



GUIDELINES

Instructions for authors

Universitas Scientiarum (Univ. Sci.) is an Open Access, multidisciplinary journal, directed to researchers in the exact, physical and natural sciences.

Article processing and approval

- Article is evaluated by the editor (first filter, see cover letter).
- Article is assigned to at least three (3) international academic reviewers for peer evaluation within **3 days**. Reviewers will have **20 days** to assess the paper.
- ▶ Based on feedback of peer reviewers, the editor will accept or refuse the article within 3 days (times may vary for complex works in mathematics or other fields).
- Article is returned to the author with reviewer comments and suggestions. Authors must address reviewer comments within a period not exceeding **15 working days**.
- Corrected papers will be returned to the referees for their feedback (second round, when necessary). Reviewers will have **10 days** to assess the paper.
- Authors must address new reviewer comments within a period not exceeding 10 working days.
- Corrected and accepted version (which must thoroughly comply author guidelines) will be proofread for English, Portuguese and Spanish usage, before undergoing the layout process and final edit (10 days).
- Author must approve style and language suggestions (proof) and return the final version within **3 business** days.

Once the final edition has been completed, the author may not make further amendments to the text.

Under normal circumstances, articles will be published "first on-line" within 80-90 days from the date of submission to the journal.

All submissions to *Universitas Scientiarum* must be **original and unpublished** works.

The journal accepts the following types of manuscripts

1. Original articles: Should report scientific research that significantly contributes to the study area and provides conclusions of interest and **new scientific understanding** to a diverse readership. Preference will be given to manuscripts presenting original and interdisciplinary methodological robustness. Authors must demonstrate and explicitly describe the contribution they make to the scientific community in relation to past research.

Articles lacking conclusive results or scientific significance that duplicate well-established knowledge within a field will not be published in this section but may be included as Notes, unless the information relates to a theory being debated or reformulated or it significantly changes the existing theoretical or practical context.



- **2. Short Communications** (Note): Present, in a brief format, final or partial research results leading to sound conclusions, new breakthroughs or unique finds (high priority of publication), which are significant to the scientific community and therefore require **rapid disclosure**. This includes articles whose content does not fully satisfy the requirements or scientific rigor necessary to be an original article (e.g., scale of the study, sample size, sample design).
- 3. Reviews: Collect, analyze, systematize and integrate the results of published and unpublished research (e.g., author's unpublished data) on a particular problem area or field of knowledge. The topic of a review must be current, rapidly changing and be vital to the scientific community (e.g., concepts). This is an extensive examination of published literature (primary and secondary), to produce an updated summary and disclose new developments in the state of knowledge of an active area of research. A review must provide sufficient background to explain the issue and establish its main question, problem or objective. It must provide the parameters of the chosen topic (including spatial, temporal limits or organisms), the literature search and selection criteria (method), and provide prevailing trends and gaps in knowledge. Following consideration and critical analysis, the author will provide his/her point-of-view, reach a conclusion on the issue, question or objective of the review, and propose new guidelines for research.
- **4. Mini-reviews:** A succinct review article of recent insights on a current, rapidly changing and significant topic. It compiles, analyzes and synthesizes published literature on hot relevant and contemporary topics, examining topic specific phenomena, concepts, and laboratory or field techniques, issues or problems. It should provide an updated summary of the state of knowledge in an active field of research, fill existing knowledge gaps, and specify trends in the field and new directions of research. Through a critical analysis of the literature selected the author briefly express his or her point-of-view. A mini-review can also be a **meta-analysis** to answer a specific question, propose a working hypothesis or a general principle to expeditiously inform concerned journal readership. This should be accomplished through the analysis of published literature chosen following an exhaustive bibliographic search.
- **5. Methods article:** Presents results derived from research or the product of a technological process. It includes original and unpublished results of the application, implementation and validation of techniques, procedures or methods. New methods, techniques and equipment for measuring variables are methodically described. This scientific document may include the standardization or significant adjustment of existing analytical methods, empirical comparisons of techniques (to validate accuracy, efficiency) or methods from gray literature (if these are relevant to a broad scientific community). In all cases, the author will emphasize the benefits of innovation or explain how these new tools are useful and will transform the field of research (theoretical or practical development).
- **6. Book reviews:** Issues akin to the publication interests of the magazine (exact, physical and natural sciences). These brief communications critically summarize recently published books (less than two years), books considered pillars for any discipline or have been written in a language uncommon but are vital to any field of knowledge. The author should evaluate in an amiable and respectful manner the book's virtues or shortcomings.

General Format Requirements

Strict adherence to *Universitas Scientiarum* author guidelines is expected Failure to do so will lengthen the publishing process

Universitas Scientiarum accepts manuscripts in English that adhere to the standard rules of style and grammar of the language.

