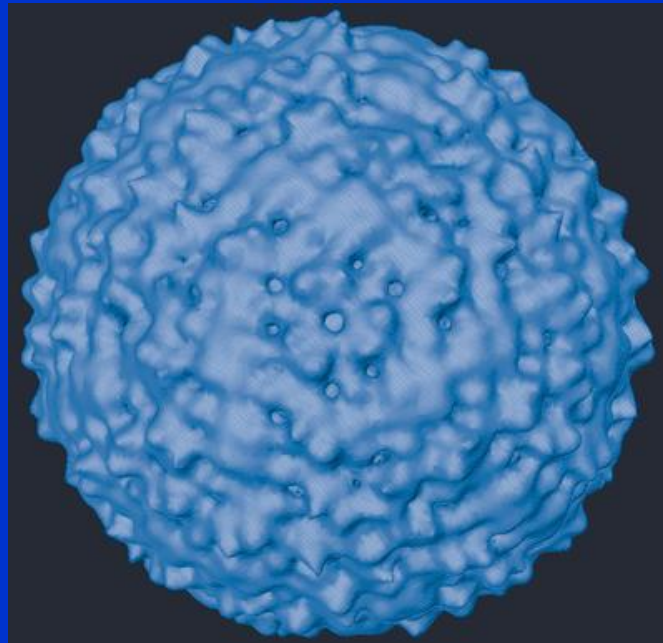


THREAT OF WEST NILE VIRUS IN THE IBERIAN PENINSULA SPAIN 2010-2011



S. Oyonarte MD PhD (CCST)

ISBT LISBON 2011

WNV epidemic's chronology

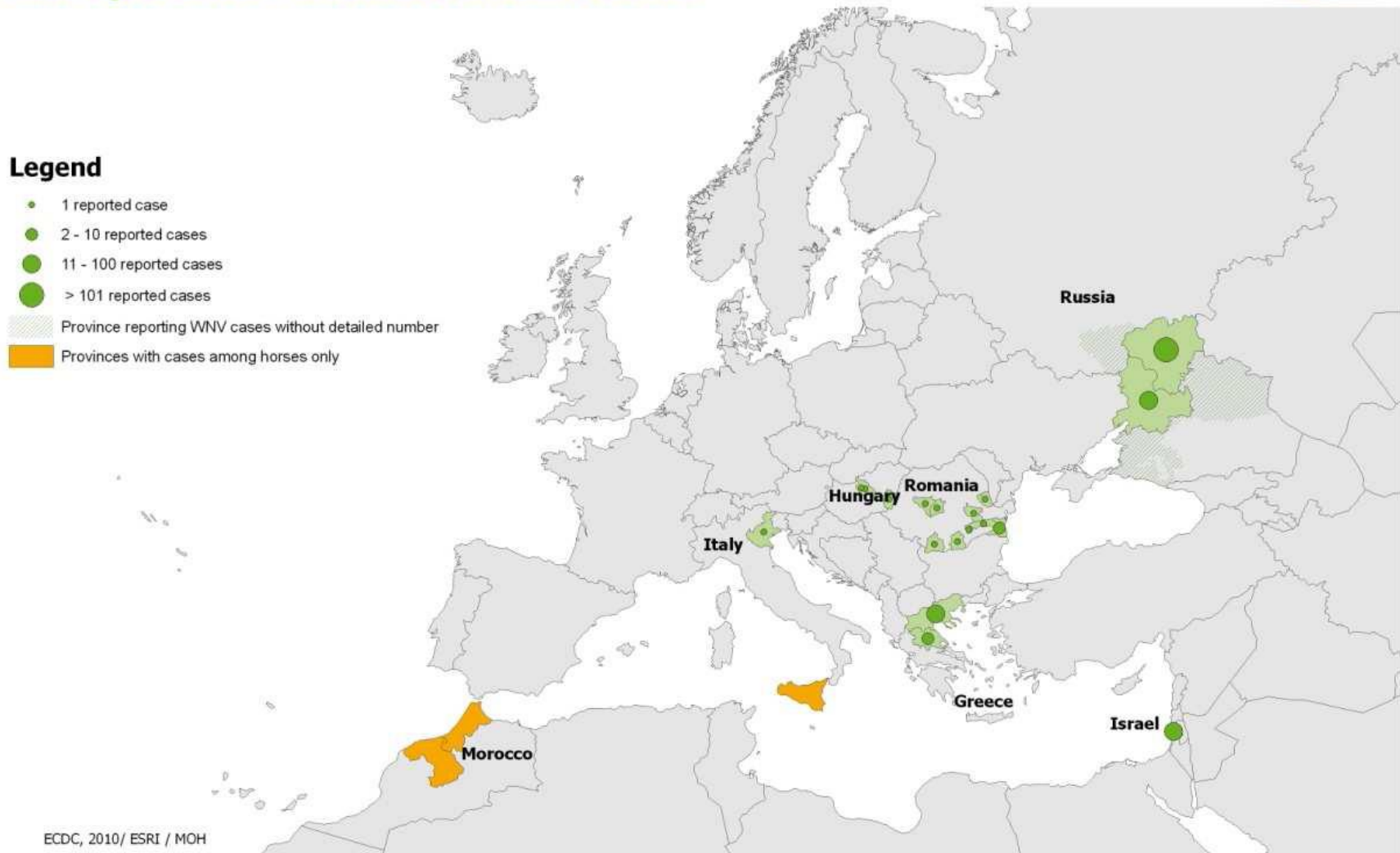
- 7th September 2010 the ECDC communicates to the Spanish Health Ministry (MSPSI) by Center of coordination of alerts and sanitary emergencies (CCAES) the situation in Europa of the WNV.

