

ABSTRACT PREPARATION INSTRUCTIONS

Please read through all of the Abstract Preparation Instructions before typing your abstract. Abstracts that do not conform to the required format will be returned to you for revision.

Instructions for “Submission of Abstracts” to Section Secretaries is provided subsequently (page 3). Upon receipt, the Section Secretary will verify that the abstract format is correct. If not, the Section Secretary will request that the abstract be revised and resubmitted. Subsequently the Section Secretary and/or Editor will confirm that the oral presentation or poster presentation was presented during the Annual Meeting.

REQUIRED ABSTRACT FORMAT

1. Open a Microsoft Word document and set the margins to 1 inch left and right, 1 inch top and 7.25 inches bottom. **NOTE:** Older versions of Word (*.doc) have a default of 1.25” for the left and right margins. Reset this from the File menu, Page Setup. Newer versions of Word (*.docx) can be set from the “Page Layout” tab.
2. The file must be in **10 point** Times New Roman or Century Gothic.
3. Single space throughout, leaving no space at the top or left. (Full justification is preferred for best appearance.) The entire abstract should be **one single paragraph**.
4. Start with the title. Capitalize the entire title (**do not bold**). Place a period after the title and enter 2 spaces. **Do not** press the return to start a new line. Start typing the authors’ names.
5. Type in the AUTHOR’S NAME(S), first name, initial, last name. If there are two authors, separate names with “&”. In the case of more than two authors, separate the names with a comma, separate the last two with &; end with a comma and one space. If there are two or more authors, underline the presenting author’s name. **Do not** press the return to start a new line.
6. Institutions(s) follow the author names directly for one and two authors. In case of more than two authors with different institutions, place all author names together first, followed by all institutions in the same order; if necessary, key author to institution by a superscript number. Place a period after the institutions are listed and enter 2 spaces. Do not press the return to start a new line. See example below.
7. Immediately after the institutions, start the text of the abstract. DO NOT start text on a new line. Do not indent first line. Use one paragraph for entire text. Do not put any reference citations in the abstract. Put all taxonomic names in *italics*.
8. Abstracts which merely describe a proposed study and do not provide actual results will **not** be accepted for publication.
9. If a grant source was used, it *must* be acknowledged, place at end of text without a new paragraph.

EXAMPLES

EXAMPLE - SINGLE AUTHOR

HABITAT PREFERENCE OF THE SPOTTED TURTLE (*CLEMYS GUTTATA*) IN NORTHEASTERN ILLINOIS, USING THE WALLER-DUNCAN MULTIPLE COMPARISONS PROCEDURE. Thomas P. Wilson, Dept. of Biol., George Mason Univ., Fairfax VA. 220304444. A long term ecological study of the spotted turtle, *C. guttata*, began in 1992 and extended into 1994, additional data were collected in 1997 to 1998. Radio-telemetry and hand capture techniques were employed to collect data on habitat usage and site fidelity. Eight adults were radio tracked in 1992-1994. Spotted turtles often shifted habitats daily, as well as, seasonally. Johnson's habitat preference index indicated that the most preferred habitats were wet dolomite prairie and graminoid fen for the home range area(s) and study site, respectively. Least preferred habitats were dry mesic dolomite prairie and successional-cultural for the home range area(s) and study site, respectively. The Waller-Duncan multiple comparisons procedure was used to test for significant differences in habitat preference ($\alpha=0.05$). A significant difference was determined between the cattail marsh and wet mesic dolomite prairie for home range data. Successional-cultural habitat was shown to be significantly different from the following habitats: mesic dolomite prairie, wet mesic dolomite prairie, cattail marsh, sedge meadow, and graminoid fen. It appears that open low stature habitats (i.e., wet & mesic dolomite prairie) in juxtaposition with closed high stature habitats (i.e., cattail marsh, sedge meadow, & graminoid fen) are the preferred habitat for this turtle in Illinois.

