

## Distribution and diet of a recently-established population of *Lutra lutra* in the Valley of the River Ticino.

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During the 20<sup>th</sup> century, the European otter (*Lutra lutra*) has dramatically declined in central and southern Europe because of hunting, destruction of riparian habitat and chemical pollution. In Italy, few population have survived in the most remote areas of the southern Apennines, where recent studies have recorded an unexpected recovery. In the valley of the River Ticino, a pair of otters was reintroduced in 1997 from a breeding centre (Cameri) located in Piedmont. A further pair possibly escaped before the end of the century. Additionally, during floods in 1991 and 1993 respectively, a pair and a cub and a pair with two sub-adults escaped from their breeding enclosure “La Fagiana” on the Lombardy side of the river. In spring 2016 an otter survey was carried out with the aim of drawing a picture of the current distribution of the species in the area. By surveying 600 m long transects, otter spraints were found in 8 different stations, between Cameri and Parasacco towns, corresponding to about a 35 km section of the river. Sprainting sites were mainly found inside the weave of meanders, on streams, canals and oxbow lakes, rather than on the main course of the river. All collected otter spraints were stored in silver paper, labelled and frozen until diet analysis. Each spraint was soaked for 12 hours in a solution of hydrogen peroxide and then placed into sieves with 0.5 mm wide meshes, and washed by a water jet. Fish remains were identified from their vertebrae, jawbones and scales, using personal collections and the keys of different authors. Amphibians were identified by the keys of Di Palma and Massa (1981), whilst the telson, chelae and thoracopods were the main diagnostic features for crustaceans. Results were expressed as percent frequency of occurrence F%, percent relative frequency of occurrence FR%, estimated per cent volume V% and per cent mean volume Vm%. In the area, fish - mainly trout (Vm%=21.4), redfin perch (Vm%=17.3), Eurasian minnow (Vm%=13.6) and South European nase (Vm%=9.4) -, formed the bulk of otter diet. Fresh faecal samples were preserved in 96% ethanol and frozen for genetic analyses with the aim of assessing the size and kinship for the otter population in the valley.