

19 November 2020

2019 Annual Surveillance report/New epidemic season of HPAI and Early Warning tool

Inma Aznar

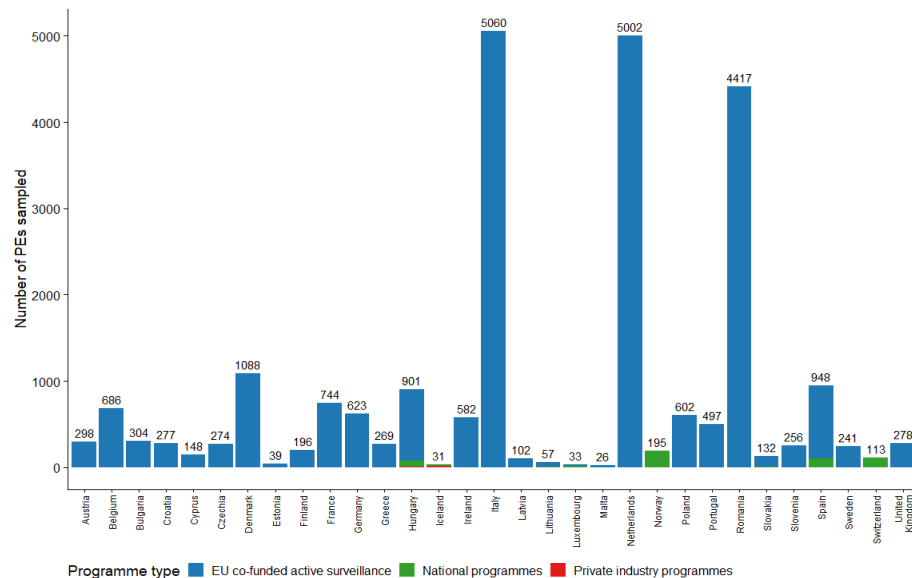
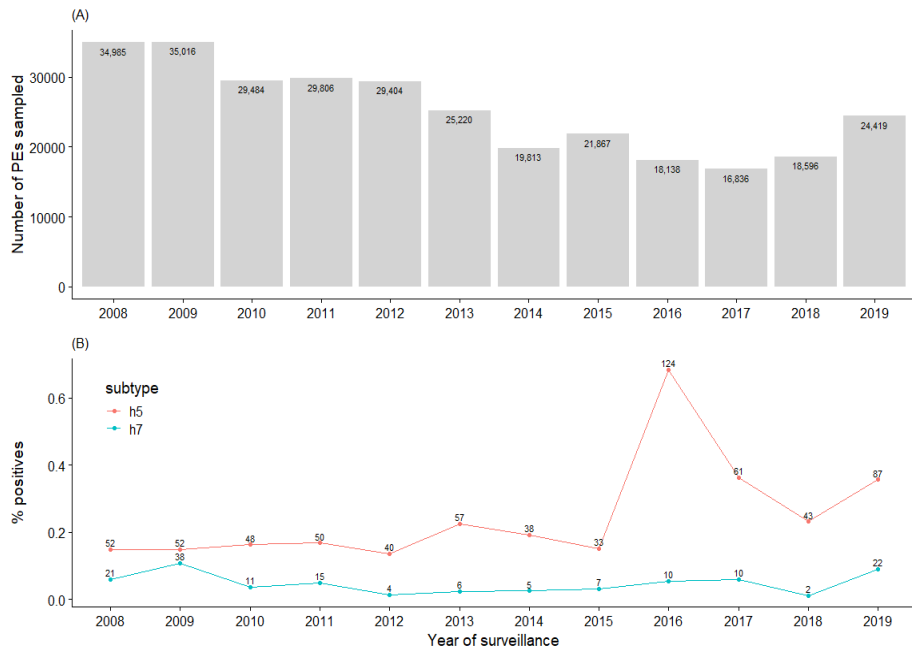
Francisca Baldinelli

