

Vinhais



Biospots (Alto da Ciradelha) Trail

Butterflies and other invertebrates

Protected area Montesinho Natural Park

LocationBiologic Park of Vinhais,
Vinhais

Located in one of the most important protected areas of Portugal, the Biospots trail highlights a fascinating subject of biodiversity: butterflies. The region of Vinhais may be considered a true 'hotspot' of biological diversity, displaying an incredible diversity of diurnal butterflies, some exclusive of this region.

The meadows feature a range of insects that feed themselves on herbaceous plants. Butterflies of the Hesperiidae family, such as the lulworth skipper (*Thymelicus acteon*), the small skipper (*Thymelicus sylvestris*) and the large skipper (*Ochlodes sylvanus*), whose caterpillars feed themselves on grasses, are particularly abundant. Species like the Mediterranean fritillary (*Argynnis pandora*) and the Iberian marbled white (*Melanargia lachesis*), with greater flying skills, often land on inflorescences of thistles for feeding.

On the way up to Alto da Ciradelha the detours from the main pathway lead to clearings in the woodlands, perfect places for edge vegetation, very attractive to insects. For the great fliers such as fritillaries (Argynnis paphia, Argynnis aglaja and Argynnis adippe) and dragonflies (Libellula depressa, Onychogomphus uncatus and Orthetrum coerulescens), they serve as dispersion corridors. They are particularly

interesting places for the observation of butterflies of uncommon beauty, like the peacock (*Aglais io*), the comma (*Polygonia c-album*), the queen of Spain fritillary (*Issoria lathonia*), the southern heath fritillary (*Melitaea nevadensis*) and the sooty copper (*Lycaena tityrus*).

The trail culminates at Alto da Ciradelha, an open area with imposing granite rocks. Different butterflies can be observed here in 'hill-topping' behaviour, in which females and males overfly hills ridges to mate. Due to its particular beauty the swallowtail (Papilio machaon) is highlighted, as well as others such as the lesser spotted fritillary (Melitaea trivia), the wall (Lasiommata megera), the purple-shot copper (Lycaena alciphron), the great banded grayling (Brinthesia circe), the grayling (Hipparchia semele), the purple hairstreak (Favonius quercus) and the false ilex hairstreak (Satyrium esculi).

For observing butterfly diversity, three places have been identified along the trail: a meadow; a clearing and Alto da Ciradelha. A slow approach to flowers is recommended, so as to try and register the associated species. The advisable period for visiting is the spring.

Fauna

The Biospots trail is inserted in a predominantly forestry and farming area, ending in a rocky open area, at Alto da Ciradelha. This trail displays a considerable diversity of fauna. Besides the already mentioned invertebrates, more than 100 species of terrestrial vertebrates are also present.

Throughout the area, birds are clearly the most abundant group. Species typical of forestry and agroforestry habitats are present along all the trail. Species such as the common chaffinch (Fringilla coelebs), the robin (Erithacus rubecula), the crested tit (Lophophanes cristatus), the great spotted woodpecker (Dendrocopos major), the shorttoed treecreeper (Certhia brachydactyla) and the western Bonelli's warbler (Phylloscopus bonelli) are abundant and easaly identifiable. Occasionally, in more open areas, like Alto da Ciradelha, you can observe rarer birds, such as the Montagu's harrier (Circus pygargus) and the red kite (Milvus milvus), two birds of prey endangered in Portugal, who overfly this place with some frequency.

Another particularly abundant group are mammals. The most emblematic is probably the roe deer (*Capreolus capreolus*), but species like the red squirrel (*Sciurus vulgaris*),

the beech marten (*Martes foina*), the red fox (*Vulpes vulpes*) or the wildcat (*Felis silvestris*) are also present.

At least three species of snakes, all inoffensive to humans, are common in this area: the grass snake (*Natrix natrix*), the Montpellier snake (*Malpolon monspessulanus*) and the small and less common southern smooth snake (*Coronella girondica*). However, the most common reptile, particularly in the rocky zones of the trail, is clearly the Algerian psammodromus (*Psammodromus algirus*).



Amphibians seem less common, but a more attentive look at some shelters may reveal some shier species, such as the fire salamander (*Salamandra salamandra*), that moves essentially by night.

 The roe deer is the smallest deer in Europe. Its populations have increased during the last decades. Nowadays, the roe deer is relatively abundant in the north of Portugal

 During breeding season, the male of large psammodromus presents the head sides and throat in bright orange

LARGE PSAMMODROMUS (Psammodromus algirus)

ROE DEER
(Capreolus capreolus)



Flora and vegetation

Although at the beginning of the trail you can see some exotic trees, like the Mexican white cedar (*Cupressus Iusitanica*), this is one of *Trás-os-Montes* areas with more native woodlands.



The Mexican white cedar was one of the first conifers of the New World being brought to Europe and has been planted in Portugal since 1634. Its scientific name. Cupressus lusitanica, is a mistake that comes from the fact that this species had been introduced in Portugal during XVII century, and when this tree was described.

the botanist Miller didn't know that the origin country of this plant was Mexico and not Portugal.



The woodlands of Pyrenean oak (*Quercus pyrenaica*) are very well represented in this territory and are currently in expansion owing to farming abandonment.

Oak woodlands and plantations of resinous trees accompany the trail almost until the end, but on the top, Pyrenean oaks are replaced by holm oaks (*Quercus rotundifolia*), that grow here, on the dryer soils. Close to the holm oak woodland grows *Arabis juressi*, a rare plant of the northwest of the Iberian Peninsula.

- The Mexican white cedar is not a real cedar, but a cypress
- Oaks woodlands can be observed in all of their magnitude in the sightseeing point located at the end of the trail

ARABIS JURESSI

PYRENEAN OAK

Geology

The Biospots trail crosses very old rocky formations, from the pre-Cambrian and Cambrian ages. In fact they are the oldest ones in *Trás-os-Montes* region, having been submitted to countless events of crustal deformation. The presence of fold mountains, vertical strata and intense cracking are evidence of the vast chronology of geological events. Through this Natural History there were also phases of intense metamorphosis and magma activity.



Rocky formations are composed by mafic granulites and blastomylonites. In the



areas surrounding the trail, you can also observe serpentinites and peridodites that constitute 'fragments' of the oceanic crust.

One important ridge is noteworthy, constituted by rocks very resistant to erosion, more specifically quartzofeldspathic gneiss. These rocks are impregnated with iron oxides and clay levels. Along the same ridge area there are various panoramic points. Beside tourist interest, highlight the main geomorphical contours in the region, where a dominantly plain relief stands out, lightly wavy.

 Relief contrasts are a dominant note along the trail, where quartz ridges stand out

 Schist and quartz rock alternations are a characteristic of the trail and mark important scenery variations

GNEISS IMPREGNATED WITH IRON OXIDES AND CLAY

PANORAMIC POINT REPRESENTATIVE OF GEOMORPHOLOGY AND LANDSCAPE



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, in one way or another, represent the natural areas where they are inserted.

The Biospots 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*.



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Next steps

Sabor trail Sabor lakes - Alfândega da fé

Carvalho trail Red deer - Braganca

Quercus trail
 Birds at the Azibo reservoir - Macedo
de Cavaleiros

São João das Arribas trail Vultures - Miranda do Douro

Vale de Lobo trail
 Cork oak and prickly juniper woodlands
 Mirandela

Cascata da Faia da Água Alta trail Cascata da Faia da Água Alta -Mogadouro

Vilarinho das Azenhas to Ribeirinha trail River Tua riparian gallery - Vila Flor

Castelo de Algoso trail Fauna of river Angueira - Vimioso



























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