

Short communication

High prevalence of influenza A virus in ducks caught during spring migration through Sweden

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Abstract

As part of our ongoing screening of wild birds in Northern Europe, 358 mallards (*Anas platyrhynchos*) and 203 shelducks (*Tadorna tadorna*) were caught in southern Sweden during the spring 2003. Faecal samples were analyzed by real time RT-PCR for the presence of influenza A virus. In contrast to what has been found in North American studies; Eurasian spring migrating ducks passing through Sweden had a relatively high prevalence of influenza A virus.

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1. Introduction

Most studies on the prevalence of avian influenza A virus (IAV) have been performed in North America where a prevalence of up to 30% has been found in fall migrating ducks. However, at the wintering sites and in spring migrating ducks the observed prevalence has been less than 1% [1]. Considering the low prevalence in spring migrating ducks; different modes of virus perpetuation year to year has been suggested. IAV might for example be perpetuated frozen in lakes and thereby infecting birds upon return to their breeding grounds [2]. Alternatively, ducks could be infected by the spread of the virus from a different species like waders when sharing

the same habitat since studies on waders have shown a high prevalence of IAV in waders during spring [3].

2. Materials and methods

Birds were caught from early April until the spring migration terminated in June in a large funnel trap at Ottenby Bird Observatory, Öland, Sweden. Faecal samples were collected and analyzed by real time RT-PCR directed at the conserved matrix gene.

3. Results

Samples from 358 mallards (*Anas platyrhynchos*) and 203 shelducks (*Tadorna tadorna*) were tested. The prevalence in

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mallards was on average 3.4% from April to June and in May as high as 6.5%. The prevalence in shelducks was low (<1%).

4. Conclusions

The results of this study indicate that in the Western Eurasian duck population, the perpetuation of IAV in wild duck, or at least, mallard populations, could be explained by a high prevalence in spring migrating birds that may pass on

the infection to juvenile and other susceptible birds at the breeding sites.

References

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