

# The Norwegian species of the genus *Tipula* Linnaeus, 1758, with ten species of Tipulidae new to Norway and an annotated list of Nordic Tipulidae, including distributional data for Norway (Diptera, Tipulidae)

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Sixteen subgenera of the genus *Tipula* Linnaeus, 1758 (Diptera, Tipulidae, Tipulinae) have been recorded from Norway, and their distribution is surveyed in this paper. Notes on the flight period and habitats are also given. Ten species of Tipulidae are reported new to the Norwegian fauna: *Ctenophora* (*Ctenophora*) *nigriceps* (Tjeder, 1949), *Dolichozepe* (*Dolichozepe*) *bifida* Oosterbroek & Lantsov, 2011, *Nephrotoma flavipalpis* (Meigen, 1830), *Tipula* (*Acutipula*) *luna* Westhoff, 1879, *Tipula* (*Emodotipula*) *obscuriventris* Strobl, 1900, *Tipula* (*Lindnerina*) *bistilata* Lundström, 1907, *Tipula* (*Lunatipula*) *humilis* Staeger, 1840, *Tipula* (*Pterelachisus*) *pauli* Mannheims, 1964, *Tipula* (*Savishenkia*) *interserta* Riedel, 1913 and *Tipula* (*Schummelia*) *zonaria* Goetghebuer, 1921. An updated and annotated checklist of species occurring in Norway, Sweden, Finland, Denmark and Iceland is presented, including distributional data for Norway. *Tipula* (*Lunatipula*) *livida* van der Wulp, 1859 is removed from the list of Norwegian species, based on insufficient evidence for its presence in the country.

Key words: Diptera, Tipulidae, *Acutipula*, *Arctotipula*, *Beringotipula*, *Dendrotipula*, *Emodotipula*, *Lindnerina*, *Lunatipula*, *Mediotipula*, *Odonatisca*, *Platytipula*, *Pterelachisus*, *Savishenkia*, *Schummelia*, *Tipula*, *Vestiplex*, *Yamatotipula*, distribution, new records, Norway.

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## Introduction

The infraorder Tipulomorpha consist of the superfamilies Tipuloidea and Trichoceroidea (Trichoceridae). Tipuloidea includes the families

Limoniidae, Pediciidae, Cylindrotomidae and Tipulidae. Olsen *et al.* (2018) give an overview of the study of Tipulomorpha in Norway, as well as in the other Nordic countries, including a list of the species of Limoniidae and Pediciidae.

The family Tipulidae Latreille, 1802 currently comprises three subfamilies, with altogether about 38 genera (Oosterbroek 2018), of which ten are known from Norway. In this paper, the Norwegian species of the genus *Tipula* Linnaeus, 1758, subfamily Tipulinae, are surveyed. In addition, three species from other genera are presented as new to Norway (Ctenophorinae: *Ctenophora*, Dolichopezinae: *Dolichopeza* and Tipulinae: *Nephrotoma*; these genera are otherwise treated by Hofsvang (2016)).

The genus *Tipula* Linnaeus, 1758 (Diptera, Tipulidae) is divided into 40 subgenera containing close to 2400 species worldwide (Oosterbroek 2018). Sixteen subgenera are recorded from Norway, and the present paper gives an overview of the distribution of the Norwegian species of these subgenera: *Acutipula* Alexander, 1924, *Arctotipula* Alexander, 1934, *Beringotipula* Savchenko, 1961, *Dendrotipula* Savchenko, 1964, *Emodotipula* Alexander, 1966, *Lindnerina* Mannheims, 1965, *Lunatipula* Edwards 1931, *Mediotipula* Pierre, 1924, *Odonatisca* Savchenko, 1956, *Platytipula* Matsumura, 1916, *Pterelachisus* Rondani, 1842), *Savtshenka* Alexander, 1965, *Schummelia* Edwards, 1931, *Tipula* Linnaeus, 1758, *Vestiplex* Bezzi, 1924 and *Yamatotipula* Matsumura, 1916. Information of the flight period in Norway, the habitat and the distribution of each species is given.

## Material and methods

Nomenclature follows Oosterbroek (2018).

Information about habitat and larval ecology is summarized from publications cited in Oosterbroek (2018). All species new to Norway (marked with an \*) have been confirmed by experts (Hofsvang, Oosterbroek or Salmela).

This paper includes material collected and identified before 15 March 2018. The only exceptions are some records published in Artskart/Artsobservasjoner prior to March but identified or verified by KMO in May 2018, based on information or photos provided by the observer.

Material collected and/or identified by Hofsvang or Boumans are kept in their private

collections. Material examined by Olsen is kept partly in his reference collection and partly handed over to the Natural History Museum in Oslo (NHMO). Specimens from several locations in the middle part of Norway are from studies by John O. Solem, NTNU and are stored in alcohol at the NTNU University Museum.

Artskart (2018). An important subsample of the records presented in Artskart stems from the application Artsobservasjoner (AO) (Artsobservasjoner 2018), to which a link can be found for each record. Direct references to AO are not given in this paper.

Localities are given using the revised Strand-system (Økland 1981) (Figure 1), and subsequent merging of counties and municipalities has only to a little extent been taken into consideration. There exists some uncertainty about a few of the locations given in the older literature, such as Siebke (1877), regarding to which municipality and Strand-region they are in. Two of the commoner problems are the use of the names “Dovre” and “Fron”. “Dovre” was probably used in the meaning “Dovrefjell” (“Dovre mountains”), and not meaning strictly “Dovre municipality”. The problem is that “Dovre” is divided between the Strand regions ON (Dovre municipality in Oppland county) and STI (Oppdal municipality in Sør-Trøndelag county). “Fron” could be either one of the municipalities Sør-Fron and Nord-Fron, of which the first is in Strand region OS and the latter is in ON. Comments on this are given where relevant in the species section.

The following abbreviations are used for collectors and identifiers (see acknowledgements for full names): AA = A. Andersen, AEL = A.E. Laugsand, AJ = A. Johnsen, AT = A. Thylén, BB = B. Buene, BH = B. Håkenrud, CO = C. Olsen, DR = D. Ruud, DWBJ = D.W.B. Johansen, EBH = E.B. Hågvær, EN = E. Nielsen, FM = F. Midtgaard, GS = G. Søli, GT = G. Taksdal, HdJ = H. de Jong, HE = H. Elven, HH = H. Hveding, HLJ = H.L. Jensen, IJA = I.J. Aag, IS = I. Strøm, JA = J. Anonby, JER = J.E. Raastad, JOS = J.O. Solem, JS = J. Salmela, JSB = J.S. Birkeland, JTK = J.T. Klepsland, KA = K. Abel, KB = K. Berggren, KBS = K.B. Strann, KMO = K.M. Olsen, LBY = L. Byrkjeland, LEH = L.E. Høitomt, LOH = L.O. Hansen, LBo = L.P.C.

Boumans, MS = M. Steinert, NH = N. Husby, OJL = O.J. Lønnve, OMS = O.M. Synnes, OMWK = O.M. Wergeland Krog, PEA = P.E. Aspholm, PJN = P.J. Nellestijn, PO = P. Oosterbroek, PT = P. Tallaksrud, RAG = R.-A. Golf, RB = R. Bengtson, RC = R. Christensen, RF = R. Fardal, RS = R. Sivasubramaniam, SBe = S. Bekkum, SBI = S. Blindheim, SG = S. Gammelmo, SH = S. Hågvar, SOb = S. Olberg, SOs = S. Olsen, SRe = S. Reiso, SRo = S. Roth, SS = S. Svendsen, TB = T. Blindheim, TE = T. Edland, TEk = T. Ekrem, TH = T. Hofsvang, THø = T. Høitomt, TJJ = T.J. Johansen, TM = T. Magnussen, TRN = T.R. Nielsen, TS = T. Starholm, ØG = Ø. Gammelmo.

Regarding material attributed to Tron Soot-Ryen, it is mentioned in a list of collectors of insects in Norway, prepared by Astrid Løken and finished in November 1997 (Løken 1997), that Soot-Ryen in some cases put his own labels on specimens he received from others. “Leg. Soot-Ryen” might therefore not always be accountable.

NHMO = Natural History Museum in Oslo, RMNH = Rijksmuseum van Natuurlijke Historie (Leiden, The Netherlands) [since 2011, both RMNH and ZMAN (below) collections are housed in the Naturalis Biodiversity Center in Leiden], TROM = Natural History Museum in Tromsø, ZMAN = Zoölogisch Museum, Amsterdam, The Netherlands, G.I. = a handwritten catalogue of old museum material kept at NHMO.

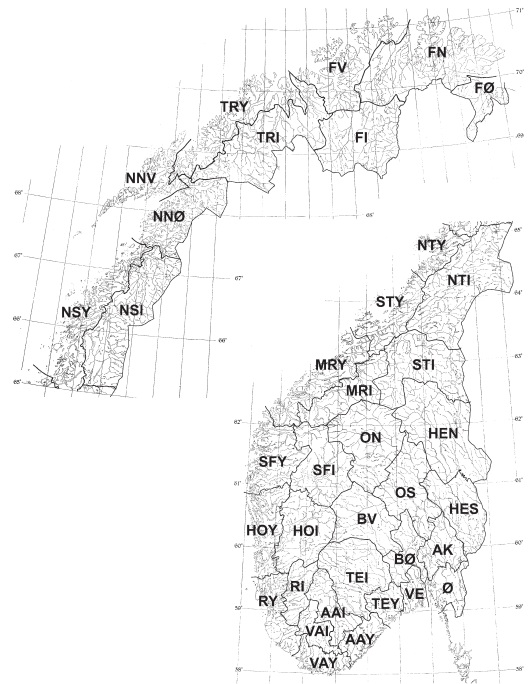
Collecting methods: BS = bar sieve, FIT = flight intercept trap, HP = hand picking, LT = light trap, MT = Malaise trap, N = netted, PT = pitfall trap, SLAM = sea, land and air Malaise trap, WT = window trap, YPT = yellow pan trap.

## Tipulidae new to Norway, other than *Tipula*

### Ctenophorinae

#### \* *Ctenophora nigriceps* (Tjeder, 1949) (Figure 2)

**Material examined:** TEI, Tinn: Øvre Gunleiksrud, meadow, 25 May–16 June 2014, 1♀, MT, leg. SRe, det. PO; FV, Alta: Gargiaelven, Storeng, 11.–26.VI.2010, 1♂, MT, leg. Finnmarksprosjektet, det. HdJ, conf. KMO. The hypopygium of the specimen from Finnmark



**FIGURE 1.** The division of Norway in geographical regions - “The Strand-system”. The division of Norway in 37 geographical regions. Each region represents part of a county (except Ø, AK and VE which are not divided). Abbreviations of counties: Ø = Østfold, AK = Akershus (incl. Oslo), HE = Hedmark, O = Oppland, B = Buskerud, VE = Vestfold, TE = Telemark, AA = Aust-Agder, VA = Vest-Agder, R = Rogaland, HO = Hordaland, SF = Sogn og Fjordane, MR = Møre og Romsdal, ST = Sør-Trøndelag, NT = Nord-Trøndelag, N = Nordland, TR = Troms, F = Finnmark. Abbreviations of subdivisions: I = interior, Y = coastal, S = southern, N = northern, V = western, Ø = eastern. A larger map will be available on the last pages of the journal.

seems to fit the subspecies *myiamotoi* Takahashi, 1960 better than what is regarded as subspecies *nigriceps*, which is the only subspecies so far reported from Europe; further investigation is needed. Tjeder’s holotypus is a female, and also from Finland only females are known (JSa pers. comm.). This species, regardless of subspecies, has not previously been reported from Norway.

**Distribution and biology.** *Ctenophora nigriceps* has a restricted distribution in the northern part of Europe, including Sweden and



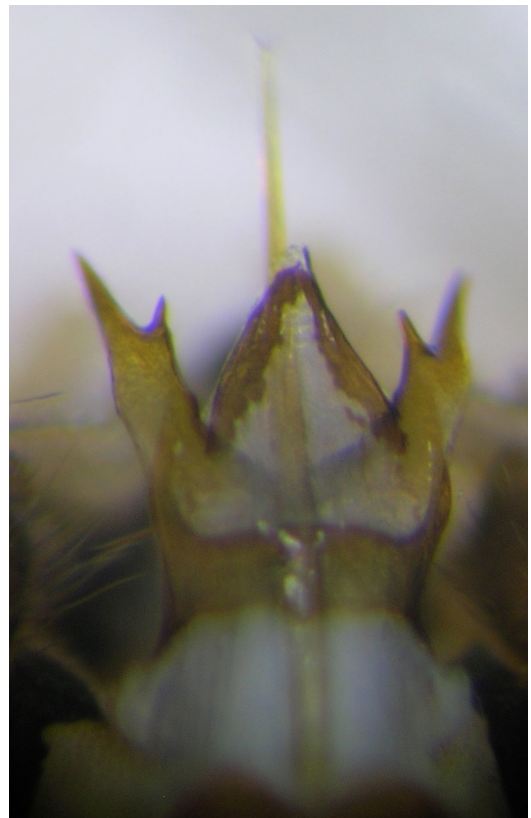
**FIGURE 2.** *Ctenophora nigriceps* (Tjeder, 1949). **A.** Female head and thorax. **B.** Male terminalia. Photo: K.M. Olsen.

Finland. The little information there is about biology seems to indicate a rather wide ecological amplitude, from hay meadows in the subalpine region to managed coniferous forests. The site from Finnmark (see Ekrem *et al.* 2012) is near a fast running stream with stony bed and adjacent mixed forest of pine (*Pinus sylvestris*), birch (*Betula pubescens*), willow (*Salix spp.*) and alder (*Alnus incana*). Larvae are probably saproxylic and/or fungivorous. Flight period: May–June.

### Dolichopezinae

\* *Dolichopeza bifida* Osterbrook & Lantsov, 2011 (Figure 3)

**Material examined:** TEI, Tokke: Gruppebekken, 17 July 2016, 2♂♂, N, leg./det. KMO; NTY, Leka: Botnlia, 20 July 2017, 2♂♂, N, leg.



**FIGURE 3.** *Dolichopeza bifida* Osterbrook & Lantsov, 2011. Hypopygium ventral (detail). Photo: K.M. Olsen.

KMO/SOs, det. KMO.

**Additional records:** In addition, there is one male from “Dovre” (usually either ON, Dovre or STI, Oppdal) in NHMO, leg. Siebke, reidentified from *D. albipes* by KMO/JSa/ØG in November 2017. This is, however, possibly the specimen Siebke (1877) mentions from ON: Sel. This species has not previously been reported from Norway.

**Distribution and biology.** *Dolichopeza bifida* has a rather wide distribution in East and West Palaearctic, including Sweden and Finland. It inhabits various habitats; in Norway it was collected from along a steep, shadowy, northfaced brook and from moist areas and sloping marshes along a stream, also this one rather shady and partly with fairly dense tree- and shrub coverage. Flight period: June–August.



**FIGURE 4.** The three localities in Arendal where females of *Nephrotoma flavipalpis* were observed depositing eggs. **A.** Alvekilen. **B.** Labakken. **C.** Skarveløkka. Photos: K.M. Olsen.

## Tipulinae

### \* *Nephrotoma flavipalpis* (Meigen, 1830)

(Figures 4–5)

**Material examined:** AAY, Arendal: Alvekilen, 4 August 2017, 1♀, N, leg./det. KMO; N Labakken, 4 August 2017, 1♀, N, leg./det. KMO;



**FIGURE 5.** *Nephrotoma flavipalpis*, male terminalia. Photos: K.M. Olsen.

Skarveløkka, 3 August 2017, 1♀, N, leg./det. KMO; Styrsviga, 5 August 2017, 1♂1♀, N, leg./det. KMO; Vågsnes, 5 August 2017, 1♀, N, leg./det. KMO; Grimstad: Hesnes, Sandum, 20 June–7 July 2016, 1♂, 7–22 July 2016, 5♂♂, 5–12 August 2016, 2♂♂, 18 September–9 October 2016, 1♂, MT, 24 July 2016, 1♂, N, leg./det. TH. This species has not previously been reported from Norway.

**Distribution and biology.** *Nephrotoma flavipalpis* is distributed in parts of Europe and in Algeria and Tunisia (Oosterbroek 1979c, 2018). In the Nordic countries it is reported from Denmark and from Skåne in Sweden (Tjeder 1955, Salmela 2010). It has not been recorded from Finland (Salmela & Petrasiusnas 2014). The species is found in woodlands, gardens and along hedgerows (Oosterbroek 2018). On three of the localities in Arendal, females were observed depositing eggs – on all occasions in moist, rather bare soil.

## The Norwegian species of *Tipula* Linnaeus, 1758

Subgenus *Acutipula* Alexander, 1924

Three species in Norway.

### *Tipula (Acutipula) fulvipennis* De Geer, 1776

**Material examined:** Ø, Halden: Nokkedal, sjø, 4 July–14 August 2008, 1♂1♀, MT, leg. OJL, det. KMO; Hvaler: Guttormsvauen, 21 August 2017, 4♂♂♀♀, N, leg./det. KMO; Sarpsborg: SE Toppen, 21 August 2017, 1♂, N, leg./det. KMO; AK, Oslo: Nøkle vann, Lutdalsbekk, 3 July 2011, 1♀, leg./det. LBo; Lørenskog: Rasta, Åsmyrveien, 15 June 2011, 1♀, leg. AJ, det. LBo; Oppgård: Grønliåsen, 10 July 2011, 1♂, leg./det. LBo; Skedsmo: Riisstubben, 19 July 2017, 1♂, N, leg. SBL, det. KMO; SSE Vestvollen, 19 July 2017, 1♀, N, leg. SBL, det. KMO; Ullensaker: Krokfossvegen, 19 July 2016, 1♀, N, leg. KMO/RB, det. KMO; Lundby, 29 July 2016, 1♂1♀, N, leg. KMO/RB, det. KMO; BV, Ål: Breiehagen, 7 July 2016, 1♂, N, leg./det. KMO; Venedokki, 6 July 2016, 2♂♂, N, leg./det. KMO; TEY, Porsgrunn: Brevik, Frierflauene, 30 June–27 July 2010, 1♂, MT, leg. GS/MS, det. LBo; Skien: NE Bjerketvedt, 22 June 2016, 2♂♂, N, leg./det. KMO; TEI, Tokke: NW Båtstø, 16 July–4 September 2015, 1♀, MT, 1♂, FIT, leg. KMO/ØG, det. KMO; AAY, Arendal: Færvikkilen, 5 August 2017, 1ad., N, leg./det. KMO; Lille Gjerstadvann, 6 August 2017, 1♀, N, leg./det. KMO; Styrsviga, 5 August 2017, 1♂1♀, N, leg./det. KMO; VAY, Kristiansand: Nedre Timenes, July–September 2017, 1♀, LT, leg. KB, det. KMO; SFI, Luster: Nedstestølen, 25 June 2017, 1♂, N, leg./det. KMO; Nes gård, 23 June 2017, 1♀, LT, leg. KMO *et al.*, det. KMO; STY, Ørland: Austråt fort, 22 July 2017, 1♀, N, leg./det. KMO; NSI, Beiarn: W Evjeosen, 18 July 2017, 1♀, N, leg./det. KMO; NNØ, Narvik: Sjøbuneset, 1 July 2017, 1♂, N, leg./det. KMO.

**Additional records:** The only recent records of *T. fulvipennis* are published from VE, Re: Langøya by Hofsvang *et al.* (1993). Siebke (1877, as *T. lutescens*) published the species from AK, and Mannheims (1952, 1967) reports it from NSY and NTI, respectively. In 1952, he uses the locality

name “Platmo” and the date 5 August 1946 for one of his records. According to Artskart, there is in TROM a specimen from Flatmo, Brønnøy, 5 July 1946, leg. Soot-Ryen, det. Mannheims (D-17934), and these are certainly representing the same specimen, the information from Artskart being correct (Soot-Ryen is known to have been in Flatmo on that date). The locality “Arindal” has not been solved, but it seems also to be connected with northern Norway. In Artskart, there are more than twenty records, several of which are accompanied by good photographs, and amongst these are records from RY (including a record from 29 May 2017), HOY and MRI. There are specimens from Ø, AK, ON, VE and MRI in NHMO, only one of which seems to have been published (a male from Bekkelaget, in Siebke (1877)), and also a record from TEI in ZMAN.

**Distribution and biology.** *Tipula fulvipennis* is distributed in West and East Palaearctic. The larvae are terrestrial or semiaquatic, often found in margins along flowing and standing waters (Oosterbroek 2018). Flight period: May–September.

### \* *Tipula (Acutipula) luna* Westhoff, 1879

(Figure 6)

**Material examined:** VE, Tjøme: Kola-bekkilen, 30 May 2017, three sublocalities with



FIGURE 6. *Tipula luna*, male terminalia. Photo: K.M. Olsen.

5♂♂, 12♂♂♀♀ and 5♂♂, respectively, N, leg./det. KMO; **TEY**, Kragerø: Hellesengtjenna NR, 13 June 2017, 8♂♂♀♀, N, leg./det. KMO.

The species is new to Norway. At Kolabekkilén, it was found in company with *Tipula pruinosa*, *T. variicornis* and *T. vittata*, whereas at Hellesengtjenna other tipulids were *Tipula lunata*, *T. pruinosa* and *T. vernalis*.

**Distribution and biology.** West Palaearctic. Larvae in mud of low-laying marsh (*Alnetalia glutinosae*) on boggy lakeshore, but also elsewhere (Oosterbroek 2018). Flight period: April–August; in Norway so far only May–June.

### *Tipula (Acutipula) maxima* Poda, 1761

**Material examined:** **AK**, Oslo: Gaustad, 21 June 2017, 1♂, N, leg./det. KMO; Ljanselva, Skullerud, 12 June 1972, 1♂, 11 June 1978, 1♀, N, leg./det. TH; Munkerud, 15 June 1978, 1♀, N, leg./det. TH; S Solvik, 5 June 2008, 1♂, obs./det. KMO; Enebakk: Tangenelva, 14 June 2017, 1♂, N, leg. KMO/OJL, det. KMO; Skedsmo: SSE Buhaugen, 20 June 2017, 1ad., obs./det. KMO, 31 July 2017, 1♂, N, leg./det. ØG; SSE Øvre Tærud, 20 June–31 July 2017, 1♀, MT, leg. KMO/TB, det. KMO; **VE**, Larvik: Karto, 15 May–13 June 2010, 1ad., MT, leg. SOB, det. ØG; **RY**, Sandnes: Stangeland, 15 June 1984, 1♀, leg. EN, det. TH.

**Additional records:** Zetterstedt (1851, as *T. gigantea*), Siebke (1877, as *T. gigantea*), Tjeder (1965) and Hofsvang (1986) reported *T. maxima* from **AK** and **HOY**. In Artskart, there is a record from **BØ**, Hurum: Langseth, 18 June 2016, leg./det. Engdal, conf. KMO 16 May 2018 (photo seen) and five records from **AAV** (with photos). There are also additional records (with photos) from **AK**, **VE** and **HOY**, including specimens from May. In NHMO are one male and one female, collected *in cop.*, from **Ø**, Hvaler: Asmaløy, Huser, 11 June 2016, leg. Sørlibråten, det. KMO 08 May 2018 and one male from **HES**, Odalen, June 1885, leg. Schøyen. In NHMO is also a specimen with label “Laurgrd 13.6.46”, leg. Siebke (Laurgård is in ON, Sel), but this record has not been solved yet, as other sources indicate that Siebke was in Oslo on this date (Løken 1997).

**Distribution and biology.** West Palaearctic, a southern distribution in Norway, Sweden and

Finland (Oosterbroek 2018). The larvae are mostly reported from semiaquatic and aquatic habitats (Oosterbroek 2018). Flight period: May–July.

### *Tipula (Acutipula) vittata* Meigen, 1804

**Material examined:** **Ø**, Halden: Torpbukta, 21 May 2017, 1♂1♀, N, leg./det. KMO; Råde: Åven, 21 May 2017, 5♂♂, N, leg./det. KMO; **VE**, Tjøme: Kolabekkilén, 30 May 2017, 1♂, N, leg./det. KMO.

**Additional records:** Lundström (1914), Tjeder (1965) and Hofsvang (1986) reports *T. vittata* from **Ø**, **RI** and **HOY**. In Artskart, there are records with verifiable photos from **AAV** and **VAY**.

**Distribution and biology.** West Palaearctic. The larvae are aquatic or found in muddy habitats along streams (Oosterbroek 2018). Flight period: April–May.

*Arctotipula* Alexander, 1934

One species in Norway.

### *Tipula (Arctotipula) salicetorum* Siebke, 1870

**Material examined:** **HEN**, Folldal: Atnaelv, Vollen, 11–18 June 1986, 1♀, 18–25 June 1986, 6♂♂, 3♀♀, 25 June–2 July 1986, 16♂♂, 2♀♀, 2–8 July 1986, 3♂♂, 1♀, 8–18 July 1986, 1♂, MT, leg. JOS, det. TH, 1 July 2010, 2♂♂, 1♀, leg./det. LBo; **ON**, Dovre: Atnaelv, Dørråsæter, 25 June–2 July 1986, 2♂♂, MT, leg. JOS, det. TH; **STI**, Selbu: Rotla, 14–21 June 1986, 1♂, MT, leg. JOS, det. TH; **NSI**, Grane: Børgefjellskolen, 27 July 1974, 1♂, LT, leg. JOS, det. TH; **FV**, Alta: Gargjaleva, Storeng, 23 July 2010, 2♂♂, leg. LBo/TEK/SRo, det. LBo; **FN**, Båtsfjord: Sandefjord, 29 July 2010, 1♀, leg./det. LBo; Lebesby: Eastorjavri, 28 July 2010, 1♀, leg. LBo/TEK/SRo, det. LBo.

**Additional records:** Further records are given in Siebke (1870, 1877), Wallengren (1882b), Lackschewitz (1935, 1936), Mannheims (1967), Hofsvang (1979, 1984) and Hofsvang *et al.* (1987) from **OS**, **ON**, **SFI**, **STI**, **NTI**, **NSI**, **NNØ**, **TRI**, **FV** and **FN**, partly based on records of larvae. The record in Hofsvang (1984) is from the small part of EIS square 166 that is in FN. There is one male from ON in ZMAN.

**Distribution and biology.** West and East Palaearctic. Aquatic larvae (Hofsvang 1979). Flight period: June–August.

*Beringotipula* Savchenko, 1961  
One species in Norway.

***Tipula (Beringotipula) unca* Wiedemann, 1817**

**Material examined:** AK, Oslo: Munkerud, 7 July 1985, 2♂♂, 9 July 1985, 1♂, 10 July 1985, 1♂, 13 July 1985, 1♂, 19 June 1986, 1♂, 21 June 1986, 1♂, 22 June 1986, 1♂, 28 June 1986, 3♂♂, 19 June 1988, 1♂, 20 June 1988, 1♂, 29 June 1988, 2♂♂, 30 June 1988, 1♂, N, leg./det. TH; Sognsvann, 22 June 2010, 1♂, leg./det. LBo; Østensjøvannet, 15 June 2010, 2♂♂, leg./det. LBo; Enebakk: Tangenelva I, 14 June 2017, 2♂♂, N, leg. KMO/OJL, det. KMO; Tangenelva II, 14 June 2017, 1♂, N, leg. KMO/OJL, det. KMO; Froggn: Bonn, Rundvollbekken, 12 June 2011, 1♂, leg./det. LBo; Skedsmo: N Asak Mellom, 20 June 2017, 1♂, N, leg./det. KMO; SSE Buhaugen, 20 June 2017, 2♂♂, N, leg./det. KMO; HEN, Folldal: Vollen, 1 July 2010, 1♂, leg./det. LBo; Stor-Elvdal: Atnaelv, Solbakken, 24 June–2 July 1986, 1♂, MT, leg. JOS, det. TH; OS, Sør-Fron: Frya, Steig, 19 June 2010, 1♂, leg. LBo/KMO/SOs, det. LBo; BØ, Lier: Nedre Mørk, 9 July–3 August 2015, 1 ad., SLAM, leg. Sob, det. ØG; VE, Horten: Mellomøya, 17 June 2017, 1♂, N, leg./det. KMO; Larvik: Nevlungstranda, 1–26 June 2009, 1♂, 26 June–27 July 2009, 2♂♂, MT, leg. ØG/Sob/KMO, det. KMO; TEY, Skien: NE Bjerketvedt, 22 June 2016, 13♂♂, N, leg./det. KMO; AAY, Birkenes: Nordåsen, September 2016, 1♂, LT, leg. SS/KB, det. KMO; SFY, Høyanger: N Furehaugen, 22 June–19 August 2015, 1♂, MT, leg./det. KMO; SFI, Leikanger: Grinde, 9–24 July 1991, 1♂, WT, leg. JA, det. TH; Luster: Nes gård, 24 June 2017, 1 ad., HP, leg. KMO/IJA, det. KMO; Vadøyane, 24 June 2017, 1♂, N, leg./det. KMO; MRY, Giske: Vigra, Synnes, 10 June 2014, 2♂♂, leg. OMS, det. TH; STY, Hitra: Gryta, 26 July 1979, 1♂, LT, leg. IS, det. TH; STI, Selbu: Rotla, 28 June–5 July 1986 1♂♂, 3–7 July 1989, 3♂♂, 1–7 August 1989, 1♂, MT, leg. JOS, det. TH; NTI, Stjørdal: Håmmårsbukta, 29 June 2017, 3♂♂, N, leg./det. KMO; NNØ, Narvik: Sjøbuneset, 1 July

2017, 6♂♂, N, leg./det. KMO; TRY, Lyngen: Høgtun, Storelva, 11 July 2017, 1♂, N, leg./det. KMO; Tromsø: Holt, 2 June 1994 (as larvae, hatched indoors), 3♂♂, leg. TJJ, det. TH; SE Lillehaug, 13 July 2017, 1♂, N, leg./det. KMO; TRI, Balsfjord: Hamnvågbukta, 4 July 2017, 1♂, N, leg./det. KMO; NW Eidismoen, forest, 4 July 2017, 3♂♂, N, leg./det. KMO; NW Eidismoen, salt marsh, 4 July 2017, 5♂♂, N, leg./det. KMO; NW Kolnes, 13 July 2017, 3♂♂, N, leg./det. KMO; Bardu: Kvisla, 2 July 2017, 1♂, N, leg./det. KMO; Gratangen: Mølnelva, 8 July 2017, 3♂♂, N, leg./det. KMO; Lavangen: Tørrkjerrholmen, 8 July 2017, 1♂, N, leg./det. KMO; Målselv: Rogndalsmyra, 7 July 2017, 1♂, N, leg./det. KMO; Storfjord: N Elsnæs, 6 July 2017, 5♂♂♀♀, N, leg./det. KMO; WNW Sørli, 6 July 2017, 3♂♂, N, leg./det. KMO; FV, Alta: Gargialelva, Storeng, 23 July 2010, 1♀, leg. LBo/TEK/SRo, det. LBo; Gåppaelva, 25 July 2010, 1♂, leg. LBo/TEK/SRo, det. LBo; FN, Porsanger: Russevannet, 25 July 2010, 1♂, leg. LBo/TEK/SRo, det. LBo; FØ, Sør-Varanger: Mellomnes, 28 July–7 August 2017, 3♂♂, MT, leg. PEA, det. KMO.

