

The beginnings of French oceanography:
the cruise of the "Travailleur",
July 1880

Although Oceanologica Acta is a truly international journal, its origins and its home are firmly in France. It would be a great pity, therefore, if we were to allow 1980 to pass without noting that it is just 100 years since the beginning of French participation in the science of the deep sea. For on 17 July 1880, the "Travailleur" sailed from Rochefort for a modest two week cruise off the Northern coast of Spain, the first of a long series of French oceanographic expeditions which have spanned the oceans of the world from the tropics to the poles.

Marine Science, and particularly marine biology, already had a distinguished history in France, of course, extending back at least to 1830 when Audouin and H. Milne-Edwards had begun their dredging work off the French coast. But this had all been based in relatively shallow waters, and by the late 1870s, the fascinating results which had recently been obtained by British and American expeditions led a number of French scientists to believe that it was time to extend their efforts into the deep sea. Accordingly, a Commission des dragages sous-marins was established in 1879 under the presidency of Henri Milne-Edwards, and including the Marquis de Folin who had already been dredging privately for several years in the upper reaches of the Cap Breton canyon, and had been urged to seek government assistance by his British acquaintance John Gwyn Jeffreys.

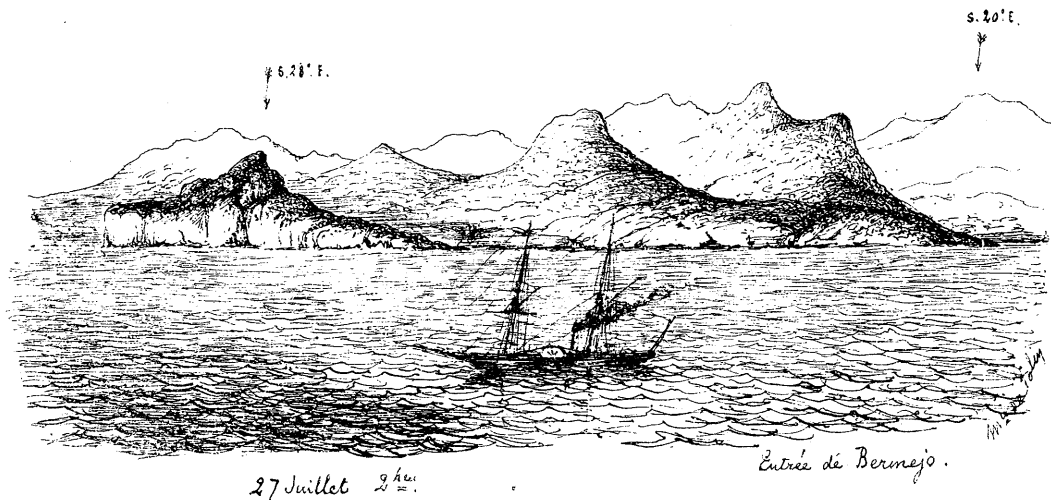
Through the Ministry of Public Instruction, the Commission was provided with the 829 t, 47 m long, naval paddle-steamer "Travailleur", commanded by Captain E. Richard and with her complement of officers and men increased to 130 to enable her to work day and night. In addition to Milne-Edwards and his fellow commissioners, the expedition was joined by Jeffreys and the Rev. A. M. Norman, invited by the Ministry as "collaborateurs étrangers" because of their considerable previous experience of deep-sea dredging, though the French scientists reserved the right to work up the results themselves.

Apart from the one hundred or so soundings which were obtained very efficiently down to depths of almost 3 000 m using the piano-wire system originally devised by Sir William Thomson, the cruise was almost entirely biological. By the time the "Travailleur" returned to Rochefort, dredges and trawls had been fished successfully at 23 stations in depths down to 2 700 m, obtaining large numbers of animals which formed the basis of the very important deep-sea collections in the Muséum National d'Histoire Naturelle in Paris.

However, although the soundings provided a much clearer idea of the bathymetry off the coasts of Asturias and Cantabria, and although many of the animals collected were previously undescribed, the results of this first, short cruise were not particularly startling, being overshadowed by those of the much grander expeditions of the "Challenger" and the "Blake". But they were sufficiently impressive to encourage Milne-Edwards to apply, successfully, for further government support, and the Commission was given two further cruises in the "Travailleur", exploring the coast of Portugal and the Western Mediterranean in 1881, and as far as the Canaries in 1882. By this time, however, it was clear that the "Travailleur" had out-lived her usefulness. For like the "Lightning", with which Wyville Thomson and Carpenter had begun British deep-sea work in 1868, the "Travailleur" was really quite unsuitable for open ocean research. She was far too slow and, since she could carry only sufficient coal to last about a week, she could not venture far from ports where she could replenish her bunkers. In 1883 and 1884 the "Travailleur" was therefore replaced by the much faster and more efficient "Talisman", which had been extensively modified for her new rôle.

Nevertheless, despite her shortcoming, the "Travailleur" was the first French deep-sea oceanographic vessel, and as such deserves a special place in the memory of all oceanographers. As a foreign member of the Scientific Board of Oceanologica Acta, it is therefore my pleasure to congratulate my French colleagues, and to honour the name of the "Travailleur" in this short tribute.

A. L. Rice
Member of the scientific Board



Sketch by the Marquis de Folin, made during the cruise of the "Travailleur" (document kindly provided by Professor J. Forest, of the laboratoire de carcinologie et d'océanographie biologique du Muséum National d'Histoire Naturelle, Paris).