

## MANUSCRIPT

Supplied as a Word-file, single column, no word splits, 1.5 spacing, pages and lines numbered. All manuscripts should contain the following:

### TITLE PAGE

Include the article title, author name(s) and their affiliations and addresses, email address for the corresponding author and 5 keywords. The title should be concise and internationally relevant. Use a declarative title that states or points towards the main conclusion of your study, rather than the broad topic of interest. Keywords should be in alphabetical order.

### TABLE OF CONTENTS

A list of section and sub-section headings used throughout the manuscript. Maximum three levels.

### ABSTRACT/SUMMARY

State the problem addressed, data obtained and conclusions drawn. Avoid use of subject-specific terminology and acronyms and write for a broadly scientific audience. Abstract length varies according to the article type: 6 page short papers (200 words); 20 page original research and review articles (300 words); single-work volumes including monographs and map series (460 words, equivalent to one typeset page).

### MAIN TEXT

**Introduction.** Concisely state the research question in the opening sentences of the article, avoiding jargon. Provide brief introductory information and the aims and objective of the article, such that a reader from any geoscience field can understand.

**Methods.** Document all methods such that a reader understands how data were collected. Short papers (6 pp.) can include a brief summary with a more detailed methodology supplied as supplementary information. Standard methods need not be described if suitable references can be cited. Otherwise, provide sample/data collection and preparation, analytical procedures, make and model of equipment used and any statistical treatment of the data.

**Figures and tables cited.** Cite all figures and tables, plates, appendices, supplementary files and maps in the main text. Abbreviate and use an initial capital, e.g. 'Fig. 6', 'Figs 1A, B, C' (no full stop) and 'Table 5'. Citation of figures, tables, etc. from elsewhere have a small initial letter, e.g. 'fig. 4', 'table 3'. Do not abbreviate at the beginning of a new sentence.

**References cited.** All citations in the main text, figures, tables, captions and appendixes must be listed in the References section. See page 3 for examples of reference style.

Citations in the main text are as follows:

1. One author: name and year of publication (Hansen 2019).
2. Two authors: an ampersand (&) between names (Hansen & Jensen 1996).
3. Three or more authors: first name followed by *et al.* in italics (Fausto *et al.* 2018).
4. Lists of papers by different authors are separated by a semicolon (Hansen 1996; Andersen 1999; Børgesen 2000) and are cited chronologically.
5. Two or more papers by the same author(s) are separated by commas (Hansen 2015, 2018, 2019).

Unpublished reports and repository-hosted pre-prints (with a DOI) may be cited. Papers marked as 'in press' (i.e. papers that have been accepted) may be cited when a version of record is available online, preferably with a DOI.

Personal communications (verbal and written, including manuscripts that are submitted or in preparation) are given with initials and year (e.g. P.V. Herz, personal communication 2008). Another form is: P.V. Herz, unpublished data 2008. A published paper/book/conference abstract is always a preferred source.

**Acknowledgements.** All financial support must be acknowledged, including funding agency name and grant number where available. We encourage authors to acknowledge the reviewers.

**Captions.** Figure, plate, appendix and map citations should be concise and should not duplicate the main text. Define all symbols and abbreviations used. The word 'Figure' is abbreviated to 'Fig.' at the beginning of the caption. See example on p. 2.

Composite figures/plates should include letters to identify each panel. Use *either* upper or lower case letters but not both.

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Also note. Footnotes can be used as part of a table, but not in the main text.

Lists are of two types: (1) phrases and short sentences with number in parentheses in running text (as here) and (2) longer sentences or paragraphs preceded by a number plus full stop, i.e. 1., 2., 3. (as above).

## FIGURES

Submit figures as separate files. Acceptable file formats are: .png, .jpeg, .tif, .eps, .ai and .pdf (with vector layers).

Mark all figures with author's name and figure/plate number.

Figures can have three widths: 1 column (82 mm), 1½ columns (112 mm) or 2 columns (171 mm). Maximum page heights are 232 mm (articles and monographs) and 235 mm (map descriptions). State preferred publication size for each submitted figure.

Provide a scale (metric) and geographic information (latitude and longitude), where relevant. Generally, all maps should have coordinates.

Digital photographs should be 300 dpi in final layout size. For help scanning slides/prints, contact the editorial office.

Borders around figures and lines in graphs or charts should be 0.5 pt. thickness. Use the same font for all figures (suggestion: Gill Sans Alt One or Helvetica; 9 or 8 pt).