WNV confirmed cases, 1 July - 3 September 2010

Europe and Mediterranean area

Legend

- 1 reported case
- 2 - 10 reported cases
- 11 - 100 reported cases
- > 101 reported cases
- Province reporting WNV cases without detailed number
- Provinces with cases among horses only



ECDC, 2010/ ESRI / MOH

Areas in green indicate from where confirmed WNV infection human cases are reported.
Areas in orange are areas from where WNV infection is confirmed in horses.

EDCD – CCAES: Cases notified in Europe on September 13, 2010

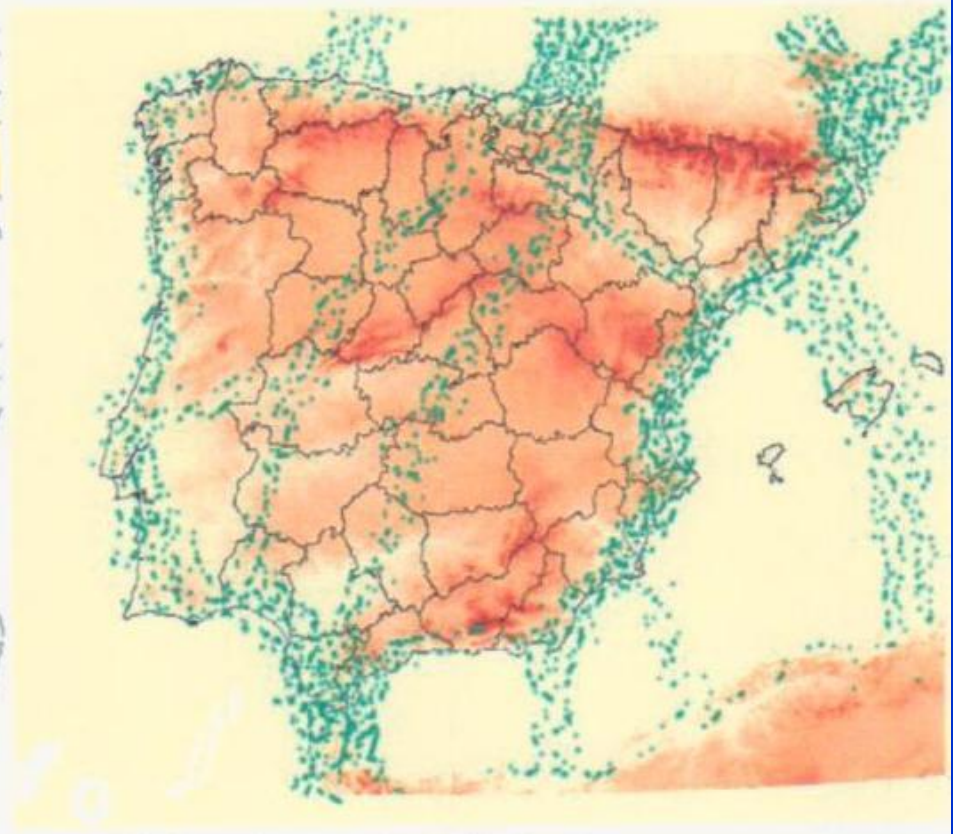
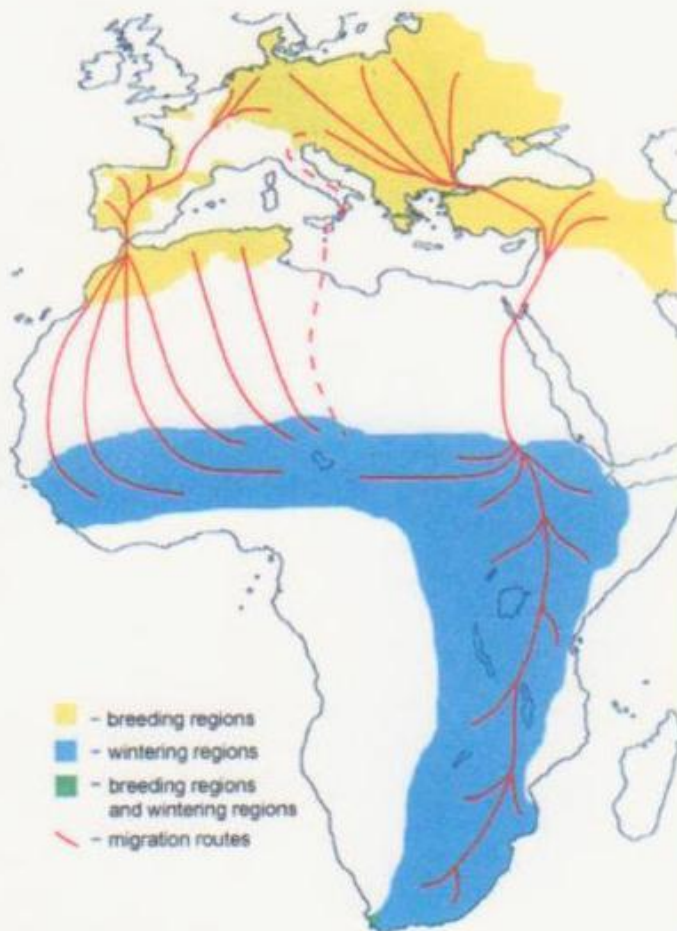
	PORTUGAL	GREECE	ITALY	ROMANIA	HUNGARY	TURKEY
REMINDER DATE	7/27/10	8/7/10	8/10	8/30/10	9/2/10	SD
PROBABLE C.	1	0	0	2	0	SD
CONFIRMED C.		207	1	32	3	SD
TOTAL C.	1	207	1	34	3	18
WITH NEUROLOGICAL	0	164	0	SD	3	SD
WITHOUT NEUROLOGICAL	1	43	1	SD	0	SD
DEATHS	0	22	0	3	0	4

Russia: 239 cases (9/13/2010) ,

WHO > 600 cases in Portugal, Italy, Greece, Romania, Hungary, Israel and Russia

ROUTES OF MIGRATION OF BIRDS

Figura 2. Principales rutas de migración de aves Europa - África y en España



Fuente: White stork migration routes
(<http://storks.poland.pl/cms/image.htm?id=234996>)