If translated, a native speaker, preferably within the same scientific field, should review the document for grammar and usage before it is submitted.

It is the authors' responsibility to submit grammatically correct manuscripts that are well written and properly translated.

Upon the author's request, the journal will provide a list of expert English, Portuguese and Spanish translators,

opy-editors and table and figure designe	ers who can provide their services for a fee.
☐ Text lines must be numbered co	onsecutively from the title line.
however, the author must submit	Windows 2007 or higher). Manuscripts created in LaTeX will be accepted, the PDF and the LaTeX version, for revision purposes. (LaTex templates burnal System; http://revistas.javeriana.edu.co/index.php/scientarium/
☐ Manuscripts must be submitted in pts. Garamond, with 1.5 spacing.	8.5x11 letter paper size with 2.5 cm margins. Text must be unjustified, 12
☐ Use a maximum of three levels for	headers (introduction, methods, results or discussion section).
Example:	
First level heading (bold, lower case)	Materials and methods
Second level heading (bold, followed by a colon and text)	Patient design: A cross-sectional
Third level heading (bold-italics, followed by a colon and text)	Data analysis: Data were transformed
☐ Submit as separate files:	
Δ Manuscript: Submit in this order	er, text, tables and figures (include table and figure legends).
Δ Table file: One for each table (v	without legends). Title the file: Table 1, 2, etc.
Δ Figure file: One for each figure,	, in high resolution (without legends). Title the file: Figure 1, 2, etc.
Δ Supplementary material file: Or Title the file: Suppl. 1, 2.	ne for each supplement, in high resolution (include detailed legends).
	tary material files must be in high resolution (>360dpi), per detailed and Supplementary Material sections of this document.

Δ Large files can be uploaded to the Open Journal System (if not, please use DropBox and invite the

editor scientiarum@javeriana.edu.co or u.scientiarum@gmail.com).

All submissions must include the following

Cover letter

This is the first filter used by the editor to determine whether the manuscript should continue to peer review or be rejected. Here is a sample Cover Letter.

Dr. Alberto Acosta Universitas Scientiarum Facultad de Ciencias Pontificia Universidad Javeriana Carrera 7 No 43-82, Edificio 52, Carlos Ortíz Bogotá, Colombia

Dear Dr. Acosta:

Please find enclosed for consideration the following manuscript entitled: [title], [Authors].

This study [state the contribution or original knowledge]. Previously, [compare results to prior local, regional and global publications]. Our research found [state its originality either in the theoretical or practical context]. We feel this would be of interest to your audience because of [describe the impact or change the theoretical or practical context in which the research is conducted (perception of reality)]. (In this paragraph authors should explain why the paper is original and should be published. Authors must demonstrate and explicitly describe the contribution they make to the scientific community in relation to past research. Also explain how the result significantly changes the existing theoretical or practical context.)

This paper has not been published previously and is not under consideration elsewhere. The authors are responsible for the reported research, and have participated in the concept and design, analysis and interpretation of data, drafting or revising of the manuscript, and have approved the manuscript as submitted. The data, models, and methodology used in the research are proprietary and comply with the legal requirements of [state, country(s)]. State any conflicts of interest with other authors or reviewers, list them by name.

Please recommend three international and one local Ph.D. scientists in the field as referee:

International

- Reviewer A [what is his/her technical expertise relevant to the paper] (email)
- Reviewer B [what is his/her technical expertise relevant to the paper] (email)
- Reviewer C [what is his/her technical expertise relevant to the paper] (email)

National

• Reviewer D [what is his/her technical expertise relevant to the paper] (email)

Thank you for your consideration of my work. Please address all correspondence concerning this manuscript to me by e-mail (myemailaddress) or Skype (myusername).

Sincerely,

Your Name [e-mail, tel-cel.]

Attachment: [list of all files attached such as manuscript, copyright form, etc.]

Cover page

Title (In English, Spanish and Portuguese, 10 words maximum)
Authors (Names must be in the format provided by online author registries. To register, go to: www.iralis.org, under "Register your iraLIS".
Institutional affiliation (Where the research was actually conducted, followed by the researcher's current affiliation)
Corresponding author (e-mail marked with an *).
Short running title (In original language and English, maximum 6 words)
Keywords A maximum of six; in lowercase; separated by semi colons; listed in order of importance; in English, Spanish and Portuguese.
Financial source
Manuscript type (Original article, review article, etc.)

For mathematics articles, provide the Mathematical Subject Classification (MSC2010). For taxonomic works please provide an LSID number see "Formulas for details").

Manuscripts

Use the colors and numbers to identify the parts of this template that pertain to your paper. Only boxes left empty do not require these parts of a manuscript.

