



## Integrated surveillance of West Nile and Usutu virus

Epidemiological report no. 6 26 August 2021  
National data

- 1 In Evidence
- 2 Humans
- 3 Horses
- 4 Resident birds of target species
- 5 Wild birds
- 6 Entomological
- 7 Poultry
- 8 Usutu virus
- 9 National Plan for Prevention, Surveillance and Response to Arbovirus 2020-2025.

## 1

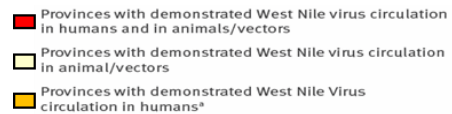
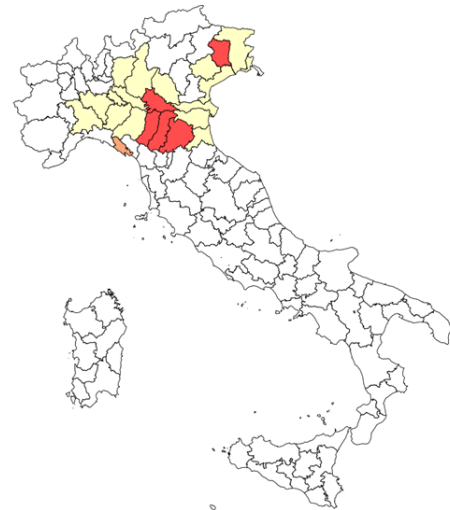
# In Evidence

This report summarizes the results of West Nile virus and the Usutu virus surveillance activities in Italy, updated to **25 August 2021**.

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

Since June 2021 **18** cases of West Nile Virus (WNV) infection have been reported from **Liguria, Lombardia, Emilia-Romagna and Friuli Venezia Giulia**. The first case was reported by Liguria in June. No death is been reported. In the same period no cases of Usutu virus have been reported.

- Surveillance in mosquitoes, resident birds, wild birds, poultry and horses confirmed the circulation of WNV Lineage 2 in **Emilia Romagna, Friuli Venezia Giulia, Piemonte, Veneto and Lombardia** regions.
- On 19 August 2021, 28 human cases of WND have been reported in the EU Member States, 14 in Greece and 11 in Italy, 2 in Austria 1 Romania. No cases have been reported from neighboring countries (ecdc,2021)



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

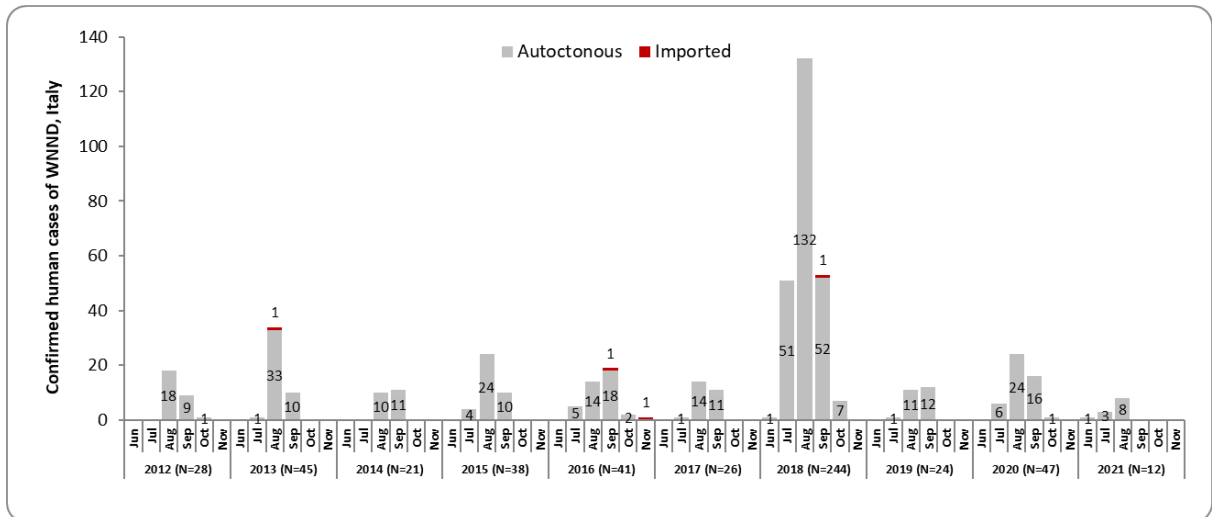


## 2

## Human

Since June 2021 12 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 WNV by month onset of symptoms. Italy: 2012 - 2021.

## 3

## 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 WND in **13** 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 :