**Additional records:** The species has otherwise been reported from AK, HES, HEN, OS, ON, BV, AAY? (see below), VAI, SFI, STI, NTI, NSY, NNØ, TRY, TRI, FV, FI, FN and FØ by Zetterstedt (1851, as both *T. hortensis* and *T. longicornis*, but see Lackschewitz (1933) regarding *T. hortensis*), Siebke (1870, as *T. longicornis*, 1872, 1877, in both as both *T. hortensis* and *T. longicornis*, see Lackschewitz (1933) regarding *T. hortensis*), Wallengren (1882b, as *T. hortensis*), Storm (1898, 1907, in both as both *T. hortensis* and *T. longicornis*), Strand (1900, as *T. hortensis*), Lackschewitz (1933, 1935, 1936), Tjeder (1965, records from VAI, one from TRI and one from FV are erroneously given as VAY, FI and FI, respectively), Mannheims (1967) and Boumans & Aarnes (2010, presenting blue coloured specimens probably infested with an invertebrate iridovirus). The record of Strand (1900) from AAY, Tvedestrand: Lyngør is probably the same as a specimen in NHMO reidentified to *T. vernalis* in November 2017. Strand is the only author mentioning AAY, so there might be no older records from this region. In Artskart, there



is a record from NNV, Røst: Røst, 4 July 1936, leg. T. Soot-Ryen, det. B. Mannheims (in TROM, D-17638) and three records from MRI, Rauma, Isfjorden, all with photos verified by KMO. In ZMAN, there are specimens from HEN, Tynset: Tynset, 11 July 1985, 3♂♂♀♀, leg./det. J.K. Winkelmann; HOY, Samnanger: Gaupholm, 24 June 1970, 4♂♂♀♀, leg./det. D. Gillissen; NSY, Bodø: Bodø, 30 June 1980, 1♂1♀, leg./det. J.A.W. Lucas.

**Distribution and biology.** Distributed in West and East Palaearctic. Larvae in wet habitats, often along banks of small rivers etc. (Oosterbroek 2018). Flight period: June–September.

*Dendrotipula* Savchenko, 1964  
One species in Norway.

***Tipula (Dendrotipula) flavolineata* Meigen, 1804**

**Material examined:** AK, Oslo: Gråbrødreeika, 24 May–12 June 2013, 1 ad., MT, leg. SOB/ØG, det. ØG; Kværner, Turbinveien, 1 June 2010, 1♂, leg./det. LBo; Asker: Sem, 14 June 1977, 1♂, N, leg./det. TH; Frogn: N Øvre Seiersten skanse, 26–27 May 2017, 1♂, MT, leg. HLJ/TM, det. KMO; VE, Larvik: Nevlungstranda, 9 June 2017, 1♂, HP, leg./det. KMO; TEI, Tinn: Øvre Gunleiksrud, 25 May–16 June 2014, 2♂♂, MT, leg. SRe, det. KMO; TRI, Salangen: Gårdselva, 8 July 2017,

1♀, N, leg./det. KMO.

**Additional records:** Zetterstedt (1851), Siebke (1877), Tjeder (1965) Hofsvang (1986) and Hofsvang *et al.* (1993) have published *T. flavolineata* from Ø, AK and HOI.

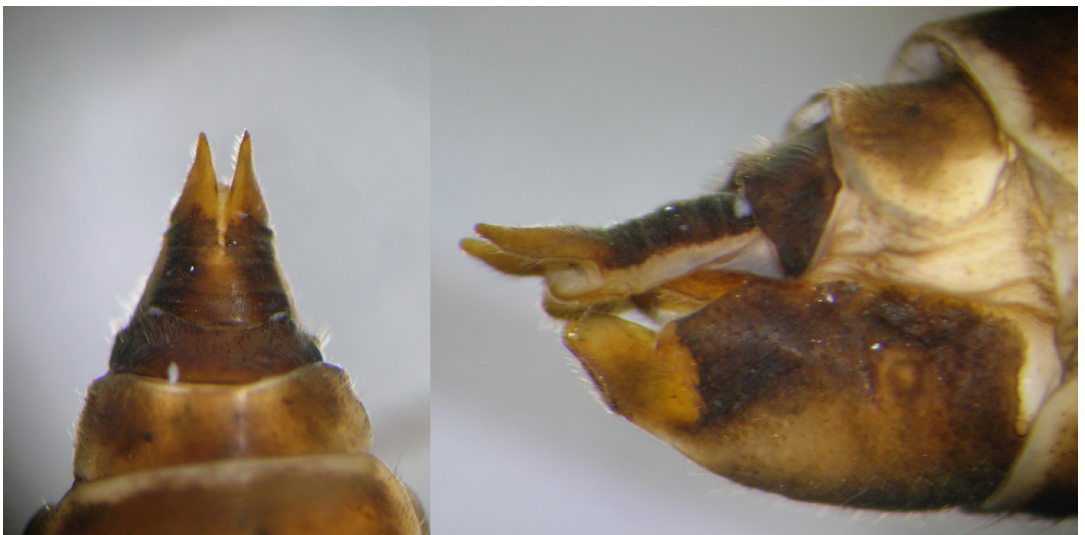
**Distribution and biology.** Distributed in West and East Palaearctic. Larvae are saproxylic and/or fungivorous (Oosterbroek 2018). Flight period: May–July.

*Emodotipula* Alexander, 1966  
One species in Norway, new.

**\* *Tipula (Emodotipula) obscuriventris* Strobl, 1900** (Figure 7)

**Material examined:** TRI, Gratangen: Storelva, 8 July 2017, 1♀, N, leg./det. KMO; Kvænangen: Bergstilla, 15 July 2017, 1♂, N, leg./det. KMO; Salangen: Gårdselva, 8 July 2017, 1♀, N, leg./det. KMO.

The species is new to Norway. At Storelva, it was collected along with *T. varipennis*, at Bergstilla it was the only *Tipula* species collected, and at Gårdselva it was found with *T. flavolineata*. The species is known from northwesternmost Finland (Salmela 2008), very close to Norway and not very far from the three localities reported above.



**FIGURE 7.** *Tipula (Emodotipula) obscuriventris* Strobl, 1900, female terminalia. Photo: K.M. Olsen.



**FIGURE 8.** *Tipula (Lindnerina) bistilata* Lundström, 1907, male. **A.** Habitus. **B.** Terminalia. Photos: Ø. Gammelmo (A) / K.M. Olsen (B).

**Distribution and biology.** Distributed in West Palaearctic. Larvae are associated with lotic habitats; rapids, brooks and streams, probably demanding good water quality (clear and cold water, pH  $\pm$  neutral) (Salmela 2008, Penttinen *et al.* 2010). Flight period: July.

*Lindnerina* Mannheims, 1965

Two species in Norway, of which one is new.

\* *Tipula (Lindnerina) bistilata* Lundström, 1907 (Figure 8)

**Material examined:** ON, Dovre: Faksfall, 12 June–2 July 2017, 3♂♂, MT, leg. RS, det. KMO. *Tipula bistilata* has not previously been reported from Norway, although the first specimen was collected by Siebke in 1873: ON, Dovre: Fokstua, 14 July 1873, 1♂, rev. JS/KMO/ØG 2017 (found amongst *T. griseescens* in NHMO). A map in Theowald & Oosterbroek (1985) indicates a distribution very close to northern Norway.

**Distribution and biology.** Distributed in West and East Palaearctic. Strongly associated with exposed sandy riverine sediments (Oosterbroek 2018). Flight period: June–July.

*Tipula (Lindnerina) subexcisa* Lundström, 1907

*Tipula subexcisa* has hitherto been reported from only two localities in Norway: ON, Dovre: Dovre, 15 July 1953, 1♀, leg. O. Sjöberg, in Tjeder's collection (Tjeder 1965) and FV, Alta: Bojobaeske, 17 July 1924, 1♂, leg. T. Soot-Ryen (Lackschewitz 1935, 1936; according to Artskart in TROM (D-17831)). In addition, there are two specimens in NHMO: ON, Dovre: "Jerkin", 25 July 1853, 1♂, otherwise only one label with "n.sp.?" (it is not mentioned in Lundström (1907)) and ON, Dovre: "Fogstuen", 19 July 1873, 1♂, leg. Siebke, rev. JS/KMO/ØG 2017 (found amongst *T. griseescens*, but not mentioned as *T. griseescens* in Siebke (1877)).

**Distribution and biology.** Distributed in West and East Palaearctic. Little information exists on larval ecology, lotic is indicated (Salmela 2008). Flight period: July.

*Lunatipula* Edwards, 1931

Eleven species in Norway, of which one is new.

*Tipula (Lunatipula) affinis* Schummel, 1833

**Material examined:** Ø, Aremark: Bøensætre, 23 May–31 July 2017, 1♀, SLAM, leg./det. KMO; AK, Aurskog-Høland: Mikkelsrud, 13 June 2017, 1♂, N, leg. Solb, det. KMO.

**Additional records:** Only two records of *T. affinis* have previously been reported from Norway: HEN, Rena: Åmot, without date, Tromsø museum, 1♂, leg. Siebke (Lackschewitz 1935: 5)

and **TRI**, Målselv: Øverbygd, 26 July 1926, 2♂♂, 1♀, leg. Soot-Ryen (Lackschewitz 1935, 1936). In addition, there are four males in NHMO, all collected by Siebke and without date, two from HEN: Rena, Åmot (one reidentified from *T. lunata* and one possibly from *T. fascipennis* in November 2017) and two from HES, Grundset and Grue (reidentified from *T. selene* and possibly from *T. fascipennis*, respectively, in November 2017).

**Distribution and biology.** Distributed in West and East Palaearctic. Little information exists on larval ecology. However, shrubs along rivers and streams are reported (Oosterbroek 2018). Flight period: June–July.

### *Tipula (Lunatipula) alpina* Loew, 1873

**Material examined:** **BØ**, Hurum: Tofteholmen, 31 July–1 September 1991, 1♂, MT, leg. LOH, det. TH; **VE**, Horten: Mellomøya, 17 June 2017, 1♂, N, leg./det. KMO; Larvik: NW Nevlungstranda, 8 June 2017, 1ad., N, leg. KMO *et al.*, det. KMO; **TEI**, Tokke: Lindeviki, 16 July–4 September 2015, 1♂, 9 June–10 October 2015, 1♂, FIT, leg. KMO/ØG, det. KMO; Lårdalsåi, 16 July 2016, 1♂, N, leg./det. KMO.

**Additional records:** Hofsvang (1986, 1987) reported *T. alpina* as new to the Norwegian fauna from **AAV**, Grimstad: Hesnes, Sandum, 8 July 1984, 1♂, leg./det. TH.

**Distribution and biology.** Distributed in West and East Palaearctic. Soil dwelling larvae in forests (Oosterbroek 2018). Flight period: June–August.

### *Tipula (Lunatipula) circumdata* Siebke, 1863

Only some older records of *Tipula circumdata* exists from Norway: **STI**, Oppdal: Drivstuekleiven, 17 August 1861, 4♂♂ (Siebke 1863, 1877; three of these are in the type collection in NHMO); **NSI**, Rana: Grønli, 2 September 1926, 1♀ and **TRI**, Målselv: Frihetsli, 4 August 1922, 1♂, both leg. Soot-Ryen (Lackschewitz 1935, 1936). In addition, there is one male in NHMO from HEN, Åmot, leg. Siebke, rev. JS/KMO/ØG 2017 (found amongst *T. grisescens*).

**Distribution and biology.** Distributed in West and East Palaearctic. No specific information on larval habitat, but see Oosterbroek (2018). Flight

period: August–September.

### *Tipula (Lunatipula) fascipennis* Meigen, 1818

**Material examined:** **Ø**, Moss: Munkestein, 17 June 2016, 5♂♂♀♀, N, leg. KMO *et al.*, det. KMO; Rakkestad: N Stiksvannet, 14 June–16 July 2015, 2♂♂, MT, leg. KMO/OMWK/SOs, det. KMO; **AK**, Oslo: Gaustad, 2 August–5 September 2015, 1♀, SLAM, leg. KMO *et al.*, det. KMO; Munkerud, 13 July 1977, 3♂♂, 13 August 1977, 1♂, 7 July 1984, 1♂, 24 July 1985, 1♂, 25 July 1985, 1♂, 30 July 1985, 1♂, 9 August 1985, 1♂, N, leg./det. TH; Skullerud, 28 July 1984, 1♂, N, leg./det. TH; Ås: NMBU, 4 July 1979, 1♂, N, leg./det. TH; Aurskog-Høland: Mikkelsrud, 13 July–14 August 2017, 2♀♀, MT, 13 June–13 July 2017, 7♂♂♀♀, 13 July–14 August 2017, 2♀♀, SLAM, 13 June–13 July 2017, 12♂♂♀♀, 13 July–14 August 2017, 7♂♂♀♀, FIT, all leg. KMO/SOb, det. KMO, 13 July 2017, 3♂♂♀♀, N, leg. SOb, det. KMO; Bærum: N Oksenøyveien, 27 June 2016, 6♂♂♀♀, N, leg. KMO/TB, det. KMO; Frogne: Sandbukta, 15 June–4 August 2017, 1♀, PT, leg. KMO/OJL, det. KMO; Nesodden: Blåbærstien, 28 June–27 July 2015, 1♂1♀, MT, leg. OJL, det. KMO; Ullensaker: Hovinmoen grustak, 19 June 2016, 1♂, N, leg./det. KMO; **ON**, Vang: Høre, 26 July 2017, 1♀, LT, leg. KB, det. KMO; **BØ**, Flesberg: Kjøberg, 28 June 2016, 1♀, N, leg./det. KMO; Nedre Lehovd, 21 June 2016, 1♂, N, leg./det. KMO; Nedre Eiker: Mjøndalen, Milejtjern, primo July 1988, 2♂♂, LT, leg. DR, medio July 1988, 1♂, LT, leg. DWBJ, both det. TH; Ryghsetra, 2 May–1 August 2017, 1♀, SLAM, leg./det. KMO; **BV**, Gol: Renslo, 7 July 2016, 1♀, N, leg./det. KMO; **TEY**, Skien: NE Bjerketvedt, 22 June 2016, 1♂1♀, N, leg./det. KMO; **TEI**, Tokke: Eidsborgtjøerna, 17 July 2016, 1♂1♀, N, leg./det. KMO; NW Båtstø, 9 June–16 July 2015, 1♂, MT, leg. KMO/ØG, det. KMO; **AAV**, Grimstad: Hesnes, Sandum, 24 June 1972, 2♂♂, 25 June 1972, 4♂♂, 26 June 1984, 1♂, 8 July 1984, 3♂♂, 16 July 1984, 1♂, 18 July 1984, 1♂, 21 July 1984, 1♂, 7–15 July 1988, 1♂, 10 June 2016, 1♂, MT, leg./det. TH; **SFI**, Luster: Solvorn, June–July 2016, 1♂, LT, leg. KB/LBy, det. KMO; Lærdal: Storøyeni, 23 June 2017, 5♂♂♀♀, N, leg./det. KMO; **NSY**, Brønnøy: SE

Torghatten, 20 July 2017, 1♀, N, leg./det. KMO.

**Additional records:** Further records of *T. fascipennis* are given by Zetterstedt (1851), Siebke (1866b, 1872, 1877), Storm (1898), Strand (1903), Lackschewitz (1933), Tjeder (1965), Mannheims (1967), Hofsvang (1986, 2010), Hofsvang et al. (1993) from regions Ø, AK, HES, HEN, BØ, VE, SFI, STI and NTI. There are also several records in Artskart, accompanied by good photographs and/or identified by KMO, representing regions AK, VE, TEY, AAY, VAY, RY, MRY, MRI and NTI.

**Distribution and biology.** Distributed in West Palaearctic. Larvae in soil in woodland areas (Oosterbroek 2018). Flight period: May–August.

\* *Tipula (Lunatipula) humilis* Staeger, 1840 (Figure 9)

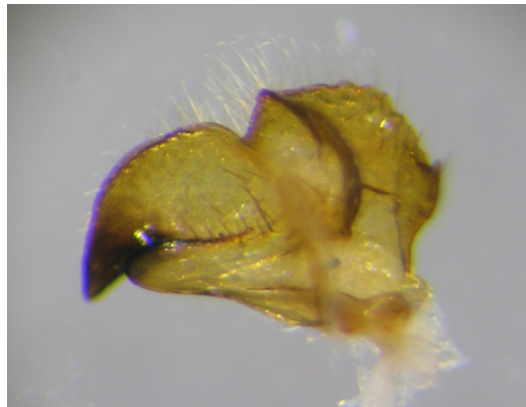
**Material examined:** AK, Ås: Østensjøvannet, 31 July 2017, 2♂♂, N, leg./det. KMO.

The species is new to Norway. It was found at the locality along with *Tipula laetabilis*, *T. lateralis*, *T. scripta* and *Nephrotoma dorsalis*.

**Distribution and biology.** Distributed in West and East Palaearctic. The larvae seem to be associated with wet conditions along rivers and lakes (Oosterbroek 2018). Flight period: July. (Elsewhere in Europe from May to September.)

*Tipula (Lunatipula) laetabilis* Zetterstedt, 1838

**Material examined:** Ø, Sarpsborg: SE Toppen, 21 August 2017, 1♂, N, leg./det. KMO; AK, Asker: Kistefosdammen S, 10 August 2017, 1♂, N, leg./det. KMO; Ås: Østensjøvannet, 31 July 2017, 1♂, N, leg./det. KMO; BØ, Ringerike: Synneren NR NE, 8 July–27 August 2016, 1♀, SLAM, leg. KMO/SOb, det. KMO; Veksalbekken, 11 August 2017, 4♂♂♀♀, N, leg./det. KMO; VE, Larvik: Karto, 1–22 August 2010, 1♂, MT, leg. SOb, det. KMO; Mølen, 27 July–20 August 2009, 1♀, MT, leg. ØG/SOb/KMO, det. KMO; Nevlungstranda, 26 June–27 July 2009, 1♂, MT, leg. ØG/SOb/KMO, det. KMO; TEI, Notodden: Tjønnåsdaalen øvre, 30 July 2016, 1♀, N, leg. KMO/RB, det. KMO; Seljord: Heggnes, 17 July–4 September 2015, 1♀, MT, leg./det. KMO; Tokke: NW Båttstø, 16 July–4 September 2015, 1♂, MT, leg. KMO/ØG, det. KMO; SFI, Lærdal: Husum, August–September 2016, 1♂1♀,



**FIGURE 9.** *Tipula (Lunatipula) humilis* Staeger, 1840, inner dististylus. Photo: K.M. Olsen.

September 2016, 1♂, LT, leg. KB/RAG, det. KMO; Sogndal: S Eidsbakken, 27 August 2017, 1♀, N, leg./det. KMO; STI, Oppdal: Granmo camping, 24 July 2017, 1♂, N, leg./det. KMO; Selbu: Rotla, 1–7 August 1989, 1♂, MT, leg. JOS, det. TH.

**Additional records:** The species has previously been reported by Siebke (1853, 1866b, 1877; Lackschewitz (1933) called these *T. dilatata*), Zetterstedt (1855), Hofsvang (1986) and Hofsvang et al. (1993) from Strand-regions Ø, AK and ON.

**Distribution and biology.** Distributed in West and East Palaearctic. Little information is given on larval habitat, but some references to humid soil in woodland, often along rivers (Oosterbroek 2018). Flight period: July–September.

*Tipula (Lunatipula) limitata* Schummel, 1833

**Material examined:** HEN, Stor-Elvdal: N Fåfengtjørna, 4 August 2016, 3♂♂, N, leg./det. KMO; S Gardbekken, 28 July 2017, 2♂♂, N, leg./det. KMO; NTY, Leka: Botnlia, 20 July 2017, 1♀, N, leg. KMO/SOs, det. JS; NTI, Høylandet: Skiftesåa, 16–30 July 1986, 1♂, 27 August–3 September 1986, 1♂, MT, leg. JOS, det. TH; NSI, Hattfjeldal: Grannes, 3 August 1974, 1♂, 14 September 1974, 1♂, 21 September 1974, 1♂, LT, leg. JOS, det. TH; NNØ, Narvik: Trollhøgda, 14 August 1984, 1♂, N, leg./det. TH.

**Additional records:** Further records are from HEN, TRI and FN, presented by Siebke (1872,

1877, as *T. opaca*) and Lackschewitz (1935, 1936). In Artskart, there is one specimen from NSI, Grane: Trofors, 25 July 1946, leg. Soot-Ryen, det. Lackschewitz (D-18012 in TROM). Two specimens in NHMO collected by Siebke at HEN, Rendalen: Storsjøen, 5 Aug. 1870 (one without the date on any of the labels, though), a female and a specimen without abdomen, constitute the type specimen(s) of *Tipula opaca* Siebke, 1872.

**Distribution and biology.** Distributed in West and East Palaearctic. There are a few Finnish observations on larval ecology, where larvae are found along small streams, probably associated with dead wood (Oosterbroek 2018). Flight period: July–September.

### *Tipula (Lunatipula) lunata* Linnaeus, 1758

**Material examined:** AK, Oslo; Oslo, 18 June 1969, 1♂, N, leg./det. TH; Munkerud, 16 June 1984, 1♂, 20 June 1984, 1♂, 5 July 1984, 1♂, 7 July 1985, 1♂, 11 July 1985, 1♂, 13 July 1985, 1♂, 28 July 1985, 2♂♂, 21 June 1986, 1♂, 15 July 1987, 1♂, 19 June 1988, 2♂♂, 20 June 1988, 1♂, 29 June 1988, 1♂, 7 August 1988, 1♂, N, leg./det. TH; Asker: Sem, 12 June 1978, 1♂, N, leg./det. TH; Enebakk: Tangenelva, 14 June 2017, 1♂, N, leg. KMO/OJL, det. KMO; Ås: NMBU, 15 June 1985, 1♂, N, leg./det. TH; HES, Stange: Jønsberg vgs., 13 August 2011, 1♂, leg. KMO, det. LBo; HEN, Folldal: Atnaelv, Vollen, 2–7 July 1986, 1♂, MT, leg. JOS, det. TH; TEY, Kragerø: Hellesengtjenna NR, 13 June 2017, 1♀, N, leg./det. KMO; Tåtøy, 12 June 2017, 1♂, HP, leg./det. KMO; Porsgrunn: Brevik, Frierflaune, 30 June–28 July 2010, 1♀, MT, leg. GS/MS, det. LBo; Skien: NE Bjerketvedt, 22 June 2016, 1♂1♀, N, leg./det. KMO; TEI, Tokke: Lårdal kirke, 29 May 2016, 1♂, N, leg./det. KMO; AAY, Grimstad, Hesnes, Sandum, 24 June 1972, 2♂♂, 20 July 1972, 1♂, 12 July 1978, 1♂, 26 June 1984, 1♂, N, leg./det. TH; SFI, Luster: Slettebakkane, 24 June 2017, 1♂, N, leg./det. KMO; STI, Oppdal: NE Spellmannslætta, 24 July 2017, 1♂, N, leg./det. KMO; NTI, Stjørdal: Værnebrannen, 29 June 2017, 6♂♂♀♀ (Alder forest), 1♂ (salt marsh), N, leg./det. KMO; FV, Alta: Gargia, 22 June 1984, 1♂, N, leg. TRN, det. TH; FN, Porsanger: Baukop, 26 July 2010, 1♂1♀, leg. LBo/TEK/SRO,

det. LBo.

**Additional records:** Zetterstedt (1851, as *T. ochracea*), Siebke (1863, 1872, 1877, as *T. ochracea*; see also Lackschewitz (1933)), Storm (1898, as *T. ochracea*), Strand (1900, as *T. ochracea*), Lundström (1914, as *T. ochracea*), Lackschewitz (1935, 1936), Tjeder (1965), Mannheims (1967), Hofsvang *et al.* (1993), Hofsvang (2010), Magnussen (2013), Thunes *et al.* (*in prep.*) list additional records from AK, HES, HEN, ON, BØ, TEY, AAY, AAI, HOI, STI, NTI, NSY, TRY, TRI and FV. In Artskart is presented a record from NTY, Namsos: Namsos, 16 July 1946, leg. Soot-Ryen, det. Mannheims (D-17879 in TROM). From NNØ there is one male in ZMAN (Narvik: Beisfjord, 15 July 1955, leg. Jeekel/Piet) and one record in Artkart, accompanied by good photographs, from Hamarøy: Hjelseng, 26 June 2017, 1♂, photographer P. Hansen (the specimen was not collected). In Artskart is also a record from MRI, leg./det. Hatlen, conf. KMO 25 May 2018 (photos seen).

**Distribution and biology.** Distributed in West and East Palaearctic. In gardens, meadows, mixed and deciduous forests, larvae in soil, between decaying leaves, often wet habitats (Oosterbroek 2018). Flight period: May–August.

### *Tipula (Lunatipula) selene* Meigen, 1830

**Material examined:** AK, Oslo: Munkerud, 31 May 1984, 1♂, 13 June 1984, 1♂, 5 June 1986, 1♂, N, leg./det. TH; TEY, Kragerø: Tåtøy, S Utsikten, 12 June 2017, 1♂, N, leg. KMO/AT, det. KMO.

**Additional records:** Further records are presented by Zetterstedt (1851), Siebke (1872, 1877), Storm (1898) and Lackschewitz (1935, 1936) from AK, HES, ON, MRY, STI, NTI, NSY, NSI and FV.

**Distribution and biology.** Distributed in West Palaearctic. A saproxylic and/or fungivorous species (Oosterbroek 2018). Flight period: May–July.

### *Tipula (Lunatipula) trispinosa* Lundström, 1907

The only Norwegian records of *T. trispinosa* are published from North Norway by Lackschewitz (1935, 1936): TRI, Målselv: Frihetsli; FV, Alta:

Jotkajavre; FN, Porsanger: Festningstua.

**Distribution and biology.** Distributed in West and East Palaearctic. The larvae are aquatic (Oosterbroek 2018). Flight period: July–August.

***Tipula (Lunatipula) vernalis* Meigen, 1804**

**Material examined:** **AK**, Oslo: Lindøya, 11 June 1984, 2♂♂, N, leg./det. TH; Lofsrud, 3 July 2011, 1♀, leg./det. LBo; Asker: Brønnøya, 12 June 2016, 1♂, N, leg. KMO/SOs, det. KMO; Bærum: Ostøya, 7 June 1980, 3♂♂, 2 July 1984, 7♂♂ + three pairs *in cop.*, N, leg./det. TH; Frog: Danmark, 11 June–6 July 2012, 1♀, WT, leg. AEL, det. ØG; **ON**, Lesja: S Flittibrue, 27 June 2017, 5♂♂♀♀, N, leg./det. KMO; **BØ**, Hurum: Holtnes, 16 June–9 July 2015, 1ad., WT, leg. SOB, det. ØG; **VE**, Horten: Mellomøya, 17 June 2017, 3♂♂♀♀, N, leg./det. KMO; Larvik: Andebakke, 6 June 2017, 10♂♂♀♀, N, leg. KMO/SOb, det. KMO; Re: Langøya, 2–28 May 1991, 1♂, MT, leg. LOH, det. TH; **TEY**, Bamble: Langøya, Haslebåen, 1–24 June 2009, 1♂, MT, leg. ØG/SOb/KMO, det. KMO; Langøya, Steinvika, 30 April–1 June 2009, 11♂♂♀♀, 1–24 June 2009, 41♂♂♀♀, MT, leg. ØG/SOb/KMO, det. KMO; Kragerø: Hellesengtjenna NR, 13 June 2017, 1♀, N, leg./det. KMO; **FN**, Båtsfjord: Sandefjord, 29 July 2010, 1♂, leg. LBo/TEK/SRo, det. LBo; Nesseby: Nyborg, 28 July 2010, 1♀, leg. LBo/TEK/SRo, det. LBo; Varangerbotn NR, 1 July 2016, 1♀, N, leg./det. KMO.

**Additional records:** Zetterstedt (1851), Siebke (1863, 1866b, 1872, 1877), Wallengren (1882b), Storm (1898), Strand (1903), Lackschewitz (1935, 1936), Tjeder (1965, record from FV erroneously given as FI) and Hofsvang *et al.* (1993) give additional records from **Ø**, **AK**, **HEN**, **ON**, **STI**, **NTI**, **NSY**, **NNØ**, **TRI**, **FV**, **FI** and **FN**. In NHMO there is one female from **HES**, Elverum: Grundset, without date, leg. Siebke, two males from **AAY**, Tvedestrand: Lyngør, both collected in June, but without year, at least one, but almost certainly both of them leg. E. Strand (and both og them originally misidentified, one as *T. lateralis* and one as *T. unca*) and several specimens, both males and females, from **FØ**, Sør-Varanger: Nyrud, 9 July 1966, leg. R. Mehl (ZMO's Pasvik expedition), det. B. Tjeder. In

Artskart, there is an additional record from **FØ**, Sør-Varanger, Grense Jakobselv, 10 July 1937, leg. T. Soot-Ryen, det. B. Mannheims (in TROM, D-17835), but it seems to have not been included in any of Mannheims' papers. In ZMAN there are one male and two females from **AAI**, Bygland: Bygland, 21 June 1982, leg./det. E. Houkes.

