



Natural Reserve
PINAIL



GEOGRAPHICAL LOCATION

Located in the town of Vouneuil-sur-Vienne, the Nature Reserve is 30 km (18,6 miles) north-east away from Poitiers and 15 km (9,3 miles) from south Chatellerault. It dominates the river valleys of the *Vienne* and the *Clain*, at the north of the state-owned *Moulière* forest.

HISTORY OF LANDSCAPE

After the last Ice Age, forests of oak and beech were covering the region *Poitou*. Here and there, combined action of large herbivores and natural fires maintained surfaces of grassland and moors. At the end of the first millennium, the development of mills induced the extraction of millstone (" *Pierre meulière* "), which gives its name to the *Moulière* forest. Millstone wheels started to be used throughout the kingdom, and even taken by the Acadians all the way to Canada!

The maintenance of the heathland of Pinail originates from the Royal Order of 1692, which aimed to restore degraded forests throughout the kingdom to provide wood for maritime industry. Some lands were then deemed unsuitable for reforestation, and "user rights" were granted to residents. At the end of the eighteenth century, the exploitation of the millstone stopped. Cattle were last grazed on the Pinail during the Second World War. Then, the cutting of heather also was abandoned.

Created in the sector of the Pinail called "new *Moulières*", the Reserve runs for 135 ha and encloses three thousand ponds, deriving from the extraction of the millstone, which gives such a lunar look to this landscape steeped in history.

THE NATURAL ENVIRONMENT

Geography and history created habitats which have become rare and threatened:

- ponds with acidic waters, some have become bogs,



One of the 3 000 ponds. (P. Dubech)

- Heather moorland dominated by *Erica scoparia*, a type of heath called "brande" in local dialect, a name referring to fire, and by the Dwarf Gorse (*Ulex nanus*) and Purple Moor Grass (*Molinia*).
- small marly water springs and temporary wet meadows.

FLORA

On the whole Pinail, over 450 species of higher plants have been identified.

The rarest, both in Vienne region and for Europe, is a little white



The Summer Lady's tresses, a rare small white orchid (M. Guillaud)

orchid called the Summer Lady's tresses (*Spiranthes aestivalis*). It rubs shoulders with the little Pillwort (*Pilularia globulifera*), a small fern with grass-like leaves colonizing open habitats. On the sunny side of the *Rivau* stream, the Hedge Hyssop (*Gratiola officinalis*), grows in compact clumps.

The fourth national protected plant is a carnivorous one growing on Sphagnum moss peat: the carnivorous Round-leaved Sundew (*Drosera rotundifolia*), which traps small insects on adhesive drops radiating around its leaves.

Other carnivorous plants are easier to spot in the center of White Water Lilies (*Nymphaea alba*) ponds. Bright, yellow flowers raised above the water reveal the presence of the two species of Bladderworts (*Utricularia minor* and *U. australis*). Small clamshell traps spread all over their submerged parts, sucking up water fleas.

FAUNA

Many animals, by their lifestyle, their reproduction or their food requirements, are related to aquatic environments. A small population of White-clawed Crayfish (*Austropotamobius pallipes*) (protected in France and Europe), have adapted to stagnant waters of some pools. At the end of winter, two species of amphibians gather to breed: the Crested Newt and the Marbled Newt (*Triturus cristatus* and *T. marmoratus*), having the peculiarity of hybridizing, giving birth to a third species named Blasius Newt.

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In spring, during warm days without wind, a great many Odonata (Dragonflies) larvae undergo a metamorphosis: a feast for predatory spiders. The Eurasian Hobby (*Falco subbuteo*) and many passerine birds also devour them in flight, leaving behind four translucent wings side by side for a burial. The 48 species of dragonflies observed, including the rare Lilypad Whiteface (*Leucorrhinia caudalis*) and the Large White-faced Darter (*Leucorrhinia pectoralis*), reveal the great diversity of aquatic environments of Pinail.