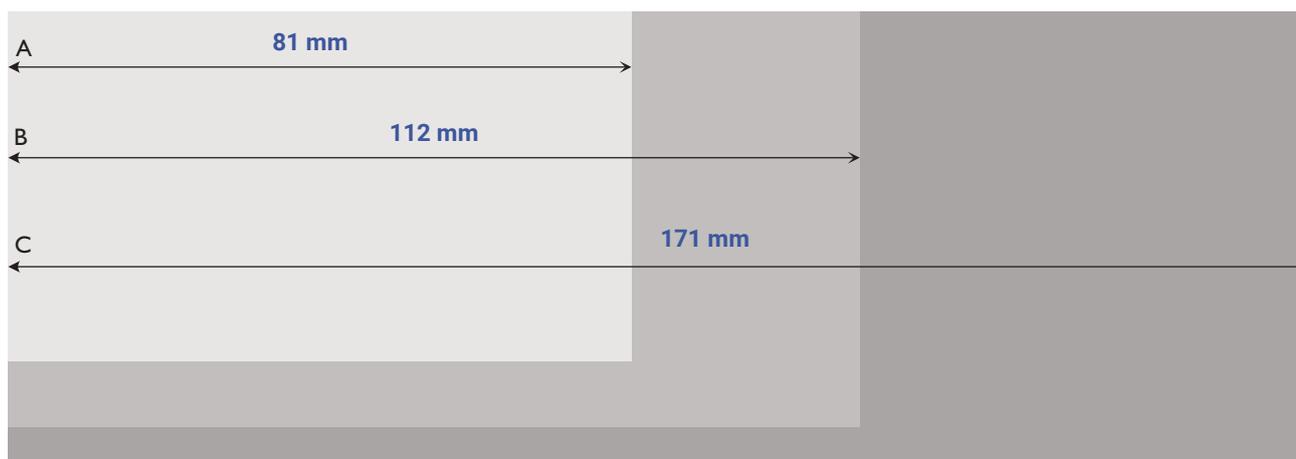


Fig 1. The three figure widths used in the Geological Survey of Denmark and Greenland Bulletin. **A:** 81 mm (1 column). **B:** 112 mm (1.5 column). **C:** 171 mm (2 columns).

## TABLES

Submit tables as separate files in Excel or Word. Mark all figures with author's name and table number.

Tables can be 82 (1 column) or 171 mm (2 columns) wide. Maximum page heights are 232 mm (articles and monographs) and 235 mm (map descriptions). State preferred publication size for each submitted table.

Each table must have a short title, no full stop. Table number written as "Table 1."

Use footnotes below the table to explain all symbols, acronyms or data sources, each on a separate line. Use superscript symbols or letters.

An example layout is provided below. Avoid vertical borders. Use single horizontal line borders, 0.5 pt., to separate table headings from the first row of data, and to define groups of data.

Table 1. New radiocarbon ages from Storebælt, Denmark

Core no.	N. lat.	E. long.	Laboratory no.	Species	Depth b.c.t. (cm)*	Age ( <sup>14</sup> C years BP)	Calibrated age (years BP) <sup>†</sup>
544001-1	55.571°	10.828°	AAR-29105	<i>Scirpus lacustris</i>	201	11 374 ± 54	13 094–13 315
544001-1			Beta-481723	<i>Betula nana</i>	447	12 310 ± 40	14 070–14 560
544002-1	55.538°	10.823°	AAR-29106	<i>Phragmites australis</i>	214	9294 ± 33	10 433–10 561
544002-1			AAR-29107	<i>Phragmites australis</i>	229	9455 ± 38	10 604–10 741
544002-1			Beta-481724	<i>B. nana, Dryas octopetala</i>	375	11 405 ± 44	13 130–13 340

\* Below core top.

<sup>†</sup> Calibrated to calendar years before present according to the IntCal13 dataset.

## LANGUAGE

Use UK English. Refer to the [glossary](#) for recommended spellings and usage according to the Geological Survey of Denmark and Greenland.

*Spelling of geological units named after localities in Greenland.* Formal lithostratigraphical units and names of magmatic intrusions named after localities in Greenland should remain unchanged even if the eponymous locality names have since been changed in accord with Greenlandic orthography.

*Abbreviations and italics.* Latin words and some abbreviations are given in italics, for example *c.*, *et al.*, *in situ*, *sensu lato*, while others, such as *cf.*, *e.g.*, *i.e.*, *viz.*, are not.

*Units of measure, symbols, letters etc.* The Survey uses the SI system (Système International) of units, viz. G (giga), M (mega), k (kilo), d (deci), m (milli), (micro), n (nano) etc. to give Ga (gigayear), Ma (megayear), km (kilometre), mm (millimetre) etc. Imperial units (feet etc.) may be retained for older subsurface data/samples.

