae), (m & f) feathers, col. Cremers.
68 nederlandse faunistische mededelingen 47 ‒ 16

Grallobia Hull, 1934

118 porzanae (Canestrini, 1878)
   Dermaleichus porzanae
   Thecartha porzanae

Arnhem, from Porzana porzana Linnaeus, 1766
   (Gruiformes, Rallidae), col. Naturalis in
   Oudemans collection (Buitendijk 1945).

Pelargolicus Gaud, 1982

119 didactylus Trouessart, 1885
   Xolopes didactylus

Overloon (Zoo), 1.VII.2002, from Ciconia ciconia
   (Linnaeus, 1758) (Ciconiiformes, Ciconiidae),
   (m & f) feathers, col. Naturalis, col. Cremers;
   Lathum, 17.VIII.2012, from Ciconia ciconia
   (Linnaeus, 1758) (Ciconiiformes, Ciconiidae),
   feathers (m & f), col. Cremers.

Pterolichus Robin, 1877

120 obtusus Robin, 1877
   From poultry: Bunnik, 18.IV.1977, (m & f)
   feathers; Utrecht, 5.X.1981 (m & f) feathers;
   Rijswijk (Gld.), VIII.2000, (m & f) feathers, col.
   Naturalis, col. Cremers;
   Arnhem (Burgers Zoo), 31.XII.2012, from
   Lophophorus impejanus
   (Latham, 1790) (Galliformes, Phasianidae),
   feathers, col. Cremers.

Pseudalloptes Trouessart, 1885

121 bisubulatus (Mégnin in Robin & Mégnin,
   1877)
   Netherlands, from Perdix perdix (Linnaeus, 1758)
   (Galliformes, Phasianidae) (Oudemans 1897),
   not collected?

Sideroferus Gaud & Atyeo, 1996

122 lunula (Robin, 1877)*
   Pterolichus lunula
   Protolichus lunula

Netherlands, Emmen (Zoo), 8.VII.1998, from
   Melopsittacus undulatus (Shaw, 1805) (Psittaci-
   formes, Psittacidae), (m & f) feathers and
   9.X.1998, (larvae); Rhenen (Zoo) 20.XI.2007,
   feathers (m & f), col. Naturalis, col. Cremers.

Triphyllochaeta Dubinin, 1956

123 vanelli (Canestrini, 1878)
   Dermaleichus vanelli

Bunnik, I.V.2013; Houten, 19.III.2014, from Vanel-
   lus vanellus (Linnaeus, 1758) (Charadriiformes,
   Charadriidae), feathers (f), col. Cremers.

Family PTILOXENIDAE

Ptixenos Hus Hull, 1934

124 major (Mégnin & Trouessart, 1884)
   Pterolichus major

Netherlands, unknown location, VIII.1956,
   col. Naturalis.

Ptixenoides Gaud, 1982

125 phoenicopteri (Mégnin & Trouessart, 1884)*
   Pterolichus phoenicopteri

Amsterdam (Artis Zoo), 17.I.2002; Arnhem (Burg-
   ers Zoo), 25.III.2013, from Phoenicopterus roseus
   Pallas, 1811 (Phoenicopteriformes, Phoenico-
   pteridae), (m & f) feathers; Amsterdam (Artis Zoo),
   1976; Emmen (Zoo), 22.XI.2011, from Phoenicopterus
   ruber Linnaeus, 1758 (Phoenicopteriformes, Phoeni-
   coteridae), (f) feathers; Emmen (Zoo), 16.III.2010,
   from Phoenicopterus chilensis Molina, 1782 (Phoeni-
   coteriformes, Phoenicopteridae), (m & f)
   feathers; X.I.1986, from Phoenicopterus spec., (m & f)

Sokoloviana Dubinin, 1951

126 mariae Dubinin, 1956
   Amsterdam (Artis Zoo), 17.VII.2001, from Recuri-
   rostra avosetta Linnaeus, 1758 (Charadriiformes,
   Recurvirostridae), (m & f) feathers; 10.VI.2003,
   (m & f) feathers, col. Naturalis, col. Cremers.

127 rehbergi (Canestrini & Berlese, 1880)
   Pterolichus rehbergi

Utrecht (de Uithof), V.1977, from Haematopus
   ostralegus ostreatus Linnaeus, 1758 (Charadriiformes,
   Haematopidae), (m & f) feathers; Vlieland
   (Kroonspolders), 7.IX.1964, (f) feathers, col.
   Naturalis, col. Cremers; Leeuwarden, 3.XI.2012,
   (m & f) feathers, col. Cremers.
Superfamily FREYANOIDEA
Family FREYANIDAE

Freyana Haller, 1877

128 anatina (Koch, 1944)
  *Dermaleichus anatinus*
  Arnhem, from *Anas platyrhynchos* Linnaeus, 1758 (Anseriformes, Anatidae), col. Naturalis in Oudemans collection (Buitendijk 1945).

Superfamily ANALGOIDEA
Family ALLOPTIDAE

Alloptes Canestrini, 1879

129 bisetatus (Haller, 1881)
  *Pterocolus bisetatus*
  Sneek, col. Naturalis in Oudemans collection (Buitendijk 1945; Oudemans 1897); Blokker, 15.v.2014, from *Sterna hirundo* Linnaeus, 1758 (Charadriiformes, Laridae), (m & f) feathers, col. Cremers.

130 crassipes (Canestrini, 1878)
  *Dermaleichus crassipes*
  Netherlands, 29.IX.2012, from *Haematopus ostralegus* Linnaeus, 1758 (Charadriiformes, Haematopodidae), (m & f) feathers, col. Cremers.

131 limosae Dubinin, 1951
  Hoofdplaat, 29.IX.2012, from *Limosa limosa islandica* (Brehm, 1831) (Charadriiformes, Scolopacidae), (m & f) feathers, col. Cremers.

