

# Avian influenza

## *Epidemiological situation in Poland*



General Veterinary Inspectorate  
17 January 2023

# Epidemiological situation – 2022(poultry)

- ▶ 68 outbreaks of HPAI in 2022 (35 – Jan – Sept, 33 – current season (since 1.12.2022))
- ▶ H5N1 and H5N2 (1 outbreak) were detected.

Voivodeship	Number of outbreaks	Number of poultry
dolnośląskie	2	14 565
kujawsko-pomorskie	5	20 902
lubelskie	3	98 505
łódzkie	17	154 586
małopolskie	1	70
mazowieckie	4	199 939
opolskie	4	219 522
podkarpackie	1	19
pomorskie	3	78 697
śląskie	1	55
warmińsko-mazurskie	2	45 069
wielkopolskie	25	1 256 762
Summary	68	2 088 691

# Outbreaks in poultry & wild birds –2022



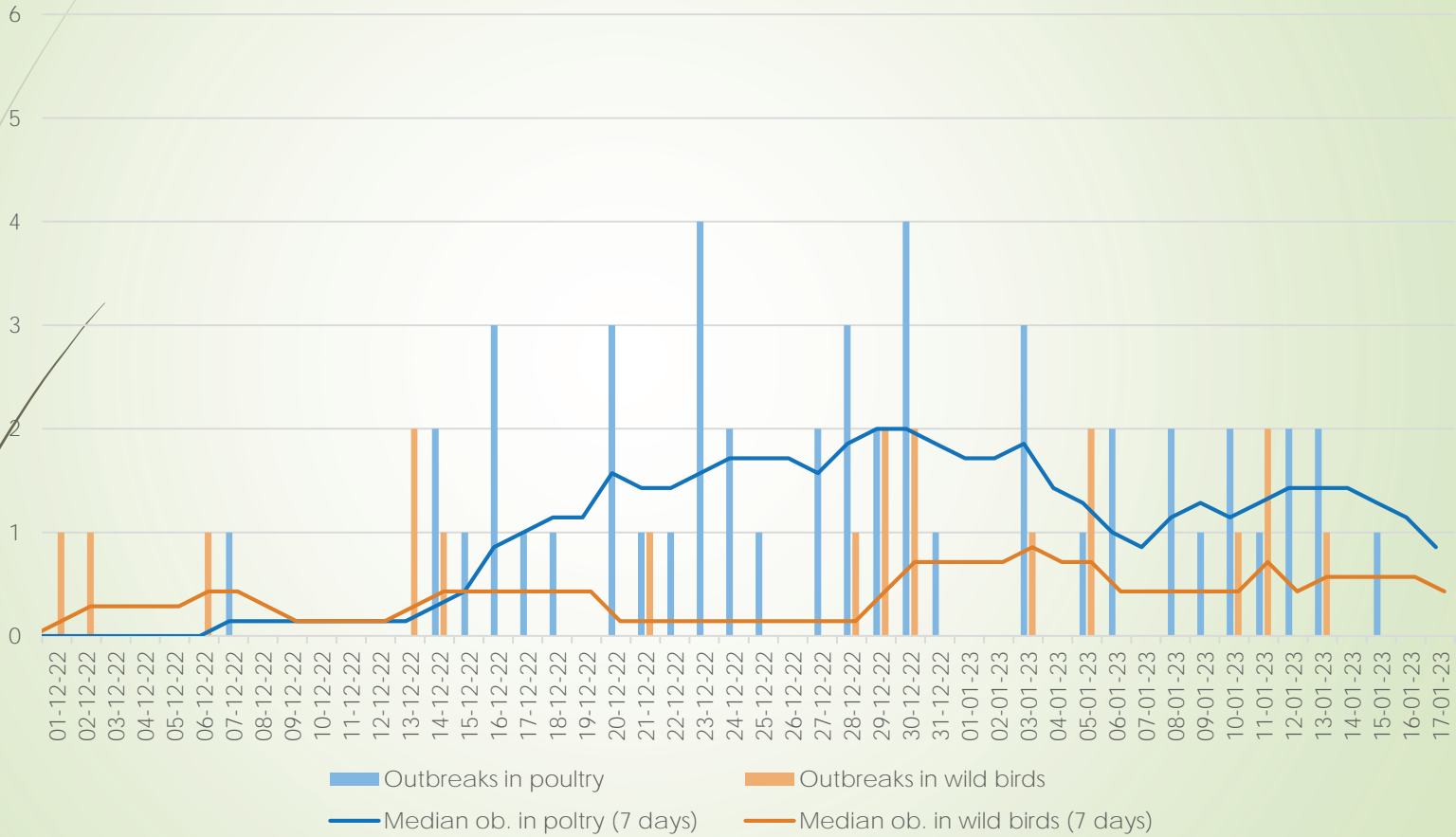
- 68 outbreaks in poultry
- 40 outbreaks in wild birds

# Epidemiological situation – 1 December 2022 – 16 January 2023(poultry)

- 50 outbreaks of HPAI
- H5N1 was detected.

