

BRITTONIA

Formatting Instructions

All manuscripts must be **formatted** according to the requirements outlined below. Failure to properly format your manuscript will result in its return without review.

A. GENERAL

1. All manuscripts must be **written in English**.
2. All **nomenclatural actions** involving Linnean names must comply with the rules (and preferably also the recommendations) of the current International Code of Nomenclature for algae, fungi, and plants (ICN; <https://www.iapt-taxon.org/nomen/main.php>).
3. **New scientific names of fungi and lichens**, including names of new taxa, new combinations, new statuses, and/or replacement names—**must be registered** in a repository recognized by the Nomenclature Committee for Fungi, and the identifier number for each new name issued by the repository must be cited in the final manuscript.
4. **All taxa newly described in the manuscript must be illustrated**, and whenever possible the illustrations should show the essential characters that distinguish the new taxon from close relatives. Illustrations must be assembled as one or more figures and submitted in electronic form. They may consist of line drawings, photographs, paintings, shaded artwork, etc., but authors should avoid mixing photographs (and other halftones) with line art in the same figure.
5. It is expected that all taxonomic and nomenclatural treatments will be supported by **examination and citation** of a suitable range (both with respect to geographical coverage and morphological variation) of **representative specimens** deposited in internationally accessible herbaria, as well as relevant nomenclatural types. Taxon identifications tied to DNA sequences, tissue collections, geographical occurrence records, etc., must be supported by citation of **voucher specimens**.
6. Use **Times New Roman, 12-point** font throughout (except where otherwise indicated).
7. **Double-space** throughout. Use **page numbers** (centered in the footer of each page).
8. **All paragraphs** are formatted either with **indents** (general text, figure captions, and table headings) or **hanging indents** (nomenclature paragraphs, literature citations). The only exception to this rule is the title page (in which the title, author names and addresses, abstract, and keywords are all flush left).
9. To format indents, use the **indent guides** in the ‘Ruler’ in MS Word (not spaces or tabs).
10. Text (except centered headings) should be **“left aligned”** (i.e., do not use “full justification” of the text to both the left and right margins).
11. Do not italicize common Latin words, phrases, or abbreviations, such as: e.g., et al., i.e., sensu lato, etc. When abbreviating “sensu lato” and “sensu stricto”, “s. lat.” and “s. str.” are preferred to “s.l.” or “s.s.”

B. SECTIONS

1. The **“Manuscript Text”** should be a single MS Word document containing the following elements: (1) **Title Page** (with title, authors and addresses, abstract, and keywords), (2) **Main Text**, (3) **Acknowledgments**, (4) **Declarations**, (5) **Literature Cited**, and (6) **Figure Captions**.

2. **Tables (with corresponding table headings) and Figures** are submitted as separate files through Editorial Manager (see instructions below).
3. **Appendices** formatted as tables should also be submitted as separate files (see instructions for preparing tables, *below*); otherwise, they may be submitted as part of the Manuscript Text file, placed after the Literature Cited section, and before the Figure Captions. They should be numbered consecutively with Arabic numerals in the order in which they are cited in the text (Appendix 1, Appendix 2, etc.).
4. The online submission system will prompt authors to enter the Title, Authors, and Abstract in online forms. These are for the purpose of soliciting reviews and do not replace the need to include these elements in the Manuscript Text file.

C. TITLE PAGE

1. At the top of the title page, include a **Running Head**, in **all capital letters** (this will appear at the top of each page when published). Start with the last name(s) of the author(s) (but use “ET AL.” for papers having more than two authors), followed by a colon (:), then a brief title. The author name(s) and the brief title should be short enough to fit on a single line when published (maximum number of characters not to exceed 65). Include one blank line between the Running Head and before the Title.
2. The **Title** of the paper should be flush left at the top of the first page, in **sentence case** (i.e., only the first word of the title plus any proper nouns should be capitalized), using **bold, 16-point font**. Scientific names at genus level or lower should be italicized in the title. Include a blank line after the title and before the authors.
3. **Author names** follow. They are linked to their corresponding addresses by numbered footnotes (the numbers appearing as superscripts). Use **14-point font**. Include a blank line after the names of the authors.
4. **Author addresses** are presented next, each one preceded by the corresponding superscript number that follows the author names. Use a semi-colon (;) to separate postal addresses from email addresses.
5. The final superscript number should indicate “Author for correspondence”.
6. Inclusion of **ORCID identifiers** is optional; authors wishing to include them should enter these numbers **in the author profiles in Editorial Manager** (not on the manuscript itself).
7. The **Abstract** should be brief but include statements about the paper's intent, approach, results, and significance of findings. This section always starts with: **Abstract:** [in bold typeface, followed by a **colon (:)**], and is not indented.
8. Reference citations, taxonomic authorities, and abbreviations should not be used in the abstract (or title). Indicate all **new taxonomic names** in boldface (bold-italics for taxa at or below genus level), including any new combinations, at their first appearance in the abstract.
9. List in alphabetical sequence up to six (6) **Keywords** that do not appear in the title of the article. This section always starts with the word **Keywords:** [in **bold** typeface, followed by a **colon (:)**]. The keywords themselves should be in non-bold typeface, the first one capitalized, and the others in lowercase (unless they are proper nouns); the Keywords section is not indented.
10. On the last line of the title page, enter: “**Associate Editor:** _____”. (The name of the associate editor will be added after review.)

