

Avian influenza

Epidemiological situation in Poland



General Veterinary Inspectorate
15- 16 February 2023

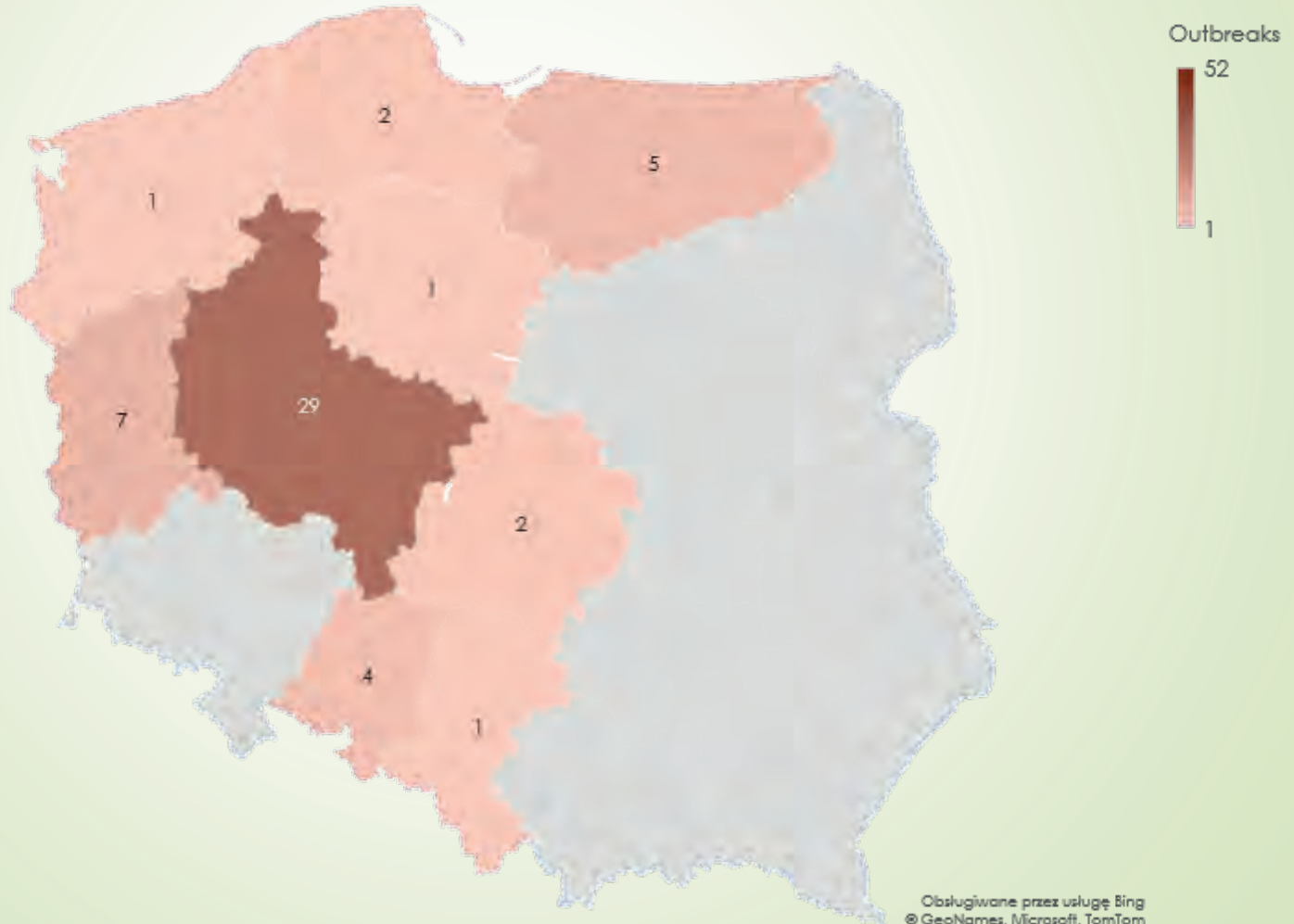
Epidemiological situation – 2022 (poultry)

- ▶ 68 outbreaks of HPAI in 2022 (35 – Jan – Sept, 33 – December 2022)
- ▶ H5N1 and H5N2 (1 outbreak) were detected.

