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IUCN

3rd WEBINAR

Avian influenza

- protecting wildlife in
UNESCO World Heritage
sites, Biosphere Reserves
and Ramsar sites

Tuesday 14 May | 09:00 – 11:30 CEST

The plight of wildlife in the current avian influenza panzootic

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 @DuckSwabber

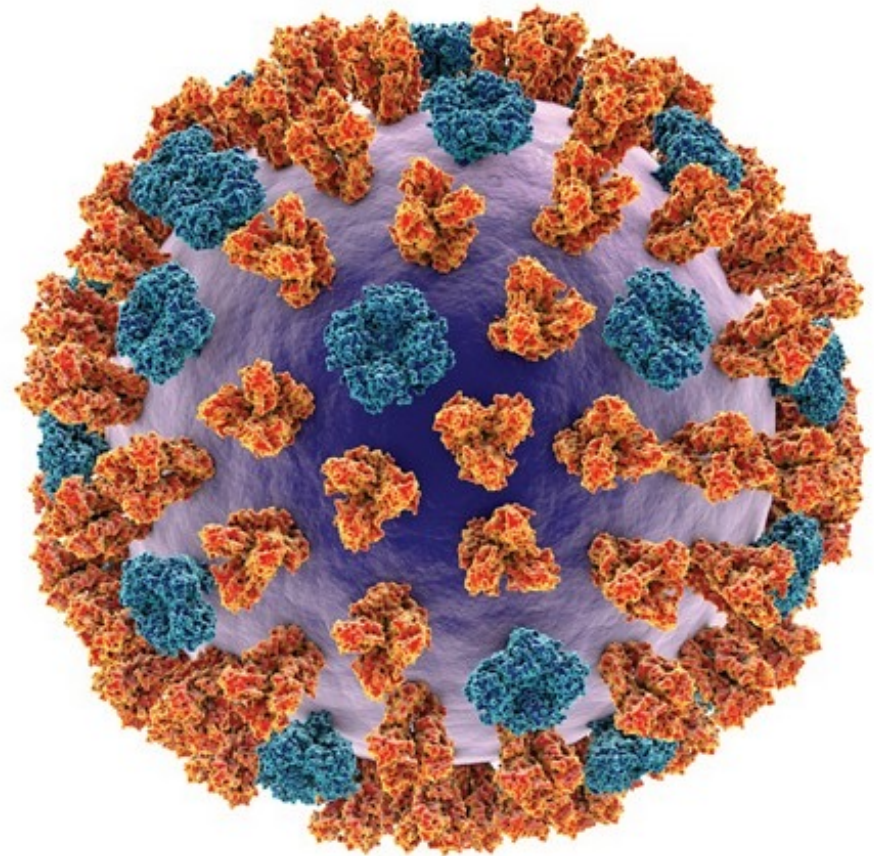
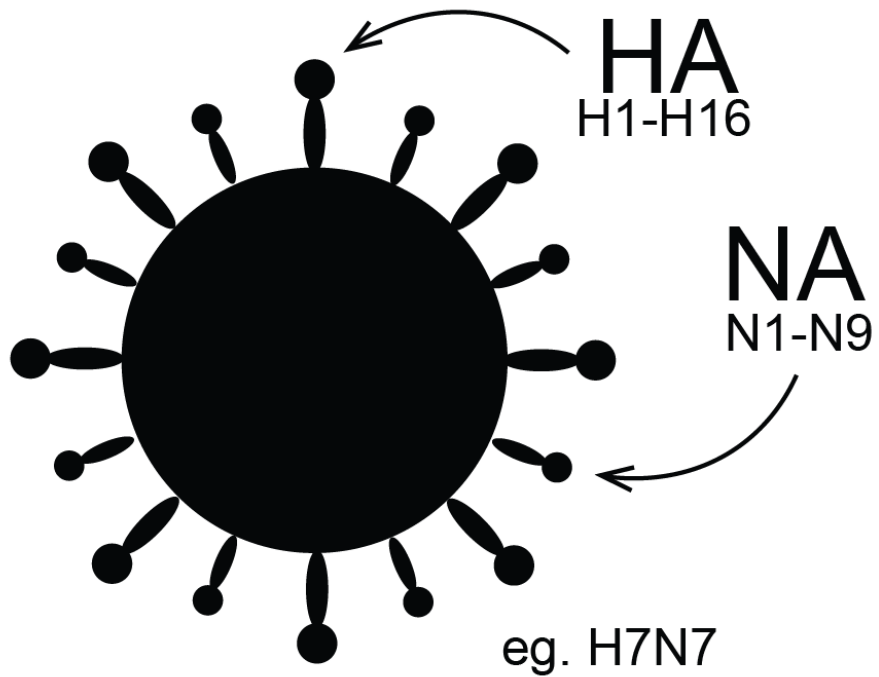


A joint venture between The University of Melbourne and The Royal Melbourne Hospital



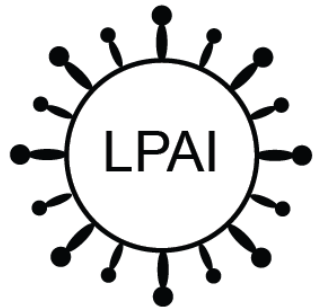
What's in the name?

