

NOTES ON DUTCH PTILIIDAE (COLEOPTERA)

Oscar Vorst

Feather-wing beetles are among the smallest of Dutch beetles, their body size ranging between 0.55 and 1.2 mm. This is probably why they are neglected by most coleopterists. Hence, the Dutch fauna is still insufficiently known. Here the results of several years of active collecting, and a critical revision of a part of the available collection material are presented. Some species had to be removed from the Dutch faunal list, and many new species to the fauna were discovered. Since the publication of the last checklist in 1966 the number of Dutch species has almost doubled, from 38 to 61.

INTRODUCTION

The most recent catalogue of the Dutch Coleoptera by Brakman (1966) mentions 38 species of feather-wing beetles as native. Since then a considerable number of species has been added to the faunal list: *Acrotrichis pumila* (Erichson, 1845), *A. cognata* (Matthews, 1877), *A. insularis* (Mäklin, 1852), *A. sitkaensis* (Motschulsky, 1845) and *A. henrici* (Matthews, 1872) by Jansen & Van Heijnsbergen (1986), *Acrotrichis silvatica* Rosskothén, 1935 by Vorst & Cuppen (1996), *Ptinella errabunda* Johnson, 1975 by Vorst (1993), *Euryptilium saxonicum* (Gillmeister, 1845), *Ptiliolum schwarzi* (Flach, 1887) and *Baeocrana variolosa* (Mulsant & Rey, 1861) by Vorst & Huijbregts (2001). Volume three of 'Die Käfer Mitteleuropas' mentions the occurrence in the Netherlands of three more species, without giving precise data: *Ptilium affine* Erichson, 1845 and *Ptinella britannica* Matthews, 1858 by Besuchet (1971), and *Acrotrichis rugulosa* Rosskothén, 1935 by Sundt (1971) in his treatment of the genus *Acrotrichis*. Precise locality data of the former two are given by Besuchet (1976). On which record the mention of *A. rugulosa* for the Dutch fauna is based remains obscure. Recently two species were removed from synonymy based on Dutch material: *Acrotrichis nana* Strand, 1946 (Vorst & Sörensson 2005) and *Ptiliola flammifera*

(Młynarski, 1985) (Vorst 2007). The latter publication also adds *P. brevicollis* (Matthews, 1860) to the fauna. Three species of *Ptenidium* given by Brakman (1966), *P. brisoutii* Matthews, 1872, *P. corpulentum* Lucas and *P. evanescens* (Marsham, 1802), are no longer considered valid species (Besuchet 1971, 1976, Vorst & Huijbregts 2001).

In the present paper twelve more species are added to the Dutch fauna: *Ptenidium reitteri*, *Oligella intermedia*, *Ptilium timidum*, *P. horioni*, *P. modestum*, *Ptiliolum wuesthoffi*, *Microptilium palustre*, *Ptinella denticollis*, *Acrotrichis lucidula*, *A. parva*, *A. rosskotheni* and *A. sanctaehelenae*. To be removed from the Dutch list are: *Ptilium caesum* and *Ptinella tenella*. Taken together these changes bring the total number of Dutch ptiliids on 61.

The following collections were studied:
National Museum of Natural History Naturalis, Leiden, The Netherlands (RMNH)
Zoölogisch Museum Amsterdam, The Netherlands (ZMA)
O. Vorst, Utrecht, The Netherlands (cov)



Figure/Figuur 1-8. 1. *Ptenidium reitteri*, 15.vi.2002, Kampina, 2. *Oligella foveolata*, 15.ii.1998, Zeist, 3. *Ptilium modestum*, 8.xi.2002, Imbosch, 4. *Ptilium wuesthoffi*, 11.vi.2006, Westelbeers, 5. *Acrotrichis lucidula*, 26.v.2001, Weerribben, 6. *Acrotrichis parva*, 29.v.2005, Anderen, 7. *Acrotrichis rosскоtheni*, 15.vi.2001, Ter Apel, 8. *Acrotrichis sanctaebelenae*, 15.viii.2004, Dordrecht. All specimens from collection Vorst and all photo's by Oscar Vorst / Alle exemplaren bevinden zich in de collectie Vorst en alle foto's door Oscar Vorst.