Voivoideship	Outbreaks	Primary outbreaks	Secondary outbreaks	Birds in outbreak	Mortality	% outbreaks in PL
dolnośląskie	1	1	0	14 548	1.37%	1.18%
kujawsko-pomorskie	2	2	0	40 984	8.78%	2.35%
lubelskie	1	1	0	39 644	0.93%	1.18%
lubuskie	7	7	0	152 016	4.26%	8.24%
mazowieckie	2	2	0	117 688	0.6%	2.35%
opolskie	7	6	1	231 295	20.03%	8.24%
pomorskie	4	2	2	36 445	99.92%	4.71%
śląskie	2	2	0	1 905	85.3%	2.35%
warmińsko-mazurskie	7	7	0	109 519	4.94%	8.24%
wielkopolskie	38	35	3	771 854	1.74%	44.71%
zachodniopomorskie	1	1	0	65	12.31%	1.18%
łódzkie	13	9	4	146 180	10.66%	15.29%
Suma	85	75	10	1 662 143	7.83%	

Epidemiological situation – 1 Jan – 14 February 2023(poultry)

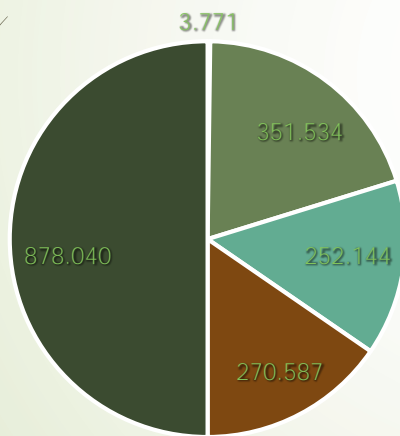
- 52 outbreaks of HPAI
- H5N1 was detected.



Epidemiological situation – 1 – 14 February 2023(poultry)

