

AUTHOR STYLE GUIDE FOR THE ROCKY MOUNTAIN ASSOCIATION OF GEOLOGISTS¹

THE PUBLICATIONS COMMITTEE of the ROCKY MOUNTAIN ASSOCIATION OF GEOLOGISTS²

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1. Placed online at www.rmag.org November 2013 for use by authors publishing in 2014 and thereafter.
 2. The Rocky Mountain Association of Geologists, 910 16th Street, Denver, CO 80202, www.rmag.org

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INTRODUCTION

This Style Guide intends to guide authors writing manuscripts for Rocky Mountain Association of Geologists (RMAG) publications including *The Mountain Geologist*, *Outcrop*, *Guidebooks*, and *Special Publications*. Manuscript quality can be enhanced and manuscript revision time reduced by following these guidelines, starting with the first manuscript draft. Additional RMAG manuscript-submission requirements are coordinated by the designated editor(s) of each publication.

BASIC GUIDELINES

Please observe the following rules for all RMAG manuscript submissions:

Font for manuscripts must be in 12-point, Times New Roman. Double space all text, including abstract, references, and figure and table captions. Italics may be used only for paleontological nomenclature. All text should be left justified except as noted below.

Sections of the manuscript should be arranged as follows:

1. Title
2. Author(s)
3. Author(s) affiliation (address) and corresponding author contact information
4. Abstract (about 300 words)
5. Text with formatted headings
6. Acknowledgments
7. References
8. Appendices, if any
9. Figure and Table captions (separate file from text, and separate from figures and tables)
10. Figures and Tables (separate files from manuscript text, figures submitted as TIFFS (or jpps), at least 400 dpi, and tables as Word or Excel files)
11. Author(s) biography, 1–2 paragraphs (separate file)
12. Author(s) photograph(s) (separate file, at least 400 dpi)

AUTHORIZATION TO REPRINT COPYRIGHTED MATERIAL

RMAG wishes to avoid copyright infringement of published materials. Please obtain releases for any copyright-protected artwork (which would include illustrations printed in non-RMAG publications) that you use. Include a copy of the release form with your final manuscript.

USEFUL REFERENCES ON TECHNICAL WRITING

A useful reference is *Geowriting—A Guide to Writing, Editing, and Printing in Earth Science 5th Edition (Revised)*, (by Bates, R.L., Adkins-Heljeson, M.D, and Buchanan, R.C., eds., 2004: American Geological Institute, Alexandria, Virginia, 100 p.). Many questions about preparation of manuscripts and the proper use of terms and stratigraphic terminology are addressed in Wallace R. Hansen’s seventh edition of the *Suggestions to Authors of the Reports of the United States Geological Survey*, 1991, <http://pubs.usgs.gov/sta7/> (accessed September 9, 2013). The North American Stratigraphic Code offers stratigraphic nomenclature guidance: <http://ngmdb.usgs.gov/Info/NACSN/Code2/code2.html>. (See also *American Association of Petroleum Geologists Bulletin*, 1983, v. 67, no. 5, p. 841–875, and *Stratigraphy*, 2009, v. 6, no. 2).

GENERAL STYLE INSTRUCTIONS FOR ALL RMAG PUBLICATIONS

Text Format

Text Spacing

Paragraphs should be indented five character spaces or one tab indent. Use one space after each sentence. Use two spaces after all colons (:).

Names

It is important to be formal and consistent in the names you use in your manuscript. Using formal names differentiates your writing from a more casual, spoken expression. Consistency avoids confusion in your meaning, which in turn helps communicate your ideas to your readers. Please do not say “lime” when you mean limestone or lime mud, for example. (A lime is something you eat, or a flavor, or lime is CaO₃ used for making cement!) When you mean the Green River Formation, do not say, “the Green River”. Do not say “the Torchlight “ when you mean “the Torchlight Sandstone Member” or “Lower Ferron” when the proper name is “Lower Ferron Sandstone Member of the Mancos Shale”. When you are concerned about too much awkward repetition, you may define your term and put your own acronym in parentheses, but we won’t like “Lower Ferron”; LFSM-MS is better.

Measurements

Provide measurements in either English or metric units and be consistent within your manuscript. Do not switch from one to the other. Although not preferred, you may

give units in both English and metric values with one set in parentheses, if you do so consistently.