Voivodeship	Number of outbreaks	Number of birds
dolnośląskie	1	14 548
kujawsko-pomorskie	2	40 984
lubelskie	1	39 644
lubuskie	1	62 600
łódzkie	12	138 061
mazowieckie	2	117 688
opolskie	5	230 630
pomorskie	4	37 040
śląskie	1	55
warmińsko-mazurskie	2	45 069
wielkopolskie	19	389 899
Summary	50	1 116 218

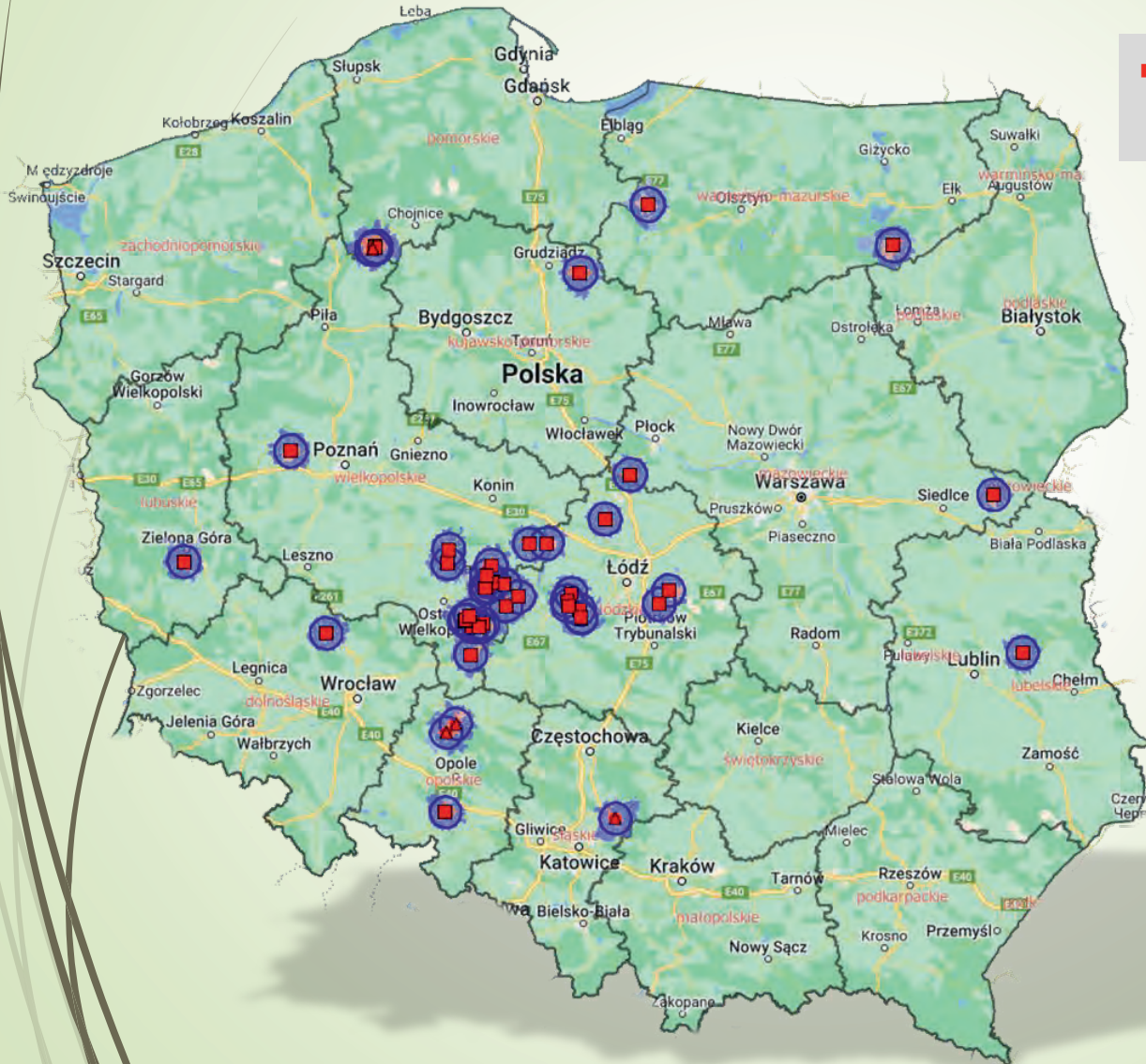
# HPAI dynamic since 1.12.2022





# Outbreaks in poultry & wild birds – 1 December 2022 – 16 January 2023

■ 50 outbreaks in poultry



# Epidemiological situation – 16 January 2023(poultry)

17 Outbreaks were confirmed since 1 January 2022

No. Of outbreak	Region	District	Community	AIV subtype	Type of farm	Number of animals	Species/ category	Date Confirmation NRL
1	Wielkopolskie	pleszewski	Pleszew	H5N1	commercial	29 143	slaughter turkeys	03.01.2023
2	Pomorskie	człuchowski	Debrzno	H5N1	backyard	59	mixed	03.01.2023
3	Pomorskie	człuchowski	Debrzno	H5N1	backyard	25	ducks	03.01.2023
4	Wielkopolskie	kaliski	Żelazków	H5N1	commercial	10 323	slaughter turkeys	05.01.2023
5	Wielkopolskie	kaliski	Opatówek	H5N1	commercial	6 648	slaughter ducks	06.01.2023
6	Wielkopolskie	ostrowski	Sieroszewice	H5N1	commercial	21 608	slaughter turkeys	08.01.2023
7	Wielkopolskie	ostrzeszowski	Mikstat	H5N1	commercial	14 828	slaughter ducks	08.01.2023
8	Kujawsko-pomorskie	grudziądzki	Świecie nad Osą	H5N1	commercial	27 984	slaughter turkeys	06.01.2023
9	Lubuskie	zielonogórski	Zielona Góra	H5N1	commercial	62 600	laying hens	09.01.2023
