



HELLENIC REPUBLIC  
MINISTRY OF RURAL DEVELOPMENT AND FOOD  
DIRECTORATE GENERAL OF VETERINARY SERVICES  
ANIMAL HEALTH DIRECTORATE



# Bluetongue Emergence in Greece (update , June – early October 2014)

Dmitrios Dilaveris, Animal Health Directorate /Dept. of Infectious Diseases (Min. of Rural Dev. & Food)

# Bluetongue emergence in Greece (June-early Oct 2014)

- Background information
- Current events
- Measures in place
- Concluding remarks
- Acknowledgements

## Bluetongue emergence in Greece – Background information

### **BT epidemiological situation in Greece over the last years**

#### East Aegean Islands

Since 1999 the disease has been re-occurring with seasonal periodicity and a variable number of outbreaks involving various serotypes (i.e. 8,16,4,1,9,2). The islands affected each year vary and there have been years without outbreaks in the area (or anywhere else in the country (notably the period 2002-2007 was BT-free for the entire country)).

#### Mainland Greece

The disease occurred for the first time in 1999 (extensive epidemic), 2000 (a small isolated pocket of 10 outbreaks) and 2001 (extensive epidemic with a different geographic distribution).

In the above epidemics the areas affected never extended beyond the limits of Central Greece thus leaving the entire Peloponnisos (southern part of mainland Greece) completely unaffected by the disease .

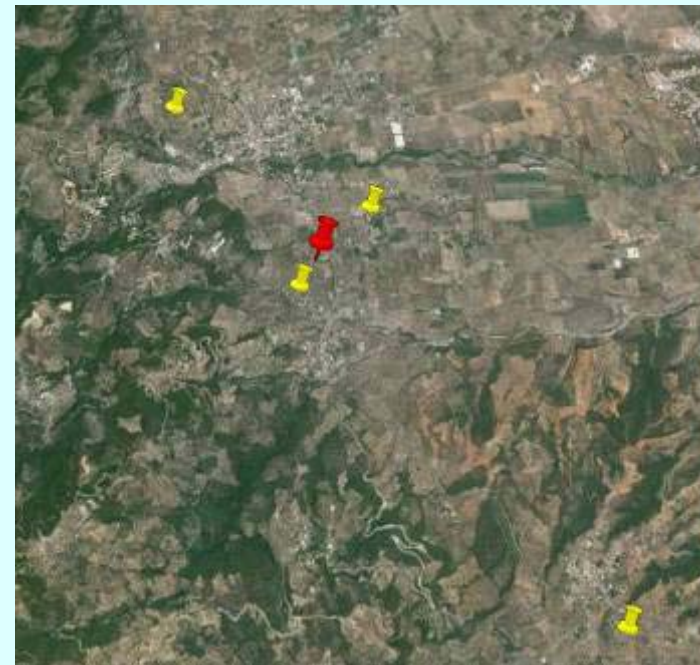
**NOTE : In 2013 , no BT outbreaks reported anywhere in the country**

## Bluetongue emergence in Greece – Current events

### Confirmation of the first BT outbreaks in 2014 (first BT outbreaks ever in Peloponnisos)

As of 30/05/2014 (result produced on the evening of 29.05.2014) an outbreak of Bluetongue (BT) was confirmed in the Prefecture of Lakonia (Region of Peloponnisos, southern part of mainland Greece).

This was more than 10 years since the last outbreak in any part of mainland Greece and **the first ever outbreak in Lakonia and the wider region of Peloponnisos.**



Almost immediately after the 1<sup>st</sup> outbreak another 4 outbreaks were confirmed in its direct vicinity, within a radius of ~ 3-4 km.

Mild clinical signs , low morbidity and mortality.

