

# The stilt bugs (Heteroptera, Berytidae) of Norway

FRODE ØDEGAARD & ARNSTEIN STAVERLØKK

Ødegaard, F. & Staverløkk, A. 2011. The stilt bugs (Heteroptera, Berytidae) of Norway. *Norwegian Journal of Entomology* 58, 27–32.

We here present confirmed records of the six species of stilt bugs (Berytidae) occurring in Norway. *Berytinus clavipes* (Fabricius, 1775) is reported for the first time from Norway. Several new county records for the other species of Berytidae are also presented. All species are illustrated with pictures of specimens from Norway. The reported records of *Berytinus affinis* in Warloe (1925) have for a long time led to confusion about which species of *Berytinus* Kirkaldy, 1900 being present in Norway. Here, we show that these specimens actually belong to the common *B. minor* (Herrich-Schaeffer, 1835). We conclude that it is not likely that more than these six species of Berytidae are to be found in Norway in the future.

Key words: Hemiptera, Heteroptera, Berytidae, Norway.

Frode Ødegaard & Arnstein Staverløkk, Norsk institutt for naturforskning, NINA. P. O. Box 5685 Sluppen, NO-7485 Trondheim, Norway. E-mail: frode.odegaard@nina.no

## Introduction

The stilt bugs (Berytidae) represent a small family of true bugs with 155 species and 45 genera in the Palearctic region (Aukema & Rieger 2001) Only eight of these species are present in Scandinavia (Coulianos & Ossianilsson 1976). Despite a fairly large body size, they are relatively rare in collections. This is probably related to their rather sluggish behavior, cryptic appearance, and the fact that they are found mostly on ground among roots and debris. Although the risk of overlooking stilt bugs is high, there is no doubt that many species also have a rather restricted distribution.

Stilt bugs are characterized by the very slender body which is brownish yellow in color. The antennae and legs are also extremely long and slender. The first antennal segment and the femur are more or less extended towards apex. The eyes are rather small and widely separated from pronotum. The head has a characteristic extension in front between the basis of the antennae. The membrane of the fore wings has five veins which can be hard to see in sub-brachyptere individuals.

Very little is known about the biology

of Berytidae, but most species seem to be phytophagous and tied to various plant families. While *Metatropis rufescens* is found in broad leaved forests, all the other species seem to be restricted to xerophilic dry meadows. The *Berytinus* species are normally associated with Fabaceae. However, *B. crassipes* (Herrich-Schaeffer 1835) is found on different species of Caryophyllaceae, which seems to be the case also for *Neides tipularius* (L., 1758). *Metatropis rufescens* (Herrich-Schaeffer, 1835) is associated with *Circaea* spp. (Pericart 1984). All the Scandinavian stilt bugs can be identified by for instance by keys in Pericart (1984) or Wagner (1964).

In the latest catalogue of Norwegian true bugs (Coulianos 1998) confirmed records exist for four species of Berytidae from Norway: *Berytinus minor* (Herrich-Schaeffer, 1835), *B. signoreti* (Fieber, 1859), *Neides tipularius* and *Metatropis rufescens*. Ødegaard (1998) published the same year a fifth species, *B. crassipes*. Here, we present an updated list of all the Norwegian species including the first Norwegian records of *B. clavipes* (Fabricius, 1775) and several new regional records.

## The species

### *Berytinus clavipes* (Fabricius, 1775) (Fig. 1)

**Material.** We here report the first records of *B. clavipes* from Norway. A male and a female were caught in pit fall traps situated in a dry meadow on calcareous soils in a south faced slope at **BØ**, Hole: Søhol (EIS 36), 8 May–2 June 2010, male, 2–26 June 2010, female, leg. F. Ødegaard.

