[Metadata]1

[Paper Title] **Words in uppercase and lowercase, Times New Roman 12 and bold, centered**

[Título del artículo] **En altas y bajas, Times New Roman 12, negritas y centrado,** los

manuscritos en español también requieren un título, un resumen y palabras clave en inglés.

First Author1\*, Second Author2, and Last Author3 [sort as First name and last name]

1 The affiliation and address of the first author.

2 The affiliation and address of the second author (if different from the previous one).

 3 The affiliation and address of the last author (if different from the previous ones).

\* Author for correspondence: author@email.com

**Running title**: authors must suggest one or several running heads of up to eight words (but as short as possible) that synthesize the actual title.

**Author contributions**: All author’s contribution must be included, up to 60 words. For example, First Author (http://orcid.org/0000-0000-0000-0001), writing analysis, field work; Second Author (http://orcid.org/0000-0000-0000-0001), modeling of potential distribution and specimen examination; Last Author (http://orcid.org/0000-0000-0000-0001), compilation of the database. ORCID must be indicated for each of the authors

**Abstract** Using a maximum of 250 words, synthesize the most important aspects of the paper, including its relevance, the reasoning behind it, and experimental or observational procedures; also include the main conclusions. This must contain the following sections:

**Background:**

**Questions and / or Hypotheses:**

**Studied species / data description /Mathematical model:**

**Study site and dates:**

**Methods:**

**Results:**

**Conclusions:**

**Keywords:** A maximum of six key words in alphabetical order should be provided in order to identify the main topics of the paper. These should be different from words used in the title.

**Resumen:** El resumen debe informar al lector sobre la pregunta que buscó responder su trabajo, los pasos que se siguieron para responder dicha pregunta y lo que se demostró o descubrió (en no más de 250 palabras). El resumen debe contar con el siguiente formato:

**Antecedentes:**

**Preguntas y / o Hipótesis:**

**Especies de estudio / Descripción de datos / Modelo matemático:**

**Sitio y años de estudio:**

**Métodos:**

**Resultados:**

**Conclusiones:**

**Palabras clave:** Sirven para identificar los temas principales del trabajo y serán 6 como máximo. Usar palabras diferentes a las del título, en orden alfabético.

[Introduction starts without a heading]

The theoretical and conceptual context of the research must be described briefly, together with the importance of the problem, its pertinence or necessity, and rationale of the research. The relevant literature will be presented here, and the hypotheses and objectives will be stated.

 **Paragraphs must be indented three spaces**, except those directly after a heading. All lines must finish with complete words (no hyphens); **paragraphs must be left-justified**. All pages must be numbered consecutively. Continuous line numbers should also be used throughout the document.

*Manuscript organization*. Research manuscripts should not have more than **8,000** words. The word count does not include the title page, abstract, literature cited, tables, figures, and appendices. Manuscripts that exceed the word limit will be returned. Review articles are only published through a special invitation from the Reviews Editor. Reviews should not exceed 10,000 words, and book *Botanical Sciences* reviews should not have more than 2,000 words.

 *Botanical Sciences* is open to publishing special issues or sections dedicated to a particular topic through a previous agreement with the Editor-in-Chief.

*Headings*. These are of various ranks (orders), which are indicated by their position in the text. First order heading. The only heading of this type is the title of the paper. Words in uppercase and lowercase, Times New Roman 12 bold, and centered. Second order headings. These correspond to the main sections of the text: **Abstract**, **Resumen**, **Materials and methods**, **Results**, **Discussion**, **Acknowledgments**, and **Literature cited**. They must be written in upper- and lowercase letters, in bold typeface.

*Third order headings*. These are written in upper-and lowercase characters, left-justified, and in italics. The text follows on the same line, separated by a period, just as at the beginning of this paragraph.

Fourth order headings.- These are written in upper- and lowercase letters, left-justified, and in italics. Text follows in the same line, separated by a period and a hyphen.

Lower rank headings. When these are really necessary, letters or numbers may be used. For these, write them with uppercase and lowercase, justified to the left and without italics. The text remains on the same line, separated by a period.