	Max pages (text, tables and figures)	Abstract	Introduction	Material & Methods	Results	Discussion	Conclusion	Acknowledgements	Conflict of Interest	References
1. Original Article	30 pages	180 words	3 pages max	1-3 pages	4 Figures, 4 Tables	5 pages max	1 paragraph (10 lines max)	1	1	Min. 30 current and relevant; 20 less than 4 yrs old; NO gray literature
2. Short Communication	15 pages	180 words	2 pages max	1-3 pages	BOTH prese section. 5 page 2 Tables or 1 ea		1 paragraph (10 lines max)	1	1	Min. 20 less than 4 yrs old; NO gray literature
3. Review	45 pages	180 words	4 pages max	1-3 pages		presented	1 paragraph (10 lines max)	1	1	Min. 80 less than 4 yrs old; NO gray literature
4. Mini Review	15 pages	180 words	2 pages max	1-2 pages	in ONÈ section.		1 paragraph (10 lines max)	1	1	Min. 20 less than 4 yrs old; NO gray literature
5. Methods Article	25 pages	180 words	3 pages max	1-3 pages	4 Figures, 4 Tables	5 pages max	1 paragraph (10 lines max)	1	1	Min. 30 current and relevant; NO gray literature
6. Book Review	3 pages	180 words								

^{*} Unless specified, amounts refer to maximum number allowed.

Use this template as a checklist

It is important that you comply with the journal guidelines

	Title	37.	☐ Provide the information available to
2.	☐ (Max. 10 words, describes research, in	38.	date and highlight what is not known; this
3.	article language)	39.	must coincide with the information presented
	A == 41 = ===	40.	in the results section.
	Authors		Define the key concepts underpinning the
5.	(in correct online registry format, iraLis)	42.	research.
	Affiliations	41. 43.	☐ Include theoretical or practical importance and justification to solve this problem.
7.	(where the research took place)	44.	☐ Provide the justification for using a new
	Abstract	45. 46.	experimental design or research approach to address the research question, if necessary.
9.	(Abstracts must be submitted in English,	47.	☐ An adequate introduction provides the
10.	Spanish, and Portuguese)	48.	background necessary for a reader to
11.	☐ 180 words	49.	understand the context of the question, why
12.	Briefly describe the problem and then lead	50.	the process was carried out, and the
13.	the reader to the question, objective or	51. 52.	importance of the results to assess the quality and merits thereof. From the reader's point-
14.	hypothesis to be investigated.	53.	of-view (the scientific community), it should
15.	☐ Briefly describe the methods (technique, independent variables levels, dependent or	54.	provide a synthesis of current theory (review
17.		55.	of the subject), a fresh, new view of the
	☐ Describe only those results that are relevant	56.	problem or how to solve it, and the objective
19.		57.	or question.
20.	question.		Materials and Methods
21.	☐ State conclusion or emerging property of	59.	☐ Presents what the author did in detail
22.	the integration of the results.	60.	☐ Experimental design.
23.	☐ State its effect in a practical and theoretical	61.	☐ Number of treatments.
24.	context.	62.	☐ Controls.
25.	Avoid the use of acronyms in this section of your paper.	63.	☐ Number of replicates.
20.	or your paper.	64.	☐ Number of sampling units per replica.
	Keywords	65.	☐ Sample size.
28.	☐ (Maximum of 6 words, lower case,	66.	☐ How was it performed.
29.	separated by ";").	67.	☐ How were the variables and information
30.	☐ Keywords must be submitted in English,	68.	analyzed to answer the questions or
31.	Spanish, and Portuguese	69.	hypothesis.
	Introduction	70.	Do not skip important steps that may
		71. 72.	impede duplication of this experiment, sampling or data analysis.
33.	Provide a general context of the studied	1 4.	ominpanis or data anarysis.
34. 35.	phenomenon, identify a problem and then lead the reader to the problem or question to		Results
	be investigated.	74.	☐ Presents just the facts.