Write out whole numbers less than 10, except as units of measurement (one species, five observations, 1 m, 5 ft, etc.). Use numbers for 10 or greater (10, 11, 30, etc.). A number starting a sentence should be spelled out.

Units of measurement following a number are abbreviated but those without a number are spelled out. For example —

All bedding measurements in this table are in feet.

...tabular-planar crossbeds are 3–10 ft thick, OR ... are from 3 to 10 ft thick (be consistent, use one style or the other throughout your paper.)

...spaced between 3 and 30 ft.

...beds are about 7.6 cm thick

Three abbreviated units of measurement require a period:

1. The abbreviation for inches (in.) because it can be confused for the word “in”;
2. The abbreviation for million years (m.y.) because it can be confused for the word “my”;
3. The abbreviation for section (sec.) because it can be confused with the time term seconds (sec).

Abbreviations

The Words “Table” and “Figure”. The word “Table” is not abbreviated and is capitalized when followed by the table number. The word “Figure” should be abbreviated and the first letter upper case when used in parentheses, but lower case if with a citation in parentheses. Three examples would be:

At locations A and B (Fig. 2)

On the geologic maps (Figs. 3, 5, 6) and structure map (Smith, fig.2)....

Multiple figures are referenced with a dash when sequential (Figs. 3–5) or a comma when not sequential (Figs. 3, 7).

Where a specific figure is referred to in the text, “Figure” should be spelled out with uppercase F: “...as shown in Figure 1”. Where a figure number is not used, “figure” should not be capitalized: “In this figure, note that ...”

Commonly Used Abbreviations. For common units of measurement, the abbreviation only is used. For example: “5 cm from the top of the section, a 2-cm inclusion was noted.” The Latin abbreviations, e.g., i.e., and et al. may be

used within the text, but do not use italics. Commas follow e.g., and i.e., with no spaces in the abbreviation. A comma is used after et al. only if the year follows, e.g., James et al, 2001, but not in James et al. (2001)

Abbreviations or acronyms for common units of measurement and Latin abbreviations include:

and others (et alia)	et al.
American Petroleum Institute gravity	API gravity
Approximate date (circa)	ca.
centimeters	cm
compare (confer)	cf.
degrees Celsius	°C
	(no space between number and °C)
degrees Fahrenheit	°F
	(no space between number and °F)
and so forth (et cetera)	etc.
feet or foot	ft
for example (exempli gratia)	e.g.,
gram	g
Hertz	Hz
inch or inches	in.
kilometer	km
meters	m
miles	mi
square miles	mi ²
millimeters	mm
million years	m.y.
million years ago (mega-annum)	Ma
number	no.
page or pages	p.
parts per million	ppm
percent	%
personal communication	pers. comm.
Doctor of Philosophy	Ph.D.
Section	SW Sec. ##
that is (in other words)(id est)	i.e.,
township, range	T##N, R##W
versus	vs.
weight percent	wt. %

Less-Common Abbreviations. Units of measure that are specific to certain disciplines or might be used for different terms by different disciplines should be defined and written out in the text on the first use after the Abstract, followed

by the abbreviation or acronym in parentheses. For example “...50 degrees Celsius per kilometer (°C km⁻¹) ...” Some acceptable abbreviations include:

barrels of oil equivalent	BOE
barrels of oil per day	BOPD
billion cubic feet	BCF
canonical variable	CV
cubic foot	cf
million	MM
million barrels of oil	MMBO
million barrels of oil equivalent	MMBOE
millidarcies	mD
milliseconds	ms
sulfur	S
species	sp.
stable carbon isotope	δ ¹³ C
thousand cubic feet (one)	MCF
total organic carbon	TOC
Total Petroleum System	TPS
trillion cubic feet	TTCF

Distances, Directions, Locations

Spell out distances, general directions, and locations when used within a sentence, but abbreviate specific ones:

- ...occur in northwestern Colorado and northeastern Utah
- ...about 2 mi north of the state line ...
- ...the Federal No. 1, NE SW Sec. 17, T12N, R101W ...
- ...the fault trends N40°E