**Remarks.** The two uncertain records of *B. clavipes* from Norway mentioned by Coulianos (1998) was in fact based on an interpretation of two specimens reported by Warloe (1925) as *B. affinis*. *B. affinis* is a synonym of *B. crassipes* (part.) and *B. montivagus* (part.), but Ossianilsson (1947) and Coulianos & Ossianilsson (1976) considered *B. clavipes* to be a more likely species in Norway. The two specimens in question was available in Helliesen's collection (Warloe 1925), and a careful study of them showed that both specimens belonged to *B. minor*. The records of *B. clavipes* from HES, Kongsvinger and VAY, Mandal (Coulianos 1998) should therefore be omitted.

*B. clavipes* are normally found in dry, sandy meadows. The reported host plant is *Ononis* spp. (Wagner 1967). A more likely host plant at this Norwegian locality would be *Medicago sativa* or *Lotus corniculatus* which both are very common at the site.

### *Berytinus crassipes* (Herrich-Schaeffer, 1835) (Fig. 2)

**Material.** *B. crassipes* was reported from Norway by Ødegaard (1998). This specimen from **ON**, Nord-Fron: Hesteskobakken (EIS 62), 4 April–3 June 1998 is hitherto the only known record of this species from Norway.

### *Berytinus minor* (Herrich-Schaeffer, 1835) (Fig. 3)

**Material.** *B. minor* is the most common Berytidae occurring in Norway with scattered records from **Ø, AK, ON, BØ, BV, VE, TEY, AAY** (Coulianos 1998, Ødegaard 1998). We here report the northernmost record of *B. minor* from Norway from **STI**, Trondheim: St.Hanshaugen (EIS 92), 25 April 2010, one male, leg. F. Ødegaard.

The revised specimens from the collection of T. Helliesen also represent new county records for *B. minor*. Accordingly, **VAY**, Mandal (EIS 2), 1913, leg. T. Helliesen; **HES**, Kongsvinger (EIS 38), 1912, leg. T. Helliesen should be added. Additional records: **ON**, Nord-Fron: Vinstradalen, Sylte (EIS 62), pit fall trap 20 June–8 August 2005, leg. Ødegaard & Hanssen; **Kvam**: Engom, pit fall trap 26 May–20 June 2005, leg. F. Ødegaard & O. Hanssen; **Ø**, Fredrikstad: Skjebergkilen (EIS 20), 19 April 2009, leg. F. Ødegaard.

### *Berytinus signoreti* (Fieber, 1859) (Fig. 4)

**Material.** The only published record of *B. signoreti* is from **BV** (Coulianos 1998). We here report two new records from Norway: **HOY**, Lindås: Lurekalven (EIS 39), pit fall trap 28 June–20 August 2002, leg. O. Hanssen; **BØ**, Hole: Søhol (EIS 36), pit fall trap 8 May–2 June 2010, one female, leg. F. Ødegaard.

### *Neides tipularius* (L., 1758) (Fig. 5)

**Material.** *N. tipularius* was first reported from **AK**, Oslo: Røa by Holgersen (1942). Later, the species was reported from **HOI**, Kvam: Svevatn (Greve 1999), and from **Ø**, Fredrikstad: Borge, Torsnes (Hågvar 1999). We here report a fourth record from Norway from **Ø**, Hvaler: Ørekroken (EIS 12), pit fall trap 18 July–22 August 2007, one female, leg. F. Ødegaard.

### *Metatropis rufescens* (Herrich-Schaeffer, 1835) (Fig. 6)

**Material.** *M. rufescens* has been recorded from **Ø, AK, AAY, HOY, HOI** and **SFI** (Coulianos 1998). We here report the northernmost occurrence of the species in Norway from **MRI**, Nesset: Øvre Vike (EIS 78), 12 June 1999, 11 specimens, leg. F. Ødegaard. Additional record: **AK**, Asker: Nesøytjern (EIS 28), 29 June 2006, leg. F. Ødegaard.

