

***Florida Scientist* - Instructions for Authors**

Purpose and Scope

The *Florida Scientist* (ISSN #0098-4590) is a multidisciplinary scientific journal published quarterly by the Florida Academy of Sciences, Inc. a non-profit scientific and educational association. Membership is open to individuals or institutions interested in supporting science in its broadest sense.

The *Florida Scientist* publishes original Research papers, short communications, perspectives, colloquium papers, invited book reviews and invited research reviews on topics within the scope of the Florida Academy of Sciences (viz., Agricultural and Natural Resources, Anthropology, Atmospheric and Oceanographic Sciences, Biological Sciences, Computer and Mathematical Sciences, Conservation, Environmental and Chemical Sciences, Geosciences, Medicine, Physics and Space Sciences, Social Sciences, and Science Teaching). Contributions from these fields will be considered that present new applications of scientific knowledge to practical problems within the fields of interest to the Academy, and papers are not required to be of regional origin.

Research Articles present the results of original research. Research articles should contain (in the following order) an Abstract (200 words), Introduction, Materials and Methods, Results, Discussion, Acknowledgements, References, Tables, Figure Legends, and Figure files. There are no length limits for research articles (please see Guide for Authors below regarding page charges).

Forum contributions on published papers in the *Florida Scientist* will be considered by the editor and published after consultation or peer review. Such manuscripts should be as brief as possible, but can be up to 1000 words including references. A rebuttal by the original author(s) may also be solicited and published alongside the Comment.

Short Communications are brief, concise reports on current research, preliminary findings of an important nature, or new techniques. Short communications exclude an abstract, and results and discussion are typically combined. The length of short communications is limited to 2500 words (including references) and a maximum of 3 tables or figures (combinations thereof).

Colloquium papers report new information presented as part of scientific colloquia held under the Florida Academy of Sciences. These should follow the general format for research articles.

Book reviews are brief (2500 words), scholarly evaluations of recently published books and monographs of interest to members of the Academy. The Editor generally solicits book reviews, though proposals to review a specific book will be considered.

Research reviews are accepted by invitation of the Editor. Reviews can focus on topics of interest to the Academy. Authors not solicited to write reviews are welcome to contact the editor to discuss their proposed review.

The *Florida Scientist* is indexed on: Ageline, Animal Behavior Abstracts, Aquatic Sciences and Fisheries Abstracts, Biological Abstracts, Biology Digest, BIOSYS Previews, CSA Sustainability Science Abstracts (Cambridge Science Abstracts), Chemical Abstracts, EBSCO host, Ecology Abstracts, Entomology Abstracts, Environmental Engineering Abstracts (online), Environmental

Sciences and Pollution Management, FISHLIT, Georef, Oceanic Abstracts, Pollution Abstracts, Proquest, Referativnyi Zhurnal, Speleological Abstracts, Water Resources Abstracts, Wildlife Review Abstracts, and Zoological Record.

Back issues of the *Florida Scientist* are available on the Biodiversity Heritage Library (<http://www.biodiversitylibrary.org/>) through vol. 68 (2005) and JSTOR from vol. 1 (1936) to 1 year ago. Articles in vol. 69 (2006) to 1 year ago can be accessed digitally through Proquest Biological Sciences Collection, or EBSCOhost. Alternatively, back issues can be requested from the journal business manager at \$6 per issue.

Editorial Policies

Read this before submitting your paper! Manuscripts that demonstrate that these instructions were not followed will be returned without review.

The Florida Academy of Sciences subsidizes the publication of the *Florida Scientist* for current individual members. Please read the journal business policies for additional details on publication charges, the link to which is located below ‘instructions for authors’ on the website (fas.fit.edu)

The *corresponding* author of a manuscript to the *Florida Scientist* must be a member-in-good-standing of the Academy from the time of submission through to its acceptance for publication, excepting manuscripts for special publications for which membership rules have been suspended by Council. Failure to maintain membership through the entire process will result in loss of the privilege of ten free pages per volume. Other authors on a manuscript may also hold membership, but pages of the published article are equally attributed to them as well as to the corresponding author. Please see the FAS journal business policies for more details on publication fees (<https://fas.fit.edu/florida-scientist/instructions-for-authors/>).

Submission of a manuscript implies that the content is not previously published, that it is not under consideration for publication elsewhere, and will not be submitted elsewhere until a decision is made. If it is accepted, the results will not be published elsewhere in English or any other language without written permission of the Academy’s representative.

Once submitted, all papers undergo pre-review and peer-review.

