

## HPAI H5N8 outbreak in a hobby backyard holding in Austria 2021

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### Abstract

On the 27th April 2021 the carcasses of 3 chickens and 1 mute swan from a small hobby backyard holding in the region of Upper Austria were tested positive for HPAI H5N8. During the weekend, most of the poultry and some wild birds died or were euthanised due to their clinical signs.

The owner was a veterinarian involved in animal welfare and had as hobby a permanent mixed holding of poultry and wild bird species on the yard. The veterinarian reported that a small pond of about 40 m<sup>2</sup>, was located in the middle of the backyard and 30 mallard ducks came regularly to feed and had contact to other birds on the holding.

The veterinary authorities ordered the immediate culling of the remaining resident birds and the disinfection of the yards. For investigation at the NRL, 36 blood and 49 carcasses were sent, including those from culled birds and some captured wild ducks.

Positive results (PCR and Ab ELISA) were obtained for almost all of the free ranging birds: all chickens, the mute swan, 4 Indian Runner ducks, 3 Muscovy ducks, 11 captured mallard ducks and 2 geese.

The birds kept in separated yards of the shelter with almost no contact with the backyard birds tested PCR negative: 5 laying hens, 14 quails, 2 geese, a pigeon and 2 peafowls. Also negative results were obtained from the serological analysis of these birds, except a Muscovy duck and a grey geese that were positive in Ab ELISA.

The two chickens of a small holding situated in close vicinity were culled. The vet owner was also supporting another animal shelter with 11 birds (pigeons, owl, duck), and since they did not show clinical signs only swabs were taken for laboratory diagnostic. All samples from contact tracing holdings resulted in PCR negative results.

Prior to this case, the last positive case of HPAI H5N8 in Austria was detected on the 17th March 2021 in a mallard duck about 100km south of the IP and the risk zones had since been lifted.

Although the number of positive cases in Europe was low towards the end of April, some domestic poultry outbreaks and wild bird cases were detected, including in the south of Germany. The virus was most likely introduced onto the IP by the mallard ducks. This case highlights the importance of an enhanced awareness among farmers, owners and vets to continue applying stringent biosecurity measures, even in zones with low risk. Thus, the contact between the poultry and wild birds by the water pond in the shelter could have been avoided.