## Discussion

The reported records of *Berytinus affinis* (Warloe 1925) has for a long time led to confusion about which species of *Berytinus* being present in



**FIGURE 1.** *Berytinus clavipes* (Fabricius, 1775) female from BØ, Hole: Søhol. Photo: A. Staverløkk, NINA.



**FIGURE 2.** *Berytinus crassipes* (Herrich-Schaeffer, 1835) male from ON, Nord-Fron: Stordalsberget. Photo: A. Staverløkk, NINA.



**FIGURE 3.** *Berytinus minor* (Herrich-Schaeffer, 1835) male from STI, Trondheim: St.Hanshaugen. Photo: A. Staverløkk, NINA.



**FIGURE 4.** *Berytinus signoreti* (Fieber, 1859) female from BØ, Hole: Søhol. Photo: A. Staverløkk, NINA.



**FIGURE 5** *Neides tipularius* (L., 1758) female from Ø, Hvaler: Ørekroken. Photo: A. Staverløkk, NINA.



**FIGURE 6** *Metatropis rufescens* (Herrich-Schaeffer, 1835) female from MRI, Nettet: Øvre Vike. Photo: A. Staverløkk, NINA.

Norway. Here, we show that these specimens actually belong to the common *B. minor*. The recent records of *B. clavipes* reported here, and *B. crassipes* (Ødegaard 1998) shows that confirmed records for a total of six species of Berytidae from Norway. In fact, it is not likely that more species exist in Norway as the records of *B. montivagus* and *Gampsocoris punctipes* from southeastern Sweden are quite far from the Norwegian border. On the other hand, Berytidae specimens are often overlooked by collectors. More extensive pit fall trapping in xerophilic dry meadows would probably reveal that at least most native Norwegian species have a wider range than hitherto known.

**Acknowledgements.** Thanks to the Norwegian Biodiversity Information Centre that financially supported the project INVENT-ART which aimed to study insects in open, dry habitats. Thanks also to Kaare Aagaard, NTNU Vitenskapsmuseet for loan of *Berytinus* specimens from the collection of Tor Helliesen.

## References

- Aukema, B. & Rieger, C. 2001. *Catalogue of the Heteroptera of the Palaearctic Region. Volume 4 Pentatomomorpha I*. Ponsen & Looijen, Wageningen. 346 pp.
- Coulianos, C.-C. 1998. Annotated Catalogue of the Hemiptera-Heteroptera of Norway. *Fauna norvegica Serie B* 45, 11–40.
- Coulianos, C.-C. & Ossianilsson, F. 1976. Catalogus Insectorum Sueciae. Hemiptera-Heteroptera. 2nd Ed. *Entomologisk Tidskrift* 97, 135–173.
- Greve, L. 1999. ”Stankelbein”- eller ”Stylte-tege” –nytt funn av *Neides tipularius* (Hemiptera – Berytidae). *Insekt-Nytt* 24, 13–15.
- Holgersen, H. 1942. Mindre meddelelser. *Norsk Entomologisk Tidsskrift* 6, 124.
- Hågvar, S. 1999. New data on the distribution of Norwegian Hemiptera Heteroptera. *Norwegian Journal of Entomology* 46, 61–65.
- Ødegaard, F. 1998. Faunistic notes on Heteroptera (Hemiptera) in Norway. *Fauna norvegica Serie B* 45, 93–99.
- Ossianilsson, F. 1947. Catalogus Insectorum Sueciae. VII. Hemiptera Heteroptera. *Opuscula Entomologica* 12, 1–33.
- Pericart, J. 1984. Hemiptera Berytidae. *Fauna de France* 70. Fédération Française des Sociétés de Sciences Naturelles. Paris. 165 pp.
- Wagner, E. 1966. Wanzen oder Heteropteren. I. Pentatomomorpha. *Tierwelt Deutschland* 54, 1–235.
- Warloe, H. 1925. Fortegnelse over Norges Hemiptera Heteroptera. *Forh. Vid.-Selsk. Kristiania* 1924 No.4, 1–42.

Received: 24 February 2011

Accepted: 15 April 2011