

## Integrated surveillance of West Nile and Usutu virus

Epidemiological report no.3 6 August 2020  
National data

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## 1

# In Evidence

This report summarizes the results of West Nile virus and the Usutu virus surveillance activities in Italy, updated to **29 July 2020**.

- To date, no confirmed human cases of West Nile Virus (WNV) and Usutu virus (USUV) infection have been reported .
- Veterinary surveillance confirmed the circulation of WNV lineage 2 in mosquitoes pool collected in **Emilia-Romagna, Piemonte and Lombardia**. Positivity is being confirmed in mosquitoes pool collected in monitoring sites located in the following provinces : **Padova, Brescia, Bergamo Modena** (trap located at border of Reggio Emilia and **Mantova** provinces), **Alessandria** and **Bologna** (trap located at border of Ferrara province), **Alessandria e Novara**.
- Since the beginning of the 2020 transmission season and as of 30 July 2020, EU Member States have reported 12 human cases in Greece (10) and Romania (2). No cases have been reported from EU neighbouring countries. So far, no deaths have been reported. (Fonte: [ECDC 2019](#)).

**Figure 1.** Provinces where WNV has been detected in vectors, animals and humans (blood donor, fever and neuroinvasive cases)



- Provinces with demonstrated West Nile virus circulation in humans and in animals/vectors
- Provinces with demonstrated West Nile virus circulation in animal/vectors
- Provinces with demonstrated West Nile Virus circulation in humans\*

**Figure 2.** Distribution of WNV human cases in EU



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## Human

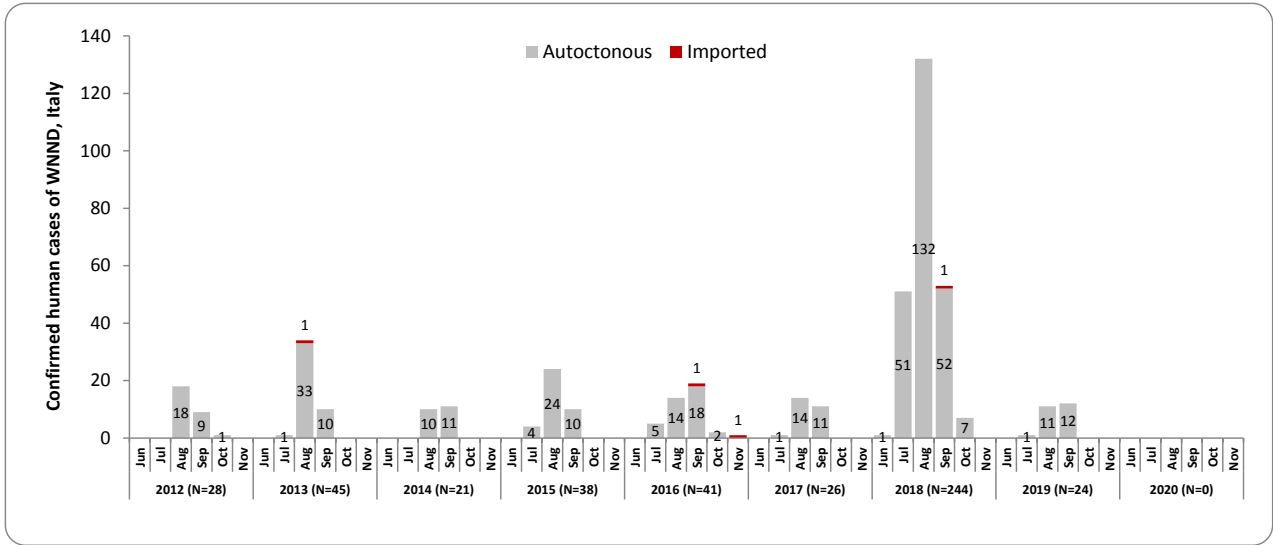


Figure 1 Trend of confirmed cases of WNND per month onset symptoms. Italy: 2012 - 2020.

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## Horses

Currently no WND outbreaks in horses have been confirmed by the National Reference Centre for exotic diseases (CESME).



## 4

## Resident birds of target species

CESME confirmed **1** WND cases in resident birds of target species in **Piemonte**. The circulating strains belong to **Lineage 2**.

The target species for the surveillance are :

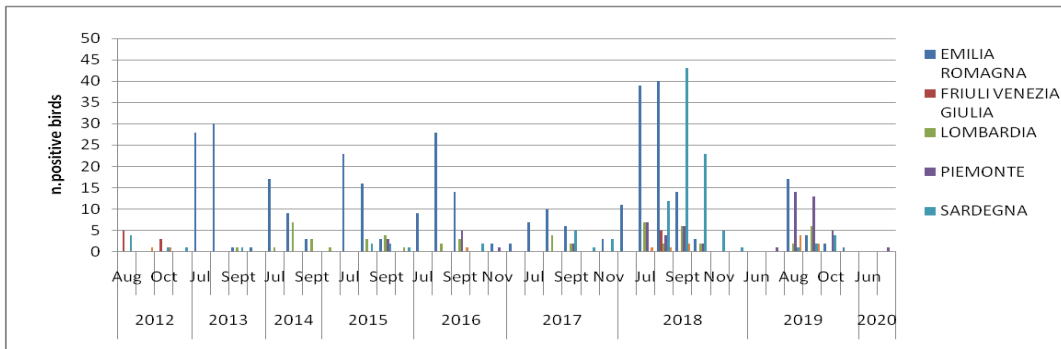
- Magpie (*Pica pica*)
- Carrion crow (*Corvus corone cornix*)
- Eurasian jay (*Garrulus glandarius*)



REGION	PROVINCE	Carrion Crow	Magpie	Jay
PIEMONTE	Torino	1		
Total		1	0	0

**Table 1** West Nile virus detection in resident birds to target species- 2020

**Figure 2** Geographical distribution West Nile virus detection in resident birds of target species - 2020



**Figure 3** Spatio-temporal distribution West Nile virus detection in resident birds of target species - 2020

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## Wild birds

Currently no WND cases in wild have been confirmed by the National Reference Centre for exotic diseases (CESME).



