





**Birds at the Azibo reservoir**

**Protected area**

Azibo Reservoir Protected Landscape

**Location**

Azibo reservoir, Macedo de Cavaleiros

# Quercus Trail

The reservoir known as *Albufeira do Azibo* is the result of a dam construction in the late 1970's, aimed for agriculture supply. This reservoir has been gradually colonized by different species of animals, particularly by birds, that have chosen this area for nest and shelter. For this reason, this reservoir was later included in the Portuguese network of protected areas, as the Azibo Reservoir Protected Landscape.

Aquatic birds are the theme suggested for this visit, focusing particularly on the great crested grebe (*Podiceps cristatus*), the symbol and the *ex-libris* of the Protected Landscape. The great crested grebe is an outstanding bird, especially during the breeding season, due to its magnificent plumage and beautiful courtship dances. This is a bird that hardly ever gets out of the water, building nests on floating platforms of vegetation.

The richness of the birds of the reservoir goes beyond this glamorous inhabitant. In this area there are dozens of other aquatic species, including different kinds of ducks, herons, grebes, waders, among many others.

Besides great crested grebe, some of most frequent birds include the little grebe (*Tachybaptus ruficollis*), the mallard (*Anas platyrhynchos*), the grey heron (*Ardea cinerea*), the great cormorant (*Phalacrocorax carbo*) and the kingfisher (*Alcedo atthis*).

Along this trail, there are two observatories that facilitate bird observation, without disturbing this amazing natural richness.

The Quercus trail can be visited all year round. The beginning of Spring is the best period for the observation of great crested grebe courtship ritual. Autumn and Winter are the seasons when the reservoir displays more diversity of aquatic birds. This walking tour should be done in the morning, since it is the best moment for bird watching.

## Fauna

The Quercus trail is located in one of the most interesting areas for biodiversity in the region. There are approximately 200 species of vertebrate animals confirmed at the Azibo reservoir. Species associated with the aquatic habitats, specially the birds (the theme of this trail) but also amphibians, reptiles and mammals, are highlighted.



The Perez's frog (*Pelophylax perezii*) and the Iberian tree frog (*Hyla molleri*) are abundant. The last one is a small amphibian, usually associated with aquatic vegetation, and particularly abundant at some points of the bank of the dam. The Mediterranean turtle (*Mauremys leprosa*) and the viperine snake (*Natrix maura*) are also frequent here. This last one is very common in not too deep areas, close to the bird's observatory. The otter (*Lutra lutra*),

one of the most emblematic species, is present everywhere around the reservoir.

Along this trail, animal diversity goes beyond those aquatic and semi-aquatic species. Lots of species are associated with agricultural areas and specially to the large patch of cork oak woodland that surrounds a great part of the trail. Here, a multiplicity of birds could be distinguished, from the increasingly rare red kite (*Milvus milvus*) to common but particularly appealing species, such as the Eurasian blue tit (*Cyanistes caeruleus*), the common chaffinch (*Fringilla coelebs*), the Eurasian golden oriole (*Oriolus oriolus*) and the Eurasian blackcap (*Sylvia atricapilla*).

The cork oak woodland in particular, but also the remaining areas, are also inhabited by various mammals, much more discrete and harder to observe. Nevertheless, occasionally, particularly interesting species may be observed, such as the roe deer (*Capreolus capreolus*), the Eurasian badger (*Meles meles*), the common genet (*Genetta genetta*) and the red fox (*Vulpes vulpes*).

- Among the 200 species of vertebrate fauna described for the Azibo reservoir, about three quarters are birds

- The breeding population of the red kite (*Milvus milvus*) is classified as Critically Endangered in Portugal

**IBERIAN TREE FROG**  
(*Hyla molleri*)

**RED KITE**  
(*Milvus milvus*)





# Flora and vegetation



Along the Quercus trail it is possible to see different kinds of woodlands typical of the region, such as the ash tree (*Fraxinus angustifolia*) woodlands, commonly in the hay meadows borders in *Trás-os-Montes*. Nowadays, some of the flora species typical from ash trees woodlands edges prosper, such as *Veronica micrantha*, a near endangered Iberian endemic species, protected by European Union legislation.

In the place where the Azibo river reaches the reservoir, communities of amphibian vegetation, typical from stagnant waters, may be seen close to alder (*Alnus glutinosa*) woodlands. However, the most common woodlands of the trail are the cork oak (*Quercus suber*) ones. Cork oak woodlands grow here in close contact with woodlands of other oak trees, such as the

Pyrenean oak (*Quercus pyrenaica*) and the Portuguese oak (*Quercus faginea* subsp. *faginea*). In these woodlands it is possible to observe different and rare species of Portuguese flora, such as the pale St John's-wort (*Hypericum montanum*), the narrow-leaved lungwort (*Pulmoria longifolia*) and the bastard balm (*Melittis melissophyllum*).

There are several interesting plants along the way, but the rarest are found in the path next to Salselas village. Willow-leaved loosestrife (*Lysimachia ephemerum*) is a tall herbaceous plant, very rare in Portugal, which grows in alkaline soils, rich in ions. *Dactylorrhiza insularis* is one of the rarest orchids in the Portuguese flora, which only grows here and in some limestone mountains located in central Portugal.



