were confirmed by the OIE Reference Laboratory in Padua, where virological research also proved negative.

Conclusion

In 2006, Burkina Faso experienced a total of four outbreaks of notifiable HPAI, which were all eliminated by the application of control measures that proved to be effective, as the event was terminated on 22 May 2006. Active and passive epidemiological surveillance have detected no further outbreak since that date. The various serological surveys carried out in 2011 revealed no circulation of the virus, even in the waterfowl populations presumed to be the reservoir.

Burkina Faso’s freedom from notifiable avian influenza and HPAI viruses will be preserved by maintaining and enhancing epidemiological surveillance of domestic and wild birds for the early detection of any suspicion of avian influenza and by conducting serological and virological surveys. These activities will be supported by providing information, training and awareness-raising to both modern and traditional farmers on good farming practices and the importance of their participation in passive surveillance of HPAI and other poultry diseases. In terms of diagnosis, the National Livestock Laboratory has the capacity to make a more accurate and early diagnosis of the disease. Procedures for shipping samples to Reference Laboratories have been established to shorten the time between sending samples and receiving the results.

The Delegate of Burkina Faso to the OIE agrees to notify the OIE immediately of any epidemiological event concerning notifiable avian influenza or HPAI viruses that might occur in Burkina Faso.

Self-declaration by Estonia on the recovery of its rabies-free status

submitted to the OIE on 3 April 2013 by Dr Ago Pärtel, Delegate of Estonia to the OIE, Chief Veterinary Officer, Veterinary and Food Board, Ministry of Agriculture, Tallinn, Estonia

Notification

Rabies is a disease subject to compulsory notification since 1950; statistical data from outbreaks in the territory of Estonia are available, starting from this year. The Regulation Ministry of Agriculture No. 67 ‘Rabies Control Rules’ based on the Infectious Animal Disease Control Act is the contemporary legal act enforcing the responsibility to declare any suspicion of rabies to the Veterinary Services.

Epidemiological evolution

According to records, dog-mediated rabies was a common disease in Estonia in the middle of last century. Thanks to the compulsory vaccination of cats and dogs since 1953, and the extermination of stray animals, urban rabies was eliminated in 1959. No case of disease was notified in the period between 1960 and 1967. However, a new epizootic of sylvatic rabies reached Estonian territory in 1968 and spread rapidly all over the country, including to islands. Rabies has been endemic in Estonia for virtually 40 years, with peaks in infection in 1986 (451 cases) and 2003 (812 cases). Some 76% of all cases were found in wild animals, predominantly in red foxes and raccoon dogs, the reservoirs of the disease in the area. Domestic animals most commonly affected were dogs, cats and bovines (Fig. 1).
In total, 27 cases of rabies have been diagnosed in humans since World War II. The last human death due to rabies was confirmed in 1986.

**Eradication measures**

Compulsory annual vaccination of companion/pet animals and the vaccination of livestock on outbreak sites was a suitable methodology to suppress the spread of infection among domestic animals, but ineffective to eradicate fox- and raccoon dog-mediated rabies, so a new strategy, based on long-term and large-scale oral rabies vaccination (ORV) of wildlife, was developed in 2003 to 2004. The first ORV campaign was implemented in autumn of 2005 and covered two-thirds of Estonian territory in the north. The following spring, ORV activities were also expanded to southern areas of the country. In the years 2006 to 2010, aerial baits were dropped in spring and autumn over the whole country, with the exception of well-defined ranges (water fields, urban areas, roads etc.). Baits of the type Rabigen SAG2 were distributed manually via a specially constructed tube from small aeroplanes with an average density of 20 baits per square kilometre. On average, 860,000 oral baits were distributed per campaign and 1.72 million baits per year. As a result of oral ORV campaigns being conducted twice a year and covering the entire area of the Republic, the incidence of rabies cases decreased dramatically (from 266 in 2005 to 0 in 2010). As a result of the improved rabies situation since 2011, ORV has been restricted to a buffer zone, 20–50 km deep (Fig. 2), covering an area of 9,325 km² in the north-eastern, south-eastern and southern areas bordering neighbouring infected countries.

**Surveillance and monitoring**

Passive surveillance of rabies in Estonia is based upon a network of authorised veterinarians and veterinary officials. All suspected cases of rabies should be notified to the Veterinary Services and relevant samples collected and submitted to the Veterinary and Food Laboratory (VFL) of Estonia. The costs of rabies investigations (as well as the preventive vaccination costs for pet animals) are covered from the State Budget. Samples collected for rabies surveillance and for monitoring ORV campaigns are analysed at the VFL Central Laboratory in Tartu, the National Reference Laboratory for rabies. The Tallinn department of the VFL performs diagnostic work on animals suspected to have rabies originating from northern Estonia.