Ptenidium longicorne Fuss, 1868

Limburg Eijsden, .vi., 12 ex., E. Everts (RMNH-Everts, ZMA); Eijsden, .vii.1907, 1 ♀, D.L. Uyttenboogaart (RMNH-Everts, under *P. evanescens*); Steijl, .xii., 4 ex., Br. Berchmans (RMNH-Everts).

This species was not well understood by Dutch coleopterists in the past. An earlier revision of the material under *P. longicorne* and its synonym *P. brisoutii* preserved in the Everts collection at

RMNH showed that the majority (91 ex.) of the specimens belonged to other species, mainly *P. pusillum* (Gyllenhal, 1808) (Vorst & Huijbregts 2001). Among the remaining material kept at RMNH and ZMA was only a single *P. longicorne*, the remainder being *P. pusillum* (97 ex.) and *P. nitidum* (Heer, 1841) (1 ex). The only two Dutch localities of *P. longicorne* are both situated in the province of Limburg. The presence in all other provinces mentioned in the catalogue of Brakman (1966): Overijssel, Gelderland, Utrecht, Noord-Holland and Zuid-Holland, proved to be



Figure 9. Reusel near Baarschot, locality of the riparian *Ptenidium reitteri*.

Figuur 9. De Reusel bij Baarschot, vindplaats van de oeverbewonende *Ptenidium reitteri*.

based on misidentified specimens. *Ptenidium longicorne* is a characteristic inhabitant of shores along rivers (Besuchet 1971). Although nothing is known about the precise conditions at the collecting sites, it seems probable that at both sites the species was occurring on the banks of the river Maas.

Ptenidium reitteri Flach, 1887

Noord-Brabant Baarschot, Reusel, II.VI.2006, 1♂, 2 ex., O. Vorst (cov); Kampina, Beerze, 15.VI.2002, 1♂, 6♀, 7 ex., O. Vorst (cov).
Limburg Nunhem, Leudal, 6.VI.1999, 2 ex., O. Vorst (cov).

Ptenidium reitteri (fig. 1) has recently been discovered at three different sites in the southern part of the country. In all cases it was collected by flushing the sandy shores of a brook running

through broad-leaved forest (fig. 9). *Ptenidium reitteri* is a typical inhabitant of shores along running water (pers. obs.).

Although *P. reitteri* probably has been overlooked in the past, a recent expansion of its range can not be excluded. The Dutch records are the most northwestern of this mainly southern European species (Johnson 2004). The closest localities are in Germany, where *P. reitteri* recently was discovered along the Alfbach near Cochem in the Eifel (Franzen 1995).

Ptenidium reitteri can be separated from *P. nitidum*, by its broader and more flattened pronotum, that carries well-defined lateral beads. Its upper surface possesses a characteristic leather-like microsculpture making its appearance a trifle less shiny than that of *P. nitidum* that has a more smooth surface (Besuchet 1971).

Oligella intermedia Besuchet, 1971 and
O. foveolata (Allibert, 1844)

Oligella intermedia

Gelderland Renkum, .vii.1924, 1 ex, D.L. Uyttenboogaart (RMNH-Everts, under *O. foveolata*).

Oligella foveolata

Groningen Ter Apel, 't Schot, 17.vi.2001, 1 ♂, O. Vorst (COV, Vorst & Cuppen 2002). Utrecht Utrecht, Uithof, 10.iii.1996, 1 ♀, 1 ex, O. Vorst (COV); Zeist, Molenbosch, 15.ii.1998, 1 ♀, 7 ex., O. Vorst (COV). Zuid-Holland Dordrecht, Jong Dordrecht, 15.viii.2004, 1 ex, O. Vorst (COV).

The only reputed specimen of *O. foveolata*, kept in the Everts collection (RMNH), appeared a misidentified example of *O. intermedia*, a species hitherto not known from the Netherlands. The identification was confirmed by M. Sörensson. The original publication of this record does not provide any details about the circumstances at the collecting site (Everts 1925a). Abroad *O. intermedia* has been found in a grass heap, in humus at the base of old trees and in soft, rotten heartwood from a pollarded willow (Besuchet 1976, Hyman & Parsons 1994, Lott 1997). Since its description from Switzerland in 1971 the species has been recorded from France, Great Britain, Germany and Sweden. The only German records are from the Niederelbegebiet and Schleswig-Holstein (Köhler & Klausnitzer 1998, Meybohm 1994). It seems very rare throughout its range.

