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ABSTRACT

Concise statement of intent, methods, results, and importance of findings, not to exceed one paragraph. No taxonomic authorities after scientific names, no references, no abbreviations or acronyms. Generalized background statements and sweeping, unsupported conclusions should be avoided.

Key words: alphabetize, only capitalize proper nouns, do not repeat terms from title

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INTRODUCTION

Start your introduction here. The first paragraph is not indented. This template includes the correct formatting for you to use and provides guidance on how to prepare most aspects of your manuscript. *Rhodora*'s editorial staff strongly recommends that you use the template because it will save them and the graphic designer time when editing and preparing the layout for proofs, which means a faster turnaround time to publication for you. Everyone benefits! Contact the Editor-in-Chief if you have questions that are not addressed here or in the author guidelines.

Provide background on why you conducted an experiment or introduce readers to the locations and the organisms you studied. Spell out states and use a comma after a state if it follows a geographic location: Franklin County, New Hampshire, and Cambridge, Massachusetts, had record temperatures in 2019. Québec should always have an accent. Cite references for information that is not common knowledge and document earlier studies on the topic. Smith (1982) wrote that she found a previously documented population (Smith and Jones 1979) that was reduced to a single individual. There is no comma before the year. Other surveys (Angelo and Boufford 1996a, 1996b; Hill 1982; Mathieson et al. 2000; Smith pers. obs.; Taylor 2012) are cited in alphabetical order rather than chronological order because your readers will consult the Literature Cited by last name, not year. Multiple references are separated by semicolons. Publications such as *Flora of North America* or *Rhodora* are italicized if they are cited by title in the text, but most citations should follow the author/date format. Theses and dissertations are cited by author and year. Websites are cited by author or title and year of most recent access (Consortium of Northeastern Herbaria 2020; International Plant Names Index 2020) or by publication or copyright date if not a continuously updated database (Morton 2005).

Manuscripts that are accepted but not yet published as cited as Grima (in press) or (Grima, in press). Unaccepted manuscripts and data are not cited except as unpublished material: B. Connolly et al. (submitted) or W. Brumback (unpubl. data) or J.C. Semple (pers. obs.) or (J. Bellemare, Smith College, pers. comm.). Personal communication citations should indicate the person's affiliation. If you are an author of the manuscript and are citing a personal observation along with published citations, use your last name followed by pers. obs. in the alphabetized in-text citation (see example in line 28).

When using scientific names at ranks lower than family, provide the standard author abbreviation at the first use in the text: the genus *Sorghum* Moench, *Erica arborea* L., *Rosa acicularis* Lindl. subsp. *acicularis*, *Poa cusickii* Vasey subsp. *epilis* (Scribn.) W.A. Weber. There is no space between author initials; three or more authors follow the format A. Gray, E.P. Bicknell, & Nutt., with a comma before the ampersand. Include basionym and ex authors. There is no author after an autonym (see previous *Rosa acicularis* example) or when using spp., as in *Salix* spp. are common in beaver meadows. Use subsp. rather than ssp. and var. rather than v. Spell out the genus the first time it is used in each new paragraph and any time it starts a sentence. If more than one genus is being discussed in a paragraph and the genera start with the same letter, spell out the genera unless you are citing species directly after providing the genus. We studied two species of *Campanula* L. (*C. alata* Desf. and *C. alpina* Jacq.) and one species of *Cirsium* Mill. (*C. arvense* (L.) Scop.). Red-backed bees reportedly prefer *Campanula alata* flowers to those of *C. alpina* (Hill 1982), but they have not been observed on *Cirsium arvense* flowers. Authors of scientific names should also appear at their first use in a table and in any checklist or appendix, as all of these may be consulted independently from the published article. Common names can be provided but are not proper nouns, although they may contain proper

nouns: red maple and Japanese honeysuckle were abundant. If scientific names with authors are presented within parentheses, basionym authors remain in parentheses as well, not in brackets (*Scleria lithosperma* (L.) Sw.). Otherwise, brackets are used within parentheses (as reported in Reznicek et al. [2002]).

Define abbreviations at their first use: scanning electron microscopy (SEM), and then use them consistently in the text. However, remember that tables and figures need to stand independently, so be sure to define all abbreviations in the corresponding legend. DNA, standard units (e.g., m, cm, ha), and elements (e.g., MgCl_2) do not need to be defined.