*Units of measure, symbols, letters etc.* The Survey uses the SI system (Système International) of units, viz. G (giga), M (mega), k (kilo), d (deci), m (milli), (micro), n (nano) etc. to give Ga (gigayear), Ma (megayear), km (kilometre), mm (millimetre) etc. Imperial units (feet etc.) may be retained for older subsurface data/samples.

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When you are ready to submit, please email the full manuscript, figures and a completed [submission checklist](#) to the editor in chief. Include the names, affiliations and email for up to 5 suitable reviewers. State any reviewers that you wish to avoid only where there is a clear conflict of interest.

All manuscripts are peer reviewed by at least two independent experts in the field. GEUS Bulletin follows a single-blind review process (the authors' names are known to the reviewers and the reviewers may remain anonymous). Authors can request an open review (both author and reviewer names are open throughout) upon submission.

Revised manuscripts are resubmitted according to the timeframe set out by the handling editor. Please include tracked changed manuscript and a letter outlining the main changes.

\*A new submissions system is due to be implemented in January 2020. All active submissions will be migrated over to the new system when available.

## REFERENCES – EXAMPLE STYLES

List references alphabetically by (1) first author's surname and (2) by second author's surname, then chronologically.

Ten or more authors or three or more editors are shortened to the first author's name only followed by "et al."

Include DOIs where available in the format <https://doi.org/....> Use the [CrossRef Metadata Search](#) to check the DOI before submitting your manuscript.

Use the full journal title and book publisher name. For website citations include the date (month and year) the site was accessed. Datasets should include a DOI or URL link to the dataset online.

No comma between author name(s) and year, and no space between author initials, but with point.

If using a reference software tool, we recommend exporting references in APA style and amend to our in-house format using the examples below.

### ABSTRACT

Author(s) last name and initials. Year: Abstract title. Conference title. City, Country, Date. Additional info if available. DOI if available

Kujansuu, R. 1969: On the landslides in Finnish Lapland. IX Nordiske geologiske vintermøde, Lyngby, Copenhagen, Denmark, 5–7 januar, 1970. Program og resumeer af foredrag, 51 only.

- Habermehl, M.A. 1989: Hydrology of the Great Artesian Basin, Australia. 28th International Geological Congress, Washington D.C., USA, 9–19 July, 1989. Abstracts **2**(2), 2–3.
- Kjeldsen, K.K., Khan, S.A., Colgan, W.T. & Fausto, R.S. 2018: Improving mass balance estimates of large outlet glaciers from the Greenland Ice Sheet. Washington D.C., USA, 4–10 December, 2018. AGU Fall Meeting Abstracts.
- Yang, S., Drijfhout, S.S. & Mecking, J.V. 2019: The recent abrupt cooling over Subpolar North Atlantic: Exploring the variability of the North Atlantic. EGU General Assembly, Vienna, Austria, 7–12 April, 2019. Geophysical Research Abstracts **21**, EGU2019-11187.

**ARTICLE IN JOURNAL**

Author(s) last name and initials. Year: Article title. Journal title. **Vol.** Page range/article number. DOI.

- Andersen, J.K. *et al.*\* 2019: Update of annual calving front lines for 47 marine terminating outlet glaciers in Greenland (1999–2018). Geological Survey of Denmark and Greenland Bulletin **43**, e2019430202. <https://doi.org/10.34194/GEUSB-201943-02-02> [\*NB. 10 or more authors use *et al.*]
- Regelous, M., Turner, S., Falloon, T.J., Taylor, P., Gamble, J. & Green, T. 2008: Mantle dynamics and mantle melting beneath Niuafou’ou Island and the northern Lau back-arc basin. Contributions to Mineralogy and Petrology **156**, 103–118. <https://dx.doi.org/10.1007/s00410-007-0276-7>
- Sobolev, V.S. & Florensov, N.A. 1948: Genesis of the Botogol graphite. Sovetskaya Geologiya **32**, 29–35 (in Russian).
- Szykiewicz, A., Olichwer, T. & Tarka, R. 2020: Delineation of groundwater provenance in Arctic environment using isotopic compositions of water and sulphate. Journal of Hydrology **580**, 124232. <https://doi.org/10.1016/j.jhydrol.2019.124232>

**ARTICLE IN EDITED VOLUME / CHAPTER IN BOOK**

Author(s) last name and initials. Year: Article title. In: editors (eds): Volume title. Journal name. **Vol.** Page range/Article number. DOI