132 obtusolobus Dubinin, 1951
  Streefkerk, 3.XII.2015, from *Larus argentatus* Pontopiddan, 1765 (Charadriiformes, Laridae), (f), col. Cremers.

133 oxylobus Dubinin, 1951
  Zwolle, 2.XI.2015, from *Larus ridibundus* Linnaeus, 1766 (Charadriiformes, Laridae), (m & f) feathers, col. Cremers.

134 pelecani Dubinin, 1956*
  *Plicatalloptes pelecani*
  Leeuwarden (Zoo), 15.VII.2011, from *Pelecanus onocrotalus* Linnaeus, 1758 (Pelecaniformes, Pelecanidae), (m & f) feathers; Overloon (Zoo), 19.III.2013, from *Pelecanus crispus* (Bruch, 1832) (Pelecaniformes, Pelecanidae), (m & f) feathers, col. Cremers.

Brephosceles Hull, 1934

135 anatina Dubinin, 1951

Psilobrephosceles Peterson & Atyeo, 1968

136 discidicus Peterson, 1971
  Rotterdam, 19.IV.2012, from *Cygnus olor* (Gmelin, 1803) (Anseriformes, Anatidae).

Family ANALGIDAE

Analges Nitzsch, 1818

138 beaucournui Gaud, 1973
  Netherlands, from *Troglodytes troglodytes* (Linnaeus, 1758) (Passeriformes, Troglodytidae) (Gaud 1973).
143 macropus Zimmermann, 1894
Warnsveld, 11.VII.2015, from Pyrrhula pyrrhula (Linnaeus, 1758) (Passeriformes, Fringillidae), (m & f) feathers, col. Cremers.

144 mucronatus (Buchholz, 1869)
Dermaleichus mucronatus

145 pachysphyrus Gaud, 1973
Netherlands, from Pyrrhula pyrrhula (Linnaeus, 1758) (Passeriformes, Fringillidae), (m & f) feathers, col. Cremers.

146 passerinus (Linnaeus, 1758)
Acarus passerinus
Acarus avicularum De Geer, 1778
Dermaleichus fringillarum Koch, 1841
Utrecht, Arnhem, in Oudemans collection (Buitendijk 1943); Netherlands, 8.VI.1956, from Chloris chloris (Linnaeus, 1758) (Passeriformes, Fringillidae), (m & f) feathers, Carduelis carduelis (Linnaeus, 1758) (Passeriformes, Fringillidae); 1866 and VII.2003, (m & f) feathers; Zeist, VII.1977 and 1986, Serinus canaria (Linnaeus, 1758) (Passeriformes, Fringillidae), (m & f) feathers; De Bilt, 21.VII.1964, Fringilla coelebs Linnaeus, 1758 (Passeriformes, Fringillidae), (m) feathers; Wassenaar, 7.XI.1966, (adult) feathers; Wassenaar (dunes), 7.XI.1966, Fringilla montifringilla Linnaeus, 1758, (m & f) feathers; Baarn, 30.XII.1968, (adults) feathers, col. Naturalis; Son en Breugel, 21.VII.2005, from Chloris chloris (Linnaeus, 1758) (Passeriformes, Fringillidae), (m & f) feathers; Schiedam, 9.VII.2003; Voorburg, 14.XI.2007, from Serinus canaria (Linnaeus, 1758) (Passeriformes, Fringillidae), (m & f) feathers; Son en Breugel, 18.VIII.2015, from Fringilla coelebs Linnaeus, 1758 (Passeriformes, Fringillidae), (m & f) feathers, col. Cremers.

147 spiniger Giebel, 1871

148 sterninus Gaud, 1973

Diplaegidia Hull, 1934

149 columbae (Buchholz, 1869)
Dermaleichus columbae
Analges asteralis Mégnin in Robin & Mégnin, 1877
Dimorphus bifidos (Nitzsch, 1818)
Acarus bifidos Nitzsch, 1818

Meginnia Berlese, 1883

150 californica Mironov & Galloway 2002*

151 cubitalis (Mégnin, 1877)
Dermaleichus cubitalis
152 ginglymura (Mégnin, in Robin & Mégnin, 1877)
Analges ginglymura
Netherlands, 16.IX.1999, from Syrmaticus reevesii
(Gray, 1829) (Galliformes, Phasianidae), (m & f) feathers, 14.III.1965, from Phasianus colchicus
Linnaeus, 1758 (Galliformes, Phasianidae), (m) feathers; Amsterdam (Artis Zoo), 14.IX.2001, from Lophophorus impejanus
(Latham, 1790) (Galliformes, Phasianidae), (m & f) feathers; Amsterdam (Artis Zoo), 14.IX.2001, from Lophura edwardsi
(Oustalet, 1896), (m & f) feathers, col. Naturalis; Rijswijk (Gld.), 1.I.1998, Bosschenhoofd, 11.XI.2008, from poultry (m & f); Harkema, 5.XII.2007, from Lophura edwardsi
(Oustalet, 1896), (m & f) feathers, col. Cremers.

153 glandarii (Buchholz, 1869)
Dermaleichus glandarii
Ouddorp, 16.IV.1964, from Garrulus glandarius
(Linnaeus, 1758) (Passeriformes, Corvidae), (adults) feathers, col. Naturalis.

154 gallinulae (Buchholz, 1870)
Dermaleichus gallinulae
Dimorphus gallinulae
Loenersloot, 4.V.1961, from Gallinula chloropus

155 sp.*
Odijk, 1.VII.1994, from Serinus canaria

156 totani (Canestrini, 1878)*
Dermaleichus totani
Amsterdam (Artis Zoo), 17.VII.2001, from Tringa totanus
(Linnaeus, 1758) (Charadriiformes, Scolopacidae), (f) feathers, col. Cremers.

157 polymorphus Trouessart, 1885*
Rhenen (Zoo), 1.VIII.2013, from Marmaronetta angustirostris
(Ménétries, 1832) (Anseriformes, Anatidae), (m & f) feathers, col. Cremers.