An example of the elements of the title page follows (but should be double spaced):

Running head: MITCHELL ET AL.: NEW GENERA OF ANACARDIACEAE

Two new genera and a new species of Anacardiaceae from northern South America

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Abstract: Text of abstract.

Keywords: Word1, word2, word3, word4.

Associate Editor: _____

D. MAIN BODY OF THE TEXT

1. The general text begins at the top of a new page (use “insert page break” in MS Word after the title page to start this new page).
2. The following primary headings are used, each in **bold, 14-point** typeface, **centered** on their own lines: **Introduction**, **Materials & Methods**, **Taxonomic Treatment**, **Results**, and **Discussion** (or a combined **Results & Discussion** section, if this is more suitable to the study); proper nouns within the heading should be capitalized. Depending on the nature of the paper, not all of these sections may be needed.
3. Secondary headings (where required) are **bold, 12-point, left aligned** on their own lines.
4. Third-level headings (where required), as well as subheadings within a **Taxonomic Treatment**, are **indented** and formatted with **italic, bold, 12-point** typeface, and followed by a period. The text of that section follows immediately on the same line in normal font (not bold, etc.). For example:
Distribution. The new species is distributed....
Assessing clade support. One-thousand bootstrap replicates were performed....
5. All **figures** and **tables** must be cited in the text and must be numbered consecutively in the order in which they are first cited, using Arabic numerals, (e.g.: Figs. 3, 4A; Tables 1–2). “Figure” or “Figures” should be abbreviated in these citations as “Fig.” or “Figs.”.
6. Authors are strongly encouraged to cite the relevant primary taxonomic literature and taxonomic revisions in the General Text and to include these citations in the Literature

Cited. Each **reference cited in the text must be listed in the Literature Cited section**, and vice versa.

7. **Citations** in the **main text** should appear as follows:
 - *One author*: Moran (2005) or (Moran, 2005).
 - *Two authors*: Thomas & Boom (2005) or (Thomas & Boom, 2005).
 - *More than two authors*: Henderson et al. (2005) or (Henderson et al., 2005).
 - *Manuscripts accepted for publication but not yet published*: Daly (in press) or (Daly, in press).
 - *Unpublished materials and personal communications*: M.C. Pace (unpubl. data), (M.C. Pace, pers. comm.).
8. **To separate different citations within parentheses**, use a **semicolon** (Armstrong, 2017; Naczi, 2021). Cite references in chronological order. Use a, b, c (and so forth) for two or more papers by same author(s) published in a single year (e.g., Torke, 2010b; Karol et al., 2005a, 2005b).
9. Write out **uncommon abbreviations** the first time they are used in the text, such as: Indian Ocean Basin (IOB), and thereafter use IOB.
10. Abbreviate units of distance and size measurements without a period throughout the text (e.g., km, mm, ft, mi). Use a space between the value and the unit (e.g., 2 km, not 2km).
11. Give **authors** of all **scientific names** at the rank of genus and below where the name first appears in the text. For plant names, use the standard author abbreviations found in the IPNI's Author Query (ipni.org). For fungal and lichen names, use the standard author abbreviations found in *Index Fungorum* (indexfungorum.org).
12. **Italicize** all **scientific names** at the level of genus and below.
13. **Spell out genus names** the first time they are used in each paragraph, and whenever a genus name starts a new sentence.
14. Do not use **footnotes**. Include all such information in the main body of the General Text.
15. **Numbers**: spell out "one" to "nine" (unless using these digits in a measurement or description; *see below*), as well as any numbers appearing at the beginning of a sentence; otherwise, use digits for numbers 10 and greater.
16. Use a **separating comma in numbers with more than three digits** (1,000, 10,000, etc., not 1000 or 10000). Use leading zeros for numbers less than 1 (e.g., 0.5, not .5). Use the "%" symbol rather than writing out "percent" (e.g., 5.6%, not 5.6 percent).
17. **Ranges** (e.g., measurements, percentages) given in general text should be separated by the word "to", and the numbers should each be followed by a unit of measurement. For example, "Pollen ranged in diameter from 620 μm to 1,020 μm ". Use an "en-dash" (–), not a hyphen (-) to indicate numerical ranges in diagnoses, descriptions, keys, tables, and literature citations (e.g., 8–11 cm, not 8-11 cm).
18. The "times" symbol should be indicated with "×" (not the letter X or x).

E. TAXONOMIC TREATMENTS

1. *Nomenclatural paragraphs*

- a. These paragraphs are formatted using *hanging indents*. For each species treated, the nomenclatural paragraph begins with the **name accepted by the author(s)**, new or otherwise. The accepted name should be in ***bold and italics***, and may be **numbered** (especially if more than a small number of species are treated in the study).