Well Names

Operator, lease name, well number: Exxon Smith 12 or Exxon Smith #12

Capitalization

Proper names are capitalized. Simple nouns are not. Singular proper nouns are capitalized. Plural proper nouns are not. Some examples are:

- Laramide orogeny
- Mesaverde Formation
- Mesaverde and Hilliard formations
- Nesson Anticline
- Nesson and Marks anticlines
- Rio Grande Rift

- Muddy Sandstone
- McCracken Member
- The development of the field ...
- The lowest bed is a member of the oldest formation ...
- San Juan County
- San Juan and La Plata counties
- Wind River Basin
- Wind River and Big Horn basins
- Wilson Ranch Field
- Wilson Ranch and Bruff fields
- The rift zone extends from ...
- The history of the basin ...

Informal time and rock terms are lower case (early, middle, late; upper, middle, and lower) and may be used for eras, periods and epochs (e.g., the late Cenozoic Era) where there is no formal subdivision into Early, Middle, and Late, or Upper, Middle, and Lower (refer to the U.S. Geological Survey “Suggestions to Authors” or <http://pubs.usgs.gov/fs/2007/3015/>). Do not capitalize the prefixes “pre” and “post” when used with chronological terms (except “Precambrian”). Examples include:

- late Tertiary
- early Precambrian
- Upper Cretaceous
- Late Mississippian
- Precambrian
- early Paleozoic
- post-Jurassic rock units
- lower Paleocene
- pre-Cretaceous rocks
- Middle Triassic

Hyphenation

A hyphen (-) is used to connect words, whereas a dash (–) is used for most other purposes, such as connecting numbers (p. 36–44) or as a minus sign (–4°C). Do not hyphenate adverb modifiers, but do hyphenate adjective modifiers. A good test is not to hyphenate –ly words (see exception below), and to hyphenate when a descriptor can modify two words but you want it to modify a specific word. If you want it to modify the second word, then use a comma. For example, dark-brown shale vs. dark, brown shale. In the first case, dark modifies brown, in the second, it modifies the shale. Another example: a thin-bedded carbonate rock is different from a thin, bedded, carbonate

rock. In the first case, the carbonate rock has thin beds. In the second case, the carbonate rock is thin and is bedded. More examples:

nonfossiliferous	fine-grained beds
nonmarine	dark-gray limestone
nondeposition	reddish-brown sandstone
crossbeds	high-angle crossbeds
bedforms	wavy-bedded member (exception to –ly statement above)
seaway	deep-sea deposition
cross section	cross-section diagram
source rock	source-rock correlation
sea level	sea-level curves, sea-level change, sea-level markers
finely bedded	fine-bedded sandstone
gamma rays	gamma-ray log
ground water	ground-water resources
thin section	thin-section photomicrograph
the research is well documented	well-documented research

Lists

The styles accepted for numbered lists in a sentence include the following: 1) first item; 2) second item; and 3) third item, and so on within a sentence. Capitalize the first word of items in bullet lists, use lower case for subsequent phrases, words, etc. For example:

1. The first item;
2. The second item;
3. The third item, etc.

Paleontologic Names

Genus and species are always italicized, e.g.:

Protungulatum donnae

If subsequent species of the same genus are mentioned, the genus may be abbreviated, e.g.:

Chesapecten jeffersonius, *C. madisonius*, *C. marylandicus*, etc.

If genus is known and species is uncertain or undetermined, the genus is italicized, and the following species abbreviation (sp.) is not italicized, e.g.:

Pentremites sp.

As above, for multiple undetermined species:

Gobiconodon spp.

If species or genus is questionable, a non-italicized question mark in parentheses may be added, e.g.:

Anasibirites kingianus (?)

Wasatchites sp. (?)

Similar to above, a “cf.” is sometimes used when the species or genus identification is not confirmed, e.g.:

cf. *Campeloma harlowtonensis*

Ecphora cf. *quadricostata*

Lanceolites (cf. Hyatt and Smith, 1905)

Citations and References

Citations

For an article or book with two authors or editors, use both names in the citation (Baker and Jones, 2001). Three or more authors or editors are cited with the senior author’s name plus “et al.” (Baker et al., 1995). Works are cited by publication date, then alphabetically (Smith et al., 1989, 1992; Roberts, 1990; Zellman et al., 1991, 2002; Jacobs et al., 1993; Bret, 1994; Grady, 2001)

When a direct quotation is used, or when citing a book, a page number is given as part of the reference, such as (Garrett, 2001, p. 22). Including page numbers helps readers find relevant figures, tables and text. Examples of citations within the text include:

... and Holton (1967, 1972a) studied the correlation of the Niobrara Formation.