Elaboración propia: J. Lucientes

WNV in Spain

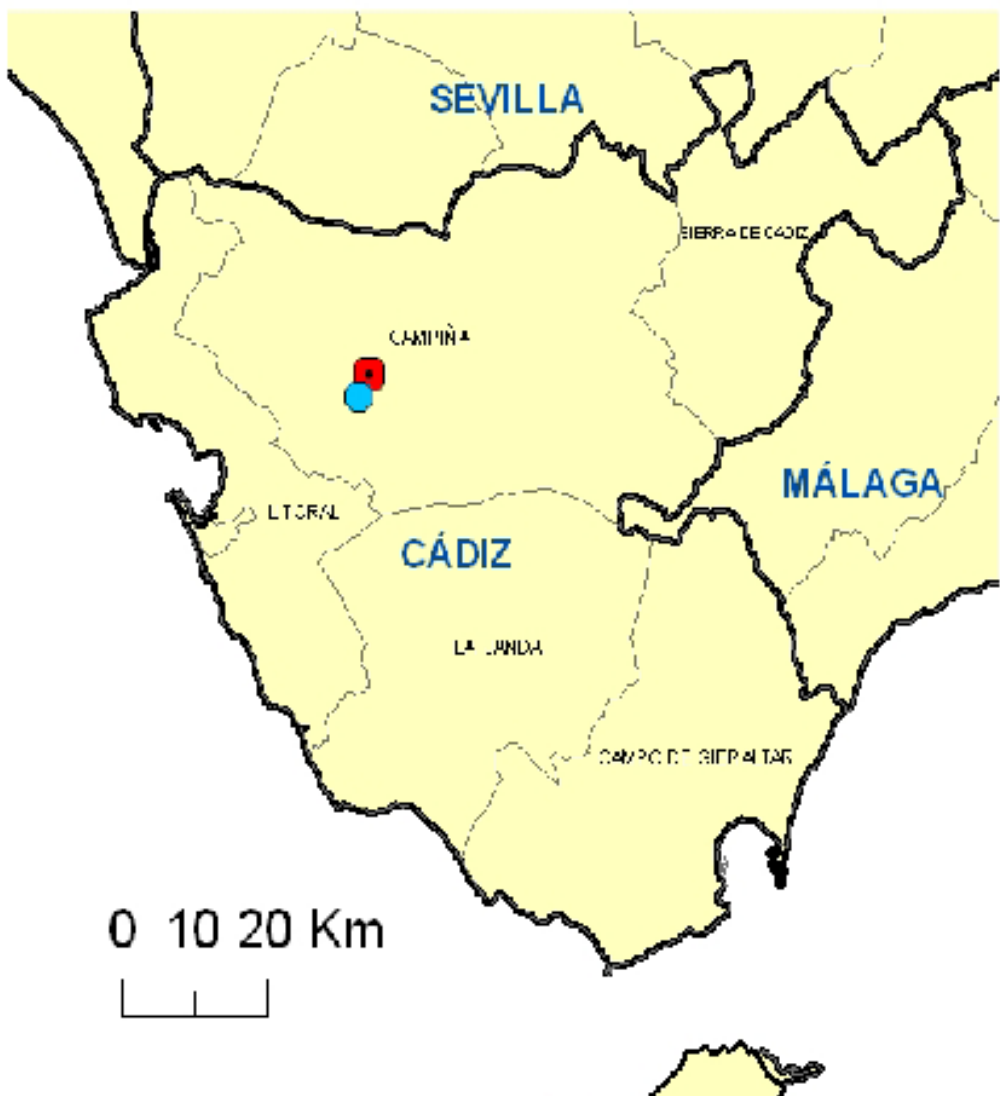
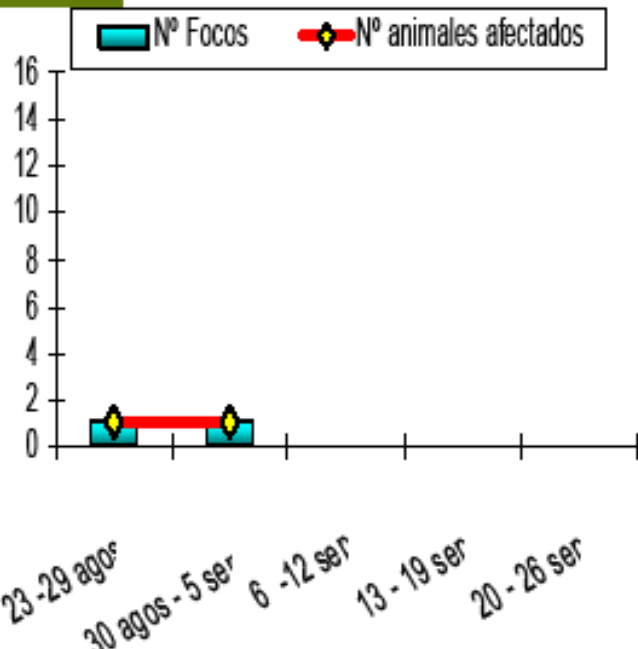