Avian influenza “subtype”



What's in the name?

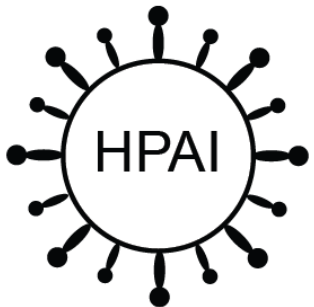
Low pathogenic



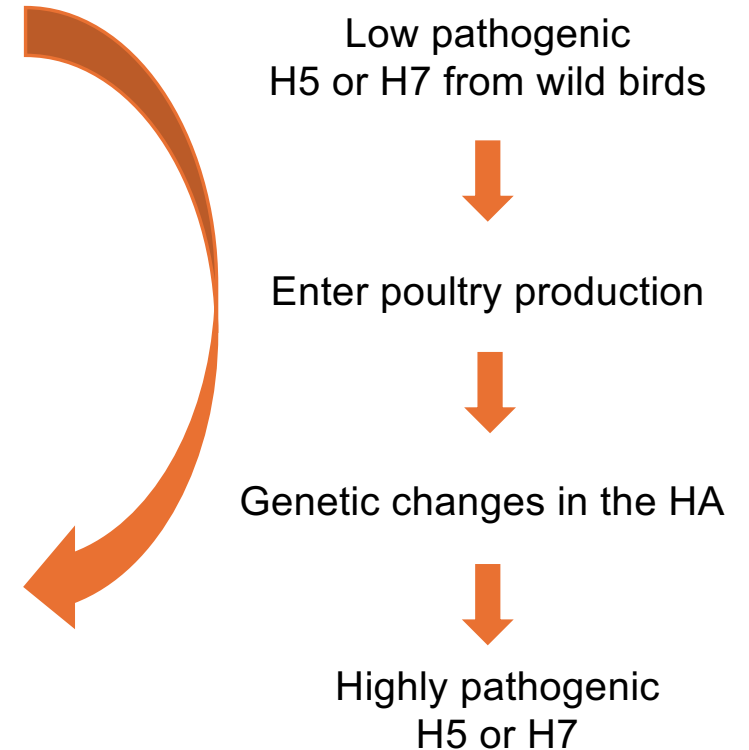
- all HA subtypes (H1-H16)
- common in wild birds
- no disease in wild birds
- occasional, mild disease in poultry



High pathogenic



- "bird flu"
- only H5 and H7 subtypes
- causes outbreaks in poultry
- associated with disease and death in poultry and wild birds