Other studies (Mack, 1979; Huntoon et al., 1980; Baars and Seager, 1984) show ...

... or use (Stell, 1992, pers. comm.) for unpublished personal communications.

References

In the REFERENCES section at the end of a paper, list all of the references cited in the manuscript, including in the figure and table captions. Do not list references that are not cited. Do not abbreviate the names of journals, societies, or Geological Surveys (U.S. Geological Survey, Colorado Geological Survey). Abbreviate the “U.S.” Do not use spaces between author or editor initials. For titles of papers and books, capitalize only the first word and any proper nouns. The first line of each reference is not indented; all subsequent lines are indented. If an author (or a group of authors) has more than one publication in one year, differentiate the publications by adding a, b, c, etc., after the year (i.e., 1991a, 1991b).

References for Journals, Articles, Memoirs, etc. Format as: Author name(s), year of publication, Title of article: Journal name, volume number, issue number (optional), page numbers. First author names is cited as last name first, followed by first name or initials. Subsequent author(s) may be listed either last name first, followed by first name or initial, or vice versa. Use commas after authors' names and date, and colon after article title. Use commas after the source and volume number (abbreviate as v.). Use a space after v. and p. Do not use pp. If you know an article's digital object identifier (DOI), cite it after a comma at the end of the full reference.

Some examples are:

Jones, C.M., and McCabe, P.J., 1980, Erosion surfaces within giant fluvial crossbeds of the Carboniferous in northern England: *Journal of Sedimentary Petrology*, v. 50, p. 613–620, DOI: <http://dx.doi.org/10.1306/212F7A63-2B24-11D7-8648000102C1865D>.

Marks, R., 1927, Foraminifera of the Ladybug Member of the Entenmann Formation, offshore Gulf Coast: U.S. Geological Survey Professional Paper 25, 152 p.

McCarthy, K.P., Zacharakis, T.G., and Ringrose, C.D., 1982, Geothermal resource assessment of the Animas Valley, Colorado: Colorado Geological Survey Resource Series 17, 60 p.

McKee, E.D., 1954, Stratigraphy and history of the Moenkopi Formation of Triassic age: *Geological Society of America Memoir* 61, 133 p.

Miall, A.D., 1985, Architectural element analysis: a new method of facies analysis applied to fluvial deposits: *Earth Science Reviews*, v. 22, p. 261–308.

Mitchell, G.C., 1985, The Permian-Triassic stratigraphy of the northwest Paradox Basin area, Emery, Garfield, and Wayne counties, Utah: *The Mountain Geologist*, v. 22, no. 4, p. 149–166.

Nadeau, J.E., 1972, Mississippian stratigraphy of central Colorado: *Colorado School of Mines Quarterly*, v. 67, no. 4, p. 77–101.

References for Books, Symposia, etc. To cite an entire book, please list the Author or Editor name(s), year of publication, Title of book: City of publication, Publisher, number of pages. To cite an article or chapter in a book, please provide the Author name(s), year of publication, Title of article *in* Editor(s), Title of Book: City of publication, Publisher, series or other number, volume number if applicable, page range. Examples include:

LeFever, J.A., LeFever, R.D., and Nordeng, S.H., 2011, Revised nomenclature for the Bakken Formation (Mississippian-Devonian), North Dakota, *in* Robinson, J., Gaswirth, S., and LeFever, J.A., eds., *The Bakken-Three*

Forks Petroleum System in the Williston Basin: Denver, Rocky Mountain Association of Geologists, Field Guide, p. 11–26.

Loreau, J.P., and Purser, B.J., 1973, Distribution and ultrastructure of Holocene ooids in the Persian Gulf, *in* Purser, B.J., ed., *The Persian Gulf, Holocene carbonate sedimentation and diagenesis in a shallow epicontinental sea*: Heidelberg, Springer Verlag, p. 279–328.

