

The role of wild birds in the epidemiology of Avian Influenza

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Key words

Avian Influenza, waterbird movements, surveillance

Background and study goals

When Avian Influenza occurred in Europe for the first time, the role of wild birds as vectors of this disease was heavily debated. The goal of this project was to produce a better understanding of the role of wild birds as potential vectors and the scientific basis for the planning of the surveillance of Avian Influenza in wild birds.

Methods

As planned, the work conducted focused on three topics 1) studying movements of Pochards and Mallards using existing ring recovery data. 2) providing ornithological knowledge for and organization of the Avian Influenza surveillance in wild birds. 3) planning and conducting two research projects on within-winter movements of Pochards and Mallards.

Results and their relevance

- 1) We could show, that both species move throughout the whole winter period and these movements are favored by low temperatures. Pochards seem to move more frequently and over longer distances than Mallards. The results indicate, that avian influenza viruses could be introduced to a new area throughout the winter period. However, it is still unknown whether birds infected with avian influenza viruses do still move over long distances.
- 2) We wrote an evaluation of the current Swiss surveillance program based on cost/benefit and risk considerations. We concluded that the surveillance should focus on the passive and active surveillance of poultry and the passive surveillance of wild birds in the future.
- 3) The BVET reviewed and funded both research projects (1.09.02, 1.08.07). The first results can be found in the respective interim reports.

Publications, posters and oral presentations

Keller, I., Korner-Nievergelt, F. & Jenni, L. 2009. Within-winter movements in Common Pochards: a common phenomena. *Journal of Ornithology* 150:483–494

Sauter, A., Korner-Nievergelt, F. & Jenni, L. submitted. Within-winter movements in European Mallards (*Anas platyrhynchos*), IBIS.

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Keller, I., Korner-Nievergelt, F. & Jenni, L. Klein- und grossräumige Bewegungen der Tafelente in Eurasien. Wissenschaftliche Tagung des Forschungsprojektes Constanze, Friedrichshafen, Juni 2007.

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Sauter, A. Winterbewegungen von Europäischen Stockenten, Wissenschaftliche Tagung der Forschungsprojekte Constanze und Wildvögel und Vogelgrippe, Bregenz, Juni 2008

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Sauter, A., Korner-Nievergelt, F. & Jenni, L. Within-winter movements of European Mallards (*Anas platyrhynchos*), Poster, II Pan European Duck Symposium, Arles, März 2009.

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