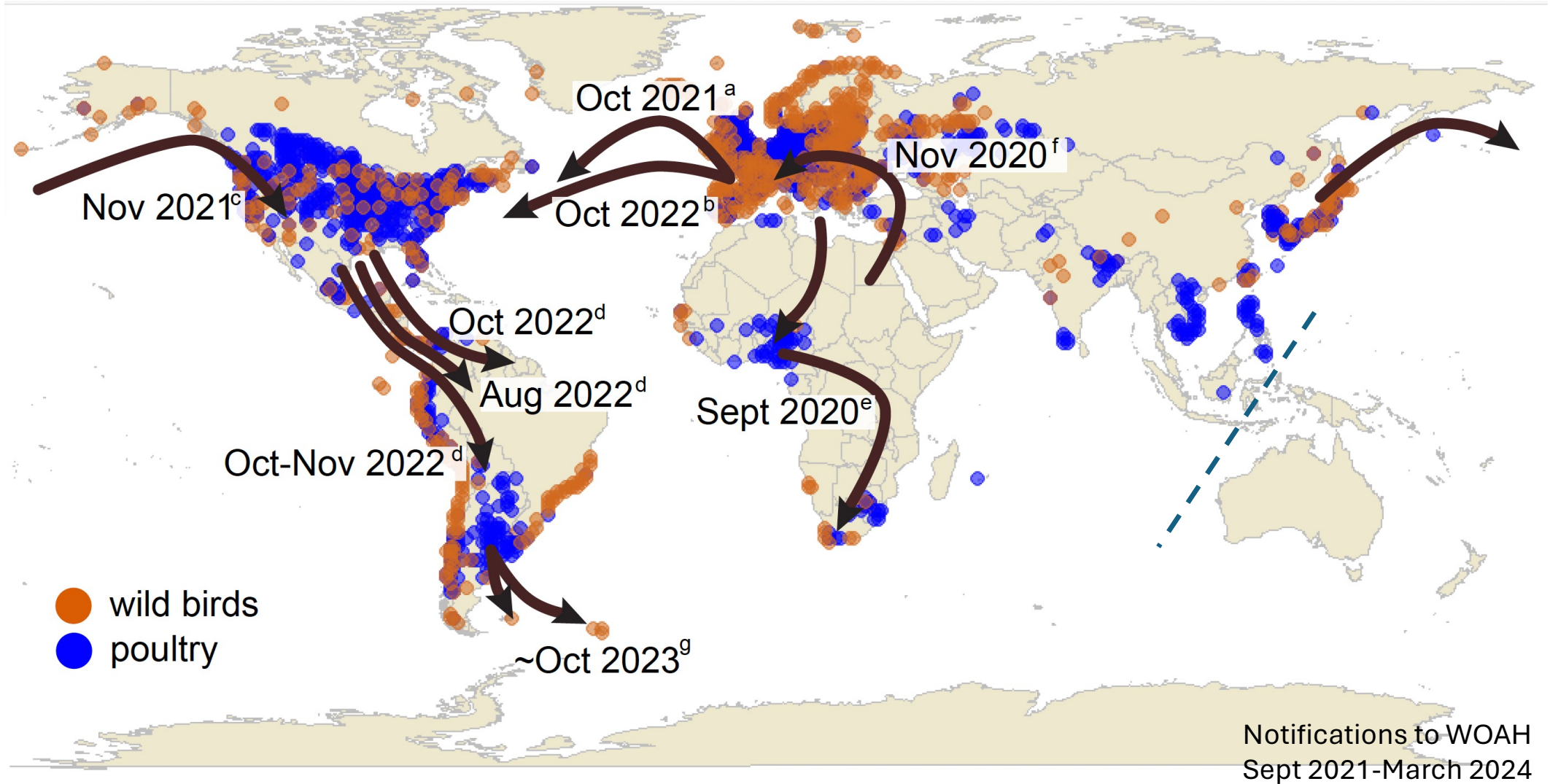


**High pathogenicity
avian influenza (HPAI)
2.3.4.4b**

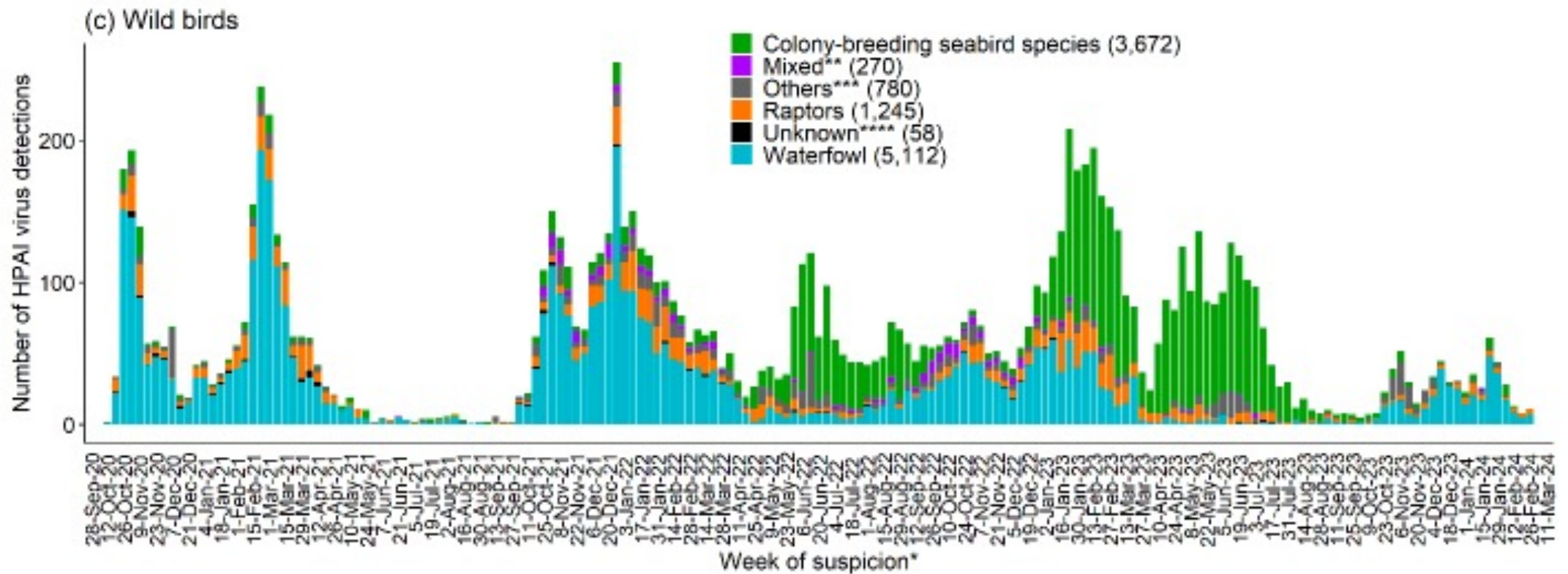
What's different?