Sawyer, D.S., Buffler, R.T., and Pilger Jr., R.H., 1991, The crust under the Gulf of Mexico Basin, *in* Salvador, A., ed., *The Gulf of Mexico Basin*: Boulder, Geological Society of America, *The Geology of North America*, v. J, p. 53 – 72.

Sweeting, M.M., 1973, *Karst landforms*: New York, Columbia University Press, 262 p.

References for Theses and Dissertations Theses are cited as: Author last name, author initials, year of completion, Title of work: Name of the degree, University, location (City, State, Country, if non-US), number of pages. Do not write “unpublished”. Examples follow:

Scott, K.E., 1954, Fauna and age of the Leadville Limestone (Mississippian) in part of west central Colorado, Pitkin and Eagle counties: Master's thesis, Colorado School of Mines, Golden, Colorado, 168 p.

Wittstrom, M.D., 1985, Sedimentology of the Leadville Limestone (Mississippian), northeastern Gunnison County, Colorado: Ph.D. dissertation, University of Colorado, Boulder, Colorado, 168 p.

References for Websites Websites are referenced as: Author name(s), year of publication or last revision (if known), Title of document, Title of complete work (if applicable), web address (uniform resource locator or URL), date of access. Two examples:

Geolex, 2012, Geologic Names Lexicon: U.S. Geological Survey National Geologic Map Database, <http://ngmdb.usgs.gov/Geolex> (accessed 2013).

AAPG, 2013, Reference Style Checklist: American Association of Petroleum Geologists Bulletin Manuscript Submission, http://www.aapg.org/bulletin/ref_checklist.pdf (accessed September 8, 2013).

References for Maps *The Mountain Geologist* would like to see maps cited in the following manner: author name(s), year of publication, Title of work: publisher, Series, map number, map scale, number of sheets. Two examples:

Widman, B.L., Bartos, P.J., Madole, R.F., Barba, K.E., and Moll, M.E., 2004, Geologic map of the Alma Quadrangle, Park and Summit Counties, Colorado: Colorado Geological Survey Open File Report 04–3, scale 1:24,000, 66 p.

Johnson, R.C., and Smith, M.C., 1993, Geologic map of the Philadelphia Creek quadrangle, Rio Blanco County, Colorado: U.S. Geological Survey, Miscellaneous Field Studies Map MF-2216, scale 1:24,000, 1 sheet.

Appendices

Judicious use of appendices is permissible as space allows. Appendices should be placed at the end of the paper after the REFERENCE section. Number appendices with Roman numerals: Appendix I, Appendix II, etc.

OUTCROP, GUIDEBOOKS, AND SPECIAL PUBLICATIONS

In general, for all RMAG publications, please refer to the sections “Basic Guidelines”, “Authorization to Reprint Copyrighted Material”, “Useful References on Technical Writing”, and “General Style Instructions for All RMAG Publications”, p. 2–14 of this Guide. Note that authors should follow the reference style given here. Authors and photographers must sign and submit to the RMAG office the RMAG Copyright Assignment and Publishing Agreement. Questions may be addressed to a publication’s designated editor.

THE MOUNTAIN GEOLOGIST

The Mountain Geologist is a peer-reviewed journal, published quarterly in January, April, July, and October. Some issues focus on special topics. Manuscript submissions are always welcome at *The Mountain Geologist*.

The Mountain Geologist readers have a variety of earth science backgrounds, and *The Mountain Geologist* supports its readers’ interest and enthusiasm in various disciplines of regional, Rocky Mountain, geologic research. We prefer papers that have relatively short titles that catch our readers’ eye and that have succinct, scholarly text. Figures should “say a thousand words” with maps that include all research-area locations mentioned in the text and contain appropriate locator and legend information. Please follow the specific instructions given below.

The Mountain Geologist publishes original contributions to research. Authors should not submit manuscripts with substantial data, description, and results that have been published elsewhere, including websites. Editors look for research relating to an Earth Science topic specific to the Rocky Mountain area; a narrow research topic generally should be set in a wider regional context. Authors should not submit guidebooks, trip logs, or taxonomic reports.