WNV epidemic's chronology (1)

- 7th September 2010 the ECDC communicates to MSPS by Center of coordination of alerts and sanitary emergencies (CCAES) the situation in Europa of the WNV.
- 8th Sep 2010 The MSPS communicates it to the members of the CCST and The Blood Centers.
- 5th Sep 2010 there is suspicion of horses affected and 14th the CCAES confirm that 2 horses are affected by neurological disorders referable to WNV disease in Jerez (Andalusia).



2nd week (30 August- 6 September)



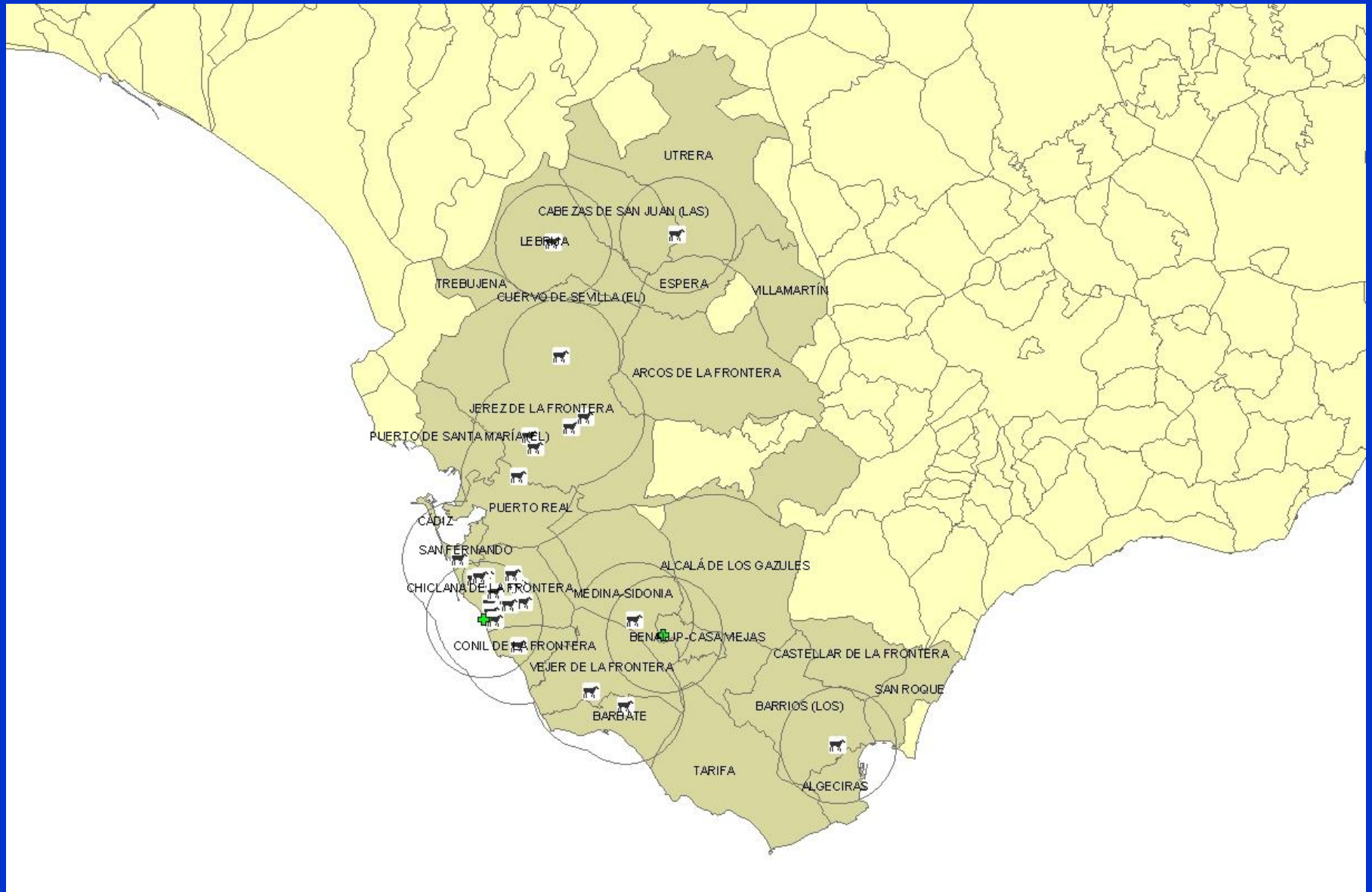
WNV epidemic's chronology (2)