Oligella foveolata (fig. 2), on the other hand, has been collected on several occasions during the last decade. In Ter Apel the species was sifted from lawn clippings, in Zeist and Utrecht from heaps of decaying hay. The Dordrecht specimen was from a heap of horse manure intermixed with straw at a farmyard.

Both species can be separated by the pronotal structure. In *O. intermedium* the median groove is more pronounced and reaches into the first third of the pronotum, while in *O. foveola* this groove is less defined and shorter. The lateral

bead of the pronotum is wider and clearly visible in *O. intermedium*, while in *O. foveolata* it is difficult to discern.

Ptilium timidum Besuchet, 1971

Limburg Sittard, .iv., 1 ♂, F. Heselhaus (RMNH-Everts, under *P. caesum*).

A single male of this species, standing under *Ptilium caesum* in the Everts collection (RMNH), was discovered by M. Sörensson. As Everts reports about this finding in 1915 it must have been collected before this date (Everts 1915, as *P. caesum*). According to Everts (1915) and the locality label, the specimen was collected from a mole's nest.

Ptilium timidum is a rare species known only from a few localities in Austria, the Czech Republic, Switzerland and France (Besuchet 1976, Johnson 2004). Its discovery in the Netherlands thus forms a considerable extension of its known range. The type series of this species was collected from flood refuse of the Dranse near Thonon (Besuchet 1976), suggesting this might be a riparian species. From the only other Dutch *Ptilium* species with a distinct pronotal bead - *P. affine* - it can be separated by the absence of abdominal modifications in the male, and the structure of the aedeagus. The latter is depicted by Besuchet (1976).

[*Ptilium caesum* Erichson, 1845]

This species was added to the Dutch list by Everts (1915) on the authority of I.B. Ericson: 'Sittard, April, in een mollenest'. However, this record proved to be based on a misidentification. The corresponding specimen is in fact a male of *P. timidum*, a species new to the Dutch fauna (see above). A second record of *P. caesum* is given by Everts (1924) in an account of the beetles collected at St. Pietersberg and the valley of the river Geul in June 1923. In the Everts collection a specimen labelled 'Everts Valkenb[urgh] 6 [June]' is

preserved that probably corresponds to this record. It is a female, whose identity remains uncertain according to M. Sörensson. As these two were the only presumed Dutch specimens of *P. caesum*, the species has to be deleted from the Dutch list.

***Ptilium exaratum* (Allibert, 1844) and
P. horioni Rosskothén, 1934**

Ptilium exaratum

Gelderland Winterswijk, .vii., 1 ♀, E. Everts (RMNH-Everts). **Zuid-Holland** Den Haag, .iv., 1 ♀, A.F.A. Leesberg (RMNH-Everts).

Ptilium horioni

Overijssel Ommen, .vi., 1 ♀, E. Everts (RMNH-Everts, under *P. oblongum*). **Zuid-Holland** Den Haag, .v., 2 ♀, .vi., 1 ♂, E. Everts (RMNH-Everts, under *P. exaratum*); Noordwijk aan Zee, 3.vi.1917, 1 ♀, P. van der Wiel (ZMA). **Limburg** Spaubeek, .vi., 1 ♂, 1 ex, E. Everts (RMNH-Everts, under *P. exaratum*).

Both species have until now been confused under the name *P. exaratum*. A revision of the available material of this species revealed the presence of *P. horioni* in the Netherlands. Furthermore a single female was standing under *Ptiliolium oblongum* (Gillmeister, 1845), now *P. spencei* (Allibert, 1844), in the Everts collection (RMNH). In the Netherlands *Ptilium horioni* seems the more common of both rare species. The same holds for Great Britain where *P. exaratum* is considered extremely rare (Johnson 1975a). Besuchet (1976), however, states about *P. horioni*: 'souvent confondu avec *exaratum* Allib. avec lequel il cohabite généralement tout en étant bien moins fréquent'. *Ptilium horioni* is a rare, but widespread European species occurring from Norway to Greece and from Great Britain into European Russia (Johnson 2004).

