

Correlation of the
Early Paleogene in
Northwest Europe

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Correlation of the Early Paleogene in Northwest Europe

EDITED BY

R. W. O'B. KNOX

British Geological Survey
Nottingham, UK

R. M. CORFIELD

University of Oxford
Oxford, UK

and

R. E. DUNAY

Mobil, North Sea Ltd
London, UK



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Preface

The early Paleogene of northwest Europe has been the subject of intense investigation over the last quarter century, with important stimulus being provided by the search for oil and gas in the offshore basins and by IUGS-sponsored investigations of the onshore historical stage and system stratotype sections.

The Paleogene has long been an exploration target offshore northwest Europe. Giant accumulations, such as the Forties oilfield (UK) and the Ekofisk oilfield and Frigg gasfield (Norway), were discovered in the early days of exploration in the central and northern North Sea. Exploration of the North Sea Paleogene is continuing, with total discoveries now exceeding 12 billion barrels of oil equivalent (BBOE). Paleogene exploration plays are also being actively pursued West of Shetlands, where discoveries reputed to be in excess of 1 BBOE have been made in recent years. The early Paleogene has thus been the focus of major industry interest, and continues to be an attractive exploration target.

The onshore sections that fringe the southern margin of the North Sea Basin are home to the historical stratotype successions for most of the Paleogene system and stage boundaries. With the drive towards development of a global standard for the subdivision of Paleogene time, these successions have been the subject of detailed investigation in recent years. Attention is currently focused on the early Paleogene, with international collaboration taking place under the aegis of the IUGS 'Paleocene–Eocene Boundary' and 'Paleocene Stages' working groups and IGCP Project 308 'Paleocene–Eocene Boundary Events in Space and Time'.

The igneous province of northwest Britain has also received much attention, with a better understanding of the timing and nature of the volcanism arising from the application of improved analytical techniques and from the acquisition of new information from shallow and deep drilling in the offshore areas.

DSDP drilling in the eastern Atlantic has also played a significant part in recent advances in northwest European early Paleogene stratigraphy. Drilling in the Bay of Biscay and the Goban Spur (Legs 48, 80) has provided information on the oceanic succession nearest to northwest Europe, while drilling in the Rockall area (Legs 12, 48, 81) and adjacent parts of the North Atlantic has increased our knowledge of the crustal evolution of the region during the early Paleogene, leading to a better understanding of the history of tectonism and volcanism in northwest Europe.

As illustrated by the papers in this volume, the wide range of activities listed above has led to the acquisition of a remarkably diverse dataset, which provides a unique opportunity for the development of a truly comprehensive regional stratigraphy, encompassing terrestrial, epicontinental marine and oceanic successions, and linking these to the tectonic and volcanic events associated with the onset of seafloor spreading between Greenland and Europe. A key element in realizing this potential is the integration of data derived from onshore studies, offshore hydrocarbon exploration activities and ocean drilling programmes. It is hoped that publication of this volume will add further stimulus to the necessary interchange of data and ideas between researchers in these different fields.

R. W. O'B. Knox
R. M. Corfield
R. E. Dunay