

**For discussion
on 9 November 2010**

LegCo Panel on Food and Environmental Hygiene

**Review on the Restrictions on Public Access
to the Mai Po Nature Reserve, the Hong Kong Wetland Park
and other Walk-in Aviaries upon Detection of
Highly Pathogenic Avian Influenza Viruses
in Wild Birds Collected from these Areas or their Vicinity**

Purpose

This paper briefs Members on the outcome of a recent review on the current restrictions on public access to the Mai Po Nature Reserve (MPNR), the outdoor section of the Hong Kong Wetland Park (HKWP) and other walk-in aviaries managed/owned by the Government if any live or dead bird sample collected from these areas or their vicinity¹ has been tested positive for Highly Pathogenic Avian Influenza (HPAI) viruses.

Background

2. The potential transmission of HPAI viruses from other regions to Hong Kong via migratory birds has long been a matter of concern to the public, as tens of thousands of these birds visit Hong Kong every year. The MPNR, being part of the Mai Po Inner Deep Bay Ramsar Site, is an important roosting and refueling site for migratory birds. The Site supports over 100 000 wild birds and in addition, some 80 000 water birds in mid-winter. To contain possible spread of the risk of avian influenza (AI) by minimising human contact with wild birds and their faecal droppings, as a precautionary measure, the Government will close the MPNR for a period of 21 days when a dead bird collected within a 3 km in radius of the MPNR has been tested positive for HPAI virus². The same measure also applies to other government facilities which have a relatively large number or

¹ "Vicinity" in the context of this paper refers to the 3-km radius of either MPNR, HKWP or other walk-in aviaries managed/owned by Government.

² This so called "3-km radius" rule is used by many European countries including the United Kingdom, France and Germany as the radius for a quarantine restricted zone and "21 days" are the World Organisation for Animal Health (OIE) standard for setting a required surveillance period for H5 AI for live birds in a H5 AI infected compartment / zone.

concentration of wild birds, or birds in captivity that may come into close contact with humans, including the outdoor section of the HKWP and other walk-in aviaries owned/managed by the Government, mainly under the purview of the Leisure and Cultural Services Department (LCSD).

3. The restrictions mentioned above were introduced in mid 2006 and were presented to the Panel on Food Safety and Environmental Hygiene of the Legislative Council (LegCo). Since then, the MPNR had been closed on four occasions in December 2007, February 2008, February 2009 and March 2010, respectively. The outdoor section of the HKWP and a walk-in aviary in Yuen Long were closed once in December 2008 for the same reasons.

4. The World Wide Fund For Nature Hong Kong (WWFHK), which manages the MPNR, has implemented a variety of measures to further protect the visitors from exposure to the AI virus. These include –

- (a) conducting pre-entry briefing on the prevention of AI for visiting groups;
- (b) provision of free face masks, disinfectant footbath at the entrance of facilities and automatic disinfectant hand gel dispensers at strategic locations within the MPNR; and
- (c) periodical cleansing of all handrails, boardwalks, outdoor signage panels, picnic tables and seats both inside the MPNR and in the adjacent Frontier Closed Area.

Agriculture, Fisheries and Conservation Department (AFCD) and LCSD have also implemented similar preventive measures in the HKWP and other walk-in aviaries respectively. The Government will issue reminder guidelines to all relevant premises concerned during peak season of AI and will regularly monitor the continued compliance of the above measures being put in place.

5. Pre-2006, studies and research on the efficiency of transmission of avian influenza from wild birds to human were scarcely available. In recent years, there has been new scientific information on avian-to-human transmission of HPAI virus and transmission of HPAI virus to humans through contact with wild birds or their droppings gathered from research studies and surveillance programmes conducted both locally and overseas. We consider it timely to review the current restrictions on public access to the MPNR and other areas with a relatively large concentration of wild birds or wild birds in captivity.

The Review

6. To enable early detection of AI virus and prevention of AI outbreaks, the Government has implemented a comprehensive surveillance programme for both local and imported poultry since 1998. Since the end of 2002, the surveillance programme has been extended to cover wild birds, captive wild birds in recreational parks and pet birds in retail bird markets. The AFCD has also provided a sick and dead wild bird collection service to the public since October 2005.

7. Results from wild bird surveillance show that out of over 55 000 dead wild birds collected in the territory and tested for HPAI over the past five years, only 50 were tested positive. In addition, only five HPAI positive birds have been found in the vicinity of MPNR, HKWP or walk-in aviaries over the same period (**Annex**).