- ▶ 878 040 birds in outbreaks
- ▶ 2,15% average mortality

Birds in outbreaks



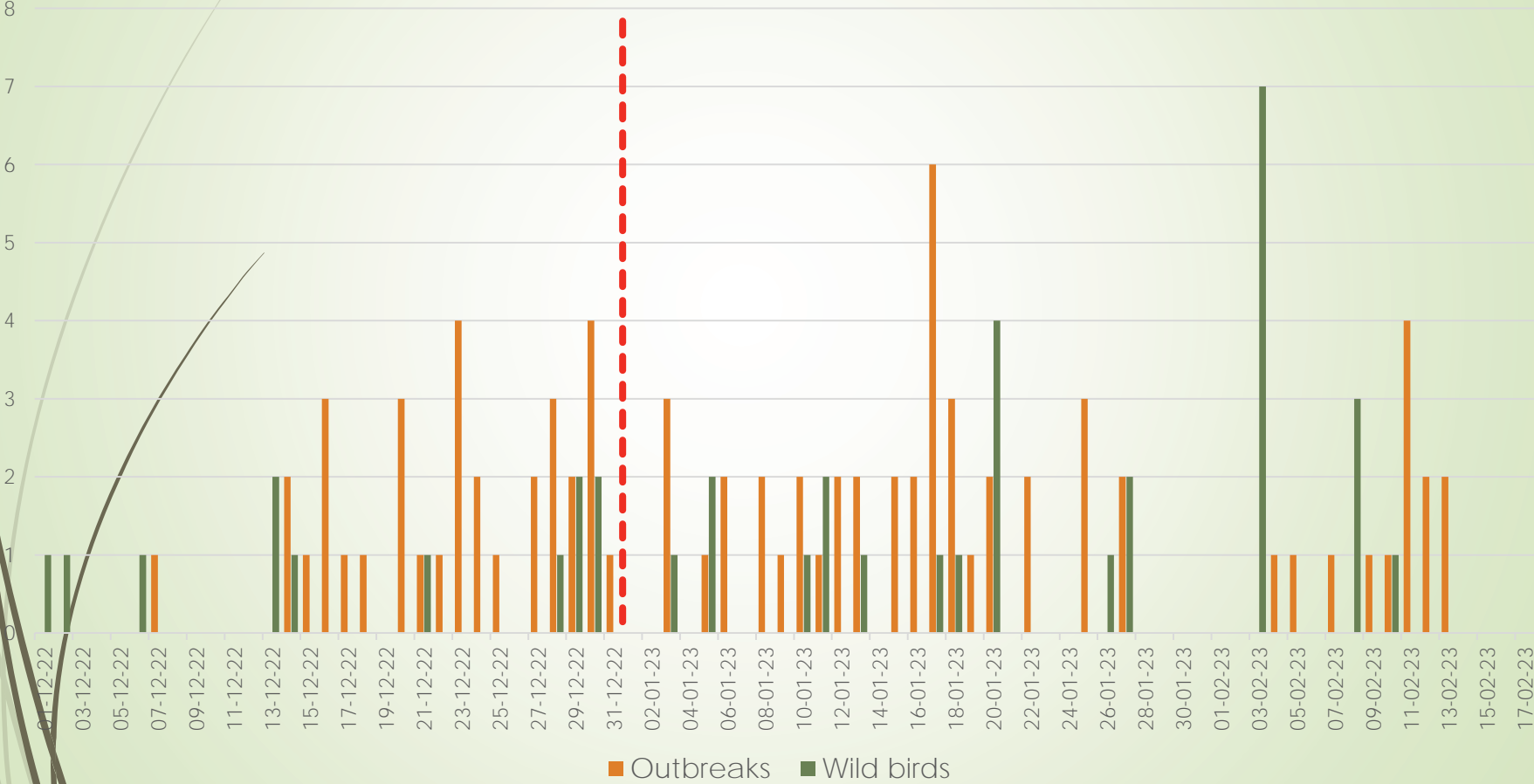
■ Geese ■ Turkey ■ duck ■ Chicken/hen ■ Suma

Species	Outbreaks*	Mortality	Birds in outbreaks
Geese	1	5.38%	3 771
Turkey	14	1.54%	351 534
Duck	25	1.75%	252 144
Chicken/hen	6	3.27%	270 587
TOTAL		2.15%	878 040