Scientific officers, EFSA

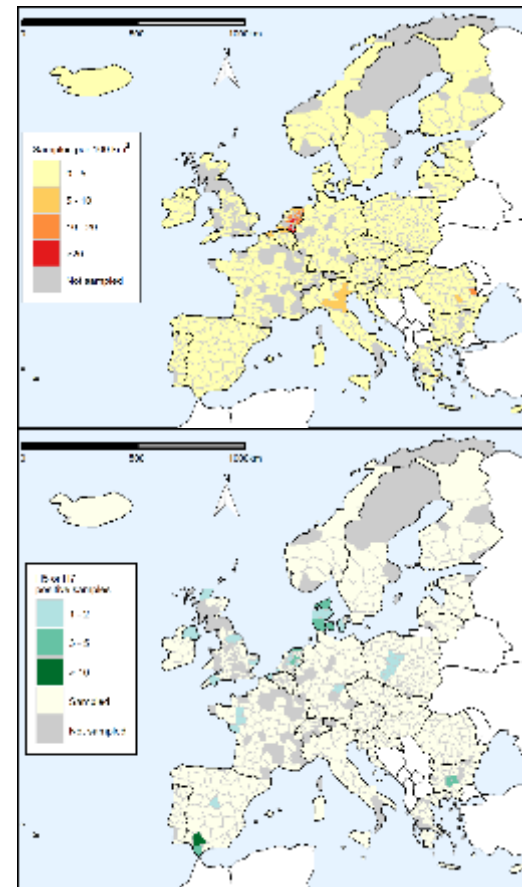
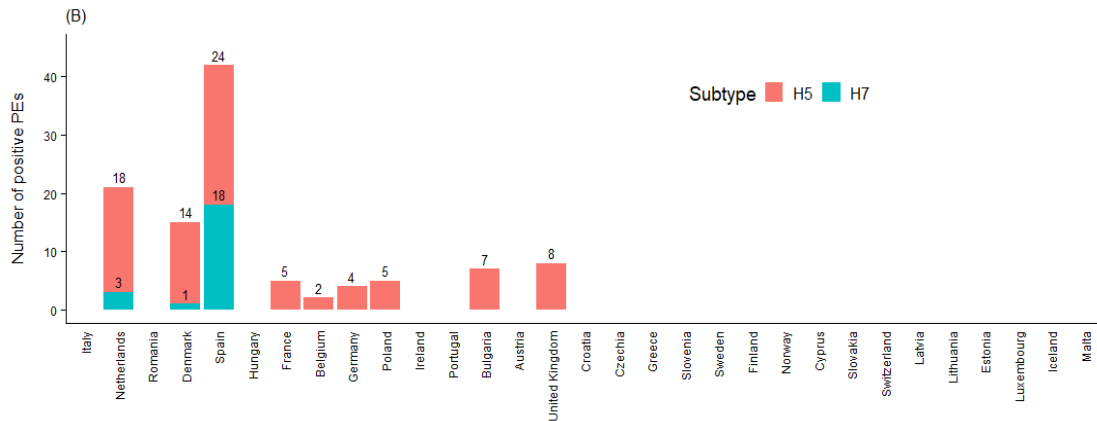
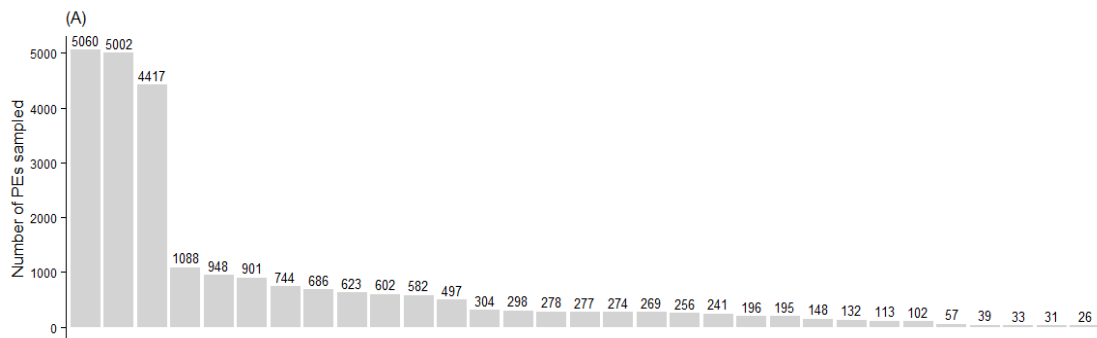
Trusted science for safe food

POULTRY SEROLOGY

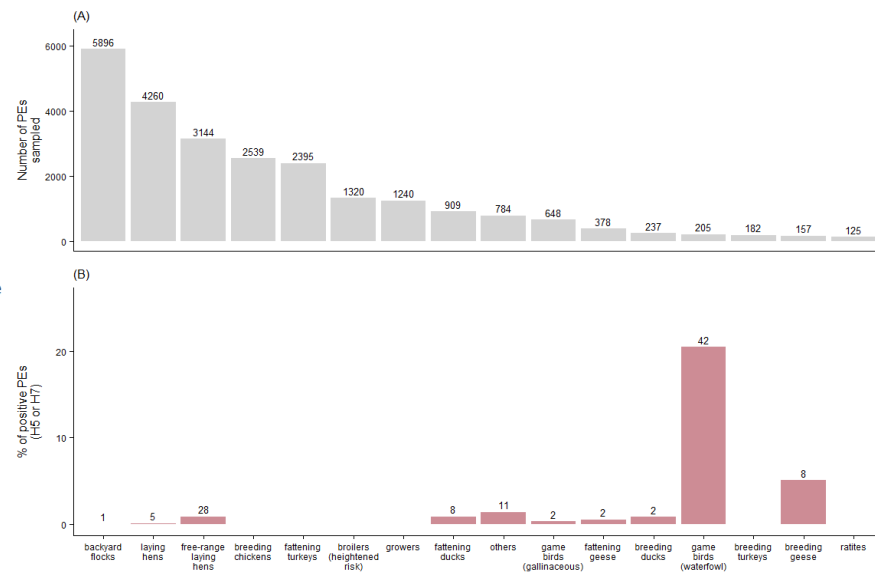
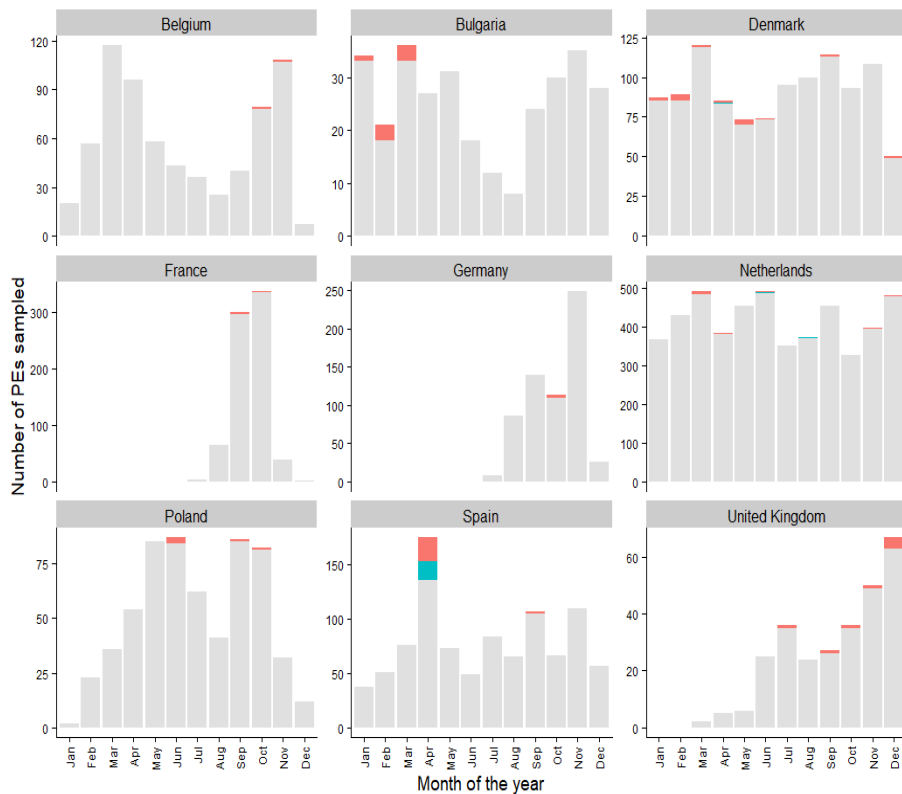
- 31 RC
- 24,419 PE: H5/H7 (0.45% vs 0.24%)
- H5: 0.36% vs 0.23
- H7: 0.09% vs 0.01%