- b. All new taxa and new combinations, as well as all changes in status, must include the correct Latin designation, in boldface: **sp. nov.**, **comb. nov.**, **hybrid nov.**, **syn. nov.**, etc.
- c. Following the accepted name (and its protologue citation), all **homotypic synonyms** (and their protologue citations) follow in the *same paragraph*, after which the TYPE is cited.
- d. If there are **heterotypic synonyms**, they follow in separate paragraphs (also formatted with hanging indents). Each paragraph contains the names (and protologue citations) derived from a particular basionym (i.e., based on the same type).
- e. *Brittonia* does **not** use double/triple equal signs (=, ≡) for designations of homotypic/heterotypic synonyms in the nomenclatural paragraphs; use separate paragraphs, as detailed above.
- f. Within these paragraphs, synonyms are ordered chronologically, starting with the basionym; paragraphs with heterotypic synonyms are ordered chronologically by basionym.
- g. In **citing type specimens**, it is *required* to indicate which duplicates (holotypes, isotypes, etc.) were or were not **examined by the authors of the study**. For duplicates examined in person, use an exclamation mark inside of square brackets: [!]; for specimens seen only as images (e.g., from online resources), use: [image!]; for specimens that have not been examined, use: [n.v.]; for missing specimens, use: [lost] or [destroyed]. See below for examples.
- h. Include the initials of type-specimen collector(s); if there were more than two collectors, use “et al.” after the name of the first collector.
- i. For typifications, cite **accession** or **barcode** numbers whenever these are available (specify which and include all characters that make up barcode numbers); for example: NY, barcode 0005000; MO, accession 0005000, or P, barcode P0005000.
- j. When **designating a lectotype** [*or neotype*], use the following format after the specimen citation: (**lectotype** [*or neotype*], **here designated**: NY, barcode 0005000). If citing a lectotype [*or neotype*] designated previously, use the following format: (lectotype, designated by Moran [1991: 234]: NY, barcode 0005000), and add the citation for the lectotype to the Literature Cited section.
- k. Otherwise, references cited only in nomenclatural paragraphs are not included in the Literature Cited section.
- l. Use *Index Herbariorum* (<http://sweetgum.nybg.org/science/ih/>) for herbarium codes.
- m. In the nomenclatural paragraphs (but *not* in the Literature Cited section), journal and book titles should be abbreviated (but not italicized), using standard abbreviations (e.g., for plants, use the Publication Query in IPNI; ipni.org).
- n. Collector names and numbers should be in italics, without spaces between their initials [but with a space between the initial(s) and the surname].
- o. In geocoordinates, use **minute** and **second symbols** (', "), *not* apostrophes (') and quotation marks ("); do not use spaces between elements within values of latitude and longitude.
- p. It is highly desirable to report phenological stage [as (fl.), (fr.), (st.), etc., for flowering, fruiting, and sterile material, etc.]. If relevant, staminate and carpellate material can also be indicated, as ♂ or ♀, respectively [e.g., (♀ fl.)].
- q. **Examples of formatted nomenclatural paragraphs follow:**

NEW GENUS

Frodinia Lowry & G.M. Plunkett, **gen. nov.** TYPE: *Frodinia tremula* (Krug & Urb.) Lowry & G.M. Plunkett.

NEW SPECIES

Miconia complanata Jan. M. Burke, Michelang. & D. Fernández, **sp. nov.** TYPE: Ecuador: Zamora-Chinchipec, Reserva Estación Científica San Francisco, 03°58'05.8"S, 79°04'19.5"W, 2,330 m, 30 Aug 2005 (fl.), *J. Homeier 1578* (holotype: QCNE, accession 195377 [!]; isotypes: GOET [n.v.], LOJA [!], NY, barcode 1796555 [image!]). Figs. 1, 2.

NEW COMBINATION

Platylepis goudotii (Ormerod & Cavestro) M.C. Pace, **comb. nov.** *Goodyera goudotii* Ormerod & Cavestro, *Taiwania* 51: 154–156, f. 2 (2006). TYPE: Madagascar: [without specific locality], 20 Jan 1836, *J. Gaudot s.n.* (holotype: G, barcode G00012872 [!]).

LECTOTYPIFICATION

Lippia hederifolia Mart. & Schauer, *Prodr.* [A. P. de Candolle] 11: 593 (1847). TYPE: Brazil: Minas Gerais, 1833, *A.-C. Vauthier 196* (**lectotype, here designated**: G, barcode G00366431 [!]; isolectotypes: MPU, barcode MPU012502 [image!]; P (3 sheets), barcodes P00713682 [!], P00713683 [!], P00713684 [!]; W, accession 0021569 [image!]).

NEOTYPIFICATION

Elaphoglossum horridulum (Kaulf.) J. Sm., *Bot. Voy. Herald* [Seemann] 6: 232 (1854). *Acrostichum horridulum* Kaulf., *Enum. Filic.*, p. 58 (1824). TYPE: Brazil: [without specific locality or date], *C.F.E. Otto s.n.* (holotype: C [lost]); Brazil: Paraná, Paranaguá, Picadão Cambará-Colônia Limeira, 50–100 m, 14 Feb 1968, *G. Hatschbach 18608* (**neotype, here designated**: MBM, accession 6438 [!]; isoneotypes: K, barcode K000544040 [image!]; NY, barcode 01015636 [!]; S, accession 11-6923 [!]).

ACCEPTED NAME WITH HOMOTYPIC AND HETEROTYPIC SYNONYMS

Adenocalymma albiflorum (Salzm. ex DC.) B.M. Gomes & L.H. Fonseca, *Brittonia* 72: 318 (2020). *Bignonia albiflora* Salzm. ex DC., *Prodr.* [A.P. de Candolle] 9: 167 (1845). *Memora albiflora* (Salzm. ex DC.) Miers, *Proc. Roy. Hort. Soc.* 3: 185 (1863). *Nestoria albiflora* (Salzm. ex DC.) Sandwith, *Candollea* 7: 249 (1937). *Pleonotoma albiflora* (Salzm. ex DC.) A.H. Gentry, *Ann. Missouri Bot. Gard.* 63: 71 (1976). TYPE: Brazil: Bahia [without precise locality], 1830, *P. Salzmann 346* (holotype: G-DC, barcode G00133419 [!]; isotypes: P, barcodes P00410841 [image!], P00410842 [n.v.]).

