



Integrated surveillance of West Nile and Usutu virus

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National data

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In Evidence

This report summarizes the results of West Nile virus and the Usutu virus surveillance activities in Italy, updated to 11 August 2021.

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

- Since June 2021 6 human case of WNV infection has been reported from **Liguria, Emilia Romagna and Friuli Venezia Giulia** regions.
- Surveillance in mosquitoes, resident birds, wild birds, poultry and horses confirmed the circulation of WNV Lineage 2 in **Emilia Romagna, Piemonte, Veneto and Lombardia** regions.
- On 5 August 2021, 7 human cases of WND have been reported in the EU Member States, 5 in Greece and 1 in Italy and no deaths. No cases have been reported from neighboring countries

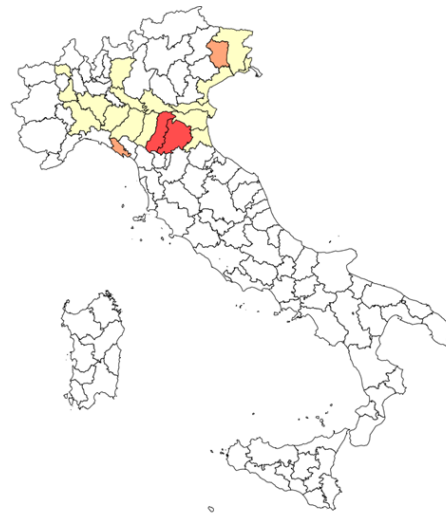


Figure 2. Distribution of WNV human cases in EU



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Human

Since June 2021 4 confirmed human cases of West Nile Virus (WNV) infection have been reported in Italy in neuro-invasive form in Liguria, Friuli Venezia Giulia and Emilia Romagna regions.

Details about WND cases are provided below

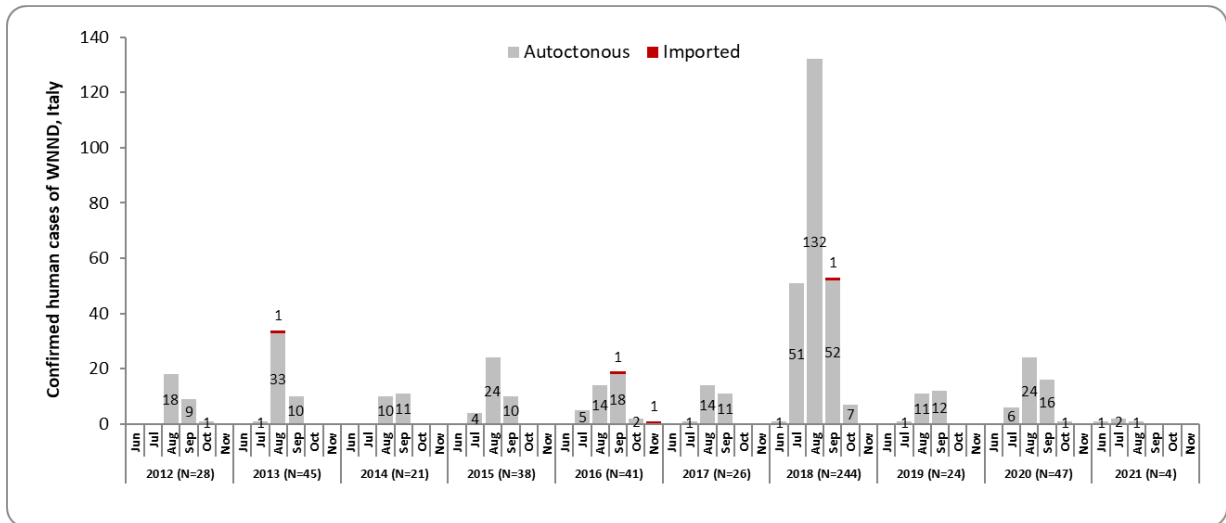


Figure 1. Trend of confirmed cases of WNNND by month onset of symptoms. Italy: 2012 - 2021.

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Horses

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



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Resident birds of target species

CESME confirmed WND in 5 resident birds of target species in **Lombardia and Emilia Romagna** regions. 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	Total
EMILIA ROMAGNA	Piacenza	1			1
	Ferrara		1		1
	Reggio Emilia		1		1
LOMBARDIA	Bergamo	2			2
Total		3	1		5

Table 1 West Nile virus detection in resident birds- 2021

Figure 2 Geographical distribution West Nile virus detection in resident birds of target species - 2021