Serological positive: by country



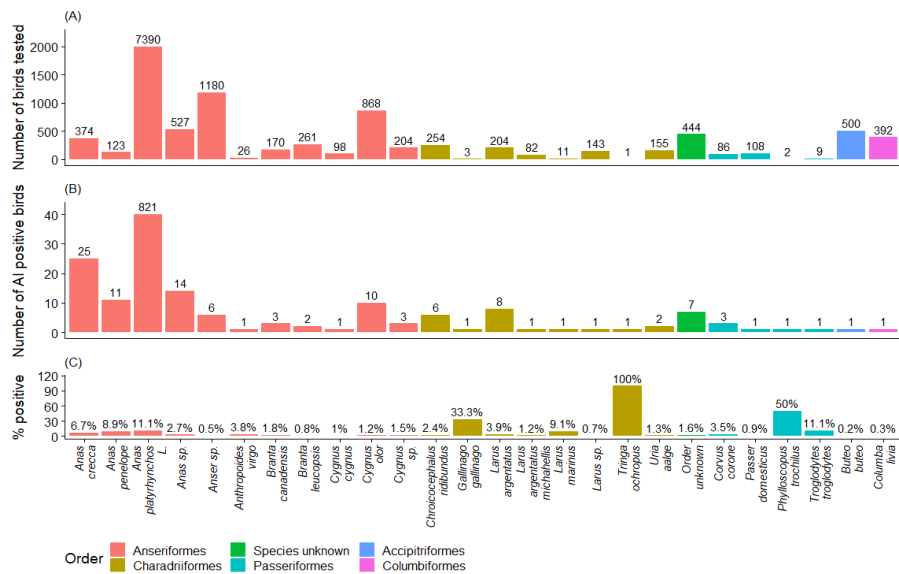
Serological positive: by month and categories



- 109 PEs with positive serological tests for H5 or H7, samples from 80 PEs were tested for AI viral RNA using polymerase chain reaction (PCR)
- France/Netherlands (non H5/H7) (one each)
- Denmark: H5N1 LPAI (free-range laying hens) and one for H7N7 LPAI (game-purpose mallards). These PEs were also positive in virus isolation

