



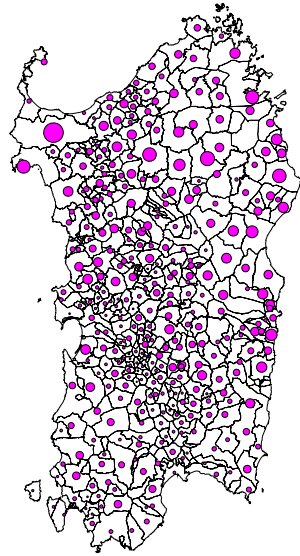
**REGIONE AUTONOMA DELLA SARDEGNA**

*ERADICATION PLAN OF CLASSICAL SWINE FEVER AND  
AFRICAN SWINE FEVER  
ITALY  
SARDINIA*

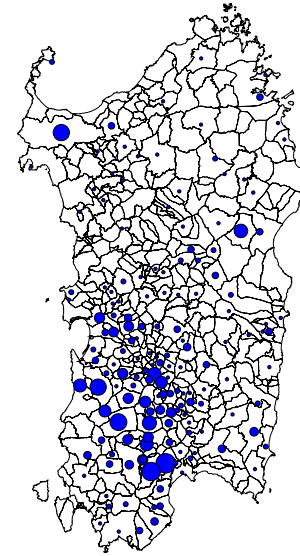
*SCOFCAH 9-10 NOVEMBER*



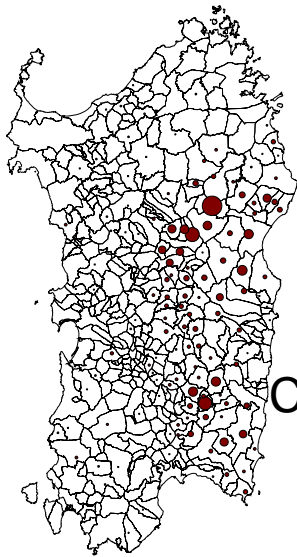
# Pig breeding system in Sardinia



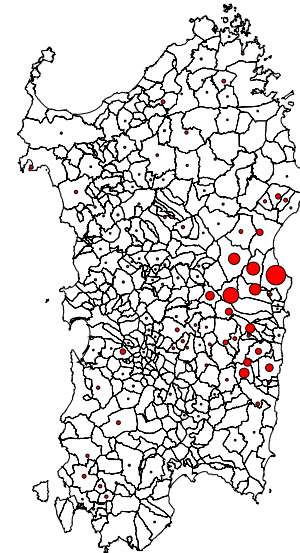
Backyard  
16031  
90.34%



Intensive  
320  
1.80%



Confined/Free ranging  
899  
5.06%



Free ranging  
494  
2.78%

# ASFV HISTORY

- ASF arrived in the south of Sardinia in 1978, probably due to administration of kitchen waste contaminated
- After an initial phase of relative “peace” there was a number of secondary cases, always limited to the south of Sardinia, until new cases due to the transport of pigs in transhumant flocks that caused the transfer of infection through the center of Sardinia (Nuoro province)

# ASFV HISTORY

- In this territory since almost all the farms are free-ranging, there were conditions for the transformation of the disease from epidemic to endemic, which still survives, despite more eradication plans
- free-ranging pigs are considered the primary reservoirs of ASFV in Sardinia whereas wild boars probably play a secondary role