75. Presented in order of importance (most 76. original and new first). 77. Only those results (variables) that 78. contribute to answer the question and support 79. the conclusion (discriminated). 80. Use figures to present the most important result of the work (e.g. box Plot figures show all the information necessary regarding variable behavior. Two complementary figures 84. are required, one with median, standard error 85. and confidence intervals; and another with average, standard deviation, minimum 87. and maximum values). The journal provides 88. a guide to design this type of figures 89. (http://revistas.javeriana.edu.co/index.php/	 119. variables were what they were, in a theoretical 120. or applied context. 121. □ Discuss failures or limitations of the 122. methodological procedure employed in the 123. study, to prevent readers from making the 124. same mistakes. Recommend how the question 125. could be answered from better design, 126. variables or approach. 127. □ Provide new hypotheses for further 128. research of the problem and formulate a new 129. problem. 130. □ Assess the real extent of their results and 131. how they affect the perceived reality. 132. □ Do not speculate or extrapolate in the 133. discussion.
90. scientarium/announcement).	Conclusion
91. ☐ Figures are showing general variable 92. trends, while Tables provide precise data 93. (See the "Stables and Figures" section of this 94. document). 95. ☐ Statistical results are shown properly (See 96. the "Statistical results" section of this 97. document). 98. ☐ Units and numbers of results are spaced 99. (p = 0.08, 80 g, 20 Co). 100. ☐ p value in lowercase. 101. ☐ Do use figures or tables for the same 102. results. 103. ☐ All Figures and tables are preceded 104. by text (summary of the figure or table). 105. Do not cite simultaneously in the text two or 106. more consecutively figures or tables or both. 107. ☐ See relevant additional information in	135. ☐ The conclusion is the emergent property 136. arising from the integration of the results 137. and how they change the perceived theoretical 138. or practical reality. 139. ☐ Report what can be concluded from the 140. results. 141. ☐ Responds (with evidence) to the question, 142. goal, and problem or formulated hypothesis 143. in the introduction. 144. ☐ Check the coherence between conclusion, 145. question raised, abstract and title. 146. ☐ 10 lines Maximum. 147. ☐ Do not speculate, extrapolate, recommend, 148. or draw conclusions from measurements 149. or arguments that are beyond the limits of the 150. research.
108. "Statistical Results" and "Tables and Figures"	Acknowledgements
109. sections of this document.	152. Include:
Discussion 111. □ Comprehensively summarize all the 112. results (variables) and describe how they	 153. ☐ Funding source (grant number). 154. ☐ Other collaborators. 155. ☐ Research institutions that supported the
113. answer the question. 114. □ Compare results (variables) with other 115. results previously published locally, regionally 116. and globally (preferably using a Table). 117. □ Explain the results; physical, chemical or 118. biological mechanisms that reveal why the	 156. research by providing either logistics or 157. equipment. 158. ☐ Translators. 159. ☐ Reviewers, anonymous reviewers. 160. ☐ Research permits (with code). 161. ☐ When conducting experiments involving.

162. humans or animals (care and euthanasia), 163. authors must adhere to ethical procedures 164. (for example: the 2000 Helsinki Declaration) 165. and assert that an ethics committee approved 166. the investigation or that he/she followed 167. institutional or national standards pertaining 168. to this type of experiment. 169. ☐ Research involving patients requires a 170. written informed consent, to protect the 171. patient's privacy (anonymity). The author 172. will explicitly indicate that he/she has 173. obtained the required informed consents. 174. ☐ Studies involving animals followed the 175. institutional and national guide for the care 176. and use of laboratory animals. 177. ☐ The authors certify that they followed 178. the Publication Code of Conduct − see 179. COPE Committee on Publication Ethics - 180. http://publicationethics.org/	206. the assertion, via either statements in the text 207. or the data presented" (see Todd et al. 2010 − 208. Mar Ecol Prog Ser 408: 299-303). 209. ☐ Citations in text are in References. 210. ☐ All bibliographic entries are cited within 211. text and vice versa. 212. ☐ Doi (Digital Object Identification) for 213. References was included. 214. ☐ Citations in text and references comply 215. with Author Guideline on citation within 216. texts (See the "Citing within text" section of 217. this document). 218. ☐ EndNote or LaTeX journal style 219. templates provided by the journal or 220. equivalent was used to create the reference 221. section. You may find these templates on our 222. website in OJS (http://revistas.javeriana.edu. 223. co/index.php/scientarium/announcement). 224. ☐ DO NOT include gray literature (including 225. material that has not undergone peer review,
Conflicts of interest	226. undergraduate thesis, papers not found in
182. ☐ Potential Conflicts of Interest Related to 183. Individual Authors' Commitments 184. ☐ Potential Conflicts of Interest Related to 185. Project Support 186. ☐ Potential Conflicts of Interest Related 187. to Commitments of Editors, Journal Staff, or 188. Reviewers 189. ☐ The authors certify that they have NO 190. affiliations with or involvement in any 191. organization or entity with any financial 192. interest (such as honoraria; educational grants; 193. participation in speakers' bureaus; 194. membership, employment, consultancies, 195. stock ownership, or other equity interest; 196. and expert testimony or patent-licensing 197. arrangements), or non-financial interest 198. (such as personal or professional relationships, 199. affiliations, knowledge or beliefs) in the subject 200. matter or materials discussed in this 201. manuscript. References	227. databases or that have not been published in 228. indexedjournals-technical reports-, or research 229. that cannot be replicated due to a lack of 230. detailed methodology). 231. DO NOT ambiguous citation. "The 232. material (textordata) in the cited article has been 233. interpreted one way, but could also be 234. interpretedinotherways, including the opposite 235. point" (Todd et al. 2010). 236. DO NOT use empty citation. "The cited 237. article simply cites other articles that support 238. the assertion made in the primary article" 239. (Todd et al. 2010); neither, no support citation. 240. "The cited article does not in any way 241. substantiate the assertion via either statements 242. in the text or the data presented" (Todd et al. 243. 2010). Dubmit Tables, in sequence (including legends) Submit Figures, in sequence (including legends)
203. ☐ Authors are listed in alphabetical order. 204. ☐ All citations are valid (clear support). "The 205. cited article provides unequivocal support of	☐SubmitSupplementaryMaterial, in sequence (including legends)

