

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

STANDING COMMITTEE ON PLANTS, ANIMALS, FOOD AND FEED
Animal Health and Welfare

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Epidemiological Situation 2014

- On 28 Jan 2014 a H5N1 LPAI outbreak was identified in a grower/commercial farm in Friuli Venezia Giulia (ID 14/0001)
- 1005 birds were destroyed and the outbreak was closed on 4 Feb 2014
- On 25 Mar 2014, a H7N1 LPAI virus was identified in Lombardy (14/0002)
- 131 birds were destroyed and the outbreak was closed on 28 Mar 2014



H7 LPAI outbreak – Emilia Romagna

ADNS Number 14/0003

- On **24 June 2014** the National Reference Laboratory confirmed a virological positivity for AI virus for LPAI virus **H7** subtype in a grower farm in Ravenna province
- Control measures:
 - Ban of movement of animals from the infected farm
 - Depopulation
- On **25-26 June 2014** the farm was depopulated
- Restriction measures have been lifted starting on **6 August 2014**

H7 LPAI outbreak – Emilia Romagna

- Grower farm with **3508 birds**
- All non-CITES birds were culled

Species	Number
Broilers	440
Chicken breeders	586
Ducks	1274
Geese	132
Guinea Fowls	100
Turkeys	62
Pigeons	828
Peacocks	36
Swans	15
Swallows	3
Pheasants	15
CITES species	17
TOTAL	3508





Aviary with protected
bird species

Ducks

Silos

Warehouse

Parrots

Ornamental
fowls

AI positive chickens

Entry

H7 LPAI outbreak – Emilia Romagna

ADNS Number 14/0003

- **17 Birds belonging to CITES species were also present in the premise**
 - Animals were not culled
 - Samples taken on 28 June 2014 tested negative
- No poultry farms are located within 1 km of the outbreak
- Epidemiological inquiries indicated the presence of a functionally and epidemiologically related farm located at 9.1 km from outbreak 14/0003