BT virus type identified as **BTV - 4**

Vector Identified until now : **C. obsoletus**



## Bluetongue emergence in Greece – Current events

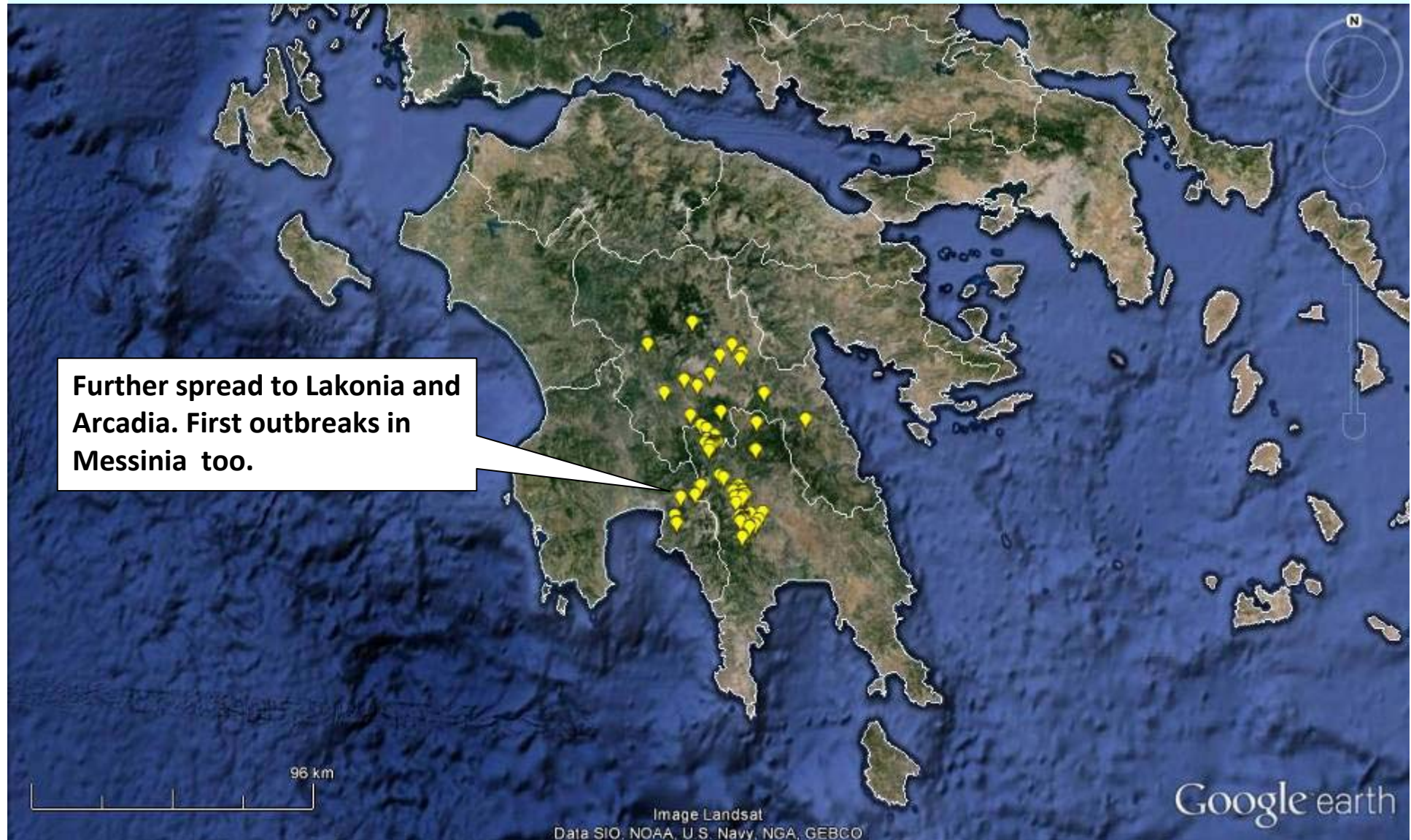
**BT spread** (up until **6 June 2014**)





