

Seroprevalence of bluetongue in the Mediterranean Region of Turkey

MEDREONET THIRD ANNUAL MEETING , LISBON

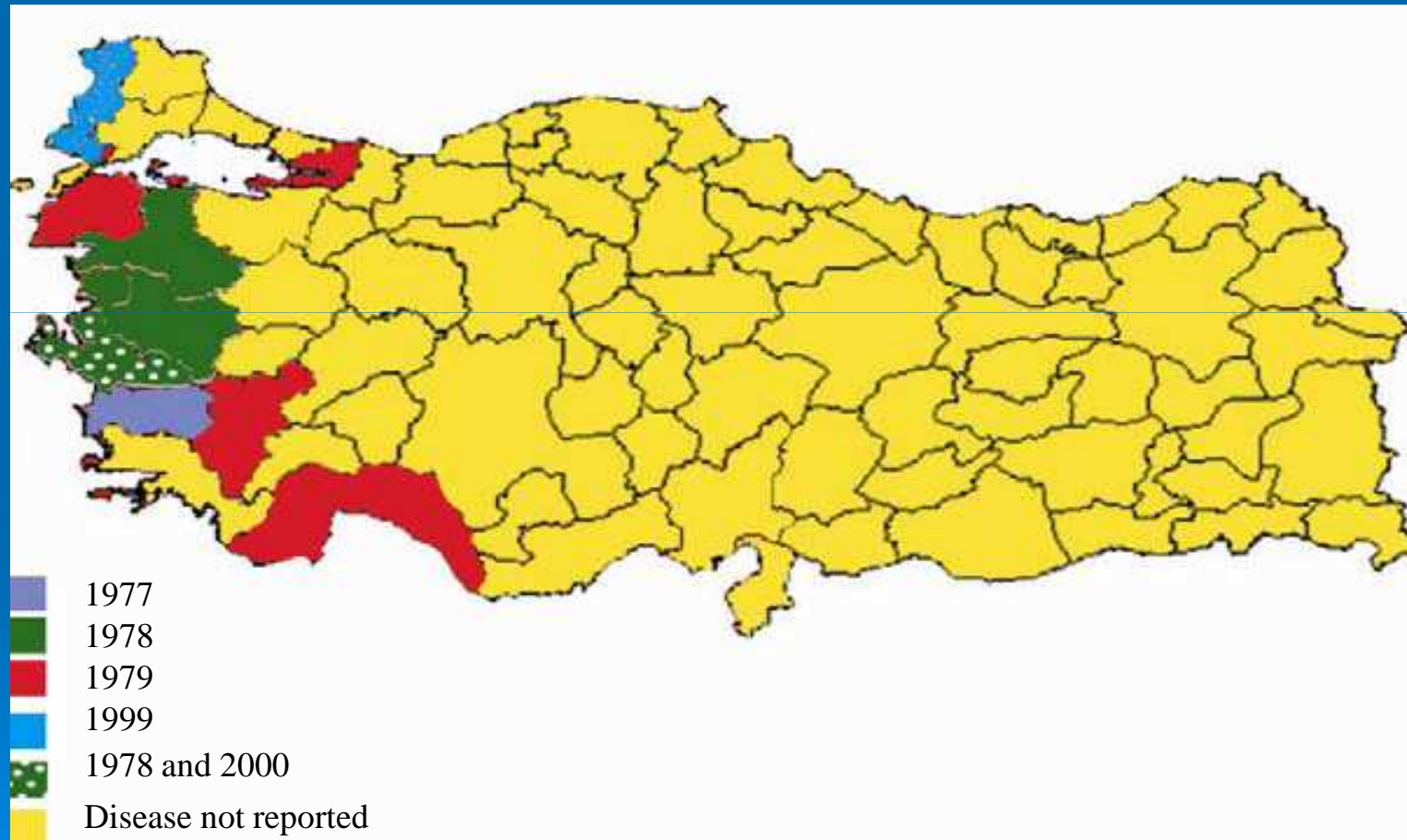
2nd -4th DECEMBER 2009



BLUETONGUE

- The first reported bluetongue outbreak (serotype 4) was in 1977 in Aydin province (West of Turkey).
- The disease was controlled successfully by vigorous control measures in sheep in western provinces (quarantine, animal movement control, disinfection, and insecticide treatment and vaccination campaigns).
- The last case was reported in August 2000. Pirbright Laboratory reported serotypes 9 and 16.