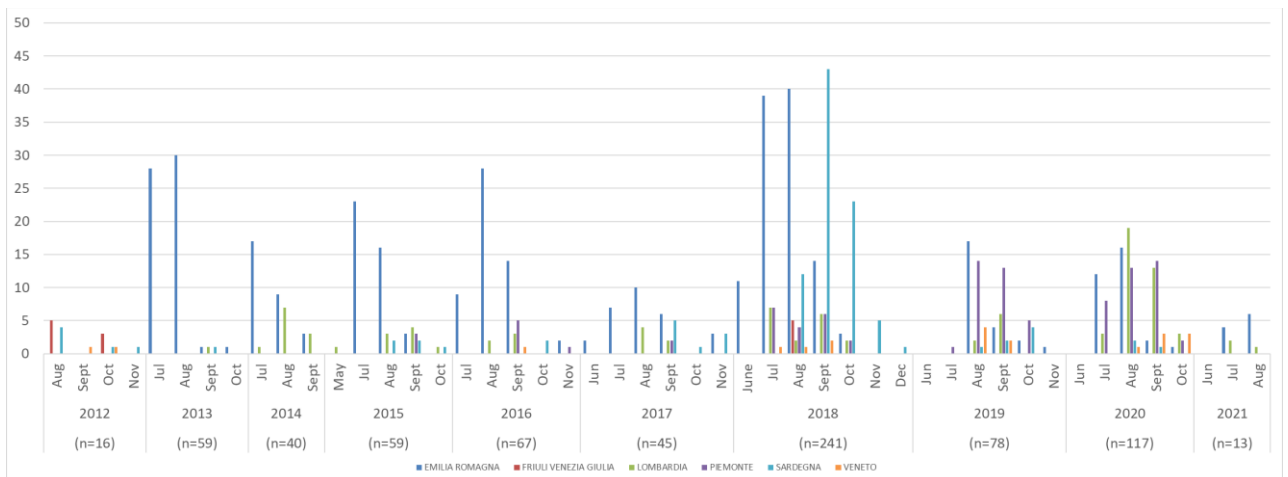
- Magpie (*Pica pica*)
- Carrion crow (*Corvus corone cornix*)
- Eurasian jay (*Garrulus glandarius*)



Region	Province	Carrion Crow	Magpie	Jay	Total
EMILIA ROMAGNA	Modena		2		2
	Piacenza	2		1	3
	Ferrara		2		2
	Reggio Emilia	1	2		3
LOMBARDIA	Bergamo	2			2
	Mantova	1			1
	Total	6	6	1	13

**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

5

## Wild birds

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



## 6

## Entomological surveillance

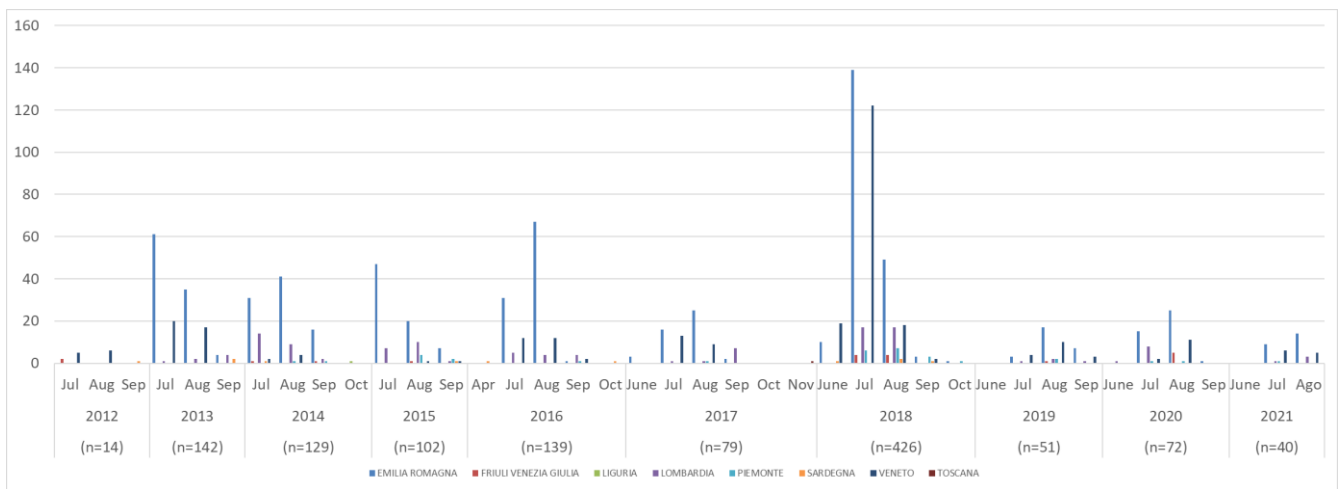
WNV genome has been reported in **40** mosquito pools collected in **Emilia Romagna, Veneto, Friuli Venezia Giulia and Piemonte** region. The circulating strains belong to **Lineage 2**.



Region	Province	Total
EMILIA ROMAGNA	Bologna	4
	Ferrara	1
	Modena	4
	Piacenza	3
	Parma	1
	Reggio Emilia	10
FRIULI VENEZIA GIULIA	Udine	1
LOMBARDIA	Lodi	1
	Mantova	1
	Pavia	2
PIEMONTE	Alessandria	1
VENETO	Rovigo	1
	Treviso	1
	Venezia	7
	Verona	2
	Total	40

**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**

## 7

## Poultry surveillance

- No WND outbreaks have been confirmed in poultry flocks.





## 8

## USUTU virus surveillance

**Usutu virus** has been detected in **29** mosquitoes pools and **14** birds in **Piemonte, Emilia-Romagna, Friuli Venezia Giulia, Marche** and **Veneto** regions.



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

Region	Province	n.pool+
EMILIA ROMAGNA	BOLOGNA	1
	FERRARA	1
	MODENA	8
	RIMINI	2
	REGGIO EMILIA	1
MARCHE	ANCONA	1
	ASCOLI PICENO	1
	FERMO	1
PIEMONTE	ASTI	1
VENETO	ROVIGO	1
	VENEZIA	6
	TREVISO	2
	PADOVA	1
	VERONA	1
	FRIULI VENEZIA GIULIA	PORDENONE
<b>Total</b>		<b>29</b>

**Table 3** Usutu virus detection in mosquitoes -2021

REGION	PROVINCE	n.birds+
EMILIA ROMAGNA	BOLOGNA	5
	FORLI-CESENA	1
	RIMINI	5
	FERRARA	1
	PIACENZA	1
VENETO	VICENZA	1
<b>Total</b>		<b>14</b>

**Table 4** Usutu virus detection in birds - 2021

## 9

## 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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