158 bisulcata Mironov, 1994
Leeuwarden, 3.I.2012, from Haematopus ostralegus
Linnaeus, 1758 (Charadriiformes, Haematopidae), (f) feathers, col. Cremers.

159 ibidis (Trouessart, 1885)*
Megninia ibidis
Linnaeus, 1758 (Pelecaniformes, Threskiornithidae), (m & f) feathers, col. Naturalis, col. Cremers.

160 sternae (Canestrini & Fanzago, 1876)
Dermaleichus sternae
Pteronyssus sternae
Giebelia sternae
Netherlands, from Sterna hirundo
Linnaeus, 1758 (Charadriiformes, Laridae) (Oudemans 1897).

161 larica Mironov, 1989
Zwolle, 2.XI.2015, from Larus ridibundus
Linnaeus, 1766 (Charadriiformes, Laridae), (m & f) feathers; Alblaserdam, 3.XII.2015, from Larus argentatus
Pontopiddan, 1763 (Charadriiformes, Laridae), (m & f) feathers, col. Cremers.
Family CYTODITIDAE

Cytodites Mégnin, 1877

Kyttodites

162 nudus (Vizioli, 1870)

Sarcoptes nudus


Family DERMATIONIDAE

Dermation Trouessart & Neumann, 1888

163 gallinulae Lukoschus, Fain & Driessen, 1969


Neodermation Fain, 1965

164 anatum Fain, 1965

Netherlands, from Mergus merganser Linnaeus, 1758 and Mergus albellus (Linnaeus, 1758) (Anseriformes, Anatidae) (Fain 1965).

Passeroptes Fain, 1964

165 latior (Canestrini, 1894)

Rivoltasia latior


166 oenanthe Fain & Bochkov, 2003


Rivoltasia Canestrini, 1894

167 bifurcata (Rivolta, 1876)

Epidermoptes bifurcata

Rotterdam, col. Naturalis in Oudemans collection (Buitendijk 1945).

Family DERMOPYGIDAE

Dermoglyphus Mégnin in Robin & Mégnin, 1877

168 passerinus Gaud, 1973*


Family EPIDERMOPTIDAE (incl. Knemidocoptidae)

Apocnemidocoptes Lombert, Lukoschus & Fain, 1984

169 tragicola Lombert, Lukoschus & Fain, 1984


Epidermoptes Rivolta, 1876

Symbiotes Caparini, 1880

170 bilobatus Rivolta, 1876

Symbiotes avium Caparini, 1880

Dermatophagus gallinarum Fiedberger, 1881


Knemidokoptes Furstenberg, 1870

171 jamaicensis Turk, 1950


172 mutans (Robin & Lanquetin, 1859)

Sarcoptes mutans

Amsterdam, Eerbeek, col. Naturalis in Oudemans collection (Buitendijk 1945); Spijkenisse, 14.IX.2004; Rhenen (Zoo), 30.VI.2015, from poultry, (f) legs (mange), col. Cremers.

173 pilae Lavoipierre & Griffiths, 1951*

Rotterdam (Zoo), 17.XI.1952, from Ara spec. (Psittaciformes, Psittacidae), (f) head (mange), col. Naturalis, col. Cremers; unknown location, 19.XII.1999, from Ara chloroptera (Psittaciformes, Psittacidae), (f) head (mange), col. Cremers; Netherlands, from Psittacula krameri (Scopoli,
1769) and Meloppiatus undulatus (Shaw, 1805) (Psittaciformes, Psittacidae) (Jansen 1956, 1957).

**Microlichus Trouessart & Neumann, 1888**

174 americanus Fain, 1964*

Netherlands, unknown location, 1.XII.1934, from *Sturnella defilippi* (Bonaparte, 1851) (Passeriformes, Icteridae), (imported) adults skin (mange), col. Naturalis., col. Cremers.

175 avus (Trouessart, 1887)

*Symbiotes avus*

De Bilt, 4.IV.1966, from *Chloris chloris* (Linnaeus, 1758) (Passeriformes, Fringillidae), (f) skin, col. Naturalis.

**Neocnemidocoptes Fain, 1966**

176 laevis (Railliet, 1885)

*Sarcoptes laevis*


**Rallepidermoptes Fain, 1965**

177 ralicola Fain & Bochkov, 2003


**Family LAMINOSIOPTIDAE**

**Laminosiopites Mégnin, 1880**

178 cysticola (Vizioli, 1870)

*Sarcoptes cysticola*


**Family PROCTOPHYLLODIDAE**

**Joubertophyllodes Atyeo & Gaud, 1971**

179 modularis (Berlese, 1895)

*Alloptes modularis*

Joubertia aphyllus Dubinin, 1936


**Megalodectes Park & Atyeo, 1971**

180 major (Trouessart, 1885)*

*Pterodectes major*

Noord-Holland, undated, col. Naturalis in Oudemans collection (Buitendijk 1945) only known from *Menura novaehollandiae* (Passeriformes, Menuridae), so probably from Artis Zoo.

**Monojoubertia Radford, 1950**

181 microphylla (Mégnin in Robin & Mégnin, 1877)

*Proctophyllodes microphylla*

*Alloptes palmatus* Canestrini, 1887


**Montesauria Oudemans, 1905**

182 cylindrica (Robin, 1968)

*Pterodectes cylindrica*

*Pterodectes corvincola* Oudemans, 1905

Unknown location (sub *P. corvincola*), col. Naturalis in Oudemans collection (Buitendijk 1945); Houten, 23.VI.2010; Bodegraven, 8.V.2011, from *Pica pica* Linnaeus, 1758 (Passeriformes, Corvidae), (m & f) feathers, col. Cremers.