Global panzootic of highly pathogenic avian influenza (HPAI) H5N1 clade 2.3.4.4b

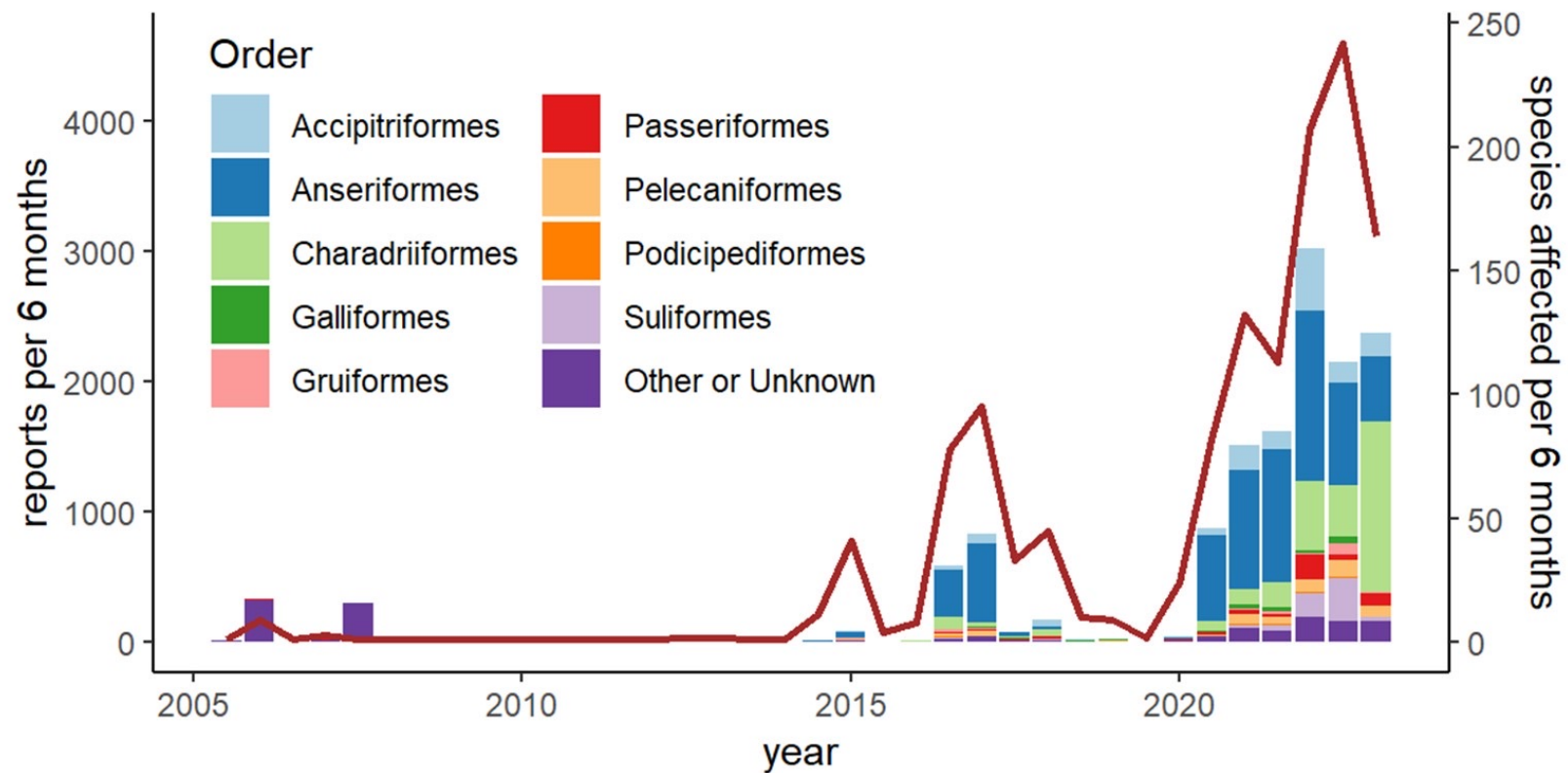


No longer seasonal – waterfowl in the winter, seabirds in the summer



Enormous impact on wildlife

>500 species (25 orders) of birds
(~Nov 2023, probably more now)