**Distribution and biology.** Distributed in West Palaearctic. Larvae in wet and dry grassland (Oosterbroek 2018). Flight period: May–August.

*Mediotipula* Pierre, 1924

One species in Norway.

***Tipula (Mediotipula) siebkei* Zetterstedt, 1852**

**Material examined:** **TEY**, Kragerø: Tåtøy, 12 June 2017, 3♂♂, N, leg. KMO/AT, det. KMO; **TEI**, Seljord: Heggenes, 29 March–10 October 2015, 2♂♂, FIT, leg./det. KMO; **AAY**, Grimstad: Hesnes, Sandum, 20 July 1979, 1♂, N, leg./det. TH.

**Additional records:** *T. siebkei* is otherwise mentioned by Zetterstedt (1852, 1855), Siebke (1877), Wallengren (1882b), Lackschewitz (1934) and Hofsvang (1986) from **AK** and **AAY**. This species was described by Zetterstedt in 1852, mentioning one male from “Bækkelaget” 30 June 1847 and one female from Kongshavn 28 June 1851, both collected by Siebke. In NHMO there are two males from “Bæklag”, but the date on these are given as 30 June 1852, in Siebke's handwriting. These are given protocol numbers G.I. 10 and G.I. 11. Both of these have a red label with the word “COTYPE”, and are also marked as cotypes in the G.I. protocol. In the same protocol, there is also one more specimen from the same date and locality, G.I. 12, which is not marked as cotype, and it is not to be found in the collection. Also, in TROM there is one male from Bekkelaget (original spelling not known) 30 June 1852, collected by Siebke and identified by Lackschewitz (D-17639 in TROM, according to Artskart). This one might be the same as G.I. 12. As Zetterstedt described the species in 1852, it probably not based on specimens collected as late as 30 June that same year, but rather on specimens collected earlier, like the ones he mentions from 1847 and 1851. However, it is then not clear why

the specimens in NHMO are marked as cotypes. In NHMO there is also one female, from “Kr.ania”, but without date, protocol number G.l. 13. This one could possibly be the specimen Zetterstedt mentions from Kongshavn. According to the G.l. protocol, G.l.10–G.l.13 are all pinned specimens and identified by Lackschewitz, the identifications either made at or reported to the museum on 3 November 1932.

**Distribution and biology.** Distributed in West Palaearctic. Little information exists on larval ecology (see Oosterbroek (2018) for one report of saproxylic larvae). Flight period: June–July.

*Odonatisca* Savchenko, 1956

One species in Norway.

### *Tipula (Odonatisca) nodicornis* Meigen, 1818

**Material examined:** ON, Dovre: Faksfall, 21 May–12 June 2017, 7♂♂, 12 June–2 July 2017, 72♂♂♀♀, MT, leg. RS, det. KMO.

**Additional records:** The only publications mentioning this species from Norway are Siebke (1863): ON, Dovre: Hjerkin, 25 July 1853, 1♂1♀ (none of these are in NHMO) and Siebke (1877): ON, Sel: Laurgaard, June or July (three males in NHMO, two from 28 June 1861 and one from 10 July 1873 fits in here), as well as repeating that it has been collected at Hjerkin. In NHMO, there is one male from HES, Grue, leg. Siebke, which can not be found in any of his publications.

**Distribution and biology.** Distributed in West and East Palaearctic. Larval habitat: often in open areas and in sandy soils, e.g. along rivers (Oosterbroek 2018). Flight period: June–July.

*Platytipula* Matsumura, 1916

Three species in Norway.

### *Tipula (Platytipula) luteipennis luteipennis* Meigen, 1830

**Material examined:** Ø, Halden: Saga, 11 September 2016, 1♂, N, leg./det. KMO; Sarpsborg: S Øsakerevja, 21 August 2017, 1♂, N, leg./det. KMO; AK, Oslo: Alnaelva, 8 September 2016, 1♂, N, leg./det. KMO; Ljanselva, Nordstrand, Liadalen, 2 September 2013, 1♂, 15 September 2013, 12♂♂, leg./det. LBo; NW Skytterbrygga, 30

August 2017, 7♂♂, N, leg. KMO/TS, det. KMO; Sørenga, Middelalderparken, 9 October 2010, leg./det. LBo; Ulsrudvannet, 22 September 2010, 9♂♂♀♀, leg./det. LBo; Nesodden: Skoklefalltjern nord, 24 August–29 September 2014, 1♂1♀, MT, leg. OJL, det. KMO; Skedsmo: Riisstubben, 7 September 2017, 13♂♂♀♀, N, leg./det. KMO; Solvanger, 15 August 2017, 11♂♂, N, leg./det. KMO; SSE Buhaugen, 31 July–7 September 2017, 1♂, MT, 7 September 2017, 2♂♂, N, leg./det. KMO; SSE Vestvollen, 15 September 2017, 3♂♂, N, leg./det. KMO; HES, Stange: Starholtjern, 13 August 2011, 4♂♂+ad., leg./det. LBo; BØ, Hurum: Sandspollen, 17 September 2017, 6♂♂ (forest), 4♂♂ (salt marsh), N, leg./det. KMO; TEY, Bamble: Sagvikbukta, 23 August 2017, 4♂♂, N, leg./det. KMO; Åbyelva NR, 23 August 2017, 1♂, N, leg./det. KMO; VAY, Kristiansand: Nedre Timenes, July–September 2017, 5♂♂, LT, leg. KB, det. KMO; NSI, Grane: Heggnes, 9 September 1974, 1♂, LT, leg. JOS, det. TH.

**Additional records:** Further records are presented by Siebke (1877), Storm (1898), Tjeder (1965) and Hofsvang (1986) from AK, STI and NTI. In Artkart there is a record, accompanied by good photographs, from RY, Gjesdal: Eigjeneset, 28 September 2017, 1♂, leg./det. J. Austevik, and also a record from AK, Frog, Digerud, 2 October 1926, leg. Soot-Ryen, det. Lackschewitz (D-17898 in TROM), extending the species' flight period into October.

**Distribution and biology.** Distributed in West and East Palaearctic. Larvae in swampy mires and river banks (Oosterbroek 2018). Flight period: August–October.

### *Tipula (Platytipula) melanoceros* Schummel, 1833

**Material examined:** HEN, Stor-Elvdal: Atnaelv, Vollen, 30 August–7 September 1986, 2♂♂, MT, leg. JOS, det. TH; N Krokmyra, 26 July–21 September 2012, 1♂, MT, leg./det. KMO; ON, Dovre: Atnaelv, Dørålsæter, 9–16 August 1986, 1♂, MT, leg. JOS, det. TH; TEY, Bamble: Åbyelva NR, 23 August 2017, 3♂♂♀♀ (salt marsh), 11♂♂ (forest inside salt marsh), N, leg./det. KMO; NTI, Høylandet: Tverråa, 3–9 September 1986, 1♂, MT, leg. JOS, det. TH;

**NSI**, Grane: Heggnes, 26 August 1974, 1♂, 3 September 1974, 7♂♂, LT, leg. JOS, det. TH; **FØ**, Sør-Varanger: Svanvik, 31 July 2010, 3♂♂, leg. LBo/TEk/SRo, det. LBo.

**Additional records:** Further records are presented by Siebke (1863, 1877, as *T. lineata*), Storm (1898, as *T. lineata*), Lackschewitz (1933, 1935, 1936), Tjeder (1965), Hofsvang et al. (1987), from **AK**, **HES**, **HOY**, **STI**, **TRY**, **TRI** and **FN**. In NHMO, there is a male from **HES**, Ringsaker: Helgøya, leg. Esmark, det. Lackschewitz (G.l. 73), and there is one female from **NSY**, Brønnøy and one male from **NNØ**, Sørfold, leg. van Laar in August 1959, in ZMAN.

**Distribution and biology.** Distributed in West and East Palaearctic. Larval habitats: mires (Oosterbroek 2018). Flight period: July–September.

#### *Tipula (Platytipula) moiwana* (Matsumura, 1961)

**Material examined:** **AK**, Oslo: Ljanselva, Nordstrand, Liadalen, 25 August 2013, 1♀, 27 August 2013, 1♀, N, leg./det. LBo.

**Additional records:** Boumans et al. (2013) reported the first specimens from Norway, five females collected in Malaise traps from the same locality, Liadalen, in August and September 2010, leg. GS/MS, det. HdJ/LBo.

**Distribution and biology.** Distributed in West and East Palaearctic. Eggs are laid in moist soil along brooks (Oosterbroek 2018). Flight period: August–September.

*Pterelachisus* Rondani, 1842  
Twelve species in Norway.

#### *Tipula (Pterelachisus) cinereocincta* Lundström, 1907

The only specimens of *T. cinereocincta* published from Norway are listed by Lackschewitz (1935, 1936): **TRY**, Tromsø: Tromsø, 1♂3♀♀, all from different dates in June 1923 and 1924, leg. Soot-Ryen. Tjeder (1949) doubted these identifications (... “Lackschewitz’ statements cannot be taken for good”), but nevertheless included Norway in a later paper (Tjeder 1955). The species appears in the Norwegian Red lists

(Kålås et al. 2010, Henriksen & Hilmo 2015) as “NA” (“Arten har ikke dokumentert forekomst i Norge” [“The species has no documented occurrences in Norway”]). In NHMO, there is one male from **ON**, Vang: Nystuen, leg. Siebke, rev. JS/KMO/ØG 2017 (found amongst *T. grisescens*). There is also one record in Artskart, collected by Soot-Ryen in **FV**, Alta: Bossekop, 29 June 1924 and identified by Lackschewitz – this specimen is deposited in Tromsø museum (D-17643, and the identification was verified by KMO 25 August 2019). In TROM, there are in addition two specimens from Tromsø, one female (D-17642) from 15 June 1923 and one specimen without abdomen (D-17644) from 7 June 1923 (according to Lackschewitz (1935), this is a female), but neither of these seem to fit with *T. cinereocincta*, and these are probably the reason for Tjeder’s skepticism.

**Distribution and biology.** Distributed in West Palaearctic. In Finland, the species has been collected with a trunk-emergence trap from Aspen (*Populus tremula*) (Oosterbroek 2018). Flight period: June.

#### *Tipula (Pterelachisus) crassicornis* Zetterstedt, 1838

Tjeder (1965) lists the only record of *T. crassicornis* from Norway: **TRI**, Nordreisa, 1951, 1♀, leg. Oscar Sjöberg (in Tjeder’s collection). The species is redlisted as DD in the current Norwegian Red list (Henriksen & Hilmo 2015).

**Distribution and biology.** Distributed in Nearctic, West and East Palaearctic. Little biological information is available. Finnish records are from pine forests in June (Oosterbroek 2018).

#### *Tipula (Pterelachisus) irrorata* Macquart, 1826

**Material examined:** **Ø**, Halden: Håkenbyfjellet, 22 June–21 July 2016, 1♂, 21 July–17 August 2016, 1♂, MT, leg. SOB, det. KMO; Rakkestad: N Stiksvannet, 16 July–15 August 2015, 1♂, MT, leg. KMO/OMWK/SOs, det. KMO; **AK**, Oslo: Bjørnås, Elgråkket, 14 June 2011, 1♂, 25 December 2012 (found dead), 1♂1♀, leg./det. LBo; Ljanselva, Munkerud, 8–11 July 1985, 2♂♂, 5–19 July 2015, 1♂, N, leg./



det. TH; Munkerud, 14 July 1982, 1♂, 18 July 1982, 1♂, N, leg./det. TH; Slagteren, 20 June–8 July 2017, 1♂, MT, leg. HE, det. KMO; Søndre Nordstrand, Grønliåsen, 10 July 2011, 1♂1♀, leg./det. LBo; Tøyen, Botanical garden, 8 July 2010, 1♂, leg./det. LBo; Aurskog-Høland: Mikkelsrud, 13 June–13 July 2017, 2♂♂, 13 July–14 August 2017, 3♂♂, MT, leg. KMO/SOb, det. KMO; AK, Nesodden: Blåbærstien, 28 June–27 July 2015, 1♂, MT, leg. OJL, det. KMO; Skedsmo: SSE Øvre Tærud, 20 June–31 July 2017, 1♂, MT, leg. KMO/TB, det. KMO; OS, Lunner: Grindvoll, Vestern, 14–21 July 1994, 2♂♂, 28 July–7 August 1994, 1♂, MT, leg. OJL, det. KMO; ON, Nord-Fron: Kvikne, 1 June–18 July 2017, 1♂, MT, leg. RC, det. KMO; BØ, Hurum: Tofteholmen, 31 July–1 September 1991, 2♂♂, MT, leg. LOH, det. TH; Kongsberg: Karlshaug, 26 June–24 July 2013, 1♂, MT, leg./det. KMO; Ringerike: Synneren NR NE, 8 June–8 July 2016, 1♂, SLAM, leg. KMO/SOb, det. KMO; VE, Larvik: Nevlungstranda, 26 June–27 July 2009, 1♂, MT, leg. ØG/SOb/KMO, det. KMO; VE, Småås, 18 June–10 July 2014, 1♂, 10 July–5 August 2014, 1♂, MT, leg. SOb, det. KMO; TEY, Bamble: Langøya (east), 1–24 June 2009, 1♂, MT, leg. ØG/SOb/KMO, det. KMO; Langøya (west), 1–24 June 2009, 1♂, MT, leg. ØG/SOb/KMO, det. KMO; TEI, Tinn: Øvre Gunleiksrud, 2–24 August 2015, 1♂, MT, leg. SRe, det. KMO; AAY, Grimstad: Hesnes, Sandum, 27–28 July 2012, 1♂, 7–20 June 2013, 1♂, 12–20 June 2016, 1♂, 7–22 July 2016, 1♂, N, leg./det. TH; HOY, Bergen: Fantoft, 3 August 1977, 1♂, N, leg./det. TH; SFI, Leikanger, Grinde, 25 June–11 July 1991, 1♂, 9–25 July 1991, 1♂, WT, leg. JA, det. TH; Lærdal: Storøyini, 23 June 2017, 4♂♂, N, leg./det. KMO; TRY, Tromsø: E Skjellelva, 9 July 2017, 1♂, N, leg./det. KMO.

**Additional records:** Further records are presented by Zetterstedt (1851, as *T. micans*), Siebke (1866a, as *T. micans*, 1870, as *T. micans*, 1877, as *T. hortensis* (see Lackschewitz 1933) and *T. micans*), Strand (1903), Storm (1907, as *T. micans*), Tjeder (1965), Hofsvang *et al.* (1993) and Thunes *et al.* (2004 and *in prep.*), representing Strand-regions Ø, AK, BØ, BV, TEY, AAY, HOY, SFY, MRI, STI and NSI.

**Distribution and biology.** Distributed in West

and East Palaearctic. The larvae are saproxylic (Oosterbroek 2018). Flight period: June–August.

### *Tipula (Pterelachisus) kaisilai* Mannheims, 1954

**Material examined:** STI, Oppdal: NE Spellmannslætta, 29 June 2017, 1♂, N, 29 June–24 July 2017, 1♂, SLAM, leg./det. KMO.

**Additional records:** Hofsvang (1992) mentions this species from Norway, based on a pers. comm. from P. Oosterbroek, which, in turn, probably is based on Oosterbroek & Theowald (1992), where the species is marked as “N (north)”. The source of that information is not known. The species is, as of now, not marked as Norwegian in Oosterbroek (2018). Mannheims (1954) mentions only the Finnish type specimen. So, the above records must be regarded as the first confirmed records for Norway.

**Distribution and biology.** Distributed in West and East Palaearctic. The only habitat information mentioned in Oosterbroek (2018) is lake shore (Mongolia), but this does not fit with the Norwegian locality, where there are no lakes anywhere near the site. Brodin (2011) says that all known localities for this species are from taiga forests close to tundra. The Norwegian locality, however, is a rather dense mountain birch forest, with bogs and some small brooks. Flight period: June–July.

### *Tipula (Pterelachisus) laetibasis* Alexander, 1934

The only specimen of *T. laetibasis* from Norway is listed by Mannheims & Nielsen (1953, as *T. caerulea n.sp.*, holotypus) from FØ, Sør-Varanger: Kirkenes, 1930, 1♀, leg. A. Wessel. The Swedish paratype of *T. caerulea* was captured in Sorsele in Lycksele Lappmark on 10 July 1924.

**Distribution and biology.** Distributed in West and East Palaearctic. Adults were reared from decaying wood, and the flight period is May–July (Theowald 1980, Salmela *et al.* 2007, Oosterbroek 2018). No date is given for the Norwegian specimen.

***Tipula (Pterelachisus) luridorostris* Schummel, 1833**

**Material examined:** AK, Aurskog-Høland: Mikkelsrud, 13 June–13 July 2017, 1♂, MT, leg. KMO/SOb, det. KMO; HEN, Stor-Elvdal: N Krokmyra, 4 April–26 July 2012, 2♂♂, 26 July–21 September 2012, 1♂, MT, leg./det. KMO; TEI, Tokke: S Bratsberg, 29 May–16 July 2016, 1♂, MT, leg./det. KMO; NTI, Høylandet: Skiftesåa, 11–18 June 1986, 3♂♂, 25 June–1 July 1986, 3♂♂, 1–9 July 1986, 1♂, MT, leg. JOS, det. TH; Tverråa, 11–18 June 1986, 2♂♂, 18–25 June 1986, 2♂♂, 25 June–1 July 1986, 2♂♂, MT, leg. JOS, det. TH.

**Additional records:** No detailed information on the species' distribution in Norway has been published before. Walker (1848) mentions a specimen of *T. luridorostris* from FV, Alta, but Lackschewitz (1935) claims that this record shall be transferred to *Tipula hortulana*, which usually means *T. submarmorata* in Nordic conditions. This specimen was located in the "British museum", but could not be found within Walker's collection in September 2018 and is presumed lost (Duncan Sivell *in litt.*, via John Kramer). The only secure record apart from the ones presented as new here, is a specimen from "Dovre", no date, leg. Siebke in NHMO (G.l. 183), reidentified from *T. circumdata* by JA/KMO/ØG in November 2017 and KMO in May 2018. It has not been made clear whether this specimen constitutes part of the type series of *T. circumdata* Siebke, 1863, which consisted of four males collected in 1861 (Siebke 1863, 1877). If it is, the specimen is from STI, but if not, it might also stem from Dovre municipality in ON.

**Distribution and biology.** Distributed in West and East Palaearctic. The species is collected in damp woodland and along streams (Oosterbroek 2018). Flight period: June–July (probably August).

***Tipula (Pterelachisus) middendorffi* middendorffi Lackschewitz, 1936**

The first record of *T. middendorffi* in Norway was given by Mannheims (1963) from ON, Dovre: Vålåsjø, 14 July 1953, 1♂, 1♀, leg. W. Hellén, det. Mannheims. Hofsvang (1987) and Hofsvang

et al. (1987) recorded the species from two localities not far from Vålåsjø, at STI, Oppdal: Kaldvella and Gluptjern. The three localities are at 936, 1220 and 1450 m a.s.l., respectively. The species has status DD in the Norwegian Red lists (Kålås et al. 2010, Henriksen & Hilmo 2015), where, however, only the record from Dovre is mentioned.

**Distribution and biology.** Distributed in West and East Palaearctic. No information on habitat is given in Oosterbroek (2018), so apparently nothing was published from 2000 onward. However, all adults recorded by Hofsvang et al. (1987) were caught in Malaise traps placed along streams. Flight period: July.

***Tipula (Pterelachisus) pabulina* Meigen, 1818**

**Material examined:** AK, Oslo: Gaustad, 26 May–27 June 2016, 1♂, MT, leg./det. KMO; Ljanselva, Munkerud, 3–8 June 2015, 1♂, MT, leg./det. TH; Munkerud, 31 May 1984, 1♂, 10 June 1984, 1♂, 14 June 1985, 1♂, 5 June 1988, 1♂, 20 June 1988, 1♂, N, leg./det. TH; Asker: Brønnøya, 5 June 2017, 1♂, N, leg./det. KMO; Nesodden: Blåbærstien, 2–27 May 2010, 6♂♂, 6 May–3 June 2016, 2♂♂, 3 June–3 July 2016, 1♂, MT, leg. OJL, det. KMO; Skedsmo: SSE Øvre Tærud, 20 June–31 July 2017, 1♂, MT, leg. KMO/TB, det. KMO.

**Additional records:** Siebke (1877), Hofsvang (1986) and Hofsvang et al. (1993) mention the species from AK and BØ. Artskart lists nine specimens collected by LBo from AK, Oslo and Frogn in May and June 2011 (the specimen from July was found dead).

**Distribution and biology.** Distributed in West Palaearctic. Larvae in soil in woodland, often under mosses (Oosterbroek 2018). Flight period: May–June (probably also July).

**\* *Tipula (Pterelachisus) pauli* Mannheims, 1964** (Figure 10)

**Material examined:** HEN, Stor-Elvdal: N Krokmyra, 4 April–26 July 2012, 1♀, MT, leg./det. KMO; BV, Flå: Gulsvik, Langtjern, 3–29 June 1986, 1♂, MT, leg. FM, det. TH. The species is new to Norway. At the locality north of Krokmyra, primarily a lichen-rich pine



**FIGURE 10.** *Tipula (Pterelachisus) pauli* Mannheims, 1964, male terminalia. Photo: K.M. Olsen.

forest with scattered marshy areas, also *T. excisa*, *T. limbata*, *T. luridorostris*, *T. melanoceros* and *T. nubeculosa* have been found.

**Distribution and biology.** Distributed in West and East Palaearctic. *Tipula pauli* is recorded from Sweden and Finland (Oosterbroek 2018). No information is available on larval ecology. Adults have been collected in forests, meadows and shrubs along river banks (Oosterbroek 2018). Flight period: June (possibly also either April or July).

***Tipula (Pterelachisus) pseudoirrorata*  
Goetghebuer, 1921**

**Material examined:** TEI, Tinn: Svartbekk, Killingskardet, 28 May–27 June 2012, 1♂, MT, leg. ØG/SG, det. KMO; NTI, Høylandet: Tverråa, 11–18 June 1986, 1♂, leg. JOS/det. TH.

**Additional records:** Further records are given by Mannheims (1967), Theowald (1980), Hofsvang *et al.* (1993) from Ø, AK, ON, BV, AAY, SFY, STI and NSI.

**Distribution and biology.** Distributed in West Palaearctic. Larvae are saproxylic (Oosterbroek 2018). Flight period: June–July.

***Tipula (Pterelachisus) submarmorata*  
Schummel, 1833**

**Material examined:** Ø, Moss: Reierbukta Ø, 18 May–4 June 2010, 2♂♂, MT, leg. AEL, det. KMO; Råde: Åven, 21 May 2017, 2♂♂, N, leg./det. KMO; AK, Oslo: Bjørnås, Elgtråkket, 8 June 2011, 1♀, 11 June 2011, 1♀, 9 July 2011, 1♀, leg./det. LBo; Kværner, 4 June 2010, 1♀, leg./det.

LBo; Maridalen, 6 June 2011, 1♀, leg./det. LBo; Munkerud, 22 May 1980, 1♂, 12 June 1980, 1♂, 17 May 1982, 1♂, 29 May 1982, 1♂, 10 June 1986, 1♂, N, leg./det. TH; Frogn: Seierstenmarka, 27 May 2017, 3♂♂, N, leg. KMO *et al.*, det. KMO; Nannestad: Tømte, 2 June 1971, 1♂, N, leg./det. TH; Nesodden: Blåbærstien, 2–27 May 2010, 1♂, MT, leg. OJL, det. KMO; HEN, Storelvdal: Atnaelv, Solbakken, 10–17 June 1986, 1♂, 24 June–2 July 1986, 1♂, MT, leg. JOS, det. TH; ON, Dovre: Breiddal, 26 June 2017, 1♂, N, leg./det. KMO; E Angard, 26 June 2017, 2♂♂, N, leg./det. KMO; N Nørdre Grotåe, 28 June 2017, 4♂♂, N, leg./det. KMO; Nord-Fron: Kvikne, 1 June–18 July 2017, 1♂, MT, leg. SBe/RS, det. KMO; BØ, Hurum: Sandspollen, 31 May 2017, 1♂, N, leg./det. KMO; Mølen, 4–6 May 1990, 2♂♂, MT, leg. LOH, det. TH; Kongsberg: Karlshaug, 31 May–26 June 2013, 1♂1♀, MT, leg./det. KMO; VE, Horten: Kongelgv, 19 May 2017, 2♂♂, N, leg. SOB/KMO, det. KMO; Snapsrød N, 24 May 2017, 2♂♂, N, leg. SOB, det. KMO; Svelvik: Blindevannsveien, 31 May 2017, 1♂, N, leg./det. KMO; TEY, Porsgrunn: Solbakkmoen, 29 May 2017, 1♂, N, leg. KMO/OMWK, det. KMO; AAY, Grimstad: Hesnes, Sandum, 20 May–7 June 2013, 3♂♂, MT, leg./det. TH; RY, Klepp: Særheim, 3 June 1981, 3♂♂, leg. GT, det. TH; Sokndal: Birkeland, 4 June 2017, 1♂, N, leg. JSB, det. KMO; SFI, Leikanger: Grinde, 28 May–11 June 1992, 1♂, WT, leg. JA, det. TH; STI, Oppdal: NE Spellmannslåtta, 29 June–24 July 2017, 1♂, SLAM, leg./det. KMO; Selbu: Rotla, 14–21 June 1986, 1♂, MT, leg. JOS, det. TH; NTI, Høylandet: Tverråa, 11–18 June 1986, 4♂♂, MT, leg. JOS, det. TH; NSI, Rana: Holman, 1 July 2017, 13♂♂, N, leg./det. KMO; NNV, Vågan: Svolvær, 19 June 2014, 1♂, N, leg./det. TH; TRI, Balsfjord: Hamnvågbukta, 4 July 2017, 2♂♂, N, leg./det. KMO; Jodalen, 13 July 2017, 1♂, N, leg./det. KMO; Stordalen, 6 July 2017, 1♂, N, leg./det. KMO; Kåfjord: S Kjerringdalen, 5 July 2017, 3♂♂, N, leg./det. KMO; Nordreisa: Veibrink, 12 July 2017, 1♂, N, leg./det. KMO; Storfjord: NW Gustavslåtta, 2–17 July 2017, 1♂, MT, leg./det. KMO.

**Additional records:** Further records from Ø, AK, HEN, BØ, AAY, RY, HOY, HOI, SFY, STI,

**NSI, NNØ, TRY** and **TRI** are given by Storm (1898, as *T. hortulana*), Lundström (1914, as *T. hortulana* (see Theowald 1980), Lackschewitz (1935, 1936, in both as *T. hortulana*), Tjeder (1965, as *T. hortulana*), Mannheims (1967, 1972, in both as *T. meigeni*), Hofsvang et al. (1993) and Hofsvang (2010). In Artskart, there are reliable specimens from **TEI** (photo verified by KMO), **RI** (leg./det. T. Jonassen) and **MRI** (photo verified by KMO).

**Distribution and biology.** Distributed in West Palaearctic. Larvae in moist soil in forests (Oosterbroek 2018). Flight period: May–July.

### *Tipula (Pterelachisus) truncorum* Maigen, 1830

**Material examined:** **AK**, Oslo: Bergskogen, 9 July–6 August 2013, 1♂, WT, leg. SOB/ØG, det. KMO; Bjørnås, Elgråkket, 29 June 2011, 1♂, leg./det. LBo; Blindern, 10 September 2010, 1♂ found dead, leg./det. LBo; Risløkkfaret, 10 June 2017, 1♂, N, leg./det. KMO; Aurskog-Høland: Mikkelsrud, 13 July 2017, 1♂, N, leg. SOB, 13 July–14 August 2017, 1♂, SLAM, leg. KMO/SOB, 13 July–14 August 2017, 1♂, MT, leg. KMO/SOB, all det. KMO; **ON**, Øystre Slidre: Storkvolven SØ, 3 July–8 August 2012, 1♂, MT, leg. ØG/OJL, det. KMO; **TEI**, Tinn: Øvre Gunleiksrud, 25 May–16 June 2014, 1♂, MT, leg. SRe, det. KMO; **FØ**, Sør-Varanger: Midtjfellet, 2–3 July 2016, 1♂, N, leg./det. KMO.

**Additional records:** Zetterstedt (1851), Siebke (1866a, 1870, 1877), Wallengren (1882b), Strand (1903), Storm (1907), Lundström (1914), Tjeder (1965), Mannheims (1967) and Hofsvang et al. (1993) report the species from **Ø**, **AK**, **OS**, **ON**, **RI?** (see below), **HOY**, **MRI**, **STI**, **NTI**, **NSI** and **NNØ**. Lundström (1914) probably include **RI**, but see discussion about the locality Erfjord under *Tipula scripta*. In ZMAN there is one female from OS, Lillehammer: Nordseter, 22 July 1971, leg./det. D. van Katwijk.

**Distribution and biology.** Distributed in West and East Palaearctic. Larvae in damp soil and mires (Oosterbroek 2018). Flight period: June–July(–August).