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## Entomological surveillance

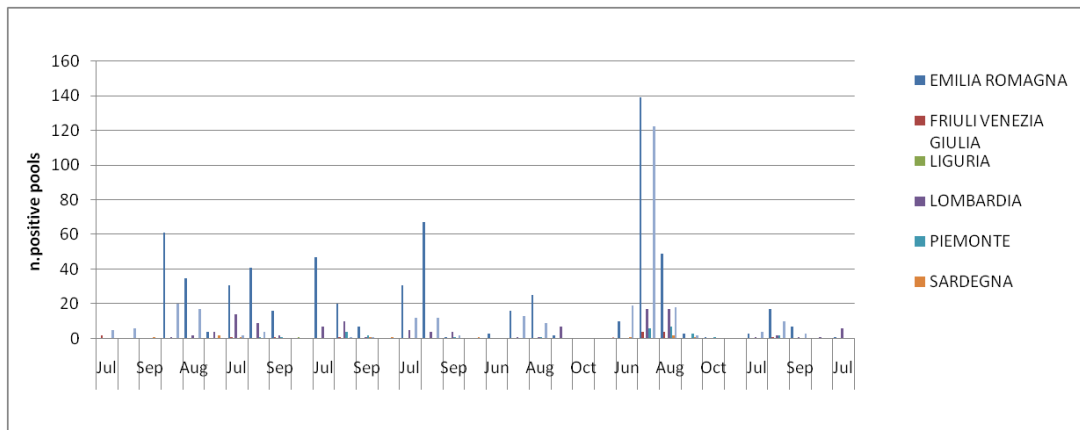
WNV genome has been reported in **8** mosquito **pool** collected in **Emilia Romagna** and **Lombardia** regions. The circulating strains belong to **Lineage 2**.



**Figure 4** Geographical distribution West Nile virus detection in mosquitoes - **2020**

REGION	PROVINCE	n.pool
EMILIA ROMAGNA	Parma	1
	Cremona	3
LOMBARDIA	Lodi	2
	Milano	2

**Table 2** West Nile virus detection in mosquitoes-  
**2020**



**Figure 5** Spatio-temporal distribution West Nile virus detection in mosquitoes - **2020**

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## Poultry surveillance

- No WND outbreaks have been confirmed in poultry flocks.





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## USUTU virus surveillance

**Usutu virus** has been detected in **9** mosquitoes pools and **1** bird in **Emilia-Romagna** region.



**Figure 6** Geographical distribution Usutu virus detection in birds and mosquitoes - **2020**

REGION	PROVINCE	n.pool
EMILIA ROMAGNA	Bologna	1
	Modena	3
	Piacenza	2
	Reggio Emilia	1
Total		9

**Table 4** Usutu virus detection in mosquitoes -**2020**

REGION	PROVINCE	SPECIES	Total
EMILIA ROMAGNA	Ferrara	Wood pigeon ( <i>Colomba palumbus</i> )	1
			1

**Table 5** Usutu virus detection in birds - **2020**

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## National Plan for Prevention, Surveillance and Response to Arbovirus 2020-2025

West Nile (WNV) and Usutu (USUV) viruses surveillance activities since 2020 are included in the National Plan for Prevention, Surveillance and Response to Arbovirus 2020-2025.

The Plan integrates in a unique document the surveillance measures to be implemented at the national level for autochthonous and imported arboviruses, promoting a multidisciplinary approach in the management of surveillance and control activities.

More details about the integrated surveillance plan are available on the complete document «National Plan for Prevention, Surveillance and Response to Arbovirus 2020-2025.»

National Human surveillance activities are coordinated by the National Institute of Health (Istituto Superiore di Sanità, ISS) and the Ministry of Health is responsible to provide surveillance data to the European Commission and to ECDC. Moreover regions can implement normative-programmatic documents for the epidemiological and laboratory surveillance on their territory according to National legislation and guidelines provided by the Ministry of Health .

Veterinary surveillance activities are coordinated by the National Reference Center for the exotic diseases of animals (CESME) which harmonize the diagnostic procedures within the network of IIZZSS national laboratories and confirms suspected specimens. CESME is also in charge for the veterinary surveillance data management, collection and communication to the Ministry of Health according to the data flow reported in the Plan.

## Useful links

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- Web page of [National Institute of Health](#)
- Web page of [Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale"](#) (CESME)
- Directions of the [National Italian Blood Center](#)
- Directions of the [National Italian Transplant Center](#)
- Web page of the [Italian Ministry of Health](#)
- Web page of [ECDC](#)

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We gratefully acknowledge the support from the personnel of the Regions and the Local Health Services for sampling and data collection, the National Italian Blood Center, the National Italian Transplant Center, the Italian network of the Istituti Zooprofilattici Sperimentali and the Italian Ministry of Health.