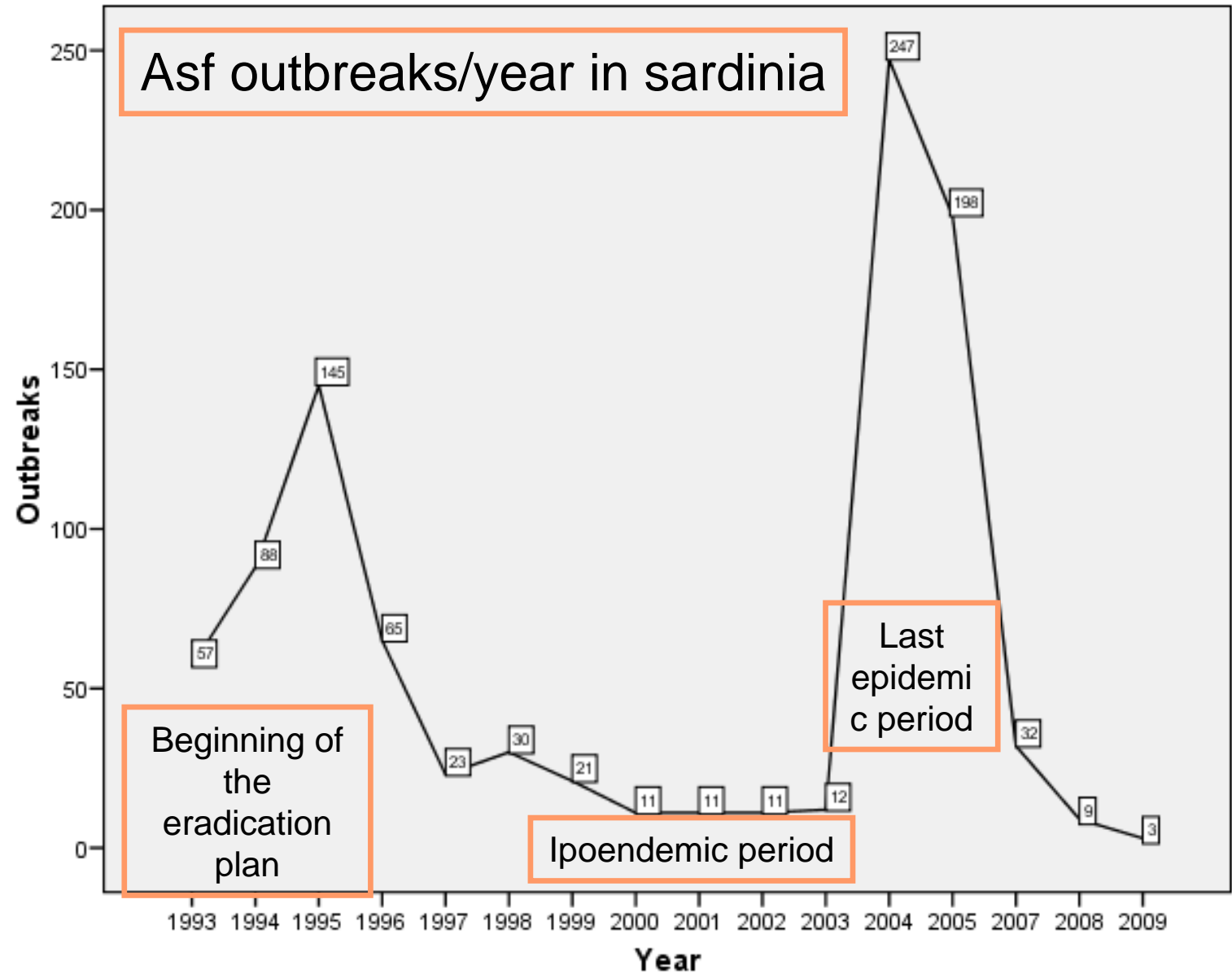
# ASFV HISTORY

- The ‘familiar’ kind of breeding, represents, at the moment, the principal risk-factor for african swine fever, in terms of:
  - Biosecurity
  - Animal movements
  - Animal identification
  - Herd management
  - ***Contacts with others domestic pigs***
  - ***Contacts with wild boars***

# ASFV HISTORY

- In the center of Sardinia, there are many pig farms without barriers (such as fences, hedges, natural barriers, etc.)
- In this area they are a favorable habitat for the presence of wild boars
- This habitat is the same for the uncontrolled domestic pigs and wild boars
- In Nuoro province, pigs are farmed according to traditional practices, such as grazing free-range herds on vast communal lands to utilize acorns produced by evergreen oaks

# Asf outbreaks/year in sardinia



Beginning of the eradication plan

Ipoendemic period

Last epidemic period



**Wild boar 2009**

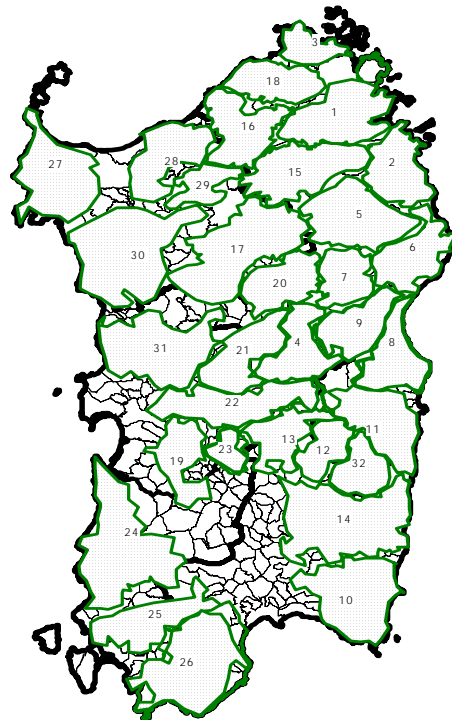
# Surveillance – wild boar population (estimation)