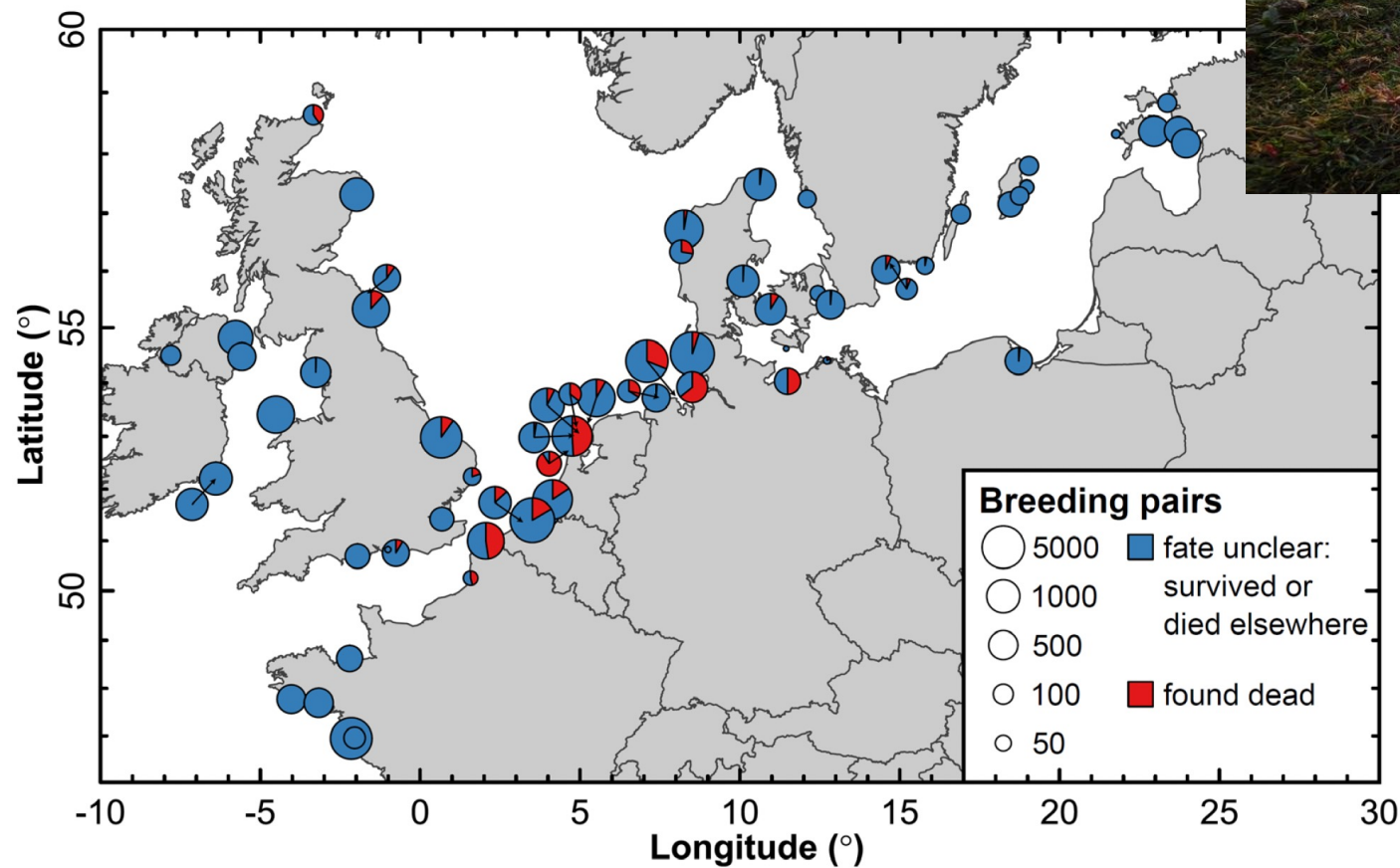
Densely aggregated species like seabirds



Credit: M. Uhart

Enormous impact on wildlife

17% of European population of Sandwich Terns died
Almost 100% mortality of chicks in affected colonies in 2022

