Survey on the occurrence and infection status of *Cacopsylla pruni*, vector of European stone fruit yellows in Hungary

Emese Mergenthaler, Balázs Kiss, Emese Kiss, Orsolya Viczian

Plant Protection Institute, Centre for Agricultural Research, Hungarian Academy of Sciences, Budapest, Hungary

Abstract

This study aimed to obtain data on the seasonal activity, preferred host plants, and phytoplasma infection status of the psyllid *Cacopsylla pruni* (Scopoli), vector of European stone fruit yellows (ESFY) phytoplasma (*Candidatus Phytoplasma prunorum*) in Hungary. Individuals of *C. pruni* were found throughout the whole collection period at all localities studied. In the year 2014 the reimmigrants were found on *Prunus* from March to May and the new generation from May to June, with a peak of the population at the end of April. The preferred host plants appeared to be myrabolan (*P. cerasifera*), followed by blackthorn (*P. spinosa*), and other *Prunus* species. Ratio of male and female individuals varied in the collection period, with a substantial decrease of male presence in case of reimmigrants. Concerning phytoplasma infection of the species captured in the studied orchards, our results showed that individuals of *C. pruni* were infected by *Ca. P. prunorum* in the overwintering as well as in the new generation. The ratio of the ESFY infected psyllids was uniformly 15% in the males and females, and slightly higher (16%) in the nymphs. Molecular classification of *C. pruni* individuals by the ITS primer set 3 assigned unambiguously all the collected *C. pruni* specimens into genetic group B.

Key words: psyllid, vector, *Cacopsylla pruni*, ESFY, *Candidatus Phytoplasma prunorum*.

Authors' addresses: Emese Mergenthaler (corresponding author, mergenthaler.emese@agrar.mta.hu), Orsolya Viczian, Balázs Kiss, Emese Kiss, Plant Protection Institute, Centre for Agricultural Research, Hungarian Academy of Sciences, P.O.B. 102, H-1525 Budapest, Hungary. Received January 27, 2016. Accepted May 5, 2017.