New data on distribution of *Giraudiella inclusa* (Diptera: Cecidomyiidae)

A.A. Przhiboro & M. Skuhravá

Przhiboro, A.A. & Skuhravá, M. 2003. New data on distribution of *Giraudiella inclusa* (Diptera: Cecidomyiidae). *Zoosystematica Rossica*, **11**(2), 2002: 373-374.

Giraudiella inclusa (Frauenfeld) is recorded from NW Russia, near the polar circle (66°20´N). It is the northernmost record of this widespread species, ca. 650 km N of the previously known range. The distribution of *G. inclusa* is discussed; data on its habitat in NW Russia are given.

A.A. Przhiboro, Zoological Institute, Russian Academy of Sciences, Universitetskaya nab. 1, St.Petersburg 199034, Russia.

M. Skuhravá, Czech Zoological Society, Viničná 7, Praha 2, 128 00, Czech Republic. Russia.

Giraudiella inclusa (Frauenfeld, 1862) is a widespread West-Palaearctic species. It is known from most countries of Western and Central Europe within the range of the host plant, *Phragmites australis* (Cav.) Trin. ex Steud. (Skuhravá & Skuhravý, 1981; Skuhravá, 1986).

Material. **Russia**, *Karelia*, Loukhi Distr., 66°20´N 33°38´E, sea shore, intertidal zone, from galls on *Phragmites australis*: 2 ♀ reared 2.III.1993 after thermic reactivation of galls collected 13.IX.1992; 1 pupa, 2.III.1993 in gall collected 13.IX.1992; 28 larvae in galls, 20.VIII-13.IX.1992 (all leg. Przhiboro, deposited at the Zoological Institute, St.Petersburg).

Notes on habitat. All material was collected within one site of reed stands at the shore of the White Sea (Kandalaksha Bay). It is situated at the end of the narrow Seldyanaya Inlet near the Biological Station of the Zoological Institute. The site lies within the upper half of the intertidal zone, is desalinated by a streamlet, and is shielded from wind by the surrounding mixed forest. It is characterized by the muddy soil and developed litter layer (tree leaves, wood and reed remains). The width of reed belt is 6.5 m.

Upper intertidal zone is considered as the zone between the average high tide level of spring tide (ca. 2.1 m in height) and that of neap tide (ca. 1.7 m). In late August, reeds in this zone are 1.5-2.2 m high (cover 40-60% per m^2). At the same time, in the underneath, middle intertidal zone, reeds are 0.5-1.5 m high (cover 10-40% per m^2).

Plants infested were situated in both zones, i.e. in many cases their lower above-ground parts were submerged by sea water every day, twice in 24 hours. Almost all galls were in the lower third of *Phragmites* shoots; all galls were closed. Old galls were numerous in dead reed stems and their remains in litter. No galls of other type were found. The average larval density in the period of study (late August – mid September 1992) was 2.5 ± 1.44 ind./0.1 m^2 (n = 12).

For comparison, in the freshwater lake Krivoe (1.5 km NE of Seldyanaya Inlet) characterized by sparse reed stands in the shallow zone (from the water margin to a depth of 2 m), no plants infested by *G. inclusa* were found, although the dipteran fauna of sites with *Phragmites* was investigated in detail (Przhiboro, 1999).

Notes on distribution. *Giraudiella inclusa* is for the first time recorded from Russia. The population is found at a comparatively high latitude, near the polar circle. Previously known northernmost records of this species are from SW Finland (Forsius, 1927) and from Latvia (Spungis, 1979). Thus, our record extends the range of *G. inclusa* ca. 650 km north. According to these data, the northern border of *G. inclusa* range is rather close to the known northern border of its host range, which lies in the Kola Peninsula at 67-68°N (Ramenskaya & Andreeva, 1982).

Giraudiella inclusa occupies a large distribution area (Fig. 1) extending from Western Europe to the Black Sea (Skuhravá et al., 1991) and up to Iraq in the Middle East (Nijveldt, 1967). Galls of this species were recently found in Bel-gium (Baetens & De Bruyn, 2001), Denmark (Skuhravá, 2002, unpublished), Serbia (Simova-Tošić et al., 2000), Greece (Skuhravá & Skuhravý, 1997), and on islands in the Mediterranean Sea: Sardinia (Skuhravá & Skuhravý, 2003a), Malta (Skuhravá et al., 2003) and Cyprus (Skuhravá & Skuhravý, 2003b).

