

TRANS BIORIA

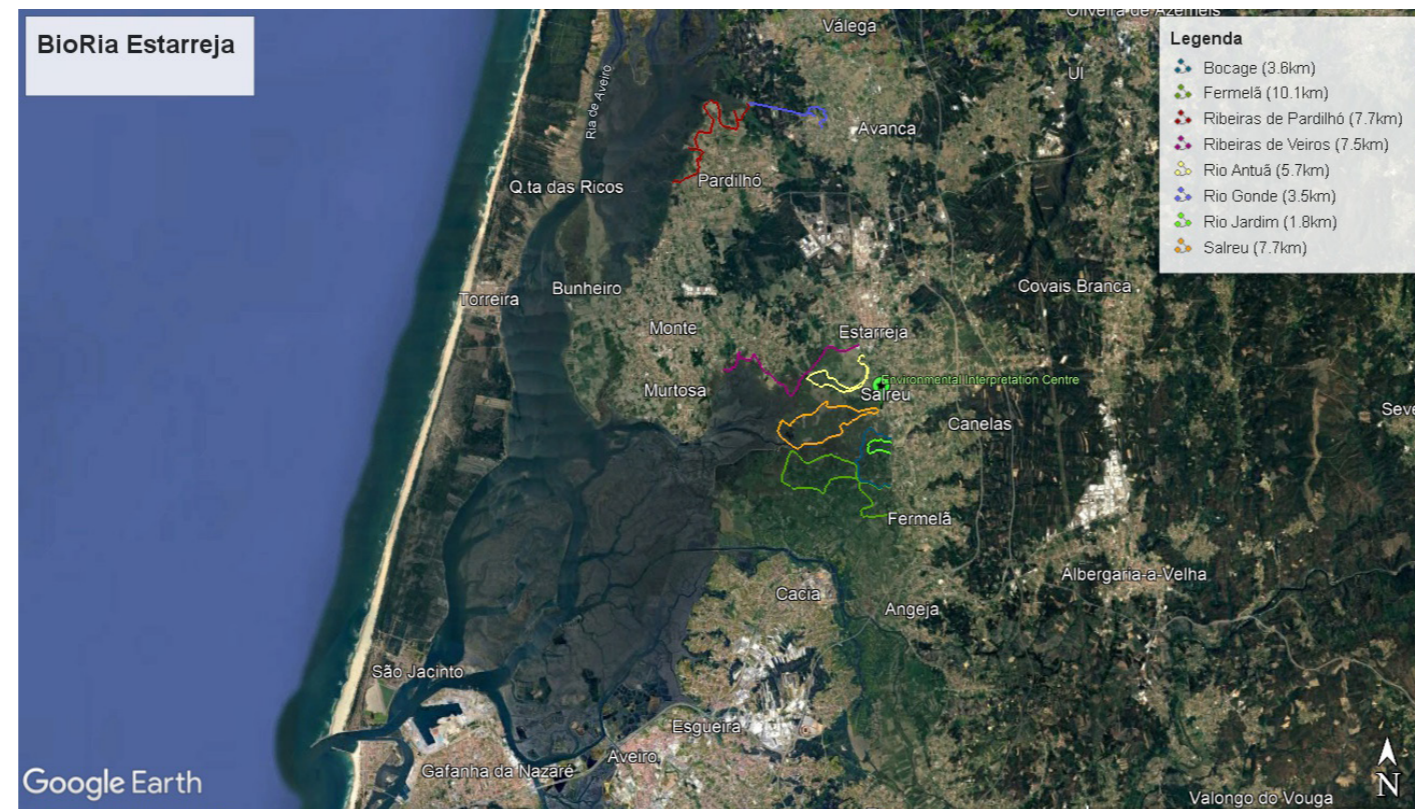
lighthouses **LIGHTHOUSE: RURAL**



The Aveiro Lagoon and Low-Vouga sub-region host several vital habitats for wildlife, of particular importance for birds, both as wintering and nesting grounds. The reed beds, as shown above, are composed by great extensions of *Phragmites australis*, and are a common piece of the landscape. It is a nesting habitat for endangered species such as the purple-heron (*Ardea purpurea*), marsh-harrier (*Circus aeruginosus*) and the reed-warbler (*Acrocephalus scirpaceus*), among others.



The implementation of the BioRia trails allowed not only to value and promote the territory, but also to improve the practice of outdoor sporting activities, such as hiking, cycling or running, both by locals and visitors.



Map of the BioRia network of trails, and its location within the Aveiro Lagoon region. Also represented is the Environmental Interpretation Centre, located on the beginning of the Salreu trail, that act as a visitor centre, information point, place for activities and starting point for guided tours.



Besides the natural habitats typical from the Aveiro Lagoon, the BioRia trails explore humanized landscapes, sharing a view of the local history, traditions, activities and communities, and the complex relationship between man and nature. The rice culture, represented here, is one of the traditional activities that can still be seen in Estarreja, but one that is quickly declining.



