

The genus *Choragus* Kirby, 1819 (Coleoptera, Anthribidae) in Norway

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Olberg, S., Laugsand, A.E. & Solevåg, P.K. 2015. The genus *Choragus* Kirby, 1819 (Coleoptera, Anthribidae) in Norway. *Norwegian Journal of Entomology* 62, 129–132.

Until recently, the few known specimens of *Choragus* Kirby, 1819 known from Norway, were determined *Choragus horni* Wolfrum, 1930. Fresh material of *Choragus* collected the last couple of years, of which some specimens were determined to *Choragus sheppardi* Kirby, 1819, lead to a more critical re-examination of available specimens. The conclusion of the examination is that all Norwegian specimens belong to *C. sheppardi*. This implies that *C. horni* should be deleted as a Norwegian species.

Key words: *Choragus sheppardi*, *Choragus horni*, Coleoptera, Anthribidae, Norway.

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Introduction

The genus *Choragus* Kirby, 1819 is represented by two species in Northern Europe; *Choragus sheppardi* Kirby, 1819 and *C. horni* Wolfrum, 1930. The species are both recorded from Sweden and Denmark, but until recently, only *C. horni* was reported from Norway, by Hanssen (1985). The two species of *Choragus* live in dead deciduous wood attacked by different species of Pyrenomycetes belonging to the group Diatrypaceae (Lompe 2001).

There has been some confusion about the determination of sex in *Choragus* species, mainly caused by a misunderstanding by Cymorek (1963). Cymorek's view was forwarded by Gønget (2003), but was clarified by Lompe (2001), when he found a spermatheca in a "male" of *C. sheppardi*. To

be able to separate the two species of *Choragus* occurring in Northern Europe and state the sex correctly, we recommend Palm (1964) and Lompe (2001).

Material

All specimens examined by the authors, as well as specimens examined by Frode Ødegaard, Oddvar Hanssen and Sindre Ligaard, belong to *Choragus sheppardi* (Figure 1). The re-examined material includes, as far as we know, all known specimens of *Choragus* collected in Norway (Table 1).

Some specimens of *C. sheppardi* have been caught in malaise traps and window traps at various localities. Manual sampling has resulted in one specimen found sitting on a log in a timber

TABLE 1. Records of *Choragus sheppardi* Kirby, 1819 from Norway. Abbreviations; #: Number of specimens; B: Beating; Coll.: Collection method; HP: Hand picking; MT: Malaise trap; R: Rearing; T: Trap of some sort; WT: Window trap.

Strand region	Municipality	Locality	Date	Coll.	#	Collector
AAY	Gjerstad	Østerholt	25.VIII.2006	HP	1	Laugsand, Arne
AK	Bærum	Ulvebråtan	2.IX.2012	B	4	Olberg, Stefan
AK	Nesodden	Ommen	3.VII.–18.IX.2011	MT	1	Lønnve, Ole J.
AK	Oslo	Sørkedalen	2009	T	1	Eldgarn, Katrine?
AK	Oslo	Paradisbukta	27.VI.–25.VII.2006	MT	1	Olberg, Endrestøl
AK	Oslo	Lindøya	19.VII.–24.VIII.2005	MT	1	Olberg, Endrestøl
BØ	Hurum	Mølen	IX.–X.1987	WT	1	Hansen, Lars Ove
MRI	Sunn dal	Trettøytunnelen	09.VII.–22.IX.1985	WT	1	Hanssen, Oddvar
MRI	Sunn dal	Vollan	10.VIII.–22.IX.1991	WT	1	Hanssen, Oddvar
MRI	Nesset	Botnahaugen	20.VII.–12.VIII.2011	WT	1	Stenberg, Ingvar
TEI	Drangedal	?	VI/VII.2010	T	1	Eldgarn, Katrine?
TEY	Bamble	Gjermundsholmen	10.VII.2013	B	1	Olberg, Stefan
VE	Larvik	Kvelderønningen	15.VI.–21.VII.2009	WT	1	Endrestøl, Anders
VE	Larvik	Farmerøysa	10.VII.–5.VIII.2014	MT	1	Olberg, Stefan
VE	Larvik	Farmerøysa	5.VIII.–2.IX.2014	MT	1	Olberg, Stefan
Ø	Hvaler	Guttormsvauen	28.VI.2012	R	18	Laugsand, Arne

**FIGURE 1.** *Choragus sheppardi* Kirby, 1819. Photo: Stefan Olberg.

pile of deciduous trees at AAY Gjerstad. One specimen was beaten down from the branches of an old ash (*Fraxinus excelsior*) in TEY Bamble and four specimens were beaten from moose grazed young rowans (*Sorbus aucuparia*) in AK Bærum. Finally 18 specimens were hatched from a branch of grey alder (*Alnus incana*) found lying on a beach at Ø Hvaler, Guttormsvauen. The branch had probably not drifted ashore, since it had no visual signs of spending any time in the sea (Figure 2), and the branch most probably originated from a nearby tree at the beach. The *Choragus* specimens that hatched from the branch were determined by Laugsand to *C. sheppardi*. This led to an investigation of all recorded specimens of *Choragus* from Norway, of which all but one had been determined *C. horni*.