The rare Whiteface broad-tailed watching over its territory (P. Durepaire)

Heathland habitats are more suitable for nesting birds such as Montagu's Harrier (*Circus pygargus*), Hen Harrier (*Circus cyaneus*) and Dartford Warbler (*Sylvia undata*). To warm up themselves, reptiles (lizards and snakes) appreciate sunny mounds. So exposed to the view of the Short-toed Snake Eagle (*Circaetus gallicus*), they become easy preys for the only Eagle nesting in the Vienne region. In summer, songs of the New forest cicada (*Cicadetta montana*) and the Migratory Locust (*Locusta migratoria*) can be enjoyed throughout the open landscapes like natural grassland, heath in regeneration, which are also an important food reserve for wild herbivorous (Hare, Deer ...).

THE MANAGEMENT OF THE RESERVE

The Reserve is managed by GEREPI (Natural Management Organization of the Pinail Reserve) which includes the actors involved on the site, grouped into five colleges: the National Forest Office; Trusts for protection, education and study of nature; local community councils; Scientists; other actors and qualified persons.

ENVIRONMENTAL MONITORING, RESEARCH AND SCIENTIFIC TRAINING

All along the year assessments of rare species are carried out: dragonflies, spiders, passerines birds, amphibians, mammals, remarkable plants, are counted. The Birds Protection League of Vienne (LPO Vienne) studies the reproduction of Harriers and the Dartford Warbler on this site. Research on genetics of White-clawed Crayfish is conducted. Every year, students of the

University of Poitiers take part in monitoring researches, within a partnership with the Pinail Reserve. GEREPI also give training courses for Environment professionals (Odonata, management habitats...).

HABITAT AND SPECIES MANAGEMENT

To prevent arson or accidental fire, the heathland management is planned. Vegetation is cut by maintenance employee, and specific stubble-burning is run on small surfaces of heathland under firemen supervision. The north part of the Reserve is managed by pasturing: rustic varieties of sheep maintain an open environment, favorable for some species. Handicrafts are made from the cut heather: fences, roofs and brooms.



Stubble-burning (P. Dubech)

PUBLIC RECEPTION AND ANIMATION

The "CPIE Seuil du Poitou" (Permanent Centre for Environmental Initiatives) (Phone : +33 5 49 85 11 66) organizes discovery tours for schools and groups. For the public wishing to participate in guided activities, GEREPI coordinates an annual program of thematic tours, conferences and twilight walks, and "Pinail Day" the 1st Saturday of July.

REGULATION

The creation decree n° 80-135 of January 30, 1980, as amended by decree n° 80-847 of October 23, 1980, regulates the activities on the 135 hectares of nature reserve.

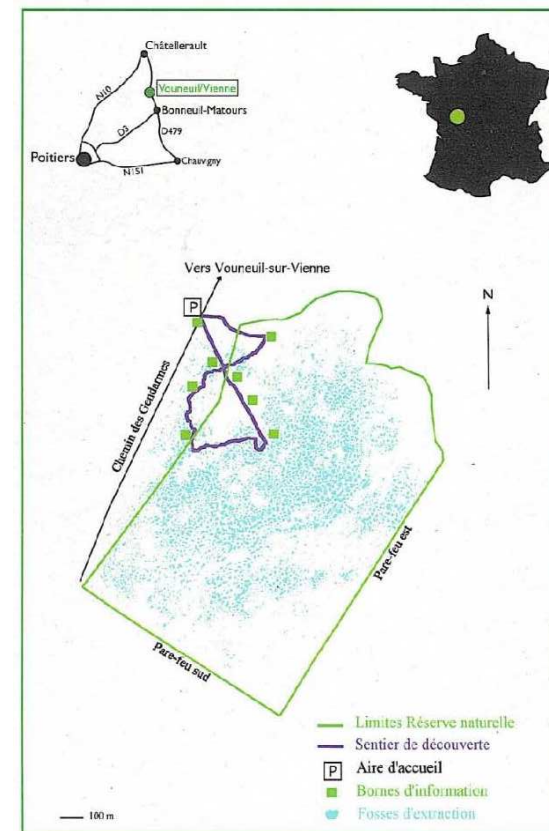
Forbidden:

- Hunting, firearm possession, fishing, picking of plants,
- any damage to animals,
- introduction of new species,
- dogs, even on a leash
- fire, camping, garbage dump,
- flying over the reserve at an altitude below 300 m,
- driving and parking of motorized vehicles.

A by-law prohibits bicycles.

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LOCATION MAP



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