Memora obtusifoliolata Bureau & K. Schum., *Fl. Bras. (Martius)* 8(2): 261 (1896 [1897]). *Nestoria obtusifoliolata* (Bureau & K. Schum.) Urb., *Ber. Deutsch. Bot. Ges.* 34: 752 (1916). TYPE: Brazil: Bahia, S. Domingo, Feb 1822, *L. Riedel 750* (holotype: P, barcode P00481545 [image!]).

Kuhlmannia colatinensis J.C. Gomes, *Arq. Serv. Florest.* 10: 201 (1956). TYPE: Brazil: Espírito Santo, Colatina, Rio Doce, Nov 1943, *J.G. Kuhlmann 6567*

(holotype: RB, accession 62840 [!]; isotypes: K, barcode K000450015 [image!]; MO, accession 2192049 [n.v.]; NY, barcode 01546568 [!]).

2. *Diagnoses*

- a. The ICN requires that a *diagnosis* or a *description* be provided for all new taxa, either in Latin or English, but *Brittonia* **strongly recommends** that **both diagnoses and descriptions** be included for new taxa.
- b. The **diagnosis** is a statement which, in the opinion of the author(s), distinguishes the new taxon from other taxa to which it is closely related (and/or similar). It begins with the heading “***Diagnosis.***”, and is indented normally (i.e., not with a hanging indent).
- c. A diagnosis must be self-contained. It should include a short enumeration of essential characters (and their states) that distinguish the new taxon within a specified taxonomic context (for example, in the case of a new species, by contrasting it with one or more closely related or similar species or by stipulating its distinction within its genus or specified infrageneric group).
- d. Tables are often useful tools to augment the *Diagnosis*, helping to summarize the similarities and differences among the new taxon and related/similar taxa.

1. *Descriptions*

- a. Descriptions of taxa begin a new paragraph with the heading “***Description.***” It should be **parallel** to other descriptions in the same manuscript (i.e., the same structures are described in the same order with consistent punctuation).
- b. Within descriptions, the **conventional order of characters** from base to apex should be followed. For the whole plant, the general order starts with habit, then proceeds from roots, rhizomes or other underground organs, to stems, leaves, inflorescences, bracts, flowers, fruits, seeds, seedlings. Within the description of flowers, the order is from general characters through calyx, corolla, androecium, and gynoecium. **Do not place character names in bold or italics.**

2. *Specimens examined*

- a. Immediately following the *Description*, all specimens examined by the author(s) are listed, grouped under a separate subheading headed with “***Additional Specimens Examined.***” Use **10-point font**. Do not use the heading “*Paratypes*” for new species.
- b. If a complete list of specimens is unduly long and repetitive, the alternative heading “***Selected Specimens Examined.***” may be used instead. In revisionary studies, a common, widespread taxon should be represented by the citation of selected specimens that document the morphological and geographical ranges of the taxon. It is especially useful to cite specimens that were treated differently in earlier publications, are widely accessible in major herbaria, and/or are of historical value.
- c. When describing or treating species or infraspecific taxa that belong to a taxonomic complex, in addition to citing specimens of the treated taxa, it may be advisable to also cite specimens examined of other taxa of the complex that are discussed but not fully treated in the manuscript, in which case the specimens examined of the latter taxa should be placed in an appendix.
- d. Specimen duplicates (other than types) that were not examined in person or as images should not be cited.

- e. Specimen citations should include **locality, latitude and longitude** when available, **elevation** (converted to meters, in square brackets, if necessary), **collection date**, **collector name(s)** (first initials optional, and use “et al.” when more than two collectors), **collector’s number**, and **herbaria** of deposit. In this section, it is encouraged (but optional) to include an indication of the reproductive state of the specimen in parentheses after the collection date, such as (bud), (fl.), (fr.), (♂ fl.), (♀ fl., fr.), (st.), etc.
- f. Provide **locality data** in the **original language**, without translation. Any **locality data not recorded on the specimen label** but inferred from other sources, such as estimated geographical coordinates, should be placed in **square brackets** (e.g., [03°58’S, 79°04’W]).
- g. Other label data, such as morphological descriptions of specimens and ecological descriptions of habitats, should not be included in specimen citations.
- h. **Countries are cited in alphabetical order, in bold and all capitals, followed by a period**; each country begins a **new paragraph**. Primary national political subdivisions are cited in alphabetical order within countries, in **bold, followed by a colon**. Collectors are presented in alphabetical order within these subdivisions. Although not required, collections within primary national political subdivisions may also be grouped by secondary political subdivisions, such as canton, municipality, county, etc., in which case, the category of the political subdivision must be indicated (e.g., Davis Co., Mun. Belterra, etc.).
- i. For collection dates, use three letter abbreviations for months without a period (e.g., 2 Jan 1983, 29 Feb 1905, 15 Mar 2010, 31 Jul 2023, etc.)
- j. Authors are encouraged to provide first initials of collectors.
- k. Semicolons are used to separate individual collection citations within political subdivision groupings, periods to separate the political subdivision groupings themselves. Commas are used to separate collection numbers that otherwise have identical collection data (e.g., R.C. Moran et al. 6250, 6251).
- l. In long lists of specimen citations, the abbreviation “ibid.” may be used to indicate repeated locality data from the previously listed collection.
- m. **Use the following format** (font, punctuation, data sequence, abbreviated compass directions, elevation, and spacing in coordinates) for citation of specimens:

Additional specimens examined. COSTA RICA. Puntarenas: Cantón Buenos Aires: Pan American Highway South, at Río Volcán, 9°10'35"N, 83°25'36"W, 395 m, 22 May 2005 (fr.), *B.M. Torke & D. Santamaría 380* (INB, MO). Cantón Golfito: Rancho Quemado, sector norte, Fila a Estero Guerra, 8°43'30"N, 83°34'40"W, 350 m, 17 Feb 1992 (fl.), *J. Marín 339* (CR); 5.2 km W of Rincón, 8°42'5"N, 83°30'53"W, 90 m, 23 May 2005 (fr.), *B.M. Torke et al. 382, 384* (INB, MO). **San José:** Cantón Puriscal: Zona Protegida La Cangreja, Cuenca del Tulin, sobre sendero principal después de la Quebrada Grande, 9°41'50"N, 84°22'55"W, 300–400 m, 19 Sep 2000 (im. fr.); *L. Acosta 2638* (INB); Parque Nacional La Cangreja, along Sendero Río Negro, which departs from park reception area, near little and big waterfalls of Quebrada Grande and Quebrada Encanto, respectively, 9°41'21.5"N, 84°22'5.2"W, 430 m, 21 May 2005 (st.), *B.M. Torke & D. Santamaría 379* (INB, MO).

PANAMA. Bocas del Torro: Bosque Protector Palo Seco, Carretera Chiriquí–Almirante, antes del km 9, 9°4'31"N, 79°39'32"W, 60 m, 01 Feb 2005 (fr.), *R. Aizprúa 2832-RA* (COL, F); Water Valley, vicinity of Chiriquí Lagoon, 21 Nov 1941 (st.), *H. von Wedel 1727* (US).

3. Other Sections in Taxonomic Treatments

- a. Following the *Description* of a taxon, any of the following or similarly titled paragraphs may be included: ***Distribution & Habitat.***, ***Ecology.***, ***Phenology.***, ***Etymology.***, ***Vernacular Names.***, ***Uses.***, and ***Preliminary Conservation Status.*** These headings should be in bold and italic typeface, followed by a period, and indented on the same line as the text that follows them (all in 12-point font). Do not include headings for which data are lacking.
- b. **Conservation assessments** are encouraged, but must follow published guidelines (such as the IUCN Red List categories and criteria), and these guidelines must be cited and carefully followed. Note that measures of AOO and/or EOO alone are not sufficient to determine Red List status using Criterion B, but the conditions that follow B1 and/or B2 must also be assessed and reported. All assessments should be labeled “**preliminary**” until submitted, reviewed, and published by the regulating organization (e.g., IUCN).
- c. General discussion section(s) may follow, each headed with an appropriate heading (e.g., ***Notes.***, ***Phylogenetic Affinities.***, ***Intraspecific Variation.***, etc.).

4. Keys

- a. Keys (if needed) should be titled using the format for secondary headings (i.e., **bold, 12-point, left aligned**, on its own line).
- b. Keys must be **dichotomous** and in **bracketed format** (do not use indented-key format).
- c. Couplets must be parallel, and should be numbered, not lettered (with the numbers followed by periods and **without** other distinguishing characters (i.e., use 1./1., 2./2., not 1a/1b, or 2/2', or 2'/2", etc.).
- d. Insert a blank line following each couplet.
- e. Authors of taxa are included in keys only if they are not given elsewhere in the manuscript. Species are not numbered in the key unless they are not presented in alphabetical sequence in the taxonomic treatment.
- f. Verify that all measurements and descriptive information provided in the key matches the information in the descriptions.
- g. **Format keys as follows:**

Key to the Species of _____	
1. Plants erect; flowers yellow.....	2
1. Plants decumbent; flowers white.....	3
2. Inflorescences branched; fruits 2–4 cm long, 1–4-seeded.....	<i>U. minor</i>
2. Inflorescences unbranched; fruits 8–12 cm long, 9–15-seeded.....	<i>U. major</i>
3. Pedicels 1–3 mm long; flower buds pubescent.....	<i>U. pubescens</i>
3. Pedicels 6–12 mm long; flower buds glabrous.....	4
4. Stamens 5; bracts ovate, 3–5 mm long.....	<i>U. ovata</i>
4. Stamens 7; bracts lanceolate, 7–9 mm long.....	<i>U. lanceolata</i>

F. ACKNOWLEDGMENTS

1. If there are illustrations by any individual(s) other than the author, the illustrator(s) should be cited in the Acknowledgments.
2. Authors should thank manuscript reviewers and acknowledge sources of funding (or a funding statement may be included in the Declarations, *see below*).

G. DECLARATIONS

1. Declarations are statements written and approved by all authors, which provide transparency about interests (and other issues) directly or indirectly related to the work submitted for publication, particularly any competing interests (financial or nonfinancial) that could be perceived to undermine the content, objectivity, and/or integrity of the work.
2. A **declaration of competing interests** (or conflicts of interest) **must be included** in the submitted manuscript and will appear in the published article between the Acknowledgements and Literature Cited sections. If the authors have nothing to declare, a brief statement to that effect (such as given below) will suffice. Additional information about competing interests is available on the publisher's website at: <https://www.springer.com/gp/editorial-policies/competing-interests>
3. Although not required, additional declarations may also be added, including statements about funding, and/or authors' contributions for multi-authored papers. If these other types of declarations are included, format the Declarations section as in the example below:

Declarations

Competing interests. The authors have no competing interests to declare that are relevant to the content of this article.