8. In the span of three years from 2007 to 2009, only 205 cases of human infection by AI have been reported worldwide³. Comparing this figure with the number of human-infected cases from 2004 to 2006 (i.e. 259), this indicates that the risk of avian-to-human transmission of HPAI viruses has been on a substantial downward trend. Of the human infection cases, only two cases as reported in Azerbaijan are known to be associated with contact with wild birds. These two cases occurred under very peculiar circumstances where the feathers of dead swans were plucked out for making pillows (Gilsdorf et al 2006⁴). A study conducted in the United

³ Cumulative Number of Confirmed Human Cases of Avian Influenza A/ (H5N1) Reported to WHO. http://www.who.int/csr/disease/avian_influenza/country/cases_table_2010_08_03/en/index.html

⁴ Gilsdorf A, et al (2006) Two clusters of human infection with influenza A/H5N1 virus in the Republic of Azerbaijan, February–March 2006. Euro Surveill. 2006;11(5):pii=620. Available online: <http://www.eurosurveillance.org/ViewArticle.aspx?ArticleId=620>

Kingdom (UK) on the staff of a swannery who had handled and treated sick birds in a small outbreak shows that there was no transmission of the HPAI virus to humans (Wallensten et al 2010⁵). Besides, a risk assessment study carried out by the Department for Environment, Food and Rural Affairs in UK in 2006⁶ revealed that there was no increase in AI risk to members of the public and park wardens from the presence of wild birds in public parks / parkland and open waters in England. It can be inferred from these findings that the AI risk posed by wild birds in public parks and open waters to human is low. To some extent, this can be attributed to the natural behavior of wild birds which tend to avoid close contact with humans.

Recommendation

9. Having regard to the foregoing analysis, we consider that the existing restrictions on public access to the MPNR, the HKWP and other walk-in aviaries can be slightly relaxed without compromising the policy objective of protecting public health by safeguarding the public from the risk of AI infection. More specifically, we propose to adopt the following new guidelines –

- (a) The MPNR, the HKWP (including its outdoor section) and the walk-in-aviaries will be allowed to remain open to the public if one or more live or dead bird(s) infected with HPAI virus is/are found within the 3-km radius of these areas provided that there is no evidence of widespread infection, i.e. if there are less than three live or dead birds confirmed with HPAI virus infection within a period of 10 days in the same area. The existing precautionary measures will be enhanced to prevent the transmission of the virus from potentially infected wild birds to humans in the area concerned. These include stepping up and increasing the frequency of the cleansing of handrails, boardwalks etc. and placing warning signage at prominent locations to warn the public that HPAI virus may be active in the area; and
- (b) If there is evidence indicating that HPAI virus has spread amongst the wild bird population within the 3-km radius of the MPNR, the HKWP and other walk-in-aviaries, i.e. three or more live or dead birds

⁵ Wallensten A, et al (2010) No evidence of transmission of H5N1 highly pathogenic avian influenza to humans after unprotected contact with infected wild swans. *Epidemiol.Infect.* 138, 210-213.

⁶ http://www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1194947362266

confirmed with HPAI virus infection within a period of 10 days in the same area, the MPNR, the outdoor section of the HKWP and other walk-in-aviaries will be closed for 21 days from the day of collection of the last positive bird sample. The indoor section of the HKWP will remain open to the public subject to implementation of enhanced preventive measures to prevent potentially contaminated materials from being brought into the indoor area.

Consultation

10. We have consulted the WWFHK on the proposed new guidelines and they have no objection to the proposed measures. The Scientific Committee on Emerging and Zoonotic Diseases and the Advisory Council on Food and Environmental Hygiene have indicated support to the proposed new guidelines. The proposed relaxation will also likely be welcome by the organisations concerned with nature conservation or bird watching because it will lessen the possible disruption to their public education programmes, bird watching and nature appreciation activities.

Way Forward

11. We will continue to maintain vigilance in AI surveillance, prevention and control. We will also continue to keep abreast of the latest international trends and scientific development, and consider, from time to time, the need to revise the established guidelines for managing access control to the MPNR, the HKWP and other walk-in-aviaries.

Advice Sought

12. Members are invited to comment on the recommendations set out in paragraph 9 with a view to having the new guidelines implemented in November 2010, which is the beginning of the next high season of migratory birds coming to Hong Kong.

**Food and Health Bureau
Agriculture, Fisheries and Conservation Department
November 2010**

**Surveillance of HPAI Virus in Dead Wild Birds Collected in Hong Kong
(2006 – September 2010)**

Year	2006	2007	2008	2009	2010 (up to September)	Total
No. of samples collected in Hong Kong	13 846	10 316	12 628	13 932	6 287	57 009
No. of samples tested positive for HPAI virus	15	21	7	6	1	50
No. of samples collected from MPNR, HKWP and walk-in aviaries, and their vicinity and tested positive for HPAI virus	0	1	2	1	1	5