



OFFLU call to discuss Avian Influenza in the Latin America and Caribbean Region

9th November 2023

Purpose of the meeting

In response to the Avian Influenza situation in Latin America and Caribbean region, considering the extensive die offs of mammalian species, impact on birds, current focus on vaccination and continued requests for OFFLU support and information from the region, OFFLU organised a teleconference. The objective was to enhance understanding of the current avian influenza situation in the region and to encourage the sharing of viruses, sequence data and epidemiological information. The meeting offered a space for participants to share any findings or experiences from the recent wave of outbreaks in poultry, wild birds and mammals from countries in the region and discuss any associated scientific research or future plans. OFFLU aims to offer support and strengthen connections with laboratories to strengthen the network within the region and promote the sharing of data. The meeting was simultaneously translated in Spanish and English.

Agenda of the meeting

- An introduction to OFFLU and activities.

Round table from invited participants

- Invitation for representatives from the region to discuss surveillance, epidemiology, genetic data, vaccination, challenges faced and new or relevant information which is of interest to the group.
- Any questions from observers and participants.

Participants: Timm Harder (Germany), Michelle Wille (Australia), Francesco Bonfante (Italy), Ninna Gómez (Mexico), Sasan Fereidouni (Austria), Shahan Azeem (Pakistan), Pastor Alfonso (Cuba), Thijs Kuiken (Netherlands), Dilmara Reischak (Brasil), Ian Brown (UK), Alex Byrne (UK), Pablo Plaza (Argentina), Ash Banyard (UK), Christopher Hamilton West (Chile), David Swayne (USA), Lindomar Pena-Fiocruz (Brazil), Christopher Oura (Trinidad and Tobago), Mia Torchetti (USA), David Suarez (USA), Claudia Calderon (Colombia), Ana Puentes, Natalia Rosciano, Yohannes Berhane (Canada), Meagan Dewar (Australia), Marcela Uhart (Argentina), Joe James (UK), Gillian Ellis, Erica Spackman (USA), Beatriz, Nancy Naranjo, IZSve experts.

WOAH - Gounalan Pavade, Mariana Delgado, Gregorio Torres, Leandro Barcos, Eugenia Chimenti, Dharmaveer Shetty, Lina Awada, Alexandre Fediaevsky

FAO - Lidewij Wiersma, Hernan Caceres, Emma Gardner, Gisela Gioia, Amelia Coggon, Akiko Kamata, Daniel Abreu

Meeting minutes:

Dr Ian Brown, OFFLU Steering committee/APHA

Dr Brown gave an introduction to the OFFLU network including the structure of OFFLU, an overview of the different technical activities and some examples of OFFLU outputs from these activities including documents and reports, teleconferences, interfaces with public health and how OFFLU is reactive to current events. He gave an overview of OFFLU's vaccine composition meeting technical activities and calls for sequence data sharing confidentially for this process. As well as OFFLU's Avian Influenza Matching for poultry vaccines activity which provides guidance to stakeholders on what viral strains could be used in vaccines and the antigenic variability of contemporary circulating viruses.

Dr Marcela Uhart, Argentina University of California Davies and Universidad del Centro de la Provincia de Buenos Aires, Argentina.

Dr Uhart gave a presentation on the events in Argentina in marine mammals and seabirds. Since early August AI has heavily affected sea lions, including pregnant females which had abortions. The largest colony on the continent of elephant seals has been unprecedentedly affected since early October with extreme loss in pups (over 97%) and concerns that juveniles and adults coming back to moult will be infected. Both species are showing neurological and respiratory signs. Since mid-October it has been noted that terns are being massively affected by AI showing severe neurological signs. Since early November, a few cormorants have also showed neurological signs and been confirmed positive. Many scavenging bird species, such as Kelp gulls are documented around these sites, and several have now also been confirmed positive though signs in this species are lethargic, ruffled feathers, conjunctivitis. There is concern for the important penguin breeding areas along coastal Patagonia, of infection of other scavenging birds such as giant petrels, and predators such as Orcas. The government veterinary service SENASA is doing surveillance and confirmatory testing. Uhart and collaborators are conducting field investigation, restricted to population level surveys including documentation of clinical signs, sample collection and necropsies. In collaboration with Dr. Rimondi from INTA, they are in the process of genomic sequencing to try and address the gap in information on how transmission is occurring within these populations, as well as viral introductions to the area. Carcass management outside urban areas is not performed given that the areas are not open to the public and there are thousands of dead animals and no way to remove them. Outside urban sites, controlling human access to areas where mortality is occurring is the main response.

Links:

[Biological risk assessment of HPAI in the Southern Ocean](#)

[Sub-Antarctic and HPAI H5N1 monitoring Project](#)

[The risk of AI in the Southern Ocean](#)

[Guidelines for working with albatrosses and petrels during the HPAI H5N1 panzootic](#)

Dr Lindomar, Brazil, Pena Fiocruz

Dr Lindomar gave an introduction to the Fiocruz laboratory in Brazil. He presented the HPAI outbreaks in wild birds and backyard chickens in Brazil and pointed out the intersections between stopover sights for birds travelling down the flyways from North America. He discussed the lack of systematic surveillance available in Brazil, especially in these sites.