In Germany it has been reported only from Nordrhein and Weser-Ems-Gebiet (Köhler & Klausnitzer 1998). Remarkably the species has been reported from polar Sweden as widely

spread (Sörensson 1994). Recent Dutch records of these two species are lacking.

Judging from the scanty literature reports *Ptilium horioni* seems to have a similar habitat preference as *P. exaratum*: it has been recorded from pigeon, horse, moose and deer dung, a compost heap and heaps of cut grass and weeds (Hansen 1968, Rosskothén 1934, Sörensson 1994, Sörensson & Kvamme 1995). Interestingly Sörensson & Kvamme (1995) reckon this species to be 'more restricted to woodland than is *Ptilium exaratum* (Allibert)'.

Both species can be separated by their overall shape. In *P. horioni* the elytra are a little wider than the pronotum, while in *P. exaratum* the elytra are clearly wider than the pronotum. In the latter species has the lateral pronotal grooves more pronounced. Males can easily be identified by the characteristic modifications of the metasternum. In *P. horioni* it is extended backwards into a elongated club-like structure, while in *P. exaratum* it is ornated with a fringe of long hairs. Also the female spermathecae, although little sclerotized, are of use for separating both species (Rosskothén 1934).

***Ptilium modestum* Wankowicz, 1869**

Gelderland De Imbosch, Nieuwe Kamp, 8.xi.2002, 1 ♀, O. Vorst (COV).

A single female of *Ptilium modestum* (fig. 3) has been sifted from soil underneath the mummified remainders of a Highland cattle carcass (fig. 10). Accompanying ptiliids were the common *Prenidium laevigatum* Erichson, 1845 (37 ex.) and *Ptiliolium fuscum* (Erichson, 1845) (3 ex.). The majority of the beetle community was formed by Staphylinidae (18 species), among which *Proteinus brachypterus* (Fabricius, 1792) (21 ex.), *Atheta occulta* (Erichson, 1837) (14 ex.) and *A. corvina* (Thomson, 1856) (18 ex.) were the most abundant.



Figure 10. Mummified remainders of a Highland cattle carcass at De Imbosch. The red colour is the result of growth of microorganisms. *Ptilium modestum* has been sifted from the soil underneath.
 Figuur 10. Gemummificeerde resten van een Schotse Hooglander in De Imbosch. De rode kleur wordt veroorzaakt door de groei van micro-organismen. *Ptilium modestum* werd gezeefd uit de bodem onder het karkas.

Ptilium modestum has been recorded from most central and northern European countries (Johnson 2004), but has until now not been reported from the British Isles. In Germany it is a very scarce species that since 1950 is only known from Württemberg, Baden, Nordrhein, Niederelbegebiet and Brandenburg (Eichler et al. 1999, Köhler 2000, Köhler & Klausnitzer 1998). Little is known about its bionomics. According to Sörensson (1981) *P. modestum* has a preference for holes in broad-leaved trees, but it has also been recorded from ant hills. It has been collected from nests of several ant species: *Lasius brunneus* (Latreille, 1798), *L. fuliginosus* (Latreille, 1798) and *Formica rufa* Linnaeus, 1761 (Eichler et al. 1999, Hansen 1968, Horion 1949). Further, *Ptilium modestum* has been reported from all kinds of decaying vegetable matter, compost and dung (Hansen 1968, Horion 1949), which is more similar to the Dutch collecting site.

From the other Dutch *Ptilium* species it is easily separated by the absence of the lateral pronotal grooves and the middle groove being indistinct or even lacking. The latter is the case in the only

Dutch example, whose identity was kindly confirmed by M. Sörensson.

Ptilium wuesthoffi Rosskothén, 1934

Noord-Brabant Westelbeers, Landschotsche Heide, II.VI.2006, 2 ♀, 2 ex., O. Vorst (cov).