### *Tipula (Pterelachisus) varipennis* Meigen, 1818

**Material examined:** **Ø**, Aremark: Bøensætre,

23 May 2017, 3♂♂♀♀, N, 23 May–31 July 2017, 2♂♂, SLAM, leg./det. KMO; N Sørenskas, 23 May 2017, 2♂♂, N, leg./det. KMO; Halden: E Skriverøya, 23 May 2017, 2♂♂, N, leg./det. KMO; Torpbukta, 21 May 2017, 1♂1♀, N, leg./det. KMO; Marker: Sandtorpfjorden, 23 May 2017, 4♂♂, N, leg./det. KMO; Moss: Grønli Ø, 3–18 May 2010, 1♂, MT, leg. AEL, det. KMO; Rakkestad: N Stiksvannet, 16 May–14 June 2015, 3♂♂♀♀, MT, leg. KMO/OMWK/SOs, det. KMO; Råde: Åven, 24 April–18 May 2014, 4♂♂, MT, leg. AEL/OJL, det. KMO; **AK**, Oslo: Blankvannsbråten, 24 May–20 June 2017, 1♂, MT, leg. HE, det. KMO; Gaustad, 13 April–26 May 2016, 2♂♂, 26 May–27 June 2016, 1♂, MT, leg./det. KMO; Gjersrudtjern, Klemetsrud, 2 June 2011, 1♂, leg./det. LBo; Kirkeby, Maridalen, 4 June 2011, 4♂♂, leg./det. LBo; Munkerud, 2 June 1979, 1♂, 21 June 1981, 1♂, 27 May 1982, 1♂, 16 June 1985, 1♂, 12 June 1986, 2♂♂, 5 June 1988, 1♂, N, leg./det. TH; Ljanselva, Munkerud, 20–27 May 2015, 5♂♂, 27 May–3 June 2015, 3♂♂, 3–8 June 2015, 4♂♂, MT, leg./det. TH; Ljanselva, Skullerud, 11 June 1978, 1♂, N, leg./det. TH; Slagteren, 24 May–20 June 2017, 2♂♂, 20 June–8 July 2017, 2♂♂, MT, leg. HE, det. KMO; Vindern, Sognsvannsbekken, 27 May–3 June 2014, 1♂, MT, leg./det. TH; Asker: Brønnøya, near Skurven, 5 June 2017, 4♂♂, N, leg./det. KMO; Brønnøya, ESE Kuhavna, 5 June 2017, 1♂, N, leg./det. KMO; Poverudelva, 15 June 2017, 1♂, N, leg. KMO/LEH, det. KMO; Sem, 14 June 1977, 4♂♂, 13 June 1978, 3♂♂, N, leg./det. TH; Spiradammen, 30 May 2016, 1♂, HP, leg./det. KMO; Aurskog-Høland: Mikkelsrud, 13 June–13 July 2017, 1♂, MT, leg. KMO/SOb, det. KMO; Bærum: Lilløyplassen, 22 May 2016, 1♂, N, leg./det. KMO; Ostøya, 2 June 1984, 4♂♂, N, leg./det. TH; Enebakk: Tangenelva, 14 June 2017, 3♂♂♀♀, N, leg. KMO/OJL, det. KMO; Frogn: Rundvollbekken, Bonn, 12 June 2011, 1♀, leg./det. LBo; Seierstenmarka, 27 May 2017, 12♂♂♀♀, N, leg. KMO et al., det. KMO; Hurdal: Skrukkelivegen, 11 June 2016, 1♂, N, leg./det. KMO; Vestre Hurdalsveg, 11 June 2016, 6♂♂, N, leg./det. KMO; **AK**, Hurdal: Øvre Rognstad, 4 May–13 June 2017, 2♂♂, SLAM, leg./det. KMO, 13 June 2017, 1♂, N, leg. SOB, det. KMO;

Nesodden: Blåbærstien, 2–27 May 2010, 1♂, MT, leg. OJL, det. KMO; Flatebybråten vest, 9 May–2 June 2014, 4♂♂, MT, leg. OJL, det. KMO; Ullensaker: Vilberg, 19 June 2017, 1♂, N, leg. KMO/RB, det. KMO; WNW Hauersteteren, 31 May 2016, 3♂♂, N, leg./det. KMO; Ås: Pollen, 15 May–27 June 2016, 5♂♂, MT, leg. OJL, det. KMO; **HEN**, Folldal: Vollen, 1 July 2010, 11♂♂♀♀, leg./det. LBo; Stor-Elvdal: Atnaelv, Solbakken, 10–17 June 1986, 23♂♂, 17–24 June 1986, 23♂♂, 24 June–2 July 1986, 7♂♂, MT, leg. JOS, det. TH; **OS**, Gausdal: Liomsætra, 25 June 2016, 4♂♂, N, leg. KMO/SOs, det. KMO; Gran: SW Rundmyra, 6 June 2016, 1♂, N, leg./det. KMO; **ON**, Dovre: Breiddal, 26 June 2017, 1♂, N, leg./det. KMO; Djupdalsåi, 28 June 2017, 3♂♂, N, leg./det. KMO; E Angard, 26 June 2017, 1♂, N, leg./det. KMO; Eysteinskyrkja, 29 June 2017, 4♂♂, N, leg./det. KMO; Faksfall, 21 May–12 June 2017, 1♀, MT, leg. RS, det. KMO; Fokstua, 22 June 2017, 1♂, N, leg. OJL, det. KMO; NNW Hjellesætrin, 28 June 2017, 1♂, N, leg./det. KMO; Lesja: Bø grendahus, 27 June 2017, 1♂, obs./det. KMO; Kvernåi, 20–22 June 2017, 5♂♂♀♀, N, leg. OJL, det. KMO; W Brustugu bru, 26 June 2017, 3♂♂, 27 June 2017, 2♂♂, N, leg./det. KMO; Nord-Fron: Kvikne, 1 June–18 July 2017, 3♂♂, MT, leg. SBe/RS, det. KMO; **BØ**, Drammen: Nordli, 2 June 2017, 1♂, N, leg. KMO/AT, det. KMO; Svendsedammen, 2 June 2017, 2♂♂, N, leg. KMO/AT, det. KMO; Hole: Helgelandsmoen, 8 June 2016, 1♂, BS, leg./det. KMO; Hurum: Sandspollen, Kapellkilen, 31 May 2017, 1♂, N, leg./det. KMO; Sandspollen, Lagbukta, 31 May 2017, 1♂, N, leg./det. KMO; Ringerike: Synneren NR NE, 5 May–8 June 2016, 3♂♂, SLAM, leg. KMO/SOb, det. KMO; Øvre Eiker: Darbu, June 2010, 7♂♂, leg. EBH, det. TH; **VE**, Horten: N Snapsrød, 1 June 2017, 3♂♂, N, leg. KMO/SOb, det. KMO; Reir, 19 May 2017, 2♂♂, N, leg. KMO/SOb, det. KMO; Re: Langøya, 2–28 May 1991, 5♂♂, MT, leg. LOH, det. TH; Svelvik: Blindevannsveien, 31 May 2017, 1♂, N, leg./det. KMO; Tjøme: Budal, 30 May 2017, 1♂, N, leg./det. KMO; **TEY**, Bamble: Langøya, 30 April–1 June 2009, 1♂, 1–24 June 2009, 2♂♂, MT, leg. ØG/SOb/KMO, det. KMO; Kragerø: Frydensborgtjenna, 13 May–11 June

2009, 17♂♂, MT, leg. SOb/AEL, det. KMO; Porsgrunn: Solbakkmoen, 29 May 2017, 2♂♂, N, leg. KMO/OMWK, det. KMO; **TEI**, Tinn: Øvre Gunleiksrud, meadow, 25 May–16 June 2014, 5♂♂, 26 May–26 June 2015, 3♂♂, MT, leg. SRe, det. KMO; Øvre Gunleiksrud, hay field, 21 May–1 July 2012, 2♂♂, 16 May–13 June 2016, 2♂♂, MT, leg. SRe, det. KMO; Tokke: Strandine W, 29 May 2016, 1♂, N, leg./det. KMO; Strandine E, 29 May 2016, 8♂♂, N, leg./det. KMO; **AAY**, Grimstad: Hesnes, Sandum, 26 May 1979, 1♂, N, 20 May–7 June 2013, 2♂♂, MT, leg./det. TH; **VAY**, Kristiansand: Vatne, 15 May 2017, 1♂, N, leg. KB, det. KMO; **RY**, Sokndal: Rekvei, 4–17 June 2017, 1♂, MT, leg. JSB, det. KMO; **SFI**, Lærdal: Husum, April–July 2016, 1♂, LT, leg. KB/RAG, det. KMO; **STI**, Selbu: Rotla, 16–26 June 1989, 2♂♂, MT, leg. JOS, det. TH; **NTI**, Namsskogan: Smalåsen, 23 June 2014, 3♂♂, N, leg./det. TH; Verdal: Sogna, 30 June 2017, 1♂, N, leg./det. KMO; **TRY**, Karlsøy: Sørelva, 14 July 2017, 1♂, N, leg./det. KMO; **TRI**, Bardu: Dalberg, 2 July 2017, 2♂♂, N, leg./det. KMO; Gratangen: Storelva, 8 July 2017, 1♂, N, leg./det. KMO; Lavangen: Tørrkjerrholmen, 8 July 2017, 1♂, N, leg./det. KMO; Storfjord: N Elsnæs, 6 July 2017, 1♂, N, leg./det. KMO; NE Sagmo, 7 July 2017, 4♂♂, N, leg./det. KMO; WNW Sørli, 6 July 2017, 1♂, N, leg./det. KMO.

**Additional records:** Further records are reported from Ø, AK, **HES**, ON, BØ, **BV**, TEY, AAY, **HOY**, **HOI**, **SFY**, **SFI**, **MRY**, **MRI**, **STY**, **STI**, **NTI**, **NSY**, **NSI**, **NNØ** and **TRY** by Zetterstedt (1851, including as *T. nigricornis*, 1855), Siebke (1853, 1863, 1877, including as *T. nigricornis*), Storm (1898, 1907), Strand (1903), Lundström (1914, as *T. variipennis*), Lackschewitz (1935, 1936, as *T. variipennis*), Tjeder (1965), Mannheims (1967, see also Mannheims (1972)), Hofsvang *et al.* (1993) and Hofsvang (2010). In Artskart, there is one record of a male from **RI**, Forsand: Hardhauslia, 24 May 2014, leg./det. T. Jonassen. In NHMO there is a male from **FØ**, Sør-Varanger: Gaukbekken, 10 July 1966, leg. R. Mehl (ZMO's Pasvik expedition), det. B. Tjeder. There are also specimens in ZMAN from ON, HEN and NNØ.

**Distribution and biology.** Distributed in

West and East Palaearctic. In many habitats, deciduous forests, meadows etc., often in wet soil (Oosterbroek 2018). Flight period: May–July.

*Savtshenka* Alexander, 1965

Fourteen species in Norway, of which one is new.

### *Tipula (Savtshenka) alpium* Bergroth, 1888

**Material examined:** **AK**, Oslo: Munkerud, 8 June 1988, 1♂, N, leg./det. TH; **OS**, Gausdal: Ormtjernkampen, 25 June 2016, 1♂, N, leg. KMO/SOs, det. KMO; **ON**, Dovre: Altaelv, Dørålsæter, 2–7 July 1986, 1♂, MT, leg. JOS, det. TH; **TEI**, Tinn: Svartbekk, Killingskardet, 28 May–27 June 2012, 2♂♂, MT, leg. ØG/SG, det. KMO; Øvre Gunleiksrud, 22 May–2 July 2012, 1♂, MT, leg. ØG/OJL, det. KMO; **HOI**, Ullensvang: Hesthamar, 8 October 1979, 1♂, LT, leg. TE, 9 October 1979, 1♂, LT, leg. TE, det. TH; **SFY**, Høyanger: N Furehaugen, 22 June–19 August 2015, 1♂, MT, leg./det. KMO; **SFI**, Luster: Nedstestølen, 25 June 2017, 1♂, N, leg./det. KMO; Solvorn, 8 August–2 September 2016, 7♂♂♀♀, 15–28 September 2016, 1♂, LT, leg. KB/LBy, det. KMO; Lærdal: Husum, August–September 2016, 2♂♂, September 2016, 1♂, September–October 2016, 1♂, LT, leg. KB/RAG, det. KMO; Moldabakkane, 16–23 August 2015, 1♂, LT, leg. KB/RAG, det. KMO; **NTI**, Høylandet: Skiftesåa, 1–9 July 1986, 1♂, 9–16 July 1986, 1♂, 23–30 July 1986, 1♂, MT, leg. JOS, det. TH; Tverråa, 25 June–1 July 1986, 2♂♂, MT, leg. JOS, det. TH; **NSI**, Grane: Fagerli, 15 October 1974, 1♂, LT, leg. JOS, det. TH; Hattfjelldal: Grannes 31 August 1974, 1♂, LT, leg. JOS, det. TH.

**Additional records:** Further records from SFY are given by Hofsvang *et al.* (1993). Tjeder (1965) reported this species from HOI as an addition to the Norwegian list, but the species is actually mentioned from **BØ** already by Lundström (1914) (as *Tipula inversa*). In NHMO there is one male from **Ø**, Hvaler: Vesterøy, Guttormsvauen, 19 May 2012, leg. Sørlibråten, det. KMO 08 May 2018. In Artskart, there are specimens from **NSI** (leg. Soot-Ryen, coll. TROM).

**Distribution and biology.** Distributed in West Palaearctic and Nearctic. The larvae are found in a wide variety of habitats (Oosterbroek 2018).

Flight period: May–October.

### *Tipula (Savtshenka) benesignata* Mannheims, 1954

**Material examined:** **AK**, Asker: N Ulvenvann, 30 August 2016, 1♂, N, leg./det. KMO; Oslo: Bekkedalen, Tonsen, 4 September 2016, 4♂♂, N, leg./det. KMO; Skedsmo: SSE Buhaugen, 7 September 2017, 2♂♂, N, leg./det. KMO; **SFI**, Leikanger: Grinde, 20 August–4 September 1991, 1♂, WT, leg. JA, det. TH; Lærdal: Husum, August 2016, 1♂, August–September 2016, 2♂♂, September 2016, 1♂, October 2016, 1♂, 5–16 October 2016, 2♂♂, LT, leg. KB/RAG, det. KMO.

**Additional records:** Hofsvang (1986, 1987) and Hofsvang *et al.* (1993) reported *T. (S.) benesignata* from **AK** and **FØ**.

**Distribution and biology.** Distributed in West and East Palaearctic. Semiaquatic, under mosses (Oosterbroek 2018). Flight period: August–October.

### *Tipula (Savtshenka) confusa* van der Wulp, 1883

**Material examined:** **Ø**, Halden: Håkenbyfjellet, 17 August–7 September 2016, 5♂♂, MT, leg. SOb, det. KMO; Rakkestad: N Stiksvannet, 15 August–19 September 2015, 9♂♂♀♀, 19 September–21 October 2015, 1♂, 2 MT, leg. KMO/OMWK/SOs, det. KMO; Råde: Åven, 31 August–6 October 2014, 2♂♂, MT, leg. AEL/OJL, det. KMO; **AK**, Oslo: Bjørnås, Elgråkket, 1–15 September 2013, 1♂, leg./det. LBo; Munkerud, 12 August 1984, 1♂, 17 August 1986, 1♂, N, leg./det. TH; Bærum: Ostøya, 24 July–12 August 1984, 1♂, MT, leg. FM, det. TH; Nesodden: Blåbærstien, 3 June–3 July 2016, 1♂, 31 August–31 October 2015, 1♂, MT, leg. OJL, det. KMO; **BØ**, Hurum: Filtvedt, June–July 1985, 1♂, MT, leg. FM, det. TH; Tofteholmen, 31 July–1 September 1991, 2♂♂, 1 September–26 October 1991, 6♂♂, MT, leg. LOH, det. TH; **VE**, Larvik: Nevlungstranda, 20 August–2 October 2009, 1♂, MT, leg. ØG/SOb/KMO, det. KMO; Re: Langøya, 2 August–1 September 1991, 1♂, 1 September–26 October 1991, 1♂, MT, leg. LOH, det. TH; **TEY**, Bamble: Langøya, 18 August–2 October 2009, 2♂♂, MT, leg. ØG/SOb/KMO, det. KMO;

Åbyelva NR, 23 August 2017, 2♂♂, N, leg./det. KMO; **TEI**, Tokke: NW Båstø, 4 September–11 October 2015, 5♂♂♀♀, MT, leg. KMO/ØG, det. KMO; **AAV**, Birkenes: Nordåsen, August 2015, 4♂♂♀♀, September 2016, 1♂, LT, leg. SS/KB, det. KMO; Grimstad: Hesnes, Sandum, 3 September 1978, 1♂1♀ (*in cop.*), 26 September 1986, 1♂1♀ (*in cop.*), 7–22 August 2009, 1♂, 29 August–12 September 2009, 1♂, 17–24 August 2012, 1♂, 26 August–8 September 2012, 5♂♂, 8–22 September 2012, 1♂, 22 September–10 October 2012, 1♂, 22–26 August 2013, 1♂, 27 August 2014, 2♂♂, 5 September 2014, 1♂, 25 August 2015, 1♂, 5 September 2015, 2♂♂, 9 September 2015, 1♂, 17 August 2016, 1♂, 25–29 August 2016, 2♂♂, 13–18 September 2016, 2♂♂, 18 September–9 October 2016, 5♂♂, N/MT, leg./det. TH; Søm (Skogstuen), 1–26 September 2017, 5♂♂, October 2017, 1♂, LT, leg. KB, det. KMO; Lillesand: Urdalen, 1–31 October 2016, 2♂♂, LT, leg. KB, det. KMO; **AAI**, Bygland: Heddeviki, 3 August–12 September 2008, 1♀, MT, leg. JTK, det. KMO; **VAY**, Kristiansand: Bråvann terrasse, September–October 2016, 7♂♂, LT, leg. KB, det. KMO; Nedre Timenes, July–September 2017, 8♂♂, LT, leg. KB, det. KMO; **RY**, Klepp: Særheim, 30 August 1979, 1♂, leg. GT; Sokndal: Birkeland, 15 July–1 October 2017, 1♂, MT, leg. JSB, det. KMO; Rekvei, 15 July–1 October 2017, 3♂♂, MT, leg. JSB, det. KMO; **HOI**, Jondal: SSW Strondi, 21 August 2016, 2♂♂, N, leg./det. KMO; Kvinnherad: Sundal, 20 August 2016, 8♂♂♀♀, HP, leg. KMO/SOs, det. KMO; Odda: Sandvinvatnet, 21 August 2016, 4♂♂, N, leg./det. KMO; **SFI**, Leikanger: Grinde, 20 August–4 September 1991, 3♂♂, 21 August–5 September 1991, 1♂, WT, leg. JA, det. TH; Luster: Solvorn, 8 August–2 September 2016, 1♂, 2–15 September 2016, 9♂♂, LT, leg. KB/LBy, det. KMO; Vetahaugane, 26 August 2017, 2♂♂, N, leg. KMO/RB/SOs, det. KMO; Lærdal: Husum, August 2016, 2♂♂, LT, leg. KB/RAG, det. KMO; Moldabakkane, 16–23 August 2015, 2♂♂, LT, leg. KB/RAG, det. KMO.

**Additional records:** Further records from AK, VE, AAY, **HOY**, **HOI**, **MRI**, **STY** and **STI** are given by Siebke (1863, 1866a, 1877), Storm (1898, 1907), Strand (1900), Tjeder (1965)

and Hofsvang *et al.* (1993), many of which as *marmorata*. Some of Siebke's specimens from MRI proved to be *Tipula limbata* (see Lackschewitz 1933, as *T. vafra*), but in NHMO there are also confirmed *T. confusa* collected by Siebke in MRI. There are also several records from the period 2010–2017 presented in Artskart, from regions AK, AAY, SFI, **MRY** (leg. Hatlen, det. KMO 25 May 2018 from photos sent by Hatlen) and MRI, involving six collectors.

**Distribution and biology.** Distributed in West Palaearctic. In many different habitats, woodland, gardens etc. Larvae under mosses (Oosterbroek 2018). Flight period: July–October.

### *Tipula (Savtshenkia) gimmerthali gimmerthali* Lackschewitz, 1925

**Material examined:** **AK**, Oslo: Østensjøvannet, 2 October 2010, 5♂♂♀♀, leg./det. LBo; **OS**, Ringeby: Ringebufjellet mot Venabu, 19 August 1984, 1♂, leg. NH, det. TH; **ON**, Dovre: Atnaelv, Dørålsæter, 7–20 September 1986, 1♂, MT, leg. JOS, det. TH; **TEI**, Tinn: Svineroi V, 25 July–12 September 2012, 5♂♂, MT, leg. OJL, det. KMO; Øvre Gunleiksrud, 24 August–1 October 2015, 3♂♂, MT, leg. SRe, det. KMO; **STI**, Selbu: Rotla, 11–18 September 1989, 1♂, MT, leg. JOS, det. TH; **NSI**, Grane: Børgefjellskoln, 7 September 1974, 1♂, LT, leg. JOS, det. TH; Hattfjelldal: Harvasstua, 14 September 1974, 1♂, LT, leg. JOS, det. TH; **NNØ**, Narvik: Trollhøgda, 14 August 1984, 1♂, N, leg./det. TH; **TRI**, Bardu: Salangsdalen, 16 August 1984, 2♂♂, N, leg./det. TH.

**Additional records:** Hofsvang *et al.* (1987) give additional records from STI, where females were found from several localities in the Dovre National Park (September–October), all with reduced wings. Also from STI: 1) one male in NHMO, collected by Siebke at “Kongsvold” 13 August 1861 and initially identified as *T. grisescens*, was reidentified to *T. gimmerthali* in November 2017, det. JS/KMO/ØG and 2) there is a record from 13 September 2016 in Artskart accompanied by good photographs. Lackschewitz (1935) reported the species from **TRY**, based on specimens now in TROM, see Artskart. In Artskart there are also additional records from

TRI, leg. Soot-Ryen, det. Mannheims, based on specimens in TROM. Finally, there is a male from HEN, Alvdal: Trondfjell, 3 September 1903, leg. Strand, det. HdJ, in ZMAN.

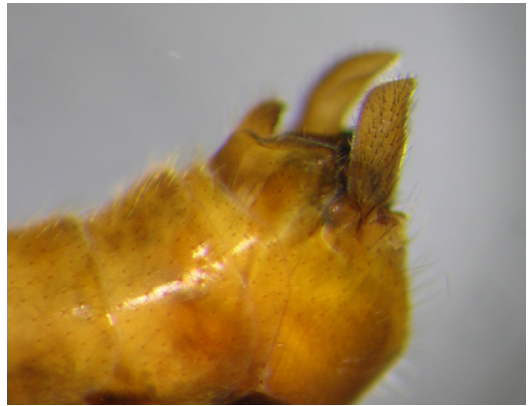
**Distribution and biology.** Distributed in West Palaearctic. A mire-dwelling species (Oosterbroek 2018). Flight period: August–October.

***Tipula (Savtshenkia) griseescens* Zetterstedt, 1851**

**Material examined:** ON, Dovre: Atnaelv, Dørålsæter, 11–18 June 1986, 1♂, MT, leg. JOS, det. TH; BØ, Ringerike: Veksalbekken, 2 May–23 June 2017, 2♂♂, SLAM, leg./det. KMO; VE, Horten: Reir, 19 May 2017, 1♂, N, leg. KMO/SOB, det. KMO; TEI, Tinn: Svineroi V, 28 May–27 June 2012, 9♂♂♀♀, 27 June–25 July 2012, 3♂♂, MT, leg. OJL, det. KMO; STI, Oppdal: Blesbekken 1000 m a.s.l., 9–16 June 1981, 1♂, MT, leg. JOS, det. TH; Stropla, 1280 m a.s.l., 7–14 July 1982, 1♂, MT, leg. JOS, det. TH; NTI, Høylandet: Skiftesåa, 4–11 June 1986, 3♂♂, MT, leg. JOS, det. TH; Tverråa, 4–11 June 1986, 6♂♂, 11–18 June 1986, 1♂, MT, leg. JOS, det. TH; TRI, Bardu: Salvasskardaksla NW, 9 July 2017, 2♂♂, N, leg./det. KMO; Nordreisa: Veibrink, 12 July 2017, 1♂, N, leg./det. KMO.

**Additional records:** Further records from ON, HOY, HOI, SFY, STI and TRY are published by Lackschewitz (1935, 1936 as *T. macrocera*), Tjeder (1965), Hofsvang (1974), Hofsvang et al. (1987, 1993), Brodo (1995) and Artskart. Siebke (1863), published a male from “Drivdalen” 13 August 1861 as new to Norway. Already the collecting date indicates a different species. In Siebke (1877), the locality name has become “ad Kongsvold in alpe Dovre”. In NHMO there is a specimen, originally identified as *T. griseescens* and collected by Siebke, from “Kongsvold” with the date 13 August 1861 that is in fact *T. gimmerthali* (for which the date fits much better). Therefore, it seems like the records given by Lackschewitz, based on specimens collected by Soot-Ryen and currently in TROM, are in fact the first actual *T. griseescens* reported from Norway.

**Distribution and biology.** Distributed in West and East Palaearctic. Larvae are found near water



**FIGURE 11.** *Tipula (Savtshenkia) interserta* Riedel, 1913, male terminalia. Photo: K.M. Olsen.

margins or in wet mosses (Oosterbroek 2018). Flight period: May–July.

**\* *Tipula (Savtshenkia) interserta* Riedel, 1913** (Figure 11)

**Material examined:** AK, Nesodden: Skoklefalltjern nord, 24 August–29 September 2014, 19♂♂♀♀, MT, leg. OJL, det. KMO; VAY, Kristiansand: Nedre Timenes, July–September 2017, 2♂♂, LT, leg. KB, det. KMO.

The species is new to Norway. At Skoklefalltjern it was found together with *Tipula luteipennis*, whereas at Nedre Timenes it was accompanied by *T. confusa*, *T. fulvipennis*, *T. luteipennis*, *T. obsoleta*, *T. pagana*, *T. paludosa* and *T. signata*.

**Distribution and biology.** Distributed in West and East Palaearctic. A mire-dwelling species, but also in rich fens, springs and swamps (Oosterbroek 2018). Flight period: uncertain for Norway, as both samples were from traps covering more than one month, but probably July–September. This seems to fit with other European countries, where it has been recorded from July to October.

***Tipula (Savtshenkia) invenusta invenusta* Riedel, 1919**

**Material examined:** HEN, Folldal: Atnaelv, Vollen, 710 m a.s.l., 30 August–7 September 1986, 5♂♂, 7–20 September 1986, 1♂, MT, leg. JOS, det. TH; ON, Dovre: Hjerkins mil. skytefelt, about 1200 m a.s.l., 15 September 1970, 1♂, 18 September 1970, 5♂♂, N, leg. SH, det. TH;



Atnaelv, Skranglehaugan, 1120 m a.s.l., 23–30 August 1986, 1♂, 30 August–7 September 1986, 2♂♂, 7–20 September 1986, 1♂, MT, leg. JOS, det. TH; Atnaelv, Dørålsæter, 1060 m a.s.l., 30 August–7 September 1986, 5♂♂, 7–20 September 1986, 12♂♂, 20–26 September 1986, 1♂, MT, leg. JOS, det. TH; Øystre Slidre: Storkvolven SØ, 1190 m a.s.l., 8 August–17 September 2012, 4♂♂♀♀, MT, leg. ØG/OJL, det. KMO; **TEI**, Tinn: Lufsjå, 1213 m a.s.l., 18 September 1969, 6♂♂, N, leg. JER, det. TH; Svineroi V, 1005 m a.s.l., 25 July–12 September 2012, 1♂, MT, leg. OJL, det. KMO; **HOI**, Eidfjord: Stigstuv, 1245 m a.s.l., 17 September 1971, 22♂♂, N, leg. SH, det. TH; **NNØ**, Narvik: Fagernesfjellet, 15 August 1984, 1♂, leg./det. TH.

**Additional records:** Hofsvang (1974) gives additional records of *T. invenusta* from **HOI**, Finse, 1210 m a.s.l., and Hofsvang *et al.* (1987) add records from ten localities in **STI**, Dovre National Park, varying between 930 and 1350 m a.s.l.. Several other publications also mention the species from Finse (Tjeder 1965, Hofsvang 1972, Kjøberg 1993, Brodo 1995), and Lackschewitz (1935) and Mannheims (1963) list altogether twelve localities from **TRY**, **TRI** and **FV** in northern Norway. Specimens from all the eleven localities mentioned by Lackschewitz are present in TROM (Artskart). There are also specimens from **STI** (Kongsvoll) in Dutch collections (ZMAN and RMNH).

**Distribution and biology.** Distributed in West and East Palaearctic. Larvae in alpine areas in wetland habitats (Oosterbroek 2018). Localities in northern Norway are from closer to sea level. Flight period: August–September.

#### *Tipula (Savtshenkia) limbata* Zetterstedt, 1838

**Material examined:** **AK**, Oslo: Munkerud, 6 August 1982, 1♂, N, leg./det. TH; Ulsrudvannet, 22 September 2010, 1♀, leg./det. LBo; **HEN**, Follidal: Atnaelv, Vollen, 30 August–7 September 1986, 1♂, MT, leg. JOS, det. TH; Stor-Elvdal: N Krokmyra, 26 July–21 September 2012, 2♂♂, MT, leg./det. KMO; S Gardbekken, 4 October 2017, 1♂1♀, N, leg./det. KMO; **ON**, Dovre: Atnaelv, Dørålsæter, 30 August–7 September 1986, 1♂, MT, leg. JOS, det. TH; **TEI**, Kviteseid:

Hustuftin, 5 September–10 October 2015, 1♂, MT, leg./det. KMO; Tinn: Svineroi V, 25 July–12 September 2012, 5♂♂, MT, leg. OJL, det. KMO; **HOI**, Ullensvang: Huse, 25 September 1979, 1♂, 29 September 1979, 1♂, LT, leg. TE, det. TH; Hesthamar, 8 October 1979, 2♂♂, LT, leg. TE, det. TH; **NSI**, Hattfjelldal: Harvasstua, 17 August 1974, 1♂, LT, leg. JOS, det. TH; Grane: Svenningsdal, 5 October 1974, 1♂, LT, leg. JOS, det. TH.

**Additional records:** Siebke (1877, as *T. marmorata*, see Lackschewitz (1933, as *T. vafra*)), Lackschewitz (1935, 1936, as *T. vafra*), Tjeder (1965), Hofsvang (1974), Hofsvang *et al.* (1987, 1993) and Brodo (1995) present records from **AK**, **ON**, **BV**, **AAV**, **HOI**, **MRI** and **TRY**. In Artskart there are, seemingly unpublished, records from **AK**, Frogn: Digerud, 1 and 2 October 1926, leg. Soot-Ryen, det. Lackschewitz (D-17519 and D17521 in TROM), **NTY**, Namsos: Namsos, 20 August 1920, leg. Soot-Ryen, det. Lackschewitz (D-17522 in TROM), and **TRI**, Målselv: Sansa, 1 August 1922, leg. Soot-Ryen (collector not given in Artskart, but it is stated in a list compiled by Astrid Løken (Løken 1997) that he was at Sansa at this date), det. Lackschewitz (D-17520 in TROM). In NHMO there is one male from **BV**, Nes, collected by Siebke, but without date.

