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POSTER PRESENTATION

Genetic patterns of *Phyllonorycter platani* - an invasive leaf miner moth with Mediterranean origin

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Introduction: *Phyllonorycter platani* (Staudinger) belongs to the family Gracillariidae, a large lepidopteran family having a high number of invasive species (e.g. *Cameraria ohridella*, *Phyllonorycter robiniella*). The species have invaded several parts of Europe in the last decades, however the expansion of the species range can be traced back to the 19th century. Its current distribution ranges from Denmark and South-Sweden in the north, to Great Britain and Spain in the west. Fortunately the colonization history of *P. platani* is well known (for review see Sefrova, 2001). The endemic area of the species is thought to be in the southern part of the Balkans, and to be aligned with the natural distribution of its main host *Platanus orientalis*. Due to wide cultivation of different *Platanus* species - mainly in urban areas - *P. platani* has now potential hosts throughout all of Europe. The aim of our study was to look at the pattern of genetic variation of *P. platani* to find possible colonization patterns within the present distribution of the species.

Methods: We used sequences of a 570bp long fragment of the mitochondrial COI gene to study the genetic variability of *P. platani* across its present distribution in Europe.

Results: Our results show moderate genetic variation in Europe with a reduction in genetic diversity of *P. platani* populations from east-to-west and from south-to-north across Europe.

Conclusions: Our findings confirms the hypothesis that *P. platani* have invaded the central and western part of Europe from the Balkans.