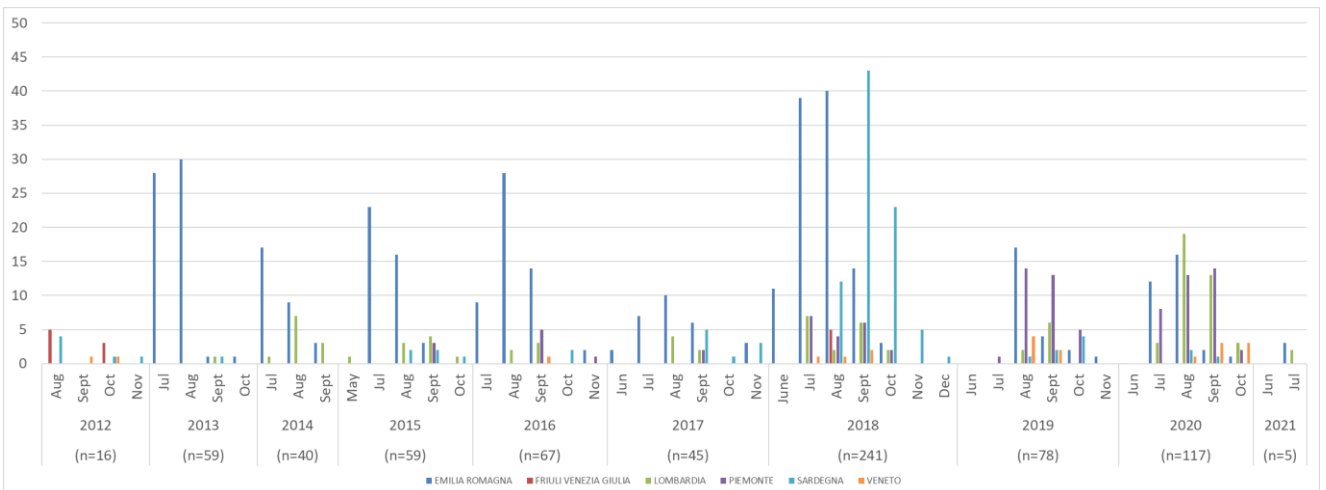


Figure 3 Spatio-temporal distribution West Nile virus detection in resident birds of target species - 2021

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Wild birds

WND has been detected in one wild birds in **Emilia Romagna** region.



6

Entomological surveillance

WNV genome has been reported in **14** mosquito **pools** collected in **Emilia Romagna, Veneto, Piemonte** region. The circulating strains belong to **Lineage 2**.



Region	Province	n.pool+
EMILIA ROMAGNA	Bologna	1
	Ferrara	1
	Modena	3
	Reggio Emilia	3
LOMBARDIA	Mantova	1
PIEMONTE	Alessandria	1
VENETO	Venezia	4
Total		14

Table 2 West Nile virus detection in mosquitoes- **2021**

Figure 4 Geographical distribution West Nile virus detection in mosquitoes - **2021**

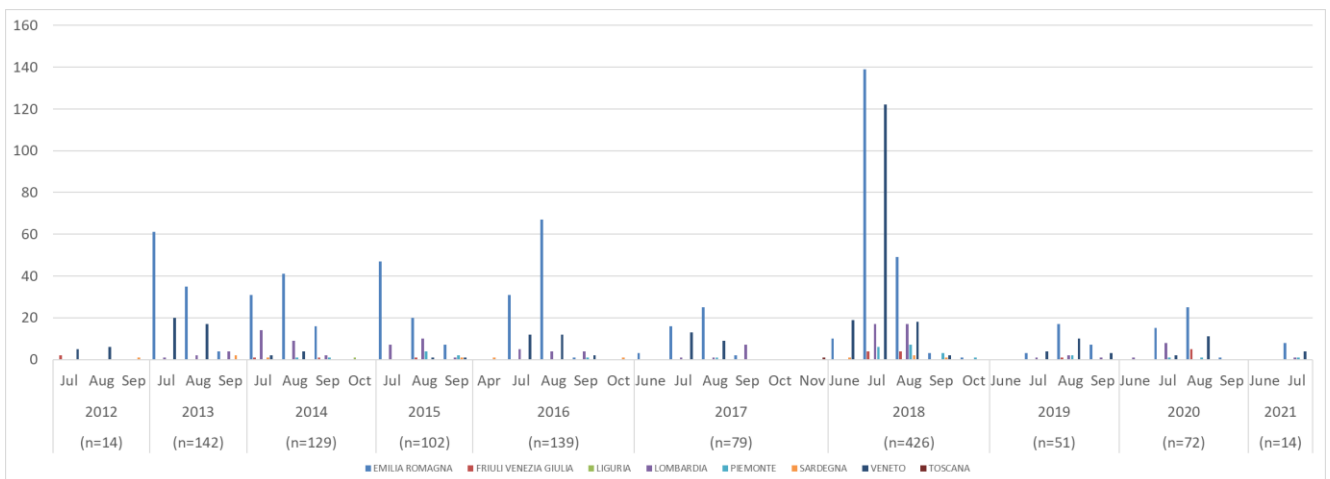


Figure 5 Spatio-temporal distribution West Nile virus detection in mosquitoes - **2021**

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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 **14** mosquitoes pools and **8** birds in **Emilia-Romagna, Friuli Venezia Giulia** and **Veneto** regions.



Figure 6 Geographical distribution Usutu virus detection in birds and mosquitoes - 2021

REGION	PROVINCE	n.pool+
EMILIA ROMAGNA	FERRARA	1
	MODENA	2
	REGGIO EMILIA	1
FRIULI VENEZIA GIULIA	PORDENONE	1
VENETO	PADOVA	1
	TREVISO	2
	VENEZIA	5
	VERONA	1
Total		14

Table 3 Usutu virus detection in mosquitoes -2021

REGION	PROVINCE	n.birds+
EMILIA ROMAGNA	BOLOGNA	2
	FORLI-CESENA	1
	RIMINI	5
Total		8

Table 4 Usutu virus detection in birds - 2021

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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

- 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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