**Proctophyllodes Mégnin in Robin & Mégnin, 1877**

183 caulifer Trouessart, 1886

Nijkerk, 13.X.1965, from *Luscinia svecica* (Linnaeus, 1758) (Passeriformes, Muscicapidae),
184 deltunatus Oudemans, 1905
Proctophylloides separatifolius Oudemans, 1905
Arnhem (sub P. separatifolius), col. Naturalis in Oudemans collection (Buitendijk 1945).
185 glandarinus (Koch, 1941)
Dermaleichus glandarinus
Proctophylloides arcuaticaulis Poppe, 1889
Proctophylloides mirus Cerny, 1961
Noord-Holland, 14.i.1967, from Fringilla montifringilla Linnaeus, 1758 (Passeriformes, Fringillidae),
(f) feathers, col. Naturalis; Utrecht, 7.xi.2008, from Garrulus glandarius Linnaeus, 1758 (Passeriformes, Corvidae),
(m & f) feathers, col. Cremers.
186 hippocideros Gaud, 1953
Nijkerk, 15.ix.1965, from Oenanthe oenanthe (Linnaeus, 1758) (Passeriformes, Muscicapidae),
(m) feathers; Nijkerk, 11.ix.1965, from Saxicola rubetra Linnaeus, 1758 (Passeriformes, Muscicapidae),
(f) feathers, col. Naturalis.
187 musicus Vitzthum, 1922
De Bilt, 3.vi.1964, from Turdus merula Linnaeus, 1758 (Passeriformes, Turdidae),
(m & f) feathers, col. Cremers.
188 picae (Koch, 1840)
Dermaleichus picae
Proctophylloides aquaticus Vitzthum, 1922
Utrecht (de Uithof), 26.xi.1976, from Pica pica Linnaeus, 1758 (Passeriformes, Corvidae),
189 pinnatus (Nitzsch, 1818)
Analges pinnatus
Proctophylloides profusi Robin, 1868
Zeist, vii.1977, from Serinus canaria (Linnaeus, 1758) (Passeriformes, Fringillidae), (m & f) feathers;
Netherlands, xii.1980, feathers and 28.iv.1998, (m & f) feathers tail and 11.ix.1966,
from Chloris chloris (Linnaeus, 1758) (Passeriformes, Fringillidae), (f) feathers, col. Naturalis;
Odijk, 12.ix.2001; Rhoden, 26.x.2001, from Serinus canaria (Linnaeus, 1758) (Passeriformes, Fringillidae),
(m & f) feathers; Sint-Maartensdijk, 14.vii.2015; Son en Breugel, 23.vii.2015, from
Chloris chloris (Linnaeus, 1758) (Passeriformes, Fringillidae), (m & f) feathers, col. Cremers.
190 reguli Gaud, 1957
Noord-Holland, 20.x.1965, from Regulus ignicapillus (Temminck, 1820) (Passeriformes, Regulidae), (m)
feathers, col. Naturalis.
191 robustipennis Cerny, 1961
Proctophylloides clavatus Fritsch, 1961
Nijkerk, 11.ix.1965, from Acrocephalus paludicola (Vieillot, 1817) (Passeriformes, Acrocephalidae),
feathers, col. Naturalis.
192 similimus Cerny, 1971
Warnsvedl, 11.vii.2015, from Pyrrhula pyrrhula Linnaeus, 1758 (Passeriformes, Fringillidae),
(f) feathers, col. Cremers.
193 stylifer (Buchholz, 1869)
Dermaleichus stylifer
Dermaleichus acredulinus Koch, 1841
Leersum, 11.vii.1965, from Parus major Linnaeus, 1758 (Passeriformes, Paridae), (m & f) feathers,

Pterodectes Mégnin in Robim & Mégnin, 1877
194 rutilus Mégnin in Robim & Mégnin, 1877
Dermaleichus acredulinus Canestrini, 1878
Pterodectes rhodesiensis Till, 1954
Nijkerk, 11.ix.1965, from Hirundo rustica Linnaeus, 1758 (Passeriformes, Hirundinidae), (m & f) feathers,
col. Cremers.

Family PSOROPTOIDIDAE

Mesalgoides Gaud & Atyeo, 1967
195 diaphanoxus (Bonnet, 1924)
Mesalgoides diaphanoxus
Arnhem, 18.ii.1965, from Corvus frugilegus Linnaeus, 1758 (Passeriformes, Corvidae), (m & f)
legs; Rotterdam (Zoo), 13.x.2010, from Corvus corone Linnaeus, 1758 (Passeriformes, Corvidae),
(m & f) feathers, col. Cremers.
196 oscinum (Koch, 1840)
Dermaleichus oscinum
Analges oscinum
Utrecht, col. Naturalis in Oudemans collection (Buitendijk 1945); Sint-Maartensdijk, 14.vii.2015, from
Chloris chloris (Linnaeus, 1758) (Passeriformes, Fringillidae), (m & f) feathers, col. Cremers.
197 picimajoris (Buchholz, 1870)
Dermaleichus picimajoris
Dimorphus pici majoris
Arnhem, Loenen Gld., col. Naturalis in Oudemans collection sub Dimorphus pici majoris (Buitendijk 1945); 21.VI.1985, from Dendrocopos major (Linnaeus, 1758) (Piciformes, Picidae), (m & f) feathers; Lelystad, 25.VII.1996; Mijdrecht, 8.VII.2014, from Dendrocopos major (Linnaeus, 1758) (Piciformes, Picidae), (m & f) feathers, col. Cremers.

198 pyrrhulinus Mironov, 1997
Warnsveld, 11.VII.2015, from Pyrrhula pyrrhula (Linnaeus, 1758) (Passeriformes, Fringillidae), (m & f) feathers, col. Cremers.

