

Improved trapping technique of the American mink helps to save the critically endangered European mink in Spain

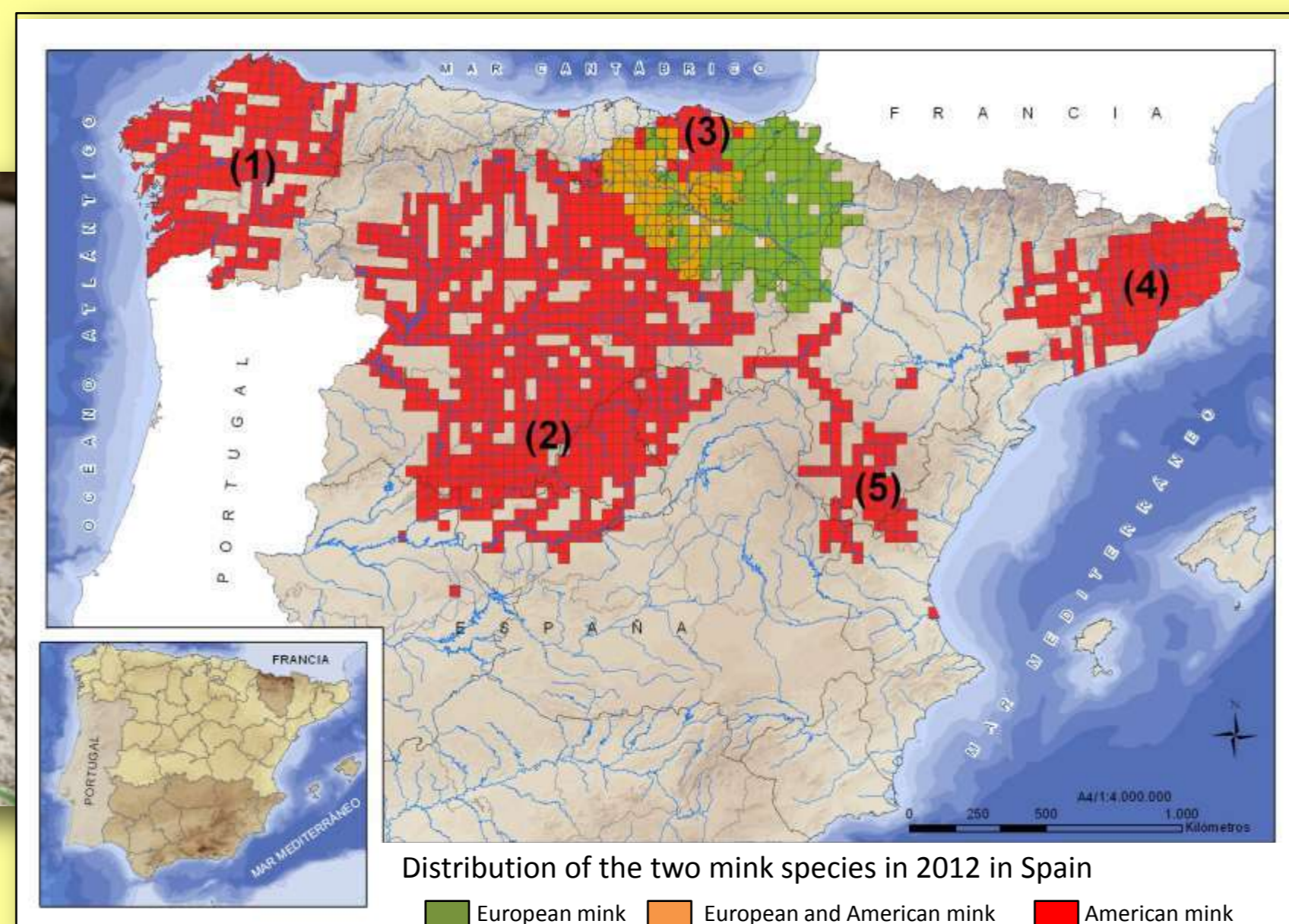
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INTRODUCTION

Spain currently holds one of the last populations of the European mink (*Mustela lutreola*). Less than 500 individuals occupy a small territory in north of country, the population shrinks steadily.