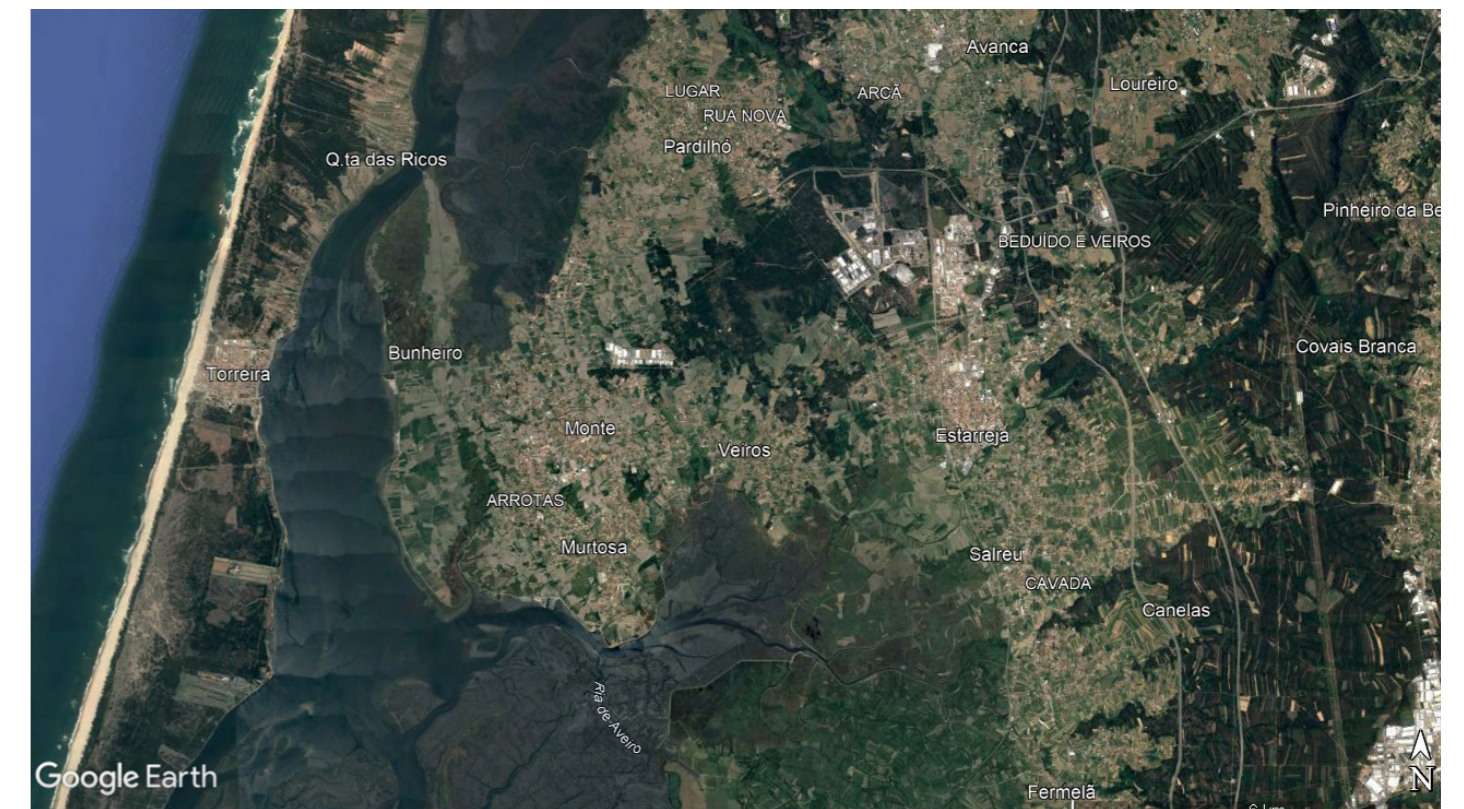
During winter months, in which people are less prone to be outside, BioRia brings nature and local biodiversity to schools. Integrated on the Municipal Education Programme, BioRia offers every year activities directed to pre-school and primary school students, focused on different subjects, but always with local natural values on the center-stage.



