Seasional dynamics of cherry plum aphid *Brachycaudus divaricatae* (Hemiptera, Sternorrhyncha: Aphididae) on *Prunus cerasifera*

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The cherry plum aphid *Brachycaudus divaricatae* Shaposhnikov, 1956 is monophagous species of a Caucasian origin. Within last two decades this aphid expanded in many European countries where *Prunus cerasifera* is grown. Outside its natural are *Brachycaudus divaricatae* feeds only on its woody host — cherry plum (*Prunus cerasifera*), including its variety *Prunus cerasifera* var. *divaricata* and plum cultivars originated as hybrids with *Prunus cerasifera*. As *Brachycaudus divaricatae* is not changing its woody host to alternative hosts, this aphid species become a serious pest on regularly pruned *Prunus cerasifera* grown in hedgerows in Latvia.

To obtain data on seasonal dynamics of *Brachycaudus divaricatae* in conditions of Latvia, the studies on this aphid was carried out at Dārziņi (a district with home-gardens within the territory of Riga city). Aphids were monitored on *Prunus cerasifera* grown in lines on both sides of a small street (in total 40 trees); observations done one time a week from 15 May to 31 October of 2013; by counting aphids in different developmental stages. In addition also other aphid species (*Brachycaudus helichrysi*, *Hyalopterus pruni*, *Phorodon humuli*, and *Rhopalosiphum nymphaeae*) and occurrence of natural enemies were documented.

At least one colony of *Brachycaudus divaricatae* were documented in all weeks — from 15 May to 31 October of 2013. Peaks of occurrence of larvae documented in 20 June, 10 August, 10 September and 20 October. Documented predatory insects were from families Chrysopidae, Hemerobiidae (Neuroptera); Cecidomyiidae, Chamaemyiidae, Syrphidae (Diptera); Coccinellidae (Coleoptera). Spiders were from ten families and dominated by members of the family Linyphiidae. In total five species of ants were documented on branches with aphids, from which four species was predatory *Formica* spp.

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Keywords: Aphididae, bionomics, Coleoptera, Diptera, Hymenoptera, natural enemies, Neuroptera, predators

In memory

Valentina Petrova (1941–2015)

All field studies in 2013 were done by Valentina Petrova, but unfortunately she was not able to finish this research. She carried out this research voluntary, without any financial support from research projects and left us many data tables with documented information on results. Unfortunately some remarks made by Valentina Petrova will remain non-deciphered. After processing all her data, results will be published (in 2017)