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Alcide d'Orbigny and the Paris Foraminifera: story of a collection under Byne attack

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In 1858, the National Museum of Natural History, Paris, acquired the prestigious **foraminiferal collection** of the French naturalist **Alcide Dessalines d'Orbigny** (1802-1857). Pioneer in the fields of micropaleontology and biostratigraphy, d'Orbigny's deep interest in tiny shells and micro-fossils led him to publish the first classification of the Phylum of Foraminifera in 1826. He later became the first professor of palaeontology at the Museum. However, quarrels in the teaching community resulted in multiple vacancies at the chair of palaeontology after d'Orbigny's death. His collection, which includes about **800 slides of type specimens**, 3D sculptures enlarged 40-200 times, hundreds of "unpublished plates" and a thousand small bottles of sediments, was **progressively abandoned**. For almost a century, the foraminifera have been left to the care of scientists external to the museum. In 2007, a position of professor of micropaleontology was finally created and micropaleontological collections were gathered. Until then, the conditions of conservation of this outstanding scientific resource have been relatively unknown.

Today, the collection is threatened by **Byne decay**. About a fifth of the foraminifera is suffering from the development of white calcium-based efflorescence that fragilize the structure of the specimens. Presence of wooden-based materials can explain the emergence of the salts. Yet, the variety in the distribution and mineralogical nature of the crystals seems to indicate different degradation mechanisms linked to the **storage conditions**. Thereby, a key to understand the current state of the collection leans on its past. This presentation is thus an invitation to travel through time. It deals with the **history of the collection** care, taking advantage of the few testimonies (archives, photographs...) that reached us.