**Distribution and biology.** Distributed in West and East Palaearctic. A mire-dwelling species (Oosterbroek 2018). Flight period: August–October.

#### *Tipula (Savtshenkia) obsoleta* Meigen, 1818

**Material examined:** **AAV**, Grimstad: Søm (Skogstuen), October 2017, 5♂♂♀♀, LT, leg. KB, det. KMO; **VAY**, Kristiansand: Bråvann terrasse, September–October 2016, 1♂, LT, leg. KB, det. KMO; Nedre Timenes, July–September 2017, 3♂♂, LT, leg. KB, det. KMO; **RY**, Klepp: Orre, 18 September 1992, 1♂, leg. TRN, det. TH; Stavanger: Vålandsskogen S, 26 September 2017, 1♂, LT, leg. HH, det. KMO; **SFI**, Luster: Solvorn, 2–15 September 2016, 2♂♂, LT, leg. KB/LBy, det. KMO; **STY**, Hitra: Gryta, 6 September 1979, 1♂, N, leg. IS, det. TH.

**Additional records:** Further records are published by Hofsvang *et al.* (1993) and Tjeder

(1965) from **AK**, **VE** and **HOY**. In Artkart is a male from **MRI**, leg. Hatlen, det. KMO 25 May 2018 (from photos).

**Distribution and biology.** Distributed in West and East Palaearctic. In many habitats (grasslands, woodland edges etc.). Larvae in mosses (Oosterbroek 2018). Flight period: September–October.

### *Tipula (Savtshenkia) pagana* Meigen, 1818

**Material examined:** Ø, Aremark: Østre Aspestrand, 16 September 2017, 9♂♂, N, leg. KMO/RB, det. KMO; Fredrikstad: Kongsten fort, 3 October 2016, 1♂, N, leg. RB, det. KMO; Råde: Åven, 31 August–6 October 2014, 1♂, MT, leg. AEL/OJL, det. KMO; **AK**, Oslo: Ljanselva, Munkerud, 10–20 September 2015, 2♂♂, MT, leg./det. TH; Ljanselva, Nordstrand, Liadalen, 5–28 September 2010, 4♂♂, MT, leg. GS/MS, 15 September 2013, ca. 200♂♂ (7 preserved), leg. LBo, all det. LBo; Risløkkfaret, 16 September 2016, 1♂, leg. KMO, 21 September 2016, 1♂, leg. KMO/CO, 21 September 2017, 1♂, leg. KMO, HP, det. KMO; Hurdal: Øvre Rognstad, 4 May–14 September 2017, 1♂, FIT, 24 July–14 September 2017, 1♂, MT, 14 September 2017, 6♂♂, N, leg./det. KMO; Rælingen: Støtterudvegen, 23 September 2016, 3♂♂, LT, leg. RC, det. KMO; **HES**, Kongsvinger: Roverud, 14 September 2016, 4♂♂, N, leg. RB, det. KMO; **VE**, Re: Langøya, September–October 1987, 1♂, LT, leg. HH, det. KMO; **TEY**, Bamble: Langøya, 18 August–2 October 2009, 1♂, MT, leg. ØG/SOB/KMO, det. KMO; **AAV**, Grimstad: Hesnes, Sandum, 22 September–14 October 2013, 1♂, 25 September 2015, 1♂, 26 September 2015, 9♂♂, 18 September–9 October 2016, 5♂♂, 1♀, N/MT, leg./det. TH; Søm (Skogstuen), 1–26 September 2017, 4♂♂, October 2017, 2♂♂, LT, leg. KB, det. KMO; **VAY**, Kristiansand: Nedre Timenes, July–September 2017, 6♂♂, LT, leg. KB, det. KMO.

**Additional records:** Zetterstedt (1851), Siebke (1877), Hofsvang (1986, 2010) and Hofsvang et al. (1987, 1993) mention the species from **AK**, **VE** and **STI**. In NHMO, there is one male from **HES**, Helgøen, leg. Esmark (G.l. 76) which has been seen by Lackschewitz, but it is not mentioned in Lackschewitz (1933), where he

refers only to Siebke (1877), but the specimen is not mentioned by Siebke.

**Distribution and biology.** Distributed in West Palaearctic. In open areas, gardens, grasslands etc. Larvae in mosses (Oosterbroek 2018). Flight period: September–October.

### *Tipula (Savtshenkia) rufina rufina* Meigen, 1818

**Material examined:** TEI, Seljord: Heggenes, 29 March–10 October 2015, 1♂, FIT, 3 May–11 June 2015, 1♂, MT, leg./det. KMO.

**Additional records:** This species was recorded as new to Norway by Tjeder (1965) from **HOY** and **HOI**. Hofsvang (1974) and Brodo (1995) also list the species from **HOI**. There is one record in Artkart from **SFI**, 24 September 2017, with photo.

**Distribution and biology.** Distributed in West and East Palaearctic. Larvae found in wet mosses (Oosterbroek 2018). Flight period: uncertain for Norway, as both samples examined were from traps covering more than one month; in other European countries the period of flight can be rather extensive, like March–October (Great Britain).

### *Tipula (Savtshenkia) signata* Staeger, 1840

**Material examined:** **AK**, Oslo: Alnaelva, 8 September 2016, 1♂, N, leg./det. KMO; Bekkedalen, Tonsen, 4 September 2016, 5♂♂, N, leg./det. KMO; Bjørnås, Elgtråkket 82, 15 October 2011, 1♂, leg./det. LBo; Ljanselva, Nordstrand, Liadalen, 27 August 2013, 1♀, leg./det. LBo; Munkerud, 4 September 1981, 1♂, 23 October 1982, 1♂, 26 August 1984, 1♂, 6 September 1984, 1♂, 25 August 1985, 1♂, 3 September 1985, 1♂, 8 September 1985, 1♂, 7 September 1986, 2♂♂, 13 September 1986, 1♂, 21 September 1986, 1♂, 25 September 1986, 1♂, N, leg./det. TH; Fet: Asplund, 28 September 2016, 1♂, N, leg./det. KMO; E Søndre Ås, 28 September 2016, 1♂, N, leg./det. KMO; SE Asplund, 28 September 2016, 1♂, N, leg./det. KMO; Lørenskog: Øvre Grønliveien, 1 September 2016, 2♂♂, N, leg./det. KMO; Skedsmo: SSE Buhaugen, 7 September 2017, 2♂♂, N, leg./det. KMO; SSE Vestvollen, 15 September 2017, 3♂♂, N, leg./det. KMO; **BØ**, Lier: N Ulvenvann, 3 September 2016, 1♂,

N, leg./det. KMO; **VAY**, Kristiansand: Nedre Timenes, July–September 2017, 2♂♂, LT, leg. KB, det. KMO; **HOI**, Ullensvang: Hesthamar, 8 October 1979, 2♂♂, LT, leg. TE, det. TH; Åkre, 27 September 1979, 2♂♂, LT, leg. TE, det. TH; **SFI**, Leikanger: Grinde, 20 August–4 September 1991, 1♂, 21 August–5 September 1991, 1♂, 4–18 September 1991, 1♂, 5–19 September, 3♂♂, WT, leg. JA, det. TH; Luster: SE Buhaug, June–July 2017, 1♂, LT, leg. KB/RAG, det. KMO; Solvorn, 28 September–13 October 2016, 1♂, 2–15 September 2016, 1♂, 15–28 September 2016, 1♂, LT, leg. KB/LBy, det. KMO; Lærdal: Husum, August–September 2016, 1♂, September 2016, 2♂♂, October 2016, 13♂♂, 5–16 October 2016, 2♂♂, LT, leg. KB/RAG, det. KMO; **STY**, Hitra: Gryta, 18 September 1979, 1♂, LT, leg. IS, det. TH; **STI**, Selbu: Rotla, 11–18 September 1989, 3♂♂, 18–25 September 1989, 2♂♂, 25 September–6 October 1989, 1♂, 16–26 October 1989, 1♂, leg. JOS, det. TH.

**Additional records:** Siebke (1877), Wallengren (1882b), Storm (1898, 1907), Wahlgren (1904), Lackschewitz (1935, 1936), Tjeder (1965), Hofsvang (2010) and Hofsvang *et al.* (1993) have reported the species from **AK**, **ON**, **AAV**, **MRI**, **STI**, **TRY** and **TRI**. In Artskart, there is a male from **RY** (photo identified by KMO in 2017) and a male from **MRY** without photo. The latter specimen was, nevertheless, photographed, and the photo was verified by KMO in 2019.

**Distribution and biology.** Distributed in West and East Palaearctic. In wet woodlands. Larvae under mosses (Oosterbroek 2018). Flight period: July–October.

### *Tipula (Savtshenkia) staegeri* Nielsen, 1922

**Material examined:** **AYY**, Grimstad: Hesnes, Sandum, 29 August–12 September 2009, 1♂, MT, 19 September 2013, 1♂, N, leg./det. TH; Søm (Skogstuen), October 2017, 1♂, LT, leg. KB, det. KMO.

**Additional records:** This species is also recorded from **HOY** by Hofsvang (1987).

**Distribution and biology.** Distributed in West Palaearctic. Habitats as for *T. signata*, the two species often occur together (Oosterbroek 2018). Flight period: September–October.

### *Tipula (Savtshenkia) subnodicornis* Zetterstedt, 1838

**Material examined:** **OS**, Gausdal: Liomsætra, 25 June 2016, 1♂, N, leg. KMO/SOs, det. KMO; NW Vollbakken, 25 June 2016, 4♂♂♀♀, N, leg./det. KMO; Ormtjernkampen, 25 June 2016, 13♂♂♀♀, N, leg. KMO/SOs, det. KMO; **VE**, Re: Langøya, 28 May–8 July 1991, 1♂, MT, leg. LOH, det. TH; **ON**, Dovre: Atnaelv, Skranglehaugan, 11–18 June 1986, 1♂, 18–25 June 1986, 1♂, MT, leg. JOS, det. TH; Atnaelv, Dørålsæter, 11–18 June 1986, 1♂, 24 June–2 July 1986, 1♂, 2–8 July 1986, 1♂, MT, leg. JOS, det. TH; Øystre Slidre: Fisketjernknausen, lakeside st. 4, 2 July 2010, 1♂, leg. LBo, det. PO; Hjerkinnsdammen NW, 25 June–24 July 2017, 1♀, SLAM, leg./det. KMO; **TEI**, Tinn: Svartbekk, Killingskardet, 28 May–27 June 2012, 8♂♂♀♀, MT, leg. ØG/SG, det. KMO; Svineroi V, 28 May–27 June 2012, 6♂♂♀♀, 27 June–25 July 2012, 5♂♂, MT, leg. OJL, det. KMO; Øvre Gunleiksrud, 26 May–26 June 2015, 1♂, MT, leg. SRe, det. KMO; **SFI**, Luster: Helgedalen, 25 June 2017, 5♂♂, N, leg./det. KMO; SE Buhaug, June–July 2017, 1♂, LT, leg. KB/RAG, det. KMO; **NTI**, Høylandet: Skiftesåa, 4–11 June 1986, 13♂♂, 11–18 June 1986, 28♂♂, MT, leg. JOS, det. TH; Tverråa, 4–11 June 1986, 22♂♂, 11–18 June 1986, 49♂♂, 18–25 June 1986, 11♂♂, 25 June–1 July 1986, 1♂, MT, leg. JOS, det. TH; **NNV**, Moskenes: Å i Lofoten, 20 June 2014, 1♂, N, leg./det. TH; Vågan: Svolvær, 19 June 2014, 1♂, N, leg./det. TH; **TRY**, Lyngen: WSW Nerberg/Olmmošgoddí, 11 July 2017, 3♂♂♀♀, N, leg./det. KMO; **TRI**, Bardu: Kvisla, 2 July 2017, 2♂♂, N, leg./det. KMO; Salvasskardaksla NW, 9 July 2017, 10♂♂♀♀, N, leg./det. KMO; Salvasskardet, 9 July 2017, 3♂♂♀♀, N, leg./det. KMO; Nordreisa: Veibrink, 12 July 2017, 1♂, N, leg./det. KMO; **FØ**, Sør-Varanger: Midtffjellet, 2–3 July 2016, 1♂, N, leg./det. KMO; Svanhovd, 20 June–4 August 1986, 1♂, leg. FM, det. TH.

**Additional records:** The species is recorded from **AK**, **BV**, **HOY**, **HOI**, **SFY**, **STI**, **NTI**, **NSI**, **NNØ**, **TRY**, **TRI**, **FV**, **FI** and **FN** according to Zetterstedt (1838, as *T. serricornis* (see Tjeder 1948), 1851, partly as *T. serricornis* (see Tjeder 1948)), Siebke (1870, 1877, partly as *T. serricornis* (see Tjeder 1948)), Wallengren (1882b), Storm

(1898), Lackschewitz (1935, 1936), Tjeder (1965), Mannheims (1967), Hofsvang (1972, 1974, 1975), Hofsvang & Hågvar (1976), Hofsvang et al. (1987, 1993) and Brodo (1995). In NHMO, there is a male from OS, Ringebu (leg. Schøyen). In ZMAN there is a male from ON, Valdresflya, 14 July 1976, leg. Schultz, det. H. de Jong.

**Distribution and biology.** Distributed in West and East Palaearctic. Common and widespread mire species (Oosterbroek 2018). Flight period: June–July.

*Schummelia* Edwards, 1931

Two species in Norway, one of which is new.

***Tipula (Schummelia) variicornis variicornis*  
Schummel, 1833**

**Material examined:** Ø, Aremark: Bøensætre, 23 May–31 July 2017, 1♂, SLAM, leg./det. KMO; Hobøl: NNE Risermosan, 14 June 2016, 2♂♂, N, leg./det. KMO; Moss: Orebukta, 17 June 2016, 1♂, N, leg./det. KMO; AK, Oslo: Blankvannsbråten, 20 June–8 July 2017, 1♂, MT, leg. HE, det. KMO; Ljanselva, Munkerud, 27 May–3 June 2015, 1♂, 8–17 June 2015, 2♂♂, 5–19 July 2015, 1♂, MT, leg./det. TH; Ljanselva, Nordstrand, Liadalen, 25 June–9 July 2010, 1♂, MT, leg. GS/MS, det. LBo; Nordmarka, June 2010, 13♀♀, leg. GS/MS, det. LBo; Lutdalsbekk, Nøkle vann, 3 July 2011, 1♀, leg./det. LBo; Slagteren, 20 June–8 July 2017, 2♂♂, MT, leg. HE, det. KMO; Sognsvann, 22 June 2010, 1♂1♀, leg./det. LBo; Asker: Semsvann (vest), 12 June 1973, 6♂♂, N, leg./det. TH; Enebakk: Tangenelva, 14 June 2017, 1♂, N, leg. KMO/OJL, det. KMO; Fet: Gjushaugsand, 2 May–1 June 2011, 1♂, MT, leg. OJL/SOb/ØG, det. ØG; Hurdal: Skrukkelivegen, 11 June 2016, 1♂, N, leg./det. KMO; Nesodden: Blåbærstien, 3 June–3 July 2016, 2♀♀, MT, leg. OJL, det. KMO; Nesodden: Røer, 7 June–2 July 2009, 1♂, MT, leg. OJL, det. KMO; Skedsmo: N Asak Mellom, 20 June–26 July 2017, 1♂, MT, leg./det. KMO; SSE Buhaugen, 20 June 2017, 3♂♂, N, 20 June–31 July 2017, 1♂, MT, leg./det. KMO; SSE Øvre Tærud, 20 June–31 July 2017, 4♂♂♀♀, MT, leg. KMO/TB, det. KMO; HEN, Stor-Elvdal: S Gardbekken, 28 July 2017, 1♂, N, leg./det. KMO; ON, Dovre: E Angard, 26 June 2017, 1♂, N, leg./

det. KMO; N Nordre Grotåe, 28 June 2017, 2♂♂, N, leg./det. KMO; Øystre Slidre: Sandbakken V, 6 June–3 July 2012, 1♂, 3 July–10 August 2012, 2♂♂, MT, leg. ØG/OJL, det. KMO; Storkvolven SØ, 3 July–8 August 2012, 1♂, MT, leg. ØG/OJL, det. KMO; BØ, Kongsberg: Karlshaug, 26 June–24 July 2013, 4♀♀, MT, leg./det. KMO; VE, Horten: Mellomøya, 17 June 2017, 2♂♂, N, leg./det. KMO; N Snapsrød, 1 June 2017, 1♂, N, leg. KMO/SOb, det. KMO; Larvik: NE Eineren, 8 June 2017, 1♂, N, leg. KMO et al., det. KMO; Nevlungstranda, 6 June 2017, 1♂, N, leg. OJL, det. KMO; Småås, 18 June–10 July 2014, 1♂, MT, leg. SOb, det. KMO; Tjøme: Kolabekkilen NNE, 30 May 2017, 1♂, N, leg./det. KMO; Kolabekkilen NW, 30 May 2017, 2♂♂, N, leg./det. KMO; TEY, Bamble: Langøya, 24 June–30 July 2009, 1♂, MT, leg. ØG/SOb/KMO, det. KMO; Porsgrunn: Frierflaune, 30 June–27 July 2010, 3♂♂♀♀, MT, leg. GS/MS, det. LBo; Skien: NE Bjerketvedt, 22 June 2016, 1♂, N, leg./det. KMO; TEI, Seljord: Heggnes, 17 July–4 September 2015, 1♀, MT, leg./det. KMO; Tinn: Øvre Gunleiksrud, meadow E, 26 May–26 June 2015, 3♂♂, MT, leg. SRe, det. KMO; Øvre Gunleiksrud, forest I, 2 July–3 August 2012, 1♂, MT, leg. ØG/OJL, det. KMO; Øvre Gunleiksrud, forest II, 22 May–2 July 2012, 1♂, 2 July–3 August 2012, 1♂, MT, leg. ØG/OJL, det. KMO; Øvre Gunleiksrud, hay field, 26 June–17 July 2015, 1♂, 3–23 July 2016, 1♂, MT, leg. SRe, det. KMO; Tokke: Lindeviki, 9 June–10 October 2015, 1♂, FIT, 9 June–16 July 2015, 1♂, WT, leg. KMO/ØG, det. KMO; N Bandakjordet, 10 June–16 July 2015, 1♂, FIT, leg. KMO/ØG, det. KMO; Strandine, 29 May 2016, 1♂, N, leg./det. KMO; AAY, Grimstad: Hesnes, Sandum, 26 June–1 July 2013, 1♂, 13–20 July 2013, 1♂, 4–12 June 2016, 1♂, 12–20 June 2016, 1♂, MT, leg./det. TH; RY, Sokndal: Birkeland, 2 June 2017, 1♂, N, 4 June 2017, 1♂, N, 4 June–15 July 2017, 4♂♂, MT, leg. JSB, det. KMO; Rekvei, 4–17 June 2017, 5♂♂, MT, leg. JSB, det. KMO; SFI, Luster: Grønnane, 24 June 2017, 3♂♂, N, leg./det. KMO; Grønnane, Liingaেলvi, 24 June 2017, 1♂, obs./det. KMO; Mørkrisdalen, 25 June 2017, 1♂, N, leg./det. KMO; N Kvåle, 24 June 2017, 3♂♂, N, leg./det. KMO; Slettebakkane, 24 June 2017, 4♂♂, N, leg./det. KMO; STY, Ørland: Austråt fort, 22 July

2017, 1♂, N, leg./det. KMO; **STI**, Selbu: Rotla, 28 June–5 July 1986, 1♂, MT, leg. JOS, det. TH; **NTY**, Leka: Botnlia, 20 July 2017, 1♀, N, leg. KMO/SOs, det. KMO; **NTI**, Verdal: Vaterholmen SØF, 30 June 2017, 1ad., N, leg./det. KMO; **NSY**, Alstahaug: W Dammen, 20 July 2017, 3♂♂♀♀, N, leg./det. KMO; Bodø: Ørnneset, 18 July 2017, 5♂♂, N, leg./det. KMO; **TRY**, Karlsøy: Sørrelva, 14 July 2017, 1♂1♀, N, leg./det. KMO; Lyngen: Høgtun, Storelva, 11 July 2017, 1♂, N, leg./det. KMO; SE Sævnnes, Jægervatnet, 11 July 2017, 2♂♂, N, leg./det. KMO; Skjervøy: Kobbepollsletta, 15 July 2017, 1♂, N, leg. KMO/SOs, det. KMO; Tromsø: SE Lillehaug, 13 July 2017, 4♂♂, N, leg./det. KMO; Skredelva, 13 July 2017, 1♀, N, leg. ØG, det. JS; **TRI**, Balsfjord: NW Kolnes, 13 July 2017, 1♂, N, leg./det. KMO; Stordalen, 6 July 2017, 2♂♂, N, leg./det. KMO; Gratangen: Mølnelva, 8 July 2017, 1♂, N, leg./det. KMO; Nordreisa: Nordkalottstua, Ovi Raishiin, 12 July 2017, 1♀, N, leg./det. KMO.

**Additional records:** Further records are published from Ø, AK, **OS**, ON, BØ, TEY, AAY, **VAI**, **HOY**, **HOI**, SFY, **MRI**, **STI**, **NSI**, **TRY** and **TRI** by Siebke (1853, 1866b, 1877, in all as *Pachyrhina variicornis* or *P. varicornis*), Zetterstedt (1855, as *P. variicornis*), Wallengren (1882b, as *Pachyrhina annulicornis*), Storm (1898, as *T. picticornis* Zett., 1855, 1907),

Lundström (1914), Lackschewitz (1935, 1936), Tjeder (1965), Mannheims (1967), Hofsvang *et al.* (1993), Hofsvang (2010) and Magnussen (2013). In Artskart there is a record of a male with a verifiable photo from **VAY**, Flekkefjord: Skjeggestad, 5 June 2017, leg./det. J. Austevik and a male from **RI**, Forsand; Hardhauslia, 24 May 2014, leg./det. T. Jonassen. There are also several older records from RI, Suldal, **NTY**, Namsos and **NSY**, Brønnøy, now in **TROM**, but they seem to having not been included in any publication. In ZMAN, there are six specimens from Norway, representing Strand regions **OS**, **BV**, Hol: Geilo, 3 July 1976, 1♀, 6. July 1976, 1♀, leg./det. J.A.W. Lucas and **NNØ**, Narvik: Narvik, 15 July 1955, 2♂♂, leg./det. C.A.W. Jeekel/D. Piet, 29 July 1962, 1♂, leg./det. F.A. Bink.

**Distribution and biology.** Distributed in West and East Palaearctic. Larvae in wet woodland, along streams etc. (Oosterbroek 2018). Flight period: May–July.

\* *Tipula (Schummelia) zonaria* Goetghebuer, 1921 (Figure 12)

**Material examined:** **TEI**, Seljord: Heggenes, 29 March–10 October 2015, 1♂, FIT, 11 June–17 July 2015, 1♀, MT, leg./det. KMO; **SFI**, Luster: Solvorn, 8 August–2 September 2016, 1♀, LT, leg. KB/LBy, det. KMO.



FIGURE 12. *Tipula (Schummelia) zonaria* Goetghebuer, 1921, outer and inner dististylus. Photo: K.M. Olsen.

The species is new to Norway. At Heggenes it was found together with *Tipula laetabilis*, *T. rufina*, *T. siebkei*, and *T. variicornis*, whereas at Solvorn it was accompanied by *T. alpium*, *T. confusa*, *T. obsoleta*, *T. scripta* and *T. signata* (at the locality also flies *T. fascipennis*, but earlier in the year).

**Distribution and biology.** Distributed in West Palaearctic. Habitat requirements seem to be little specific (Dufour 2003a,b). Both Heggenes and Solvorn are predominantly dry and warm localities. Flight period: uncertain for Norway, but at least July–August, possibly also earlier and later than this. Flight periods abroad cover June–September.

*Tipula (Tipula)* Linnaeus, 1758

Three species in Norway.

***Tipula (Tipula) oleracea* Linnaeus, 1758**

**Material examined:** Ø, Hvaler: Utgårdskilen, 21 August 2017, 1♂, N, leg./det. KMO; Råde: Åven, 21 May 2017, 2♂♂, N, leg./det. KMO; AAY, Arendal: N Duevik, 5 August 2017, 1♂, N, leg./det. KMO; Skarveløkka, 5 August 2017, 1♂, HP, leg./det. KMO.

**Additional records:** The only published record of *T. oleracea* from Norway is one female from RY, Finnøy: Sevheim, 8 June 2005, leg./det. Skartveit (Skartveit 2006).

**Distribution and biology.** Distributed in Nearctic, West Palaearctic and Neotropic. Larvae of economic importance as a pest species in agriculture (Oosterbroek 2018). Flight period: May–August (two generations, absent in mid summer).

***Tipula (Tipula) paludosa* Meigen, 1830**

**Material examined:** Ø, Hvaler: Guttormsvauen, 21 August 2017, 3♂♂, N, leg./det. KMO; Utgårdskilen, 21 August 2017, 2♂♂, N, leg./det. KMO; Sarpsborg: S Øsakerevja, 21 August 2017, 1♂, N, leg./det. KMO; AK, Oslo: Bjørnås, Elgråkket 82, 4 August 2011, 1♂, leg./det. LBo; Blindern, Kristine Bonnevis hus, 10 August 2010, 1♂, leg./det. LBo; Gaustad, 2 August–5 September 2015, 2♂♂, SLAM, leg. KMO et al., det. KMO; Kværner, Turbinveien 9, 10 September

2010, 1♂, 15 September 2010, 1♀, 18 September 2010, 1♂, 22 September 2010, 1♀, leg./det. LBo; Marienlyst, 20 July 2015, 1♂, N, leg./det. TH; Munkerud, 11 August 1977, 1♂, 13 August 1977, 2♂♂, 14 August 1977, 1♂, 15 August 1977, 1♂, 30 July 1978, 1♂, 13 August 1978, 2♂♂, 26 July 1979, 1♂, 27 July 1979, 1♂, 30 July 1979, 1♂, 24 July 1980, 1♂, 4 August 1980, 1♂, 10 August 1980, 1♂, 7 August 1988, 1♂, N, leg./det. TH; Nordstrand, 12–13 August 1975, 5♂♂, N, leg. SH, det. TH; Risløkkfaret, 1 August 2016, 1♂, HP, leg./det. KMO; Slagteren, 8–31 July 2017, 1♂, MT, leg. HE, det. KMO; Asker: Langåra, 31 July 2016, 1♂, N, leg. KMO/RB, det. KMO; Aurskog-Høland: Mikkelsrud, 14 August 2017, 7♂♂, N, leg. KMO, 14 August–14 September 2017, 2♂♂, SLAM, 1♀, PT, leg. KMO/SOb, all det. KMO; Bærum: Fornebu, Lilløyplassen, 25 August 2011, 1♂, leg./det. LBo; Storøykilen, 7 August 2016, 2♂♂, N, leg./det. KMO; Frogner: Drøbak, 3–4 August 1980, 1♂, 13–14 August 1980, 3♂♂, 15–16 August 1980, 1♂, 16–17 August 1980, 2♂♂, 18–19 August 1980, 1♂, 19–20 August 1980, 1♂, 22–23 August 1980, 1♂, LT, leg. RF, det. TH; Sandbukta, 4 August–14 September 2017, 1♀, PT, 1♀, MT, leg. KMO/OJL, det. KMO; Hurdal: Øvre Rognstad, 4 May–14 September 2017, 6♂♂♀♀, FIT, 24 July–14 September 2017, 1♂1♀, MT, leg./det. KMO; Skedsmo: Solvangeren, 15 August 2017, 1♂, N, leg./det. KMO; Ullensaker: E Risebru, 29 July 2016, 1♂, obs. KMO/RB, det. KMO; Gamle Algarheimsveg, 19 July 2016, 3♂♂, N, leg. KMO/RB, det. KMO; Hovimoen W, 29 July 2016, 1♂, obs. KMO/RB, det. KMO; Krokfossvegen, 19 July 2016, 1♂, N, leg. KMO/RB, det. KMO; Lundby, 29 July 2016, 3♂♂, N, leg. KMO/RB, det. KMO; Ås: NMBU, 8 August 1980, 1♂, 10 August 1980, 1♂, 27 August 1980, 1♂, N, leg./det. TH; HES, Stange: Lang-Ree, 14 August 2011, 2♂♂, leg./det. LBo; OS, Lunner: Lunner crossbane, 28 July 2016, 1♂, N, leg. KMO/RB, det. KMO; N Kalvsjøtjernet, 28 July 2016, 1♂, obs. KMO/RB, det. KMO; BØ, Hurum: Filtvedt, June–July 1985, 1♂, MT, leg. FM, det. TH; Holtnes, 9 July–3 August 2015, 1♂, 3–31 August 2015, 2♂♂, MT, leg. SOb, det. KMO; Ramvikholmen, 12 August 1990, 3♂♂, N, leg. LOH, det. TH; Kongsberg: Jondalsveien, 30 July 2016, 1♂, obs. KMO/RB,

det. KMO; Nedre Eiker: Mjøndalen, Miletjern, ultimo July 1988, 5♂♂, leg. DR, ultimo August 1988, 1♂, leg. PT, LT, det. TH; **VE**, Larvik: Karto, 1–22 August 2010, 4♂♂♀♀, MT, leg. SOB, det. KMO; Mølen, 27 July–20 August 2009, 1♂, 20 August–2 October 2009, 1♂, MT, leg. ØG/SOb/KMO, det. KMO; Nevlungstranda, 20 August–2 October 2009, 1♂, MT, leg. ØG/SOb/KMO, det. KMO; Re: Langøya, 2 August–1 September 1991, 2♂♂, MT, leg. LOH, det. TH; **TEY**, Bamble: Langøya, 30 July–18 August 2009, 1♂, MT, leg. ØG/SOb/KMO, det. KMO; Vinjekilen NR, 11 August 2016, 1♂, N, leg./det. KMO; Kragerø: Tåtøy, 11 August 2016, 1♂, N, leg./det. KMO; **TEI**, Notodden: Tjønnåsdalen øvre, 30 July 2016, 1♂, N, leg. KMO/RB, det. KMO; **AAV**, Arendal: Flangeborgkilen, 2 August 2017, 3♂♂ (forest), 3♂♂ (salt marsh), N, leg./det. KMO; N Duevik, 5 August 2017, 2♂♂, N, leg./det. KMO; Saulekilen, 4 August 2017, 1♂, N, leg./det. KMO; Styrsviga, 5 August 2017, 1♂, N, leg./det. KMO; Øygarden, 4 August 2017, 1♂, N, leg./det. KMO; Grimstad: Hesnes, Sandum, 20 July 1972, 1♂, 20 July 1979, 1♂, 30 August 1980, 1♂, 3 August 1984, 1♂, 7–22 August 2009, 1♂, 17–24 August 2012, 1♂, 24–26 August 2012, 1♂, 26 August–8 September 2012, 1♂, 13–20 July 2013, 1♂, 20 July–22 August 2013, 3♂♂, 22–26 August 2013, 2♂♂, 7 September 2013, 4♂♂, 15 August 2014, 1♂, 27 August 2014, 1♂, 5 September 2014 1♂♂, 5–12 August 2016, 1♂, N/MT, leg./det. TH; **VAY**, Kristiansand: Nedre Timenes, July–September 2017, 3♂♂♀♀, LT, leg. KB, det. KMO; **RY**, Bjerkreim: Luen, 6 August 2017, 1♂, obs./det. KMO; Monen, 6 August 2017, 1♂1♀, N, leg./det. KMO; Vikedalsmoen, 7 August 2017, 1♀, obs./det. KMO; Klepp: Særheim, 9 August 1979, 3♂♂, 10 August 1979, 6♂♂, 13 August 1979, 3♂♂, 15 August 1979, 3♂♂, 17 August 1979, 3♂♂, 18 August 1979, 2♂♂, 22 August 1979, 9♂♂, 23 August 1979, 5♂♂, 30 August 1979, 3♂♂, N, leg. GT, det. TH; Øksnevad, 7 August 1984, 1♂, leg. TRN, det. TH; Sokndal: Birkeland, 4 June–15 July 2017, 1♂, 15 July–1 October 2017, 5♂♂♀♀, MT, leg. JSB, det. KMO; Rekvei, 15 July–1 October 2017, 1♂, MT, leg. JSB, det. KMO; **RI**, Strand: Voster, 12 August 1979, 2♂♂, leg. GT, det. TH; **HOI**, Granvin: Kvanndal, 20 August 2016, 1♂, N,

leg./det. KMO; Kvam: N Skorsvatnet, 20 August 2016, 1♂, N, leg. KMO/RB/SOs, det. KMO; Kvinnherad: Sundal, 20 August 2016, 1♂, N, leg. KMO/SOs, det. KMO; Ullensvang: Midttun, 21 July 2016, 1♂, N, leg./det. KMO; Åkre, Nå, 17 September 1979, 1♂, leg. TE, det. TH; **SFY**, Høyanger: Ikjefjord, 13 July 1984, 10♂♂, N, leg./det. TH; **SFI**, Leikanger: Buene, 22 July 1984, 1♂, N, leg. BB, det. TH; Grinde, 7–20 August 1991, 1♂, MT, leg. JA, det. TH; **MRY**, Ålesund: Brusdal, 15 August 1980, 1♂, N, leg./det. TH; **MRI**, Norddal: Valldal, 16 August 1980, 2♂♂, N, leg./det. TH; Sunndal: Sunndalsøra, Melkild, 8 August 1984, 3♂♂, 13 August 1984, 1♂, leg. NH, det. TH; Surnadal: Svinvik, 14 August 1980, 2♂♂, N, leg./det. TH; **STY**, Osen: E Sandvika, 21 July 2017, 1♂, N, leg./det. KMO; Øksvikneset, 21 July 2017, 3♂♂, HP, leg. KMO/SOs, det. KMO; **STI**, Selbu, Rotla, 26 June–3 July 1989, 1♂, 3–10 July 1989, 1♂, 24 July–1 August 1989, 1♂, MT, leg. JOS, det. TH; **NTI**, Inderøy: Kjerkesnvågen, 12 August 1980, 1♂, N, leg./det. TH; Levanger: Staup, 12 August 1980, 1♂, N, leg./det. TH; **NSY**, Brønnøy: SE Torghatten, 20 July 2017, 4♂♂ (meadow), 2♂♂ (along brook), N, leg./det. KMO.