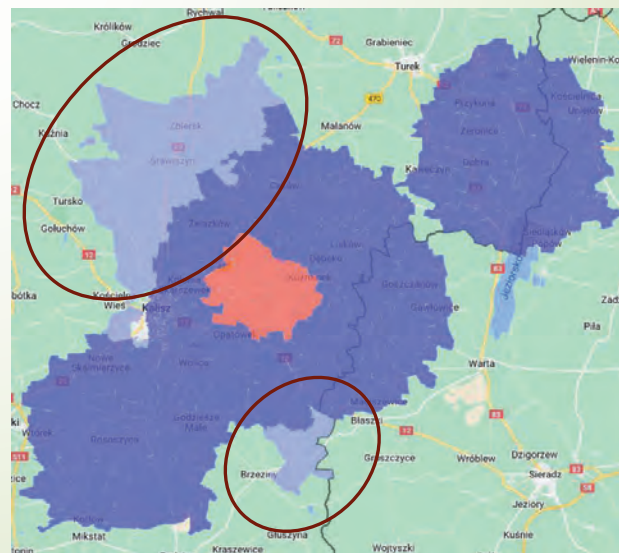
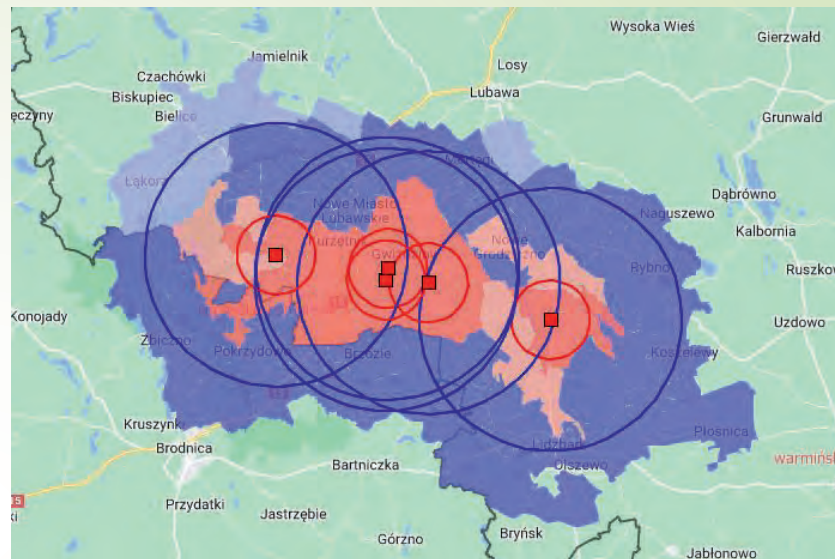
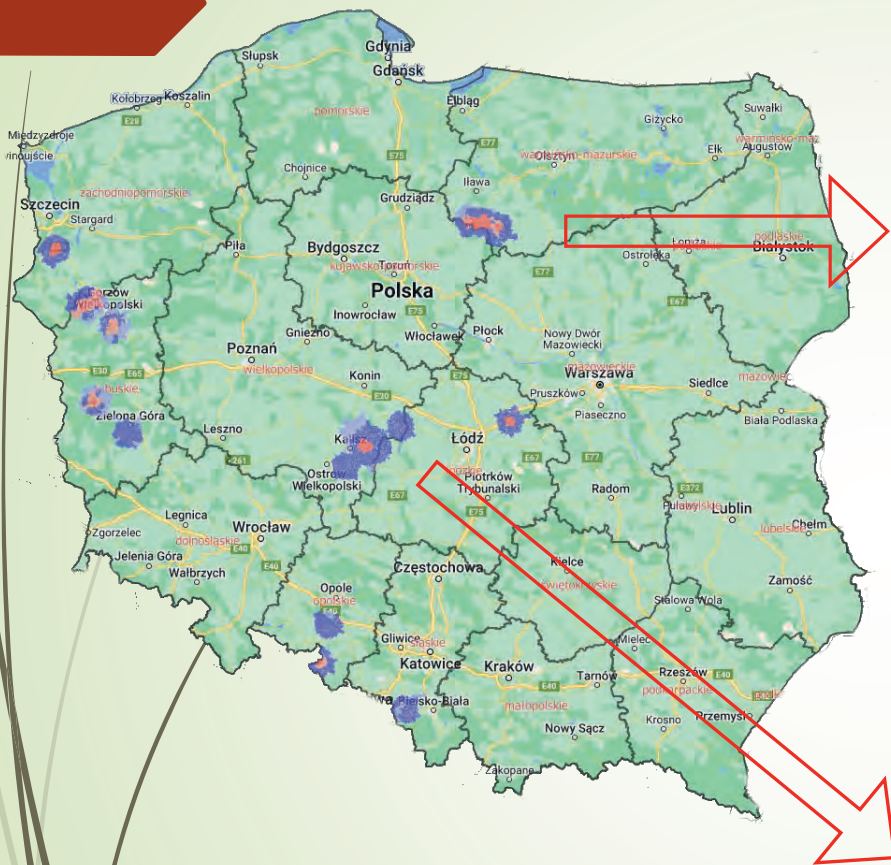
*backyards with mixed species not included

