Content, vol. 61

Lotte M. Larsen, Asger K. Pedersen, Erik Vest Sørensen, W. Stuart Watt & Robert A. Duncan: Stratigraphy and age of the Eocene Igtertivâ Formation basalts, alkaline pebbles and sediments of the Kap Dalton Group in the graben at Kap Dalton, East Greenland	
Sebastian Pauly, Jörg Mutterlose & Peter Alsen: Depositional environments of Lower Cretaceous (Ryazanian–Barremian) sediments from Wollaston Forland and Kuhn Ø, North-East Greenland	(
Bitten Bolvig Hansen, Gilles Cuny, Bo Wilhelm Rasmussen, Kenshu Shimada, Perri Jacobs & Claus Heilmann-Clausen: Associated skeletal and dental remains of a fossil odontaspidid shark (Elasmobranchii: Lamniformes) from the Middle Eocene Lillebælt Clay Formation in Denmark	
Sven Karup-Møller & John Rose-Hansen: New data on eudialyte decomposition minerals from kakortokites and associated pegmatites of the Ilímaussag complex, South Greenland 4	

Bulletin of the Geological Society of Denmark



VOLUME 61 | DECEMBER 2013 | COPENHAGEN



SSN 1350-0150



Bulletin of the Geological Society of Denmark

is published by the Geological Society of Denmark (DGF, Dansk Geologisk Forening), founded in 1893

Chief editor

Lotte Melchior Larsen, Geological Survey of Denmark and Greenland (GEUS), Øster Voldgade 10, DK-1350 Copenhagen K, Denmark. Tel: +45 38142252; Fax: +45 38142250; E-mail: lml@geus.dk

Scientific editors

- Lars B. Clemmensen, Department of Geosciences and Natural Resource Management, University of Copenhagen, Øster Voldgade 10, DK-1350 Copenhagen K, Denmark. Tel: +45 35322449; E-mail: larsc@ign.ku.dk; (clastic sedimentology, sedimentary basins and palaeoclimatology).
- Ole Graversen, Department of Geosciences and Resource Management, University of Copenhagen, Øster Voldgade 10, DK-1350 Copenhagen K, Denmark. Tel: +45 35322537; E-mail: oleg@ign.ku.dk; (structural geology and tectonics).
- Michael Houmark-Nielsen, Natural History Museum of Denmark, University of Copenhagen, Øster Voldgade 5–7, DK-1350 Copenhagen K, Denmark. Tel: +45 35324344; E-mail: michaelhn@snm.ku.dk; (Quaternary geology).
- Jesper Milàn, Geomuseum Faxe, Østsjællands Museum, Østervej 2, DK-4640 Faxe, Denmark. Tel: +45 24636348; E-mail: jesperm@oesm.dk; (palaeontology).
- Lars Nielsen, Department of Geosciences and Natural Resource Management, University of Copenhagen, Øster Voldgade 10, DK-1350 Copenhagen K, Denmark. Tel: +45 35322454; E-mail: ln@ign.ku.dk; (geophysics).
- Jan Audun Rasmussen, Natural History Museum of Denmark, Øster Voldgade 5–7, DK-1350 Copenhagen K, Denmark. Tel: +45 35322386; E-mail: janr@snm.ku.dk; (palaeontology).
- Erik Thomsen, Department of Geoscience, University of Aarhus, Høegh-Guldbergs Gade 2, DK-8000 Aarhus C, Denmark. Tel: +45 89422627; E-mail: erik.thomsen@geo.au.dk; (palaeontology and stratigraphy).

- Henrik Tirsgaard, Mærsk Olie og Gas AS, Esplanaden 50, DK-1263 Copenhagen K, Denmark. Tel: +45 61209140; E-mail: Henrik.tirsgaard@maerskoil.com; (carbonate sedimentology, petroleum geology and sedimentary basins).
- J. Richard Wilson, Department of Geoscience,
 University of Aarhus, Høegh-Guldbergs Gade 2,
 DK-8000 Aarhus C, Denmark. Tel: +45 25321169;
 E-mail: jrw@geo.au.dk;
 (igneous petrology and geochemistry).

The *Bulletin* publishes contributions of international interest in all fields of geological sciences, with a natural emphasis on results of new work on material from Denmark, the Faroes and Greenland. Contributions based on foreign material may also be submitted to the Bulletin in cases where the author is a member of the Society. The rate of publishing is one volume per year. All articles are published as pdf-files immediately after acceptance and technical production. A paper edition of each volume is issued at the end of the year and is distributed to libraries only.

Scientific editing and reviewing are done on an unpaid collegial basis; technical production expenses are covered by the membership fees.

The bulletin is freely accessible on the web page of the Geological Society of Denmark: http://2dgf.dk/publikationer/bulletin/index.html.