## Bluetongue emergence in Greece – Current events

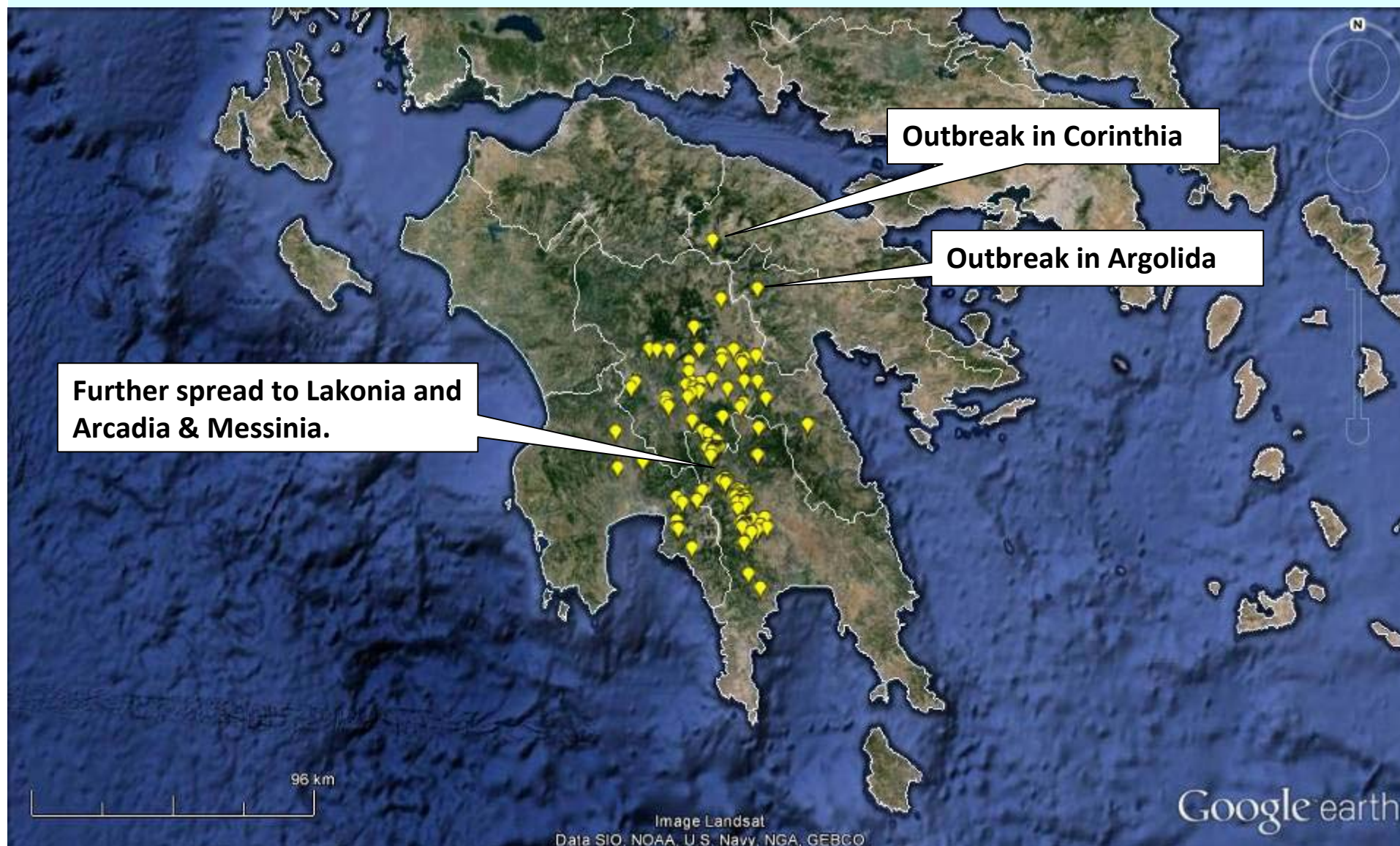
**BT spread** (up until **13 June 2014**)





## Bluetongue emergence in Greece – Current events

**BT spread** (up until **20 June 2014**)





## Bluetongue emergence in Greece – Current events

**BT spread** (up until **29 June 2014**)





## Bluetongue emergence in Greece – Current events

**BT spread** (up until **22 July 2014**)





## Bluetongue emergence in Greece – Current events

**BT spread** (up until **6 August 2014**)



*Bluetongue emergence in Greece (June-early Oct. 2014) - SCoFAH, Brussels 6-7 Oct 2014*