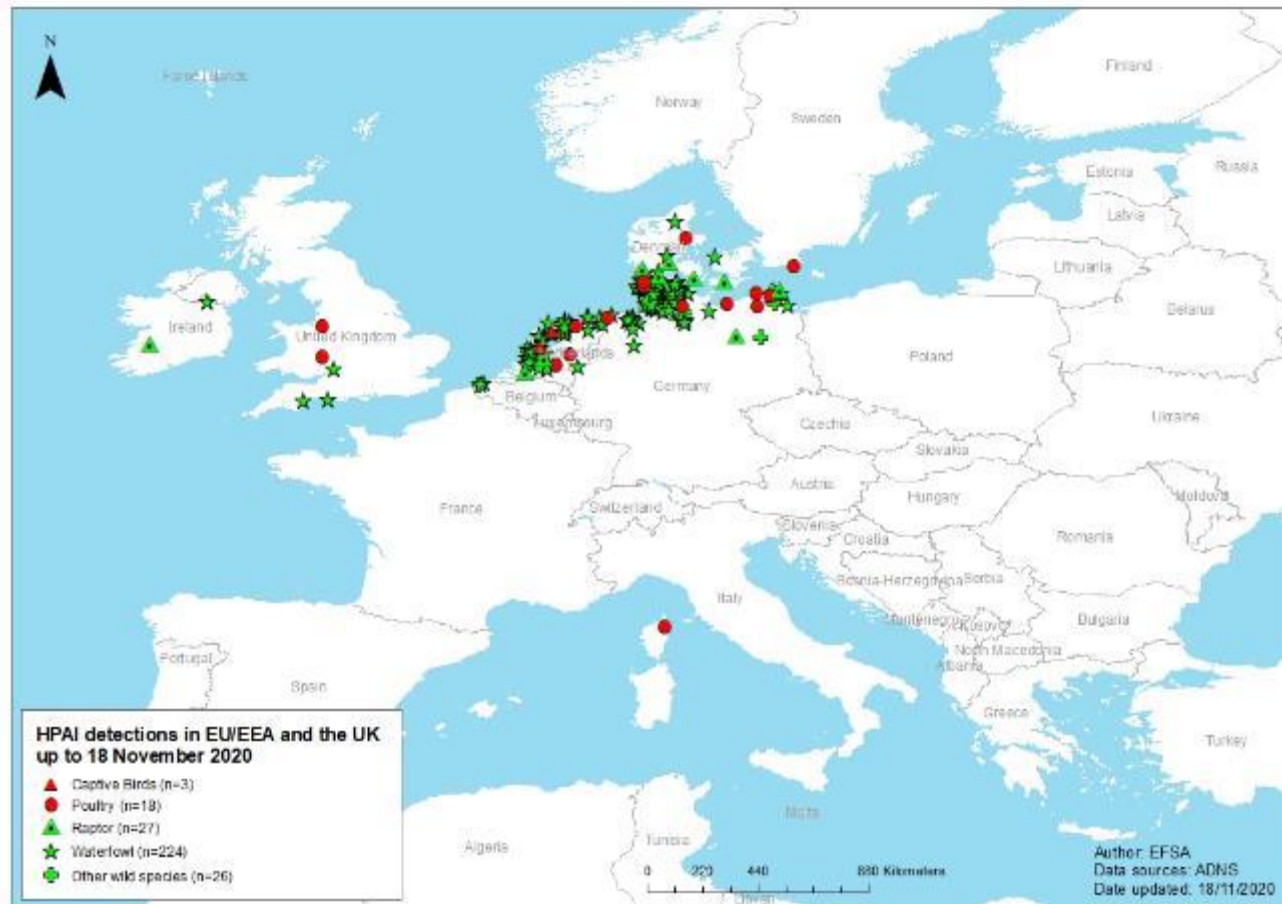
Wild birds

Reporting Country	Passive surveillance				Active surveillance 2019	Total 2019
	2016	2017	2018	2019		
Austria	201	897	109	85	2	87
Belgium	280	367	237	423	4926	5349
Bulgaria	9	47	58	65	6	71
Croatia	116	279	223	160	0	160
Cyprus	124	117	109	87	15	102
Czechia	89	330	94	104	0	104
Denmark	204	154	148	111	0	111
Estonia	5	38	16	8	171	179
Finland	208	316	195	174	0	174
France	190	766	113	158	0	158
Germany	5861	8533	1711	1392	3457	4849
Greece	16	90	13	12	8	20
Hungary	960	703	371	338	0	338
Iceland	-	-	-	2	0	2
Ireland	25	137	142	78	0	78
Italy	1899	2019	2109	2719	1	2720
Latvia	3	11	14	15	0	15
Lithuania	22	131	70	63	5	68
Luxembourg	2	61	-	50	0	50
Malta	-	-	-	-	-	-
Netherlands	536	509	663	643	0	643
Norway	-	-	-	28	504	532
Poland	85	209	36	33	0	33
Portugal	116	54	82	126	0	126
Romania	275	528	244	201	25	226
Slovakia	32	513	84	45	0	45
Slovenia	151	556	178	223	0	223
Spain	264	370	344	281	1615	1896
Sweden	354	452	455	456	0	456
Switzerland	264	162	45	30	0	30
United Kingdom	537	1194	1282	816	0	816
Total	12828	19543	9145	8926	10735	19661

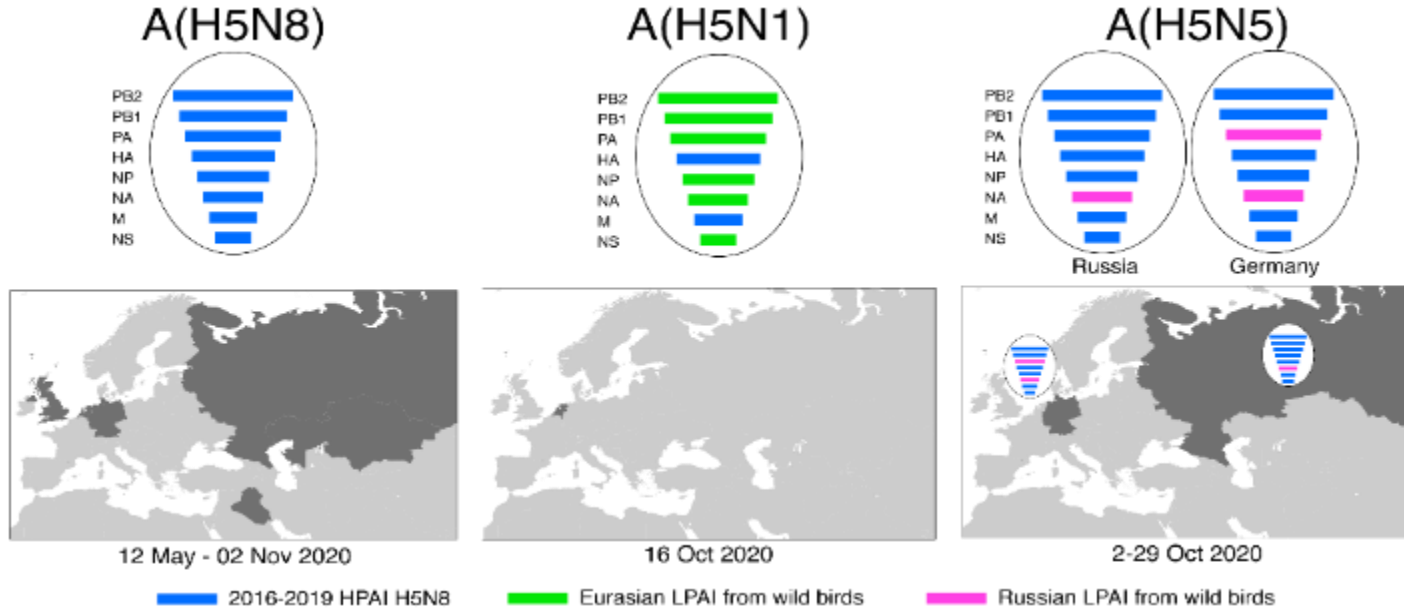


Rapid Risk Assessment and Tool

Geographical distribution of HPAI outbreaks up to 18 November 2020 (n=298)