Instructions to authors:

See inside the back cover and also: http://2dgf.dk/publikationer/bulletin/vejledning.html

Cover: The headland of Kap Dalton on the Blosseville Kyst in East Greenland consists of flood basalts emplaced during and after breakup of the North Atlantic in the early Eocene. The picture shows the transition from the syn-breakup flows of the 55.5 Ma Skrænterne Formation to the 49.1 Ma post-breakup flows of the Igtertivâ Formation. The time interval between the two formations is represented by a c 7 m thick reddish, purplish and black sediment horizon deposited on the eroded top of the uppermost lava flow of the Skrænterne Formation. See this volume pp. 1–18: Larsen, L.M., Pedersen, A.K., Sørensen, E.V., Watt, W.S. & Duncan, R.A.: Stratigraphy and age of the Eocene Igtertivâ Formation basalts, alkaline pebbles and sediments of the Kap Dalton Group in the graben at Kap Dalton, East Greenland. Photo: A.K. Pedersen.

Instructions to authors

The Bulletin publishes articles normally not exceeding 30 printed pages, notes not longer than 4 pages, and short contributions of maximum 1 printed page. Longer articles and monographs may be published at the discretion of the editors, but it is advisable to consult the chief editor before submitting long manuscripts. Short contributions may be comments on previously published articles, presentation of current scientific activities, short scientific notes, or book reviews.

Manuscripts with complete sets of illustrations, tables, captions, etc., should be submitted electronically to the chief editor (lml@geus.dk). The **main text** with references and figure captions should be either in Word or pdf format, **figures** should be in either pdf, jpeg, or tiff format, and **tables** should be in Word text format, i.e. written in lines with tab spacing between table columns. "Word tables" are discouraged because they are not re-formatted easily. Consult the editor before submitting other formats

Manuscripts will be reviewed by two referees; suggestions of referees are welcome. The final decision on whether or not a manuscript will be accepted for publication rests with the chief editor, acting on the advice of the scientific editors. Articles will be published in the order in which they are accepted and produced for publication.

Manuscript

- Language Manuscripts should be in English. Authors who are not proficient in English should ask an English-speaking colleague for assistance before submission of the manuscript.
- Title Titles should be short and concise, with emphasis on words useful for indexing and information retrieval. An abbreviated title to be used as running head must also be submitted.
- Abstract An abstract in English must accompany all papers. It should be short (no longer than 250 words), factual, and stress new information and conclusions rather than describing the contents of the manuscript. Conclude the abstract with a list of key words.
- Main text Use 1.5 or double spacing throughout, and leave wide margins. Italics should be used only in generic and species names and in some Latin abbreviations (e.g. c, et al., ibid., op. cit).
- Spelling Geological units named after localities in Greenland, formal lithostratigraphical units and intrusions named after localities in Greenland remain unchanged even if the eponymous locality names have since been changed in accordance with modern Greenlandic orthography.
- References to figures, tables and papers References to figures and tables in the text should have the form: Fig. 1, Figs 1–3, Table 3 or as (Smith 1969, fig. 3) when the reference is to a figure in a cited paper.
- References to papers are given in the form Smith (1969) or (Smith 1969). Combined citations by different authors are separated by a semicolon; two or more papers by same author(s) are separated by commas. Citations are mentioned chronologically and then alphabetically. Use 'et al.' for three or more authors, e.g. Smith et al. (1985).

Reference list

Use the following style:

- Smith, A.A. 1989: Geology of the Bulbjerg Formation. Bulletin of the Geological Society of Denmark 38, 119–144. [Note that name of journal is given in full].
- Smith, A.A., Jensen, B.B. & MacStuff, C.C. 1987: Sandstones of Denmark, 2nd edition, 533 pp. New York: Springer Verlag. [For more than 10 authors, use first author followed by *et al.*].
- Smith, A.A., Jensen, B.B. & MacStuff, C.C. 1992: Characterization of Archean volcanic rocks. In: Hansen, D.D. et al. (eds): Geology of Greenland. Geological Survey of Denmark and Greenland Bulletin 40, 1397–1438. [More than three editors therefore et al. form is used].

Sorting – Danish letters æ, ø and å (aa) are treated as ae, o and a (aa), respectively.

References are sorted by:

- 1: Alphabetically by the first author's surname
- 2: Papers by one author: two or more papers are arranged chronologically
- 3: Papers by two authors: alphabetically after second author's name. Two or more papers by the same two authors: chronologically.
- 4: Papers by three or more authors: chronologically. Papers from the same year are arranged alphabetically after second, third, etc.author's name.

Authors themselves are responsible for the accuracy and completeness of their references. If incorrect references are found, the manuscript will be returned to the author for complete rechecking. The reference list must include all, and only, the references cited in the paper (including figures, tables etc).

Illustrations

- May be prepared in either black and white or colour. There is no colour charge. Horizontal illustrations are much to be preferred. Size of smallest letters in illustrations should not be less than 5.5 pt. Remember scale.
- All figures (including photographs) should be submitted in electronic form ready for direct reproduction, i.e. having the dimensions of the final figure with a standard resolution of 300 dpi for photographs. Preferred formats are pdf, tiff and jpg.
- Size The width of figures must be 82 mm, 125 mm or 171 mm. Maximum height is 223 mm.
- Captions Captions to figures, tables and plates must be delivered on separate pages.

Supplementary data files

Supplementary files are accepted. Such files may provide e.g. analytical data tables, detailed data documentation, illustrations with special effects, or videos.

Proofs

Proofs – Authors receive page proofs of the article after technical set-up. The cost of any alterations against the final manuscript will be charged to the author.