HPAI dynamic since 1.12.2022

Dynamics of HPAI since 1.12.2022



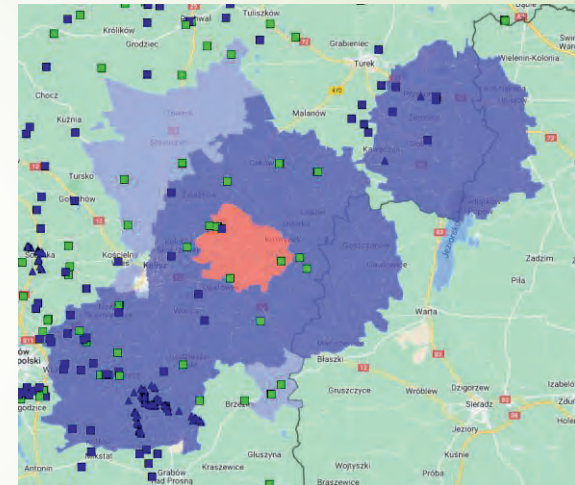
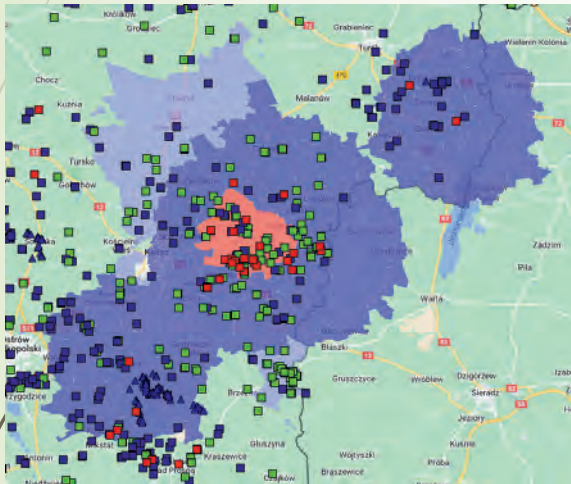
Outbreaks in poultry - zonning



Wielkopolskie: 29 outbreaks in 2023
– last 27/01/2023

Breaking the epizootic chain in Wielkopolskie region

- ▶ Preventive culling in 3 km from HPAI outbreaks



- ▶ Buffer zones established and restrictions implemented
- ▶ Ban on repopulation
- ▶ Very strict adherence to biosecurity rules
- ▶ Strict control of all movements from/to farms (feed, bedding, equipment, vehicles, people)



2023

Wielkopolskie & Łódzkie

- ▶ in the wielkopolskie region there was in total 29 outbreaks – last one 27/01/2023
- ▶ In the łódzkie region there was in total 2 outbreaks in 2023 – 10/01 & 11/02 2023

2023

Lubuskie & Warmińsko - Mazurskie

- ▶ in the Lubuskie region there was in total 7 outbreaks: 8/01, 3/02 and 9 – 12/02
- ▶ In the Warmińsko- Mazurskie region there was in total 5 outbreaks in 2023: 2 – 12/02
- ▶ In above mentioned regions epidemiological situation of HPAI is very dynamic in last days – preventive culling is performed

Whole genome sequencing / High throughput sequencing

Analysis of genomic sequences of HPAI H5N1 viruses z ognisk 43/2022 (łódzkie) in poultry and 46/2022 (wielkopolskie)

Comparison of the virus indicates the probability level for individual genes in the range:

PB2 – 99,91%,

PB1 – 99,96%,

PA – 100%,

HA – 100%,

NP.: 99,93%,

NA, M, NS: 100%,

In addition, the analyzed strains form one group of closely related viruses together with strains from other outbreaks in poultry and wild birds in Poland, the sequences of which have been generated so far (poultry outbreak numbers: in 2022: 39, 41, 45, 47, 50, 51, 56, 57, 58, 59, 61, 63, 64, 66, 67; and in 2023: 1,4,6,9,10.

