



A key to Siberian flies of the genus *Coenosia* Meigen (Diptera, Muscidae) with the descriptions of three new species

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Abstract

A key is provided to the 36 species of the genus *Coenosia* Meigen, 1826 known from Siberia including three new species from the Respublika Altay (*Coenosia altaica* **sp. nov.**, *Coenosia tangera* **sp. nov.**, *Coenosia ukokensis* **sp. nov.**) and one additional Far East species that may be found in Siberia (*Coenosia nigrotincta* Hennig). *Coenosia alpicola* (Pokorný) is newly recorded from Siberia, and also represents a new record from Russia. *Coenosia apukaensis* Hennig and *Coenosia rufipalpis* Meigen are newly recorded from Siberia. The male terminalia and the female ovipositors of the new species are figured. New faunistic data is given for some previously described species of Siberian *Coenosia*.

Key words: Diptera, Muscidae, *Coenosia*, flies, key, new species, Siberia, Respublika Altay

Introduction

Flies of the genus *Coenosia* Meigen, 1826 are known from all biogeographic regions and are found at high altitudes and in different latitudinal zones. Most species of the genus prefer terrestrial habitats and only a few are found in sublittoral (Werner & Pont 2006) or coastal habitats. Adults and larvae are predaceous on other insects (Skidmore 1985). Adults in particular are known as effective predators of various small and soft-bodied insects and invertebrates (Rozkošný & Gregor 2004). Some species of *Coenosia* are being used increasingly as biocontrol agents in greenhouses, where adults successfully attack adults of insect pests such as aphids (Aphididae), black fungus gnats (Sciaridae), white flies (Aleyrodidae), and leaf-mining flies (Agromyzidae) (Kühne 2000).

About 350 *Coenosia* species are known in the world fauna. The greatest numbers of species are found in the Afrotropical (111 species) and Palaearctic (105 species) Regions (Couri & Pont 2000). Eighty-four species are known in the Nearctic Region, 39 species in the Neotropical Region, 18 species in the Oriental Region, and 9 species in the Australasian Region. At present, 44 *Coenosia* species are recorded from Russia, of which only 22 species are recorded from Siberia (Pont 1986). As with other genera of the Muscidae, the majority of *Coenosia* species are recorded from the European territory of Russia as this is the part of the country that has been most closely studied. The basic monograph on the Muscidae, including the Siberian species of *Coenosia*, is by Hennig (1961–1962) and covers the entire Palaearctic Region. This monograph contains the descriptions of some new species from Siberia and from the Far East of Russia, together with a key to all the Palaearctic species. However, this key was constructed mainly from European material and some variability in certain characters has been found among the Siberian *Coenosia* so the key is difficult to use for the definition of all the species from this area.

Apart from Hennig's monograph (1961–1962), there is a little further information on the *Coenosia* of Siberia by Schnabl (in Becker & Schnabl 1926) and Zimin & El'berg (1970). The first paper was based on a collection of flies from the area of Lake Baikal. The second paper includes keys to species of *Coenosia* from European Russia,