Ptilium wuesthoffi (fig. 4) was taken from a sample consisting of several horse droppings, both fresh and older ones, from a forest lane on sandy soil. The sample taken contained the following ptiliids in addition: *Prenidium nitidum* (94 ex.), *Ptiliola kunzei* (Heer, 1841) (1), *Ptilium fuscum* (27), *Acrotrichis grandicollis* (Mannerheim, 1844) (3) and *A. dispar* (Matthews, 1865) (45). *Ptilium wuesthoffi* seems to be a species with a more or less northern distribution, so far known from Fennoscandia, Denmark, Germany, Poland and Switzerland. Outside Europe it has been reported from Mongolia (Johnson 2004). In Germany it has since 1950 only been reported from Nordrhein, Niederelbegebiet and Schleswig-Holstein (Köhler & Klausnitzer 1998).



Figure 11. Eexterveld near Anderen, the grazed forest at the back is the collecting site of *Acrotrichis parva*.

Figuur 11. Eexterveld nabij Anderen, *Acrotrichis parva* werd verzameld in het begraasde bos op de achtergrond.

At least in Scandinavia it seems to be a typical dung species, sometimes found in grass compost and alike (Sörensson & Kvanne 1995). The species can easily be separated from *P. schwarzi*, which possesses a similarly shaped pronotum, by the presence of granules on the somewhat shiny head. In *P. schwarzi* the head is very dull.

Microptilium palustre Kuntzen, 1914

Noord-Holland Castricum, Lepstukken, 27.v.2000, 1♂, O. Vorst (COV). **Zuid-Holland** Den Haag, .IV., 1♂, 1♀, 15 ex., E. Everts (RMNH-Everts, under *Actidium coarctatum*, ZMA); Den Haag, Zorgvliet, .IV., 1 ex., E. Everts (RMNH-Everts, under *A. coarctatum*).

A single male of this species was flushed from the edge of a partly shaded dune pond near Castricum. The identity of this specimen was kindly confirmed by C. Johnson. Revision of the ptiliid material in the Everts collection (RMNH) revealed a large series of this species arranged under *Actidium coarctatum* (Haliday, 1855).

Microptilium palustre is so far only known from western and central Europe, where it has been reported from Spain (incl. Balearics), Great Britain, Denmark, Germany and Hungary (Johnson 1987, 2004). The mentioning of the Netherlands in the new Palaearctic catalogue (Johnson 2004) is based on the specimen from Castricum. In Germany *P. palustre* has since 1950 only been recorded from the Pfalz (Köhler & Klausnitzer 1998).

Microptilium palustre is a very hygrophilous species which typically inhabits marshes where it can be found in wet mosses and litter at the water edge and heaps of mowings (Johnson 1987, Kuntzen & Hubenthal 1914). The only other Palaearctic representative of the genus, *M. pulchellum* (Allibert, 1844), can be recognised by the presence of a metasternal depression in the male and a differently shaped spermatheca in the female (Besuchet 1971).

Ptinella denticollis (Fairmaire, 1858)

Zuid-Holland Den Haag, .I., 1 ♀, E. Everts (RMNH-Everts, under *P. limbata*).

A single female of this species was standing under *P. limbata* (Heer, 1841) in the Everts collection (RMNH). This is a widespread species that has been reported from the whole of Europe and northern Africa (Johnson 2004). In Germany *P. denticollis* is scarce and has been reported from only five regions: Bayern, Hessen, Nordrhein, Westfalen and Niederelbegebiet (Köhler & Klausnitzer 1998). Recently it has been discovered in Belgium (Cuppen & Vorst 2002). Like most other *Ptinella* species it lives under bark of dead coniferous and deciduous trees (Hansen 1968). Sörensson (2000) indicates a preference for oak (*Quercus*) as the host tree, but mentions that it favours other species (*Betula*, *Populus tremula*) in the northern boreal region, where oak does not occur or is of minor importance. In Great Britain it has in addition to *Quercus* also been taken from *Salix*, *Populus* and *Sorbus aucuparia* (Hyman & Parsons 1994).