Pre-review: The editor examines each manuscript for its appropriateness for the *Florida Scientist*. Papers that are not formatted correctly, that provide a purely descriptive insight, or that contribute no new information, or that lack any formal objective, hypothesis, or a clear statement of purpose (or that include these but fail to demonstrate how any objective was examined) will be returned. This ultimately saves everyone time and aids in increasing the quality of the work published by the *Florida Scientist*. The pre-review is based on the following:

- 1) The paper fall within the scope of the Florida Academy of Sciences
- 2) The paper appropriately formatted for the *Florida Scientist*
- 3) That the research article is not entirely descriptive, observational, or preliminary in nature (short communications that are primarily descriptive will be considered on case by case basis)

The *Florida Scientist* utilizes iThenticate to identify possible missing citations, or other mistakes that would be interpreted as plagiarism. Severe cases will be returned without review.

Peer-review: Papers are subsequently reviewed by two or more independent referees and the editor. Peer-review is required for publication. Decisions on papers are then classified as one of the following:

- 1) Minor revision—the paper is provisionally accepted subject to any conditions that need to be addressed.
- 2) Major revision—the paper needs major changes and will likely go through re-review by the same reviewers or new one chosen by the editor. There is no guarantee of acceptance.
- 3) Decline without prejudice—the paper can be resubmitted though the new version would need to be dramatically re-written.
- 4) Reject—the paper will not be considered further.

Those who do research involving human subjects, and/or animal subjects at risk and/or under federal protection are expected to obtain pertinent permissions from the Human Subjects Research Committee or from the Institutional Animal Care and Use Committee (Michigan State University's Law School provides a listing of federal and state statutes that govern care of captive animals, collection of specimens, and protection of endangered species:

<http://www.animallaw.info/>

GUIDE FOR AUTHORS

Submission of Papers

All submissions should be emailed to the editor, Dr. James Austin (fl.sci.editor@gmail.com).

Each submission should include:

- 1) A cover letter that includes a statement on why the manuscript is of interest to the Florida Academy of Sciences, and two or three suggested professional referees, with their affiliation. Here authors may also list non-preferred reviewers. In addition, a statement indicating that the corresponding author is current in their FAS membership (if in doubt, check with the office (flacademyofsciences@gmail.com)).
- 2) A single Word document file that includes the main text, tables, list of figures and their captions, and appendices, and the figures embedded in the word document. Please note that upon acceptance separate file(s) for each figure, and a veriFig report (see detailed instructions below) will be required.

If the e-mail submission is not acknowledged within three business days, the submission may not have been received. Please advise the Editor in an attachment-free note.

Manuscript Preparation

General The *Florida Scientist* is read by a broad audience and authors should strive for clarity and write with a general scientific audience in mind.

- All material—including the title, authors' names, addresses, abstract, text, references, tables, and figure captions—must be double-spaced.

- All margins should be 3.0 cm.
- Number all pages through the references section.
- Include consecutive line numbers in the left margin.
- Tables must be on separate pages, not inserted in the main text.
- Figure captions must be listed together on a separate page.
- Figures should follow the list of captions in consecutive order (do not embed the figures within the main text of the article).

Length There is no page limit to manuscripts submitted to the *Florida Scientist*. Corresponding authors who are members in good standing with the Florida Academy of Sciences will receive the first 10 typeset manuscript pages free, and will accrue page charges (current rate is \$65 per page) for pages in excess of 10 typeset pages (not 10 manuscript pages). In general, one typeset page = 0.66 x manuscript page where the latter is equivalent to a double-spaced, 12 point font, 2.5 cm margin Microsoft Word document page. This formula does not incorporate the addition of tables and figures. Authors who are not members of the Florida Academy of Sciences in good standing will be responsible for all page charges.

Manuscript Order

Cover Page The cover page should include the category, title, author(s) and affiliation information, corresponding author information and running head:

Category You must provide the appropriate category identifier in the top left corner of the first page. These include: Agricultural and Natural Resources, Anthropological Sciences, Atmospheric and Oceanographic Sciences, Biological Sciences, Computer Sciences and Mathematics, Engineering, Environmental and Chemical Sciences, Florida Committee on Rare and Endangered Plants and Animals, Geosciences, Medical Sciences, Physics and Space Sciences, Science Teaching, and Social Sciences.

Title: The title should be short, but specific and detailed enough to give the reader an idea about the investigation and the outcome. Kindly keep the length of your article title to less than 20 words. Only the first letter of the first word and proper nouns are capitalized.

Author affiliation Include department, institution and complete address for each author. Use superscripts to match authors with institutions. Mailing addresses will appear in print.