- 20th Sep 2010: A patient joins the hospital with suspicion of infection and an active surveillance of all cases of human meningo-encephalitis started in the region: Andalusia.
 - Extended to the southern areas of Andalusia.
- 27th Sep 2010: the first human case is confirmed.
- 28th Sep: A new patient joins the hospital with suspicion of infection.
- 30th Sep: CCAES reports of 16 horses farms affected by the WNV.

WNV epidemic's chronology (3)

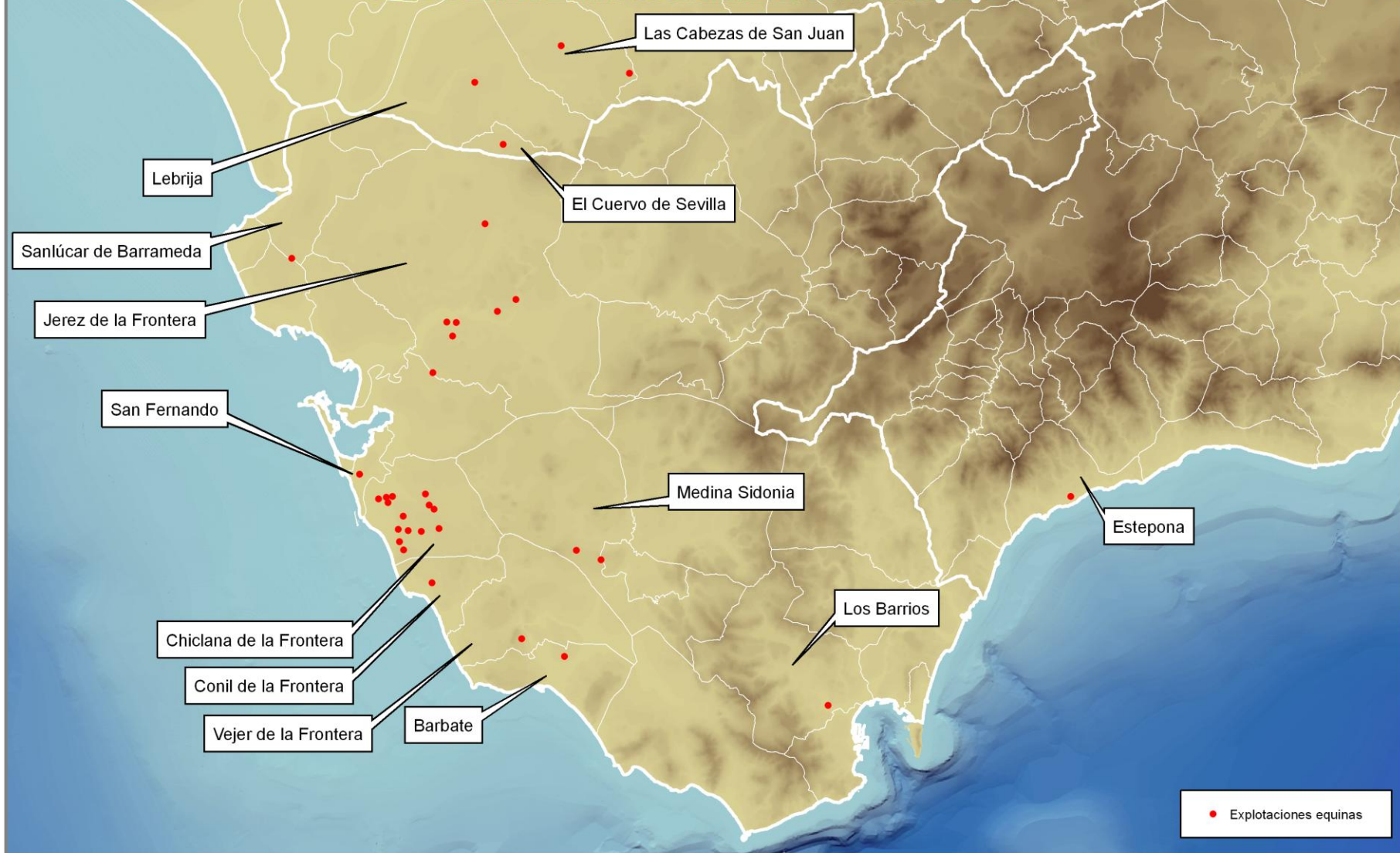
- 5th Oct 2010: The precautionary measures were adopted to avoid the transmission of virus for transfusion in Andalusia.
- 7th Oct: It is begun with WNV-NAT in affected area.
- 8th Oct: the Second human case of suspected WNV is confirmed.
- 15th Oct: The CCST spreads the precautionary measures to the whole Spain and all Blood Center.