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MATERIALS AND METHODS

Second-level Headings. These can help your reader keep track of different topics within the manuscript. If you use second-level headings in this section, include appropriate parallel headings in the Results and Discussion. Be sure to specify protocols, sources of molecular tools (kits, proprietary reagents, references for primer sequences), statistical tests, analysis programs, the references you used to identify plants, and herbaria (follow but do not cite Index Herbariorum for herbarium codes [do not refer to them as acronyms]). If you consult a portal like the Consortium of Northeastern Herbaria, list the herbaria before citing the portal as a reference: specimens from MASS, NEBC, and UNH were examined (Consortium of Northeastern Herbaria 2022). See the taxonomic treatments section below for guidance on how to cite individual

herbarium specimens. Keep in mind that different techniques or treatments are generally not proper nouns and should not be capitalized (e.g., use Carnoy's fixative, handwipe vs. wand method; not Carnoy's Fixative, Handwipe vs. Wand method). Your readers should be able to know exactly what you did and repeat your work based on the information (including citation of established protocols) provided in this section. Products used are to be cited here, not in the Literature Cited: SYSTAT (SPSS, Chicago, Illinois). Cite the program R in the methods as a product. However, if you used an R package that has an accompanying publication explaining its use, you may cite the publication after listing the package. Software programs other than R that are run through a website may be cited as a website or as a publication accessed via a website (see Literature Cited for examples). If you conducted statistical analyses, state the rationale for the tests you used and be sure to address normality, model parameters, and significance levels. Manuscripts with inadequate description of statistical methods will require revision or be rejected because results and conclusions are only meaningful if the methods of analysis were appropriate for the data.

Use a space between numbers, operators, and units—a 1 ha plot, $\alpha = 0.01$. A percent sign (40%) is not preceded by a space. Always use a 0 before the decimal point for numbers less than one (e.g., 0.15). Use the minus sign (–), not a hyphen, for negative numbers, and the degree sign for degrees, with no space (e.g., 32°C). Latitude and longitude can take several forms, but use prime (') for minutes, double prime (") for seconds; do not insert a space between these or the degree sign and cardinal directions if they appear consecutively (e.g., 42.270044°N). Use an en dash in a number range: 4–5 leaflets, (2.0–)3.7–4.2 mm long. If you have a formula, use the equation editor to enter it on a separate line rather than including it in a sentence. Numbers less than 10 are spelled out unless they are in a range or accompanied by units. No comma is used in

numbers from 1000 to 9999, but 10,000 and higher numbers do use a comma. Do not use quotation marks around terms unless you are using them in a nonstandard way, and then be sure to provide a definition.

RESULTS

Present your results here. Do not interpret or compare your results to other papers in this section. Do not combine results with discussion without first obtaining approval from the Editor-in-Chief. Tables, figures, and appendices are part of your results. Make sure they are numbered to correspond with the order cited (first figure cited must be Figure 1, etc.). When citing more than one figure, use (Figures 1 and 3), and use (Figure 2A, 2D) for parts of a plate. When citing figures and tables together, the table is listed first (Table 3; Figure 5). However, tables and figures should not duplicate each other in terms of the data presented, although complementary data presentation is acceptable.

Do not use the words significant, significance, or significantly unless you have conducted a statistical test with a stated *p*-value to back it up, which should be reported with a lowercase, italicized *p* (e.g., $p < 0.001$). Numbers reported within a sentence should have the same number of significant digits (4.2 cm and 3.0 cm, not 4.2 cm and 3 cm). Do not overstate significant digits (4.26 mm cannot be measured with accuracy without a micrometer). Reports of chromosome counts or ploidy levels should use the form $2n = 28$.

DISCUSSION

This is your chance to tell readers what your results mean in the context of the introduction.

Refer to tables, figures, and appendices as needed, but do not introduce new data here—all data

should be provided in some form in the Results. Cite relevant literature and explain where your results fit in. Avoid unsupported statements and sweeping generalizations. While there is no separately headed conclusion, your final paragraph can serve as the conclusion.

TAXONOMIC TREATMENTS, ETC.

If you are including a taxonomic treatment, flora, or checklist, or otherwise citing specimens, please see the separate template on how to prepare these sections and then paste the relevant text, including the headings from that template, into this manuscript template. Specimens that are cited within a sentence should follow the format *Surname* # (herbarium code) if they are in a searchable database that is also cited. Specimens not in a database should be cited to provide sufficient information for the reader to locate the specimen on a visit to the herbarium.

ACKNOWLEDGMENTS

Note the spelling—there is no “e” after the “g.” Briefly provide information on granting agencies and grants, herbaria that sent loans, artists who prepared illustrations, other assistance, and anyone who critically reviewed the manuscript.