Corresponding author The corresponding author should be identified with a superscript and the following information included on the cover page: “Corresponding author: name, email address”

Running head A brief short title must be provided, which will be used for the header on alternate pages. Limit the running head to 30 characters (not including authors names)

The second page of the manuscript should include the abstract (if required) and keywords,

followed by the main text:

Abstract Most modern databases contain only abstracts; thus, writing complete and concise descriptions of your work in your abstract is essential. Include the salient points of the manuscript (e.g., motivation; question, hypothesis or problem statement; approach; results; and, conclusion). Avoid abbreviations and citing references within the abstract (where necessary, references should be cited in full in the abstract, and must also be present within the body of the text). The abstract is limited to 200 words.

Key words Include up to six keywords in alphabetical order below the abstract. Key words should be specific to your field and accurately represent the content of your manuscript.

Main Text

- Section titles are used (e.g. **Introduction, Materials and Methods, Results, Discussion, References**). These titles are bold and on separate paragraphs. Include **Acknowledgments** at the end of the Discussion and before the References. The acknowledgments will include the funding source for the research conducted.
- Paragraphs are indented throughout manuscript, with the exception of paragraphs at the start of sub-sections. Sub-section titles may be used but are not required – they should be bold text, left-justified, brief, and precede the first sentence of the sub-section.
- Figures are referred to as “Figure 1” in the text and captions. Tables as “Table 1”
- Use metric units for all measurements.
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- One space should be inserted between sentences (not two).
- Cities and counties are followed by the state acronym (e.g., FL).

References In the text, refer to the author’s name and year of publication: “since Smith (1923) has demonstrated...” or “This is in agreement with subsequent observations (Jones and Webster 2001).” For three or more authors: “Since Smith et al. (1991) reported...” or “because of more recent observations (Smith et al. 2001)...” Multiple citations should be listed in chronological order, separated by a comma, then alphabetically for the same year.

- Personal communications should be used minimally. These are not included in the References section, but are included in the body of the manuscript, and should include the date and affiliation of the expert.
 - E.g., “Earlier versions of the software calculated linear regressions incorrectly (pers. comm. P. Brainiac, University of Tasmania, January 5, 2011).”

Tables Tables should be on separate pages. Captions and footnotes should be outside of the table body. Table captions should be limited to a brief description of the contents. Explanatory information should be included in the footnote only. Do not use vertical rulings. Do not include any empty rows or columns. Do not use any shading, bold or italics. Maximum character width, including spaces, of tables is 98.0, which includes a minimum

space of five characters between columns. Tables should be created using the Word table tool.

Figure Captions Figure captions must be listed together on a separate page and double-spaced. Ensure figures are numbered in the order they are referred to in the text.

Figures

Put the figures at the end of the article in the word document with the initial submission (i.e. do not provide as separate files). Authors are expected to submit publication quality figures along with the Allen Press veriFig™ report (see below) before final acceptance. Authors are strongly recommended to follow these guidelines to prevent delays in publication:

- Ensure uniform lettering, font, and font size within figures.
- Use Times Roman font for figure labeling, and embed fonts if possible.
- Ensure that the font sizes are appropriate, taking into consideration the size of the printed page (see below)
- Size the illustration to fit on a printed page with maximum dimensions of 6 x 9 inches.
- Utilize the Allen Press veriFig™ tool; a web-based application that allows authors to quickly determine if digital images are correctly prepared according to specifications required by Allen Press. This tool is free and accessible at <http://verifig.allenpress.com/login>. To login, enter your email and the password “figcheck”. Additional help is available on the veriFig™ webpage. Figure files may be in the following formats .pdf, .bmp, .eps, .gif, .tif, .png, .ai, .psd.
- *Color illustrations:* When color printing is desired, the author is encouraged to check with the *Florida Scientist Business Manager* to obtain an estimate of the cost that will be charged to the author.
- Permission to use published photos must be provided at the time of submission

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We highly recommend authors carefully proofread their final submission because alterations other than changes to typesetting errors will be charged to the corresponding author at a varying rate of \$3 to \$4 per correction (depending on Allen Press’ charges to the Florida Academy of Sciences). Proofs of accepted manuscripts will be sent to the corresponding author and should be returned to the editor within 48 hours of receipt.

Reprints

The corresponding author will receive a free PDF of the article after publication. Please refer to

the journal business policies (<https://fas.fit.edu/florida-scientist/instructions-for-authors/>) for proper use of the PDF. Paper reprints are no longer offered by Allen Press.

Reference Style Guide

Please follow the format below as closely as possible. Note that beginning in 2014 (volume 77) Florida Scientist will have a new format – do not use published volumes as formatting guides.

Notes:

- Spell out all journal and press names in the literature cited.
- Page numbers immediately follow colon (no space) and are separated by an en dash
- List volume number, do not include issue number.
- Documents, software, etc. obtained online must include the date accessed and the web site.
- Personal communications should be used minimally. These are not included in the References section, but are included in the body of the manuscript, and should include the date and affiliation of the expert.
 - E.g., “Earlier versions of the software calculated linear regressions incorrectly (pers. comm. P. Brainiac, University of Tasmania, January 5, 2011).”

