

# Low Pathogenic Avian Influenza H5 – H7 (LPAI) in Italy

STANDING COMMITTEE ON PLANTS, ANIMALS,  
FOOD AND FEED

*Section Animal Health and Welfare*

30 November 2015

# Epidemiological Situation 2015

- On **24 Jan 2015** a H5N2 LPAI outbreak was detected in a ornamental birds farm in Tuscany (ID 15/0001)  
81 birds were culled
- On **6 Feb 2015**, a H5N2 LPAI virus was identified in live decoy birds premise in Veneto (15/0002)  
39 mallard ducks were culled
- On **23 Mar 2015**, a H7N2 LPAI virus was identified in rural farm (agritourism) in Veneto (15/0003)  
205 birds of different species were culled



# 2015 H5N2 LPAI outbreak – Emilia Romagna

**ADNS Number 15/0004**

- On **10 Nov 2015** the National Reference Laboratory confirmed a virological positivity for LPAI virus **H5N2 subtype** in an ornamental birds farm in Ravenna province
  
- Control measures:
  - Ban of movement of animals from the infected farm
  - Depopulation
  
- On **14 Nov 2015** the depopulation procedures ended, and preliminary cleaning activities were performed

# H5N2 LPAI outbreak – Emilia Romagna

**ADNS Number 15/0004**

- Ornamental birds farm with **3443 birds** belonging to different species
- Birds belonging to **CITES species** were also present in the premise and were not culled according to art.40 Council Directive 2005/94.
- All the other birds present at requisition were culled.

Species	Number
Ducks	2088
Geese	269
Swans	24
European greenfinches	2
Common chaffinches	10
Goldfinch	1
Wood pigeons	12
Pigeons	464
Grey crowned crane	1
Egyptian geese	92
Canada geese	10
European serin	2
Turkeys	55
Gallus gallus	375
Pheasant	23
Peacocks	15
<b>Total</b>	<b>3443</b>

# H5N2 LPAI outbreak – Emilia Romagna



# H5N2 LPAI outbreak – Emilia Romagna

**ADNS Number 15/0004**

- Birds were tested in accordance to the National Monitoring plan
- The positive samples were taken from ducks on 4 Nov 2015
  - ducks tested virologically positive but serologically negative
- Additional samples taken before culling tested serologically positive on 12 Nov 2015.
- Contact holding:
  - Epidemiological investigations revealed animal movement from and to another farm on **25 Oct 2015** and **27 Oct 2015** respectively

# H5N2 LPAI outbreak – Emilia Romagna

**ADNS Number 15/0005**

- On **13 Nov 2015** the National Reference Laboratory confirmed a sierological positivity for LPAI virus **H5N2** subtype in an ornamental birds farm in Ferrara province
- Control measures:
  - Ban of movement of animals from the infected farm
  - Depopulation
- On **16 Nov 2015** the depopulation procedures ended, and preliminary cleaning activities were performed.

# H5N2 LPAI outbreak – Emilia Romagna

**ADNS Number 15/0005**

- In the premise were kept 466 birds belonging to different species
- Birds belonging to **CITES species** were also present in the premise and were not culled according art.40 Council Directive 2005/94
- All the other birds present at requisition were culled.

<b>Species</b>	<b>Number</b>
Ducks	312
Fattening goose	1
Swans	8
Black swans	2
Pigeons	5
Barnacle geese	2
Bar headed geese	2
Snow geese	2
Canada geese	2
Guinea fowls	8
Fattening turkeys	9
Gallus gallus	66
Pheasant	42
Peacocks	5
<b>Total</b>	<b>466</b>