LITERATURE CITED

Do not dump a list of references you might use here. Add your citations in alphabetical order by author when you use them in the text. Before submission, ensure that all in-text citations appear here and that all listed citations appear in the text. Use the format provided here—do not attempt to replicate the final style that is published in the journal. **Do not use small caps for author names.** They need to be formatted in a very specific way by the editorial staff.

Website examples:

Consortium of Northeast Herbaria. 2016. Herbarium Specimen Data Sharing Portal for CNH.

Website (<http://www.neherbaria.org>). Accessed Aug 2016.

Consortium of Northeast Herbaria. 2020. Herbarium specimen data on *Acer rubrum* provided to the Consortium of Northeast Herbaria. Website (<http://www.neherbaria.org>). Accessed Dec 2020.

Morton, J.K. 2005. *Silene regia*, p. 200. In: Flora of North America Editorial Committee, eds., Flora of North America North of Mexico. Vol. 5. Oxford University Press, New York, NY. Website (http://beta.floranorthamerica.org/Silene_regia). Accessed May 2020.

Natural Resources Conservation Service. 2020. *Monarda bradburiana* Beck. PLANTS Database. United States Department of Agriculture. Website (<https://plants.usda.gov/core/profile?symbol=MOBR2>). Accessed May 2020.

If you use data from the Consortium of Northeastern Herbaria and only one herbarium contributed the data, please use the first format. If multiple herbaria contributed data, the second format should be used, but the herbarium codes should be cited either with mention of individual specimens in the sentence that cites the Consortium or in the Acknowledgments. Note that while it is possible to consult Flora of North America through its website, complete publication information is available electronically (treatment author, page numbers, volume, year, publisher), so the full reference must be provided in addition to the website information. Provinces and states that are not in the U.S.A. are spelled out and the country is provided.

Online PDF, not from a journal:

Emmit, D., A. Cusick, and G. Schneider. 2002. Rare Plant Abstracts: *Silene regia* Sims. Royal Catchfly. Ohio Department of Natural Resources. Website

(https://naturepreserves.ohiodnr.gov/portals/dnap/pdf/Rare_Plant_abstracts/SILENE_REGIA.pdf). Accessed Mar 2017.

Journal examples:

Dunn, D.B. and A.M. Planchuelo. 1981. *Lupinus heptaphyllus* (Velloso) Hassler vs. *Lupinus hilarianus* Bentham. *Taxon* 30:464–470.

Menges, E.S. 1995. Factors limiting fecundity and germination in small populations of *Silene regia* (Caryophyllaceae), a rare hummingbird-pollinated prairie forb. *American Midland Naturalist* 133:242–255.

——— and R.W. Dolan. 1998. Demographic viability of populations of *Silene regia* in Midwestern prairies: relationships with fire management, genetic variation, geographic location, population size and isolation. *Journal of Ecology* 86:63–78.

Note that there is no space between initials. If there are two authors, there is no comma after the first author's initials. Every author after the first has initials preceding the last name. Journal abbreviations are no longer used unless the journal itself usually uses an abbreviation (e.g., PLOS ONE). Use an ampersand (&) rather than “and” in journal names. Issue numbers are not included unless pagination is separate in each issue. Many online-only journals that do not follow a traditional pagination system will require the issue number. If the first author is the same, three em dashes are used to replace the first author. A sole-authored work comes before works by that author and others, regardless of the year. If the first two (or three, etc.) authors are the same, they are also represented with em dashes. For example, a following work by Menges and Dolan (2000) would be listed as ——— and ———. Note that the word “relationships” in the title above is not capitalized even though it comes after a colon, nor is there a double space after the colon.

Online-only journal example:

Libiaková, M., K. Floková, O. Novák, L. Slovákova, and A. Pavlovič. 2014. Abundance of cysteine endopeptidase dionain in digestive fluid of Venus flytrap (*Dionaea muscipula* Ellis) is regulated by different stimuli from prey through jasmonates. PLOS ONE 9(8):e104424. DOI:10.1371/journal.pone.0104424

With more than two authors, a comma is used before the and. In article titles, only proper nouns are capitalized. Scientific names at the rank of genus and below are italicized. Issue number is only included if the volume is not continuously paginated. A digital object identifier (DOI) may be added but should not replace volume and page numbers. The format is DOI:10.rest of identifier—do not include http or .org web URL elements. There is no final period after a DOI is included.

