

## Human and animal exposure to a rabid dog illegally imported into France, August 2004

Alexandra Mailles (a.mailles@invs.sante.fr)<sup>1</sup>, Hervé Bourhy<sup>2</sup>, Henriette de Valk<sup>1</sup>, Laurent Dacheux<sup>2</sup>, Véronique Servas<sup>3</sup>, Isabelle Capek<sup>1</sup>, and Jean Claude Desenclos<sup>1</sup>.

<sup>1</sup>Institut de Veille Sanitaire, Saint Maurice, France

<sup>2</sup>National Reference Centre for Rabies, Institut Pasteur, France

<sup>3</sup>Cellule interrégionale d'épidémiologie, Bordeaux, France

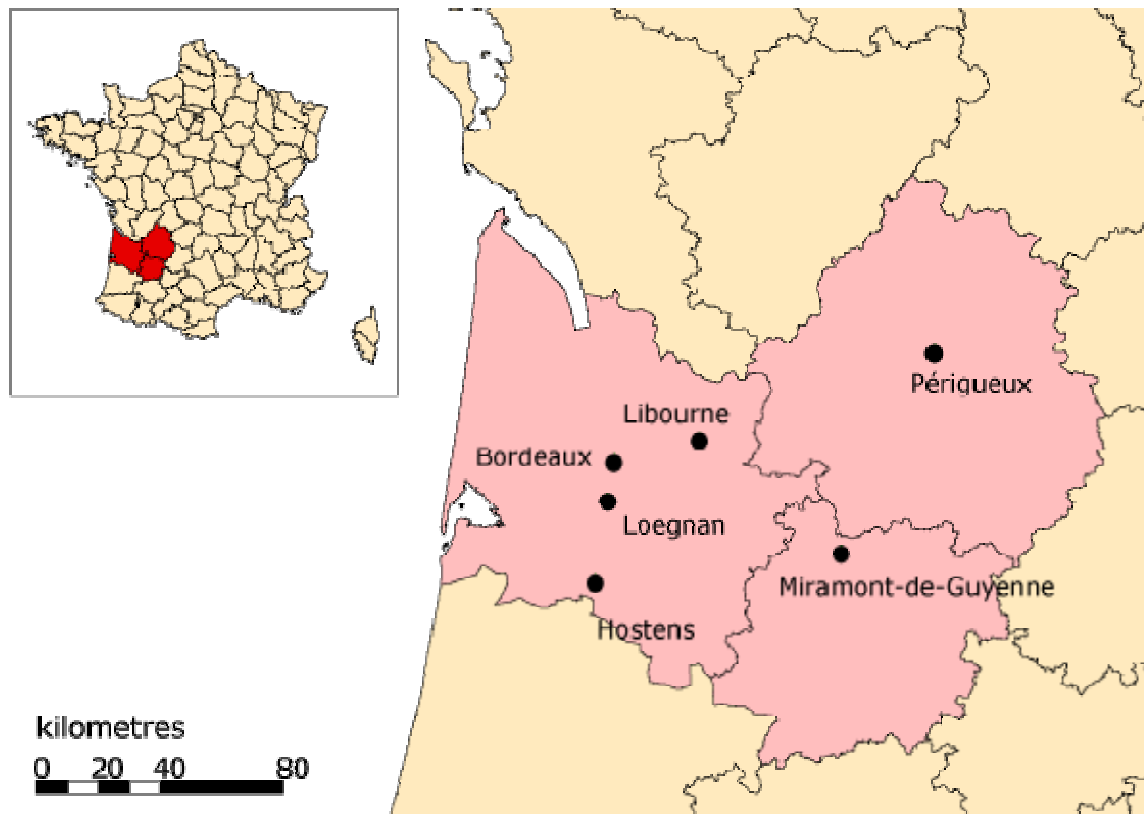
On 26 August 2004, the National Reference Centre for Rabies at the Pasteur Institute confirmed the diagnosis of rabies in a dog in the city of Bordeaux in southwest France. The dog was a 4 month old female, approximately 50 cm tall, with a medium-length light brown coat, a black muzzle, long tail and floppy ears (photos are available at [http://www.invs.sante.fr/display/?doc=presse/2004/communiqués/rage\\_270804](http://www.invs.sante.fr/display/?doc=presse/2004/communiqués/rage_270804)). She was neither officially registered nor vaccinated against rabies, and had been imported illegally into France by her owner in July 2004, after being found near Agadir in Morocco. The dog started to show a change in behaviour on 17 August, when she became increasingly agitated and bit her owner. She later also bit an attending veterinarian, two employees of the SPA (French society for the protection of animals), 2 joggers and another dog. The condition of the rabid dog deteriorated rapidly and she died on 21 August. The maximum period during which the dog was infectious was defined as the 15 days preceding her change of behaviour until her death. During that 19 day period (2–21 August), the dog was in contact with many people and animals in the southwest of France (see Figure).

