

LIFE LINES - Linear Infrastructure Networks with Ecological Solutions (LIFE14 NAT/PT/001081)

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The LIFE LINES is a Portuguese project, financed by the European Commission, that runs between August 2015 and July 2010. It is a partnership between the University of Évora (coordinating beneficiary) and six other beneficiaries:

COORDINATING BENEFICIARY

BENEFICIARIES

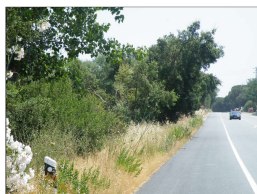


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MAIN GOAL:

Test, evaluate and disseminate solutions to promote the existence of a “green infrastructure” along several linear infrastructures with potential to support functions of conservation of biodiversity, complementary to the transport of people, goods and energy.



SPECIFIC GOALS:

- (1) Increase the landscape connectivity by reducing mortality and the barrier effect;
- (2) Promote the existence of biodiversity corridors and refuges (flora and microfauna) in marginal areas of linear infrastructures (e.g verges, bases of power lines poles);
- (3) Control and, where possible, eradicate invasive flora species;
- (4) Organize a national database of wildlife mortality (associated to linear infrastructures) in Portugal;
- (5) Involve citizens in data acquisition and conservation actions, and promote society awareness for the impacts of linear infrastructures on biodiversity.

“HANDS ON CONSERVATION”

- 1) Homologation and installation of specific vertical road traffic signs, tunnels and barriers in road sections with high amphibian mortality;
- 2) Placement of new or improved fences to direct animals to culverts, and to prevent their access to the road;
- 3) Construction dry ledges on culverts to allow their use by fauna even when flooded;

- 4) Installation of tight metallic meshes in road embankments, to prevent the colonization of rabbits in areas referred to as mortality hotspots of this species or of its predators;
- 5) Development and application of biodiverse seed mixtures to promote plant biodiversity in the surroundings of linear infrastructures;
- 6) Promotion of biodiversity “islands” along powerlines paths.

INNOVATIVE TECHNOLOGY

- 1) Testing innovative GSM collars to continuously track small carnivore movements from of GPS data;
- 2) Use of remote sensing technologies to built spectral signatures of invasive exotic flora;
- 3) Use of automatic learning machines to monitor amphibians and birds roadkills;
- 4) Testing new pole designs to minimize electrocution risks of medium size birds in electric power lines;
- 5) Use of physical and/or electronic devices to route the flight of owls on roadside and discourage the presence of their prey (small mammals) on verges.

EDUCATION & CITIZEN SCIENCE

- 1) Develop an APP to promote the collection of roadkill data from the general public but also from professionals;
- 2) Involve local communities and institutional volunteers in the implementation of conservation actions that do not require skilled labor (seed collection, plant nursery operation, microreserves installation);
- 3) “Adopt a road” program – involve local schools in roadkill monitoring program and in conservation actions on specific road stretches;
- 4) Production of high quality multimedia: short videos, spots on local radio and television wildlife documentary to be presented as a premiere in a national channel.



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