Ptinella denticollis had already been reported as native by Everts (1887), based on material he collected from under tree bark in January near Den Haag: 'Eenmaal bij den Haag achter boomschors 1 (Everts)'. On the authority of I.B. Ericson, who interpreted the single Dutch specimen as *P. testacea* (Heer, 1841), Everts (1911, 1922) removed this species from the faunal list. As collecting date, locality and collector of this specimen correspond with the recently discovered specimen of *P. denticollis*, it seems likely that it is the very same specimen that had already been identified as *P. denticollis* by Everts in 1887. This also fits with its arrangement under *P. limbata*, of which Everts considered *testacea* a variety (Everts 1925b). Under this name there is only one other specimen, from Winterswijk. This only, undated, Dutch specimen of *P. denticollis* would then originate from before 1887.

[*Ptinella tenella* (Erichson, 1845)]

This species was first mentioned for the Netherlands by Everts (1911, 1922) under the name *P. angustula* (Gillmeister). He reports several specimens collected at Gronsveld and a single example collected at Sittard from a mole's nest. Everts (1911) does so on the authority of I.B. Ericson, but states that Ericson's identification is tentative, as the specimens are not preserved very well. Under the name *P. angustula* there are two specimens in the Everts collection (RMNH): a female from Gronsveld (leg. Veth) that belongs to *P. aptera* (Guérin, 1839), and a female from Sittard (.II., Heselhaus, *Talpa*) that is *P. britannica*. All 46 specimens in the collections of RMNH and ZMA under *P. tenella* proved to be *P. aptera*. These include published records from Ruurlo (15.V.1937, Van der Wiel, ZMA), Bemelen (ex larva, .IX.1946, Van der Wiel, ZMA), Epen (ex larva, 18.VII.1934, 15.IX.1934, Van der Wiel, ZMA), Geulhem (21.VI.1948, Van der Wiel, ZMA), Gronsveld (.VI.1898, Veth, ZMA) and Spaubeek (29.VIII.1929, Scholte, ZMA) (Van der Wiel 1956). *Ptinella tenella* has to be removed from the Dutch faunal list as all specimens proved to be misidentified.

Acrotrichis lucidula Rosskothén, 1935

Overijssel Weerribben, Meenteweg, 26.V.2001, 2 ♂, 6 ♀, 4 ex., O. Vorst (COV).

A series (41 ex.) of *Acrotrichis lucidula* (fig. 5) was collected by sifting debris from the marshy edge of a ditch in a lowland peat area. Within a few metres from the water edge there was a heap of rotting hay. Other ptiliids present were *Ptenidium fuscicorne* Erichson, 1845 (33 ex.), *P. nitidum* (4), *Acrotrichis sitkaensis* (3) and *A. fascicularis* (Herbst, 1793) (1). This particular collecting site is unlike the usual habitat that is often described as wet springs in shady conditions, primarily in deciduous or mixed forests, where it can be sifted from litter and moss close to the water edge (Sörensson

& Rutanen 2002, Sundt 1958). In Great Britain the species is, however, also found in fens, alder carr and other damp places (Hyman & Parsons 1994).

Acrotrichis lucidula is a widespread northern and central European species, that has been recorded from Fennoscandia, Denmark, Ireland, Great Britain, Germany, Switzerland, Austria, Poland and Russia (Johnson 2004). The mentioning of the Netherlands in the new Palaearctic catalogue (Johnson 2004) is based on the recent discovery described here. It seems a scarce species throughout its range. From Germany it is known from six regions only (Köhler & Klausnitzer 1998).

Like several other *Acrotrichis* this is a difficult to identify species. The spermatheca is similar to that of *A. fascicularis*, but externally the species resembles a large and dark *A. atomaria* (DeGeer, 1774) (Sörensson & Rutanen 2002, Sundt 1971). The identification was confirmed by M. Sörensson.

Acrotrichis parva Rosskothén, 1935

Drenthe Anderen, Eexterveld, 29.v.2005, 2♂, 1♀, O. Vorst (cov).

Three specimens of *Acrotrichis parva* (fig. 6) were recently extracted from cattle dung from a grazed forest near Anderen (fig. 11). Apart from *A. parva* the dung supported a rich beetle fauna (49 spp.) with the following species of Ptiliidae: *Ptenidium nitidum* (40 ex.), *Ptiliolium fuscum* (4), *Acrotrichis grandicollis* (7), *A. dispar* (23), *A. cognata* (1), *A. atomaria* (2) and *A. fascicularis* (3). In the nearby pasture *A. parva* was absent from the dung pads studied.