- **Bastard balm is a medicinal herb used for infectious respiratory treatments**
- **Ash tree foliage used to be given to cattle for feeding purposes in the Summer, during periods of food shortage**

DACTYLLORRHIZA INSULARIS

LYSIMACHIA EPHEMERUM

# Geology

The Quercus trail is part of the *Terras de Cavaleiros Geopark* and is a good example of the *Trás-os-Montes* geodiversity. Here, besides both geological and geomorphological diversities, there are also evidences of mining activity (archeological and mining heritage).

Different kinds of schist rocks, including chlorotic schist, '*borra-de-vinho*' schist (with purplish shades) and pelitic schist (brownish ash), may be seen. Sometimes, this metamorphic sequence is interrupted by acid intrusive magmas, which distinguish themselves from other rocks due to their light tones.

Geological boundaries follow along the trail and one of the most important occurs in the beginning, between pelitic schist and slope deposits.

Concerning geomorphology, an intense patchwork of the relief is noteworthy, with fitted valleys and very marked slopes.

The large water mirror of the Azibo reservoir presents the great hydro richness of the region, that is supplied by the Azibo river and by Reguengo and Azibeiro brooks.

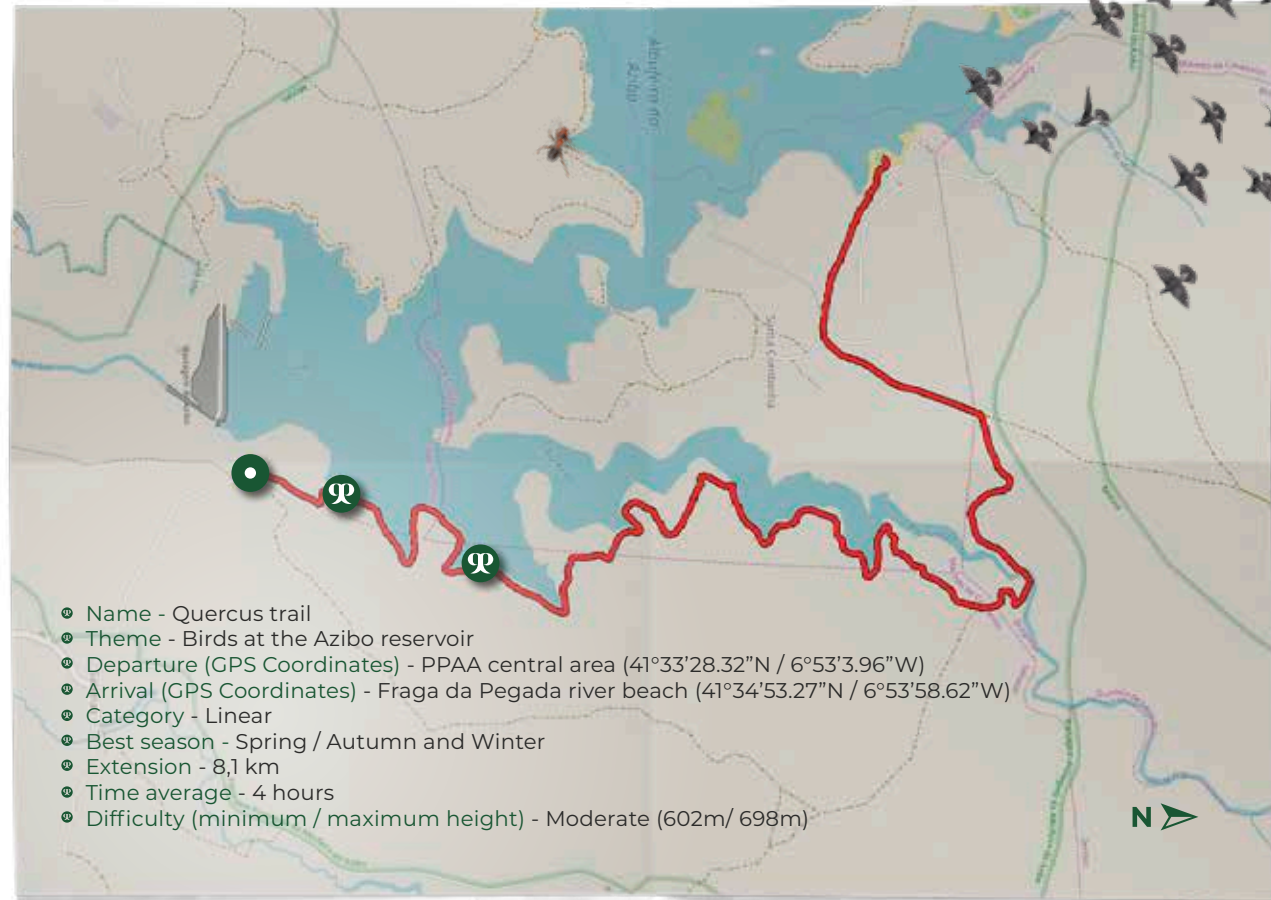


- **Along the trail it is possible to observe different types of schist rocks, igneous rocks as well as slip-off slopes**
- **Lined up valleys and well-defined stream lines are seen along the trail and they reveal important geological fault areas**