Between 3-21 August, the dog and her owner walked around Bordeaux city centre, in the Gironde département of France. The dog also came into contact with people and other animals during trips to the following places:

- Hostens (Gironde): the dog was at a lakeside beach where children were present: 2 August
- The Mimos Festival in Périgueux (Dordogne): 5 August
- Street theatre festival in Miramont de Guyenne (Lot et Garonne): 7-8 August
- The Fest'Art music festival, Libourne (Gironde): 12-14 August

These towns and festivals attract thousands of visitors from France and abroad, and so regional and national alerts were issued. The European Union member states were alerted through the Early Warning and Response System (EWRS/HSCCD) system on 27 August, and information has also been disseminated by the World Health Organization [1]. Other countries have issued revised advice to travellers and health professionals.

**Figure.** Map of France showing the départements and towns where the dog came into contact with people and other animals.



In France, extensive media coverage has relayed the message that any person who could possibly have been in contact with the dog should contact their emergency health services. Pictures of the dog have been shown on television, in newspapers and on the internet. Owners of dogs that might have been exposed to the infected dog have been advised to contact their district veterinarian services.

The emergency health services have assessed the probability of exposure by using a checklist to enquire about dates, times, places and types of contact. Those who have reported direct contact (bite, lick or scratch) or contact of dog saliva with mucous membranes (mouth, eye) with a dog matching the description, in a place and period compatible with exposure to the infected animal, have been referred to one of France's 70 anti-rabies centres, where a more detailed assessment has been made and vaccination and immunoglobulin administered as appropriate. All rabies vaccine in France is administered through anti-rabies centres.

As of 31 August, about 300 people had contacted health services, and 47, all French, had been referred to an anti-rabies centre. Nineteen of these people, who had been bitten or scratched or had mucosal contact with the infected dog's saliva, or who had had similar contact with a dog of unknown identity (particularly in the case of small children), were vaccinated. Six other people, including the dog's owner, were reported by the dog's owner to have been bitten, and were vaccinated.

The last case of indigenous human rabies in France occurred in 1924, and human cases of imported rabies are rare, with only 20 cases identified between 1970 and 2003 (90% of them from Africa). In the 1970s and 1980s, rabies was endemic in foxes, especially along the German border in eastern France. In 2001, after 30 years of extensive control measures, including oral vaccination of foxes, and in the absence of cases of rabies identified in terrestrial carnivores since 1998, the World Organisation for Animal Health (OIE, <http://www.oie.int>) declared France free of rabies in terrestrial animals. Surveillance of rabies in the fox population has been maintained in order to detect any re-introduction of the virus.

Despite France's rabies-free status, the potential for indigenous rabies still exists because of the regular illegal importation of carnivores from endemic countries. In 2004, 3 cases of canine rabies (including the case reported here) have been diagnosed. All 3 dogs were illegally imported from Morocco and reached France after having been transported through Spain by car. The first case occurred in January in the city of Lorient in northwest France. The infected dog escaped from his owner while shedding the virus. The dog wandered through the city for 2 hours, and 24 contacts were subsequently vaccinated. The second case occurred in May in the city of Bordeaux, when the owners of an illegally imported puppy travelled widely through southwest France, but the puppy had few contacts with either people or other animals, and all contacts were traced.

The sanitary regulations concerning rabies vaccination status of all carnivores entering the EU Schengen zone are essential for rabies control, and must be strictly applied in European areas that have been declared free of terrestrial rabies. This applies to France in particular, because the illegal pet importation route from Morocco through Spain to France has already been reported in the past.

It is essential to identify all those people who were exposed to the dog in the current case, to prevent any occurrence of human rabies in France. It is equally important to identify all animals exposed to this dog, in order to prevent the reintroduction of rabies in terrestrial carnivores in France.

For further information, please contact Alexandra Mailles (a.mailles@invs.sante.fr), tel. +33 1 41 79 68 01 (office hours, Monday-Friday) or +33 6 66 33 42 57 (weekends).

#### References:

1. World Health Organization Communicable Disease Surveillance & Response. Rabies in France. Disease Outbreak News. 1 September 2004. ([http://www.who.int/csr/don/2004\\_09\\_01a/en/](http://www.who.int/csr/don/2004_09_01a/en/))