Eurasian otter

We assessed the distribution and habitat use of Eurasian otter Lutra lutra on the middle course of the River Segura and its tributaries (Murcia, SE Spain) within the framework of the project LIFE13BIO/ES/001407 RIPISILVANATURA (2014–2019). Between April 2016 and June 2018, we surveyed for otter spraints 42 sampling stretches (mean length ± SD = 0.5 ± 0.2 km), covering a 109.8 km long section of the river. The study time frame coincided with the main restoration activities of the LIFE project, consisting in the eradication of widespread, invasive alien giant reed Arundo donax and plantation of autochthonous riparian vegetation. Otter habitat preferences were assessed by measuring ten environmental parameters potentially affecting its occurrence. The relationship between the presence/absence of the otter and habitat variables was evaluated by both linear multiple regression and non-parametric random forest regression model. Otters preferred river stretches crossing forested areas, avoided polluted waters and their occurrence was inversely related to the width of the emerged aquatic vegetation, mostly consisting of Arundo reed beds. Moreover, in managed stretches, otter marking intensity increased after the removal of alien reeds and was higher in RIPISILVANATURA restored transects (1.18 spraints/100 m) than in the downstream, unmanaged half of the watercourse (0.76 spraints/100 m). The combined effects of water pollution and giant reed spread may alter fish distribution and abundance, reducing prey availability to otters. The improvement of chemical and physical habitat quality of streams through alien reeds removal seems thus pivotal to enhance the recovery of otter's populations in the south-eastern Iberian Peninsula.

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