BT Outbreaks

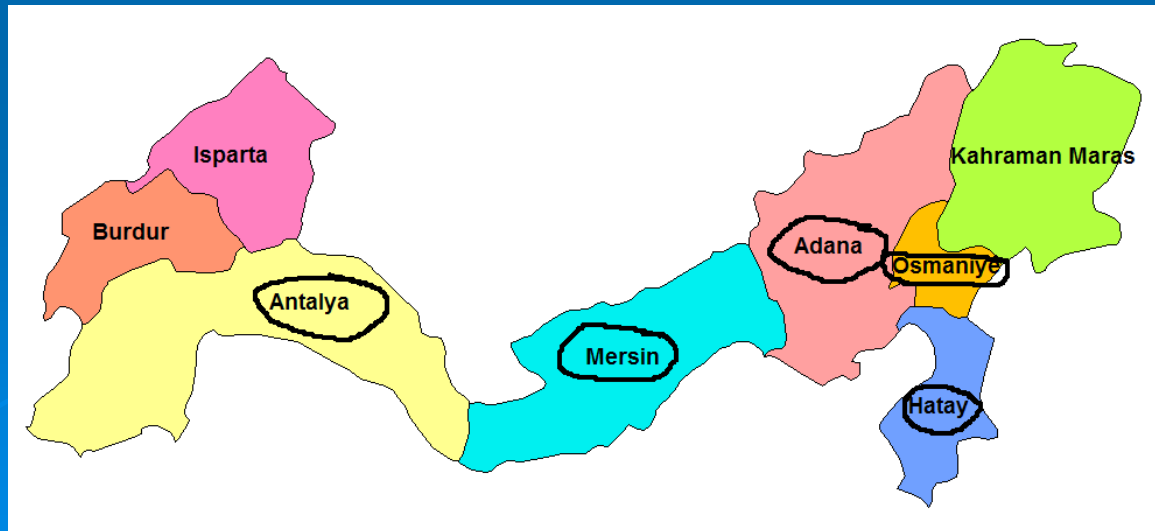
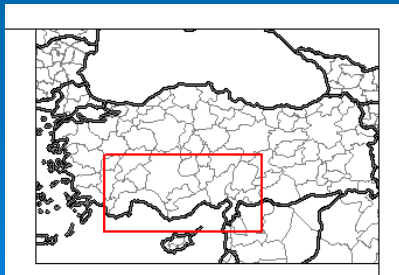


Survey

- The survey was only performed in cattle because this specie was not vaccinated and the presence of antibodies would indicate that the animal had been infected by the field BTV/EHDV.

Areas of Study

- A cross-sectional study was carried out in May 2008 in 5 provinces of the Mediterranean region (Adana, Antalya, Hatay, Mersin and, Osmaniye)



Epidemiological unit:  The village

Sample size, calculated to detect infection:

- 2% of positive villages
- 30% of within-village prevalence
- 95% confidence level

 146 villages, stratified by regions

A competitive ELISA was used for BT antibody detection:

352 / 1,096 positives

32.1% (95% CI: 29.5% – 35.0%)