Editors read manuscripts written in U.S. English, and authors with a non-English first language might want to go over their manuscript with a native U.S.-English speaker before submission. New authors are encouraged to review their manuscripts with an author experienced in earth-science peer-reviewed publishing.

Writing and Submitting a Manuscript

Please refer to the sections “Basic Guidelines”, “Authorization to Reprint Copyrighted Material”, “Useful References On Technical Writing”, and “General Style Instructions for All RMAG Publications”, p. 2–7 of this Guide. Note that authors should follow the reference style given here. Questions may be addressed to The Executive Editor or an assigned Assistant Editor.

Digital submissions should be emailed to the Executive Editor (www.rmagg.org). Topic inquiries to the Executive Editor are appreciated. Manuscripts should be about 16 to 30 double-spaced pages, 6 to 20 figures, and 1 to 4 tables. Please contact the Executive Editor if your manuscript will deviate from this.

Figures should be designed at the start with 400 dpi. Publishing quality goes down considerably when figures are designed with low dpi and changed later to 400 dpi. Authors will be asked to redesign low-resolution figures, a time-consuming effort that delays publication.

As noted above, do not embed figures, tables and captions with the text. The manuscript text (MS Word 2007 to the most recent MS Word format is preferred), figures (400 dpi, TIFFs or jpg), tables (Word or Excel), figure captions, author(s) paragraph biography(s), and author(s) photographs (400 dpi) should be provided in separate files for each category. Total file size is usually limited in email, so it is best to either zip the files or use an FTP. Authors may contact the Executive Editor to use *The Mountain Geologist’s* FTP.

Manuscripts Based on Thesis or Dissertation Research

A manuscript should not be a rewrite of a thesis or dissertation. If a manuscript is based upon a thesis or dissertation, focus on a specific problem and research result, rather than trying to publish a summary of the thesis or dissertation. Include only that information that pertains to the stated problem and supports your claim (see “What Goes in Each Section of Text”, p. 9, below). Avoid long and unnecessary background descriptions or review of past research, and overview of general geology. Following the guidelines of what goes in each section of a manuscript’s text will greatly help with this effort. New authors might want to ask for mentoring by seasoned authors early in manuscript preparation, to avoid having their manuscript returned for time-consuming rewrites.

**Discussion and Reply to Papers
Previously Published in
*The Mountain Geologist***

Discussions of and replies to previously published papers in *The Mountain Geologist* are welcome to be submitted within one year of publication of the initial paper. DISCUSSION and REPLY texts will be subject to the same technical and style review process as other manuscripts submitted to *The Mountain Geologist*. The original author is allowed one response per published DISCUSSION.

Figures, Tables, and Captions

To repeat: text, figures, tables, and captions must be submitted digitally as separate files for each category, with figures submitted as TIFF files and tables submitted as Word or Excel files. Figures and tables should be cited sequentially in the text. It is preferable not to publish sideways figures or tables. The quality and legibility of figures and tables are a priority.

The quality of *The Mountain Geologist* published figures will be enhanced if single-column figures are designed to be about 4 in. from left-to-right and full-page figures about 8 in. from left-to-right. Color figures and photographs should be in RGB color mode, at least 400 dpi, preferably in TIFF format; otherwise jpg format. Font size inside figures should be at least 8 point. Grayscale digital figures and photographs should be at least 300 dpi resolution, preferably in TIFF format. Dpi settings should be established in the figure design process! Designing figures at low dpi and changing to 400 dpi at the last minute will result in inferior resolution, and authors will be asked to redo, possibly delaying manuscript publication.

Map and cross-section figures should contain a legend and scale, and all research-area geographic and geologic features mentioned in the text should be on map figures. In general, all maps should have 1) a north arrow, 2) latitude and longitude “tick” marks, or township/range/section, and 3) plotted locations and labels for all relevant places and geographic and geologic features that are referred to in the text.

A caption should fully explain the figure or table and contain any legends, scales, and explanatory information not shown in the figure or table itself. Table column and row headings must clearly explain corresponding data. Each figure and table must be labeled with its number in **bold**. The corresponding number in the figure caption and any **A., B., C.**, designations should be uppercase (preferably) and also in **bold**, for example, **“Figure 3. Map of Colorado showing”**

Headings and Sub-Headings

The following formatting styles for headings and sub-headings are shown as they should appear in the manuscript:

Title¹ is left justified and bold, with first letter of major words only in upper case letters.

