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Abstract

Control of Invasive Plant Species in Wetland Forests (91E0*) †

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Abstract: The main objective of the LIFE Fluvial project is the improvement of the conservation status of Atlantic river corridors in the Natura 2000 network, developing a transnational strategy for the sustainable management of river corridor habitats in several Atlantic river basins of the Iberian Peninsula. The project includes seven partners in Northwest Spain (Galicia, Asturias) and one partner in Portugal (Instituto Superior de Agronomia). In Portugal, the preparatory, conservation, monitoring and dissemination actions of the project are focused on the improvement of the state of conservation of habitat 91E0* in the Estorãos River (ZEC Lima River, PTCON0020), with a total intervention area of circa 21 ha, within the property of the Municipality of Ponte de Lima. Special effort has been devoted to the control and removal of invasive plants directly affecting the riparian habitats, and indirectly affecting the aquatic habitats. The major target species addressed in ZEC Lima River are the trees *Acacia melanoxylon*, *A. dealbata*, invading the riparian zone; *Eucalyptus camaldulensis* plantations in the floodplains of Estorãos river; and the herbaceous species *Phytolacca americana* and *Tradescantia fluminensis*. The restoration measures were designed according to the spatial and temporal scale of threats and applied species-specific methods. This included the tree cut and control of vegetative sprouts (*Eucalyptus*), debarking and cut (*Acacia* spp.), and the uprooting of seedlings of invasive exotic individuals; complete uprooting of the individuals and the destruction of fruits (*Phytolacca americana*); and exposition to sunlight (*Tradescantia fluminensis*). An additional key action included Public Awareness and Dissemination. Throughout the development of the project, knowledge transfer to different target audiences was promoted, and several didactic materials, including an online game for children, were produced. For the general public, the project created a website, in four languages, and different social media pages, TV programs, promotional videos and an annual bulletin, and celebrated several events used for awareness-raising (e.g., World Wetlands Day in 2018, or Natura 2000 day). Notably, for invasive species control and awareness, we promoted training and volunteer actions that engaged students, technicians, NGOs and other relevant stakeholders. The major lessons learned are to be followed up during the After Life period.

Keywords: ecological restoration; habitat conservation; knowledge transfer; riparian vegetation

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