**Additional records:** The species is mentioned by Siebke (1866a, as *T. paludosa*, 1870, as *T. paludosa*, 1877, as both *T. paludosa* and *T. oleracea*, see Lackschewitz (1933)), Storm (1898, 1907), Strand (1900, as *T. oleracea*), Lackschewitz (1935, 1936), Tjeder (1965, as *T. oleracea*), Hofsvang (1981 (maps based on EIS), 1986, 2010) and Hofsvang *et al.* (1993) from Ø, AK, **HES**, BØ, VE, AAY, RY, **HOY**, HOI, SFI (EIS 50: Gudvangen), MRY, MRI, STY, STI, **NTY** (EIS 106: Namsos), NTI, NSY and NNV. Siebke (1853, as *T. oleracea*) mentions the species from “Fron”, which is probably in ON, but might also be in OS. In NHMO, there are specimens from **HEN**, Amot, 1♂, leg./det.?) Siebke and Rendalen, 2♂♂, leg. Natvig, det. KMO 08 May 2018. There are specimens in ZMAN and RMNH from **HOY**, **HOI**, **NTI** and “Jorgenstad” (which might be in VAY, Lindesnes, but it has not been settled). In Artskart, there is a record from NTY, Namsos, leg. Soot-Ryen, det. Lackschewitz (D-17437 in TROM), and seven specimens from **TRI**, Målselv: Sansa, 1 August 1922, det. Lackschewitz

(all in TROM).

**Distribution and biology.** Distributed in Nearctic and West Palaearctic. Larvae of economic importance as a pest species in agriculture (Oosterbroek 2018), and otherwise common in moist meadows. Flight period: July–September.

***Tipula (Tipula) subcunctans* Alexander, 1921**

**Material examined:** AK, Oslo: Grønmo golf course, 6 October 2013, 202♂♂♀♀, leg./det. LBo; Hauketo, 3 October 1977, 1♂, N, leg./det. TH; Katisa, Nøklevannet 2 October 2010, 1♀, leg./det. LBo; Munkerud, 20 September 1980, 1♂, 21 September 1980, 5♂♂, 23 September 1980, 2♂♂, 13 September 1981, 1♂, 24 September 1981, 3♂♂, 26 September 1981, 2♂♂, 27 September 1981, 1♂, 29 September 1981, 1♂, 19 September 1982, 1♂, 3 October 1982, 1♂, N, leg./det. TH; Skar, 19 September 2010, 1♂1♀, leg./det. LBo; Asker: Brønnøya, 25 September 1977, 1♂, leg. TE, det. TH; Bærum: Storøya, Fornebu, 26 September 2010, 1♂, leg./det. LBo; Ås: Ås, 24 September 1973, 1♂, N, leg./det. TH; NMBU, 2 October 1981, 1♂, N, leg./det. TH; Kirkejordet, 25 September–2 October 1986, 1♂, MT, leg./det. TH; VE, Re: Langøya, September–October, 17♂♂, MT, leg. LOH, det. TH; Tjøme: Færder fyr, 6 October 1987 2♂♂, N, leg. unknown, det. TH; STI, Selbu: Rotla, 11–18 September 1989, 1♂, 18–25 September 1989, 1♂, MT, leg. JOS, det. TH; FØ, Sør-Varanger: Svanhovd, 10 September 2005, 13♂♂, leg./det. TH.

**Additional records:** Further records from AK, ON, VE, HOY, HOI, STI, NTY (EIS 106: Namsos), NSY, NSI (EIS 123: Rana), NNV, TRY and TRI (EIS 154: Balsfjord) are given by Siebke (1877, as *T. oleracea* (see Lackschewitz (1933, as *T. czizeki*))), Lackschewitz (1933, 1935, 1936, in all cases as *T. czizeki*), Tjeder (1965, as *T. fusca*), Hofsvang (1981, as *T. czizeki*, 1986, as *T. subcunctans* (*sic!*), 2010), Hofsvang et al. (1993, as *T. subcunctans* (*sic!*)), Hofsvang & Salinas (2001) and Skartveit (2006, as *T. subcunctans* (*sic!*)). Mannheims (1952) mentions “Norwegen, Fossmo, leg. Reinig 14 September 1941”. There are too many “Fossmo” in Norway to place this record correctly without more information.

**Distribution and biology.** Distributed in

West and East Palaearctic. Larvae of economic importance as a pest species in agriculture (Oosterbroek 2018) and on golf courses (Hofsvang & Salinas 2001). Flight period: September–October.

*Vestiplex* Bezzi, 1924

Seven species in Norway.

***Tipula (Vestiplex) excisa excisa* Schummel, 1833**

**Material examined:** HEN, Follidal: Atnaelv, Vollen, 11–18 June 1986, 2♂♂, leg. JOS, 18–25 June 1986, 1♂, leg. JOS, 25 June–2 July 1986, 10♂♂, leg. JOS, 2–8 July 1986, 3♂♂, MT, leg. JOS, det. TH; Stor-Elvdal: N Krokmyra, 4 April–26 July 2012, 9♂♂♀♀, 26 July–21 September 2012, 3♂♂, MT, 25 July 2016, 1♂, HP, leg./det. KMO; OS, Gausdal: Ormtjernkampen, 25 June 2016, 1♂, N, leg. KMO/SOs, det. KMO; ON, Dovre: Atnaelv, Skranglehaugan, 18–25 June 1986, 1♂, 25 June–2 July 1986, 61♂♂, 2–8 July 1986, 42♂♂, 8–18 July 1986, 7♂♂, MT, leg. JOS, det. TH; Atnaelv, Dørålsæter, 25 June–2 July 1986, 144♂♂, 2–8 July 1986, 66♂♂, 8–18 July 1986, 1♂, MT, leg. JOS, det. TH; Atnaelv, Vidjedalsbekken 1280 m a.s.l., 25 June–2 July 1986, 1♂, MT, leg. JOS, det. TH; NNW Hjellesætrin, 29 June 2017, 1♂, N, leg./det. KMO; TEI, Tinn: Svineroi V, 27 June–25 July 2012, 1♂, MT, leg. OJL, det. KMO; HOI, Eidfjord: Stigstuv, 3 July 1971, 14♂♂, leg. SH, det. TH; STI, Oppdal: NE Spellmannslætta, 29 June 2017, 1♂, N, leg./det. KMO; TRI, Bardu: Salvasskarde, 9 July 2017, 2♂♂, N, leg./det. KMO; FV, Alta: Gargia, 22 June 1984, 1♂, N, leg. TRN, det. TH; Grønnåsen, 23/27 June 1984, 5♂♂, N, leg. TRN, det. TH; Grønnåsen S, 16 July 2017, 1♂, N, leg. KMO/SOs, det. KMO; FN, Gamvik: Slettnes, 30 June 1989, 1♂, 4 July 1990, 5♂♂, 12 July 1990, 1♂, N, leg. KBS, det. TH; Nesseby: Nyborgmoen, 29 June 2016, 2♂♂, N, leg. KMO/KA/THØ, det. KMO; Nyborgmoen, 30 June 2016, 1♂, N, leg./det. KMO; FØ, Sør-Varanger: Midtjället, 2–3 July 2016, 6♂♂, N, leg./det. KMO.

**Additional records:** The species is very common at end of June and in July in the mountainous area at Finse (Hofsvang 1974) and at Dovrefjell National Park (Hofsvang et



al. 1987). Otherwise, it has been recorded by Zetterstedt (1851, as *T. speculum*), Siebke (1863, as *T. speculum*, *T. 8 lineata* and *T. crassicornis*, 1870, as *T. speculum*, 1872, as *T. speculum* (and *T. 8 lineata*?), see Lackschewitz 1933), 1877), Wallengren (1882b, as both *T. excisa* and *T. octolineata*), Storm (1898, as *T. speculum* and *T. octolineata*), Strand (1900, as *T. speculum*, 1903), Storm (1907, as *T. 8lineata*), Lackschewitz (1933, 1935, 1936, as *T. octolineata*), Tjeder (1965), Mannheims (1967, 1972), Hofsvang (1972, 1973, 1975, 1977), Byrkjedal (1980), Kjoberg (1993), Hofsvang *et al.* (1993) and Brodo (1995), representing regions HEN, ON, **BV**, **HOI**, **SFI**, **STI**, **NTI**, **NNØ**, **TRY**, **TRI**, **FV** and **FØ**. In addition, there are records from TROM in Artskart, representing **NSI** (1947, leg. Soot-Ryen, det. Mannheims) and **FI** (1924, leg. Soot-Ryen, det. Lackschewitz). In NHMO, there is one specimen from **AK**, Oslo, leg. Esmark and two females from **MRI**, “Romsdal”, without date, leg. Siebke. There are also Norwegian specimens from HEN, ON, **TEI**, **AAI**, **MRI** and **FN** in ZMAN, and from **FØ** in NHMO (the museum’s Pasvik expedition in 1966).

**Distribution and biology.** Distributed in West and East Palaearctic. A tundra and alpine species. Larvae in mires and moist soil. At Finse, 1210 m a.s.l., *T. excisa* has a two-year life cycle (Hofsvang 1972). Flight period: June–August.

### *Tipula (Vestiplex) hortorum* Linnaeus, 1758

**Material examined:** **ON**, Dovre: Faksfall, 12 June–2 July 2017, 1 ♀, MT, leg. RS, det. KMO; Skjåk: Halvorsgjerdet, 1 July 1995, 1 ♂, N, leg. AA, det. TH; **VE**, Larvik: Mølen, 30 April–1 June 2009, 1 ♀, MT, leg. ØG/SOb/KMO, det. KMO; **TEY**, Bamble: Langøya, 30 April–1 June 2009, 3 ♂♂, MT, leg. ØG/SOb/KMO, det. KMO; **TEI**, Tokke: Mågebekken, 4 May–9 June 2015, 1 ♂, WT, leg. KMO/ØG, det. KMO; Strandine, 29 May 2016, 1 ♂, N, leg./det. KMO; **RY**, Sokndal: Birkeland, 4 June 2017, 1 ♀, N, leg. JSB, det. KMO; **SFI**, Lærdal: Husum, April–July 2016, 3 ♂♂, LT, leg. KB/RAG, det. KMO; **MRI**, Sunndalsøra: Oppdølstranda, June 1985, 1 ♂, leg. OH, det. TH.

**Additional records:** Tjeder (1965), Hofsvang

(1986) and Hofsvang *et al.* (1993) have published *T. hortorum* from **BV**, **HOY**, **HOI**, **SFY** and **MRI**. In NHMO there is one male from **Ø**, Eidsberg: 27 May 1849, leg. Siebke, det. JS/KMO/ØG in November 2017, that was originally identified as *T. octolineata* (a synonym of *T. excisa*) (G.I. 174), but until 2017 placed as *T. scripta*. This is the specimen that Lackschewitz (1933) referred to as “zweifellos *T. nubeculosa*”, and one might then suspect that everything Lackschewitz called “*T. nubeculosa*” in reality is *T. hortorum*. There are, however, also two females in NHMO correctly identified by him as *T. nubeculosa*, and one might rather suspect that it is only the males he confused. Also in NHMO is one female from **AAI**, Grimstad: 10 May–11 Sep. 2016, MT, leg. Lindemann, det. KMO 12 May 2018. In Artskart are several records from **MRI**, leg. Hatlen, det./conf. KMO 25 May 2018.

**Distribution and biology.** Distributed in West Palaearctic. Larvae in damp soil in woodlands (Oosterbroek 2018). Flight period: May–June.

### *Tipula (Vestiplex) laccata* Lundström & Frey, 1916

**Material examined:** **ON**, Dovre: Atnaelv, Dørrålsæter, 25 June–2 July 1986, 3 ♂♂, MT, leg. JOS, det. TH.

**Additional records:** Hofsvang *et al.* (1987) have recorded a male from one locality in **STI**, Oppdal, Blesbekken in Dovrefjell National Park, and Lackschewitz (1935, 1936, as *T. octolineata*) mentions several localities in **FV**. Lackschewitz seems to have consistently used the name *T. octolineata* for *T. laccata*, whereas it is usually a synonym of *T. excisa* (see Theowald & Mannheims 1963). In NHMO, there is one male from **ON**, Dovre: Fokstuen, 19 July 1873, leg. Siebke, reidentified from *Tipula excisa* by JS/KMO/ØG in November 2017. Also in NHMO is a male from “Dovre” (G.I. 173), which can be in either **ON** or **STI**, leg. Siebke, det. Lackschewitz (as *T. 8-lineata*; this specimen is described in Lackschewitz (1933)) and reidentified from *Tipula excisa* by JS/KMO/ØG in November 2017.

**Distribution and biology.** Distributed in West and East Palaearctic. Wetland habitats (Oosterbroek 2018). The present Norwegian

records are from along lakes and rivers. Flight period: June–July.

***Tipula (Vestiplex) montana verberneae*  
Mannheims & Theowald, 1959**

**Material examined:** OS, Gausdal: Ormtjernkampen, 25 June 2016, 1♂, N, leg. KMO/SOs, det. KMO; ON, Dovre: Atnaelv, Skranglehaugan, 25 June–2 July 1986, 3♂♂, 2–8 July 1986, 5♂♂, MT, leg. JOS, det. TH; Atnaelv, Dørålsæter, 25 June–2 July 1986, 7♂♂, 2–8 July 1986, 6♂♂, MT, leg. JOS, det. TH; Atnaelv, Vidjedalsbekken 1280 m a.s.l., 25 June–2 July 1986, 12♂♂, 2–8 July 1986, 2♂♂, MT, leg. JOS, det. TH; Øystre Slidre: Storkvolven SØ, 3 July–8 August 2012, 1♀, MT, leg. ØG/OJL, det. KMO; HOI, Ulvik: Finse, Finsevatn east, 5 July 1973, 1♂1♀ (*in cop.*), N, leg./det. TH; STI, Oppdal: NE Spellmannslætta, 29 June–24 July 2017, 1♀, SLAM, leg./det. KMO; TRI, Bardu: Salvasskarde, 9 July 2017, 2♂♂, N, leg./det. KMO; Målselv: Frihetsl, 4 July 2017, 1♂, N, leg./det. KMO; Nordreisa: Nordkalottstua, Ovi Raishiin, 12 July 2017, 1♀, N, leg. ØG, det. KMO; FV, Alta: Grønnåsen S, 16 July 2017, 1♂, N, leg. KMO/SOs, det. KMO; FN, Gamvik: Slettnes, 4 July 1990, 1♂, leg. KBS, det. TH; FØ, Sør-Varanger: Midt fjellet, 2–3 July 2016, 1♂, N, leg./det. KMO.

**Additional records:** The species has previously been published from ON, STI and TRI by (Tjeder 1965), Mannheims (1967, as *T. verberneae*, 1972), Hofsvang (1986) and Hofsvang et al. (1987). Walker (1848) mentions *Tipula montana* from “Alten, Finmark”, but Lackschewitz (1935) transferred this one to *T. excisa*. Even Walker mentions *T. speculum* as a synonym, and *speculum* is usually regarded as a synonym of *T. excisa*. A male in NHMO from FN, Porsanger: Børselv, leg. Shøyen, was reidentified from *T. excisa* in November 2017. It seems to have not been published as *T. excisa* (however, there is also a true *T. excisa* from the same locality and collector in NHMO). Another specimen in NHMO, from FØ, Sør-Varanger: Ellenvann, 2 July 1966, leg. Mehl, det. Tjeder, has not been published before (collected during the museum’s Pasvik expedition in 1966). There are specimens in ZMAN from ON and FN, and also

from “Hardangervidda”, an area covered by BV, TEI and HOI.

**Distribution and biology.** Distributed in West and East Palaearctic. Terrestrial, wetland habitats (Oosterbroek 2018). Flight period: June–July.

***Tipula (Vestiplex) nubeculosa* Meigen, 1804**

**Material examined:** Ø, Aremark: Bøensætre, 23 May–31 July 2017, 1♀, SLAM, leg./det. KMO; Ø, Hobøl: NNE Risermosan, 14 June 2016, 1♂, N, leg./det. KMO; Moss: Reierbukta Ø, 4–30 June 2010, 4♀♀, MT, leg. AEL, det. KMO; Rakkestad: N Stiksvannet, 14 June–16 July 2015, 1♂, MT, leg. KMO/OMWK/SOs, det. KMO; AK, Oslo: Ljanselva, Munkerud 22 June–5 July 2015, 1♂, MT, leg./det. TH; Asker: Sem, 13 June 1978, 1♂, N, leg./det. TH; Munkerud, 21 June 1979, 1♂, N, leg./det. TH; Aurskog-Høland: Mikkelsrud, 13 June–13 July 2017, 3♂♂, MT, leg. KMO/SOb, det. KMO; Nesodden: Bergerskogen, 18 May–26 June 2015, 1♂1♀, MT, leg. OJL, det. KMO; Flatebybråten vest, 9 May–2 June 2014, 1♂1♀, MT, leg. OJL, det. KMO; Ullensaker: SW Hauerseteren, 31 May 2016, 1♂, N, leg./det. KMO; HEN, Stor-Elvdal: N Krokmyra, 4 April–26 July 2012, 1♂1♀, MT, leg./det. KMO; ON, Dovre: Atnaelv, Dørålsæter, 25 June–2 July 1986, 2♂♂, 2–8 July 1986, 1♂, MT, leg. JOS, det. TH; Djupdalsåi, 28 June 2017, 2♂♂, N, leg./det. KMO; Hjerkinnsdammen NW, 25 June–24 July 2017, 3♂♂♀♀, SLAM, leg./det. KMO; Nord-Fron: Kvikne, 1 June–18 July 2017, 3♂♂, MT, leg. SBe/RS, det. KMO; Sel: E Nysætre, 26 July 2017, 1♂, N, leg./det. KMO; Øystre Slidre: Sandbakken V, 6 June–3 July 2012, 3♂♂♀♀, 3 July–10 August 2012, 3♂♂, MT, leg. ØG/OJL, det. KMO; Storkvolven SØ, 3 July–8 August 2012, 1♂1♀, MT, leg. ØG/OJL, det. KMO; Veslkvellen S, 5 June–3 July 2012, 1♂, MT, leg. ØG/OJL, det. KMO; BØ, Kongsberg: Karlshaug, 31 May–26 June 2013, 3♂♂, MT, leg./det. KMO; Nedre Eiker: Ryghsetra, 2 May–1 August 2017, 1♀, SLAM, leg./det. KMO; VE, Larvik: Nevlungstranda, 1–26 June 2009, 1♀, MT, leg. ØG/SOb/KMO, det. KMO; TEY, Porsgrunn: Solbakkmoen, 29 May 2017, 2♂♂, N, leg. KMO/OMWK, det. KMO; TEI, Tinn: Mjeltegrøa, 27 May–28 June 2012, 1♂, MT, leg.

ØG/OJL, det. KMO; Svartbekk, Killingskardet, 28 May–27 June 2012, 3♂♂♀♀, MT, leg. ØG/SG, det. KMO; Svineroi V, 27 June–25 July 2012, 4♂♂♀♀, MT, leg. OJL, det. KMO; Øvre Gunleiksrud, field E of farm, 25 May–16 June 2014, 2♂♂, 26 May–26 June 2015, 3♂♂, MT, leg. SRe, det. KMO; Øvre Gunleiksrud, forest, 22 May–2 July 2012, 9♂♂♀♀, MT, leg. ØG/OJL, det. KMO; Øvre Gunleiksrud, hayfield, 16 May–13 June 2016, 3♂♂, 13 June–3 July 2016, 3♂♂, MT, leg. SRe, det. KMO; Tokke: Mågebekken, 9 June–16 July 2015, 1♂, MT, leg. KMO/ØG, det. KMO; NW Båstø, 4 May–9 June 2015, 1♂, 9 June–16 July 2015, 1♂, MT, leg. KMO/ØG, det. KMO; AAY, Birkenes: Sennumstad, 21 May–24 June 1986, 2♂♂, MT, leg. FM, det. TH; SFI, Leikanger: Grinde, 4♂♂, WT, leg. JA, det. TH; Luster: Mørkrisdalen, 25 June 2017, 1♂, N, leg./det. KMO; Nedstestølen, 25 June 2017, 1♀, N, leg./det. KMO; MRI, Sunndal: Oppdølstranda, June 1985, 1♂, leg. OH, det. TH; STI, Oppdal: Drivstua, 27–30 June 1995, 1♂, MT, leg. AA, det. TH; Kongsvoll, Kvernbecken, 21–28 June 1978, 3♂♂, 28 June–5 July 1978, 3♂♂, 5–12 July 1978, 1♂, 12–19 July 1978, 1♂, MT, leg. JOS, det. TH; NE Spellmannslætta, 29 June–24 July 2017, 2♀♀, YPT, leg./det. KMO; NTI, Høylandet: Skiftesåa, 25 June–1 July 1986, 1♂, 1–9 July 1986, 1♂, MT, leg. JOS, det. TH; Tverråa, 25 June–1 July 1986, 1♂, 1–9 July 1986, 1♂, MT, leg. JOS, det. TH; NNV, Vågan: Svolvær, 19 June 2014, 2♂♂, N, leg./det. TH; TRI, Bardu: Dalberg, 2 July 2017, 1♂, N, leg./det. KMO; Kvænangen: Alteidet, 4 June–18 July 2017, 1♂, SLAM, leg. BH, det. KMO; Målselv: Frihetsli, 4 July 2017, 2♂♂, N, leg./det. KMO; Nordreisa: SW Mellomjorda, 12 July 2017, 1♂, N, leg./det. KMO; Veibrink, 12 July 2017, 3♂♂, N, leg./det. KMO; Storfjord: Halsebakkan, 6 July 2017, 3♂♂, N, leg./det. KMO; NW Gustavslåtta, 2–17 July 2017, 1♂, MT, leg./det. KMO; FV, Alta: Grønnåsen S, 16 July 2017, 2♂♂, N, leg. KMO/SOs, det. KMO; FI, Kautokeino: W Badje Máze, 16 July 2017, 1♀, N, leg./det. KMO; FN, Gamvik: Slettnes, 12 July 1990, 1♂, leg. KBS, det. TH; Nesseby: Nyborgmoen, Gákkafielmmajegggi, 30 June 2016, 1♂, N, leg./det. KMO; Nyborgmoen, N Háskavárri, 29 June 2016, 1♂, N, leg. KMO/

KA/THø, det. KMO; Nyborgmoen, SW part of artillery range, 30 June 2016, 1♂, N, leg./det. KMO.

**Additional records:** Further records are given by Walker (1848, as *T. guttulifera*), Zetterstedt (1851), Siebke (1863, 1866b, 1877), Wallengren (1882b), Storm (1898), Strand (1900), Lackschewitz (1935, 1936, as *T. rubripes*), Tjeder (1965), Mannheims (1967, 1972, as *T. rubripes*), Hofsvang *et al.* (1987, 1993) and Hofsvang (2010) from Ø, AK, HEN, OS, ON, BØ, BV, AAY, SFY, STI, NSI, TRY, TRI and FV. Siebke (1872) mentions a specimen of *T. nubeculosa* from HEN, “Store Elvedalen”, that is not to be found in NHMO under that name. There is, however, a specimen of *T. excisa* with label “St. Elvedal” that might be the same specimen, even though there is no indication of it being reidentified from *T. nubeculosa*. Siebke (1877) mentions the same specimen and also “Tyldal”, from where there are no *Tipula* specimens in NHMO, and it can not be verified. Thence, there might be no actual *T. nubeculosa* published from HEN. In NHMO, there is only one specimen, a male, from “Edsberg”, and included on its label is “27.5.49”. It is reasonable to believe that this is the specimen mentioned by Siebke (1877) as *T. nubeculosa* on page 229. Less obvious is why he seems to mention the same specimen, given there is only one in NHMO, as *T. 8-lineata* (which is regarded as a synonym of *T. excisa*) on the next page. It is also reasonable to believe that this is the specimen Lackschewitz (1933) regard as “zweifellos *T. nubeculosa*”, even though the gender is presented as ♂ (sic!). This is, however, in reality *T. hortorum*, as proven when the specimen was checked in November 2017. See further under that species. There are specimens in NHMO reidentified from *T. scripta* from AK and ON. In NHMO, there are also unpublished specimens from HEN, Rendalen: Y. rendal, Solbakken, 26 July 1958, 1♀, leg. Natvig, det. KMO 12 May 2018 and FØ, Sør-Varanger: Ellenvann, 6 July 1966, 1♂, leg. Mehl, det. Tjeder (from the museum’s Pasvik expedition in 1966). There are several specimens from Norway in ZMAN, including HEN, ON, BV and NSI. Some records, not published on paper, from STI, TRI and FØ are in Artskart, including specimens from

1 August 1922. Halvard Hatlen has collected one male 27 June 2010 from **MRY**, photos verified by KMO.

**Distribution and biology.** Distributed in West and East Palaearctic. Larvae in forest soil, leaf litter and mosses, along brooks (Oosterbroek 2018). Flight period: May–August.

***Tipula (Vestiplex) pallidicosta pallidicosta*  
Pierre, 1924**

**Material examined:** **OS**, Gausdal: Liomsætra, 25 June 2016, 1♀, N, leg. KMO/SOs, det. KMO; **TRY**, Tromsø: Holt, 13 July 1977, 1♂, N, leg. GT, det. TH.

**Additional records:** Further localities are given by Siebke (1877, as *T. 8-lineata*, see Lackschewitz (1933, as *T. filifera*)), Lackschewitz (1935, as *T. filifera*, 1936, as *T. vicina*), Tjeder (1965) from **ON**, **TRY**, **TRI** and **FN**. In **ZMAN**, there is one male from **BV**, Hol: Geilo, 3 July 1978, leg. Lucas. In **NHMO**, there is also one male and one female, collected *in cop.* by Siebke, but with no locality or date. They were reidentified from *T. excisa*, the male in November 2017, the female by KMO 08 May 2018 (after having been approved as *T. excisa* in November 2017). Siebke usually called *T. excisa* by the name *T. speculum*, and they might have been published by him as such.

**Distribution and biology.** Distributed in West Palaearctic. Larvae in soil in forests, alpine meadows (Oosterbroek 2018). Flight period: June–July.