Journal articles:

Beaver JR III, Crisman TL, Bays JS. 1981. Thermal regimes of Florida lakes. *Hydrobiologia* 83:267–273.

Cespuglio G, Piccinetti C Jr, Longinelli A. 1999. Oxygen and carbon isotope profiles from *Nassa mutabilis* shells (Gastropoda): accretion rates and biological behavior. *Marine Biology* 135:627–634.

University or other Press Publications:

Shannon CE, Weaver W. 1949. *The Mathematical Theory*. University of Illinois Press, Urbana.

Edition of book:

Hill JW. 1984. *Chemistry for Changing Times*. 4th ed. Burgess, Minneapolis.

Robertson W Jr. 1988. American swallow-tailed kite. Pp. 109–131 in Palmer RS, ed. *Handbook of North American Birds, Volume 4*. Yale University Press, New Haven.

Thesis/dissertation:

Bleik CR. 1973. The Low-down on the High-ups of the Middle Ionian Period. Ph.D. dissertation. Florida State University. Tallahassee.

Unpublished/technical reports:

Gopher Tortoise Management Plan Team. 2007. Gopher tortoise management plan, *Gopherus polyphemus*. Florida Fish and Wildlife Conservation Commission, Tallahassee.

Fitzpatrick JW, Woolfenden GE, Kopeny MT. 1991. Ecology and development-related habitat requirements of the Florida scrub jay (*Aphelocoma coerulescens coerulescens*). Florida Game and Fresh Water Fish Commission. Nongame Wildlife Program Technical Report No. 8, Tallahassee.

Internet items:

Smith J. 2009. Father Sanchez's Web Site of Western Indian Natural History. (updated 9/13/2007). <http://www.kingsnake.com/westinmdian/>. Accessed: October 20, 2007.

1 Biological Sciences

2 **Microsatellite variation reveals incomplete diploidization in**
3 **Gulf of Mexico sturgeon**

4 **John Hargrove⁽¹⁾, Emily V Saarinen⁽²⁾, and James D Austin⁽¹⁾**

5

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12 Running head: Microsatellites and ploidy of sturgeon

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21 **Abstract** Several important questions regarding the evolutionary history of sturgeon remain
22 unanswered, including the relationship between chromosome number and ploidy level. The
23 Gulf of Mexico sturgeon (*Acipenser oxyrinchus desotoi*), currently listed as “threatened” under the
24 U. S. Endangered Species Act, is an anadromous fish found along the United States Gulf
25 Coast and its associated rivers....

26 **Keywords** Acipenseridae, chromosome, conservation genetics, re-diploidization

27 **Introduction**

28 Few freshwater fishes are as enigmatic as the sturgeons (Acipenseridae). Sturgeon
29 stocks have declined worldwide as a result of overfishing and habitat degradation (Billard
30 and Lecointre 2001), and currently there are 25 species of sturgeon listed on the IUCN
31 “Red list” of threatened species (IUCN 2012)...

32 **Materials and Methods**

33 Methods for microsatellite development, fish source, and pyrosequencing are
34 described in Molecular Ecology Resources Primer Development Consortium et al. (2011).
35 The library was sequenced on a single one-eighth GS-FLX titanium run (454 Life Sciences,
36 Roche, Brandford, CT) resulting in approximately 1700 available markers, from which 41
37 loci (13 di-, 13 tri-, and 15 tetra-repeats) were screened for variation.

38 **Genotyping and statistical analysis.** All primer pairs were screened on 26 fin-clip
39 extractions collected from...

40 **Results**

41 Polymorphic markers (described in Molecular Ecology Resources Primer
42 Development Consortium et al. 2011) were classified into two groups, functionally diploid

43 (n 5 15) and functionally tetraploid (n 5 10), based on the presence of one to two, or three to
44 four allele peaks per sample, respectively (Figure 1). Of the loci having three or four peaks
45 per individual all had repeat values that reflect expected stepwise mutations of
46 microsatellites (Table 1)....

47 **Discussion**

48 The presence of apparently tetrasomic loci was unexpected given the general
49 consensus that the Atlantic sturgeon and, hence, Gulf sturgeon are members of the 120-
50 chromosome clade...

51 **Acknowledgments** Funding for the microsatellite development came from NOAA-
52 NMFS Protected Resources Division, St. Petersburg, Florida.

53 **References**

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60 Species, version 2012.2. [www.iucnredlist.org; accessed on December 19, 2012]

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