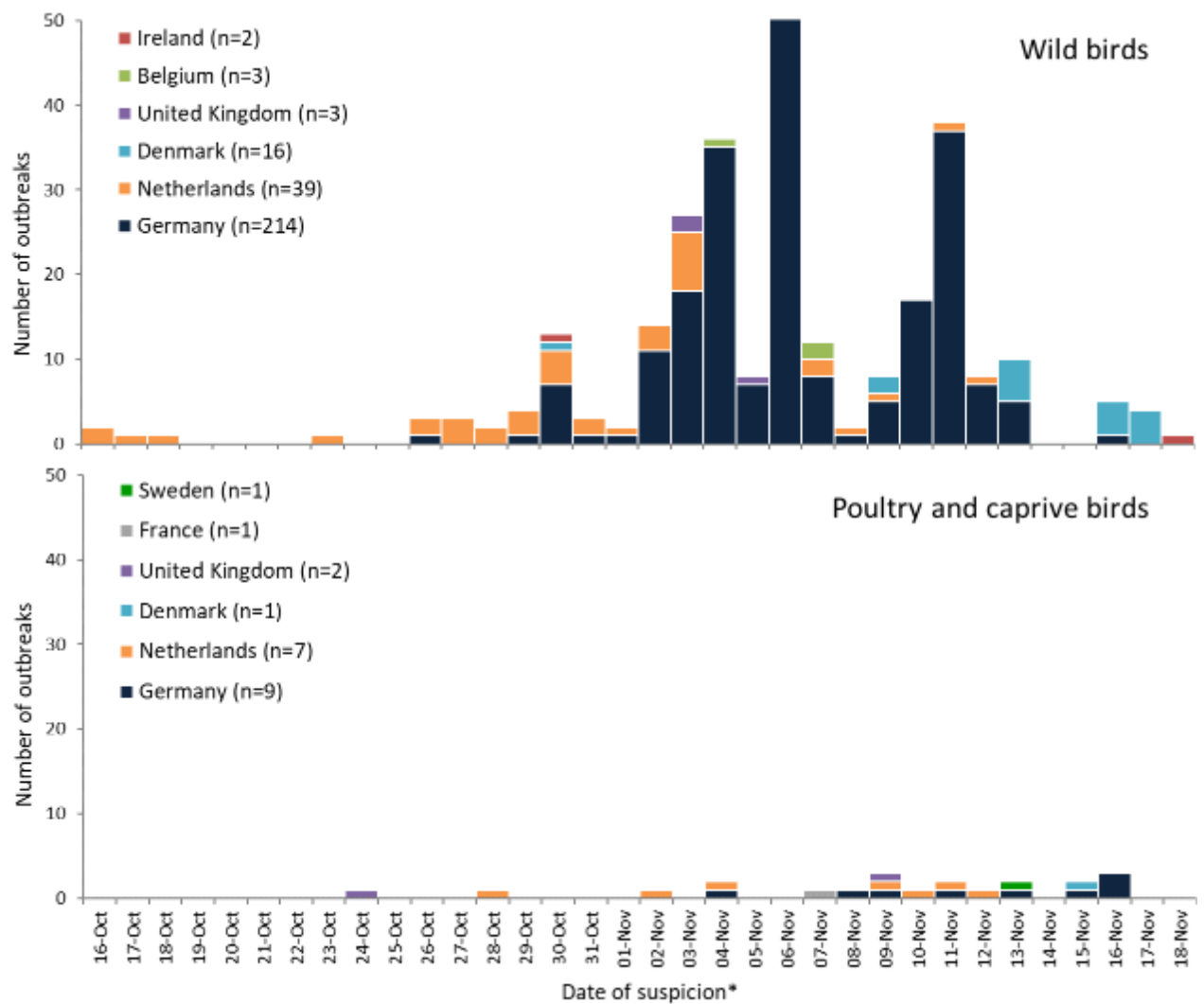
Genetic characterisation of HPAI viruses