The main threat to the European mink is the presence of the American mink (*Neovison vison*). Since 2010, rapid colonization of the American mink was observed in the Ebro river basin, in the core area of the European mink. Culling effort was insufficient to stop the invasion of the alien mink in 2011-2013. In 2014, the project LIFE LUTREOLA SPAIN started, with the aim to improve the status of the European mink in Spain.



GOALS

The main goals of the LIFE LUTREOLA SPAIN are:

- Improvement of American mink trapping techniques.
- Removal of the American mink within the range of European mink.
- Creation of monitoring network for the two species of minks.
- Reinforce the population of European mink through release of captive-born individuals.

METHODOLOGY

2014

- An experimental trapping was carried out during September-November.
- Two techniques were contrasted: conventional trapping vs mink raft method.
- 252 mink rafts and traps were set for trapping in eight river sections.
- The density of rafts was approximately 1 raft per 1 km of river.



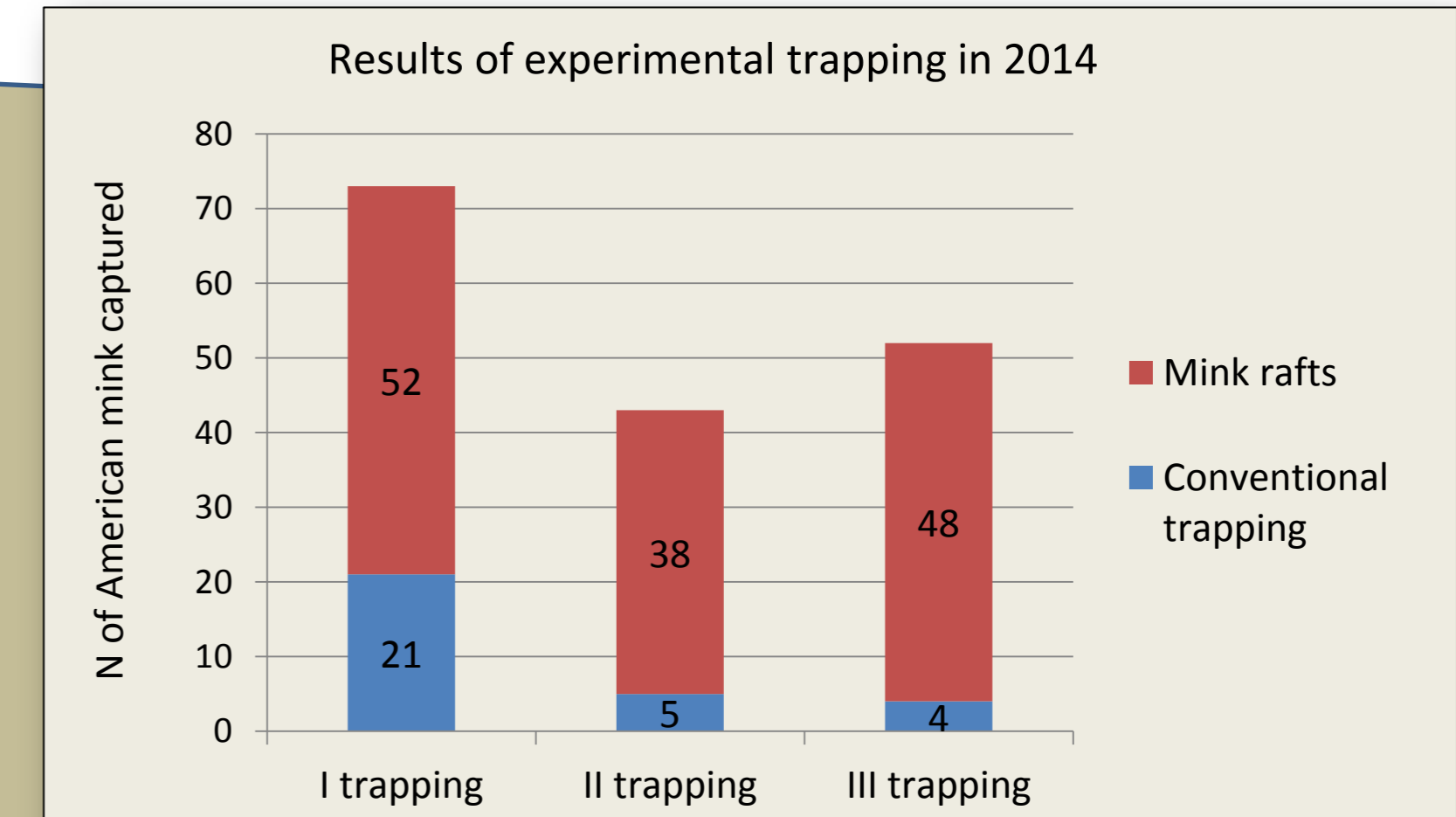
2015-2017

- Mink raft method was used for eradication.
- 1062 rafts were set in whole area of the territory of the project LIFE LUTREOLA SPAIN.
- 431 of those were placed in Ebro river basin within the range of European mink, covering the known area occupied by American mink.
- 136 additional rafts were placed to detect the presence of American mink (projects of Biodiversity Foundation, La Rioja and Alava Regional Governments).