Acrotrichis parva is considered a naturally distributed Holarctic element (Sörensson 2003). It is known from northern and central Europe (Johnson 2004). It is a predominantly northern species, that in its central European range seems restricted

to cooler habitats. On the British Isles the species is not uncommon (Johnson 1975b). In Germany it has been recorded from seven regions (Köhler & Klausnitzer 1998).

Although already described in 1935, the species has been confused with its close relatives, and was not considered a good species for a long time (Sundt 1958). Sundt (1971) recognised it as distinct from *A. silvatica* and *A. volans* (Motschulsky, 1845). It is closely allied to *A. silvatica* from which it can be reliably distinguished on spermathecal characters (Sundt 1971). In Scandinavia it is a species from mixed forests that can be found in all kinds of rotting and putrefying organic matter (Sörensson & Kvamme 1995).

Acrotrichis rosskotheni Sundt, 1971

Groningen Ter Apel, 15.vi.2001, 2♂, 7♀, O. Vorst (cov).

Until now *Acrotrichis rosskotheni* (fig. 7) has only been recorded from old straw bales at the edge of a forest at Ter Apel. The sample, taken by sifting, did contain the following other ptiliids:

Ptenidium pusillum (34 ex.), *Baeocrara variolosa* (1), *Acrotrichis montandonii* (Allibert, 1844) (7), *A. insularis* (4), *A. intermedia* (Gillmeister, 1845) (4), *A. atomaria* (4) and *A. sitkaensis* (2).

Acrotrichis rosskotheni is a very widespread species, distributed throughout Europe, but has until now not been reported from several eastern European countries. It is also known from North Africa and Turkey (Johnson 2004). Towards the south of its range it becomes more abundant (Sörensson 1988, as *A. fraterna*). The Dutch record in the recent Palaearctic beetle catalogue (Johnson 2004) is based on the material presented here. The identity of the Dutch material was confirmed by M. Sörensson.

It is considered a forest litter species which often can be found at damp sites. Very rarely it is found



Figure 12. Decaying hay rolls at Polder Kindem, Biesbosch, habitat of *Acrotrichis sanctaehelena*.
 Figuur 12. Rottende rollen hooi in de polder Kindem, Biesbosch, woonstee van *Acrotrichis sanctaehelena*.

in more exposed habitats. Occasionally it has been collected from rotting heaps of grass, dung or carcasses (Johnson 1975a, Sörensson 1988, as *A. fraterna*). Identification of this species is difficult. *Acrotrichis rosskotheni* is closely allied to *A. sitkaensis*. Its spermatheca shows the typical pattern of the latter species. The aedeagus is more characteristic. Externally the species is close to *A. intermedia* in size, body outline as well as the pronotal and elytral surface sculpture (Sörensson 1988).

Acrotrichis sanctaehelena Johnson, 1972

Groningen Ter Apel, 't Schot, 17.VI.2001, 1 ex, O. Vorst (cov). **Zuid-Holland** Dordrecht, Jong Dordrecht, 15.VIII.2004, 2♂, 1♀, 9 ex., O. Vorst (cov). **Noord-Brabant** Biesbosch, Polder Kindem, 8.X.2005, 1♂, 2♀, O. Vorst (cov).

Acrotrichis sanctaehelena (fig. 8) has been described from the South Atlantic island of Saint Helena (Johnson 1972), but has since been reported from the Canary Islands, the African mainland and western Europe (Johnson 2004). Recently the

species was discovered at several localities in the Netherlands. It is probably expanding its range, the first European records originating from southern Portugal (Johnson 1975c). Since, it has been discovered in France, Switzerland and Great Britain (Johnson 1987, 2004).

Johnson (1987) reports *A. sanctaehelena* from a wide range of microhabitats: rotten wood and humus, rotting fungi, rotting cacti, vegetable refuse and leaf-mould. It was suggested that in England the species might be anthropophilic, and thus would be expected to occur in gardens, parks and around farms where man-made heaps of decaying animal and plant substances are to be found (Johnson 1987). The Dutch captures at Ter Apel and Dordrecht are from heaps of horse manure on a farmyard. At the Biesbosch it was found in decaying hay rolls (fig. 12).