10	Łódzkie	łęczycki	Łęczyca	H5N1	commercial	13 320	slaughter ducks	10.01.2023
11	Wielkopolskie	kaliski	Opatówek	H5N1	commercial	6 180	slaughter ducks	10.01.2023
12	Wielkopolskie	kaliski	Opatówek	H5N1	commercial	11 438	slaughter ducks	11.01.2023
13	Opolskie	namysłowski	Pokój	H5N1	backyard	51	mixed	12.01.2023
14	Wielkopolskie	kaliski	Koźminek	H5N1	commercial	27 734	slaughter ducks	12.01.2023
15	Wielkopolskie	kępiński	Kępno	H5N1	commercial	3 766	breeding ducks	13.01.2023
16	Wielkopolskie	kaliski	Opatówek	H5N1	commercial	84 460	chicken broilers	13.01.2023
17	Opolskie	krapkowicki	Strzeleczy	H5N1	commercial	11 136	chicken broilers	15.01.2023

# Epidemiological situation – 1 January 2023 (poultry)

- ▶ 17 outbreaks of HPAI
- ▶ H5N1 was detected.

Voivodeship	Number of outbreaks	Number of birds
kujawsko-pomorskie	1	27 984
lubuskie	1	62 600
łódzkie	1	13 320
opolskie	2	11 187
pomorskie	2	84
wielkopolskie	10	216 128
<b>Summary</b>	<b>17</b>	<b>331 303</b>



# Outbreaks in poultry – 16 January 2023



- 17 outbreaks in poultry
- 7 outbreaks in wild birds



# Wielkopolskie & Łódzkie

- ▶ in the wielkopolskie region there is 16 primary outbreaks and 3 secondary.
- ▶ In the area of ostrzeszowski, kaliski and ostrowski districts there are over 800 poultry farms registered.
  
- ▶ In the łódzkie region there is 8 primary outbreaks and 4 secondary outbreaks confirmed.
- ▶ In the area of zduńskowolski and łaski districts there are 64 poultry farms registered.