Besides to above mentioned investigations in rabies-suspected wild and domestic animals in the frames of the monitoring of the efficacy of ORV programme starting from year 2008 brain samples are collected from eight foxes/raccoon dogs per 100 km² for virus investigations. From year 2009 sample size was reduced to four target animals per 100 km² as recommended by WHO Expert Consultation on Rabies (First Report, 2005). Samples for monitoring of ORV are collected by Estonian Hunters Organisation. For detection of virus preferable group to target are indicator animals (foxes/raccoon dogs showing abnormal behaviour suggestive of rabies, found dead and road-kills). Number of animals investigated to confirm or overrule presence of rabies virus in years 2005-2012 and detected positive cases can be observed in Figure 3. All positive findings
have been confirmed among clinically suspected animals.

Number of rabies-suspected animals has ranked between 308-190 during last five-year period. The last case of rabies clearly caused by circulation of virus within Estonian indigenous fauna occurred in March 2008 in North Estonia. Despite of intensified risk-based surveillance of target animals, only four rabies cases has been diagnosed since then. In summer 2009, three rabid foxes were found in the south-east close to (less than 5 km) the Estonian-Russian Federation border. Again in early January 2011 one raccoon dog with unnatural behaviour was detected in the same area, approximately 1 km from the common border. The animal was sampled and his carcass destroyed on 7 of January. The laboratory confirmed the case on 10 January 2011. Starting from this date no rabies cases have been confirmed in Estonia. All positive rabies cases occurred in ORV area since the beginning of eradication programme have undergone in European Union reference laboratory investigations to detect virus genotype. No vaccine-induced rabies case has occurred. All positive animals were infected with classical rabies virus (genotype 1), wild rabies strains present in Estonia. From the beginning of ORV of wildlife, results of vaccination have been monitored by the control of bait uptake by detection of marker traces in teeth of target population and evaluation of immunisation rates by ELISA test in serum samples. An average bait uptake was shown to be as high as 85% and 87% in raccoon dogs and foxes in 2006-2011. Corresponding immunisation rates as assessed by ELISA were 46% in raccoon dogs and 44% in foxes.

Importation procedures

As Member State of European Union (EU), Estonia follows the importation procedures in line with EU legislation. Importation procedures respected are enacted by Regulation (EC) No 998/2003 of the European Parliament and of the Council. Importation of susceptible pet animals is allowed in case they have been vaccinated for rabies and animals originated from defined countries with unfavourable rabies situation should additionally undergo laboratory testing to prove existence of sufficient immune-response. In accordance with Decree of Director General of Veterinary and Food Board of Estonia importation of unvaccinated dogs, cats and ferrets under the age of three months for commercial reasons is prohibited.

Conclusion

Via ORV of wildlife in total territory of country starting from 2006 Estonia has succeeded within three-year period in eliminating terrestrial rabies from the main parts of the country. Although three cases of rabies were detected in summer
2009 and one in January 2011 in short range from south-east border of country, no infection have been found in other parts of Estonia since March 2008. An adequate system of laboratory-based rabies surveillance and ORV monitoring has been put in place and investigation results obtained confirm the decent outcome of the programme. To reduce as much as possible the threat of re-incursion of rabies into Estonian territory from neighbouring infected areas, on-going ORV will be implemented in buffer – zone with sufficient depth in country borders. Contracts have been undersigned with vaccine producer and aerial company to start instantly additional emergency vaccination in case of need. Efforts will be continued to maintain surveillance awareness and educate public about the risk of reintroduction of disease via illegal importation of pets or natural migration of infected wildlife.

No cases of rabies have been reported in humans or animals over the past two years in Estonia. The last case of rabies occurred in January 2011: one rabies-suspected raccoon dog was found in south-east border of country in Põlva county, district of Värskü, approximately 1 km from the common border. It was sampled and his carcass destroyed on 7 of January. The laboratory confirmed the case on 10 January 2011.

Therefore, considering the before mentioned information,
— and the fact that more than two years have elapsed since the last case of rabies was detected on 7 January 2011,
— and that no case was detected throughout the monitoring programme for rabies,
— and in accordance with Article 8.10.2 of Chapter 8.10. of the OIE Terrestrial Animal Health Code (2012);
Estonia complies with the conditions to be considered a rabies free country and the Delegate of Estonia to the OIE declares that his country has regained its rabies-free status.