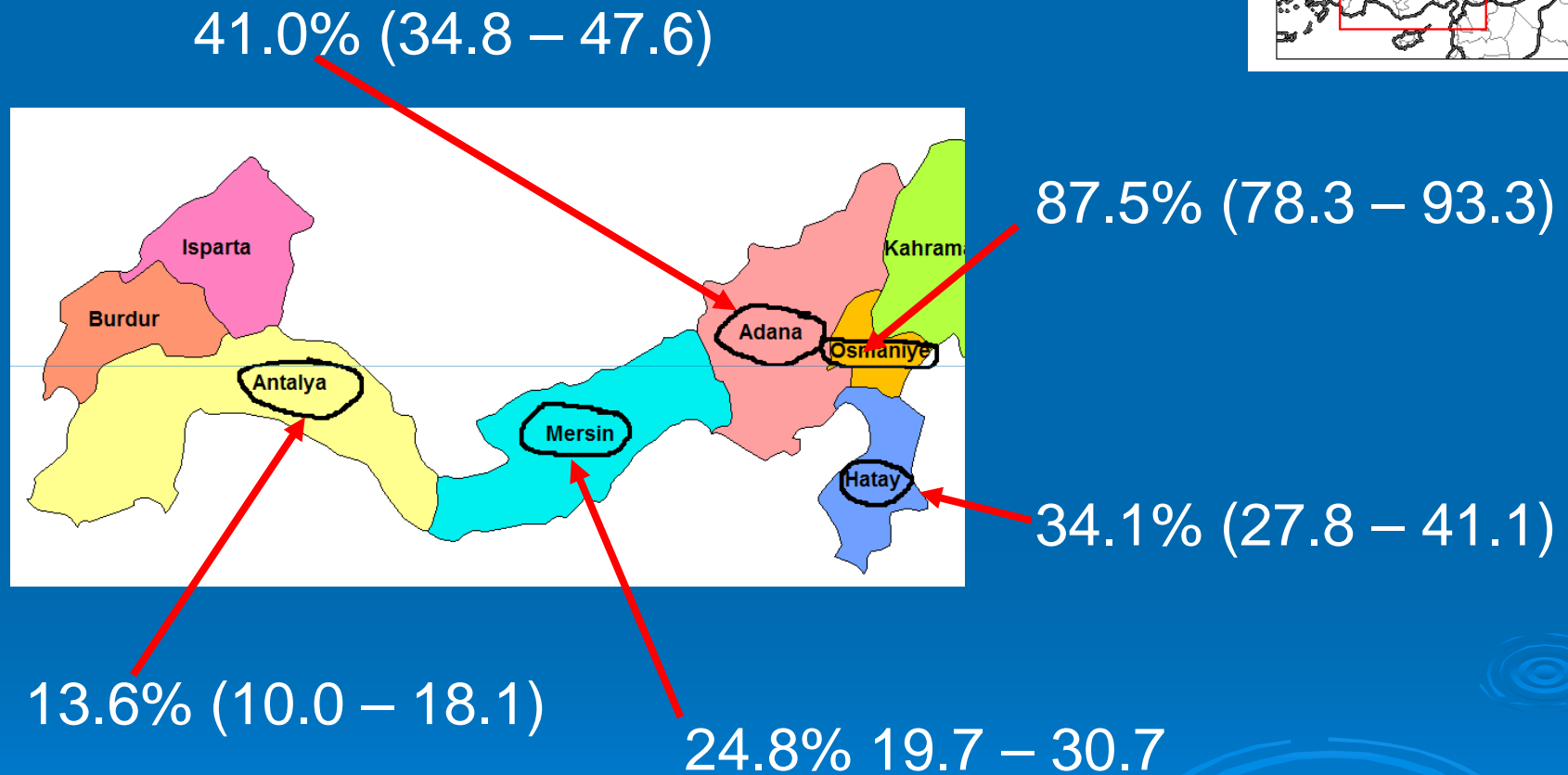
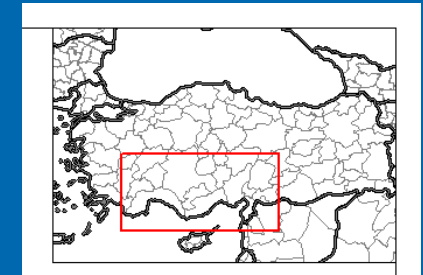


99 / 140 villages with at least 1 positive

71% (95% CI: 62% – 78%)

