

## AnaEE France infrastructure facilities for behavioural ecology studies

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## **AnaEE-France infrastructure facilities** for behavioural ecology studies



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AnaEE France (Analysis and Experimentation on Ecosystems - France) is a national research infrastructure for the study of continental ecosystems (aquatic and terrestrial) and their biodiversity. It offers the scientific community a broad range of 21 services in the form of experimental platforms (in controlled, semicontrolled or natural environments), analysis platforms and shared instruments. AnaEE France also provides access to data and modeling platforms. Some of the platforms are particularly well suited to behavioural ecology studies:



**PEARL** (Plateforme d'Expérimentation Aquatique de Rennes et Le Rheu) is an aquatic platform enabling breeding and ecotoxicologic & aquatic ecology experimentation on small aquatic organisms. It allows studies in various conditions of control, scale and complexity: from crystallizer to ponds, but also lentic mesocosms, lotic and spawning channels. Experimental studies concern individuals, populations, communities or ecosystems. http://www6.rennes.inra.fr/u3e



The **Ecotron Ile-de-France** is in construction and will consist of a research building of 800 m2, a platform of 18 climate chambers (called Ecolabs) and aquatic microcosms. Equipments allow the detailed simulation of climatic environments (temperature, humidity, light, rainfall and atmospheric composition) in artificial conditions for ecological and evolutionary studies on small terrestrial and aquatic ecosystems. http://www.foljuif.ens.fr/





The project of aquatic mesocosms in Lake Geneva aims at enabling ecological studies in deep water columns where conditions such as temperature, mixing or nutrients concentration could be manipulated. It will allow to study the effects of these changes on biodiversity, food webs and associated functions. http://www6.dijon.inra.fr/thonon



The Nouragues Ecological Research Station is a scientific station managed by CNRS. It is located at the heart of a tropical rain forest, in a natural reserve in French Guiana. It is a privileged equipment for the study of tropical species behaviour in their living environment, and of the functioning of tropical forests and their biodiversity. http://www.nouragues.cnrs.fr/





Located in the French Pyrenees, the Metatron comprises 48 units, each stretches 100-m<sup>2</sup> \* 2-m height, where we can manipulate climatic conditions (temperature, humidity or solar radiation). Units are connected by corridors allowing migration from one environment to another. The Metatron focuses on climatic effects on population dynamics, especially in the framework of the global warming and fragmentation. http://www.ecoex-moulis.cnrs.fr/



he **Montpellier Ecotron** consists of three platforms for terrestrial natural or reconstructed model ecosystems: Macrocosms (40 m3), Mesocosms (4 m3) and Microcosms (1 dm3 to 1 m3). Each platform has 12 units with a large environmental control as well as on-line measurements of fluxes and carbon isotopes, allowing studies on biogeochemical cycles, role of biodiversity, ecological and evolutionary theories, etc. http://www.ecotron.cnrs.fr/ index.php/en/



Naturalistic (animals & plants) abilities, experimental and analytical tools of the SAJF (Station Alpine Joseph Fourier) enable behavioural studies on alpine species in their living environment. For example, recently, grasshoppers' diet in the mountain grasslands has been finely determined thanks to observation and barcoding & bioinformatics tools. https://sajf.ujf-grenoble.fr/



The **SOERE GLACPE** is a Long Term Experimental Research platform dedicated to the observation, understanding and modeling of french perialpine lake ecosystems (Leman, Annecy & Bourget) submitted to local and global changes, in particular, those linked to human activities. It is a privileged place for the study of aquatic species dynamics in their environment. http://www.allenvi.fr/groupestransversaux/infrastructures-de-

recherche/glacpe

**PLANAQUA** is an aquatic platform enabling breeding and experimentation on small aquatic organisms. Equipments take the form of highly controlled microcosms and mesocosms, semicontrolled mesocosms (thermal gradient and mixing of waters' control), and highly instrumented artificial lakes.

http://www.foljuif.ens.fr/

Aquatic environment

Terrestrial environment

Natural conditions (very limited control on populations and environement) Controlled conditions (high control on populations and environment)

Semicontrolled conditions (high control on populations and limited control on environment)

http://www.anaee-s.fr