The surface compatible with the habitat of wild boar is 7.478 km<sup>2</sup> (less than 1/3 of the surface of the whole Region - 24.100 km<sup>2</sup>)

TERRITORY	ESTIMATION (heads)
HIGH RISK ZONE	35.000
REST OF TERRITORY	40.000
<b>Total</b>	<b>75.000</b>

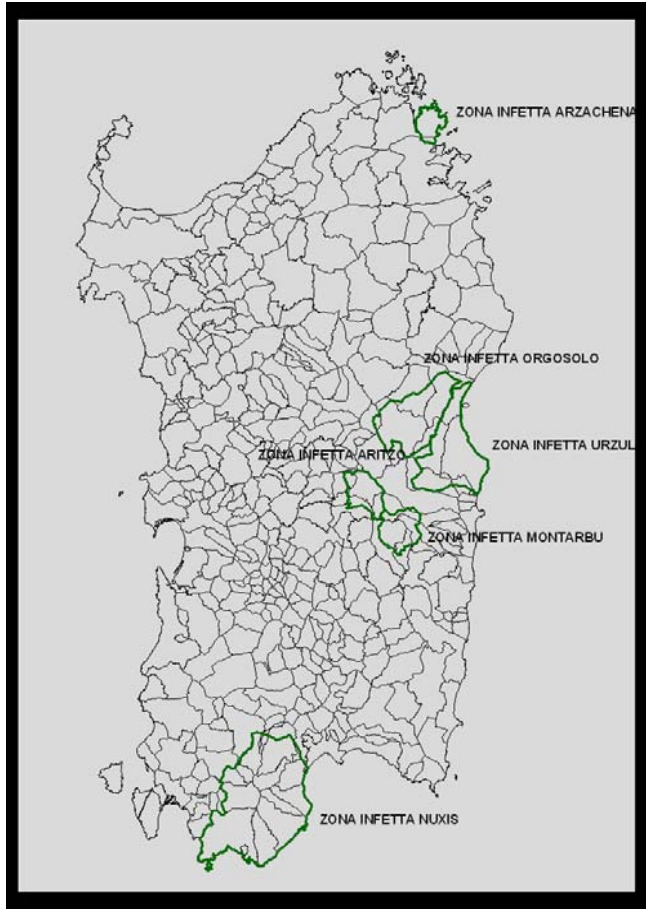
# Surveillance wild boar

The territory of Sardinia is divided in 32 macro-areas



# Surveillance – wild boar 2000-2009

Hunting season	N. Samples	Seropositives	Prevalence 95% (ci)	Virus +vi
2000-2001	361	27	7.48 (5.08-10.82)	0
2001-2002	880	62	7.04 (5.48-8.99)	0
2002-2003	230	34	14.78 (10.59-20.19)	0
2003-2004	620	19	3.06 (1.91-4.18)	1
2004-2005	349	22	6.30 (4.08-9.53)	0
<b>2005-2006</b>	<b>4.194</b>	<b>91</b>	<b>2,17 (1,76-2,67)</b>	<b>0</b>
<b>2006-2007</b>	<b>3.648</b>	<b>93</b>	<b>2,55 (2,07-3,13)</b>	<b>2</b>
<b>2007-2008</b>	<b>3.164</b>	<b>115</b>	<b>3,63 (3,02-4,36)</b>	<b>22</b>
<b>2008-2009</b>	<b>3.916</b>	<b>23</b>	<b>0,59(0,38-0,90)</b>	<b>0</b>



The infected areas(\*) were the following:

- Arzachena;
- Orgosolo;
- Urzulei;
- Montarbu;
- Aritzo;
- Nuxis.

