

The Biogeographic Atlas of the Southern Ocean

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A new atlas, providing the most thorough audit of marine life in the Southern Ocean, is published by the Scientific Committee on Antarctic Research (SCAR). In an unprecedented international collaboration 147 scientists from 91 institutions across 22 countries (Australia, Belgium, Brazil, Canada, Chile, Denmark, France, Germany, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Poland, Portugal, Russia, South Africa, Spain, Switzerland, the UK and the USA) combined their expertise and knowledge to produce the new Biogeographic Atlas of the Southern Ocean.

The Southern Ocean has a long history of exploration. While the first species were described as early as the 19th century, there is still much to learn as shown by the number of species discovered during the Census of Antarctic Marine Life (CAML).

The initial efforts of synthesizing and mapping the Southern Ocean biogeography dated back to the Antarctic Map Folio Series (1968-1974). Despite the robustness of the emerging biogeographic schemes, these attempts are now largely outdated in face of the exponential development of the occurrence record datasets in recent decades, the new insights provided by the molecular and phylogeographic approaches, and the availability of new methods of analysis, visualization, modelling and prediction of biogeographic distributions.

The scope of the multi authored Biogeographic Atlas of the Southern Ocean is to present a concise synopsis of the current knowledge on the distributional patterns of all the major Antarctic benthic and pelagic taxa and of key communities, in the light of biotic and abiotic factors operating within an evolutionary framework. Each section has been written by the most pertinent experts in their field, relying on vastly improved occurrence datasets from recent decades, as well as on new insights provided by molecular and phylogeographic approaches, and new methods of analysis, visualization, modelling and prediction of biogeographic distributions.

南大洋の海洋生物に関する Biogeographic Atlas が南極研究科学委員会（SCAR）より出版されました。これまで前例のない世界 22 カ国（オーストラリア、ベルギー、ブラジル、カナダ、チリ、デンマーク、フランス、ドイツ、アイルランド、イタリア、日本、オランダ、ニュージーランド、ノルウェー、ポーランド、ポルトガル、ロシア、南アフリカ、スペイン、スイス、UK、USA）、91 の団体、147 名の科学者が、微生物から鯨まで、その専門的知識を結集して作られました。南大洋には長い探検の歴史があります。19 世紀に最初の種が記述されてから、近年の海洋生物センサス（CAML）が報告した種数が示すように、まだ調査すべき多くのことが残されています。

南大洋の Biogeographic Atlas の最初の取り組みは 1968-1974 年の Antarctic Map Folio Series まで遡ります。これらの試みは現代の分子生物学的アプローチ、統計学手法、視覚化、モデル予想といった新しい方法論による洞察によって塗り替えられています。本書は南大洋の主要な海洋生物における最新の知識を各分野のエキスパートがとりまとめました。新たな研究手法によるアプローチで、これまでの数十年のデータセットの改善に努めました。