



Animal &
Plant Health
Agency

Overview of International Reference Laboratory activities

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Animal and Plant Health Agency- Weybridge - UK

Virtual workshop (29/1/21) on Formation of an Avian influenza and Newcastle disease diagnosis and surveillance subnetwork

(an initiative within the Central Asia Animal Health Network – CAAHN)

The logo of the International Epizootic Centre (OIE), featuring the letters 'Oie' in a stylized font with a globe icon.

**OIE/FAO Reference Laboratory for Avian Influenza,
Newcastle Disease and Swine Influenza**





What is the APHA role and services provided internationally for Avian Influenza and Newcastle Disease?

- Deliver the OIE and FAO mandates for reference laboratories
 - <https://www.oie.int/scientific-expertise/reference-laboratories/terms-of-reference/>
 - http://www.fao.org/ag/againfo/partners/en/ref_centres.htm

 - Reference Laboratories are designated to pursue all the scientific and technical problems relating to a named disease and provide advice
 - Standardised Diagnostic Methods shared
 - Develop new methods and demonstrate existing remain effective
 - Produce store and distribute reference standards
 - Disease and technical consultancy
 - Expert advice provided on broad range of scientific issues in relation to AI/ND
 - Expertise maintained and underpinned by delivery of strategic research
 - Improved diagnostics/harmonisation/standardisation
 - Coordinate scientific and technical studies in collaboration with other laboratories, centres or organisations;
-



What is the APHA role and services provided internationally for Avian Influenza and Newcastle Disease?

- To provide scientific and technical training for personnel from international partners
- Surveillance programmes for AI and ND
 - advice, design and conduct
- Systems of quality assurance, biosafety and biosecurity
- Inter laboratory proficiency tests
- Place experts at disposal of OIE/FAO
- Support to production and pharmaceutical industries
- Diagnostic specialist laboratory facility ad-hoc
 - Ramp up capability for disease outbreaks
- Close liaison with public health sector

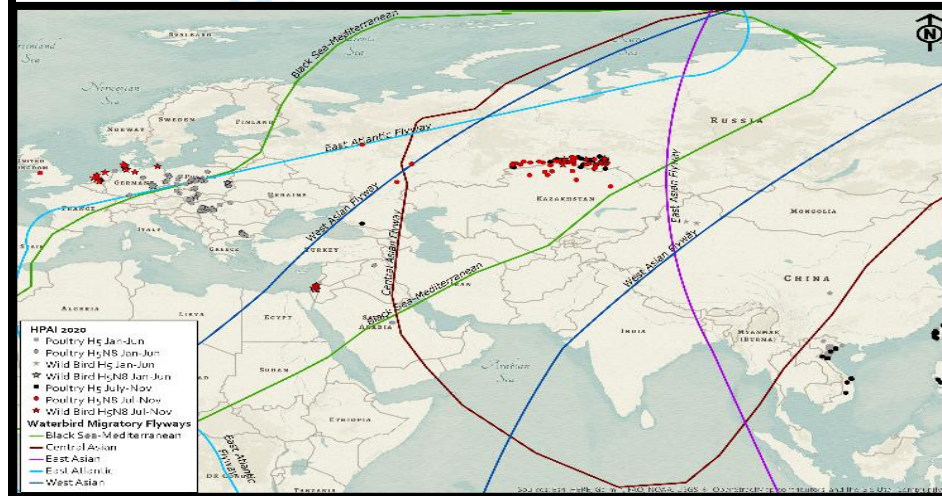


APHA –Weybridge is keen to support and establish CAAHN to deal with significant threats from AI and ND

- IRL at APHA horizon scanning for threats to Central Asian region
- Links for pathogen characterisation and international outbreak assistance
- OIE twinning project with KazSVRI Almaty, Kazakhstan
- Close linkage with global laboratories for transboundary spread of HPAI and ND
- Full genome sequencing enabled rapid assessment of pathogens
- Advice on vaccine strain selection and vaccination programmes
- Global sharing of information by IRL.
- **CO-PUBLICATION with local institutes**

Emergence and spread of novel H5N8, H5N5 and H5N1 clade 2.3.4.4 highly pathogenic avian influenza: 2020

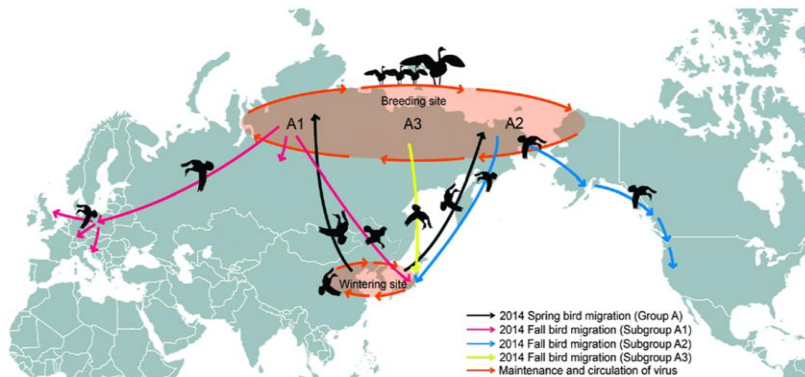
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148-151, DOI: [10.1080/22221751.2021.1872355](https://doi.org/10.1080/22221751.2021.1872355)

Team at APHA-Weybridge working internationally on avian influenza and Newcastle disease

- Specialist team for consultancy
 - Prof Ian Brown (Director IRL and OIE expert),
 - Dr Ash Banyard (Deputy Director IRL)
 - Prof Nicola Lewis (Deputy Director IRL) Royal Vet College, London
 - Research and Technical specialists in Virology and Molecular Biology
 - Dr Adam Brouwer (Epidemiology and Risk lead)
 - Dr Alejandro Nunez (Pathologist lead)



The team – Avian Virology and Mammalian Flu