AUTHOR(S) NAME(S)^{2,3, etc} left justified and not bold, with all uppercase letters.

1. Manuscript received_____, 20__ ; Accepted_____, 20__
2. Author(s) address(es) and contact email, if desired
3. Author(s) address(es) and contact email, if desired where different from 2.

ABSTRACT HEADING AND FIRST-ORDER HEADINGS

Abstract heading and first-order heading are in all-uppercase letters, centered, and in bold, as shown above. Do not bold or center the entire Abstract text.

Second-Order Headings

Second-order headings are uppercase for first letters of major words, centered, and in bold, as shown above.

Third-Order and Fourth-Order Headings

Third-order headings are left justified and in bold. The first letters of major words are capitalized, as shown in the heading above. The paragraph is indented on the line following the heading, as shown at the beginning of the first sentence of this paragraph.

Fourth-order headings. Fourth-order headings are left-justified and in bold. The first letters of major words are capitalized. A paragraph begins on the same line as a fourth-order heading. There is a period after the fourth-order heading, as shown above.

Line Spacing and Paragraphing

Line spacing in a submitted manuscript should be double spaced, with 2x after first- and second-order headings. The paragraph is indented on the line following the ABSTRACT and First-, Second-, and Third-Order Headings. A paragraph begins on the same line as a Fourth-Order Heading.

What Goes in Each Section of Text

Abstract

The Abstract should stand alone. It is a concise summary, about 300 words, of the paper's purpose, methods, and conclusions. The Abstract does not refer to text figures or tables or contain references, unless the Abstract is a discussion of a published paper. In that case, the title of the paper is given, as well as the complete bibliographic reference.

Introduction

In general, the Introduction should have 3 parts of about 1 paragraph each (Claerbout, John F., 1991, "A Scrutiny of the Introduction": *The Leading Edge*, v. 10, no. 1, p. 39–41):

1. A review of the subject's background and past research, with references, especially recent references, so readers know where to go to learn more;
2. The purpose of this study, the "Claim", and how it contributes to the particular field of research. This is one of the most important parts of the paper. Say what you found, what your research shows, and what is accomplished – the contribution. Use personal pronouns whenever the author gives an opinion or has made a decision;
3. How the Claim is supported; state how you are going to support your claim, outline what you did and how you did it.

Geology

Describe the geology of your field area, include older as well as recent work. When the Results are the geology, omit this section and include background geology and previous studies in the Introduction.

Methods

Describe the techniques you used to solve the problem stated in your Introduction, paragraph 3. Describe your field and laboratory work.

Results

Describe your results. Refer to your figures and tables, but you must actually describe your results in this section's text. Include statistical or other boundaries and limitations to your results.

Discussion

Discuss your results and how they lead to the Claim your work is making in the Introduction paragraph 2. You may want to reiterate the limitations of your results and introduce ideas for future study.

Conclusions

There should be NO new topics or data introduced in the Conclusions. Conclusions should not include references to figures and tables or published papers that have not already been referred to in the body of the text. Conclusions succinctly synthesize (rather than summarize) your "problem", results and discussion. State the main points of your claim and possible impact or implications.

Upon Manuscript Submission to *The Mountain Geologist*

The Mountain Geologist is a peer-reviewed journal. The technical review process can be expected to take up to several months. Two to three technical peer reviews are generally performed. A style/copy review to assure conformance to this "Author Style Guide" is also performed. The technical and style reviews are typically returned to the author(s).

The Mountain Geologist provides for an open or closed peer-review process. Technical peer reviewers are given the choice to reveal their identity to manuscript authors. While the journal encourages open peer review, it also respects the wishes of those reviewers who prefer to submit an anonymous review.

Once technical peer reviews and style/copy reviews have been evaluated by *The Mountain Geologist* editors, a letter is sent to the author(s) regarding publication. We reserve the right to reject a manuscript at any stage.

Upon Acceptance in *The Mountain Geologist*

Once a manuscript is accepted for publication, revisions will be requested based upon the technical, peer reviews and style/copy review. To meet a publication deadline, an author may be asked to return a final manuscript in a few weeks. Authors and photographers must sign and submit to the RMAG office the RMAG Copyright Assignment and Publishing Agreement.