Funding. A portion of the research was funded by a grant from the National Science Foundation of the United States (DEB-000000000, P.I.: MJB).

Author's contributions. The contributions of the authors were roughly equal. MJB conceived the study, compiled the geographical data, and contributed to data analysis and writing; BLR collected the molecular data and contributed to data analysis and writing; JMT led the fieldwork, collected the morphological data, and wrote the taxonomic treatment.

H. LITERATURE CITED

1. **Verify** all entries against sources, including journal titles, accents, diacritical marks, and spelling, especially in languages other than English.
2. Each citation is formatted using a **hanging indent**.
3. Cite references in alphabetical order by the surname of the first author.
4. List works by the same author(s) chronologically, beginning with earliest date of publication.
5. Cite references by a **single author** before multi-authored references by the same first author.

6. **Multi-authored references** are listed in alphabetical order of authors. Those with two authors should be listed before others with three or more authors.
7. Provide complete surnames for all authors; use initials for first and middle names, each initial followed by a period. **Do not use spaces between initials**, but include a space between the initials and the surname. **Do not use bold face** for author names.
8. **Type out names** even when repeated in subsequent citations (i.e., do not use dashes or underscores to indicated authors repeated from the preceding citation).
9. “In press” citations must have been accepted for publication; give name of journal or publisher.
10. Titles of journal articles and book chapters are written in sentence case (i.e., with only the first word and proper nouns capitalized). For example: Two new genera and a new species of Anacardiaceae from northern South America.
11. **Titles of journals, books, theses/dissertations, computer programs, and websites** are written out in full (without abbreviation), using **title case** (capitalizing the first letters of all major words in the name/title), and in *italics*. For example: *Systematic Botany*, or *Taxon*, or *Proceedings of the National Academy of Sciences*.
12. For **websites and other online materials with evolving content** (but not static online publications), specify the date (day, month, and year) that the content was accessed (for examples, *see below*).
13. **DOIs (Digital Object Identifiers)** should be provided for *electronic-only* publications; for other publications, DOIs are encouraged, but not required, and should be used in a consistent manner (e.g., provided for all articles and documents that have them). They are placed at the end of the citation.

I. EXAMPLES OF LITERATURE CITED:

A. JOURNAL ARTICLES

- Daly, D.C. & P.V.A. Fine. 2018. Generic limits re-visited and an updated sectional classification for *Protium* (tribe Protieae). *Studies in Neotropical Burseraceae XXV. Brittonia* 69: 376–386. DOI: 10.1007/s12228-018-9533-5.
- Karol, K.G., P.M. Skawinski, R.M. McCourt, M.E. Nault, R. Evans, M.E. Barton, M.S. Berg, D.J. Perleberg & J.D. Hall. 2017. First discovery of the charophycean green alga *Lychnothamnus barbatus* (Charophyceae) extant in the New World. *American Journal of Botany* 104: 1108–1116. DOI: 10.3732/ajb.1700172.
- Armstrong, K.E., G.N. Stone, J.A. Nicholls, E. Valderrama, A.A. Anderberg, J. Smedmark, L. Gautier, Y. Naciri, R. Milne & J.E. Richardson. 2014. Patterns of diversification amongst tropical regions compared: a case study in Sapotaceae. *Frontiers in Genetics* 5: 362. DOI: 10.3389/fgene.2014.00362.

B. BOOKS

- Henderson, A., G. Galeano & R. Bernal. 1995. *Field Guide to the Palms of the Americas*. Princeton University Press, Princeton, New Jersey.
- Wallace, A. 1853 [1854]. *Palm Trees of the Amazon and Their Uses*. Van Hoorst, London.

C. THESES AND DISSERTATIONS

- Glass, S.E. 2021. Chloroplast Genome Evolution in the Klebsormidiophyceae and Streptofilum. Master’s thesis. Lehman College, The Bronx.

Salinas, N.R. 2015. Systematics and Biogeography of *Orthaea kloztsch* (Ericaceae: Vaccinieae). Doctoral dissertation. City University of New York, New York.

D. SERIES

Burret, M. 1933–1934. *Bactris* und verwandte Palmengattungen. *Repertorium Specierum Novarum Regni Vegetabilis* 34: 167–184 [1933], 185–253 [1934].

Glassman, S. 1972. A revision of B. E. Dahlgren's index of American palms. *Phanerogamarum Monographiae* 6: 1–294.

Turland, N.J., J.H. Wiersema, F.R. Barrie, W. Greuter, D.L. Hawksworth, P.S. Herendeen, S. Knapp, W.-H. Kusber, D.-Z. Li, K. Marhold, T.W. May, J. McNeill, A.M. Monro, J. Prado, M.J. Price & G.F. Smith (eds). 2018. International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code). *Regnum Vegetabile* 159. Koeltz Botanical Books, Glashütten.

E. CHAPTERS OR OTHER AUTHORED WORKS WITHIN A BOOK OR SERIES

Brotherus, V.F. 1925. *Cryphaea*. In: A. Engler (ed.), *Die natürlichen Pflanzenfamilien*, 2nd ed., 11: 77–80. Wilhelm Englemann, Leipzig.