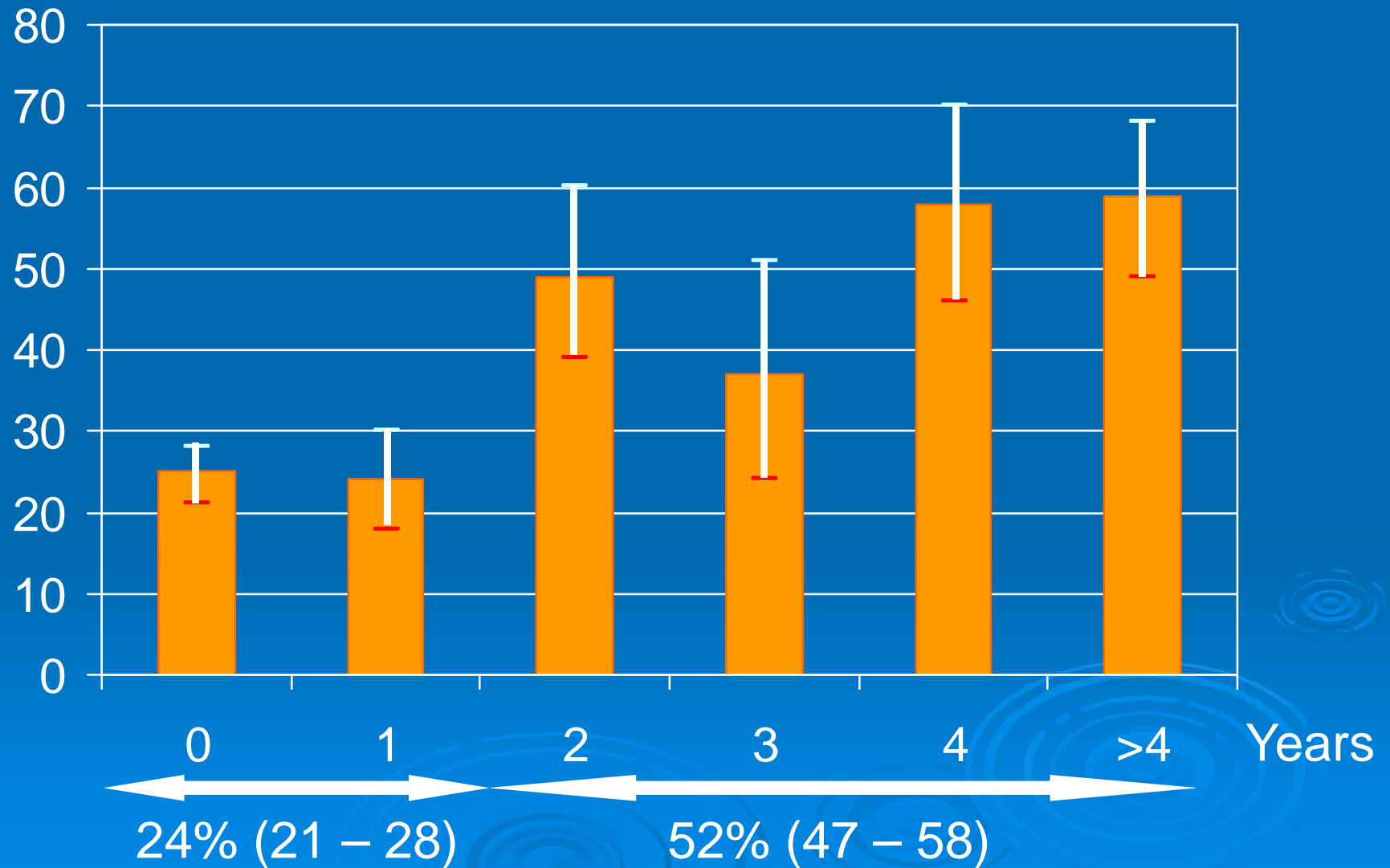


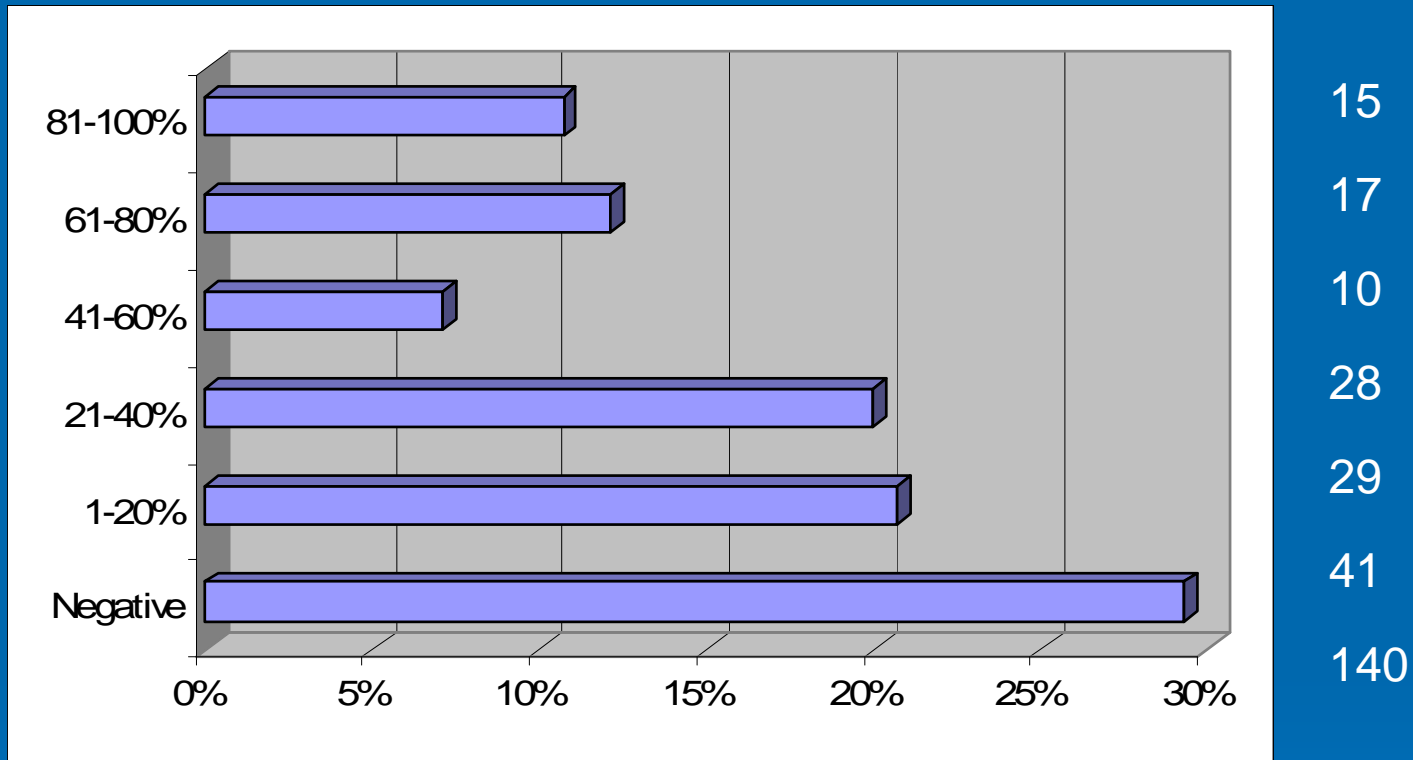
Prevalances in the 5 Provinces



TOTAL	32.1%	29.4 – 35.0
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Distribution of BT by age



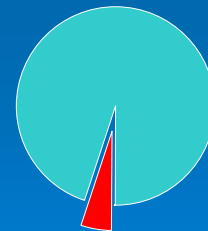


Prevalence by municipalities (n=140)
(\approx 8 samples per municipality)

Antigen capture ELISA with Bluetongue Antigen (EDTA Blood samples)

848 samples → 42 positive animals


4.95 % [3.63; 6.69]



Serotyping

Several samples were sent to IAH, to determine the serotypes involved in the infection.

The results were inconclusive due to toxicity and cross reactivity of the sera that did not allow a clear identification of serotype.

A decorative graphic consisting of several sets of concentric circles, resembling ripples in water, located in the bottom right corner of the slide.

THANK YOU FOR YOUR
ATTENTION