No. of outbreaks in wild birds: 38/2022, 40/2022, 2/2023, 4/2023)

Whole genome sequencing / High throughput sequencing

Analysis of genomic sequences of HPAI H5N1 viruses from outbreaks 41/2022 (lubelskie 16/12/2022) in poultry and 50/2022 (wielkopolskie 23/12/2023)

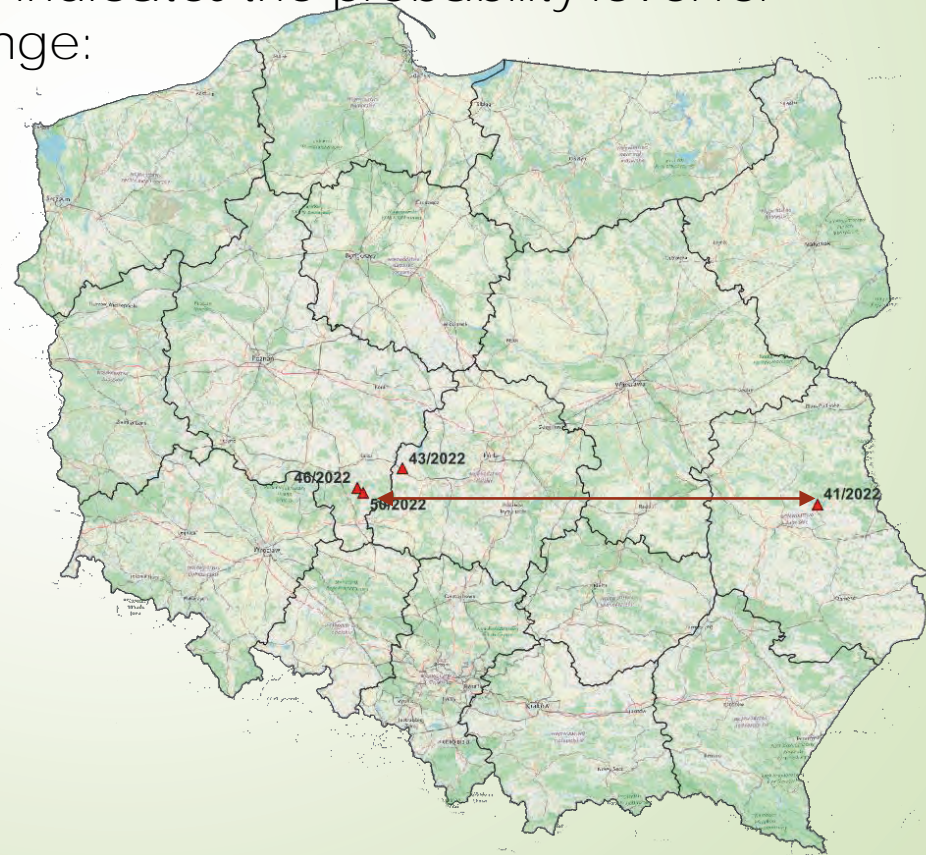
Comparison of the viruses indicates the probability level for individual genes in the range:

PB2 – 100%,

PB1 – 100%,

PA – 99,95%,

HA, NP, NA, M, NS: 100%,



HPAI in wild birds

- ▶ 12 outbreaks in 7 voivodeships since 1 December 2022 to 31 December 2022
- ▶ 27 outbreaks in 10 voivodeships- since 1 January 2023 by voivodeship

Voivodeship	No. of outbreak	No. of birds
Dolnośląskie	1	1
Kujawsko-pomorskie	2	5
Lubelskie	1	1
Małopolskie	1	5
Mazowieckie	2	2
Opolskie	5	8
Podkarpackie	2	2
Pomorskie	10	22
Warmińsko-mazurskie	1	1
Wielkopolskie	2	6
TOTAL	27	53

Thank you