Format Tables and Figures

Must:

- Δ Include only material relevant to the question (conclusion).
- Δ Include legends to explain its importance or results without the reader having to revert back to the text.
- Δ In the text explain the relevance of the table or figure cited. See previous issues published.

Tables and Figures must be submitted in the following formats:

- Δ All tables and figures must have a minimum resolution of 360 dpi (weighing less than 1000Kb).
- Δ Figures must be created using professional graphic software. They may be presented in TIFF, EPS or PDF formats (maintaining a minimum of 360 dpi).
- Δ For figures use professional graphing software such as Illustrator, (SigmaPlot, Simfit, Photoshop, Illustrator, R) in black, and color mode CMYK (cyan, magenta, yellow, key). Diagrams, halftones or color images must be edited in a program that provides color mode CMYK (cyan, magenta, yellow, key; e.g. Illustrator, File>document color mode>CMYK color).
- Δ Pictorial material must be submitted in vector format (EPS).
- Δ Tables are accepted in Word, Excel or PDFformat.
- Δ Tables and Figures using other formats will not be accepted.

General requirements

- Δ Figures and tables requiring two printed columns must not exceed 175 mm wide and 24 cm high. Single column tables, should not to exceed 85 mm wide and 24 cm high. Tables requiring an entire page must be restricted to 175 mm wide and 24 cm high. If the dimension of the figures and tables is not as specified above, please convert them to vector images (vector format EPS) or PDF, preserve edition in Illustrator.
- Δ Each table and figure should be submitted in a separate file (without legend).
- Δ Tables must not contain vertical or internal divisions; use only three horizontal lines. Use a 1.2 pts thickness for top and bottom line and 1.0 pts for internal lines.
- Δ Images such as pictures and maps should include a scale. For maps, include geographic coordinates and a symbol determining north.
- Δ Use units of the International System (SI).
- Δ Use white backgrounds.
- Δ Use Garamond for texts within Tables and Figures (minimum 12 points).

Within the text

 Δ Tables and Figures should be cited consecutively in the text using Arabic numerals. The first time the table or figure is referenced within the text, it should be in boldface. Text summarizing table or figure should precede the actual table or figure.

Example:

.... secondary (Table 1) and tertiary compounds observed (Figure 3).

DO NOT mention two tables or figures consecutively or a figure and a table successively.

Legends

- Δ Abbreviations and acronyms should be explained in the legends.
- Δ **DO NOT USE FOOTNOTES.** Most of this information should be included in the legend of tables and figures or in the main text of the article.
- Δ Legend titles should be abbreviated and written in bold letters (**Fig. 4** or **Table 1**).

Example:

- Fig. 2. Effect of treatments with BA and NAA, alone or combined, on organogenic response of explants from in vitro-produced shoots, derived from juvenile trees of *Cedrela montana*, after 30 days of culture. Letters indicate significant differences at p< 0.05 (Chi-square test); bars indicate mean + SE.
- Any color material published is free of charge.
- Authors are responsible for providing good, professional quality figures and tables. Any author, who does not comply
 with the results presentation guideline and creates additional work for our editorial team, may be charged for the
 additional labor.
- Permissions: To publish either in print or online, any previously published material must be accompanied by a written permission issued by the holder of economic and moral rights of the material. If no permits are submitted, the journal will assume that the authors produced all the material (e.g., figure, table) included in the work.

Supplementary material

- Δ The journal publishes supplementary material online. Supplementary material refers to tables and figures that support the publication (videos, audios, data bases) but that due to their size or technical limitations for their printing cannot be included in the main text.
- Δ These materials are mentioned in the article, numerated consecutively using Arabic numerals **Suppl. 1** in English, they must be referenced within the text.

Example:

- ... more information is available in **Suppl. 1.**
- This material must be submitted along with manuscript file; the Editorial Board reserves the final decision regarding publication.

Literature

Citing within the text:

 Δ Within the text, cite references by name and year.

Explicitly:

Perez (2013) and Rei et al. (2013) indicated that temperature is the causative factor.

Or, implicitly:

temperature will rise (Perez 2013, Rei et al. 2013, Smith & Smith 2013 a,b).