Graham, A. 1993. History of the vegetation: Cretaceous (Maastrichtian)–Tertiary, Chapter 3. Pp. 57–70 in: Flora of North America Editorial Committee (eds.), *Flora of North America*, vol. 1, Oxford University Press, New York and Oxford.

Jaramillo, C., C. Hoorn, S.A. Silva, F. Leite, F. Herrera, L. Quiroz, R. Dino & L. Antonioli. 2010. The origin of the modern Amazon rainforest: implications of the palynological and palaeobotanical record. Pp. 318–334 in: C. Hoorn & F.P. Wesselingh (eds.), *Amazonia, Landscape and Species Evolution: a Look into the Past*, 1st ed. Blackwell Publishing, Chichester.

Robbins, R.L. 2001. Sapindaceae. In: W.D. Stevens, C. Ulloa Ulloa, A. Pool & O.M. Montiel (eds.), *Flora de Nicaragua. Angiospermas: Pandanaceae–Zygophyllaceae*. Monographs in Systematic Botany from the Missouri Botanical Garden 85: 2307–2332.

F. ONLINE PUBLICATIONS (NOT CONTINUALLY UPDATED)

IUCN Standards and Petitions Committee. 2019. Guidelines for using the IUCN Red List Categories and Criteria, version 14. Downloadable from: <http://www.iucnredlist.org/documents/RedListGuidelines.pdf>.

Wiens, J.J. & J. Tiu. 2012. Highly incomplete taxa can rescue phylogenetic analyses from the negative impacts of limited taxon sampling. *PLoS One* 7: e42925. DOI: 10.1371/journal.pone.0042925.

G. WEBSITES OR CONTINUALLY UPDATED ONLINE RESOURCES

Guiry, M.D. & G.M. Guiry. 2015 onward. AlgaeBase. World-wide electronic publication, National University of Ireland, Galway. <http://www.algaebase.org> (Accessed: 20 October 2015).

Lowry, P.P., II & G.M. Plunkett. 2021 onward. *Araliaceae Central: A Global Catalogue of Genera and Species*. Missouri Botanical Garden, St. Louis and New York Botanical Garden, Bronx. <http://legacy.tropicos.org/Project/Araliaceae>. (Accessed: 8 December 2023).

POWO. 2023. Plants of the World Online. Royal Botanic Gardens, Kew.
<http://www.plantsoftheworldonline.org/> (Accessed: 5 December 2023).

H. SOFTWARE

- Nylander, J.A.A. 2004. MrModelTest, version 2. Computer program distributed by the author. Evolutionary Biology Centre, Uppsala University, Uppsala.
<http://people.scs.fsu.edu/~nylander> (Downloaded: 12 February 2021).
- R Development Core Team. 2018. R: a Language and Environment for Statistical Computing. R Foundation for Statistical Computing, Vienna. <http://www.R-project.org> (Downloaded: 2 March 2018).

J. FIGURE CAPTIONS

1. Captions for figures are placed at the end of the Manuscript Text file, starting on a new page (insert a page break to separate these captions from the rest of the manuscript text).
2. Captions should be brief, self-contained explanations of the figures.
3. Number figures consecutively (using Arabic numerals), in the order that they are cited in the text.
4. Type captions as separate paragraphs, use bold typeface for the figure number heading, and bold capitals for the letters corresponding to different parts of the same figure, following the example below:

Fig. 1. *Protium yanachagae*. **A.** Flowering branchlet and detail of leaflet margin (upper right). **B.** Flowering branchlet. **C.** Staminate flower and portion of inflorescence. **D.** Staminate flower with part of calyx and corolla removed. **E.** Ovarioidisk with three stamens removed (left) and all stamens removed (right). **F.** Anterior and posterior views of stamen. **G.** Fruiting branchlet. **H.** Infructescence and portion of branchlet. (A. from the holotype; B–F. from *Vásquez et al. 36164*, NY; G. from *Valenzuela & Mateo 13404*, NY; H. from *Monteagudo et al. 3966*, NY.)

Fig. 2. Rhizome and petioles of *Campyloneurum magnificum*. **A.** Rhizome with some petioles still attached and others fallen to reveal circular abscission scars on top of swollen phyllopodia. **B.** Transverse section of rhizome showing meristeles. **C.** Transverse section of petioles, adaxial side oriented downward. (Scale bars approximate; photos by David Sanín of a plant vouchered by *Sanín 5153*, NY.)

Fig. 3. Geographical distribution of *Solanum citrinum* (Open circles represent collection localities sampled in the morphometric study.)

5. The specimen(s) on which the illustrations are based must be noted in the caption (see above examples).
6. Do not include non-alphanumeric symbols (lines, dots, stars, etc.) in captions; label them on the figure itself or refer to them by name in the caption.
7. Identify previously published material by providing the original source in the form of a reference at the end of the caption.