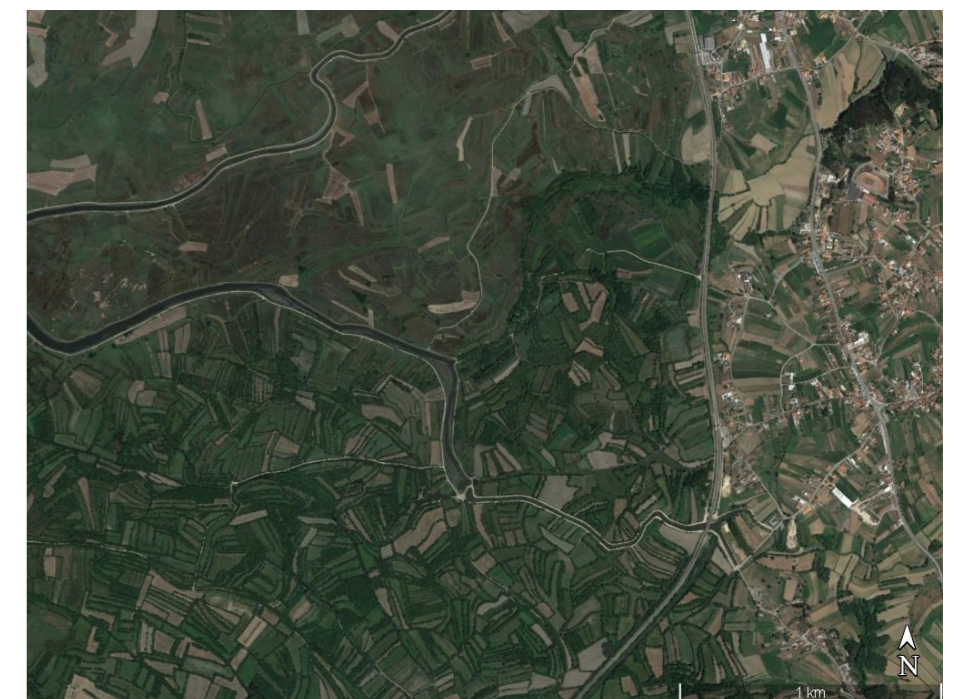
One of the main objectives of the BioRia Project is to share a light and teach about the natural patrimony of the region, and several approaches were implemented with this goal in mind. Guided tours, as seen in this picture, are one of the best ways to explore and teach about the territory and its natural values, and are accessible to everyone, not only due to its symbolic cost, but also because it can be performed in 3 different approaches: by foot, by bicycle or on an electric vehicle.



Throughout the year, BioRia develops several activities directed to the general public, such as thematic guided tours, volunteering activities, educational sessions, or initiatives starring local actors and traditions. In this picture is portrayed a rice plantation activity, developed in a straight partnership with a local rice producer, in which the participants had the chance to understand and be a part of this cereal's cultivation.



Aerial view of Estarreja's territory. It is possible to distinguish the urban area of the city of Estarreja, from the Rural areas that comprise most of the Municipality. All five Parishes are identified on the picture, from North to South: Avanca, Pardilhó, União de Freguesias de Beduido e Veiros, Salreu and União de Freguesias de Canelas e Femeia.



Aerial view of a part of the territory in which the BioRia Project is implemented. The private character of the land, and especially the smallholding that characterizes the territory, easily seen in this picture, are some of the most relevant challenges for the project, as these translate into a large number of stakeholders, with distinct views and interests in the area.

NBS short description

In order to explore, value and promote its unique natural patrimony, and shift an industrial- backgrounded Municipality towards Nature, the Municipality of Estarreja created BioRia, a project focused on Nature Tourism and Environmental Education, under the motto "know it, to protect it" (loose translation). As a result of its privileged location, Estarreja holds a very important and diverse natural patrimony, grounded especially on one of the most important wetlands in northern Portugal - the Aveiro Lagoon. To value and promote this territory, the Municipality of Estarreja, under the flag of BioRia, established a network of eight trails, accompanied by visitation infrastructures and leisure and pedagogic equipment, all of which are accompanied by environmental education and awareness activities.

Geographic area

The Municipality of Estarreja has a population of 26 224, with a population density of 242.4 hab/km². 63% of its population is between 15 and 64 yo, and 24% is over 65 yo. In 2011, 19% of the population had no level of education, and 4.2% was illiterate. 288 people were employed in primary economic activities, while 4 656 were employed in secondary economic activities and 6 088 in tertiary economic activities. 2.4% of the population in 2020 is of other nationalities, with legal resident status.

Relevance for the lighthouse

The NBS Environmental Education and Nature Tourism Project transformed the global perspective of a Municipality, while improving citizen well-being, environmental awareness, and boosting tourism in the region, shifting a city outlook from the environmental impacts of its industry towards its natural patrimony. This shows the importance that a NBS can achieve at local and regional levels. Furthermore, the broad spectrum of activities and initiatives performed through the years in the scope of BioRia, as well as the experience with science-communication, may be relevant for the lighthouse.

Governance of the case

The Municipality of Estarreja is the only entity responsible for this NBS implementation and governance. Other relevant actors include Parishes, landowners, farmers, livestock producers, hunters and fishermen, local businesses, NGO's, Universities, among others. However, the participation of these entities in the project governance is carried out on an informal and sporadic basis.

Who owns the land?

The land adjacent to the BioRia trails is mostly private, and smallholding dominates the territory.

Local partners, associations, initiatives and champions engaged

At the moment there are no oficial partners to the project, but rather partners of specific initiatives or activities developed in the scope of BioRia. These vary from Universities to Environmental and Social NGO's, Schools, local Parishes and Companies, among others.

SDG