# H5N2 LPAI outbreaks – Emilia Romagna

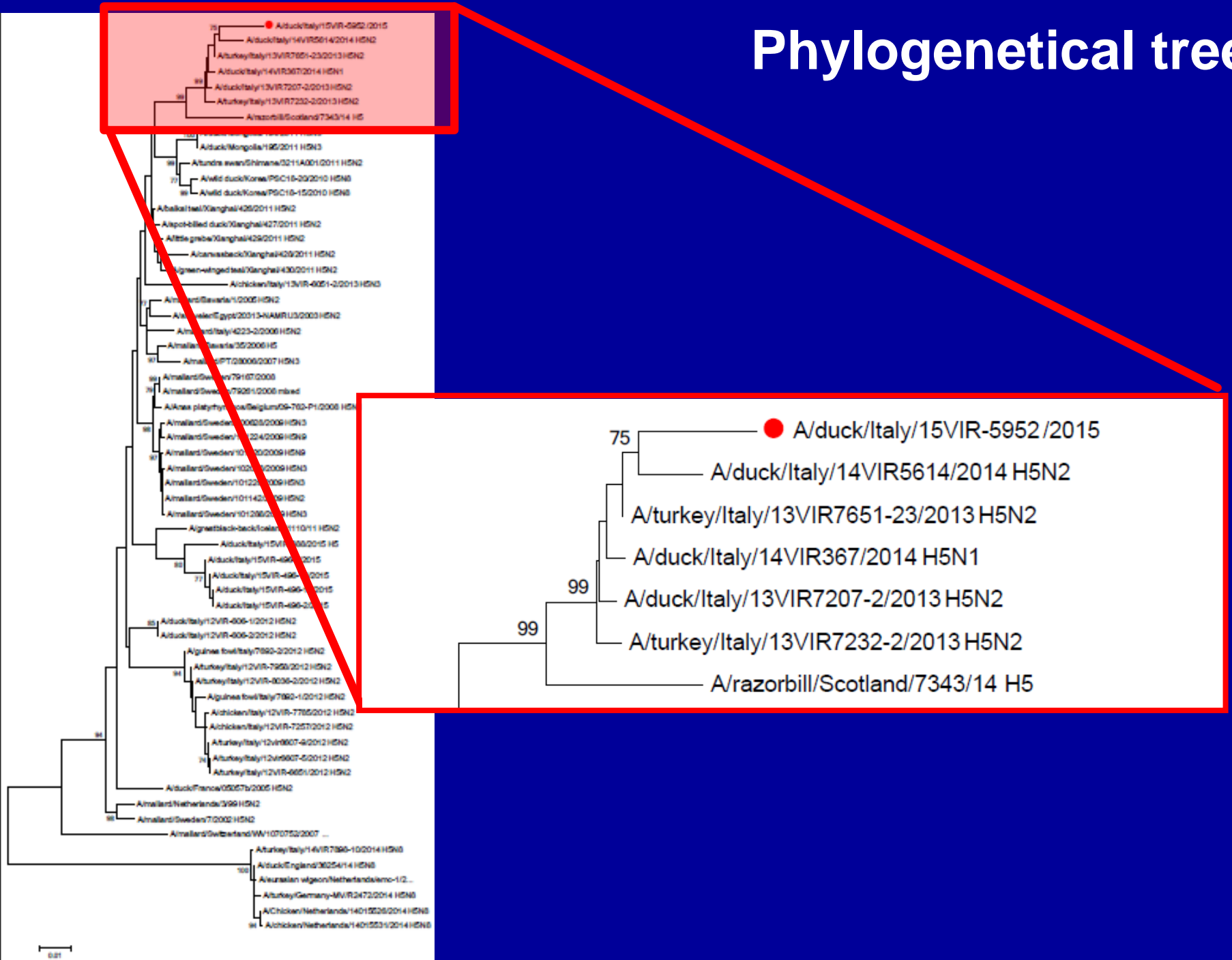


# H5N2 LPAI outbreaks – Laboratory analyses

## Phylogenetical analyses of HA gene

- The isolated virus is an H5N2 LPAI strain that clusters with H5 strains circulating in different regions of Italy between 2013 and 2014 in domestic sector (ducks and turkeys):
  - 98 % similarity with  
A/duck/Italy/14VIR5614/2014(H5N2)
  - In the same cluster there is a virus isolated in wild birds: A/razorbill/Scotland/7343/2014(H5)
- Cleavage site is typical of LPAI strains (PQKETRGLF)

# Phylogenetical tree



# H5 suspect – Emilia Romagna

- On **27 Nov 2015**, preliminary analyses conducted in a mixed-sexes fattening turkeys farm in Forlì province arose a suspect of positivity for LPAI virus **H5** subtype.
- The female group (18.000 birds) were loaded for slaughtering on the first week of November.
- The laboratory analyses are in progress at the National Reference Laboratory.

# H5 suspect – Emilia Romagna

Species	Number
Fattening turkeys	19.300
<b>Total</b>	<b>19.300</b>





# 2015 LPAI outbreaks – Summary

ADNS	Conf. Date	Depop. Date	Ext. Date	Region	Province	Type	Strain
15/0001	24/01/2015	27/01/2015	10/03/2015	Tuscany	Arezzo	Ornamental birds	H5N2
15/0002	06/02/2015	11/02/2015	04/03/2015	Veneto	Venice	Live decoy birds	H5N2
15/0003	23/03/2015	03/04/2015	03/04/2015	Veneto	Verona	Rural	H7N2
15/0004	10/11/2015	14/11/2015	14/11/2015	Emilia Romagna	Ravenna	Ornamental birds	H5N2
15/0005	13/11/2015	16/11/2015	16/11/2015	Emilia Romagna	Ferrara	Ornamental birds	H5N2

Thanks for your attention