

## The epizootiological occurrence of bluetongue in the central Balkans

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### Summary

In the last five years, bluetongue has been diagnosed in the following areas of the Mediterranean Basin: Algeria, France, Greece, Italy, Spain, Tunisia and Turkey. In the Balkan Peninsula, the disease has been recorded in Bulgaria (since 1999), Macedonia, Serbia and Montenegro, Croatia, Bosnia and Herzegovina and Albania. Bluetongue arrived in the Balkans from Turkey in 1999. In Serbia and Montenegro, the disease was first diagnosed in July 2001 in the Zubin Potok region of Kosovo. In August, the neighbouring regions of Novi Pazar, Tutin, Rozaje and Leposavic were also affected. The disease was simultaneously observed in eastern Serbia in the regions bordering Bulgaria (city regions of Bosilegrad, Pirot and Knjazevac). The occurrence of the disease and clinical signs indicate that the disease was also present in western Serbia in 2001. During 2002, more extensive serological investigations of animals in some regions of Yugoslavia indicated that the disease had spread towards the north of the country. At the same time, serological evidence also revealed the presence of the disease in the east of Bosnia and Herzegovina. The epizootiological data show that the northernmost point of disease spread in Serbia was the River Sava.

### Keywords

Balkans – Bluetongue – Bosnia – *Culicoides* – Disease spread – Epizootiology – Herzegovina – Mediterranean – Montenegro – Serbia – Virus.

Bluetongue (BT) is an acute viral disease of sheep, goats and cattle, to which deer are also susceptible and is transmitted by haematophagous insects of the genus *Culicoides*. Symptoms include fever, catarrhal-necrotic changes of the nasal and oral cavity mucosa, tongue, digestive organs, coronet, as well as degenerative changes in skeletal muscles. Swelling of the face or tongue, especially in cattle, as well as abortions and stillbirths, can also occur.

The worldwide incidence of the disease is linked to the habitat of the infected animals and vector insects. With increased global warming, insect carriers have spread from 40°N to 43°N. In the last five years, in the Mediterranean region, the disease has been diagnosed in Algeria, France, Greece, Italy, Spain, Tunisia and Turkey. In the Balkans, the disease first appeared in Bulgaria in 1999 apparently originating from neighbouring Turkey. Macedonia, Serbia and Montenegro, Croatia, Bosnia and Herzegovina, and Albania were affected subsequently. In Serbia and Montenegro, the disease was first diagnosed in July 2001 in the Zubin Potok region (Kosovo), and during August in neighbouring regions, namely: Novi Pazar, Tutin, Rozaje, Leposavic, etc. (Fig. 1).

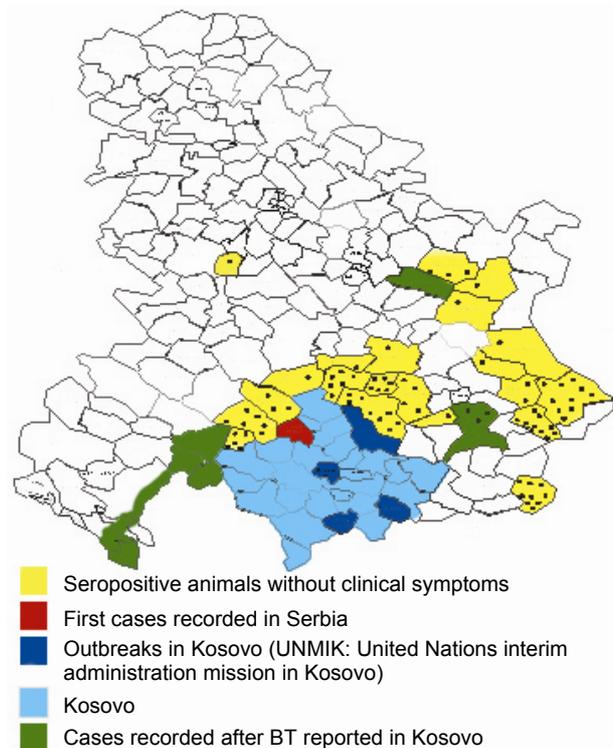


Figure 1  
Bluetongue in Serbia, 2001

## Global situation

Simultaneously, the disease was observed in eastern Serbia, in the border regions with Bulgaria (city regions of Bosilegrad, Pirot and Knjazevac). Based on the epizootiological occurrence of the disease and on clinical symptoms (Fig. 2), it can be concluded that the disease was also present in eastern Serbia in 2001, but low lethality and mild clinical signs meant that it remained undetected.



Figure 2  
Laminitis, clinical symptoms observed in sheep in Serbia, 2001

During 2002, more extensive serological investigations of animals in the Yugoslav regions were performed with the spread of the disease confined to the north of the country. The first serological evidence coincided with reports of the disease in the eastern part of Bosnia and Herzegovina (Fig. 3). From an epizootiological point of view, it can be said that the most northern point of disease spread in Serbia is the River Sava. Diagnostic studies currently being performed in Serbia and Montenegro, as well as in Bosnia and Herzegovina, will hopefully clarify further the true epizootiological picture of the disease in the central Balkans. It is necessary to also investigate which species of *Culicoides* are involved in the transmission of BT in the central Balkans.

With the occurrence of BT in the Balkans in mind, it can be concluded that, irrespective of the results of

the current study on the occurrence and spread of the disease in this area, BT still remains a major international problem. The disease will demand constant attention from the National Veterinary Services, as well as from the Office International des Épidémiologies. It is also clear that effective control will require more concerted action between all the regional veterinary services of southern Europe.

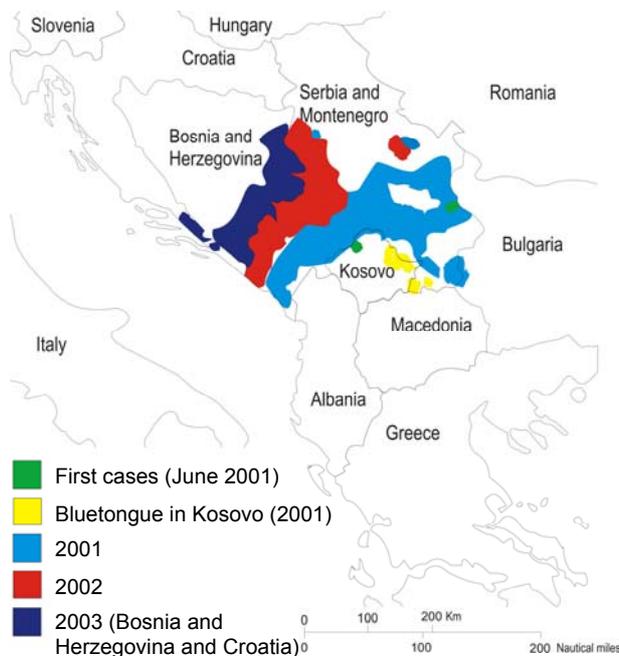


Figure 3  
Epizootiological situation of bluetongue in Serbia and Montenegro and Bosnia and Herzegovina, 2003

## Additional reading

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