Pandalura Hull, 1934
199 strigosoti (Buchholz, 1869)
Arnhem, 24.III.2013, from Strix aluco Linnaeus, 1758 (Strigiformes, Strigidae), (m) feathers; Lopik, 4.III.2014, from Strix nebulosa J.R. Forster, 1772 (Strigiformes, Strigidae), (m) feathers; Houten, 18.VIII.2015, from Asio otus (Linnaeus, 1758) (Strigiformes, Strigidae), (m & f) feathers; ’s Hertogenbosch, 11.XII.2016, from Asio flammeus (Ponteppidan, 1763) (Strigiformes, Strigidae), (m & f) feathers, col. Cremers.

Family PTERONYSSIDAE

Pteronyssoides Hull, 1934
200 pari (Linnaeus, 1758)
Acarus pari
Utrecht, col. Naturalis in Oudemans collection (Buitendijk 1945).

201 parinus (Koch, 1840)
Dermaleichus parinus
From Parus coeruleus (Sneek), Carduelis flammea (Utrecht) and Carduelis spinus (Utrecht) (Oudemans 1897).

202 striatus (Mégnin in Robin & Mégnin, 1877)
Son en Breugel 18.VIII.2015, from Fringilla coelebs Linnaeus, 1758 (Passeriformes, Fringillidae), (m & f) feathers, col. Cremers.

Pteronyssus Mégnin in Robin & Mégnin, 1877
203 brevipes Berlese, 1884
Lelystad, 25.VII.1996; Mijdrecht, 5.VII.2014, from Dendrocopos major (Linnaeus, 1758) (Piciformes, Picidae), (m & f) feathers, col. Cremers.

Scutulanysus Mironov, 1985
204 obscurus (Berlese, 1884)
Pteronyssus obscurus
Pteronyssoides atticora Cerny, 1975
Pteronyssoides besselingi (Oudemans, 1925)
Pteronyssoides bifurcatus (Hall, 1912)
Trouessartia obscurus (Berlese, 1884)
Amsterdam and Arnhem, col. Naturalis in Oudemans collection (sub Pteronyssus besselingi) (Buitendijk 1945); Nijkerk, 1.IX.1965, from Hirundo rustica Linnaeus, 1758 (Passeriformes, Hirundinidae), (m & f) feathers, col. Cremers.

Sturnotrogus Mironov, 1989
205 subtruncatus (Trouessart, 1885)*
Pteronyssus subtruncatus
Pteronyssoides subtruncatus
Netherlands, unknown location, undated, from Gracula religiosa Linnaeus, 1758 (Passeriformes, Sturnidae) (Mironov & Wauthy 2010).

206 truncatus (Trouessart, 1885)
Pteronyssus truncatus
Utrecht, from Sturnus vulgaris Linnaeus, 1758 (Passeriformes, Sturnidae) (Oudemans 1897); Lelystad (Oostvaardersplassen), 21.VIII.2015, from Sturnus vulgaris Linnaeus, 1758 (Passeriformes, Sturnidae), (m & f) feathers, col. Cremers.

Family TROUESSARTIDAE

Trouessartia Canestrini & Kramer, 1899
207 corvina (Koch, 1941)
Dermaleichus corvus
Pterocolus corvinus
208 microcaudata Mironov, 1983
Netherlands, unknown location, 23.VI.1964, from Hirundo rustica (Linnaeus, 1758) (Passeriformes, Hirundinidae), (m & f) feathers neck, col. Naturalis.

209 rosterii (Berlese, 1886)
Pteronyssus rosterii

210 accipitrina (Trouessart, 1885)
Protalges accipitrinus
Dubininia Vassilev, 1958
Bunnik, 18.I.1979, from Falco tinnunculus Linnaeus, 1758 (Falconiformes, Falconidae), (m & f) feathers, col. Cremers.

211 melopsittaci Atyeo & Gaud, 1987*

Family xolalgidae

Dubininia Vassilev, 1958

210 accipitrina (Trouessart, 1885)
Protalges accipitrinus
Dubininia dobravelikovi Vassilev, 1958
Bunnik, 21.III.1965, from Sturnus vulgaris Linnaeus, 1758 (Passeriformes, Sturnidae), (m & f) feathers, col. Cremers.

211 melopsittaci Atyeo & Gaud, 1987*

212 attenuatus (Buchholz, 1869)
Protalges attenuatus

213 tytonis Dabert, Ehrnsberger & Dabert, 2008

214 forcipata (Haller, 1882)
Dimorphus forcipata
Rotterdam, col. Naturalis in Oudemans collection (Buitendijk 1945).

215 velata (Mégnin in Robin & Mégnin, 1877)
Leptosphyra velata Mégnin in Robin & Mégnin, 1877

216 discigera Gaud, 1973
Netherlands (Gaud 1973).

217 centropoda (Mégnin in Robin & Mégnin, 1877)
Leptosphyra centropoda Mégnin in Robin & Mégnin, 1877

218 stellaris (Buchholz, 1869)
Varchia stellaris
Dermaleichus stellaris
Pteralloptes gambettei Oudemans, 1904
Protalges stellaris
Hartingia stellaris
Utrecht, col. Naturalis in Oudemans collection (Buitendijk 1945).
Superfamily PYROGLYPHOIDEA  
Family PYROGLYPHIDAE

Dermatophagoides Bogdanov, 1864  
  *Mealia* Trouessart, 1897  
  *Pachylichus* Canestrini, 1894  
  *Viseroptes* Sasa, 1948  
  *Paragaloides* Gaud & Mouchet, 1959  
  *Hullia* Gaud, 1968

219 farinae Hughes, 1961  
  *Viscroptes* takeuchii Sasa, 1948  
  *Dermatophagoides* takeuchii (Sasa, 1948)  
  *Dermatophagoides* culinae De Leon, 1963  

220 pteronyssinus (Trouessart, 1897)  
  *Mealia* pteronyssina  
  *Paragaloides* pteronyssoides Trouessart, 1886  
  *Mealia* toxopei Oudemans, 1928  
  *Viscroptes* satoi Sasa, 1947  
  Amsterdam, col. Naturalis in Oudemans collection (Buitendijk 1945); Wageningen, 19.ix.2011: potato peels, NVWA; Utrecht, 12.iv.1978, in dust-sample from dog (m); Utrecht, 4.xii.1980, in dust-sample from housecat (m); Utrecht, 23.vii.1993, in dust-sample from bed (f), col. Cremers.