*References cited in text*. All references cited in the text must be listed in the Literature cited section (see below). Citations in the text should take the following format: Single author (*e.g.,* Wright 2010), two authors (*e.g.,* Clark & Clark 1996), and three or more authors (write the full name of the first author followed by *et al*. italicized, *e.g.,* Nepstad *et al.* 1999). In all cases the author(s) is followed by the year. Multiple references to the same statement should be separated by a comma (,) and ordered chronologically. When different references would appear identical when cited in this manner, use lowercase letters after the date in both the citation and the bibliography (Gilbert *et al*. 2012a, b). When two authors have the same last name, add their initials (J.J. Burdon *et al*. 2005). Order lists of references in chronological order (oldest first), and alphabetically when of the same date (Chilvers *et al*. 2003, Ash *et al*. 2011, Burdon *et al*. 2011, Smith *et al*. 2011). References to personal communications should be avoided, but if absolutely necessary, they are cited in the text like a publication, including the initial of the author (*e.g.,* P. Dávila pers. comm.). Quotes. These will be in quotation marks; if they are longer than one line, they will be written with indentations on both sides citing the author(s), year and page number(s). Indirect quotations (*i.e.,* works cited by another work) are only justified when dealing with very old publications that are too hard to obtain.

*Abbreviations*. Use the following commonly understood abbreviations without spelling out first: DNA, ITS, CTAB, PCR, cpDNA, nrDNA, USA, fl, hr, min, s, yr, cm, mm, µm, m asl. Use Index Herbariorum acronyms for all cited herbaria, http://sweetgum.nybg.org/science/ih/. Include the standardized abbreviation of the author name the first time the name is used in the text; abbreviate thereafter, but do not use capitals for all words unless they are proper nouns.

*Numbers*. Write out one to nine unless they are part of a measurement or in taxonomic descriptions (*e.g*., four samples, 3 mm, 35 sites, 6 yr). Use 1,000 instead of 1000; 0.13 instead of .13; % instead of percent. Number ranges should be separated by a hyphen (*e.g.,* 3-4) instead of an em dash (*e.g.,* 3–4). Use a space on both sides of all mathematical symbols (*e.g.*, 4 ± 0.53), including % (30 % not 30%) or degrees (25 °C not 25°C; 19° 29´ 52” N; 99° 7´37” W not 19°29´52” N; 99°7´37” W)

**Materials and methods** [Second order headings]

When citing a manufacturer (*e.g.,* Qiagen, Oxford, California) spell out the manufacturer’s name, city, and state; if not from a city in the USA or UK, spell out the city and country after the manufacturer’s name (*e.g.,* New England Biolabs, Frankfurt am Main, Germany).

 Vouchers must be cited for all molecular analyses in Appendix 1. Vouchers cited in the taxonomic treatment for revisions, monographs, or new species, are listed as Additional Specimens Examined.

*Nomenclature*. This must follow the rules of the International Code of Nomenclature for algae, fungi, and plants www.iapt-taxon.org/nomen/main.php. When dealing with animals or bacteria, these must be subjected to the rules of the International Code of Zoological Nomenclature and to the International Code of Bacterial Nomenclature. The International Plant Name Index www.ipni.org, especially the Gray Card Index (GCI), must be a guide. All living organisms (plants, insects, birds, mammals, *etc*.) that are the central topic of the paper must be identified with their scientific (Latin) names the first time they are mentioned. Italics will be used for them, as well as for words in languages other than English.

*Book reviews.* These are analytical appraisals of scientific books or publications of broad interest for the readership. They must be properly supported and should be no longer than five pages. Their aim is to objectively orient the scientific community and may have a free format, and will not be subject to peer-review and will published at the Editor-in-Chief’s discretion.