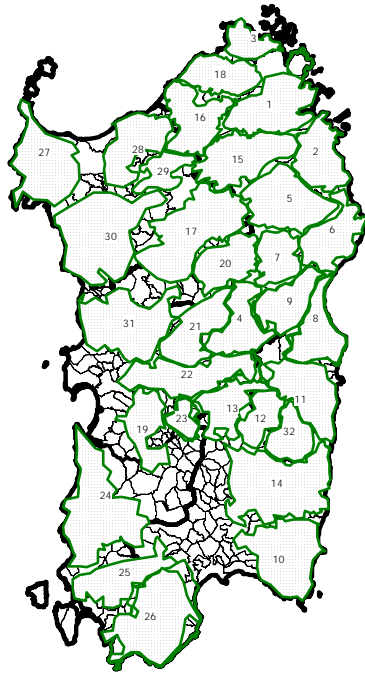
The measures adopted in the Area of Nuxis was lifted in December 2009, because the surveillance's results of two years were positives

*(\*) These areas have been established on the basis of virological positives in the period 2004-2008 detected during the hunting season (2005-2006)*

# WILD BOAR ACTIVITY - 2009



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INFECTED AREALS	NOT INFECTED AREALS	N° animals submitted to Program/ infected areas	N° animals submitted/ not infected areas	New infected areas
5	27	96 samples	59 samples	0

N° AREALS	N°Estimated Population	N° animals submitted to Program	N° animals controlled	N° animals positive
32	75.000	1977	4.601	31 (Sero +)

## ASF

Test	Test +	ELISA	PCR	IFD	Viral culture	Imm. blotting
4.601	31	3.643	1670	997	27	327

## CSF

Test	Test +	ELISA	PCR	IFD	Viral culture	Imm. blotting
4.678	0	3.551	793	334	0	0

# Domestic swine 2009



- The activities of the Program 2009 in Sardinia were:
    - New Accreditation farms ▶ 2 serological samples between 28-42 days;
    - Annual confirmation ▶ 1 serological sample once or twice /year
    - a serological control in one randomized sample of farms (about 600) extracted of total sardinian “non accredited farms“
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# Swine population: herds and animals at 31.12.2009

Herds			
Total	Submitted	Examined	Positives
14.933	6.779	4.888	17 (sero +)

Animals			
Total	Submitted	Examined	Positives
205.806	59.851	43.638	34 (sero +)



# ASF

Test	Test +	ELISA	PCR	IFD	Viral culture	Imm. blotting
43.638	34	43.415	89	134	8	41

# CSF

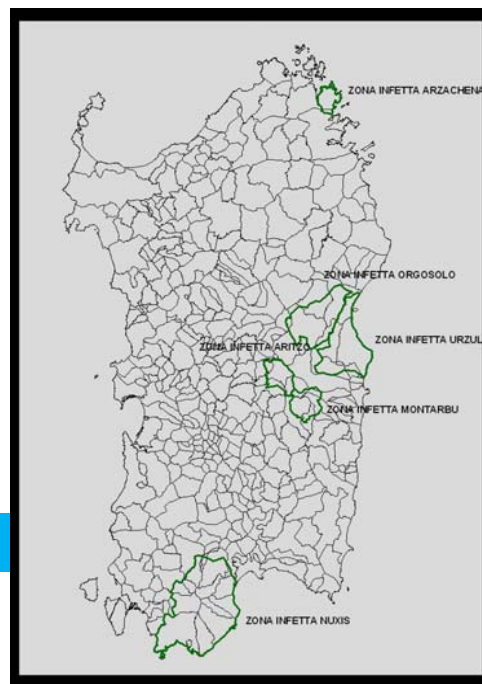
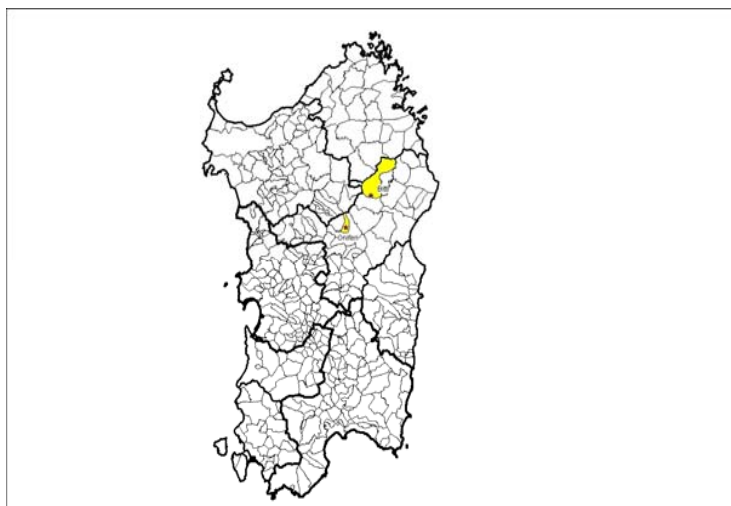
Test	Test +	ELISA	PCR	IFD	Viral culture	Imm. blotting
27.305	0	30.606	66	100	0	0

