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## **Geological nature reserve of Saucats–La Brède: 40 years of protection and preservation of the aquitanian and burdigalian (Lower Miocene) stratotypes**

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The Geological Nature Reserve of Saucats-La Brède, located 20 km south of Bordeaux (Western France), was the first nature reserve created in France for the protection of geological heritage in 1982. Its purpose is to protect the historical stratotypes of the two stages of the Lower Miocene (Aquitanian and Burdigalian), which were defined there and are still today the global stratigraphic references of these stages.

These exceptional sites have a much older history, since indeed geological studies of the shelly sand levels ("faluns") of Saucats and La Brède were carried out from the beginning of the 19<sup>th</sup> century.

It was in 1858 that the Aquitanian stage was created by Charles Mayer (or Mayer-Eymar). This first study was completed by the work of many authors: J. R. Tournouër (1862), O. Linder (1868), E. Fallot (1888), A. Degrange-Touzain (1882), then in the 20<sup>th</sup> century by G.F. Dollfus, F. Daguin (1948), and more recently by P. Carbonel, P. Lozouet, B. Cahuzac, J.P. Colin, L. Londeix...

In 1892, Charles Depéret created the Burdigalian stage, which he placed above the Aquitanian, describing it as "the horizon of the faluns [*i.e.*, shelly sands] of Saucats and Léognan". Numerous publications have subsequently complemented this work. It is interesting to note that Depéret defined the entire Burdigalian stratotype in two regions: Bordeaux for the lower levels and the Rhone Valley for the upper levels.

In February 1979, in view of the risks of damage to these sites, a group of scientists, teachers, researchers and local personalities demanded the creation of a Geological Nature Reserve to protect the Aquitanian and Burdigalian stratotypes. This request had two objectives: to protect and to enhance this heritage. On June 13, 1980, an association under the French law of 1901, namely *l'Association pour la Réserve géologique de Saucats-La Brède*, was created and took the first urgent actions to protect the sites. The Reserve was officially created on September 1, 1982 (French decree n° 82.761, J.O. of September 5, 1982). We will visit the main sites of this reserve during the post-conference excursion of the Inhigeo Congress.

Cahuzac, B., Carbonel, C., Cluzaud, A., Colin, J.P., Faury, B., Gilly, Y., Lesport, J.-F., Londeix, L., Martin, N., Rocher, P. (1996). La Réserve Naturelle de Saucats-La Brède. *Echo des Faluns* n° 2, troisième édition (2020), 70 p.

Depéret, C. (1892). Note sur la classification et le parallélisme du système Miocène. *Bulletin de la Société géologique de France*, 3<sup>e</sup> série, vol. 20, p. CXLV-CLVI

Mayer-Eymar K. (1858). Versuch einer neuen Klassifikation der Tertiär-Gebilde Europa's. *Trogen Verhandlungen der allgemeinen Schweizerischen Gesellschaft für die gesammten Naturwissenschaften*, 70-71, p. 165-199.