Citing articles

Gladstone W (2011) Requirements for marine protected areas to conserve the biodiversity of rocky reef fishes. *Marine and Freshwater Ecosystems* 17:71-87

Ebeling AW, Holbrook SJ, Schmitt RJ (In press) Temporally concordant structure of a fish assemblage: Bound or determined? *American Naturalist* 135(1):63-73

Remember

Ш	The name of the journal must be in full.
	If your article exceeds six authors use "et al." after the fifth.
	Do not use periods at end of citation, or between authors and paper name; do not use a space between
	volume and page numbers.
	Use the author's first name initial after surname; separate authors using a comma.
	If article has a doi place it at the end of citation (see example; search www.doi.org).

Heller NE, Zavaleta ES (2013) Biodiversity management in the face of climate change: A review of 22 years of recommendations. *Biological Conservation* 142:14-32 doi: 10.1016/j.biocon.2008.1

Book

Zar JH (1999) Biostatical analysis. Prentice Hall Upper Saddle River NJ, USA

Chapter of a book or a book published in English

Sokal RR, Rohlf FJ (1995) Analysis of variance. In: Sokal RR (ed) Biometry: the principles and practice of statistics in biological research. WH Freeman, New York, USA, pp 100-130

Doctorate Thesis

Ebeling AW (2012) Temporally concordant structure of a fish assemblage. Doctorate thesis. Faculty of Sciences, Universidad Nacional, Colombia

Web Page

Casas J (2012) El Tiempo. www.eltiempo.com. Retrieved December 15 2012 Online document, the source must be from a recognized institution in the area.

Software

Sokal R, Rohlf F (2010) Biomstat (version 3.0)

We appreciate the author first check whether the journal *Universitas Scientiarum* has previously published an article regarding the subject of the manuscript being submitted (www.javeriana.edu.co/scientiarum/ojs).

Statistical results

The text of a result must include the following information in parentheses (test used, test value, sample size and probability value):

```
(ANOVA, F_{(1,35)} = 7.65, p = 0.022) (Kruskal-Wallis test, H_{20} = 110.3, p = 0.002) (Chi-square test, X^2 = 0.53, p = 0.68) (Paired t test, t_{24} = 6.57, p = 0.08) (Spearman rank correlation, rs = 0.40, n = 22, p < 0.01) (Wilcoxon signed-ranks test, T = 7, n = 19, p < 0.05) (Mann-Whitney U test, U = 44, u_1 = 17, u_2 = 44, p < 0.02) When possible, provide the value of p in the test, even if u_2 = 110.3 (Mann-Whitney U test, u_3 = 110.3)
```

Style requirements

It is the authors' responsibility to submit grammatically correct manuscripts that are well written and properly translated.

The journal prefers the use of **ACTIVE VOICE** in English texts.

PASSIVE VOICE: "The experiment was performed to measure ..."

ACTIVE VOICE: "We performed the experiment to measure ..."

Abbreviations

Use the nomenclature adopted by the International Community of your particular field. Abbreviations should be defined the first time they appear in the text and used thereinafter to refer to the term.

Avoid the use of abbreviations in the Abstract, if possible. Excessive use of abbreviations.

Italics

Use italics only for taxonomic names.

Do not use italics for: a priori, a posteriori, versus, et al., sensu, and per se.

Equations

If the article includes equations, these must be to the left and numbered consecutively (between parenthesis, justified to the right). Use an equation editor. Within the text, the meaning of each symbol must be expressed. For example:

 $y = mx + b \quad (1)$

where y is, m the..., x is, and b ...

Footnotes

Avoid the use of footnotes.

Strict adherence to Universitas Scientiarum author guidelines is appreciated

Article Submission

Beginning January 2013, authors may submit their manuscripts online through the Open Journal System by visiting:

Open Journal System registration: www.javeriana.edu.co/scientiarum/ojs

To submit their manuscript, authors should follow these steps:

Start a NEW submittal>fill in the fields>SAVE>uploading the submission-files>SAVE>fill in author and manuscript data>SAVE>Upload supplementary files >SAVE and END submittal.

Additional files on author guidelines, authorship, Creative Commons 2.5 license and manuscript evaluation formats, among others, are available for download at Universitas Scientiarum OJS S ystem (announcement section).

http://revistas.javeriana.edu.co/index.php/scientarium/

Special cases

For taxonomic articles

- 1. The publication must be registered with ZooBank (http://zoobank.org/) to obtain an LSID. Without this, any nomenclatural action will not be valid. We also suggest, at least, new species be registered. Manuscripts without an LSID will not proceed in the editorial process. This LSID number should be placed immediately after the title.
- 2. Material examined must be cited in a section with the same name under each species; for example, "Material examined: COLOMBIA: Meta: Villavicencio, 100m, 23 Oct 2012, A. Acosta, leg., 1♀ (catalog # 2345)

(MPUJ-ENT 002345)." If more than one species is cited in this section, indicate the species before citing the material. Type specimens must be clearly identified as such before mentioning the locality. Interpolated information (for example: geographic coordinates) must be in square brackets.