**Results** [Second order headings]

*Tables and figures.*These are used to replace text or because they help save space. They must be clear, simple, and concise (see pages 13 and 14 of these instructions). The third dimension must be strictly avoided in graphs, unless absolutely necessary. Figures and tables may not be larger than a letter-size page. They must be cited in the text and numbered consecutively, according to their order of appearance (Figure 1) (Figure 2A, C-D) (Figures 1, 2B). Headings of tables and figure legends must be concise but self-explanatory. Titles of columns in tables must be written in upper- and lowercase characters and using the complete words Figure or Table. In the case of photographs or microphotographs, the legend must indicate the corresponding scale. Use TIFF or JPG depending on whether the figure is line art or image type. If it is a photograph, it is most convenient to use the format with which the original image was obtained. If it is a graphic, try to save it as a format of curves (commonly PDF) in the program that was generated to preserve this feature. We recommend consulting the following page before preparing the electronic figure files <https://authorservices.wiley.com/asset/photos/electronic_artwork_guidelines.pdf>.

Equations and Formulas.- Use equation editor like MathType or the Word equation editor itself Do not send formulas in image format. These must be written with the same typeface, leaving a blank line between them; sub-indexes and super-indexes must be properly located and readable; the numbers 0 and 1 must be clearly differentiated from capital letters O and I, respectively. These must be numbered consecutively in parenthesis on the right side of the page.

Greek letters and symbols.- These should be explained after being used for the first time, except those of universal use. The multiplication sign must be written with the symbol “×”, not with “x”. The expression “chi-squared” must be written with the Greek letter χ2.

Fractions.- The lineal form will be used, with negative exponents for denominators.

Probabilities.- The expression must be written with spaces (*P =* 0.001) or (H’ = 0.79; *t*1557.8 = 10.11, *P* < 0.001)

Abbreviations or acronyms*.-* These must be explained the first time they are used in text. New taxa descriptions and taxonomic treatments are derived from detailed taxonomic revisions of groups or genera, or phylogenetic analysis, among others. They adhere to a particular format. Two examples of the type of new species articles that are published by *Botanical Sciences* can be found in: Burelo-Ramos *et al.* 2018 (*Pinguicula olmeca* (Lentibulariaceae) una nueva especie del sur de México. *Botanical Sciences* **96**: 359-365. DOI: <https://doi.org/10.17129/botsci.1927> and Martínez-González *et al*. 2015 (*Opuntia leiascheinvariana*, una nueva especie de Cactaceae del estado de Hidalgo, México. *Botanical Sciences* **93**: 517-529. DOI:<https://doi.org/10.17129/botsci.247>. The new name should be in bold (not italicized) in the left-hand margin followed by the author(s) name, as follows:

 **Pinguicula olmeca** Zamudio, Burelo & González-Aguilar, sp. nov. (Figure 1).

*Type*. Mexico, Tabasco, municipio de Huimanguillo, Ejido [Villa] de Guadalupe, cerro de la antena, 800 m, 10 July 2016, *C.M. Burelo-Ramos 530* (Holotype: UJAT; Isotypes: MEXU, MO).

*Diagnosis*. The protologue must include a short diagnosis that briefly compares and distinguishes the new taxon to similar or closely related, previously described taxa. It can be in either English or Latin, and it should be in a separate paragraph below the type data.

*Description*. The full description should cover all relevant plant structures and start a new paragraph. When two or more taxa are described, the descriptions follow the same order.

*Distribution and ecology*. This information is included in a new paragraph after the description and should contain geographic and altitudinal distribution, vegetation types, etc.

*Conservation status*. For all new taxa it will be necessary to evaluate their conservation status in accordance with the categories and criteria of the IUCN Red List https://www.iucnredlist.org/.

*Phenology*. Provide information on flowering and fruiting times.

*Common names and uses*. If common names and/or uses are given, they must be in a new paragraph.

*Etymology*. This information, such as to whom the species is dedicated, also requires a new paragraph.

*Additional specimens examined*. The list of specimens examined should be in a new paragraph where all specimens examined by the author(s) must be cited. The information must be the same as given for the holotype and alphabetically ordered by country, state, locality, date, collector and collection number (italics).

**Discussion** [Second order headings]

This is the last section of the manuscript, here the conclusions are included.