K. PREPARATION AND SUBMISSION OF TABLES

1. Each table (with its heading) must be uploaded to Editorial Manger as a **separate file**. The file name should contain the table number.
2. Use the “**table**” **formatting tool** in MS Word to design each table (so that each datum has its own cell, but without the grid showing). Do not use tabs to create the table.
3. Other than overall size, tables should be formatted such that they appear as intended in the final publication. Tables can be formatted in portrait (preferred) or landscape orientations, and will be printed across either 1- or 2-columns; plan accordingly.
4. Tables should be **numbered** consecutively (using Arabic numerals) in the order that they are cited in the text.
5. **Table headings** should be **justified to the left margin**, above the table, and should use **Times New Roman, 12-point, bold** typeface for the table number (e.g., **Table 1.**), followed by **non-bold type** for the remainder of the heading.
6. **Text within table cells** should also be in Times New Roman font, of a size large enough that it will be clearly readable in the final publication. Text in the first column is flush left; text in all other columns are centered.
7. **Headings should be self-contained.** Definitions for non-common abbreviations or other explanations should be included at the end of the heading. Use of superscript numbers to explain table elements is permitted, but should be explained at the end of the heading (not as footnotes following the table).
8. Data in tables should match perfectly those in the text and keys.
9. References cited in tables must be included in the Literature Cited.
10. An example of a Table formatted for *Brittonia* follows:

Table 1. Diagnostic characters for selected Amazonian species of *Swartzia* sect. *Acutifoliae*. For a complete list of species of sect. *Acutifoliae*, see Torke & Mansano (2009) and Pinto et al. (2014).

Species	Lateral leaflet pair number	Leaflet apex shape	Leaflet undersurface pubescence	Flower bud diameter (mm)	Larger stamen number	Ovary indument
<i>S. kuhlmannii</i>	4–10	acute to acuminate	erect	6.7–9.7	6–15	densely sericeous
<i>S. prolata</i>	14–19	obtuse to rounded	appressed	9.5–11	ca. 16	glabrous
<i>S. psilonema</i>	5–11	retuse or rounded	erect	5.8–10.3	4	densely sericeous

L. PREPARATION AND SUBMISSION OF FIGURES

1. All figures (including photographs, illustrations, graphs, and maps) should be cited in the text, and numbered as figures consecutively (using Arabic numerals) in the order that they are cited.
2. All **original artwork should be signed**, and the artist must be credited in the Acknowledgements section and/or in the figure caption.

3. For figures that contain photographs, the **photographer (or copyright holder) must be acknowledged** in the figure caption.
4. Figures should not have large amounts of unused space; **crop out unused white borders**.
5. **Each taxon newly described** in the manuscript **must be illustrated**, and whenever possible, the illustrations should show the essential characters that distinguish the new taxon from close relatives.
6. Illustrations may consist of line drawings, photographs, paintings, shaded artwork, etc., but **photographs and other halftones should not be mixed with line art in the same figure**, if avoidable.
7. The publisher reserves the right to reduce or enlarge illustrations, hence **scale bars** are used rather than magnification factors.
8. **Parts of a plate or line drawing** should be **labeled with uppercase letters** (i.e., A, B, C, etc.), not numbered as separate figures.
9. **Maps** should have a border, an indication of latitude/longitude, and a distance scale. They should not have a large amount of unused area.
10. **Two widths for figures** are possible, 6.2 cm (single column) or 13.8 cm (full-page width). Figures must not exceed 20 cm long, and space should be left within that 20 cm for the caption. Please prepare figures at the correct size and proportions for publication.
11. **Color figures** are published without charge in *Brittonia*.
12. **Figure captions** are included at the end of the Manuscript Text (see above), but the figures themselves are submitted as **separate files, not integrated** within the text. The file name should include the figure number.
13. As a guide, line art should be scanned and submitted at 600 dpi; halftones (e.g., photographs and paintings) at 300 dpi. Lines, text, and images in figures should not appear blurry or highly pixilated when zoomed.
14. High-resolution scanning of non-electronic artwork is the responsibility of the author. Line art should be scanned as grayscale or bitmap.
15. The **preferred final formats are EPS for vector graphics** exported from a drawing program and **TIFF for halftones and line drawings**. EPS files must always contain a preview in TIFF of the figure. Vector graphics containing fonts must have the fonts embedded in the files. Save color figures as RGB (8 bits per channel).

M. ELECTRONIC SUPPLEMENTARY MATERIAL

1. If **electronic supplementary material (ESM)** is submitted, it will be published in the format received from the author, and in the online version only. Reference will be given in the printed version.
2. ESMs are to be submitted separately in the Editorial Manager submission platform.
3. ESM may consist of:
 - a. Information that cannot be printed, such as animations, video clips, sound recordings (use QuickTime, .avi, .mpeg, animated GIFs, or any other common file format)
 - b. Information that is more convenient in electronic form: DNA sequences, check lists, etc.
 - c. Large quantities of original data that relate to the paper (e.g., additional tables, large numbers of illustrations, etc.).
4. If supplying any ESM, the **supplemental files must be cited in the text**, numbered and referred to as Suppl. Material 1, Suppl. Material 2, etc.

5. Legends should be brief, self-sufficient explanations of the ESM and must be included in the same file as the ESM to which the legend pertains.
6. Each ESM file should not exceed 2 MB in size.

N. DATA

1. The Editorial Board and Publisher of *Brittonia* expect that authors will make **data underlying their published articles publicly available**. Any impediments to data sharing should be brought to the attention of the editors at the time of submission.
2. Papers in disciplines such as anatomy, ethnobotany, cytology, phytochemistry, and molecular systematics must cite **voucher specimens**.
3. DNA, RNA, or protein **sequences** corresponding to >200 nucleotides and not provided in the text of manuscripts must be archived in an appropriate data bank, **preferably GenBank**; data-bank accession numbers for these sequences must be provided in the final, revised version of the manuscript. Sequences of <200 nucleotides can be submitted in an appendix or as supplementary material.
4. **Data matrices/alignments** used in phylogenetic studies should be uploaded to public data repositories, such as Dryad (<https://datadryad.org/>), and the accession number(s) cited in the final manuscript.