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Spread of the invasive ladybird *Harmonia axyridis* in the Czech Republic and Denmark

Oldřich Nedvěd¹, Tove Steenberg³, Susanne Harding⁴

¹Faculty of Science, University of South Bohemia, České Budejovice, Czech Republic, ²Institute of Entomology, Biology Centre, České Budejovice, Czech Republic, ³Faculty of Agricultural Sciences, University of Aarhus, Lyngby, Denmark, ⁴Faculty of Life Sciences, University of Copenhagen, Frederiksberg, Denmark

Introduction: *Harmonia axyridis* (Coleoptera: Coccinellidae) is an invasive alien ladybird in several continents. In late 2007, the established range in Europe extended to Denmark in the north and to the Czech Republic in the east.

Methods: Systematic field observations by professional entomologists, as well as random recordings by volunteer naturalists contributed to a database of records including site, date, environment, and colour morphs.

Results: By early 2008 the Czech database included 125 records, covering 57 (out of a possible 650) KFME grid squares (approximately 11x11 km). Most of these *H. axyridis* records were from large cities (probably introduced by transportation) and to the northwest of the country, where they probably spread naturally from Germany. There were 865 individuals recorded in total, 16% were melanics (12% *spectabilis*, 4% *conspicua*). Two individuals from the Czech Republic were identified as the nominal *axyridis* morph. In Denmark, large numbers of larvae and pupae has been recorded from Copenhagen in late 2007. Small numbers (8 records) of adults have been found in the southern parts of the country. 769 individuals have been recorded in total, 7% were melanics (6% *spectabilis*, 1% *conspicua*), Two individuals of *axyridis* morph were found.

Conclusions: We predict that *H. axyridis* will continue to spread rapidly in Europe, particularly northwards and eastwards. Although there may consequently be a reduction in pest insects, our records support that this species may have significant detrimental impact. The records of the *axyridis* colour morph in the Czech Republic and Denmark are unique within Europe and so this requires further study.