**Acknowledgements**

Thank those that helped and cite funding sources and granting agencies. Include the project number, if applicable. This section should be as short as possible. Use the initial of the first name and the last name of individuals and a short explanation, for instance: Authors are grateful to E. González for statistical advice. Consider to thank reviewers and associated editor.

**Supplementary data**

The files (tables, figures, appendices, raw data, videos) to be distributed as supplementary material will not be modified by the journal and their final state will be the responsibility of the authors. No modifications will be allow after accepting the manuscript.

Supplementary files, if any, will be listed in the "Supplementary material" section, which will be added between the acknowledgments and the cited literature. The content of this section will be: “Supplemental material for this article can be accessed here: <URL added by journal>”

The supplementary files should include: metadata (article title, authors, institutions)

Tables S1….

Figures S1…..

Supplementary data will be available at Botanical Science, permanent paper site

Supplemental data can be accessed on Botanical Science’s website

**Literature cited**

[Articles in scientific journals]

The literature in alphabetical order considering the last name of the authors and as a second criterion the publication date, as indicated below

Alfonso-Corrado C, Clark-Tapia R, Mendoza A. 2007. Demography and management of two clonal oaks: *Quercus eduardii* and *Q. potosina* (Fagaceae) in central México. *Forest Ecology and Management* **251**: 129-141. DOI: https://doi.org/10.1016/j.foreco.2006.11.004

Aragón-Gastélum JL, Flores J, Jurado E, Ramírez-Tobías HM, Robles-Díaz E, Rodas-Ortiz JP, Yáñez-Espinosa L. 2018. Potential impact of global warming on seed bank, dormancy and germination of three succulent species from the Chihuahuan Desert. *Seed Science Research* **28**: 312-318. DOI: https://doi.org/10.1017/S0960258518000302

Aragón-Gastélum JL, Flores J, Yáñez-Espinosa L, Reyes-Olivas A, Rodas-Ortiz JP, Robles-Díaz E, González FJ. 2017. Advantages of vivipary in *Echinocactus platyacanthus*, an endemic and protected Mexican cactus species. *Journal of Arid Environments* **141**: 56-59. DOI: http://dx.doi.org/10.1016/j.jaridenv.2017.01.012

Aragón-Gastélum JL, Reyes-Olivas Á, Sánchez-Soto BH, Casillas-Álvarez P, Flores J. 2013. Vivipary in *Ferocactus herrerae* (Cactaceae) in Northern Sinaloa, México. *Bradleya* **31**: 44-52. DOI: https://doi.org/10.25223/brad.n31.2013.a7

Han C, Ren J, Tang H, Xu D, Xie X. 2016. Quantitative imaging of radial oxygen loss from *Valisneria spiralis* roots with a fluorescent planar optode. *Science of the* *Total Environment* **569-570**: 1232-1240. DOI: https://doi.org/10.1016/j.scitotenv.2016.06.198

[Books]

Rodríguez-Zúñiga T, Troche-Souza C, Vázquez-Lule AD, Márquez-Mendoza J, Vázquez-Balderas B, Valderrama-Landeros L, Velázquez-Salazar S, Cruz-López MI, Ressl R, Uribe-Martínez A, Cerdeira-Estrada S, Acosta-Velázquez J, Díaz C. 2013. *Manglares de México, Extensión, Distribución y Monitoreo.* México, DF: Comisión Nacional para el Conocimiento y Uso de la Biodiversidad. ISBN: 978-607-8328-02-4

[Books chapters]

Alongi DM, Brinkman R. 2011. Hydrology and biogeochemistry of mangrove forests. *In*: Levia DF, Carlyle-Moses D, Tanaka T, eds. *Forest Hydrology and Biogeochemistry, Synthesis of Past Research and Future Directions, Ecological Studies*. Dordrecht: Springer Netherlands, pp. 203-219. DOI: https://doi.org/10.1007/978-94-007-1363-5\_10

Reddy KR, DeLaune RD. 2008. Biogeochemical Characteristics. *In*: *Biogeochemistry of Wetlands*. Boca Raton: CRC Press, pp. 27-65. ISBN: 978-1-56670-678-0

[Thesis, dissertations]

Carter B. 2008. *Technology, Society and change: Shell Artifact Production Among the Manteno A.D. 800-1532 of Coastal Ecuador*. PhD Thesis. University of Washington.