Results

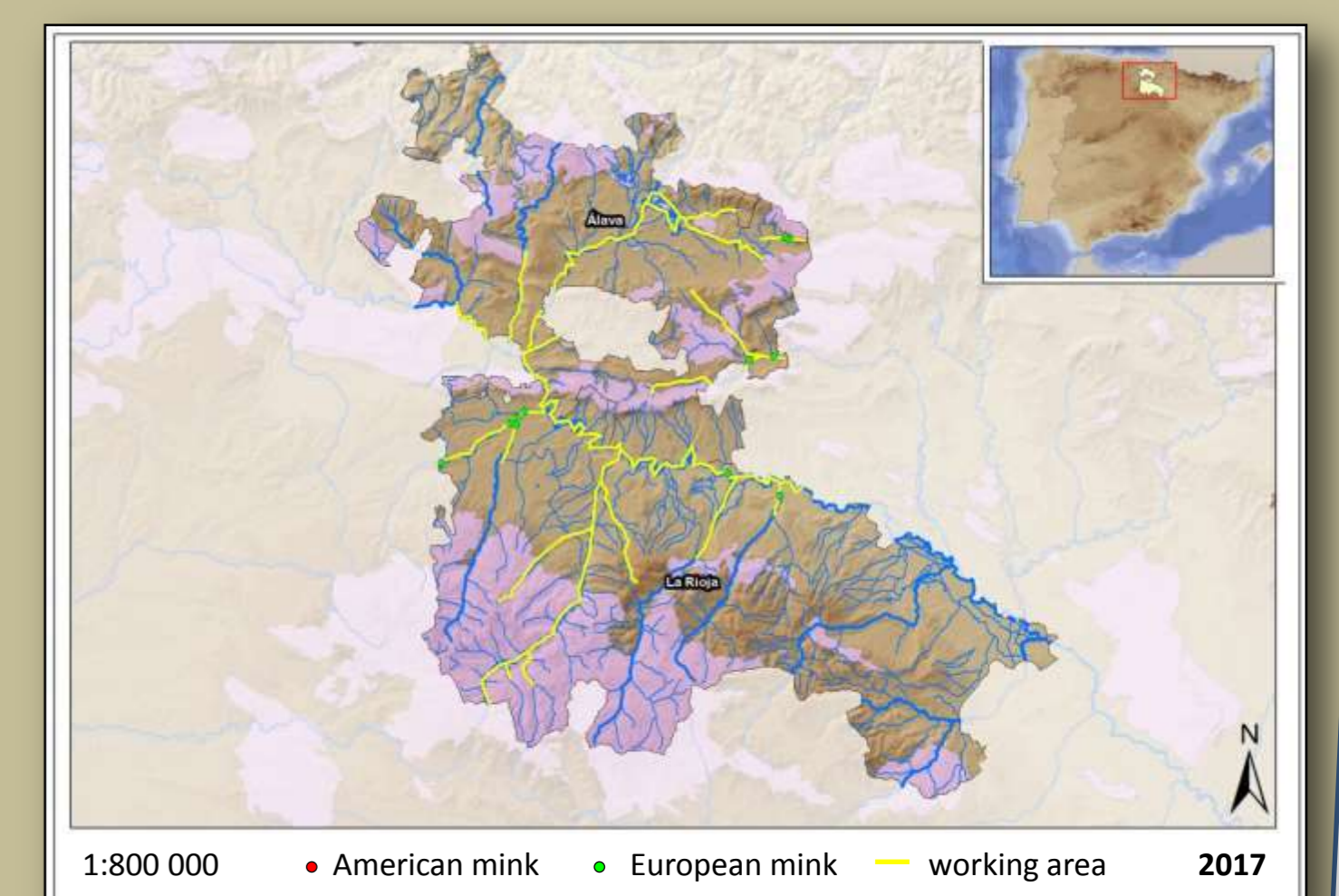
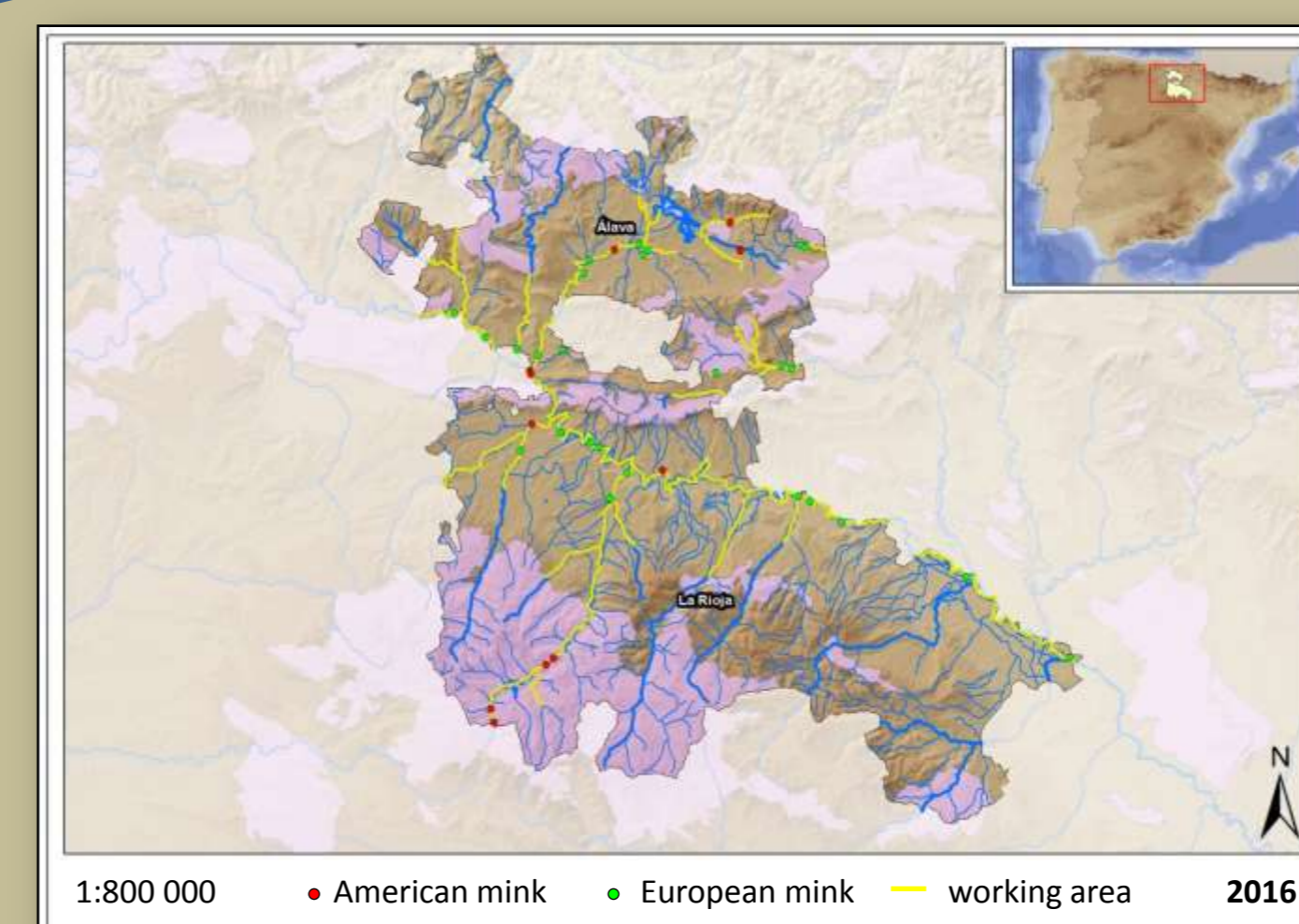
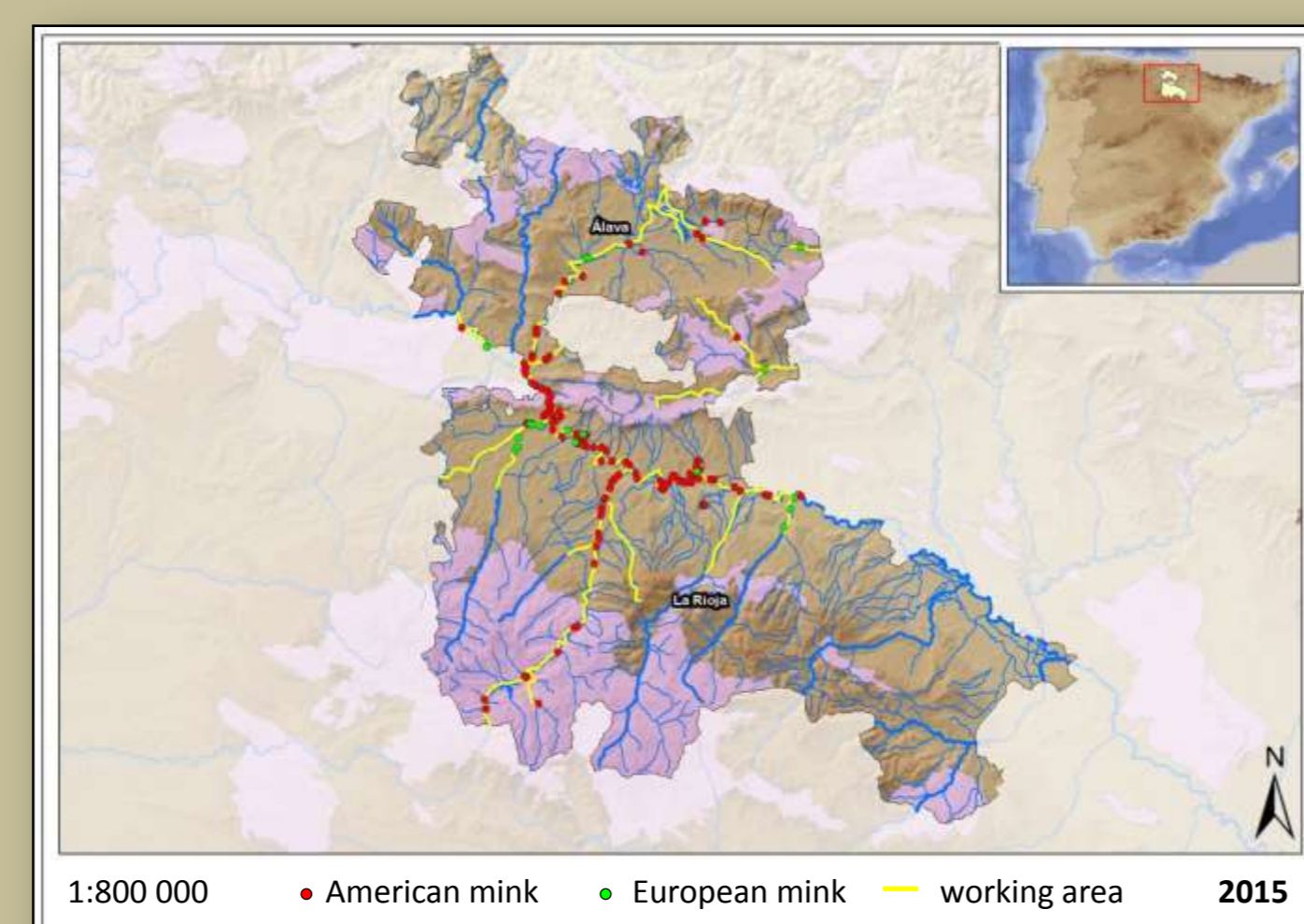
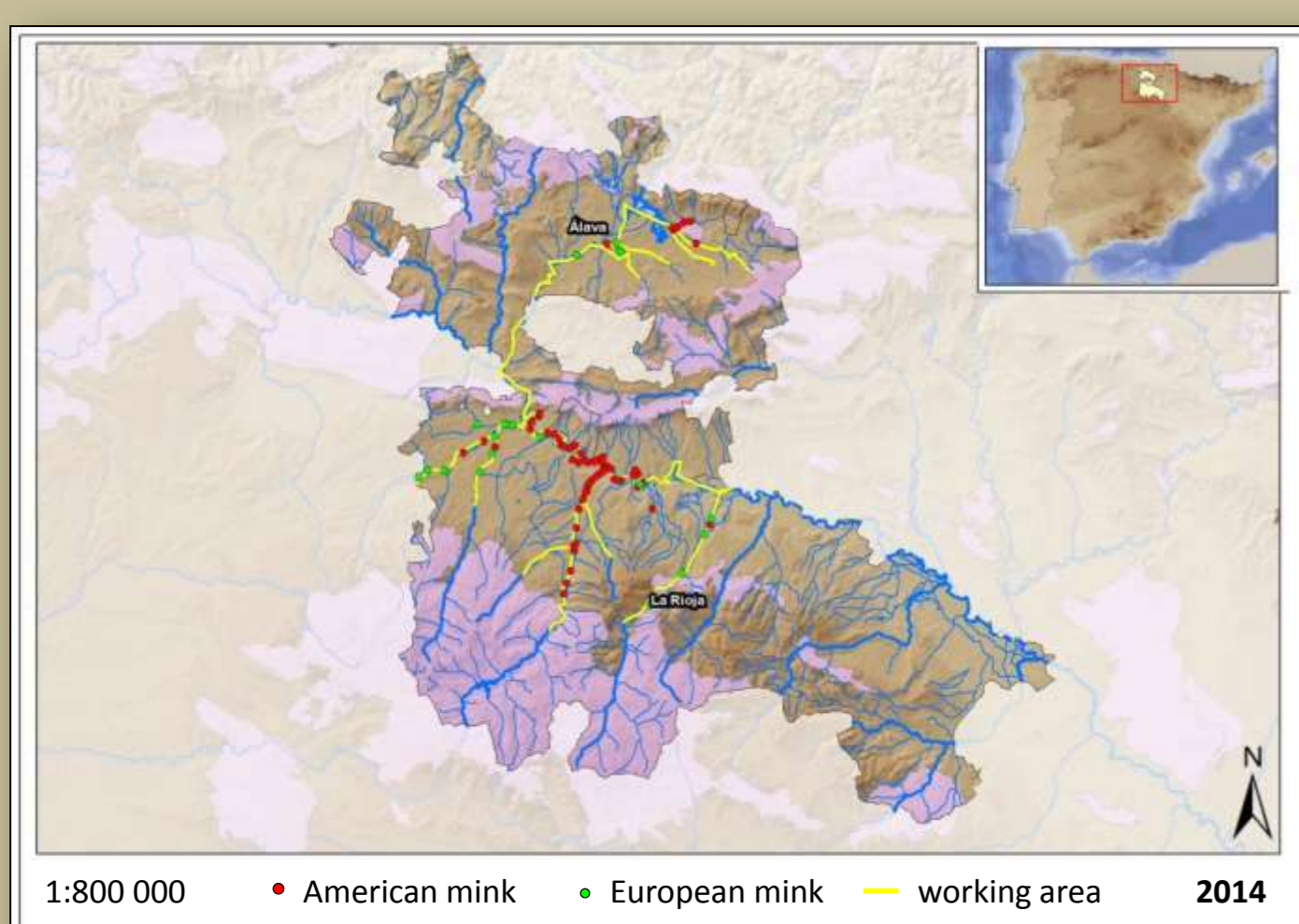
2014

- 168 American mink and 24 European mink were captured:
- 138 American mink were captured with rafts and 30 with conventional live-trapping.
 - Mink rafts method was 7,4 times more effective to catch the American mink.



2015-2017

- A total of 825 American mink and 52 European mink were captured in the project area.
- 173 out of 825 alien mink were captured in Ebro river basin, in 450 km long river section within the range of the European mink.
- Most of captures in an initial phase of the eradication: **161 captures in 2015** → **12 captures in 2016** → **No captures in 2017...!**



Conclusions:

- The European mink remains scarce in a large part of its range in Spain, the main threat is the presence of the American mink.
- Mink raft method is very effective and allows to eradicate the American mink populations locally.
- Systematic trapping strategy is essential to achieve success.