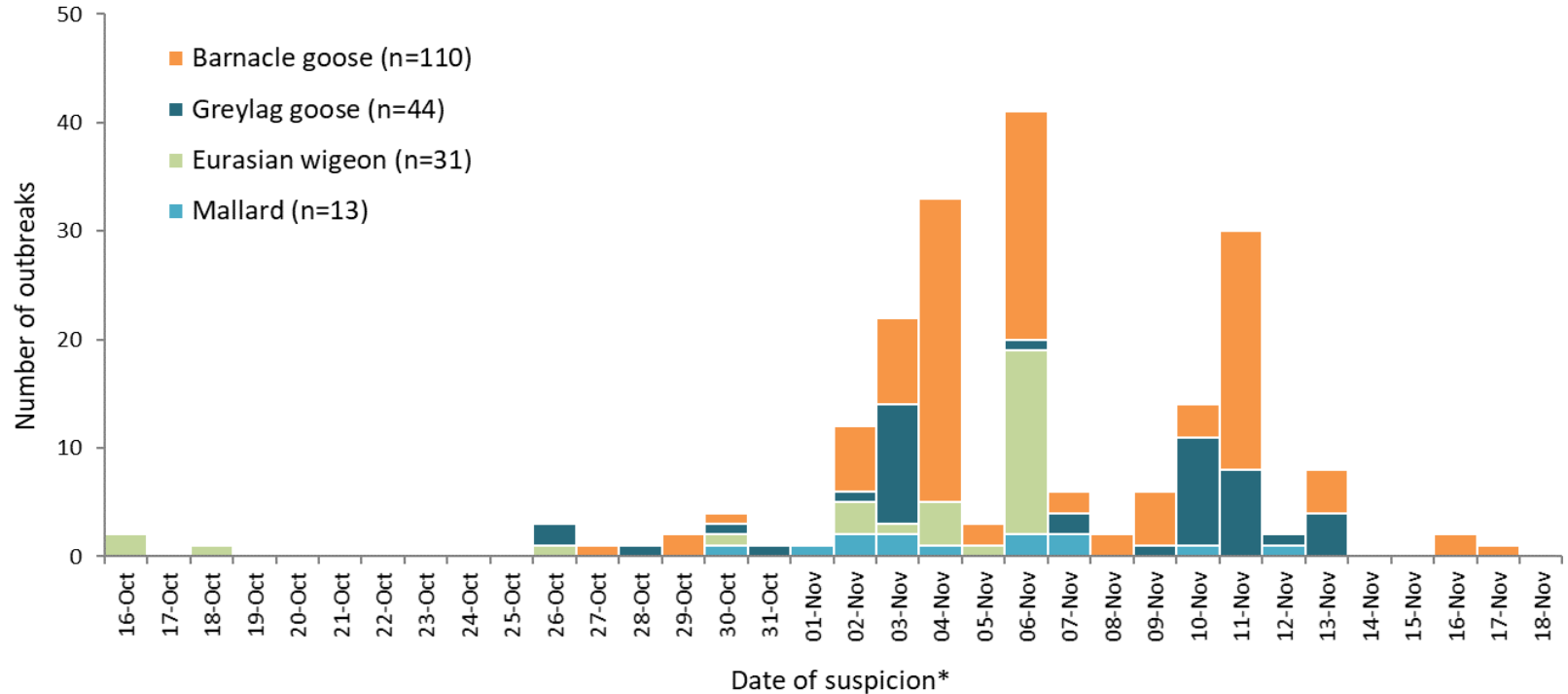
HPAI A(H5) genotypes identified in Eurasia since May 2020 and their geographic detection based on the available sequences

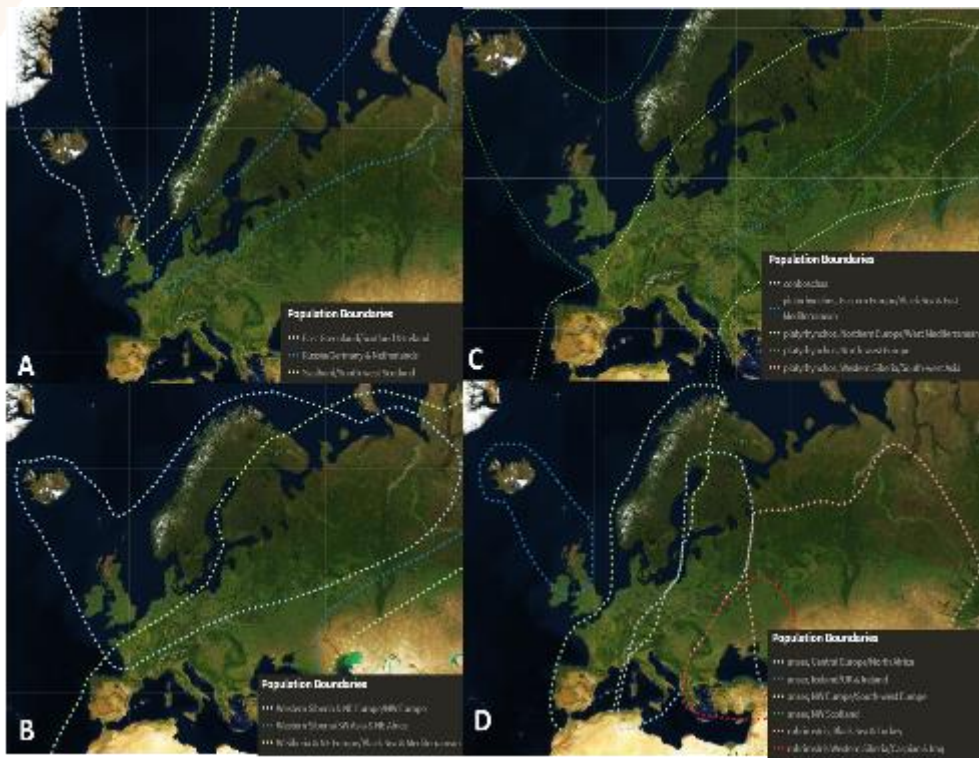
HPAI in Europe

Distribution of number of HPAI detections in Europe by date of suspicion for wild birds (n=277), and poultry and captive birds (n=21)



Number of detections in the four most affected wild birds species, by date of suspicion, 17 November 2020 (n=198)





- **Greylag goose** moving south from Scandinavia (or relatively local birds)
- **Barnacle goose:** Arctic Russian and Baltic (migratory) and NL/BE/DE/DK (sedentary) breeding populations
- **Eurasian wigeon:** returning from breeding and passage areas in Russia and Eastern Europe
- **Mallard:** mixture easterly migrants and sedentary populations

Data source: Critical Site Network Tool 2.0 (A) flyways for barnacle goose; B) flyways for wigeon; C) flyways for greylag goose; D) flyways for mallard)

Migration Mapping tool: update by EFSA



Migration Mapping Tool home page

Last Update

Migration Mapping Tool

This tool provides a summary of the movements of 21 species of wild bird to and from the area you select using radio rings of ringed birds.