# Epizootic inquires

- ▶ In progres
- ▶ phylogenetic analyzes of viruses are in progres – in each region
- ▶ geographical conditions and locations of farms adjacent to cereal fields or water reservoirs,
- ▶ Indirect contact with environment
- ▶ High concentration of poultry production and close distance between farms

# Whole genome sequencing / High throughput sequencing

Analysis of genomic sequences of HPAI H5N1 viruses from the outbreaks nos. 36/2022 in poultry and 2022/32 - 2022/33 in wild birds

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

PB2 – 100%,

PB1 – 99,87%,

PA – 99,95% - 100%,

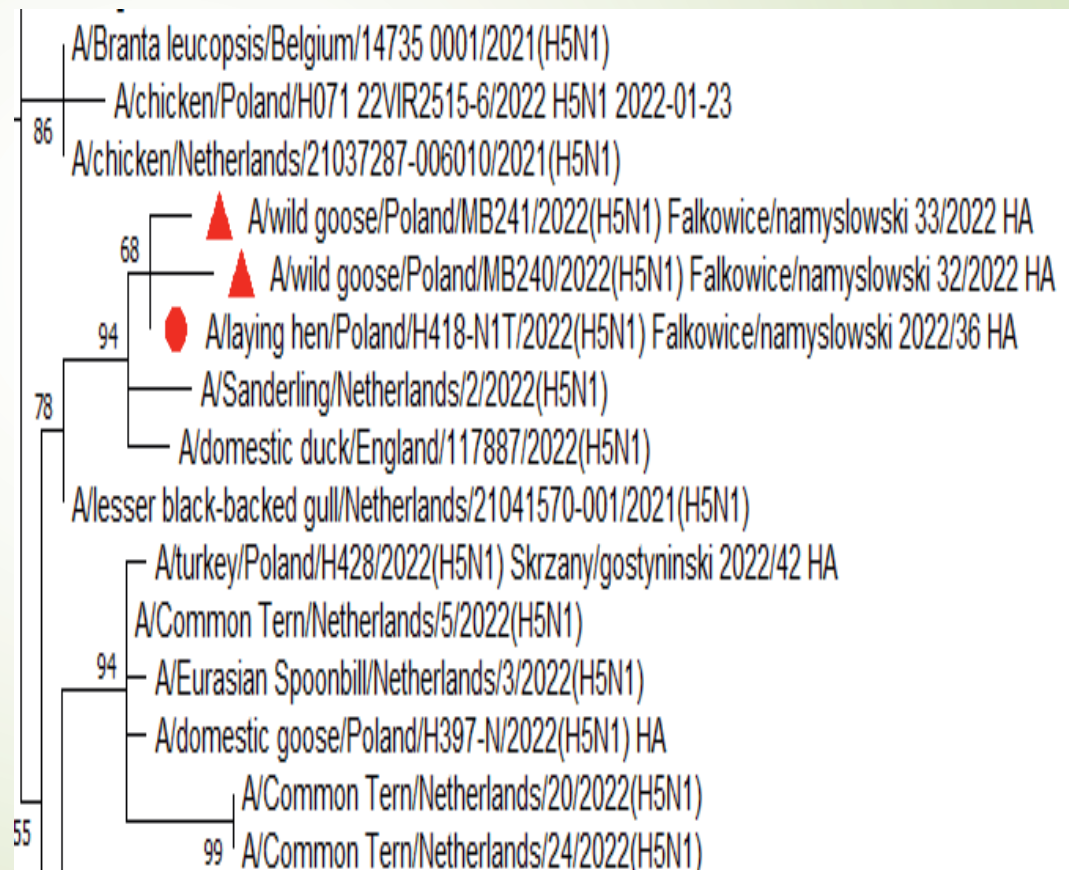
HA – 99,82% - 99,88%,

NP.: 100%,

NA: 99,79% -99,93%,

M – 100%,

NS – 100%





# Whole genome sequencing / High throughput sequencing

- The closest to them sequences in the database are from the Netherlands and the UK
- Taking into account the unsampled ancestry, it can be concluded that the source of the virus is an area of Western Europe,
- the topology of the phylogenetic tree for the other 7 segments is similar, indicating that there was no reassortment
- The tree topology also clearly points to wild birds as the primary source of the virus in poultry



# HPAI in since wild birds

- ▶ 12 outbreaks in 7 voivodeships since 1 December 2022 to 31 December 2022

Voivodeship	Number of outbreaks	Number of birds
Dolnośląskie	1	1
Kujawsko-pomorskie	5	8
Lubuskie	1	1
Mazowieckie	1	1
Opolskie	2	3
Pomorskie	1	1
Warmińsko-mazurskie	1	1
In total	<b>12</b>	<b>16</b>

- ▶ 7 outbreaks in 4 voivodeships- since 1 January 2023 by voivodeship

Voivodeship	Number of outbreaks	Number of birds
Kujawsko-pomorskie	1	3
Lubelskie	1	1
Mazowieckie	2	2
Opolskie	3	7
In total	<b>7</b>	<b>13</b>

Thank you