Book examples:

Gleason, H.A. and A. Cronquist. 1991. Manual of Vascular Plants of Northeastern United States and Adjacent Canada. 2nd ed. New York Botanical Garden, Bronx, NY.

Haines, A. 2011. Flora Novae Angliae: A Manual for the Identification of Native and Naturalized Higher Vascular Plants of New England. Yale University Press, New Haven, CT.

Book edition or volume number (e.g., Vol. 21) follows the title, separated by a period. Omit “The” from the publisher name. Do not include the number of pages. If the work is an edited volume and the whole book is being cited, ed. or eds. follows the name(s) (e.g., Gleason, H.A., ed. or Gleason, H.A. and A. Cronquist, eds.). Capitalize all of the major words in a book title, including the first word after a colon (in contrast to article titles). Provide city and state abbreviation for the U.S., city and country if outside the U.S.

Book chapter example:

Mellichamp, T.L. 2015. *Drosera*, pp. 420–425. *In*: Flora of North America Editorial Committee, eds., Flora of North America North of Mexico. Vol. 6. Oxford University Press, New York, NY.

Book chapter title follows the format for article title. After the word *In*., books not edited by a committee are presented in the same manner as a book (see Haines or Gleason and Cronquist above), without repeating the year. Do not use “1993+” as a year with Flora of North America.

Thesis or dissertation:

Schori, M. 2010. A systematic revision of *Gomphandra* (Stemonuraceae). PhD dissertation, Ohio University, Athens, OH.

Publications in a series or reports:

Silva, P.C., P.W. Basson, and R.J. Moe. 1996. Catalogue of the benthic marine algae of the Indian Ocean. University of California Publications in Botany 79. University of California Press, Berkeley, CA.

Hill, S.R. 1992. Conservation assessment for French’s shootingstar, *Dodecatheon frenchii* (Vasey) Rydb. Report for the Shawnee and Hoosier National Forests, United States Forest Service, United States Department of Agriculture, Washington, D.C.

Database:

Prather, L.A. and M. Chansler. 2020. Michigan State University Herbarium Vascular Plants. Version 6.2. Michigan State University Herbarium. Occurrence dataset. Accessed via www.gbif.org. DOI:10.15468/iv6y8m

Software component without accompanying journal article (e.g., R package but not R itself):

Adler, D. and D. Murdoch. 2019. rgl: 3D Visualization Using OpenGL. R package version 0.100.19. <https://CRAN.R-project.org/package=rgl>

Tables

Use the insert table function to create a table. Right click on a row or column to merge cells, change borders, or add rows and columns. Do not change the spacing or font size for a table; maintain double spacing and 12 point font. For larger tables, experiment with switching the rows and columns (e.g., a table with four columns and 15 rows will fit better on the page than a table with 15 columns and four rows). Make sure that the same number of significant digits is reported within a column or row that contains the same type of data.

Table 1. This line is not indented. In this table, taxa are listed in the first column. The number of individuals (N), average height in meters, flower color, and p -value from a t-test ($\alpha = 0.01$) are listed in the other columns. Superscript letters indicate statistically different groups. The table legend contains all of the information the reader needs to understand the table, including definitions of all abbreviations.

Taxon	N	Height (m)	Flower color	p-value
Gymnosperms				
<i>Pinus strobus</i> L.	42	26.5	—	0.03 ^a
Angiosperms				
<i>Campanula</i> <i>rotundifolia</i> L.	16	0.2	Blue	0.01 ^b
<i>Carpinus caroliniana</i>	24	9.7	Green	0.50 ^a
Walter				

Figures

See the Author Checklist for specific figure instructions. Figures must be submitted separately, not pasted into the manuscript.

Figure 1. This line is not indented. The figure caption should describe what is in the figure and provide an explanation of any symbols. In a single composite plate, label separate parts with capital letters (A, B, C, etc.). Three stages of flowering in *Geum ternatum*. **A.** Floral buds show epicalyx bractlets between the sepals. **B.** Open flowers have overlapping petals. **C.** Post-anthetic flowers have lost bractlets between the sepals. **D.** Magnified view of broader bracts fused to the dorsal side of the sepals. Scale bar = 5 mm. Figures may also be grouped for publication on one page, in which case the figure caption should take the following form. Figures 1–6.

Morphological characters of *Ionactis*. 1. Plant habit, showing upright growth. 2. Leaf apex. Scale bar = 5 cm. 3. Phyllaries. Scale bar = 10 mm. If the figure is modified from a source, cite the source and include it in the Literature Cited.

Appendices

See the template for taxonomic treatments for details on how to prepare appendices.