

ODONATA RECORDS FROM THE POLAR URAL AND THE PETCHORO-ILYCHESKI ZAPOVEDNIK, KOMI-REPUBLIC, RUSSIAN FEDERATION

T. BROCKHAUS

An der Morgensterne 5, D-09387 Jahnsdorf/Erzgebirge, Germany
t.brockhaus@t-online.de

Abstract – In total, 16 spp. were observed in summer 2012. *Somatochlora sahlbergi* was encountered in the shrub tundra around Workuta. *S. graeseri* and *S. pedemontanum* are new for the Komi-Republic.

Introduction

The northeastern European boreal odonate fauna is poorly known (SKVORTSOV 2008, 2010). Some species have been recorded from the Siberian part of the Polar Ural (HARITONOV 1974, 1975) and from the southern Ural (YAN-YBAEVA et al., 2006, HARITONOV & EREMINA 2010). Other extensive material from the Komi- Republic has been published by BELY-SHEV et al. (1974), STRONK (1977), SPURIS (1996) and PETERS (1997).

In the Komi-Republic, there is located one of the most famous landscapes of the European boreal forests (ANUFRIEV, 2000), i.e. the Virgin Komi Forest (surface 3,28 million ha), classified as a UNESCO World Heritage Nature Reserve. The Petchoro-Ilycheski Zapovednik (a Strict Nature Reserve and a Biosphere Reserve; surface 730,000 ha), represents a part of it in the West European taiga. Since no information on the odonate fauna of this zapovednik seems

to be available, a few observations are brought on record here.

Material and methods

Dragonflies were observed and collected at seven localities in the Vorgashor river valley, Polar Ural tundra, near Workuta (25-VII-2012), and in the Petchoro-Ilychski Reserve (28-VII to 7-VIII-2012).

Localities

- (1) Oxbow in the Vorgashor valley 20 km SE of Workuta (67°25'31.89"N, 64°25'32.19"E). The Vorgashor is a small tributary of the Usa, in the shrub-tundra. – Oxbow with floating vegetation of *Sparganium angustifolium*. Fish (*Phoxinus* sp.) were also observed.
- (2) Petchora river and valley surrounding the village of Yaksha (61°49'11.46"N, 56°49'50.32"E). Yaksha is the administrative centre of the zapovednik. – At Yaksha, the Petchora is approximately 200 m wide, with many water plants. The banks fringed by taiga coniferous forest.
- (3) Bog N of the village of Yaksha (61°53'1.49"N, 56°48'7.34"E). – A big

- sphagnum bog 10 km N of the village.
- (4) Petchora in Ust-Unya (61°42'29.16"N, 57°26'54.40"E). – The Petchora is here approximately 130 m wide.
 - (5) Lower reaches of the Shaitanovka river, near the mouth in the Petchora (Kordon Shaitanovka) (62° 1'55.44"N, 58°10'55.04"E). – Here, the Shaitanovka is 30-40 m wide with many water plants, some islets with *Equisetum fluviatilis*, *Petasites* sp. and *Carex* sp., on the banks taiga forest.
 - (6) Oxbow in the Kordon Shaitanovka (62° 1'39.59"N, 58°10'22.94"E). – Dense vegetation from *Equisetum fluviatilis* and *Carex* sp., surrounded by taiga forest.
 - (7) Oxbow of the Shaitanovka 2,5 km N of the Kordon Shaitanovka (62° 2'19.62"N, 58°11'29.09"E). – Dense vegetation consisting of *Equisetum fluviatilis* and *Carex* sp., surrounded by taiga forest.

Records

- *Calopteryx virgo* (L.) – (2) and (5): regulary observed on the banks; – (7): 2-VIII-2012, 1 ♀.
- *Lestes dryas* Kirby – (6) and (7): regulary observed in dense vegetation of the oxbows.
- *Lestes sponsa* (Hansem.) – (6) and (7): regulary observed in dense vegetation of the oxbows.
- *Enallagma cyathigerum* (Charp.) – (7): 2-VIII-2012, 1 ♂, 1 ♀.
- *Aeshna caerulea* Ström: – (1): 25-VII-2012, 2 ♂, 1 pair; – (3): 29-VII-2012, 1 ♂
- *Aeshna cyanea* (Müll.) – (6): 1-VIII-2012, 1 ♀, flying over a path in the taiga forest.
- *Aeshna grandis* (L.) – (5), (6) and (7): very regulary observed, also in the taiga forest.
- *Aeshna juncea* (L.) – (1): 25-VII-2012, 3 ♂; – (5), (6) and (7): regulary observed.
- *Gomphus vulgatissimus* (L.) – (2) : 28-VII-2012, 1 exuvia about 50 m from the shore of the Petchora river; – (4): 30-VII-2012, 1 old ♀.
- *Ophiogomphus cecilia* (Fourcroy) – (2): 28-VII-2012, 15 exuvia, about 5-10 m from the Petchora banks; – (3): 29-VII-2012, some pairs on the shrubs in the bogs; – (4): 30-VII-2012, regulary pairs flying about the river

surface.