Acrotrichis sanctaehelena is similar to *A. grandicollis*, our only other representative of the subgenus *Ctenopteryx* Flach, 1889. Both species are relatively large, possess pronounced setae at the sides of pronotum and elytra and have only rudimentary spermathecae. Identification is usually

possible based on the colouration of the body. In *A. grandicollis* the upper surface is blackish with a clear metallic hue, while *A. sanctaehelenae* is bicolorous with the pronotum darker than the reddish brown elytra. The latter has the aedeagus in the male rounded, while in *A. grandicollis* it is acuminate (Johnson 1972, 1987).

CONCLUDING REMARKS

In recent years our knowledge of the Dutch ptiliid fauna has increased considerably. The present paper adds another twelve species to the Dutch list. This increase does not necessarily reflect an actual increase of the ptiliid fauna of the Netherlands. Some of the species added here were indigenous since long, and their addition is (partly) based on old material only recently recognised: *Microptilium palustre*, *Oligella intermedia*, *Ptilium timidum*, *P. horioni*, and *Prinella denticollis*. The latter four species have not been seen for many decades and are to be considered as extinct in the Netherlands.

Acrotrichis sanctaehelenae is the only species whose discovery is most probably the result of recent immigration. Its arrival in the Netherlands follows the settlement in some other West-European countries, including Great Britain.

Like several other invasive beetle species it is anthropophilic and probably dependent on man-made accumulations of organic matter. All of the remaining species (*Prenidium reitteri*, *Ptilium modestum*, *Ptiliolium wuesthoffi*, *Acrotrichis lucidula*, *A. parva* and *A. rosskotheni*) are potentially indigenous elements of the Dutch fauna, as clear evidence suggesting recent immigration is lacking. It seems most probable that they have been overlooked until now. All of these are rare or very rare species, currently known from only a single or a few localities. A possible exception is formed by *P. reitteri*, a species currently reaching the northernmost limits of its range in the Netherlands, of which no older records are known. Its presence might thus be the result of a recent range expansion.

Two species, *Ptilium caesum* and *Prinella tenella*, are to be deleted from the Dutch faunal list, as all examples standing under these names proved to be misidentified.

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SAMENVATTING

Aantekeningen over Nederlandse Ptiliidae (Coleoptera)

Twaalf soorten ptiliiden worden voor het eerst voor de Nederlandse fauna gemeld. Voor een vijftal soorten gebeurt dit (deels) op grond van oud collectiemateriaal: *Microptilium palustre*, *Oligella intermedia*, *Ptilium timidum*, *P. horioni* en *Ptinella denticollis*. De laatste vier soorten zijn al vele decennia niet meer waargenomen en wellicht uit ons land verdwenen.

Acrotrichis sanctaehelenae is de enige soort waarvan het aannemelijk lijkt dat er sprake is van een recente vestiging. Deze soort, die begin jaren 1970 werd beschreven van het eiland Sint Helena, is de laatste jaren in een aantal West-Europese landen ontdekt, onder meer in Engeland. Net als andere invasieve keversoorten heeft zij een voorkeur voor door de mens gecreëerde ophopingen van organisch materiaal, zoals mesthopen.

De resterende soorten (*Ptenidium reitteri*, *Ptilium modestum*, *Ptiliolium wuesthoffi*, *Acrotrichis lucidula*, *A. parva* en *A. rosskotheni*) komen mogelijk vanouds in Nederland voor, maar werden tot nu toe over het hoofd gezien. Dit zijn alle zeldzame tot zeer zeldzame soorten, die van slechts één of enkele vindplaatsen bekend zijn. Een mogelijke uitzondering is *P. reitteri*, die in Zuid-Nederland de noordwestgrens van zijn areaal bereikt, en waarvan geen oudere waarnemingen bekend zijn. Deze soort is hier wellicht als gevolg van een recente areaaluitbreiding beland.

Twee soorten, *Ptilium caesum* en *Ptinella tenella*, komen te vervallen voor de Nederlandse fauna. Alle vermeende exemplaren van deze soorten blijken namelijk fout gedetermineerd te zijn.

O. Vorst
Poortstraat 55
3572 HD Utrecht
vorst@xs4all.nl