H7 LPAI outbreak – Emilia Romagna

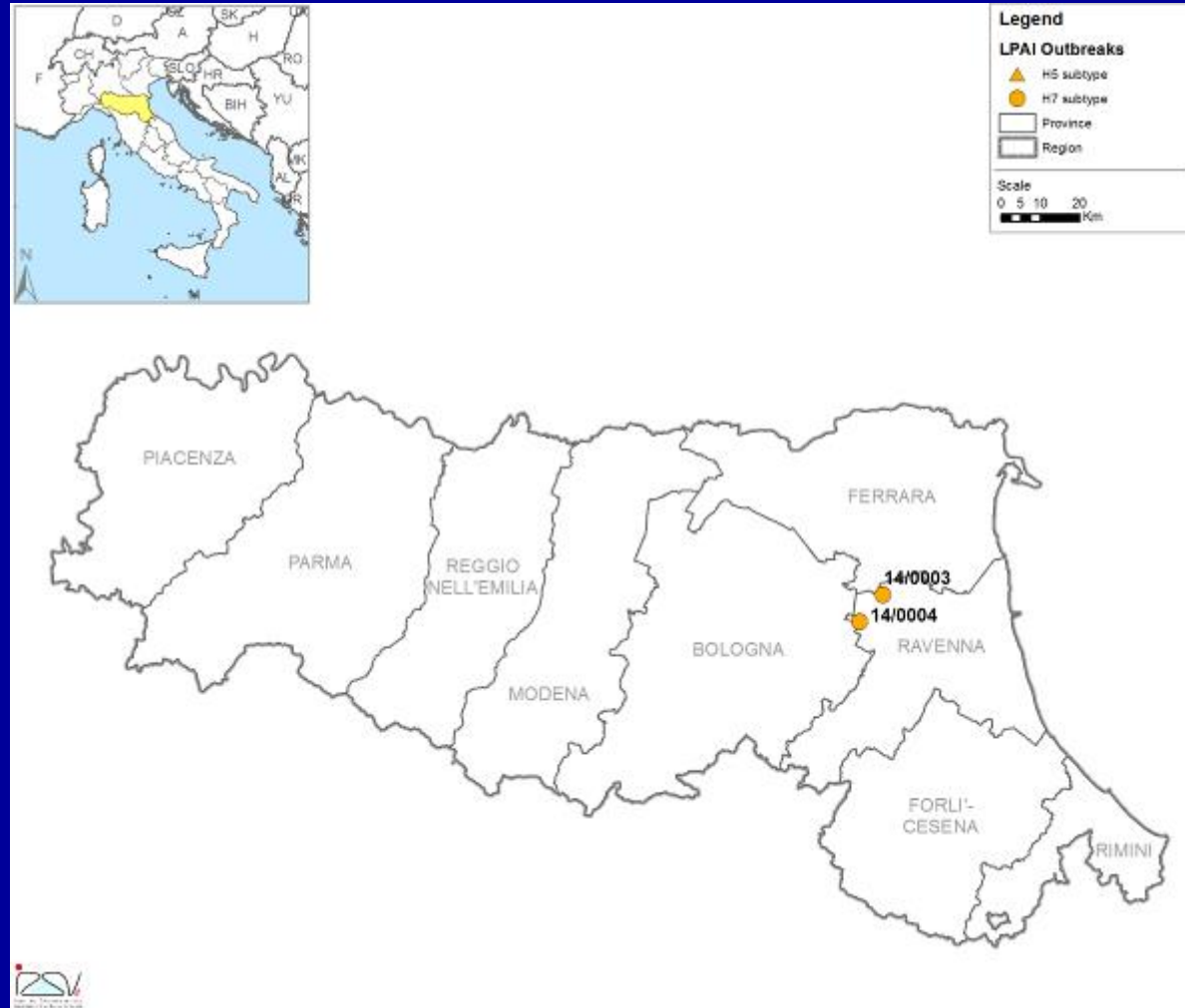
ADNS Number 14/0004

- On **3 July 2014** the National Reference Laboratory confirmed a virological positivity for AI virus for LPAI virus **H7N1** subtype in a grower farm, epidemiologically related to outbreak 14/0003, in Ravenna province
- Control measures:
 - Ban of movement of animals from the infected farm
 - Depopulation
- On **5 July 2014** the farm was depopulated, and cleaning activities ended on **17 July 2014**
- Restriction measures have been lifted starting on **18 July 2014**

H7 LPAI outbreak – Emilia Romagna

- Grower farm with **2399 birds** (see table)
- All the birds present at requisition were culled

Species	Number
Broilers	1144
Ducks	1255
TOTAL	2399



H7 LPAI outbreak – Emilia Romagna

ADNS Number 14/0004

- Epidemiological inquiry indicated:
 - Introduction of Ducks from outbreak 14/0003 (housing date: 22 Nov 2013)

H5 LPAI outbreak – Piedmont

ADNS Number 14/0005

- On **16 September 2014** the National Reference Laboratory confirmed a virological positivity for AI virus for LPAI virus **H5N2** subtype in a game birds farm in Novara Province
- Control measures:
 - Ban of movement of animals from the infected farm
 - Depopulation
- On **22 September 2014** the farm was depopulated, and cleaning and disinfection measures have started.

H5 LPAI outbreak – Piedmont

- Game birds farm with **3269 birds** (see table)
- All the birds present at requisition will be subjected to depopulation

Species	Number
Ducks	1993
Partridges	1276
TOTAL	3269



H5 LPAI outbreak – Piedmont

ADNS Number 14/0005

- Farm that sells birds to holdings keeping poultry for re-stocking supplies of wild games
 - Serological controls were made as required at trade
- Epidemiological inquiry indicated:
 - Ducks and partridges were kept in separated areas
 - No poultry farms are present within 1 and 3 km
 - The last serological control for AI was made at the end of July, with negative results
 - Further investigations are ongoing

H5 LPAI outbreak – Piedmont

ADNS Number 14/0005

- Preliminary phylogenetic analyses showed high similarity (98.7 – 99.2%) with H5 AIV identified in Italy in 2013, and lower similarity with the 2012 H5 viruses (93.6 – 94.4%)
- No glycosylation sites were identified in the analysed fragment → No mutations related to Highly Pathogenic viruses

● A/duck/Italy/14VIR5614/2014

2013 Italian H5 A1 viruses



2012 Italian H5 A1 viruses



2014 LPAI outbreaks – Summary

ADNS	AI virus	Conf. Date	Depop. Date	Est. Date	Region	Province	Type
14/0001	H5N1	28.01.2014	02.02.2014	04.02.2014	Friuli Venezia Giulia	Udine	Grower / Commercial
14/0002	H7N1	25.03.2014	28.03.2014	28.03.2014	Lombardy	Mantua	Grower
14/0003	H7N1	24.06.2014	25.06.2014	06.08.2014	Emilia Romagna	Ravenna	Grower
14/0004	H7N1	03.07.2014	05.07.2014	18.07.2014	Emilia Romagna	Ravenna	Grower
14/0005	H5N2	16.09.2014			Piedmont	Novara	

Thanks for your attention