To use the tool:

First select an area of interest (e.g. Spain and Portugal) from the drop down menu to the right - then you can either -

A. Choose 'Search by location' if you want to look at all movements between a particular location and your area of interest and you:
- know the co-ordinates of the location;
- can find the location by using the Google Map provided.
You will be provided with a list of species that pass through your chosen location, to or from your area of interest, after specifying the month of interest. You can then choose a species to see the migration maps.

B. Choose 'Browse species' if you wish to see migration routes to and from your area of interest for a particular species.

C. Choose 'View sites' if you wish to see details of sites in particular countries.

Select an area

Your options

 Search by location	 Browse species
 Google	 View sites

For an introduction to the mapping tool see An Introduction to the Migration Mapping Tool

For technical details of how the maps are prepared see The Migration Mapping Tool - Methods

A review of available information focussing on Mallard (Cygnus abelii) and Mistle Thrush (Turdus philomelos)

Ornithological data relevant to the spread of Avian Influenza in Europe (phase 2) (Report to the EU Commission - A-488)



in partnership with the following organisations:
contact BTO Web Support

Migration Mapping Tool has been developed by the BTO with financial support from DG Environment of European Commission under Study Contracts on Avian Influenza in Europe
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These data should be cited as:

Mason, P.H., Robinson, M.A., Cain, J.L., Miles, T., Thomas, J.R., de Wit, G.R., Fiedler, W., Parsons, T., Gammie, M.J., O'Shea, M., Sains, P. & Dale, G.P. (2007) Migration movements of the author - a web-based mapping tool. EURING report to the EU Commission. (http://bto.org.uk)

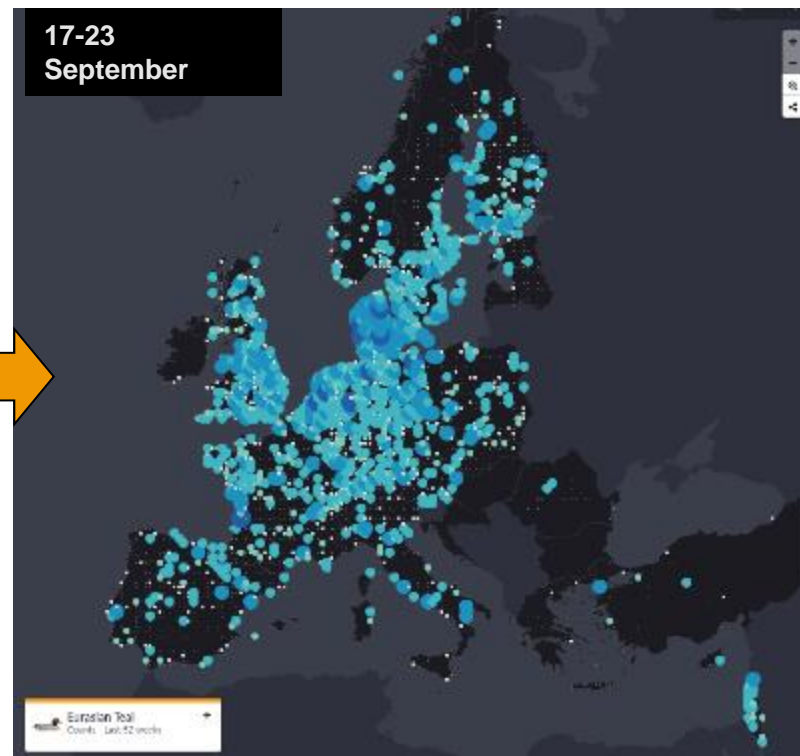
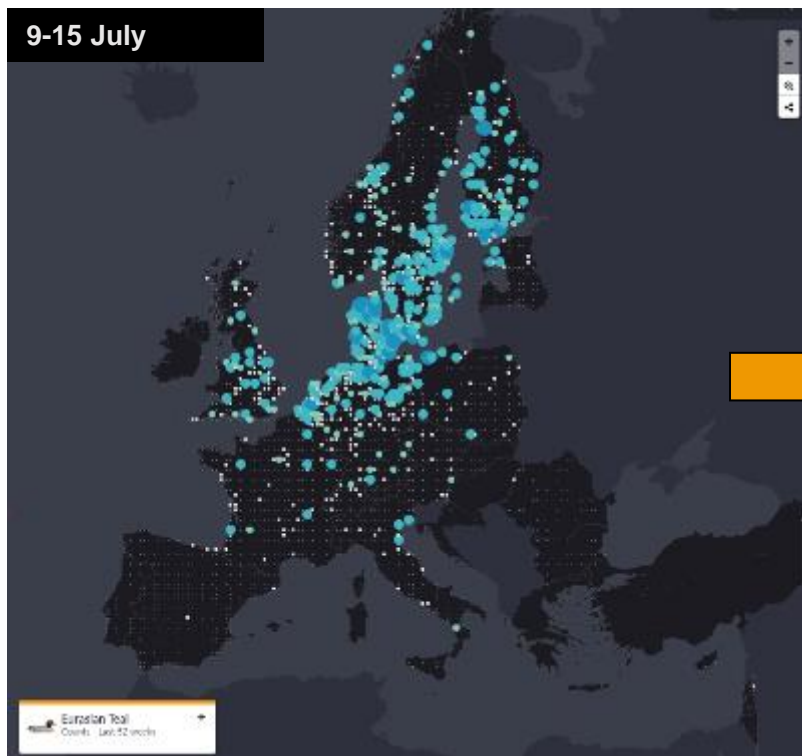