- 3. Use the following abbreviations: sp. nov., gen. nov., syn. nov.
- 4. The ICZN code should be strictly followed (http://www.nhm.ac.uk/hosted-sites/iczn/code/).

	Content Checklist (this is what a	ın eval	uator will be checking for)
□ 1.	The manuscript has not been published previously.	□ 10.	The figures and tables have suitable clarity and quality.
□ 2.	The manuscript describes original work and	□ 11.	Tables and/or figures are correct.
□ 3.	presents new knowledge in the field. The title is clear and precise.	□ 12.	The author's conclusions are supported by the data.
□ 4.	The abstract accurately describes the contents.	□ 13.	The discussion is pertinent to the main theme
□ 5.	The introduction clear; it provide the background	_	of the paper.
	of the work.		The claims and interpretations are valid.
□ 6.	The problem, question and/or hypothesis is explicitly indicated.	□ 15.	The authors propose new questions/hypothesis for further studies.
☐ 7.	There are enough details presented in the Materials and Methods section.	☐ 16.	The references are complete and have been cited correctly.
□ 8.	The variables are measured with precision using	□ 17.	The references are up to date.
	the latest techniques.	□ 18.	Can the paper be improved by shortening it?
☐ 9.	Adequate data (sample size) and statistical analysis is provided.	☐ 19.	The organization, style and grammar are satisfactory.
	Complete these sheetlists hefe	40 11011	anhait vang mannagint
	Complete these checklists before Failure to follow Author Guidelines		
Gene	ral format Checklist:	☐ 19.	All authors have authorized its submittal to the
□ 1.	Manuscript is grammatically correct, well	_	journal
_	written and/or translated accurately	20	NT 0' . C' '.1 C 1'
\square 2.		□ 20.	No conflicts of interest with funding sources
☐ 2. ☐ 3.	8.5x11 with 2.5 cm margins. Unjustified	_	and institutions
☐ 3. ☐ 4.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond	□ 21. _	and institutions Article meets legal requirements (ethical, licenses, etc.).
☐ 3. ☐ 4. ☐ 5.	8.5x11 with 2.5 cm margins.Unjustified12 pts. Garamond1.5 spacing	□ 21. _	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national
☐ 3. ☐ 4. ☐ 5. ☐ 6.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w.	☐ 21. ☐ 22.	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other
☐ 3. ☐ 4. ☐ 5. ☐ 6.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends).	☐ 21. ☐ 22. ☐ 23.	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors.
☐ 3. ☐ 4. ☐ 5. ☐ 6. ☐ 7. ☐ 8.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends). I have submitted separate file with tables and figures per guidelines.	☐ 21. ☐ 22. ☐ 23. Cover	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors. Page
□ 3. □ 4. □ 5. □ 6. □ 7. □ 8.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends). I have submitted separate file with tables and figures per guidelines.	☐ 21. ☐ 22. ☐ 23. Cover	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors. Page Title does not exceed 10 words. Describes the
☐ 3. ☐ 4. ☐ 5. ☐ 6. ☐ 7. ☐ 8. Cover ☐ 9.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends). I have submitted separate file with tables and figures per guidelines. Letter Addressed to topic editor or the editor-in-chief.	☐ 21. ☐ 22. ☐ 23. Cover ☐ 24. —	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors. Page Title does not exceed 10 words. Describes the research.
□ 3. □ 4. □ 5. □ 6. □ 7. □ 8. Cover □ 9. □ 10.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends). I have submitted separate file with tables and figures per guidelines. *Letter Addressed to topic editor or the editor-in-chief. First paragraph:	☐ 21. ☐ 22. ☐ 23. Cover ☐ 24. —	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors. Page Title does not exceed 10 words. Describes the
□ 3. □ 4. □ 5. □ 6. □ 7. □ 8. Cover □ 9. □ 10. □ 11.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends). I have submitted separate file with tables and figures per guidelines. *Letter Addressed to topic editor or the editor-in-chief. First paragraph: States the contribution made or original knowledge provided.	☐ 21. ☐ 22. ☐ 23. Cover ☐ 24. ☐ 25. ☐ 26.	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors. Page Title does not exceed 10 words. Describes the research. Title is provided in language of article and English. Author names are in correct format.
□ 3. □ 4. □ 5. □ 6. □ 7. □ 8. Cover □ 9. □ 10. □ 11. □ 12.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends). I have submitted separate file with tables and figures per guidelines. *Letter Addressed to topic editor or the editor-in-chief. First paragraph: States the contribution made or original knowledge provided. Compare results, state originality.	☐ 21. ☐ 22. ☐ 23. Cover ☐ 24. ☐ 25. ☐ 26. ☐ 27.	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors. Page Title does not exceed 10 words. Describes the research. Title is provided in language of article and English. Author names are in correct format. Corresponding author is provided