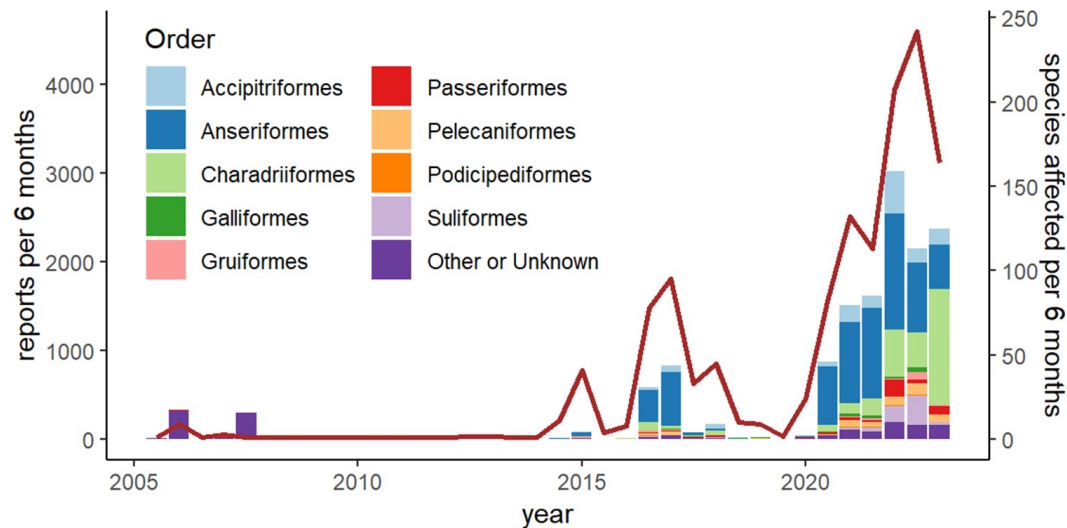


62,000 (36%) Peruvian
pelicans



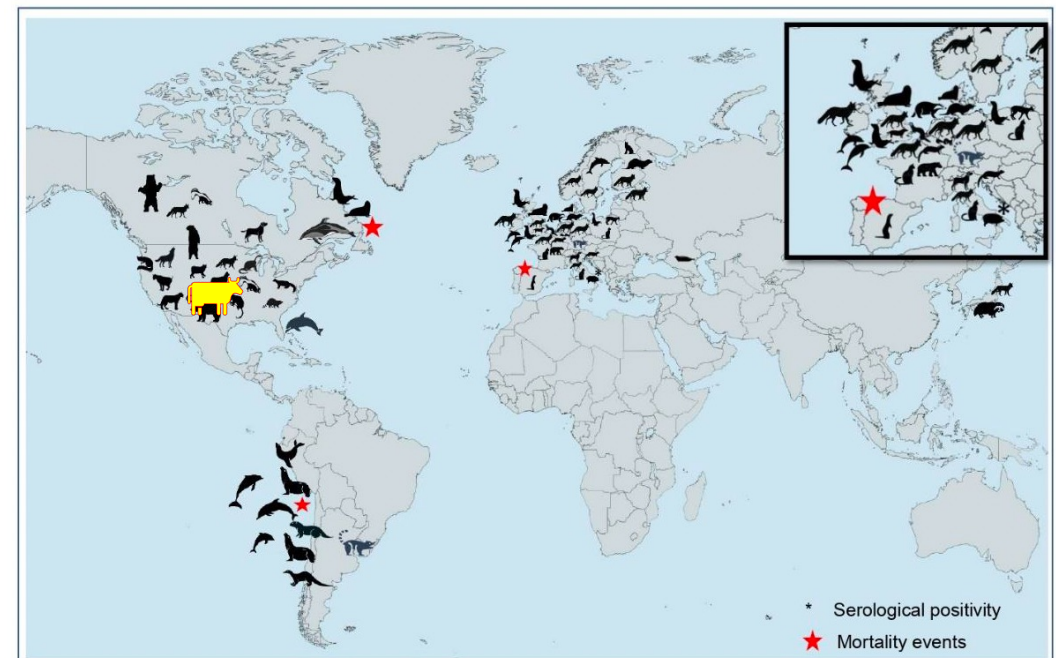
Enormous impact on wildlife

>500 species (25 orders) of birds
(~Nov 2023, probably more now)



Klaassen & Wille. 2023. Nature Ecology and Evolution

56 species of mammals

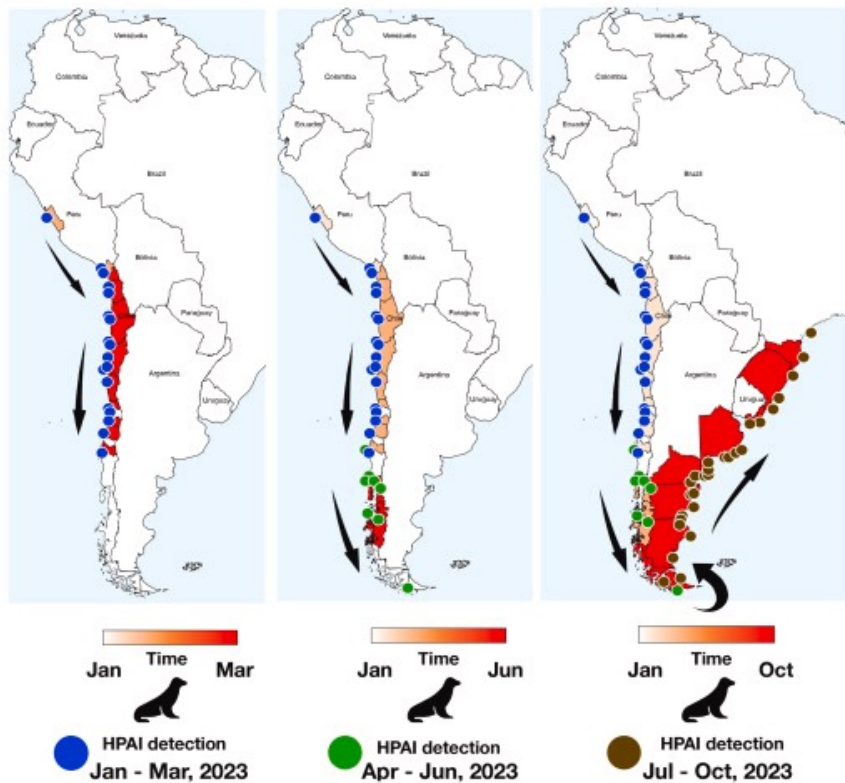


EFSA. 2023. Avian influenza overview

Enormous impact on wildlife

>30,000 South American Sealions and ~18,000 Southern Elephant Seals (including almost 100% of pups in affected colonies) died in South America in 2023