Map of focal regions

Eurasian wigeon from Russia & Belarus

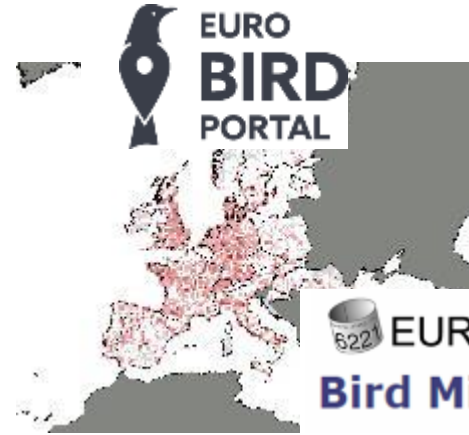
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Belgium	1	2	4	.	.	.	.	.	.	.	1	1
Denmark	.	.	.	1	.	.	2	.	2	8	3	.
Finland	.	.	.	.	.	.	1	.	.	.	.	.
France	.	2	.	.	.	.	.	.	.	.	.	1
Great Britain & Ireland	39	43	13	1	1	.	.	2	5	12	10	27
Ireland	2	1	.	.	.	.	.	.	.	1	.	.
Italy	1	.	.	.	.	.	.	.	.	.	2	.
Sweden	.	.	.	.	.	.	.	1	4	.	.	.
Switzerland	.	.	.	.	.	.	.	.	.	.	.	1
The Netherlands	53	39	19	4	.	.	.	2	5	41	86	68

Wigeon ringed birds present in Russia & Belarus between Sept-Nov and countries and month where the birds were found

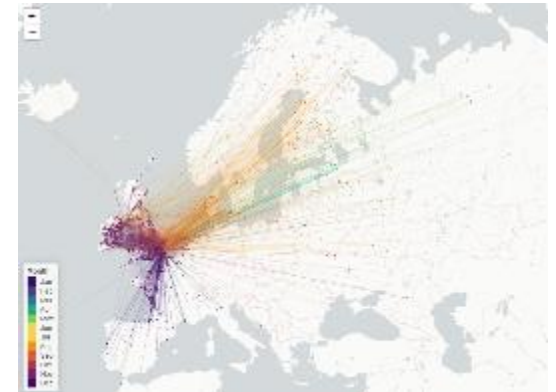


<https://eurobirdportal.org/ebp/en/#home/ANAPEN/q52weeks>

- Eurasian African Migration Atlas
- EuroBird Portal (citizen data on abundance and distribution)
- EURING and EBP data on 50 target species



EURING Eurasian African
Bird Migration Atlas project



Plausible further HPAI spread

- Wigeon from Belgium/Netherlands
- Wigeon from Germany/Netherlands
- Mallard from Germany/Netherlands

Seasonal movements to and from Belgium & The Netherlands for Mallard (*Anas platyrhynchos*)

This table will show you where ringed birds present in Belgium & The Netherlands at different times of year have been found (by country and month).

Select the season in which the species is present in Belgium & The

Netherlands

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Belarus	.	.	.	1	.	.	1	4	1	1	.	.
Belgium	18	21	20	6	49	96	274	267	98	42	25	19
Croatia	.	.	.	.	.	.	.	1	.	.	.	.
Denmark	2	4	13	6	12	15	28	21	24	27	24	4
Estonia	.	.	.	1	.	.	.	2	1	2	.	.
Finland	.	.	.	2	6	4	5	27	11	6	.	.
France	83	61	5	.	.	.	10	8	9	19	18	53
Germany	15	3	.	1	2	1	5	17	19	15	21	15
Great Britain & Ireland	85	33	24	7	7	10	13	27	97	51	63	46
Ireland	2	2	.	.	.	.	.	.	.	1	.	.
Latvia	.	.	.	.	4	1	.	2	.	1	.	.
Lithuania	.	.	.	1	1	1	2	3	2	1	.	.
Luxembourg	.	.	.	.	.	.	.	1	2	.	.	.
Moldova	.	.	.	.	.	.	.	.	.	.	1	.
Norway	.	.	.	.	.	.	.	.	1	2	1	.
Poland	.	1	1	3	1	16	17	11	7	6	1	.
Russian Federation	.	.	.	4	9	2	2	21	17	8	3	1
Spain	.	2	.	.	.	1	1	1	.	.	.	.
Sweden	2	1	.	1	4	12	10	19	12	20	10	6
Switzerland	.	.	.	.	.	.	1	.	.	.	.	.
The Netherlands	127	77	25	7	47	210	245	427	238	136	81	72
Ukraine	.	.	.	.	.	.	.	2	.	.	.	.

- The **risk of zoonotic transmission** of AI viruses to the general public in Europe remains **very low**
- The HPAI viruses currently show a high genetic variability:
 - **reassortment** events with LPAI virus **before arriving in Europe**
 - **more than one introduction from Asia**
- **High risk of further introduction** of HPAI (H5) viruses in European countries

- **HPAI (H5)** viruses will continue to spread due to shorter-distance movements of infected birds. Multiple species may be involved

- The **risk of virus spread from wild birds to poultry is high**

REPORTS

- Rapid risk assessment released on **Friday morning**
- Surveillance Annual report published end of November
- Quarterly EFSA report early released (early December)
- **Other activities**
- EuroBird Portal (EBP)+ EURING tool released in July next year (old tool and EBP portal data available)
- Several projects: EARLY WARNING (including closing gaps of knowledge at source)

Member State representatives for avian influenza

Working group members

- ADLHOCH Cornelia (ECDC)
- AZNAR Inma (EFSA)
- BALDINELLI Francesca (EFSA)
- FUSARO Alice (EURL)
- KUIKEN Thijs (Erasmus MC)
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- NIQUEUX Eric (ANSES)
- SMIETANKA Krzysztof (PIWet)

STAUBACH Christoph (FLI)
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Stephen Baillie and Gabriel Gargallo



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