Background information
After an absence of more than ten years, rabies re-emerged in 2008 and spread through wild foxes in the regions of north-eastern Italy. Between January and September 2009, to control infection and to minimise the risk of human exposure, three oral vaccination campaigns in foxes were carried out by the manual distribution of baits, and four emergency oral rabies vaccination (ORV) campaigns were conducted in foxes by aerial distribution in the affected regions, starting in December 2009. Ordinary aerial ORV campaigns followed in spring and autumn of 2011 and 2012, although no cases were detected after February 2011, either in wild or domestic animals. Both the course of the epidemic and the promptly implemented control measures are summarised below.

Description of the event
On 17 October 2008, the National Reference Centre identified a rabid fox in the municipality of Resia, located in the Friuli-Venezia Giulia region (FVG) of north-eastern Italy. This was the first case of wildlife rabies in Italy for 13 years. Partial sequencing of the isolated rabies virus (RABV) strains showed a 100% sequence identity with RABV isolates in Slovenia, Croatia and other West Balkan countries. Immediate notification was sent to the OIE on 21 October 2008. After detection of the disease in foxes and its rapid spread, three oral vaccination campaigns were carried out in FVG by manually distributing vaccine baits. Despite these efforts, the disease spread westwards to the Veneto region in November 2009, eventually reaching the autonomous provinces of Trento and Bolzano in February and April 2010, respectively. Up until February 2011, a total of 287 cases had been diagnosed in domestic and wild animals, of which 242 (84.3%) were red foxes (Vulpes vulpes). Italy provided regular follow-up reports as the situation evolved. The geographic distribution of the rabid red foxes is shown in Figure 1. After the last rabid foxes were detected in February 2011, no further cases of rabies were diagnosed (Fig. 2). The last outbreak occurred on 14 February 2011 and was resolved by 31 March 2011. The Italian Veterinary Services sent a final report to the OIE on 24 December 2012, stating that the event had been resolved on 31 March 2011.

Legal provisions
Surveillance and control measures for rabies in Italy are regulated by the following national legislation:
– the Presidential Decree n. 320 of 8 February 1954 (D.P.R. 08/02/1954 n. 320), Regulation of Veterinary Law, which ratifies the compulsory notification of rabies, and defines control measures for rabid animals
– the Ministerial Decree of 26 November 2009, and its further modifications and additions, containing measures to prevent rabies spreading in the north-eastern regions of Italy.


Self-declaration from Italy on the recovery of its rabies-free status
submitted to the OIE on 31 March 2013 by Prof. Romano Marabelli, Delegate of Italy to the OIE, Head of Department, Veterinary Public Health, Food Safety and Collegial Bodies for Health Protection, Ministry of Health, Rome, Italy

Fig. 1
Geographical distribution of rabid foxes during the 2008 to 2011 rabies outbreak in Italy
Emergency vaccination campaigns were approved by the EU Commission with Commission Decision 2010/657/EU of 28 October 2010, on the financing of emergency measures concerning rabies in North-East Italy.

Oral rabies vaccination campaigns

Between December 2009 and December 2010, four emergency ORV campaigns were carried out in foxes, according to European Union guidelines and Commission Decision 2010/657/EU. Oral vaccination of foxes was combined with the mandatory vaccination of dogs and domestic livestock in the areas at risk.

In 2011 and 2012, ordinary aerial ORV campaigns were conducted twice a year, in spring and autumn.
The ordinary vaccination campaigns covered the same areas as the previous two emergency campaigns (Fig. 3).

Thirty days after the completion of each vaccination campaign, the efficacy and efficiency of the ORV campaigns were estimated by testing the level of bait uptake and antibody titration, respectively (Table I).

Table I

<table>
<thead>
<tr>
<th>ORV campaign</th>
<th>Type</th>
<th>Bait uptake (1)</th>
<th>95% C.I.</th>
<th>Herd immunity (2)</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>December 2009 – January 2010</td>
<td>emergency</td>
<td>71.1%</td>
<td>64.6%-77.6%</td>
<td>75.9%</td>
<td>69.4%-81.6%</td>
</tr>
<tr>
<td>May-June 2010</td>
<td>emergency</td>
<td>63.2%</td>
<td>59.7%-66.9%</td>
<td>69.1%</td>
<td>65.1%-73.0%</td>
</tr>
<tr>
<td>August-September 2010</td>
<td>emergency</td>
<td>82.5%</td>
<td>79.3%-85.6%</td>
<td>46.2%</td>
<td>40.8%-51.5%</td>
</tr>
<tr>
<td>November-December 2010</td>
<td>emergency</td>
<td>91.8%</td>
<td>88.3%-95.3%</td>
<td>77.8%</td>
<td>73.8%-81.4%</td>
</tr>
<tr>
<td>April-May 2011</td>
<td>ordinary</td>
<td>67.7%</td>
<td>61.7%-73.8%</td>
<td>74.6%</td>
<td>70.7%-78.3%</td>
</tr>
<tr>
<td>November-December 2011</td>
<td>ordinary</td>
<td>86.5%</td>
<td>82.3%-90.6%</td>
<td>46.3%</td>
<td>42.3%-49.3%</td>
</tr>
<tr>
<td>April-May 2012</td>
<td>ordinary</td>
<td>92.7%</td>
<td>89.5%-96.0%</td>
<td>60.1%</td>
<td>56.1%-64.1%</td>
</tr>
</tbody>
</table>

(1) Detection of biomarker in bones
(2) Percentage of tested animals with antibody titres > 0.5 UI/ml

Therefore, considering the information given above, and:
– the fact that more than two years have elapsed since the last case of rabies was detected on 14 February 2011 and resolved on 31 March 2011
– that no cases have been detected in the monitoring programme for rabies in foxes
– in accordance with Article 8.10.2. of Chapter 8.10. of the OIE Terrestrial Animal Health Code (2012),
the Delegate of Italy to the OIE declares that his country has regained its rabies-free status, as of 31 March 2013.