Euroglyphus Fain, 1965  
221 longior (Trouessart, 1897)  
  *Mealia* longior  
  *Dermatophagoides* longior  
  *Dermatophagoides* dalarnaensis Sellnick, 1958  

222 magnei (Cooreman, 1950)  
  *Mealia* magnei  
  *Dermatophagoides* magnei  
  Leiden, ix.1964, many specimens in various residential houses (Fain 1965).

Superfamily SARCOPTOIDEA  
Family ATOPOMELIDAE

Chirodiscoides Hirst, 1917  
223 caviae Hirst, 1917  

Cytosterthum Domrow, 1956  
224 wallabia Fain & Domrow, 1975*  

Family CHIRODISCIDAE

Alabidocarpus Ewing, 1929  
225 intercalatus Fain, 1971  
  Netherlands, unknown location from *Myotis myotis* (Borkhausen, 1797) (Chiroptera, Vespertilionidae) (Fain 1981a).

Olabidocarpus Lawrence, 1948  
226 belsorum (Van Eyndhoven, 1940)  
  *Labidocarpus* belsorum (Van Eyndhoven, 1940)  
  *Labidocarpus* cristatus Lawrence, 1953  
  Netherlands, unknown location from *Myotis myotis* (Borkhausen, 1797) (Chiroptera, Vespertilionidae) (Fain 1982, Van Eyndhoven 1940), col. Naturalis.

Family GASTRONYSSIDAE

Yunkeracarus Fain, 1957  
227 faini Hyland & Clark, 1959  
Family Listrophoridae

Afrolistrophorus Fain, 1970
228 apodemi Fain, 1970

Leporacarus Fain, 1970
229 brevicaudatus (Ulrich, 1938)
Listrophorus brevicaudatus

Listrophorus Pagenstecher, 1861
230 gibbus (Pagenstecher, 1861)
Listrophorus gibbus

Listrophorus Pagenstecher, 1861
231 americanus Radford, 1944

232 brevipes Dubinina, 1968

233 leuckarti Pagenstecher, 1861
Haarlem, Arnhem, Gramsbergen, col. Naturalis in Oudemans collection (Buitendijk 1945).

Family Myocoptidae

Criniscansor Poppe, 1889
236 apodemi Fain, Munting & Lukoschus, 1970

237 criceti Poppe, 1889

Glicericeps Lawrence, 1956
238 eliomys Kok, Lukoschus & Fain, 1971
Myocoptes Claparède, 1868

239 japonensis Radford, 1955

Myocoptes jamesoni Radford, 1955
Myocoptes glareoli Samsinak, 1957

240 masculinus (Koch, 1836)

Sarcopes masculinus
Listophorus larisi Voroboiv, 1938

241 squamosus Fain, Munting & Lukoschus, 1970

Sciurocoptes Fain, Munting & Lukoschus, 1970

242 sciurinus (Henneman, 1910)

Myocoptes sciurinus
Myocoptes hintoni Hirst, 1919

Trichoecius Canestrini, 1889

243 apodemi Fain, Munting & Lukoschus, 1970

244 micromys Fain, Munting & Lukoschus, 1970

245 muris Fain, Munting & Lukoschus, 1970

246 romboutsii (Van Eyndhoven, 1946)

Myocoptes romboutsii

247 tenax (Michael, 1889)

Myocoptes tenax
Myocoptes brevipes Trouessart & Canestrini, 1895
Trichobius brevipes Canestrini, 1897
Trichoecius brevipes Canestrini, 1899
Neomyocoptes tenax Lawrence, 1936

Family Psoroptidae

Caparinia Canestrini, 1894

248 tripilis (Michael, 1889)

Symbiotes tripilis
Rotterdam, 12.iii.2007, from Erinaceus europaeus Linnaeus, 1758 (Erinaceomorpha, Erinaceidae), (m & f) skin, col. Naturalis, col. Cremers;
Netherlands, unknown location, 17.VII.1983; Nijmegen, 15.VI.2007, from Erinaceus europaeus Linnaeus, 1758 (Erinaceomorpha, Erinaceidae), (m & f) skin, col. Cremers.

**Chorioptes Gervais & Beneden, 1859**

**249 bovis** (Hering, 1845)

*Chorioptes bovis*

Chorioptes ovis Railliet, 1893

Chorioptes symbiotes Verheyen, 1862

Symbiotes bovis Gerlach, 1877

Utrecht, 7.VI.1949, from Bos taurus Linnaeus, 1758 (Artiodactyla, Bovidae), (nymph) skin (mange), 13.VIII.1981 (m & f) udder (mange); Rin Arnhem, 10.VIII.1981, from Capra aegagrus hircus (Linnaeus, 1758) (Artiodactyla, Bovidae), (m & f) legs (pastern); Westbroek, 17.III.1980, from Ovis aries Linnaeus, 1758 (Artiodactyla, Bovidae), (f) skin (mange); Utrecht, 10.VIII.1981, from Camelus bactrianus Linnaeus, 1758 (Artiodactyla, Camelidae), (m & f) legs (pastern); Best, 19.IV.1983, from Vicugna pacos Linnaeus, 1758 (Artiodactyla, Camelidae), (m & f) legs (pastern); Overloon (Zoo), 12.V.2006, from Rangifer tarandus (Linnaeus, 1758) (Artiodactyla, Cervidae), (m & f) skin (mange), col. Naturalis; Utrecht, 25.XI.1980, from Equus caballus Linnaeus, 1758 (Perissodactyla, Equidae), (m & f) legs (pastern); Utrecht, 24.III.1980, from Ovis aries Linnaeus, 1758 (Artiodactyla, Bovidae), (m & f) legs (pastern); Utrecht, 22.I.1976, from Capra aegagrus hircus (Linnaeus, 1758) (Artiodactyla, Bovidae), (m & f) legs (pastern); Utrecht (circus), 22.I.1981, from Camelus bactrianus Linnaeus, 1758 (Artiodactyla, Camelidae), (m & f) legs (pastern); Wassenaar (Zoo), 25.VIII.1981; unknown location, 10.III.2011, from Vicugna pacos (Linnaeus, 1758) (Artiodactyla, Camelidae), (m & f) legs (pastern); Heemskerck, 18.III.1983, from Lama glama Linnaeus, 1758 (Artiodactyla, Camelidae), (m & f) legs (pastern), col. Cremers.