Author(s) last name and initials. Year: Article title. In: editors (eds): Series title. Series **Vol.** Page range/Article number. DOI

Author(s) last name and initials. Year: Chapter title. In: editors (eds): Book title. Page range. City: Publisher. DOI

- Grunsky, E.C., Easton, R.M., Thurston, P.C. & Jensen, L.S. 1992: Characterization and statistical classification of Archean volcanic rocks of the Superior Province using major element geochemistry. In: Thurston, P.C. *et al.*\* (eds): Geology of Ontario. Ontario Geological Survey Special Volume **4**, 1397–1438. [\*NB. 3 or more editors use *et al.*]
- Koch, L. 1961: Precambrian and Early Palaeozoic structural elements and sedimentation: North and East Greenland. In: Raasch, G.O. (ed.): Geology of the Arctic **1**, 148–154. Toronto: Toronto University Press. <https://doi.org/10.3138/9781487584979-012>
- Slater, D.A., Straneo, F., Felikson, D., Little, C.M., Goelzer, H., Fettweis, X. & Holte, J. 2019: Estimating Greenland tidewater glacier retreat driven by submarine melting. In: Lipscomb, W. *et al.*\* (eds): The Ice Sheet Model Intercomparison Project for CMIP6 (ISMIP6). The Cryosphere **13**, 2489–2509, <https://doi.org/10.5194/tc-13-2489-2019> [\*NB. 3 or more editors use *et al.*]
- Tedesco, M. *et al.*\* 2016: Greenland Ice Sheet. In: Blunden, J. & Arndt, D.S. (eds): State of the Climate in 2015. Bulletin of the American Meteorological Society **97**, S140–S142. <https://doi.org/10.1175/2016BAMSStateoftheClimate.1> [\*NB. 10 or more authors use *et al.*]
- Thurston, P.C. & Chivers, K.M. 1990: Secular variation in greenstone sequence development emphasizing Superior Province, Canada. In: Gaal, G. & Groves, D.I. (eds): Precambrian ore deposits related to tectonics. Precambrian Research **46**, 21–58, [https://doi.org/10.1016/0301-9268\(90\)90065-X](https://doi.org/10.1016/0301-9268(90)90065-X)

**BOOK (AUTHORED)**

Author(s) last name and initials. Year: Book title. Pages. City: Publisher. DOI

- Adams, H. & Adams, A. 1858: The genera of recent Mollusca arranged according to their organisation 1, 2, 3, 484 pp., 661 pp. + plate vol. London: John van Voorst. <https://doi.org/10.5962/bhl.title.4772>
- Holland, C.H. *et al.*\* 1978: A guide to stratigraphical procedure. Geological Society Special Report (London) **11**, 18 pp. [\*NB. 10 or more authors use *et al.*]

**BOOK (EDITED)**

Editor(s) last name and initials. Year: Book title. Pages. City: Publisher. DOI

- Nørrevang, A. & Lundø, J. (eds) 1981: Danmarks natur, Grønland, 3rd edition, **11**, 587 pp. København: Politikens Forlag.

**COMPUTER PROGRAMME**

Author(s) last name and initials. Year: Software title. Software description. Publisher, location. URL/DOI

- R Core Team. 2017: R. A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. <https://www.R-project.org/>

**DATASET**

Dataset title. Year: URL/DOI

Author(s) last name and initials. Year: Dataset title. URL/DOI

- Permanent Service for Mean Sea Level (PSMSL) 2018: Tide Gauge Data. <http://www.psmsl.org/data/obtaining>
- Porter, C. *et al.* 2018: ArcticDEM V2, Harvard Dataverse. <https://doi.org/10.7910/DVN/OHHUKH>
- Clinton, J., Larsen, T.B., Dahl-Jensen, T., Voss, P.H. & Nettles, M. 2017: Seismic observations from Nuugaatsiaq slide/tsunami. IRIS Special event page. <https://ds.iris.edu/ds/nodes/dmc/specialevents/2017/06/22/nuugaatsiaq-greenland-landslide-and-tsunami/#seismic-observations-from-nuugaatsiaq-slidetsunami>

**MAP**

Author(s) last name and initials. Year: Map title, Scale, Number of maps. City: Publisher. DOI if available

- Swager, C. & Griffin, T. 1990: Geology of the Archaean Kalgoorlie Terrane, 1:250 000, 2 maps. Perth: Geological Survey of Western Australia.
- Pedersen, A.K., Larsen, L.M., Pedersen, G.K. & Dueholm, K.S. 2008: Geological map of the area around Sikillingi, western Nuussuaq, central West Greenland, 1:20 000. Copenhagen: Geological Survey of Denmark and Greenland.