Jaynes JL. 2012. *A Feasibility Assessment of Native Ferns for Phytoremedation of Arsenic*. MSc. Thesis, Western Carolina University.

Juárez AK. 2008. *Biodiversidad de la Flora del Bosque Mesófilo de Montaña del Municipio de Huayococotla, Veracruz, México*. BSc Thesis. Universidad Nacional Autónoma de México.

[Electronic documents available on line]

Fernández-Eguiarte A, Romero-Centeno R, Zavala-Hidalgo J. 2012. *Atlas Climático Digital de México y Áreas Adyacentes*, Vol. 1. Mexico, DF: Universidad Nacional Autónoma de México. http://atlasclimatico.unam.mx/ACM (accessed January 23, 2013).

[Technical bulletins or other non-periodic serials]

SEMARNAT [Secretaría del Medio Ambiente y Recursos Naturales]. 2010. Norma Oficial Mexicana NOM-059-SEMARNAT-2010, Protección ambiental – Especies nativas de México de flora y fauna silvestres – Categorías de riesgo y especificaciones para su inclusión, exclusión o cambio – Lista de especies en riesgo. *Diario Oficial de la Federación*. 2da Sección, 30 de diciembre de 2010.

**Tables and figures*.*** Tables and figures legends must be placed immediately after the Literature cited, in that order. Example: first column justified to the left, second column and subsequent center the text, and capitalize first word in each cell (Table 1**)**. A table should include information systematically displayed in simple columns and rows, with the vertical and horizontal spatial arrangement necessary to understand the context even if it requires the presence of blank areas of the page. They are suitable for presenting information such as differences among taxa. Tables should be no longer than 1 printed page each. Longer tables should be presented as appendices.

[Example] **Table 1.** The Yucatan Peninsula Herbaria, Mexico.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Acronyms** | **CICY** | **CIQR** | **CEDESU** | **UADY** | **UCAM** | **UNACAR** |
| Inclusion in Index Herbariorum | Yes | Yes | No | Yes | Yes | No |
| Location | Mérida, Yucatán | Chetumal, Quintana Roo | Campeche, Campeche | Mérida, Yucatán | Campeche, Campeche | Ciudad del Carmen, Campeche |
| Year founded | 1983 | 1985 | 2000 | 1990 | 1993 | 2013 |
| Number of specimens | 70,000 | 18,250 | 3,000 | 20**,**109 | 24,738 | 500 |
| Level of curated specimens | 85 % | 80 % | - | 92 % | 98 % | - |
| Number of researchers/ technicians | 4/1 | 1/1 | 0/1 | 4/1 | 2/1 | 2/0 |

**Figure legends.**

**Figure 1.** In the manuscript text, include the figure legends of all the figures quoted in the text sequentially and with Arabic numerals.

**Figure 2.** Images (bit maps) should be sent in separate files, with 300 dpi resolution, and in “TIFF” or “JPG” if they are in bits format.

**Figure 3.** Plots or curve art should be sent in a separate file in a curve format as can be PDF or EPS.

**Appendix 1**

Lengthy materials as for gene accession and voucher, whose inclusion in text may not be adequate but complements the text should be published as appendices and attached in an ordered fashion at the end of the text.

**Ethical Conditions: Authorship**

Authors must consider carefully the list and order of authors **before** submitting their manuscript and provide the definitive list of authors at the time of the original submission in the text and metadata. Deletion or rearrangement of author names in the authorship list (manuscript and metada) should be made **before** the manuscript has been accepted and only if approved by the Editor-in-Chief. To request such a change, the Editor-in-chief must receive from the **corresponding author a letter indicating**: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. This includes confirmation from the author being added or removed.

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