- *Somatochlora graeseri* Selys – (6): 5-VIII-2012, 3 ♂; – (7): 31-VII-2012: 2 ♂ flew in patrol flight like *S. metallica* ♂ ♂, but not as evenly, and a little higher above the ground.
- *Somatochlora metallica* (Vander L.) – (6): 5-VIII-2012, 2 ♂, 1 ♀; – (7): 31-VII-2012: 1 ♂. All specimens had black pterostigmas and brownish wings.
- *Somatochlora sahlbergi* Trybom – (1): 25-VII-2012, 1 ♂, observed only during a short sunny period on a day with changeable weather.
- *Sympetrum flaveolum* (L.) – (3): 29-VII-2012, very regulary; – (5): 1-VIII to 7-VIII-2012, very regulary in terrestrial habitats, 2-VIII-2012: pairs layed eggs in the moss on a islet of the Shaitanovka; – (6): 5-VIII-2012, regulary, oviposition.
- *Sympetrum danae* (Sulzer) – (3): 29-VII-2012, 1 ♂; – (5): 2-VIII-2012, 1 teneral ♂.
- *Sympetrum pedemontanum* (Müller in Allioni) – (2): 29-VII-2012, 1 ♂ sitting in the vegetation on the river bank.

Discussion

So far, 45 odonate species were recorded from the Komi-Republic (BELYSHEV et al., 1974; STRONK, 1977; SPURIS, 1996; PETERS, 1997), including an unclear record of *Somatochlora sahlbergi* (STRONK, 1977, p. 93), reading: “*S. sahlbergi* Trybom. Redok. VII-VI-II. Uchta, Poljarny Ural. Litchinki nje naideny” [*S. sahlbergi* Trybom. Rare. VII-VIII. Uchta, Polar Ural. Larvae not found]. Other records of species from Uhta he did not cite with the additive “Polar Ural”. Only one other place he noted with this additive: “Seyda, PolarUral” (STRONK l.c.). The place Seyda lies 50 km S of Workuta on the Petchora railway. It is, therefore, possible that *S. sahlbergi* also occurs here and perhaps throughout the subarctic tundra in the north of the Komi- Republic. Two species are new for the Komi-Republic: *Somatochlora graeseri* and *Sympetrum pedemontanum*. *S. graeseri* was found in the South Ural (HARITONOV & EREMINA, 2010), and recently in the Pinega region, Arkhangelsk province (BERNARD, 2012). It is possible, that this East Palearctic species have a disjunct area throughout

the Ural Mts (see also KOSTERIN, 2005). *S. graeseri* flew always together with *S. metallica*. All caught *S. metallica* specimens had black pterostigmas and brownish wings, like *S. m. abocanica* (LOHMANN, 1994). The status of *S. metallica* subspecies is unclear or controversial (WILDERMUTH, 2008). Alternatively, the intensity of the brown colour of the wings may be controlled by temperature, as in *Libellula quadrimaculata praenubila* (BEUTLER, 1986). The location of *S. pedemontanum* in the Petchora valley is about 1.000 km N of the nearest currently known records (in the southern Ural (HARITONOV & EREMINA, 2010).

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References – ANUFRIEV, V.M., 2000, [Ed.], Zemlja devstvennykh lesov (Pechoro-Ilychski Biosfernnyi Zapovednik), Komi Knizhnoe Izd., Syktyvkar [Russ.]; – BELYSHEV, B.F., Z.D. SPURIS & K.F. SEDYH, 1974, Odonata,

in: K.F. SEDYH, [Ed.], Zhivotny mir Komi ASSR, pp. 68-72, Knizhnoe Izd., Syktykar [Russ.]; – BERNARD, R., 2012, *Odonatologica* 41: 309-325; – BEUTLER, H., 1986, *Ent. Nachr. Ber.* 30: 97-100; – HARITONOV, A.Yu., 1974, in: A. Cherepanov, [Ed.], *Voprosy entomologii Sibiri*, pp. 68-69, Nauka, Novosibirsk [Russ.]; – 1975, *Ekologiya* 6(3): 96-99 [Russ.]; – HARITONOV, A.Yu. & E.E. EREMINA, 2010, *Eurasian ent. J.* 9(2): 263-271 [Russ.]; – KOSTERIN, O.E., 2005, *Odonatologica* 34: 219-242; – LOHMANN, H., 1994, *Notul. odonatol.* 3: 39-40; – PETERS, G., 1997, *Hagenia* 13: 15-20; – SKVORTSOV, V.E., 2008, *Notul. odonatol.* 7: 20-22; – 2010, *The dragonflies of eastern Europe and Caucasus*, KMK Scient. Press, Moscow; – SPURIS, Z., 1996, *Acta hydroent. latvica* 3: 22-26; – STRONK, T.G., 1977, *Geogr. aspekty ohrany flory i fauny [...] europ. chasti SSSR*, pp. 87-96, Syktyvkar [Russ.]; – WILDERMUTH, H., 2008, *Die Falkenlibellen Europas*. Westarp Wissenschaften, Hohenwarsleben; – YANYBAEVA, V.A., H.J. DUMONT, A.Yu. HARITONOV & O.N. POPOVA, 2006, *Odonatologica* 35: 167-185.

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