**MAP WITH ACCOMPANYING TEXT**

Author(s) last name and initials. Year: Map description title. Series Title. Pages. City: Publisher. DOI if available

- Brandon, A. 1989: Geology of the country between Hereford and Leominster. Memoir for 1:50 000 geological sheet 198 (England and Wales), 62 pp. Keyworth: British Geological Survey.
- Svennevig, K., Alsen, P., Guarnieri, P., Hovikoski, J., Lauridsen, B.W., Pedersen, G.K., Nøhr-Hansen, H. & Sheldon, E. 2018: Descriptive text to the Geological map of Greenland, 1:100 000, Kilen 81 Ø.1 Syd. Geological Survey of Denmark and Greenland Map Series **8**, 29 pp. Copenhagen: Geological Survey of Denmark and Greenland.

**PRE-PRINT**

Author(s) last name and initials. Year: Article title. Preprint: Repository name. DOI/URL. Month and year accessed.

Holme, C. T., Gkinis, V., & Vinther, B. M. 2018: Molecular diffusion of stable water isotopes in polar firn as a proxy for past temperatures. arXiv preprint arXiv:1802.01399. <https://arxiv.org/abs/1802.01399> [NB: Always provide a reference to a peer-reviewed publication where possible.]

#### PROCEEDINGS (SYMPOSIUM OR CONFERENCE)

Author(s) last name and initials. Year: Article/Abstract title. In: Editor(s) names (eds): Proceedings title. Pages. \*Date of conference. City: Publisher. DOI [if different to publication year.]

Thomsen, E., Damtoft, K. & Andersen, C. 1987: Hydrocarbon plays in Denmark outside the Central Trough. In: Brooks, J. & Glennie, K.W. (eds): Petroleum Geology of North West Europe: Proceedings of the 3rd Conference on Petroleum Geology of North West Europe, Barbican Centre, London, 26–29 October, 1986. Geological Society of London, UK.

#### REPORT (BY COMPANY / INSTITUTION / SOCIETY)

Author(s) last name and initials. Year: Report title. Pages. Publisher name, country. Additional info. DOI/URL if available [NB: If the report is unpublished and not available online, add 'Unpublished Report' to citation See below.]

Kragh, K. 1996: Geologisk setting og teksturelle undersøgelser af Citronen Fjord ekshalative sulfidforekomst, Nordgrønland, 62 pp. Unpublished report, Geologisk Institut, Aarhus Universitet, Danmark.

Thomassen, B. & Schönwandt, H.K. 1981: Prospecting for Cu-Pb-Zn-Ag-Au in the Upper Permian sediments and Devonian volcanics of East Greenland, 100 pp. + map vol. Unpublished report, Nordisk Mineselskab A/S, Copenhagen, Denmark (in archives of Geological Survey of Denmark and Greenland, GEUS Report File 20702).

#### THESIS

Author last name and initials. Year: Thesis title. Pages/ID number. Thesis type, university, country. Additional info. DOI

Andersen, L.S. 1974: Rapport over geologien mellem Frederikshåbs Isblink og Quvnilik Fjord – Vestgrønland 1,

2, 295 pp. Unpublished MSc thesis, University of Copenhagen, Denmark.

Carmichael, A.J. 1988: The tectonics and mineralisation of the Black Angel Pb-Zn deposits, central West Greenland 1, 2, 369 pp. Unpublished Ph.D. thesis, Goldsmith's College, University of London, UK.

#### WEBSITE (ARTICLE)

Author(s) last name and initials. Year: Article title. Website info: URL (month and year accessed)

Article title. Year: Website info: URL (month and year accessed)

Colgan, W., Grinsted, A., Box, J. & MacFerrin, M. 2018: The mind-bending physics of Scandinavian sea-level change. Popular science article for ScienceNordic.com and Videnskab.dk: <http://sciencenordic.com/mind-bending-physics-scandinavian-sea-level-change> (accessed June 2019)

Greenland Gas & Oil A/S, 2019. Available online at: <http://www.ggopl.com/projects/jameson.html> (accessed August 2019)

#### WEBSITE (PDF)

Author(s) last name and initials. Year: PDF title. In: Report name, publisher. URL or DOI

Tedesco, M. *et al.* 2018. Greenland Ice Sheet. In: Arctic Report Card 2018, NOAA. Accessed on 21/05/2019 at <https://arctic.noaa.gov/Report-Card/Report-Card-2018/ArtMID/7878/ArticleID/781/Greenland-Ice-Sheet>

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