**Fonsecalges Fain, 1962**

**250 saimiri Fain, 1963**


**Otodectes Canestrini, 1894**

**251 cynotis** (Hering, 1838)

*Sarcoptes cynotis*

Chorioptes ecuadatus Megnin, 1896

*Sarcoptes auricularium* Lucas & Nicolet, 1849

*Symbiotes auricularium* Neumann, 1892

*Symbiotes canis* Bendz, 1899

*Symbiotes felis* Huber, 1860

Leersum, 5.VII.1983, from Mustela putorius furo Linnaeus, 1758 (Carnivora, Mustelidae), (m & f) ears; Amersfoort (knij), 13.II.2007, from Vulpes vulpes (Linnaeus, 1758) (Carnivora, Canidae), (m & f) ears, col. Naturalis, col. Cremers; Vroomshoop, from Canis lupus familiaris Linnaeus, 1758 (Carnivora, Canidae), (m & f) ears; Rotterdam (Zoo), 13.X.2010, from Alopex lagopus Linnaeus, 1758 (Carnivora, Canidae), (m & f) ears; Rotterdam (Zoo), 23.XI.2012 from Pudu pudu (Molina, 1782) (Artiodactyla, Cervidae), (m & f) ears, col. Cremers.

**Psoroptes Gervais, 1841**

**252 equi** (Hering, 1838)

*Sarcoptes equi*

Dermatodes bovis Gerlach, 1857

Dermatophylius cuniculi Zürn, 1872

Psoroptes caprae Railliet, 1893

Psoroptes cervinus Ward, 1915

Dermatodes cuniculi Delafond, 1899

Psoroptes cuniculi (Delafond, 1899)

Psoroptes hippotis Railliet & Henry, 1920

Sarcoptes ovis Hering, 1838

Psoroptes ovis (Hering, 1838)

Sarcoptes communis var. ovis Hering, 1838

Psoroptes natalensis Hirst, 1919

Utrecht, 14.II.1914, from Equus ferus caballus Linnaeus, 1758 (Perissodactyla, Equidae), (m & f) ears; Vroomshoop, 7.V.1983, from P. cynotis (m) from Oryctolagus cuniculus dom. (Linnaeus, 1758) (Lagomorpha, Leporidae) (ears) and sub P. ovis, x.1965, from Ovis aries Linnaeus, 1758 (Artiodactyla, Bovidae), (ski) col. Naturalis; Utrecht, 23.XII.1995, sub P. ovis from Ovis aries Linnaeus, 1758 (Artiodactyla, Bovidae) (ski); Utrecht, v.1983 sub P. cuniculi from Capra aegagrus hircus (Linnaeus, 1758) (Artiodactyla, Bovidae), (m & f) ears, col. Cremers.
Family SARCOPTIDAE

Lophuromyopus Fain, 1965
253 apodemi Fain, 1965
Nijmegen, from *Apodemus sylvaticus* (Linnaeus, 1758) (Rodentia, Muridae) (Fain 1967b), col. Naturalis.

Notoedres Railliet, 1893
254 cati (Hering, 1838)
*Sarcoptes cati*

255 centrifera Jansen, 1963
Zoo, 20.x.1988, from *Tamias striatus* (Linnaeus, 1758) (Rodentia, Sciuridae), (m & f) skin (mange), col. Naturalis, col. Cremers (type specimens have been lost).

256 chiropteralis (Trouessart, 1896)
*Sarcoptes chiropteralis*
*Notoedres vanschaiki* Van Eyndhoven, 1946; Arnhem, col. Naturalis in Oudemans collection (Buitendijk 1945); Gulpen, 14.VI.1941, from *Eptesicus serotinus* (Schreber, 1774) (Chiroptera, Vespertilionidae) (Van Eyndhoven 1946); Warmond, 9.VIII.1953, from *Nyctalus noctula* Schreber, 1774 (Chiroptera, Vespertilionidae) (Fain & Lukoschus 1969), col. Naturalis.

257 muris (Mégnin, 1877)
*Sarcoptes muris*

258 musculi (Kraemer, 1865)
*Sarcoptes musculi*
*Notoedris musculi* Oudemans, 1926
Arnhem, Sneek, col. Naturalis in Oudemans collection (Buitendijk 1945).