***Tipula (Vestiplex) scripta* Meigen, 1830**

**Material examined:** **Ø**, Aremark: Bøensætre, 23 May–31 July 2017, 1♀, **SLAM**, leg./det. KMO; **Hobøl**: E Risermosan, 14 June 2016, 2♂♂, N, leg./det. KMO; **Hvaler**: Guttormsvauen, 21 August 2017, 1♂, N, leg./det. KMO; **Moss**: Orebukta, 17 June 2016, 1♂, N, leg./det. KMO; **Reierbukta Ø**, 30 June–23 July 2010, 2♀♀, **MT**, leg. **AEL**, det. KMO; **Rakkestad**: N Stiksvannet, 15 August–19 September 2015, 1♀, **MT**, leg. KMO/OMWK/SOs, det. KMO; **AK**, Oslo: Bjørnås, Elgråkket 82, 21 July 2011, 1♀, July 2011, 1♂, leg./det. **LBo**; **Ljanselva**, Nordstrand, Liadalen, 14–28 June 2010, 2♀♀, **MT**, leg. **GS/MS**, det. **LBo**; **Munkerud**, 14 June 1981, 1♂, 13 July 1985, 1♂, 23

July 1985, 2♂♂, 29 June 1986, 1♂, 19 June 1988, 2♂♂, 13 July 1988, 1♂, N, leg./det. **TH**; **Slagteren**, 20 June–8 July 2017, 1♂1♀, 8–31 July 2017, 1♂, **MT**, leg. **HE**, det. **KMO**; **Asker**: Løkenesveien 55, 24 May–17 June 2013, 1ad., **WT**, leg. **SOB/ØG**, det. **ØG**; **Aurskog-Høland**: Mikkelsrud, 13 June–13 July 2017, 1♀, **FIT**, 13 July–14 August 2017, 3♂♂♀♀, **MT**, 1♀, **FIT**, leg. **KMO/SOB**, det. **KMO**; **Bærum**: Fornebu, Lilløyplassen, 25 August 2011, 1♀, leg./det. **LBo**; **Frogn**: Drøbak, 3–4 August 1980, 1♂, N, leg. **RF**, det. **TH**; **Sandbukta**, 15 June–4 August 2017, 1♀, 4 August–14 September 2017, 1♀, **MT**, leg. **KMO/OJL**, det. **KMO**; **Hurdal**: Øvre Rognstad, 4 May–14 September 2017, 1♀, **FIT**, leg./det. **KMO**; **Skedsmo**: SSE Buhaugen, 20 June 2017, 1♂1♀, N, leg./det. **KMO**; **SSE Vestvollen**, 19 July 2017, 1♀ (meadow), 1♂♂ (forest), N, leg. **SBI**, det. **KMO**; **Ås**: Pollen, 15 May–27 June 2016, 1♂, **MT**, leg. **OJL**, det. **KMO**; **Østensjøvannet**, 31 July 2017, 1♂, N, leg./det. **KMO**; **ON**, **Dovre**: Eysteinskyrkja, 29 June 2017, 1♂, N, leg./det. **KMO**; **Hjerkinnsdammen NW**, 25 June–24 July 2017, 1♀, **SLAM**, leg./det. **KMO**; **N Nordre Grotåe**, 28 June 2017, 1♂, N, leg./det. **KMO**; **Lesja**: Bø grendahus, 27 June 2017, 1♂, obs./det. **KMO**; **Nord-Fron**: Kvikne, 1 June–18 July 2017, 2♂♂, **MT**, leg. **SBe/RS**, det. **KMO**; **Sel**: Larslykkja, 24 July 2017, 1♂, N, leg./det. **KMO**; **BØ**, **Flesberg**: Kjølberg, 28 June 2016, 1♂, N, leg./det. **KMO**; **Hurum**: Eikhaugen, 5–30 July 2016, 1♀, **WT**, leg. **SOB**, det. **KMO**; **Nedre Eiker**: Mjøndalen, Miletjern, ultimo August 1988, 1♂, **LT**, leg. **PT**, det. **TH**; **Ringerike**: Veksalbekken, 11 August 2017, 1♀, N, leg./det. **KMO**; **BV**, **Ål**: Venedokki, 6 July 2016, 1♂, N, leg./det. **KMO**; **VE**, **Horten**: Mellomøya, 17 June 2017, 1♂, N, leg./det. **KMO**; **Larvik**: Karto, 1–22 August 2010, 1♂1♀, **MT**, leg. **SOB**, det. **KMO**; **Nevlungstranda**, 20 August–2 October 2009, 1♀, **MT**, leg. **ØG/SOB/KMO**, det. **KMO**; **TEY**, **Kragerø**: Tåtøy, Vestjordet–Vågvikene, 11 August 2016, 1♂, N, leg./det. **KMO**; **Tåtøy**, Tåtøyveien, 11 August 2016, 1♂, N, leg./det. **KMO**; **TEI**, **Tinn**: Mjeltegrøa, 27 May–28 June 2012, 1♂, **MT**, leg. **ØG/OJL**, det. **KMO**; **Øvre Gunleiksrud** (hayfield), 26 May–26 June 2015, 1♀, 3–23 July 2016, 1♀, 17 July–2 August 2015, 4♀♀, **MT**, leg.

SRe, det. KMO; Øvre Gunleiksrud (forest), 2 July–3 August 2012, 1♀, MT, leg. ØG/OJL, det. KMO; Tokke: Eidsborgtjøerna, 17 July 2016, 1♂, N, leg./det. KMO; Gruppebekken, 17 July 2016, 3♂♂, N, leg./det. KMO; Lindeviki, 9 June–16 July 2015, 2♂♂, FIT, 16 July–4 September 2015, 1♀, MT, leg. KMO/ØG, det. KMO; Lårdalsåi, 16 July 2016, 2♂♂, N, leg./det. KMO; NW Båttstø, 9 June–16 July 2015, 1♂, WT, 4 September–11 October 2015, 2♀♀, MT, leg. KMO/ØG, det. KMO; S Bratsberg, 29 May–16 July 2016, 1♂, FIT, 16 July–28 August 2016, 3♀♀, MT, leg./det. KMO; AAY, Arendal: Alvekilen I, 4 August 2017, 1♂, N, leg./det. KMO; Flangeborgkilen, 2 August 2017 (northeastern part), 2♂♂, 4 August 2017 (northwestern part), 1♂, N, leg./det. KMO; Færvikkilen, 5 August 2017, 2♂♂, N, leg./det. KMO; N Duevik, 5 August 2017, 2♂♂, N, leg./det. KMO; Styrsviga, 5 August 2017, 1♀, N, leg./det. KMO; Vågsnes, 5 August 2017, 1♂1♀, N, leg./det. KMO; Grimstad: Hesnes, Sandum, 20 July 1972, 1♂, 19 July 1985, 2♂♂, 20–27 July 2012, 1♂, 27 July–2 August 2012, 1♂, 26 June–1 July 2013, 1♂, 24 July 2014, 1♂, 20 June–7 July 2016, 1♂, 29 July–5 August 2016, 1♂, N/MT, leg./det. TH; AAI, Byglend: Heddeviki, 3 August–12 September 2008, 2♀♀, MT, leg. JTK, det. KMO; SFI, Leikanger: Grinde, 13–24 June 1991, 2♂♂, 24 June–9 July 1991, 1♂, 25 June–11 July 1991, 2♂♂, 25 July–8 August 1991, 2♂♂, 12–28 May 1992, 1♂, WT, leg. JA, det. TH; Luster: Grønnane, 24 June 2017, 1♂, N, leg./det. KMO; Mørkrisdalen, 25 June 2017, 10♂♂, N, leg./det. KMO; N Kvåle, 24 June 2017, 1♂, N, leg./det. KMO; Nedstetølen, 25 June 2017, 3♂♂, N, leg./det. KMO; Slettebakkane, 24 June 2017, 4♂♂, N, leg./det. KMO; Solvorn, 8 August–2 September 2016, 1♂1♀, LT, leg. KB/LBy, det. KMO; Vadøyane, 24 June 2017, 1♂, N, leg./det. KMO; Lærdal: Husum, April–July 2016, 3♂♂, June–July 2016, 1♀, LT, leg. KB/RAG, det. KMO; Moldabakkane, 16–23 August 2015, 3♀♀, LT, leg. KB/RAG, det. KMO; Storøyini, 23 June 2017, 2♂♂, N, leg./det. KMO; Sogndal: S Eidsbakken, 27 August 2017, 1♀, N, leg./det. KMO; STY, Osen: E Sandvika, 21 July 2017, 2♂♂, N, leg./det. KMO; STI, Oppdal: NE Spellmannslætta, 29 June 2017, 2♂♂, N, 29 June–24 July 2017, 1♂1♀,

SLAM, 1♂, YPT, leg./det. KMO; Selbu: Rotla, 3 July–10 July 1989, 1♂, MT, leg. JOS, det. TH; NTY, Namsos: Kalvøya S, 21 July 2017, 1♂1♀, N, leg./det. KMO; Vemundvik, 21 July 2017, 1♀, N, leg./det. KMO; NSY, Brønnøy: SE Torghatten, 20 July 2017, 2♂♂, N, leg./det. KMO; NSI, Rana: Holman, 1 July 2017, 1♂, N, leg./det. KMO; Saltdal: Saksenvik, 17 July 2017, 1♂, N, leg. KMO/SOs, det. KMO; NNØ, Hamarøy: Sagelva, 17 July 2017, 1♂, N, leg./det. KMO; Narvik: Sjøbuneset, 1 July 2017, 1♂, N, leg./det. KMO; Sørfold: Nerigardsøyra, 18 July 2017, 2♂♂, N, leg./det. KMO; TRY, Karlsøy: N Dåfjordeidet, 14 July 2017, 3♂♂, N, leg./det. KMO; Tromsø: SE Lillehaug, 13 July 2017, 2♂♂, N, leg./det. KMO; Tromsø: Skredelva, 13 July 2017, 1♂, N, leg. ØG, det. KMO; TRI, Balsfjord: NW Eidismoen, 4 July 2017, 1♂, N, leg./det. KMO; Gratangen: Mølnelva, 8 July 2017, 1♂, N, leg./det. KMO; Målselv: Frihetsl, 4 July 2017, 4♂♂, N, leg./det. KMO; Storfjord: N Elsnæs, 6 July 2017, 1♂, N, leg./det. KMO; FV, Alta: Grønnåsen S, 16 July 2017, 2♂♂, N, leg. KMO/SOs, det. KMO; FN, Nesseby: Nyborg N, 1 July 2016, 1♂, N, leg./det. KMO; Nyborgmoen, Gákkafielmmajeaggi, 30 June 2016, 1♂, N, leg./det. KMO; Nyborgmoen, N Háskavárri, 29 June 2016, 2♂♂, N, leg. KMO/KA/THØ, det. KMO; Porsanger: Baukop, 26 July 2010, 1♀, leg. LBo/TEK/SRo, det. JS; Russevannet, 25 July 2010, 1♀, leg. LBo/TEK/SRo, det. LBo.

**Additional records:** This species is otherwise mentioned by Zetterstedt (1851, in part as *T. octolineata*, see Wahlgren (1904)), Siebke (1863, 1866b, 1870, 1872, 1877), Wallengren (1882b), Storm (1898), Strand (1900 (he includes a “?”), which might indicate some uncertainty about the identification), 1903), Lundström (1914), Lackschewitz (1935, 1936), Tjeder (1965), Mannheims (1967), Thunes *et al.* (2004), Hofsvang *et al.* (1993), Hofsvang (2010), Magnussen (2013), Thunes *et al.* (in press) from Ø, AK, HEN, OS, ON, BØ, BV, VE, TEY, AAY, AAI, HOY, HOI, MRY, STI, NTI, NSY, NSI, NNØ, TRY and TRI. Lundström (1914) mentions the species also from “Erfjord”, collected by Embrik Strand. Strand seems to have been collecting insects in two different places called “Erfjord”, one in RI,

Suldal and one in NSY, Dønna (the latter should actually be spelled “Berfjord”). It is therefore not certain where the specimen of *T. scripta* was collected. There are, however, other records of the species from both these regions. NHMO hold three specimens from “Romsdal”, collected by Siebke, but seemingly not published by him. The only specimen he mentions from county Møre og Romsdal is from “Smølen in Nordmøre”, which is in MRY, but there are no specimens in NHMO corresponding with this. The only specimen there with a locality name is from “Vestnæs”, which is in MRY, but also in the geographical area denoted as Romsdal, which includes municipalities in both MRY and MRI. There are specimens from OS, BV and NNØ in ZMAN. Artskart present one specimen from RI, Suldal: Eide, 25 June 1935, leg. Soot-Ryen, det. Mannheims and one male from MRI, Rauma: Skorgen, 15 July 2001, leg./det. Hatlen, conf. KMO 25 May 2018.

**Distribution and biology.** Distributed in West and East Palaearctic. In soil, litter, woodland, meadows etc. (Oosterbroek 2018). Flight period: May–September.

*Yamatotipula* Matsumura, 1916  
Eight species in Norway.

### *Tipula (Yamatotipula) coerulescens* Lackschewitz, 1923

**Material examined:** BØ, Hurum: Tofte, 18 May–2 June 1985, 1♂, MT, leg. FM, det. TH.

**Additional records:** Siebke (1870, 1877, as *T. lateralis*, see Lackschewitz 1933) published *T. coerulescens* from three localities in AK (two specimens in NHMO, from Skøyen and Tøyen). Hofsvang (2010) also lists the species from AK (26 May–6 June 1995). The specimen from Næs in Siebke (1870, as *T. lateralis*) (labelled “Næs Hallingd.” on specimen in NHMO) was renamed by Lackschewitz (1933) as *T. coerulescens*, but proved to be *T. montium* when reidentified by KMO/JSa/ØG in November 2017.

**Distribution and biology.** Distributed in West Palaearctic. Meadows, along flowing waters (Oosterbroek 2018). Flight period: May–June.

### *Tipula (Yamatotipula) couckeii* Tonnoir, 1921

**Material examined:** AK, Oslo, Ljanselva, Nordstrand, Liadalen 23 August–6 September 2010, 1♂, MT, MT, leg. GS/MS, det. LBo; STI, Selbu: Rotla, 14–21 June 1986, 4♂♂, 21–28 June 1986, 12♂♂, 28 June–5 July 1986, 8♂♂, 5–12 July 1986, 1♂, 26 June–3 July 1989, 1♂, 3–10 July 1989, 1♂, MT, leg. JOS, det. TH; FN, Nesseby: Varangerbotn NR, 1 July 2016, 1♂, N, leg./det. KMO.

**Additional records:** Siebke (1877) published one specimen from ON, Dovre: Fokstua (as *lateralis*, according to Lackschewitz (1933); specimen in NHMO). Lackschewitz (1935) reports it from NSY, Sømna, Sømnes, 1928, leg. Soot-Ryen, det. Lackschewitz (this last one is also in Artskart; the date given, 1 July, might be correct, but may also be artificial; D-17923 in TROM). Mannheims (1967) mentions the species from NTY, Namdalseid, Namsendalen, 29 June 1966, 1♂, leg. Mittendorf, det. Mannheims. In NHMO, there is also one female specimen (G.l. 208) without date or locality, collected by Siebke and identified by Lackschewitz (originally identified by Siebke as *T. lateralis*), but not mentioned in Lackschewitz (1933).

**Distribution and biology.** Distributed in West and East Palaearctic. In humid habitats, near running water (Oosterbroek 2018). Flight period: June–August.

### *Tipula (Yamatotipula) lateralis* Meigen, 1804

**Material examined:** AK, Oslo: Munkerud, 6 August 1982, 1♂, 31 May 1984, 2♂♂, N, leg./det. TH; Ljanselva, Munkerud, 6 June 1978, 2♂♂, 8 June 1978, 1♂, 17 June 1978, 2♂♂, 10 June 1979, 1♂, 11 June 1979, 1♂, N, leg./det. TH; Ljanselva, Skullerud, 17 June 1978, 2♂♂, N, leg./det. TH; Simensbråten, Konowsgate, 23 October 2010 (found dead), 2♂♂, leg. LBo/PJN, det. LBo; Skullerud, 11 June 1978, 1♂, 10 June 1984, 1♂, N, leg./det. TH; AK, Asker: Kistefosdammen S, 10 August 2017, 1♂, N, leg./det. KMO; Bærum: Storøykilen, 7 August 2016, 2♂♂, N, leg./det. KMO; Enebakk: Tangenelva, 14 June 2017, 4♂♂♀♀, N, leg. KMO/OJL, det. KMO; Frogn: Seierstenmarka, 27 May 2017, 1♂, N, leg. KMO et al., det. KMO; Ås: Østensjøvannet, 31 July

2017, 1♂, N, leg./det. KMO; **BØ**, Hurum: Tofte, 2–17 June 1985, 1♂, MT, leg. FM, det. TH; **TEY**, Bamble: Åbyelva NR, 23 August 2017, 1♂, N, leg./det. KMO; **TEI**, Tokke: NW Båttstø, 16 July–4 September 2015, 1♂, MT, leg. KMO/ØG, det. KMO; **FN**, Nesseby: Varangerbotn NR, 1 July 2016, 1♂, N, leg./det. KMO.

**Additional records:** The species is otherwise reported by Siebke (1877), Storm (1898), Strand (1900, 1903), Lundström (1914), Lackschewitz (1933), Hofsvang (1986), Hofsvang *et al.* (1993) from **Ø**, **AK**, **BØ**, **BV**, **TEY**, **AAY?** (see below) and **STI**. Zetterstedt (1851) mentions **AK**, Oslo: Tøyen, based on specimens collected by Siebke. However, according to Lackschewitz (1933), has Siebke mixed no less than five species under the name *Tipula lateralis*, of which several are collected at Tøyen, so it is impossible to know what species Zetterstedt is referring to. There is, however, a male *T. lateralis* from Tøyen in NHMO. Specimens mentioned by Siebke (1877) from **Ø**, **HEN**, **ON** and **BV** has proved to be representing other species, see Lackschewitz (1933). Siebke (1872, 1877) also mentions **HES**, Elverum, which would have been from a new Strand-region, but as Lackschewitz does not account for this information, and we know that Siebke's concept of the species is inaccurate, it is better left out. One male in NHMO from **AK**, Enebakk, no date, but collected by Siebke (G.I. 201), was reidentified from *T. pierrei* to *T. lateralis* in November 2017. It is not clear whether this one has been published as *T. pierrei*. Strand (1900) is the only author mentioning **AAY**, and a specimen labelled *T. lateralis* in NHMO seems to fit with this, only that this specimen was misidentified, and reidentified to *T. vernalis* in November 2017. We can, however, not be absolutely sure that this is the specimen mentioned in the paper from 1900. In Artskart there are records accompanied by good photographs from **VE**, **VAY** and **RY**, and a record from **TRI**, Balsfjord: Nordfjordvatnet, 16 July 1942, leg. Soot-Ryen, det. Mannheims (D-17924 in TROM).

**Distribution and biology.** Distributed in West and East Palaearctic. Along margins of streams, rivers, ponds and lakes (Oosterbroek 2018). Flight period: May–August.

### *Tipula (Yamatotipula) marginella* Theowald, 1980

**Material examined:** **AK**, Asker: Brønnøya, 5 June 2017, 4♂♂, N, leg./det. KMO; **BØ**, Ringerike: Lamyra, 9 June 2016, 1♀, 23 June 2016, 1♂, N, leg./det. KMO.

**Additional records:** Siebke (1866b, 1877, as *T. marginata*) and Hofsvang (1986, as *T. marginata*) mention the species from **AK**. Lackschewitz (1933, as *T. marginata*) lists the species for Norway, but has no comments to the specimens collected by Siebke. Siebke's two females, one from Nittedal in July and one from Oslo in June, seems to be the only specimens from Norway prior to the ones presented here. They are both in NHMO.

**Distribution and biology.** Distributed in West and East Palaearctic. Found around rich fens, brooks and streams (Oosterbroek 2018). Flight period: June–July.

### *Tipula (Yamatotipula) moesta* Riedel, 1919

**Material examined:** **FØ**, Sør-Varanger: Svanhovd, Mellesmo, 20 June–4 August 1986, 1♂, MT, leg. FM, det. TH.

**Additional records:** The species was first published from Norway by Mannheims (1972), from **TRI**, Storfjord: Skibotn, 7 July 1962, 2♂♂, leg. M. Meinander, det. Mannheims.

**Distribution and biology.** Distributed in West and East Palaearctic. The species has a distribution in Finland restricted to northern part of Lapland, including the northeastern part, which is close to Svanhovd in Norway (Salmela and Autio 2009). In wetland habitats around lakes (Oosterbroek 2018). Flight period: (June–)July.

### *Tipula (Yamatotipula) montium* Egger, 1863

**Material examined:** **HEN**, Folldal: Atnaelv, Vollen, 18–25 June 1986, 1♂, 8–18 July 1986, 1♂, MT, leg. JOS, det. TH; Stor-Elvdal: Atnaelv, Solbakken, 17–24 June 1986, 1♂, MT, leg. JOS, det. TH; **NTI**, Høylandet: Tverråa, 1–9 July 1986, 1♂, MT, leg. JOS, det. TH; **FI**, Kautokeino: Masi, 24 July 2010, 1♂, 1♀, leg. LBo/TEk/SRo, det. LBo.

**Additional records:** Siebke (1866b, 1870, 1872, 1877, as *T. lateralis*, see Lackschewitz

(1933)), Tjeder (1965) and Mannheims (1967) has recorded the species from Ø, HEN, OS, BV (the specimen named *T. coeruleascens* by Lackschewitz (1933)), HOY and NTI. Strand (1914) described a male from AAI as *T. lundströmi*. This species is synonymized with *T. montium* by Lackschewitz (1933) og Savchenko (1961) (see also Blech & Rohlfien 1987), but Oosterbroek (2018) regards the synonymy as uncertain, based on information in Theowald (1980: 512).

**Distribution and biology.** Distributed in West and East Palaearctic. Along rivers and lakes (Oosterbroek 2018). The Norwegian records from 1986 are all from Malaise traps along rivers. Flight periods: June–July.

### *Tipula (Yamatotipula) pierrei* Tonnoir, 1921

**Material examined:** Ø, Marker: Sandtorpfjorden, 23 May 2017, 1♂, N, leg./det. KMO; Råde: Åven, 24 April–18 May 2014, 13♂♂♀♀, MT, leg. AEL/OJL, 21 May 2017, 19♂♂♀♀ (salt marsh) 1♀ (Alder forest), N, leg. KMO, det. KMO; AK, Oslo: NW Skytterbrygga, 30 August 2017, 1♂1♀, N, leg. KMO/TS, det. KMO; Bærum: Fornebu, Lilløyplassen, 25 August 2011, 1♀, leg./det. LBo; Lilløyplassen, 26 August 2016, 1♂, LT, leg./det. KMO; Storøykilen, 7 August 2016, 26♂♂♀♀, N, leg./det. KMO; BØ, Hurum: Toftelholmen, 7–31 July 1991, 1♂, MT, leg. LOH, det. TH; VE, Larvik: Nevlungstranda, 30 April–1 June 2009, 1♀, MT, leg. ØG/SOb/KMO, det. KMO; Nevlungstranda, 8 June 2017, 1♀, N, leg./det. KMO; Sande: Kommersøya, 9 July–2 August 1991, 1♂, MT, leg. LOH, det. TH.

**Additional records:** The species is otherwise recorded by Siebke (1877, as *T. lateralis*, see Lackschewitz (1933, as *T. solstitialis*)), Lackschewitz (1933, as *T. solstitialis*; mentioning also specimens not mentioned by Siebke), Hofsvang (1986) and Hofsvang *et al.* (1993) from AK and VE. There are specimens in Artskart from HES, leg./det. LBo and HOY, 13 September 2017, leg. Lerdahl, det. KMO. One male from OS, Lillehammer, July 1872, leg. Siebke, det. Lackschewitz is in NHMO (G.I. 204).

**Distribution and biology.** Distributed in West and East Palaearctic. Margins along ponds and lakes (Oosterbroek 2018). Flight period: May–

September.

### *Tipula (Yamatotipula) pruinosa pruinosa* Wiedemann, 1817

**Material examined:** AK, Oslo: Grønliåsen, Søndre Nordstrand, 10 July 2011, 1♀, leg. LBo, det. PO; Asker: Brønnøya, 5 June 2017, 1♂, N, leg./det. KMO; Skedsmo: Riisstubben, 19 July 2017, 2♂♂, N, leg. SBL, det. KMO; SSE Vestvollen, 19 July 2017, 1♂, N, leg. SBL, det. KMO; Ullensaker: Krokfossvegen, 19 July 2016, 1♂, N, leg. KMO/RB, det. KMO; BØ, Ringerike: Veksalbekken, 23 June 2017, 1♂1♀, N, leg./det. KMO; VE, Tjøme: Kolabekkilen, 30 May 2017, 1♂, N, leg./det. KMO; TEY, Kragerø: Hellesengtjenna NR, 13 June 2017, 2♂♂, N, leg./det. KMO; Skien: N Gravklev, 22 June 2016, 1♂, N, leg./det. KMO; NE Bjerketvedt, 22 June 2016, 2♂♂, N, leg./det. KMO; Skyerløken, 22 June 2016, 1♂, N, leg./det. KMO.

**Additional records:** Zetterstedt (1851), Siebke (1863, 1866b, 1872, 1877), Storm (1898), Mannheims (1967) and Hofsvang (2010) report the species from Ø, AK, STI and NTI. There is also a female from VE, Tønsberg, leg. Siebke, in NHMO.

**Distribution and biology.** Distributed in West and East Palaearctic. In open habitats, wet grassland etc. (Oosterbroek 2018). Flight period: May–July, possibly also August.

### Checklist of Nordic Tipulidae

The Norwegian distribution is based mainly on records published in scientific papers, in addition to recent identifications made by the authors of this article. Some references necessary for creating Table 1 are not mentioned elsewhere in the text: Brodo (1987), Endrestøl *et al.* (2010), Hofsvang & Hansen (1989), Mannheims (1951), Oosterbroek (1978, 1979a,b,c), Oosterbroek *et al.* (2007), Østbye & Lauritzen (2013), Henriksen & Hilmo (2015), Salmela *et al.* (2007), Sommerfeldt (1824–1827), Strøm (1781, 1784, 1788), Theowald & Oosterbroek (1983) and Wallengren (1882a).

*Tipula (Vestiplex) nodulicornis* Zetterstedt,



1838 is mentioned from Norway by Siebke (1863): Fogstuen Juli 1853. *Tipula nodulicornis*, described from Greenland, is a synonym of *T. (Vestiplex) arctica* Curtis, 1835, a species known from Greenland, Canada and the Asian part of Russia. In NHMO, there are two *Vestiplex* specimens collected at Fokstua in July 1853 – one *T. excisa* male and one *T. nubeculosa* male (the latter misidentified as *T. scripta*). It might be one of those, and in any case, we should not regard *T. arctica* as a species occurring in Norway.

*Tipula (Savtshenkia) boreosignata* Tjeder, 1969 is deleted from the Swedish list, for reasons that will be published in a separate paper shortly (de Jong, *in prep.*).

## Annotations

1. *Nephrotoma lundbecki* (Nielsen, 1907). Mannheims (1951, as *Pales orbitalis*) mentions "Nordnorge, Is-Sund", leg W.F. Reinig 04.VII.1941. "Is-Sund" can not be traced, as also noted by Hofsvang (2016; where the locality is renamed "Isfjord").
2. *Nephrotoma quadristriata* (Schummel, 1833). The female specimen that Mannheims (1967) reports as new to Norway has proved to be *N. lunulicornis* (Schummel, 1833) (Oosterbroek 1979b, 2018).
3. *Nephrotoma relictata* (Savchenko, 1973). The species is included as Swedish in the Swedish Taxonomic Database (Dyntaxa), but without any verifiable source. Yngve Brodin (*in litt.*) informs that there are probably no identified specimens of the species in Swedish museums. It shall be indicated from Sweden in an Excel list from 2008, but the exact source seems to be lost. *N. relictata* is an East Palaearctic species, known in Europe from northern Finland and the Leningrad region.
4. *Nephrotoma submaculosa* Edwards, 1928. The map in Theowald & Oosterbroek (1983) indicates a distribution too far to the east in Norway, compared to what is actually known (which is only RY).
5. *Tipula (Lunatipula) livida* van der Wulp, 1859. *Tipula livida* has for some time been regarded

as occurring in Norway (Tjeder 1955, Hofsvang 1986, Oosterbroek 2018), but no Norwegian specimens seem to be known. In Tjeder (1955), it is marked as "likely reliable record [for Norway] by other authors [than himself]", and subsequent information (as far as we can see *only* in the references mentioned above) seems to be based on this rather questionable statement. It is therefore decided that the species is best removed from the Norwegian list.

6. *Tipula (Pterelachisus) crassicornis* Zetterstedt, 1838. Siebke's (1863, 1877) animals from Dovre has proved to be *Tipula excisa*, see Lackschewitz (1933), and it is therefore uncertain what his specimens from "Nystuen" / "Nystuen in alpe Filefjeld" (ON) might be.
7. *Tipula (Pterelachisus) pseudohortensis* Lackschewitz, 1932. Theowald (1956) reports this species for Sweden, but this information seems to have not been repeated, not even in his own publications, like Theowald (1980), and Sweden is not included in CCW (Oosterbroek 2018). The species is known from Finland (as *Tipula matsumuriana pseudohortensis*), so an occurrence in Sweden is not unlikely.
8. *Tipula (Pterelachisus) pseudovariipennis* Czizek, 1912. This species is regarded as occurring in Sweden in Dyntaxa, but not in CCW, with reference to Salmela (2012b). According to Yngve Brodin (*in litt.*), there shall be specimens present in museums in both Stockholm and Lund, and if those are not the basis for Salmela's statement, they should be checked to verify its presence. Previous reports from Finland and Denmark are also demented by Salmela (2012a,b).
9. *Tipula (Pterelachisus) trifascingulata* Theowald, 1980. So far, this species is only reported through the Species Observation System from ArtDatabanken (Artportalen), but a paper is due very shortly by Andersson & Brodin (2019).
10. *Tipula (Vestiplex) hemiptera* Mannheims, 1953. Reported from Sweden as *Tipula strobliana* Mannheims, 1966 in Dyntaxa (*strobliana* Mannheims, 1966 is regarded as a

**TABLE 1.** Checklist of Tipulidae from the Nordic countries. N = Norway, S = Sweden, F = Finland, D = Denmark, I = Iceland. The Strand regions, Ø through FØ, are explained in Figure 1. Species marked with an asterisk (\*) are the ten species new to Norway, presented above. Species with numbers in superscript are commented on in the annotations above.