VESTIGES OF THE MAGMA ACID INTRUSIVENESS

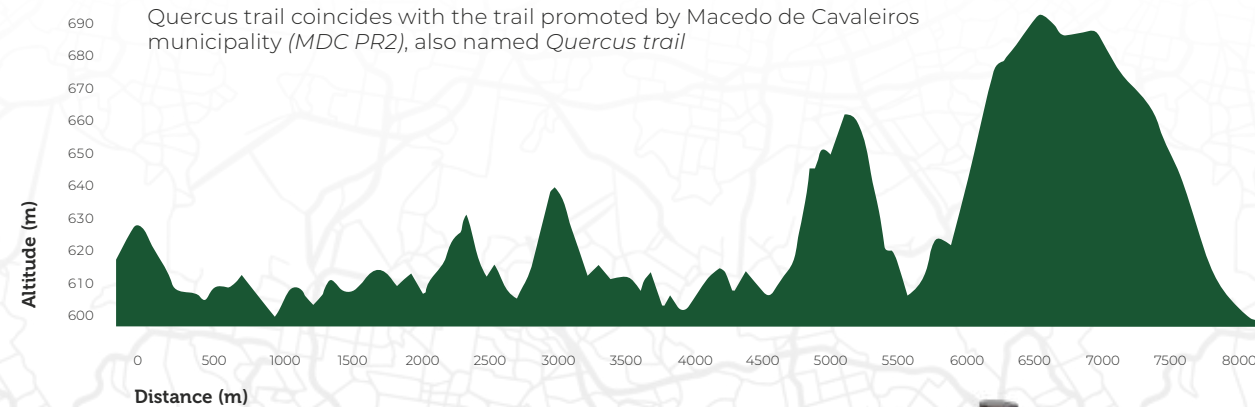
EXAMPLES OF BORRA-DE-VINHO SCHIST, WITH VEINS OF METAMORPHIC EXUDATION



Start



Observation point



#### Useful contact numbers

- Town council (+351) 278 420 420
- Tourist office (+351) 278 099 166
- Fire brigade (+351) 278 428 530
- GNR (National Republican Guard) (+351) 278 421 611
- Forest protection (+351) 117
- SOS (+351) 112

#### Attention

- Follow only the marked routes
- Avoid noise and attitudes that disturb local peace
- Do not disturb animals, observe them from a distance
- Do not collect plants, animals, rocks or artifacts
- Do not light a fire
- Do not litter; please use the containers provided





In the Portuguese and European contexts, *Terras de Trás-os-Montes* (Lands of Trás-os-Montes) present a unique natural value, with extraordinary ecological and ecotourist potential, still unknown. It is a region with countless protected areas, rare species and incredible natural events.

The *Nove Passos* (nine steps) project aims to unveil this incredible natural heritage; while promoting the conservation of the region's main natural values, through the dissemination of 9 trails.

We thus suggest a complete adventure, carried out in 9 steps, one per municipality,

all within the most important protected areas for Nature Conservation in Portugal.

In each step, we suggest a carefully selected trail to explore specific natural themes, which, represent the natural areas where they are inserted.

The Quercus trail is one of the suggested natural steps. Come and meet them all and stamp your natural passport.

Visit these 9 themes of biodiversity, geology and landscape and become an expert in the *Lands of Trás-os-Montes*.



### ❶ Quercus trail

Birds at the Azibo reservoir - Macedo de Cavaleiros

Next steps

### ❷ Sabor trail

Sabor lakes - Alfândega da fé

### ❸ Carvalho trail

Red deer - Bragança

### ❹ São João das Arribas trail

Vultures - Miranda do Douro

### ❺ Vale de Lobo trail

Cork oak and prickly juniper woodlands - Mirandela

### ❻ Cascata da Faia da Água Alta trail

Cascata da Faia da Água Alta - Mogadouro

### ❼ Vilarinho das Azenhas to Ribeirinha trail

River Tua riparian gallery - Vila Flor

### ❽ Castelo de Algosio trail

The Angueira river fauna - Vimioso

### ❾ Biospots (Alto da Ciradilha) trail

Butterflies and other invertebrates - Vinhais





9passos.cim-ttm.pt

TERRAS DE **TTM**  
**TRÁS-OS-MONTES**

CIM-TTM  
Comunidade Intermunicipal  
das Terras de Trás-os-Montes

Rua Visconde da Bouça, AP 238  
5300-318 Bragança - PORTUGAL  
T. +351 273 327 680

www.cim-ttm.pt  
facebook.com/terrasdeTrasosMontes  
instagram.com/terrasdetrasosmontes

**NORTE2020**  
PROGRAMA OPERACIONAL REGIONAL DO NORTE

**PORTUGAL**  
**2020**



UNIÃO EUROPEIA  
Fundo Europeu  
de Desenvolvimento Regional



**Terras de**  
**Trás-os-Montes**  
Comunidade Intermunicipal