19th October 2010 (22 horses farms)



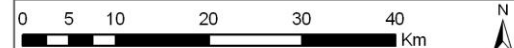
11th November 2010

FOCOS FIEBRE DEL NILO OCCIDENTAL. EVOLUCIÓN. 16/11/2010

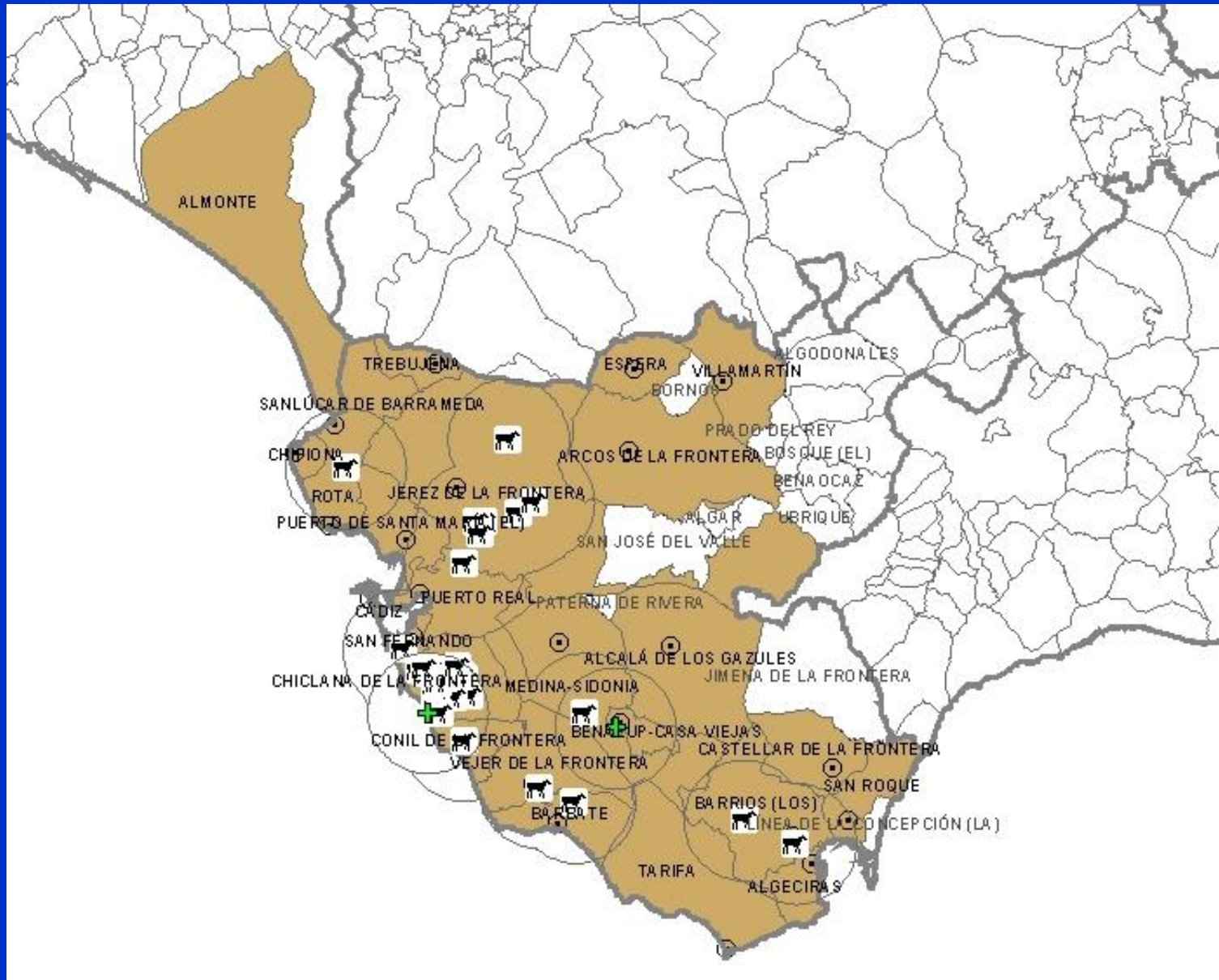


Dirección General de la Producción Agrícola y Ganadera
CONSEJERÍA DE AGRICULTURA Y PESCA

ELABORACIÓN: UNIDAD CARTOGRÁFICA DE LA CONSEJERÍA DE AGRICULTURA Y PESCA.
SECRETARÍA GENERAL DEL MEDIO RURAL Y LA PRODUCCIÓN ECOLÓGICA. Noviembre de 2010.



11th November 2010 (32 horses farms)



Declared areas of encephalitis in horses for the WNV in Andalusia

	n° affected horses farms	n° affected horses	n° dead horses
CÁDIZ	30	37	8
SEVILLA	5	5	1
MÁLAGA	1	1	0
TOTAL	36	43	9

WNV: 2 Patients in Andalusia

- Clinical. Encephalitis (2)
- Age. 77 and 60 years
- Location. Benalup-Casas Viejas y Chiclana de la Frontera (rural areas of Cadiz)
- Clinical evolution. The patients evolved favorably

Precautionary measures adopted for blood safety (10/5/2010) (1)

- Blood donors
 - Exclude blood donors who in 28 previous days had been in the zones of risk
 - Fever episodes in 14 days later to the donation
- Blood donations
 - To avoid collections of blood in the zones of risk (zones with horses or infected patients)

Precautionary measures adopted for blood safety (10/5/2010) (2)

- Transfusion
 - The quarantine of all the blood components elaborated with donations proceeding from zones of risk from September 1st, up to realizing the WNV-NAT.

Precautionary measures adopted for blood safety (10/7/2010) (3)

- WNV-NAT