	N	S	F	D	I	Ø	AK	HES	HEN	OS	ON	BØ	BV	VE	TEY	TEI	AAV	AAI	VAV	VAI	RY
<b>TIPULIDAE</b>																					
<b>CTENOPHORINAE</b>																					
<b>Ctenophorini</b>																					
<b><i>Ctenophora</i> Meigen, 1803</b>																					
<i>Cnemidosis</i> Enderlein, 1921																					
<i>festiva</i> Meigen, 1804				x																	
<i>ornata</i> Meigen, 1818		x		x																	
<i>Ctenophora</i> Meigen, 1803																					
<i>flaveolata</i> (Fabricius, 1794)	x	x	x	x		x	x										x			x	
<i>guttata</i> Meigen, 1818	x	x	x	x			x	x												x	
* <i>nigriceps</i> (Tjeder, 1949)	x	x	x													x					
<i>pectinicornis</i> (Linnaeus, 1758)	x	x	x	x			x		x					x			x				
<b><i>Dictenidia</i> Brullé, 1833</b>																					
<i>bimaculata</i> (Linnaeus, 1761)	x	x	x	x		x	x	x	x		x	x		x	x	x	x		x		
<b><i>Phoroctenia</i> Coquillett, 1910</b>																					
<i>vittata</i> (Meigen, 1830)	x	x	x	x																	
<b>Tanypterini Savchenko, 1966</b>																					
<b><i>Tanyptera</i> Latreille, 1804</b>																					
<i>atrata</i> (Linnaeus, 1758)	x	x	x	x		x	x	x	x	x	x	x	x	x		x					x
<i>nigricornis</i> (Meigen, 1818)	x	x	x	x		x	x				x	x		x	x				x		
<b>DOLICHOPEZINAE</b>																					
<b><i>Dolichopeza</i> Curtis, 1825</b>																					
<i>Dolichopeza</i> Curtis, 1825																					
<i>albipes</i> (Ström, 1768)	x	x	x	x		x	x				?	x		x							
* <i>bifida</i> Oosterbroek & Lantsov, 2011	x	x	x								?					x					
<b>TIPULINAE</b>																					
<b>Prionocerini</b>																					
<b><i>Prionocera</i> Loew, 1844</b>																					
<i>abscondita</i> Lackschewitz, 1933				x																	
<i>chosenicola</i> Alexander, 1945	x	x	x																		
<i>pubescens</i> Loew, 1844	x	x	x	x		x	x														
<i>recta</i> Tjeder, 1948			x	x																	
<i>ringdahli</i> Tjeder, 1948			x	x																	
<i>serricornis</i> (Zetterstedt, 1838)	x	x	x								?										
<i>setosa</i> Tjeder, 1948			x																		
<i>subserricornis</i> (Zetterstedt, 1851)	x	x	x	x		x	x		x	x		x			x						
<i>turcica</i> (Fabricius, 1787)	x	x	x	x	x	x	x		x	x	x										x
<i>woodorum</i> Brodo, 1987		x	x																		
<b>Tipulini</b>																					
<b><i>Angarotipula</i> Savchenko, 1961</b>																					
<i>tumidicornis</i> (Lundström, 1907)	x	x	x																		
<b><i>Nephrotoma</i> Meigen, 1803</b>																					
<i>aculeata</i> (Loew, 1871)	x	x	x			x	x		x	x	x	x	x	x	x	x	x		x		
<i>analís</i> (Schummel, 1833)	x	x	x	x		x	x	x	x		x		x	x	x	x	x		x		
<i>appendiculata</i> (Pierre, 1919)	x	x	x	x		x	x		x		x		x	x							
<i>cornicina</i> (Linnaeus, 1758)	x	x	x	x		x	x	x	x	x	x	x				x	x				
<i>crocata</i> (Linnaeus, 1758)	x	x	x	x		x	x	x				x		x	x		x				
<i>croceiventris lindneri</i> (Mannheims, 1951)			x																		
<i>dorsalis</i> (Fabricius, 1781)	x	x	x	x		x	x	x				x		x	x		x				x
<i>flavescens</i> (Linnaeus, 1758)	x	x	x	x		x	x	x	x	x	x	x	x	x	x		x		x		x
* <i>flavipalpis</i> (Meigen, 1830)	x	x	x	x													x				
<i>guestfalica</i> (Westhoff, 1879)			x	x																	
<i>lundbecki</i> (Nielsen, 1907) <sup>1</sup>	x	x	x																		
<i>lunulicornis</i> (Schummel, 1833)	x	x	x	x		x			x	x	x										
<i>pratensis</i> (Linnaeus, 1758)	x	x	x	x		x	x					x									
<i>quadrifaria</i> (Meigen, 1804)	x	x	x			x								x	x		x				
<i>quadristriata</i> (Schummel, 1833) <sup>2</sup>		x	x	x																	
<i>ramulifera</i> Tjeder, 1955			x																		
<i>relicta</i> (Savchenko, 1973) <sup>3</sup>		?	x																		
<i>scalaris</i> (Meigen, 1818)		x		x																	
<i>scurra</i> (Meigen, 1818)	x	x	x	x		x	x	x	x	x	x	x	x	x		x	x				x

TABLE 1. Continued.

	RI	HOY	HOI	SFY	SFI	MRY	MRI	STY	STI	NTY	NTI	NSY	NSI	NNØ	NNV	TRY	TRI	FV	FI	FN	FØ
<b>TIPULIDAE</b>																					
<b>CTENOPHORINAE</b>																					
<b>Ctenophorini</b>																					
<b><i>Ctenophora</i> Meigen, 1803</b>																					
<i>Cnemoncosis</i> Enderlein, 1921																					
<i>festiva</i> Meigen, 1804																					
<i>ornata</i> Meigen, 1818																					
<i>Ctenophora</i> Meigen, 1803																					
<i>flaveolata</i> (Fabricius, 1794)																					
<i>guttata</i> Meigen, 1818																					
* <i>nigriceps</i> (Tjeder, 1949)																					
<i>pectinicornis</i> (Linnaeus, 1758)																					
<b><i>Dictenidia</i> Brullé, 1833</b>																					
<i>bimaculata</i> (Linnaeus, 1761)																					
<b><i>Phoroctenia</i> Coquillett, 1910</b>																					
<i>vittata</i> (Meigen, 1830)																					
Tanypterini Savchenko, 1966																					
<b><i>Tanyptera</i> Latreille, 1804</b>																					
<i>Tanyptera</i> Latreille, 1804																					
<i>atrata</i> (Linnaeus, 1758)																					
<i>nigricornis</i> (Meigen, 1818)																					
<b>DOLICHOPEZINAE</b>																					
<b><i>Dolichopeza</i> Curtis, 1825</b>																					
<i>Dolichopeza</i> Curtis, 1825																					
<i>albipes</i> (Strom, 1768)																					
* <i>bifida</i> Oosterbroek & Lantsov, 2011																					
<b>TIPULINAE</b>																					
Prionocerini																					
<b><i>Prionocera</i> Loew, 1844</b>																					
<i>abscondita</i> Lackschewitz, 1933																					
<i>chosenicola</i> Alexander, 1945																					
<i>pubescens</i> Loew, 1844																					
<i>recta</i> Tjeder, 1948																					
<i>ringdahli</i> Tjeder, 1948																					
<i>serricornis</i> (Zetterstedt, 1838)																					
<i>setosa</i> Tjeder, 1948																					
<i>subserricornis</i> (Zetterstedt, 1851)																					
<i>turcica</i> (Fabricius, 1787)																					
<i>woodorum</i> Brodo, 1987																					
Tipulini																					
<b><i>Angarotipula</i> Savchenko, 1961</b>																					
<i>tumidicornis</i> (Lundström, 1907)																					
<b><i>Nephrotoma</i> Meigen, 1803</b>																					
<i>aculeata</i> (Loew, 1871)																					
<i> analis</i> (Schummel, 1833)																					
<i>appendiculata</i> (Pierre, 1919)																					
<i>cornicina</i> (Linnaeus, 1758)																					
<i>crocata</i> (Linnaeus, 1758)																					
<i>croceiventris lindneri</i> (Mannheims, 1951)																					
<i>dorsalis</i> (Fabricius, 1781)																					
<i>flavescens</i> (Linnaeus, 1758)																					
* <i>flavipalpis</i> (Meigen, 1830)																					
<i>guestfalica</i> (Westhoff, 1879)																					
<i>lundbecki</i> (Nielsen, 1907) <sup>1</sup>																					
<i>lunulicornis</i> (Schummel, 1833)																					
<i>pratensis</i> (Linnaeus, 1758)																					
<i>quadrifaria</i> (Meigen, 1804)																					
<i>quadristriata</i> (Schummel, 1833) <sup>2</sup>																					
<i>ramulifera</i> Tjeder, 1955																					
<i>relicta</i> (Savchenko, 1973) <sup>3</sup>																					
<i>scalaris</i> (Meigen, 1818)																					
<i>scurra</i> (Meigen, 1818)																					

TABLE 1. Continued.

	N	S	F	D	I	O	AK	HES	HEN	OS	ON	BØ	BV	VE	TEY	TEI	AAV	AAI	VAY	VAI	RY
<i>submaculosa</i> Edwards, 1928 <sup>4</sup>	x	x	x	x																	x
<i>tenuipennis</i> (Riedel, 1910)	x	x	x				x		x		x	x	x			x					
<b><i>Nigrotipula Hudson &amp; Vane-Wright, 1969</i></b>																					
<i>nigra</i> (Linnaeus, 1758)	x	x	x	x		x	x			x	x			x	x						
<b><i>Tipula</i> Linnaeus, 1758</b>																					
<i>Acutipula</i> Alexander, 1924																					
<i>fulvipennis</i> De Geer, 1776	x	x	x	x		x	x				x		x	x	x	x	x		x		x
* <i>luna</i> Westhoff, 1879	x	x		x			?							x	x						
<i>maxima</i> Poda, 1761	x	x	x	x		x	x	x			?	x		x			x				x
<i>vittata</i> Meigen, 1804	x	x		x		x								x			x				
<i>Arctotipula</i> Alexander, 1934																					
<i>salicetorum</i> Siebke, 1870	x	x	x						x	x	x										
<i>Beringotipula</i> Savchenko, 1961																					
<i>unca</i> Wiedemann, 1817	x	x	x	x			x	x	x	x	x	x	x	x	x		x			x	
<i>Dendrotipula</i> Savchenko, 1964																					
<i>flavolineata</i> Meigen, 1804	x	x	x	x		x	x									x					
<i>Emdotipula</i> Alexander, 1966																					
* <i>obscuriventris</i> Strobl, 1900	x	x	x	x																	
<i>Lindnerina</i> Mannheims, 1965																					
* <i>bistilata</i> Lundström, 1907	x	x	x								x										
<i>subexcisa</i> Lundström, 1907	x	x	x								x										
<i>Lunatipula</i> Edwards, 1931																					
<i>affinis</i> Schummel, 1833	x	x	x			x	x	x	x												
<i>alpina</i> Loew, 1873	x	x		x								x		x		x	x				
<i>cava</i> Riedel, 1913			x	x																	
<i>circumdata</i> Siebke, 1863	x	x	x						x												
<i>fascipennis</i> Meigen, 1818	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x				x
* <i>humilis</i> Staeger, 1840	x	x	x	x			x														
<i>laetabilis</i> Zetterstedt, 1838	x	x	x	x		x	x			x	x			x		x					
<i>limitata</i> Schummel, 1833	x	x	x	x					x												
<i>livida</i> van der Wulp, 1859 <sup>5</sup>			x						x												
<i>lunata</i> Linnaeus, 1758	x	x	x	x			x	x	x	x	x				x	x	x	x			
<i>pelitostigma</i> Schummel, 1833		x	?	x																	
<i>recticornis</i> Schummel, 1833		x	x																		
<i>selene</i> Meigen, 1830	x	x	x	x			x	x			x				x						
<i>trispinosa</i> Lundström, 1907	x	x	x																		
<i>vernalis</i> Meigen, 1804	x	x	x	x		x	x	x	x	x	x		x	x				x			
<i>Mediotipula</i> Pierre, 1924																					
<i>siebkei</i> Zetterstedt, 1852	x	x		x			x								x	x	x				
<i>Odonatisca</i> Savchenko, 1956																					
<i>nodicornis</i> Meigen, 1818	x	x	x	x				x			x										
<i>Platytipula</i> Matsumura, 1916																					
<i>autumnalis</i> Loew, 1864		x		x																	
<i>luteipennis</i> Meigen, 1830	x	x	x	x		x	x	x				x			x				x		x
<i>melanoceros</i> Schummel, 1833	x	x	x	x			x	x	x		x				x						
<i>moiwana</i> (Matsumura, 1916)	x						x														
<i>Pterelachisus</i> Rondani, 1842																					
<i>cinereocincta</i> Lundström, 1907	x	x	x								x										
<i>crassicornis</i> Zetterstedt, 1838 <sup>6</sup>	x	x	x								?										
<i>irrorata</i> Macquart, 1826	x	x	x	x		x	x		x	x	x	x	x	x	x	x	x				
<i>jutlandica</i> Nielsen, 1947		x	x	x																	
<i>kaisilai</i> Mannheims, 1954	x	x	x																		
<i>laetibasis</i> Alexander, 1934	x	x	x																		
<i>luridorostri</i> Schummel, 1833	x	x	x	x			x		x							x					
<i>middendorffi</i> Lackschewitz, 1936	x										x										
<i>mutila</i> Wahlgren, 1905			x	x	x																
<i>octomaculata</i> Savchenko, 1964				x																	
<i>pabulina</i> Meigen, 1818	x	x	x	x			x					x									
* <i>pauli</i> Mannheims, 1964	x	x	x										x								
<i>pseudohortensis</i> Lackschewitz, 1932 <sup>7</sup>				x																	
<i>pseudoirrorata</i> Goetghebuer, 1921	x	x	x			x	x				x		x			x	x				
<i>pseudovariipennis</i> Czižek, 1912 <sup>8</sup>			x																		
<i>recondita</i> Pilipenko & Salmela, 2012				x																	
<i>stenostyla</i> Savchenko, 1964				x																	
<i>submarmorata</i> Schummel, 1833	x	x	x	x		x	x		x	x	x		x		x	x					x

TABLE 1. Continued.

	RI	HOY	HOI	SFY	SFI	MRY	MRI	STY	STI	NTY	NTI	NSY	NSI	NNØ	NNV	TRY	TRI	FV	FI	FN	FØ
<i>submaculosa</i> Edwards, 1928 <sup>4</sup>																					
<i>tenuipes</i> (Riedel, 1910)							X	X	X		X	X	X	X							
<b><i>Nigrotipula</i> Hudson &amp; Vane-Wright, 1969</b>																					
<i>nigra</i> (Linnaeus, 1758)									X												
<b><i>Tipula</i> Linnaeus, 1758</b>																					
<i>Acutipula</i> Alexander, 1924																					
<i>fulvipennis</i> De Geer, 1776		X			X		X	X			X	X	X	X							
* <i>luna</i> Westhoff, 1879																					
<i>maxima</i> Poda, 1761		X	?								?										
<i>vittata</i> Meigen, 1804	X	X																			
<i>Arctotipula</i> Alexander, 1934																					
<i>salicetorum</i> Siebke, 1870					X				X		X		X	X			X	X		X	
<i>Beringotipula</i> Savchenko, 1961																					
<i>unca</i> Wiedemann, 1817		X		X	X	X	X	X	X		X	X		X		X	X	X	X	X	X
<i>Dendrotipula</i> Savchenko, 1964																					
<i>flavolineata</i> Meigen, 1804			X														X				
<i>Emodotipula</i> Alexander, 1966																	X				
* <i>obscuriventris</i> Strobl, 1900								X									X				
<i>Lindnerina</i> Mannheims, 1965																					
* <i>bistilata</i> Lundström, 1907																					
<i>subexcisa</i> Lundström, 1907																			X		
<i>Lunatipula</i> Edwards, 1931																					
<i>affinis</i> Schummel, 1833													X				X				
<i>alpina</i> Loew, 1873																					
<i>cava</i> Riedel, 1913																					
<i>circumdata</i> Siebke, 1863									X				X				X				
<i>fascipennis</i> Meigen, 1818					X	X	X		X		X	X									
* <i>humilis</i> Staeger, 1840																					
<i>laetabilis</i> Zetterstedt, 1838					X				X												
<i>limitata</i> Schummel, 1833											X		X	X			X			X	
<i>livida</i> van der Wulp, 1859 <sup>5</sup>																					
<i>lunata</i> Linnaeus, 1758			X		X		X		X	X	X	X		X		X	X	X		X	
<i>peliosigma</i> Schummel, 1833																					
<i>recticornis</i> Schummel, 1833																					
<i>selene</i> Meigen, 1830						X			X		X	X							X		
<i>trispinosa</i> Lundström, 1907																	X	X		X	
<i>vernalis</i> Meigen, 1804									X		X	X		X		X	X	X	X	X	X
<i>Mediotipula</i> Pierre, 1924																					
<i>siebkei</i> Zetterstedt, 1852																					
<i>Odonatisca</i> Savchenko, 1956																					
<i>nodicornis</i> Meigen, 1818																					
<i>Platytipula</i> Matsumura, 1916																					
<i>autumnalis</i> Loew, 1864									X		X		X								
<i>luteipennis</i> Meigen, 1830									X		X		X								
<i>melanoceros</i> Schummel, 1833		X							X		X	X	X	X		X	X			X	
<i>moiwana</i> (Matsumura, 1916)																					
<i>Pterelachisus</i> Rondani, 1842																					
<i>cinereocincta</i> Lundström, 1907																X			?		
<i>crassicornis</i> Zetterstedt, 1838 <sup>6</sup>																	X				
<i>irrorata</i> Macquart, 1826		X		X	X		X		X				X			X					
<i>jutlandica</i> Nielsen, 1947																					
<i>kaisilai</i> Mannheims, 1954									X												
<i>laetibasis</i> Alexander, 1934																					X
<i>luridorostris</i> Schummel, 1833									?		X								?		
<i>middendorffi</i> Lackschewitz, 1936									X												
<i>mutila</i> Wahlgren, 1905																					
<i>octomaculata</i> Savchenko, 1964																					
<i>pabulina</i> Meigen, 1818																					
* <i>pauli</i> Mannheims, 1964																					
<i>pseudohortensis</i> Lackschewitz, 1932 <sup>7</sup>																					
<i>pseudoirrorata</i> Goetghebuer, 1921					X				X		X		X								
<i>pseudovariipennis</i> Czižek, 1912 <sup>8</sup>																					
<i>recondita</i> Pilipenko & Salmela, 2012																					
<i>stenostyla</i> Savchenko, 1964																					
<i>submarmorata</i> Schummel, 1833	X	X	X	X	X				X		X		X	X	X	X	X				

TABLE 1. Continued.

	N	S	F	D	I	O	AK	HES	HEN	OS	ON	BØ	BV	VE	TEY	TEI	AAV	AAI	VAV	VAI	RY
<i>trifascingulata</i> Theowald, 1980 <sup>9</sup>		x																			
<i>truncorum</i> Meigen, 1830	x	x	x	x		x	x			x	x					x					
<i>varipennis</i> Meigen, 1818	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x				x
<i>wahlgreni</i> Lackschewitz, 1925		x	x																		
<i>winthemi</i> Lackschewitz, 1932		x	x	x																	
<i>Savtshenkia</i> Alexander, 1965																					
<i>alpium</i> Bergroth, 1888	x	x	x			x	x			x	x	x				x					
<i>benesignata</i> Mannheims, 1954	x	x	x				x														
<i>confusa</i> van der Wulp, 1883	x	x	x	x	x	x	x														
<i>gimmerthali</i> Lackschewitz, 1925	x	x	x				x		x	x	x			x	x	x	x	x			
<i>grisescens</i> Zetterstedt, 1851	x	x	x	x							x	x		x		x					
* <i>interserta</i> Riedel, 1913	x	x	x				x													x	
<i>invenusta</i> Riedel, 1919	x	x	x						x		x					x					
<i>limbata</i> Zetterstedt, 1838	x	x	x	x			x		x		x		x			x	x				
<i>obsoleta</i> Meigen, 1818	x	x	x	x			x							x			x		x		x
<i>pagana</i> Meigen, 1818	x	x	x	x		x	x	x						x	x		x		x		
<i>rufina</i> Meigen, 1818	x	x		x	x											x					
<i>serrulifera</i> Alexander, 1942		x																			
<i>signata</i> Staeger, 1840	x	x	x	x			x				x	x					x		x		x
<i>staegeri</i> Nielsen, 1922	x	x	x	x													x				
<i>subnodicornis</i> Zetterstedt, 1838	x	x	x	x		x	x			x	x		x	x							
<i>subvajra</i> Lackschewitz, 1936				x																	
<i>tofina</i> Alexander, 1945		x																			
<i>Schummelia</i> Edwards, 1931																					
<i>varicornis</i> Schummel, 1833	x	x	x	x		x	x		x	x	x	x	x	x	x	x	x		x	x	x
* <i>zonaria</i> Goetghebuer, 1921	x	x							x							x					
<i>Tipula</i> Linnaeus, 1758																					
<i>oleracea</i> Linnaeus, 1758	x	x		x		x												x			x
<i>paludosa</i> Meigen, 1830	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x		x
<i>subcunctans</i> Alexander, 1921	x	x	x	x			x				x			x							
<i>Vestiplex</i> Bezzi, 1924																					
<i>excisa</i> Schummel, 1833	x	x	x				x		x	x	x		x			?		x			
<i>hemiptera</i> Mannheims, 1953 <sup>10</sup>		?																			
<i>hortorum</i> Linnaeus, 1758	x	x	x	x		x					x		x	x	x	x	x				x
<i>laccata</i> Lundström & Frey, 1916	x	x	x								x										
<i>montana</i> Curtis, 1834	x	x	x						x	x											
<i>nubeculosa</i> Meigen, 1804	x	x	x	x		x	x		x	x	x	x	x	x		x	x				
<i>pallidicosta</i> Pierre, 1924	x	x	x							x	x		x								
<i>scripta</i> Meigen, 1830	x	x	x	x		x	x		x	x	x	x	x	x	x	x	x	x			
<i>sintensis</i> Lackschewitz, 1933		x	x																		
<i>tchukchi</i> Alexander, 1934	x	x	x																		
<i>Yamatotipula</i> Matsumura, 1916																					
<i>chonsaniana</i> Alexander, 1945			x																		
<i>coerulescens</i> Lackschewitz, 1923	x	x	x	x			x					x									
<i>couckeii</i> Tonnoir, 1921	x	x	x	x			x				x										
<i>fendleri</i> Mannheims, 1963			x																		
<i>freyana</i> Lackschewitz, 1936		x	x																		
<i>lateralis</i> Meigen, 1804	x	x	x	x		x	x					x	x	x	x	x	?		x		x
<i>marginella</i> Theowald, 1980	x	x	x	x			x					x									
<i>moesta</i> Riedel, 1919	x	x	x																		
<i>montium</i> Egger, 1863	x	x	x	x		x			x	x			x					x			
<i>pierrei</i> Tonnoir, 1921	x	x	x	x		x	x	x		x				x							
<i>pruinosa</i> Wiedemann, 1817	x	x	x	x		x	x		x		x	x		x	x						
<i>quadrivittata</i> Staeger, 1840	x	x	x	x																	

TABLE 1. Continued.

	RI	HOY	HOI	SFY	SFI	MRY	MRI	STY	STI	NTY	NTI	NSY	NSI	NNØ	NNV	TRY	TRI	FV	FI	FN	FØ
<i>trifascingulata</i> Theowald, 1980 <sup>9</sup>																					
<i>truncorum</i> Meigen, 1830	?	x				x	x		x		x		x	x							x
<i>varipennis</i> Meigen, 1818		x	x	x	x	x	x	x	x		x	x	x	x	x	x	x				x
<i>wahlgreni</i> Lackschewitz, 1925																					
<i>winthemi</i> Lackschewitz, 1932																					
<i>Savtshenkia</i> Alexander, 1965																					
<i>alpium</i> Bergroth, 1888			x	x	x						x		x								
<i>benesignata</i> Mannheims, 1954					x																x
<i>confusa</i> van der Wulp, 1883		x	x		x	x	x	x	x												
<i>gimmerthali</i> Lackschewitz, 1925									x				x	x		x	x				
<i>griseascens</i> Zetterstedt, 1851		x	x	x					x		x					x	x				
* <i>interserta</i> Riedel, 1913																					
<i>invenusta</i> Riedel, 1919			x						x					x		x	x	x			
<i>limbata</i> Zetterstedt, 1838			x			?	x		x	x			x			x	x				
<i>obsoleta</i> Meigen, 1818		x			x		x	x													
<i>pagana</i> Meigen, 1818									x												
<i>rufina</i> Meigen, 1818		x	x																		
<i>serrulifera</i> Alexander, 1942																					
<i>signata</i> Staeger, 1840			x		x	x	x	x	x							x	x				
<i>staegeri</i> Nielsen, 1922		x																			
<i>subnodicornis</i> Zetterstedt, 1838		x	x	x	x				x		x		x	x	x	x	x	x	x	x	x
<i>subvafra</i> Lackschewitz, 1936																					
<i>tofina</i> Alexander, 1945																					
<i>Schummelia</i> Edwards, 1931																					
<i>variicornis</i> Schummel, 1833		x	x	x	x		x	x	x	x	x	x	x	x		x	x				
* <i>zonaria</i> Goetghebuer, 1921					x																
<i>Tipula</i> Linnaeus, 1758																					
<i>oleracea</i> Linnaeus, 1758																					
<i>paludosa</i> Meigen, 1830	x	x	x	x	x	x	x	x	x	x	x	x	x		x		x				
<i>subcunctans</i> Alexander, 1921		x	x				x		x	x		x	x		x	x	x				x
<i>Vestiplex</i> Bezzi, 1924																					
<i>excisa</i> Schummel, 1833			x		x		x		x		x		x	x		x	x	x	x	x	x
<i>hemiptera</i> Mannheims, 1953 <sup>10</sup>																					
<i>hortorum</i> Linnaeus, 1758		x	x	x	x		x														
<i>laccata</i> Lundström & Frey, 1916									x									x			
<i>montana</i> Curtis, 1834			x						x								x	x		x	x
<i>nubeculosa</i> Meigen, 1804				x	x	?	x		x		x		x		x	x	x	x	x	x	x
<i>pallidicosta</i> Pierre, 1924																x	x			x	
<i>scripta</i> Meigen, 1830	x	x	x		x	x	x	x	x	x	x	x	x	x		x	x	x		x	
<i>sintenisii</i> Lackschewitz, 1933																					
<i>tchukchi</i> Alexander, 1934																	x				
<i>Yamatotipula</i> Matsumura, 1916																					
<i>chonsaniana</i> Alexander, 1945																					
<i>coerulescens</i> Lackschewitz, 1923						?															
<i>couckeii</i> Tonnoir, 1921									x		x	x								x	
<i>fendleri</i> Mannheims, 1963																					
<i>freyana</i> Lackschewitz, 1936																					
<i>lateralis</i> Meigen, 1804									x								x			x	
<i>marginella</i> Theowald, 1980																					
<i>moesta</i> Riedel, 1919																	x				x
<i>montium</i> Egger, 1863		x																	x		
<i>pierrei</i> Tonnoir, 1921		x																			
<i>pruinosa</i> Wiedemann, 1817									x		x										
<i>quadrivittata</i> Staeger, 1840																					

subspecies of *hemiptera* in CCW). According to Yngve Brodin (*in litt.*), there is at least one specimen at the museum in Stockholm, and this/those should be checked to verify its presence.

## Discussion

Since as many as ten species of Tipulidae new to the Norwegian fauna have been found very recently, there is reason to believe that more new species will be found. Within Tipulidae, the number of known species in Norway, Sweden, Finland, Denmark and Iceland are 106, 130 (132?), 114 (115?), 86 and 4, respectively, totalling 144. Most Swedish species are likely to occur in Norway, and probably the same is true for the Finnish species. The Norwegian list contains only two species not known from Sweden (*T. moiwana* and *T. middendorffi*) and twelve species not known from Finland (and 34 species not present in Denmark).

Denmark hosts 14 species not yet known from Norway. Only two Danish species (*T. festiva* and *T. subvafra*) are not found in any of the other Nordic countries, and those are maybe not very likely to occur in Norway.

Twentythree of the Swedish species are not present in Finland, and seven Finnish species are not present in Sweden. As a result, the Swedish and Finnish fauna combined counts 137 species. Since some species may still be discovered, it is reasonable to estimate that some 150 species occur. Norway is likely to harbour a few species not occurring in any of the other countries, due to topographic, geographic and climatic conditions, so it might be expected that at least 25 additional species of Tipulidae are present here.

Members of Tipulidae have been recorded from all Strand regions in Norway. However, the number of species in each region is greatly varying, from only two in VAI to 67 in AK. Most regions have between 20 and just over 40 species. Other regions with few species are AAI (6), RI (4), NTY (7), NNV (6) and FI (7), whereas runner ups to the podium are STI (50) and ON (49). Parts of the latter two together make up the Dovre area,

an area to which most of the early researchers used to travel.

Future efforts should undoubtedly be focused on the inner parts of Aust-Agder, Vest-Agder and Rogaland counties, in addition to the northern part of Trøndelag and the rest of Northern Norway.

*Tipula oleracea*, with two annual emergence periods, is one of the most ubiquitous craneflies in central and western Europe, but not found in Norway until recently. The single specimen from western Norway collected in 2005 (Skartveit 2006), may result from import of plants or other goods. However, in 2017 several specimens were collected at different sites in southern Norway, indicating the occurrence of a viable population. Therefore, we conclude that the newer finds result from a real northward extension of the species' distribution range.

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