Nycteridocoptes Oudemans, 1898
259 poppei Oudemans, 1898

Sarcoptes Lateille, 1802
260 scabiei (Linnaeus, 1758)
*Acarus scabiei*
*Acarus siro* var. *scabiei* Linnaeus, 1758
*Sarcoptes hominis* Raspail, 1834
*Sarcoptes wombatii* Railliet, 1893
*Sarcoptes equi* Rainbow, 1906
*Acarus bubulus* Oudemans, 1926
*Sarcoptes suis* Seddon, 1952
Utrecht (Vet. Facul.), 16.VII.1951 and 21.I.1953, from *Sus scrofa* dom. Erxleben, 1777 (Artiodactylidae, Suinae), (f) ear; 22.XII.1985, from *Canis lupus familiaris* Linnaeus, 1758 (Carnivora, Canidae), (m) dust sample; Utrecht, 8.VII.1949, from *Lama glama* (Linnaeus, 1758) (Artiodactyla, Camelidae), (m) skin (mange); Rotterdam (Zoo), x.1951, from *Tapirus spec.* (Perissodactyla, Tapiridae), (m & larvae) skin (mange); 7.VII.1977, from *Hydrochoerus hydrochaeris* (Linnaeus, 1766) (Rodentia, Caviidae), (Zoo), (m & f) skin (mange), col. Naturalis, col. Cremers; Amsterdam, 7.II.2005, from *Canis lupus familiaris* Linnaeus, 1758 (Carnivora, Canidae), (f); Utrecht, x.2013, from *Lama glama* (Linnaeus, 1758) (Artiodactyla, Camelidae), (f) skin; unknown location from *Vicugna pacos* (Linnaeus, 1758) (Artiodactyla, Camelidae), skin (in histol. slide); Ghent, 4.II.2014, from *Vulpes vulpes* (Linnaeus, 1758) (Carnivora, Canidae), (m & f) skin; Zalgau (Care Foundation Aap), 24.I.2007, from *Nyctereutes procyonoides* (Gray, 1834), (f) skin; Utrecht, 22.X.2015, from human (f) skin wrist, col. Cremers.

Satanicoptes Fain & Lawrence, 1975
261 armatus Fain & Lawrence, 1975
Amsterdam (Artis Zoo), 1.XII.1981, from *Sarcoptes harrisii* (Boitard, 1841) (Dasyuroomorpha, Dasyuridae), (m & f) skin (mange) col. Naturalis, col. Cremers.

Trixacarus Sellnick, 1944
262 caviae Fain, Howell & Hyatt, 1972
Netherlands, unknown location, from *Cavia porcellus* (Linnaeus, 1758) (Rodentia, Caviidae) (Dorrestein & Van Bronswijk 1979); Driebruggen, from *Cavia porcellus* (Linnaeus, 1758) (Rodentia, Caviidae), (f) skin, col. Cremers.
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LITERATURE


Scheucher, R. 1957. Systematik und Ökologie der deutschen Anoetinen. – Beiträge der Systematik und Ökologie der Mitteleuropäischen Acarina 1, Abschnitt 2: 233-384.


SAMENVATTING

Voorlopige naamlijst van de astigmate mijten van Nederland (Acari: Oribatida: Astigmatina)

Astigmate mijten vormen waarschijnlijk het meest soortenrijke mijtencohort. Momenteel worden de Astigmatina gezien als een cohort binnen de onderorde van de mosmijten (Oribatida), maar hun overlevingsstrategieën zijn veel meer divers dan die van de overige oribatiden. Astigmate mijten worden gevonden van algen aan de kust, slibsel in waterleidingen, bloeiende planten, tot in opgeslagen voedingsproducten en huisstof. Een groot aantal soorten leeft met of op insecten, zoogdieren en vogels. Daar leven ze in de vacht, de veren, de huid (schurft) en zelfs in longen en in de maag. Dit is de eerste checklist voor Nederland en bevat 262 soorten, maar er zijn er veel meer te verwachten.

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In de Nederlandse Faunistische Mededelingen worden artikelen en korte mededelingen over ongewervelde dieren in Nederland gepubliceerd. Het tijdschrift is het publicatiemedium voor de werkgroepleden van het Kenniscentrum Insecten en andere ongewervelden. Het doel van het tijdschrift is het leveren van een bijdrage aan de kennis van de Nederlandse biodiversiteit.

De volgende onderwerpen komen in aanmerking voor opname: faunistiek en ecologie van een soort of soortgroep, naamlijsten, korte monografieën, determinatietabellen etc. Naast korte stukken kunnen ook grotere artikelen (eventueel als extra nummer) worden gepubliceerd. Ook kan een geografische ingang gekozen worden (bespreking van de fauna van een gebied), mits de gegevens in een landelijke context worden geplaatst. De voorkeur gaat uit naar rijk geïllustreerde artikelen waarin verschillende aspecten naar voren komen: bijvoorbeeld verspreiding, biologie, ecologie en/of bescherming. Het gepresenteerde moet nieuwe gegevens bevat ten, of op een nieuwe manier gebundeld zijn. In de rubriek ‘Waarnemingen en Mededelingen’ is ook plaats voor overzichten van elders gepubliceerde gegevens.

Manuscripten worden digitaal aangeleverd, bij voorkeur in Word. De teksten dienen met zo min mogelijk opmaak aangeleverd te worden. Gebruik één lettertype in één lettergrootte; laat de tekst links uitlijnen, zonder afbreken, inspringen, centreren, etc.; gebruik zeker geen automatisch genummerde lijsten, noten e.d. Wetenschappelijke soort- en genusnamen dienen gecursiveerd te worden. Speciale tekens voor mannetjes en vrouwtjes kunnen weergegeven worden als respectievelijk $ en #.

Diagrammen, tabellen en digitale figuren worden achteraan het document geplaatst. Tabellen dienen zonder opmaak aangeleverd te worden, de kolommen slechts gescheiden door één tab (zeker geen spaties gebruiken!). Illustraties bij voorkeur digitaal aanleveren, in tiff- of jpg-formaat met een hoge resolutie.


Bij de melding van nieuwe soorten voor de Nederlandse fauna bevelen we aan:
- dit goed te documenteren met foto’s en, bij voorkeur, collectiemateriaal,
- om bewijsexemplaren veilig op te slaan in de landelijke collectie van Naturalis,
- om een Nederlands exemplaar af te beelden in het artikel, hetzij een veld- of studiofoto of een foto van het dode verzamelde exemplaar.

Referenties zijn conform de volgende voorbeelden opgebouwd. Let op het ontbreken van de komma tussen auteur en jaartal en de volledig uitgeschreven naam van het tijdschrift.