## Bluetongue emergence in Greece – Current events

**BT spread** (up until **18 August 2014**)



*Bluetongue emergence in Greece (June-early Oct. 2014) - SCoFAH, Brussels 6-7 Oct 2014*



## Bluetongue emergence in Greece – Current events

**BT spread** (up until **23 August 2014**)



*Bluetongue emergence in Greece (June-early Oct. 2014) - SCoFCAH , Brussels 6-7 Oct 2014*



## Bluetongue emergence in Greece – Current events

**BT spread** (up until **8 September 2014**)



*Bluetongue emergence in Greece (June-early Oct. 2014) - SCoFAH , Brussels 6-7 Oct 2014*



## Bluetongue emergence in Greece – Current events

**BT spread** (up until **2 October 2014**)



*Bluetongue emergence in Greece (June-early Oct. 2014) - SCoFCAH, Brussels 6-7 Oct 2014*



## Bluetongue emergence in Greece – Current events

### **Number of outbreaks (outbreaks recorded in the ADNS system up until 2 Oct 2014)**

Total number of outbreaks recorded	Susceptible animals present		
	Sheep	Goats	Cattle
906	181.971	24.769	965

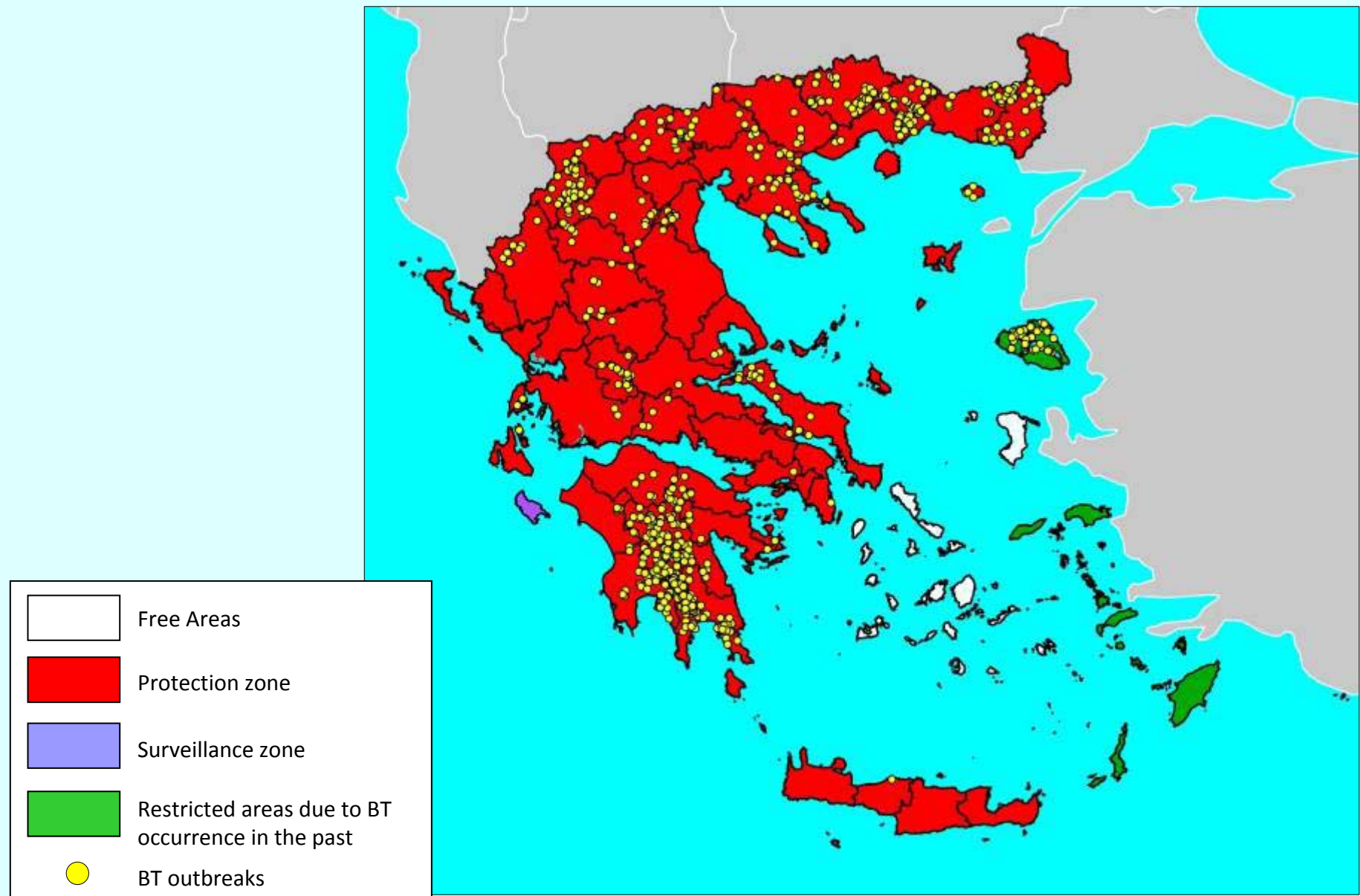
<b>Morbidity (sheep)</b>	<b>5,96%</b>
<b>Mortality (Sheep)</b>	<b>0,83%</b>

