The Late Cretaceous palaeobiogeography of *Braarudosphaera bigelowii*

Maria de Lurdes Fonseca
University of Lisbon (ISCSP-UL), Higher Institute of Social and Political Sciences, Center for Public Administration and Public Policies (CAPP--ISCSP), Lisbon, Portugal; University of Lisbon (FC-UL), Faculty of Sciences, Lisbon, Portugal; Institute Dom Luiz (IDL-UL), Lisbon, Portugal; mlfonseca@iscsp.ulisboa.com
Christopher Scotese
Northwestern University, Evanston, Ill 60208, USA; cscotese@gmail.com
Mário Cachão
FC-UL & IDL-UL, as above; mcachao@fc.ul.pt

Since its first description 83 years ago, a significant amount of data has been collected about the coccolithophore *Braarudosphaera bigelowii*. Despite the accumulation of local and regional data, only limited attempts (both in quantity and in scope) have been made to compile a global database and systematically analyse the geographic distribution of *B. bigelowii* occurrences. Here, we present the results of a recently-published study on the Late Cretaceous that comprehensively reviews the palaeobiogeography of *B. bigelowii* during that period of time, by compiling more than 700 onshore and offshore records.

The results show that, during the Cenomanian, *B. bigelowii* was found throughout the European seaways, at the base of the North America Interior Seaway, in the palaeo-Atlantic margin of South America, in the Neuquén Basin, on the southern tip of the Indian Plate and on the Kerguelen Plateau. During the Late Cretaceous, it gradually expanded northwards along the North Sea, into the North American Interior Seaway, eastwards through the interior European seaways, across central Russia, southeastwards into China and along the Asian coast up to Japan. The Falkland Plateau appears to have played a pivotal role in the colonisation of the eastern coast of South America and the Atlantic and Indian Ocean margins of Africa, Madagascar, India, western Antarctica and Australia.

Because biogeographic information is scarce for the northern coast of South America, for several areas along the African margin, and for the overall Pacific coasts, it was difficult to resolve the biogeographic history in these areas. The presence of *B. bigelowii* could not be confirmed on the northern coast of South America or on the North Atlantic African margin. It is also not possible to ascertain whether the African margin facing the Indian Ocean was completely colonised by the end of the Cretaceous.