Dr Gisela Gioia, FAO regional office for Latin America and the Caribbean

Dr Gioia presented the spread of HPAI outbreaks since October 2022 in the region along the pacific wild bird migratory route and then spreading west before moving back northwards in the summer migration. Most cases in this region of the southern hemisphere have been in the summer and autumn and there have been many more cases than those which have been reported to WOA. The region is characterised by extensive backyard poultry production and there is a large pressure from the agricultural industry for the implementation of vaccination. This is currently being carried out in some countries, some countries are considering vaccination and there are other countries which will not vaccinate. Live vector or recombinant vaccines are mostly used. FAO is providing emergency support to the countries. There are challenges with the cost of reagents which are available in the region, the sharing of data between ministries and within and between countries and the lack of standardisation of case definition or production system. Virtual online learnings on HPAI are being provided for countries to have access too and a learning course on avian influenza vaccination will be available soon.

Vaccination: <https://www.ganaderia.gob.do/index.php/noticias/item/566-influenza-aviar-de-alta-patogenicidad-y-escasez-de-huevos-y-pollos>
<https://www.maga.gob.gt/guatemala-redobla-medidas-sanitarias-ante-la-confirmacion-de-un-caso-de-influenza-aviar-de-alta-patogenicidad-h5n1-en-izabal/>
https://dj.senasica.gob.mx/AtlasSanitario/storymaps/ia_focos.html
<https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/comunicacion/noticias/comenzo-entrega-vacunas-contra-influenza-aviar>

Dr Cristopher Hamilton-West, Chile, Peru and Uruguay, University of Chile

Dr Cristopher discussed the introduction of the virus into Chile through the migration of wild birds. Surveillance is currently being carried out in wetlands in the north of Chile which represents the first stop for migratory birds, although there is a gap in the understanding of the movement patterns of some wild birds in the region. There is circulation of LPAI viruses particularly where wild birds are concentrated which offers opportunity for reassortment of viruses. Environmental factors have the potential to affect the epidemiology of AI in Chile.

For the wider region, there have been multiple introductions of virus into Peru with detection of different genotypes. Viruses detected in Uruguay were most similar to viruses detected in Chile and Argentina. There has been wild animal mass mortality on the coast of Peru with AI affecting sea lions. Publications currently available were possible due to opportunistic sampling carried out by veterinary services however this surveillance isn't systematic. Most countries in the region have the capacity to detect AI by RT-PCR and there is some sequencing capacity although the

information isn't usually available in a timely manner. The role of reference laboratories and international collaborations are important.

Uruguay: <https://www.mdpi.com/1999-4915/15/9/1906>

Peru: <https://pubmed.ncbi.nlm.nih.gov/37679333/>

Chile: <https://pubmed.ncbi.nlm.nih.gov/37376541/>

<https://pubmed.ncbi.nlm.nih.gov/37254689/>

Dr Dilmara Reischak, Brazil, Laboratório Federal de Defesa Agropecuária em Sao Paulo – LFDA-SP

Passive surveillance is being carried out in Brazil by the national veterinary services, most outbreaks have been in the Atlantic coast of the country and there have been many outbreaks in wild birds (139), backyard (3) and aquatic mammals (5) however no detections in poultry. To date, 21 wild species have been affected. In 73% of the samples from wild animals (birds and marine mammals) the lowest Cqs have been detected in tissue fragments from the central nervous system. Detection from cloacal and tracheal/oropharyngeal swabs was possible in less than 6% of the cases investigated in wild birds. Preliminary results indicate that the sequences of the Brazilian samples are between 97.5% and 99% similar to the sequences of the Peruvian and Chilean samples.

Links:

https://mapaindadores.agricultura.gov.br/publico/extensions/SRN_v2_ES/SRN_v2_ES.html

<https://www.sciencedirect.com/science/article/pii/S2451943X23000364>

https://www.icmbio.gov.br/cma/images/stories/Publica%C3%A7%C3%B5es/Protocolo_de_Orienta%C3%A7%C3%B5es_T%C3%A9cnicas_para_Enfrentamento_da_Influenza_em_Mam%C3%AIferos_Aqu%C3%A1ticos_1.pdf

Dr Ashley Banyard, South Georgia and the Falkland Islands , APHA, UK

The laboratory is working with countries all over the world to test diagnostic capability for AI. The Antarctic wildlife health network is monitoring and collecting data, HPAI was detected on the 23rd October in Brown Skuas detected from Bird Island in South Georgia. Sequences cluster with sequences from Uruguay, Peru and Chile and have the same, predominant genotype from the region, B3.2 possessing PB2, PB1, NP NS from North American lineage LPAI genes.

Links:

<https://science.vla.gov.uk/flu-lab-net/>

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