# OUTBREAKS IN SARDINIA 2009



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Animal	Outbreaks	Positive animals	Slaughtered animals
Swine	2 farms	2	29
	2 pigs (unknown origin)	2	0
Wild Boar	2 (macro-area Desulo – Aritzo)	2	-----



# SWINE FARMS activity 2009

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## – High Risk zone:

- all pig's farm were serologically controlled (max. 12 samples/farm/year)

## – Other territory:

- almost 12 animals from “non accredited farms” were controlled at slaughtering.

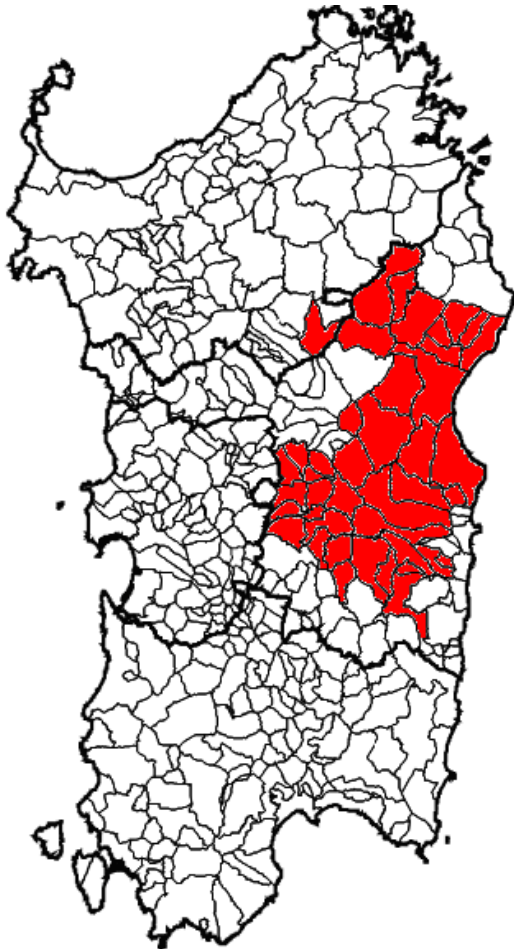
Eradication measures in accord of Directive CE 2002/60 in outbreaks