The designated corresponding author will receive a digital Adobe Acrobat (or equivalent) page proof from *The Mountain Geologist's* Managing Editor. This page proof is intended to catch and correct errors, such as omissions of text, figures, or tables. The corresponding author is expected to review the page proof and reply to the editors within a tight time frame, typically within a few business days. Once the final page proof has been cleared for publication, the corresponding author will receive a high-resolution Adobe Acrobat (or equivalent) file of their paper. This author is responsible for distributing the file to co-authors.

**APPENDIX: CHECKLIST FOR
THE MOUNTAIN GEOLOGIST**

Please make use of the following checklist when finalizing your manuscript submission to *The Mountain Geologist* or other RMAG publications. Manuscripts that do not follow these guidelines may be returned for reformatting before the process of technical review.

Manuscript

- _____ Title¹ is left-justified, not all capital letters, and is **bold**.
- _____ Author names^{2,3} are listed on a separate line in ALL CAPS. Author information is not all capital letters.
- _____ 1. Manuscript received _____; Accepted _____.
- _____ 2. Author information on a separate line.
- _____ Manuscript double-spaced.
- _____ Page numbers are included on each manuscript page, in bottom center position.
- _____ First-order headings are centered and ALL CAPITAL LETTERS, in **BOLD**.
- _____ Second-order headings are centered and in bold.
- _____ Third- and fourth-order headings are left justified and bold.
- _____ Paragraph beginnings are indented.
- _____ A short general geologic history of the study area is included, if applicable.
- _____ Provide measurements in either English or metric units; do not switch from one to the other. It is allowed to use both with one set in parentheses if you do so consistently.
- _____ Less-common abbreviations/acronyms are explained in text before their first use.
- _____ Adjective modifiers are hyphenated where appropriate: cross-stratified sandstone, gamma-ray tool, Turonian-age unit.
- _____ Coordinates are presented without spaces: T33S, R64W (comma only).

- _____ Formations and Locations are capitalized as proper nouns when used in the singular form, such as: Frontier Formation, the Clay Spur Bentonite Bed, Mowry Shale, Powder River Basin. When two or more are used together, formation and location are not capitalized. Lower case applies, such as Frontier and Mowry formations or Denver and Piceance basins.
- _____ Figures are numbered and referenced sequentially in document.
- _____ Citations in document are presented with commas and semi-colons: (Hagstrum, 2005; Hagstrum et al., 2008; J. Hagstrum, 2009, written comm.). Please note: citations in the manuscript text should list two authors as (Rosen and DuBois, 2009), or citations with more than two authors as (Rosen et al., 2009).

References

- _____ All references cited in the manuscript, including figure and table captions, are listed in the REFERENCES section. Unpublished personal communications are not listed in the REFERENCES.
- _____ First author and all subsequent authors are presented as: Last name, First initial. Middle initial, PLEASE CAREFULLY CHECK YOUR REFERENCES.
- _____ Where multiple works from one author, two authors, or a group of authors, or that have more than one publication in one year, differentiation is made by adding a, b, c, etc., after the year (1991a).

Figures, Tables, and Captions

- _____ Figures, tables, and captions are provided as separate tiff (or jpg) or MS Word files from manuscript text (MS Word 2007 or more recent). They will be embedded in the manuscript text by the layout editor.
- _____ Figures are legible and are not discernable screen captures. Black and white lines are crisp and reproducible. Any grey color used in the figures is easily distinguishable and not more than 50% of the diagram.
- _____ Digital figures and photographs are requested with at least a 400 dpi resolution.

- Figures are easy to follow with a legend or caption guiding the reader.
- Maps have a legend and a scale, and an appropriate level of detail. Include a north arrow and longitude and latitude marks, or section, township and range.

Author(s) Photograph(s) and Biography(s)

- Please provide a digital photograph of each individual author. The photograph(s) should have at least 400 dpi resolution. Photograph(s) of the author(s) face(s) are appreciated. Either color or black and white is acceptable.
- Please provide a pertinent paragraph biography of each individual author(s). Biographies can be grouped together into one MS Word file.