B



Plaza et al. 2024. Travel Medicine and Infectious Disease

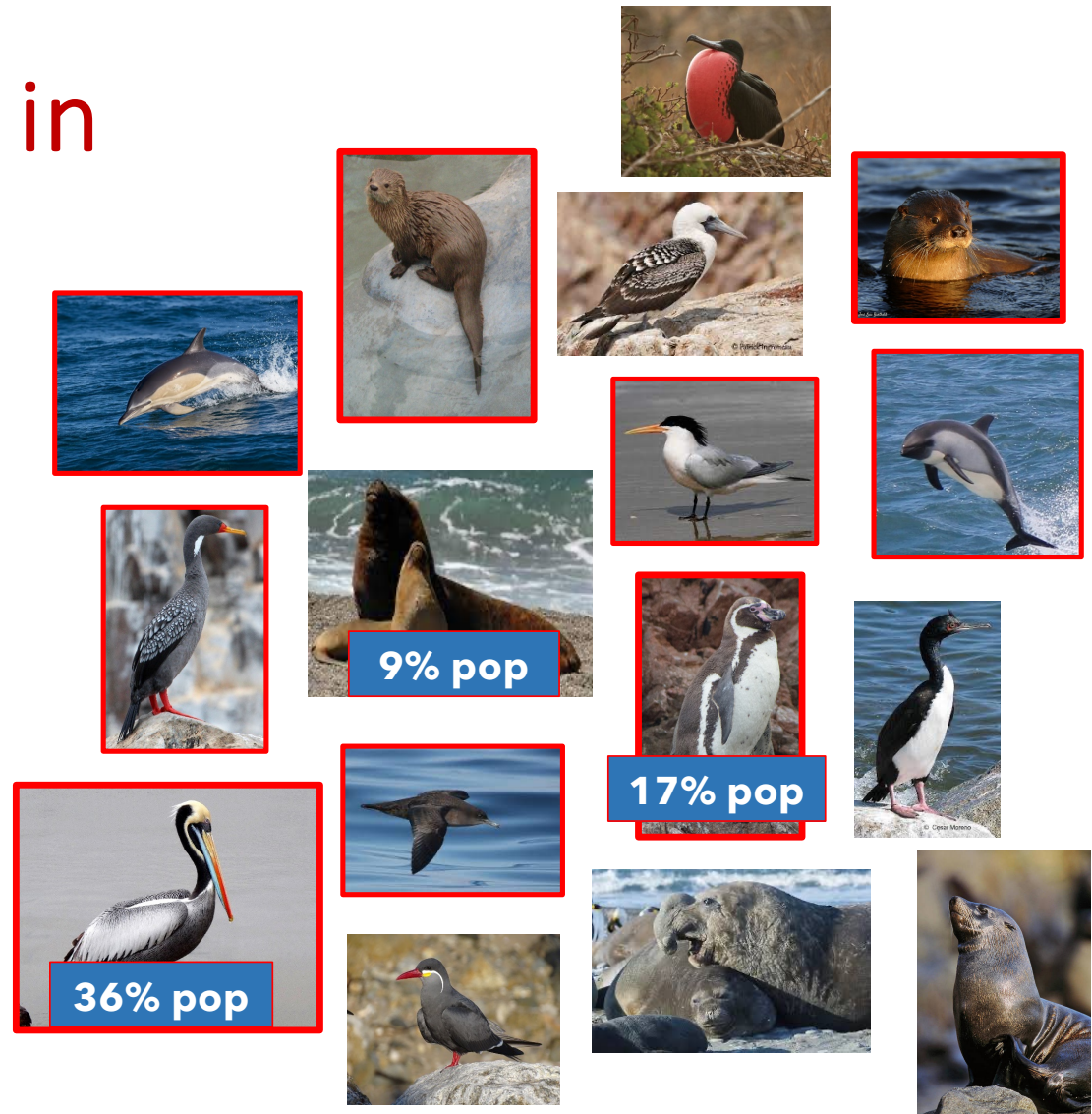


Campagna et al. 2024. Marine Mammal Science

Catastrophic impacts in South America

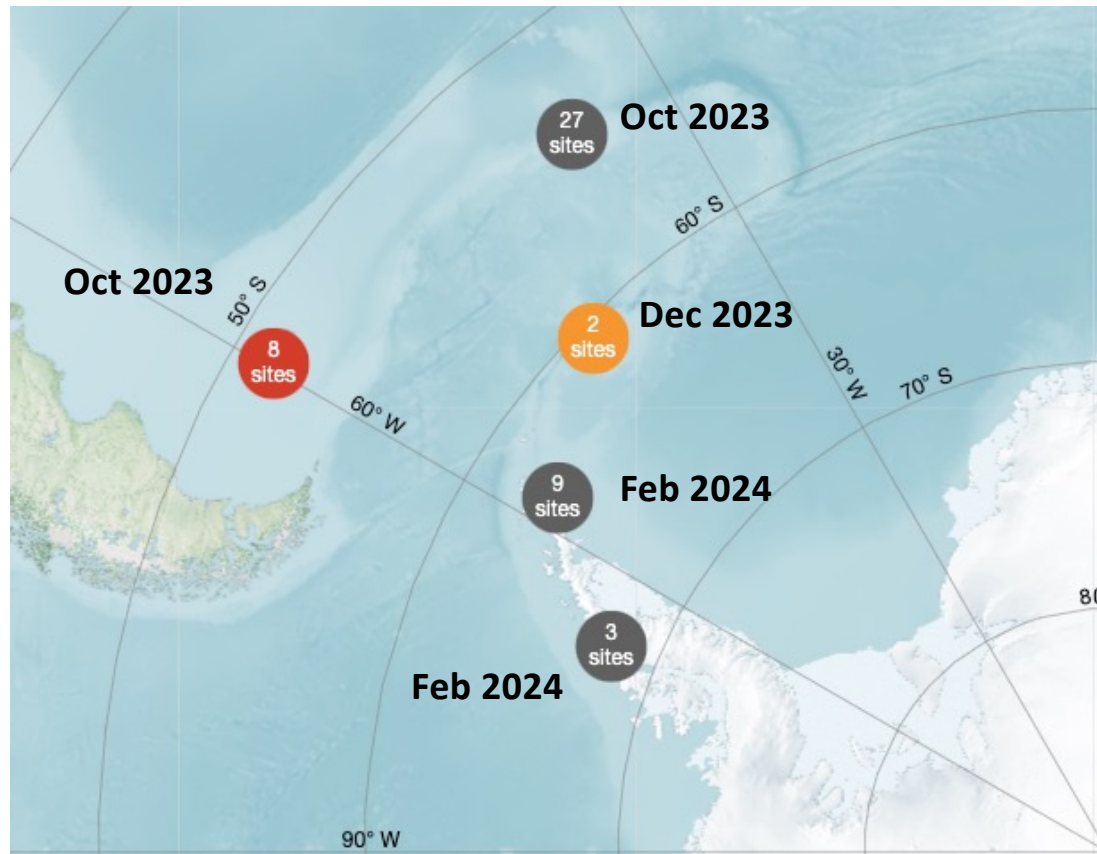
670,000 birds (65 species)