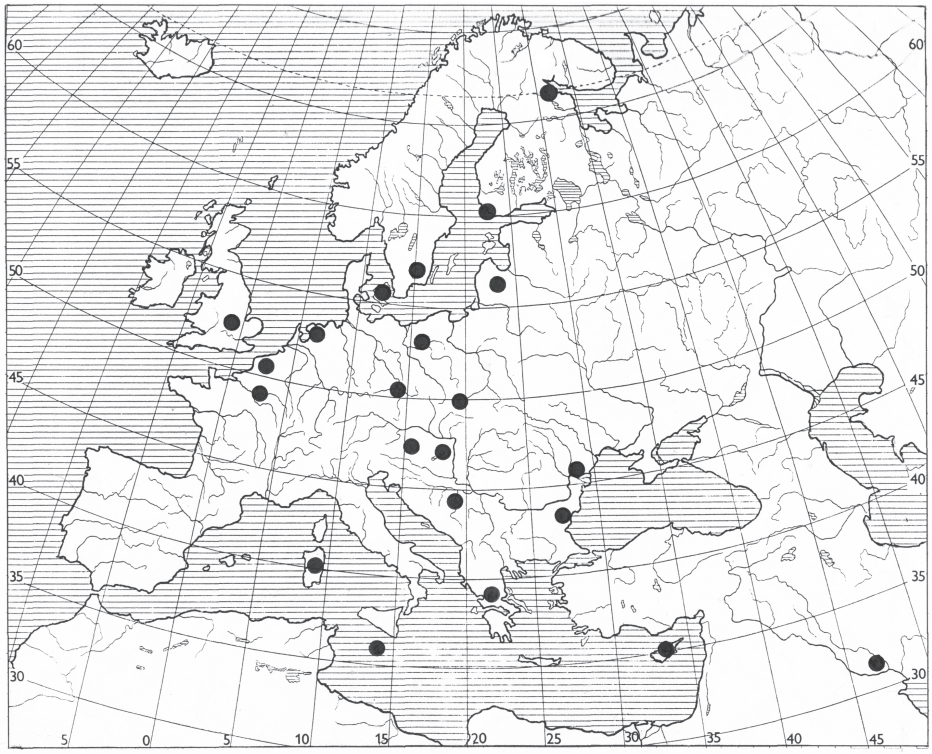

Fig. 1. Distribution of *Giraudiella inclusa* (Frauenfeld); one black circle indicates its occurrence in one country.

Acknowledgements

The work of A. Przhiboro was supported by grants of the President of the Russian Federation for young scientists – candidates of science (no. MK-2192.2003.04) and for leading scientific schools (no. НШ-1634.2003.4).

References

Baetens, J. & De Bruyn, L. 2001. Cecidomyiidae (Diptera) of common reed, *Phragmites australis* (Poaceae), with three species new for Belgium. *Bull. Soc. Roy. Belg. Entomol.,* **137**: 25-29.

Forsius, R. 1927. Cecidologische Beiträge. IV. *Mem. Soc. Fauna Flora Fenn*., **2**: 4-8.

Nijveldt, J. 1967. Notes on Cecidomyidae, I. *Entomol. Ber.,* **27**: 8-14.

Przhiboro, A.A. 1999. The quantitative characteristics of Diptera (Insecta) of the shallow littoral zone of small lakes in North Karelia. *Zoological sessions. Annual reports 1998. Trudy Zool. Inst. Ross. Akad. Nauk*, **281**: 129-134.

Ramenskaya, M.L. & Andreeva, V.N. 1982. *Opredelitel' vysshikh rasteniy Murmanskoy oblasti i Karelii* [Key to higher plants of Murmansk Province and Karelia]. Leningrad: Nauka. 432 p. (In Russian).

Simova-Tošić, D., Skuhravá, M. & Skuhravý, V. 2000. Gall midges (Diptera: Cecidomyiidae) of Serbia. *Acta entomol. Serbica*, **5:** 47-93.

Skuhravá, M. 1986. Cecidomyiidae. *In*: Soós, Á. & Papp, L. (Eds.). *Catalogue of Palaearctic Diptera*, **4**: 72-297. Budapest: Akadémiai Kiadó.

Skuhravá, M. & Skuhravý, V. 1981. Die Gallmücken (Cecidomyiidae, Diptera) des Schilfes (*Phragmites communis* Trin.). *Stud. IISAV*, **3**. Praha: Academia. 150 p.

Skuhravá, M. & Skuhravý, V. 1997. Gall midges (Cecidomyiidae, Diptera) of Greece. *Entomologica,* Bari, **31**: 13-75.

Skuhravá, M. & Skuhravý, V. 2003a. Gall midges (Cecidomyiidae, Diptera) of Sardinia, second contribution to the gall midge fauna of Italy. *Entomologica,* Bari, **36**: 5-22.

Skuhravá, M. & Skuhravý, V. 2003b. Gall midges (Cecidomyiidae, Diptera) of Cyprus. *Folia Fac. Sci. natur. Univ. Masaryk. Brun., Biol.,* **107** (in press).

Skuhravá, M., Skuhravý, V., Dončev, K.D. & Dimitrova, B.D. 1991. Gall midges (Cecidomyiidae, Diptera) of Bulgaria. I. Faunistic researches in the 1978-1987 period. *Acta zool. Bulg.,* **42**: 3-26.

Skuhravá, M., Skuhravý, V., Ebejer, M. 2003. Gall midges (Cecidomyiidae, Diptera) of Malta. *Entomologica,* Bari, **36**: 25-43.

Spungis, V. 1979. Jaunas zinas par Latvijas Pangodiniem. *Latvijas Entomologs,* **21**: 52-57.

Received 1 May 2003