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# HIGH RISK ZONE



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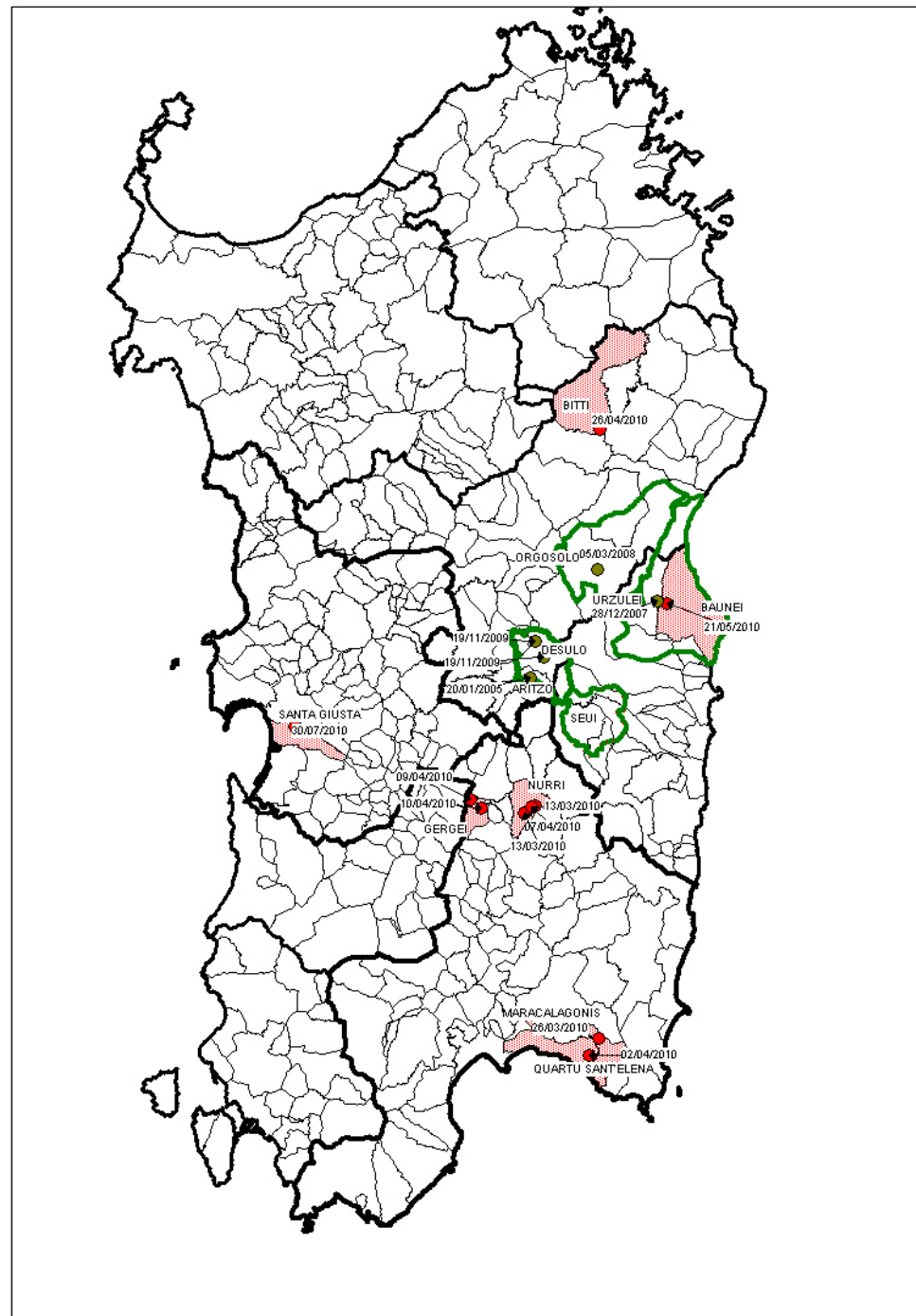
PROVINCE			
NUORO	OGLIASTRA	CAGLIARI	SASSARI
ARITZO; ATZARA; AUSTIS; BELVI; BITTI;DESULO; DORGALI;FONNI;G ADONI; GALTELLI;IRGOLI;L OCULI;LULA; MAMOIADA; MEANA SARDO; OLIENA; ONANI'; ONIFAI; ORGOSOLO; OROSEI; ORUNE; OVODDA; SORGONO; TETI; TIANA; TONARA.	ARZANA; BAUNEI; LANUSEI; LOCERI; OSINI; TALANA; TRIEI; ULASSAI; URZULEI; USSASSAI; VILLAGRANDE STRISAILI; SEUI.	SADALI; SEULO.	BENETUTTI.

# ASFV – OUTBREAKS in PIGS 2010 (AT 05 Nov. 2010)

- Outbreaks: N° 10
- Municipalities interested : N° 8

Province of Cagliari	NURRI 2 outbreaks	SINNAI 1 outbreak	QUARTU S. ELENA 1 outbreak	ISILI 1 outbreak (unknown origin)	GERGEI 2 outbreaks (1 unknown origin)
Province of Nuoro	BITTI 1 outbreak				
Province of Ogliastra	BAUNEI 1 outbreak				
Province of Oristano	ORISTANO 1 outbreak				

# ASFV – OUTBREAKS in PIGS AT 05 Nov. 2010



# ASFV – SITUATION

The epidemiological surveillance regularly performed didn't detect more positives

No further spread of the disease has been detected around these last outbreaks

The number of the detected outbreaks reflects the epidemiological situation of past years and confirms the favourable trend of the last five years



# ASF - Conclusions

- In the high risk zone a viral reservoir exists in the domestic pig population that keeps the disease at the endemic status.
- Outbreaks outside the high risk zone are sporadic and they are rapidly eradicated without permanence of the virus.
- The epidemiological situation of wild boar is improved outside the high risk zone (no virological positives 2008-2009)
- The new outbreaks 2010 recently detected were extinct.
- Most of the seropositives are detected in the restricted zones or in rural farms (no seropositives at slaughterhouse)

# Thank you for attention



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