**Goats** : very low morbidity – mortality reported  
**Cattle** : very few animals reported with clinical signs  
(mostly serological findings )



## Bluetongue emergence in Greece – Measures in place (1)

### BT restricted zones (as at 2 Oct 2014)





## Bluetongue emergence in Greece – Measures in place (2)

### Measures in the restricted zones

**In the Protection and Surveillance zones:** the measures of Reg (EC) 1266/2007, without making use of any of the derogations provided in Reg (EC) 1266/2007 , regarding the ban on the exit of live ruminants. These may only move from the Surveillance to the Protection zone but not vice-versa.

**In the 20km –Temporary Control Zone:** on top of the above measures, standstill of all ruminant holdings with confirmed BT cases (disease outbreaks). Animals from these holdings may move for slaughter or in the framework of seasonal movements 30 days after the last confirmed BT case, and to another holding 50 days after the last confirmed BT case. Additional movement conditions (apart from the standard requirements of relevant EU legislation) include insect protection measures in relation to the animals and the transport vehicles.

### **Other measures**

- Insect protection measures applied for live ruminant movements of any kind within the restricted zones (vehicles in the Protection and Surveillance zones / animals and vehicles in the 20km –Temporary Control Zone ) , movements carried out in daylight (to avoid the period of the day when disease vectors are most active).
- Bovine sentinel sampling has been temporarily suspended in the regional units (prefectures) where BT outbreaks have been confirmed.



### Other Measures

- ❑ Preventive use of insecticides in establishments and insect repellents in animals (farmers) .
- ❑ Vector control measures in selected vector replication habitats (local authorities)
- ❑ Serological survey to investigate the immunity developed against BT following natural infection
- **Phase A** : total sampling (100% of small ruminants present) of selected BT affected holdings (BT outbreaks) after onset of the disease ( $\simeq$ 1 month later or more). In total examination of  $\sim$  2.000 small ruminant blood samples (for BT antibodies) from 13 prefectures (in progress).
- **Phase B** : sero-survey around BT outbreaks (details currently drafted ).



## Bluetongue emergence in Greece – Concluding remarks

- Morbidity and mortality reported may vary greatly between different parts of the country.
- To date the virus serotype indentified is **BTV -4** .  
Initial molecular analysis of the virus by the CRL (Pirbright) suggests this is a virus combining Western European & North African Features (further tests – comparisons pending).
- BTV vectors involved : mostly *Culicoides obsoletus*, (*Culicoides immicola* to a lesser extent).
- Disease origin : all scenaria still under investigation.
- Vaccination: an option still under careful examination.



# Acknowledgements

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**Thanks for your  
attention !!!**