50,000 mammals (15 species)





SUB-ANTARCTIC AND ANTARCTIC HIGHLY PATHOGENIC AVIAN INFLUENZA H5N1 MONITORING PROJECT



HPAI has now arrived in Antarctica...



High potential conservation impact

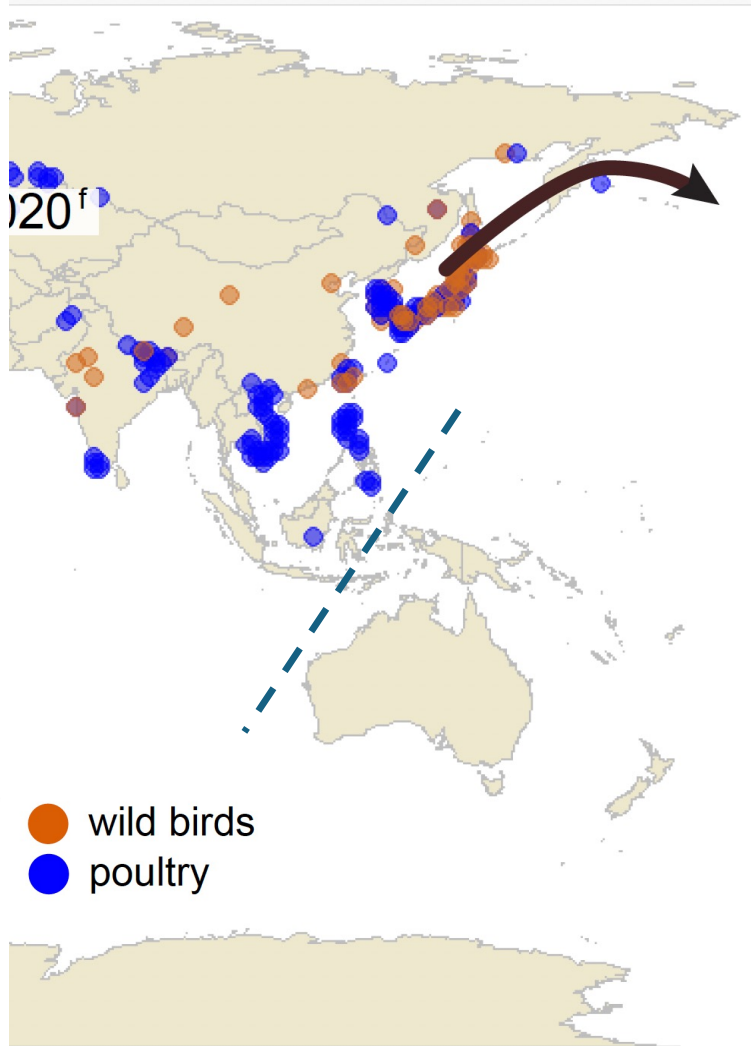
6 pinniped sp.



37 seabird sp.



Challenges for Asia Pacific:



Poor data availability:

- > Lots of activity in Japan, South Korea in wild birds
- > Elsewhere???

Limited surveillance of wild birds

Vaccines driving “silent spread” in poultry

Presence of more than one clade of HPAI H5N1

- > Many countries have endemic clades in poultry
- > In many instances clade information is not available
- > Difficult to track expansion of 2.3.4.4b



Oceania is free from HPAI H5N1

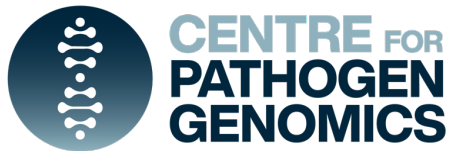
Abridged risk assessment for HPAI in Australia

The plight of wildlife in the current avian influenza panzootic

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