□ 3. □ 4. □ 5. □ 6. □ 7. □ 8. Cover □ 9. □ 10. □ 11. □ 12. □ 13.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends). I have submitted separate file with tables and figures per guidelines. **Letter* Addressed to topic editor or the editor-in-chief. First paragraph: States the contribution made or original knowledge provided. Compare results, state originality. Describe impact.	☐ 21. ☐ 22. ☐ 23. Cover ☐ 24. ☐ 25. ☐ 26. ☐ 27. ☐ 28.	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors. Page Title does not exceed 10 words. Describes the research. Title is provided in language of article and English. Author names are in correct format. Corresponding author is provided Short running title does not exceed 6 words.
□ 3. □ 4. □ 5. □ 6. □ 7. □ 8. Cover □ 9. □ 10. □ 11. □ 12. □ 13. □ 14.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends). I have submitted separate file with tables and figures per guidelines. Letter Addressed to topic editor or the editor-in-chief. First paragraph: States the contribution made or original knowledge provided. Compare results, state originality. Describe impact. Second paragraph:	☐ 21. ☐ 22. ☐ 23. Cover ☐ 24. ☐ 25. ☐ 26. ☐ 27. ☐ 28. ☐ 29.	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors. Page Title does not exceed 10 words. Describes the research. Title is provided in language of article and English. Author names are in correct format. Corresponding author is provided Short running title does not exceed 6 words. Headers are correctly formatted
□ 3. □ 4. □ 5. □ 6. □ 7. □ 8. Cover □ 9. □ 10. □ 11. □ 12. □ 13. □ 14. □ 15.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends). I have submitted separate file with tables and figures per guidelines. **Letter* Addressed to topic editor or the editor-in-chief. First paragraph: States the contribution made or original knowledge provided. Compare results, state originality. Describe impact.	☐ 21. ☐ 22. ☐ 23. Cover ☐ 24. ☐ 25. ☐ 26. ☐ 27. ☐ 28. ☐ 29.	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors. Page Title does not exceed 10 words. Describes the research. Title is provided in language of article and English. Author names are in correct format. Corresponding author is provided Short running title does not exceed 6 words. Headers are correctly formatted Maximum 6 keywords. Listed by importance,
□ 3. □ 4. □ 5. □ 6. □ 7. □ 8. Cover □ 9. □ 10. □ 11. □ 12. □ 13. □ 14. □ 15. □ 16. □	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends). I have submitted separate file with tables and figures per guidelines. **Letter* Addressed to topic editor or the editor-in-chief. First paragraph: States the contribution made or original knowledge provided. Compare results, state originality. Describe impact. Second paragraph: Manuscript is unpublished Not being evaluated simultaneously in another journal	☐ 21. ☐ 22. ☐ 23. Cover ☐ 24. ☐ 25. ☐ 26. ☐ 27. ☐ 28. ☐ 29. ☐ 30.	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors. Page Title does not exceed 10 words. Describes the research. Title is provided in language of article and English. Author names are in correct format. Corresponding author is provided Short running title does not exceed 6 words. Headers are correctly formatted Maximum 6 keywords. Listed by importance, separated by ";", lower case.
□ 3. □ 4. □ 5. □ 6. □ 7. □ 8. Cover □ 9. □ 10. □ 11. □ 12. □ 13. □ 14. □ 15. □ 16. □ 17.	8.5x11 with 2.5 cm margins. Unjustified 12 pts. Garamond 1.5 spacing Headers are correctly formatted I have submitted text, tables and figures (w. legends). I have submitted separate file with tables and figures per guidelines. **Letter* Addressed to topic editor or the editor-in-chief. First paragraph: States the contribution made or original knowledge provided. Compare results, state originality. Describe impact. Second paragraph: Manuscript is unpublished Not being evaluated simultaneously in another	☐ 21. ☐ 22. ☐ 23. Cover ☐ 24. ☐ 25. ☐ 26. ☐ 27. ☐ 28. ☐ 29. ☐ 30.	and institutions Article meets legal requirements (ethical, licenses, etc.). Include three international and one national reviewer State any conflicts of interest with other authors. Page Title does not exceed 10 words. Describes the research. Title is provided in language of article and English. Author names are in correct format. Corresponding author is provided Short running title does not exceed 6 words. Headers are correctly formatted Maximum 6 keywords. Listed by importance,