Discussion

Choragus sheppardi is reported from Sweden, Denmark and Finland in Fennoscandia (Ehnström & Axelsson 2002), and is distributed through Europe to The Middle East (Lindelöw 2008). The



FIGURE 2. A total of 18 specimens of *Choragus sheppardi* Kirby, 1819 hatched from this grey alder branch. Photo: Arne Laugsand.



FIGURE 3. Close up photo showing the part of the branch attacked by a pyrenomycete and covered with exit holes made by *Choragus sheppardi* Kirby, 1819. Photo: Arne Laugsand.

distribution in Norway is a typical southeastern lowland distribution with some, probably relict, occurrences in exceptionally warm localities in the inner parts of the longest fjords in Møre og Romsdal and possibly in Sogn og Fjordane Counties.

Choragus sheppardi is confined to dry, dead deciduous wood of thin stems, branches and twigs infested by crust fungi (Diatrypaceae) (Ehnström & Axelsson 2002, Lindelöw 2008). According to Hansen (1965), *C. sheppardi* has been found on old fences in Denmark, in hawthorn (*Crataegus monogyna*) and elm (*Ulmus glabra*) in Sweden (Palm 1964) and according to Morris (1990) in old, dry Ivy (*Hedera helix*) in Great Britain. Both literature and the Norwegian records of *C. sheppardi* indicate that the species is very little host-specific concerning choice of tree species. The presence of crust fungi in the wood seems to be the decisive factor of whether *C. sheppardi* can use the wood for reproduction or not (Lompe 2001). The many specimens hatched from the branch collected at Guttormsvauen fits in neatly, as the branch obviously was attacked by crust fungi giving the outer part of the wood its characteristic black colour with small mounds on the surface (Figure 3).

The use of window traps and malaise traps in many inventories could at least partly explain the increased catch frequency of *Choragus sheppardi* in Norway in the last decade. But since

C. sheppardi also has been found using different manual sampling methods, it is less likely that the species should have been overlooked in the past as a consequence of a not used or a seldom used sampling method. The many recent records of *C. sheppardi* in Norway could therefore at least partly also be explained by an increase in available breeding material and/or as a consequence of a more favourable climate. This again should result in larger populations and an expansion of the species distributional range.

Acknowledgements. We would like to thank Frode Ødegaard, Oddvar Hanssen and Sindre Ligaard for re-examining the specimens of *Choragus* standing in their collections and for shearing valuable views on critical characters separating the species.

References

- Andersson, B. 1981. Notiser om svenska skalbaggar 3. Notes on Swedish beetles. 3 (Coleoptera). *Entomologisk Tidskrift* 102, 141–146.
- Cymorek, S. 1963. Über die Biologie und den Genitalbau des Zwergbreitrüßlers *Choragus sheppardi* Kirby (Col. Anthribidae). *Entomologische Blätter* 59(3), 151–161.
- Ehnström, B. & Axelsson, R. 2002. *Insektsnag i bark och ved*. ArtDatabanken, SLU, Uppsala.
- Gønget, H. 2003. *The Nemonychidae, Anthribidae*

- and *Attelabidae* (Coleoptera) of Northern Europe. Fauna Entomologica Scandinavica 38. Brill, Leiden – Boston. 132 pp.
- Hanssen, O. 1985. Sommerens billefangst på Nordmøre og i Trøndelag – del 2. *Insekt-Nytt* 10 (4), 13–17.
- Hansen, V. 1965. *Danmarks Fauna XXI. Snutebiller*. Gads Forlag, København. 525 pp.
- Jansson, A. 1925. *Die Insekten, Myriopoden- und Isopodenfauna der Gotska Sandön*. Gotska Sandöns fauna. Örebro. 113 pp.
- Lindelöw, Å. 2007. Faktablad: *Choragus sheppardi*. 2008-01-17. ArtDatabanken, SLU.
- Lompe, A. 2001. *Choragus sheppardi*. <http://www.lompe.de/choragus.htm>. Accessed 14 April 2015.
- Morris, G.M. 1990. Orthocerous weevils. Coleoptera: Curculionidae (Nemonychidae, Anthribidae, Urodontidae, Attelabidae and Apionidae). Handbooks for the Identification of British Insects. Vol. 5, Part 16. London. 55 pp.
- Økland, K.A. 1981. Inndeling av Norge til bruk ved biogeografiske oppgaver – et revidert Strand-system. Fauna 34, 167–178.
- Palm, T. 1954: *Choragus sheppardi* Kirby och *horni* Wolfrum (Col. Anthribidae). *Opuscula Entomologica* 19, 232–237.

Received: 3 May 2015

Accepted: 2 June 2015