- Introduced to test all blood donations (performed in the affected areas) from donors living in the affected areas
- Retrospectively, with samples of seroteca, of all the donations of zones of risk from September 1st.

Precautionary measures adopted for Organs, Tissues and blood of umbilical cord safety (10/5/2010) (4)

- WNV-NAT
- Introduced to test all donations (performed in the affected areas) from donors living in the affected areas
- Cord blood donations: WNV-NAT test is indicated for all mother-donors resident or having been for at least one night in the above provinces during the 28 days preceding the day of delivery.

Precautionary measures adopted for Transfusion, Organs, Tissues and cord blood donations safety (10/5/2010) (5)

- The MSPSI indicates to all Blood Centres nation wide to defer for 28 days donors having been for at least one night in the interested areas.

WNV-NAT Analyzed donations (10,768)

Blood Donations	10,341
From Cadiz	9,748
From Málaga	427
From Sevilla	195
Tissues	232
Cord Blood	195

Precautionary measures adopted for blood safety on WNV

- WNV-NAT Results: All the analyzed donations were negative.
- 20th Nov 2010, the last infection confirmed in horse
- 23th Dec 2010, all precautionary measures were discontinued after one month without new cases in horses or human.

Precautionary measures adopted for blood safety on WNV

- The CCST has decided to begin with all the precautionary measures in the moment that some case of infection in human or horses will be detected.