EXAMPLE - TWO OR MORE AUTHORS, SAME INSTITUTION

EVOLUTIONARY RELATIONSHIPS IN *ORYZA* INFERRED FROM THE PROLAMIN (SEED STORAGE PROTEIN) GENE. Irene M. Boyle & Khidir W. Hilu, Dept. of Biol., Va. Polytechnic Inst. & State Univ., Blacksburg VA 24061. *Oryza* encompasses two cultivated and approximately 20 wild species. Rice is a socioeconomically important crop; it feeds more people worldwide than any other crop and is second only to wheat in terms of worldwide crop production. Seventeen of *Oryza* species are delineated into the diploid genomes A, B, C, E, F, and the polyploids BBCC and CCDD while five species contain unidentified (?) genomes. Cultivated *O. sativa* and *O. glaberrima* contain the AA genome. Sequences of the gene encoding the 10 kDa prolamins were used in a cladistic study to examine the phylogeny of *Oryza* with *Phyllostachys aurea* as an outgroup. *Oryza meyeriana* (?)(Philippines), *O. granulata* (?)(Laos), *O. australiensis* (EE)(Australia), and *O. brachyantha* (FF)(Cameroon), all geographically diverse species, represent the most basal lineages. Species containing a CC genome (CC, BBCC, CCDD) plus *O. punctata* (BB) form a lineage. Within the latter lineage, *O. minuta* (BBCC) forms a clade with *O. rhizomatis* (CC) possibly arising through concerted evolution. A strongly supported clade emerged containing *O. punctata* (BB) and species of the South American-endemic CCDD genome. Species relationships were not resolved within the AA genome. (Supported by: Sigma Xi Grant-in-Aid of Research, The Virginia Academy of Science, and the Graduate Research Development Project [GRDP], Va. Polytechnic Inst. & State Univ.).

EXAMPLE - TWO OR MORE AUTHORS FROM DIFFERENT INSTITUTIONS

SKELETAL MUSCLE MAY INTERACT WITH VASCULATURE THROUGH O-GlcNAc TRANSFERASE (OGT). Joel A. Brenny¹, Emily R. Berguson¹, Dr. David E. Gerrard², Dr. Hao Shi² & Dr. Pei Zhang¹, ¹Department of Biology and Chemistry, Liberty University, Lynchburg, VA, 24502 and ²Department of Animal and Poultry Sciences, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061. Cellular communication can occur through post-translational modification, the modification of proteins by enzymes such as O-linked N-Acetylglucosamine Transferase (OGT). OGT adds an N-acetylglucosamine (O-GlcNAc) moiety to a serine or threonine residue of the protein. O-GlcNAcylation is important because it can affect various functions of proteins. O-GlcNAcylation is also implicated in metabolic syndromes such as diabetes. At the center of metabolism, vasculature not only distributes nutrients and metabolites, but also actively interacts with surrounding tissue and remodels itself in response to physiologic and pathophysiologic stimuli. Many myokines, secreted by muscle cells, are involved in inflammation, and could be markers of vascular disease such as atherosclerosis. Using an OGT skeletal muscle knock-out murine model, we are examining the effects of OGT on vasculature with the goal of identifying basic mechanisms underlying interactions between skeletal muscle and vasculature. This study may shed new light on heterocellular metabolism and present new therapeutic potential for metabolic syndromes.

ABSTRACT SUBMISSION INSTRUCTIONS

Unless an earlier draft of abstracts is requested by your Section's Secretary, **all abstracts must be submitted by email to the appropriate Section Secretary by the Abstract Submission Deadline – Monday, May 15, 2017.**

Each section's Secretary and/or Editor will subsequently review all submitted abstracts for proper format and may request revisions of the abstracts. The Section Secretary will also verify that the presentation (oral or poster) was actually presented at the 2017 Annual Meeting at VCU. Only abstracts of those oral and posters presentations actually presented at the *Annual Meeting by Academy Members, in "good standing" (i.e., paid dues for current year)*, will be published in the Proceedings issue of the Virginia Journal of Science.

The following VAS Sections plan to plan to participate in the Oral Presentation and/or Poster Presentation Sessions at the 2017 Annual Meeting at VCU. Each of the section secretaries will be responsible for receiving the abstracts for his/her section's Oral and Poster Presentations by the May 15, 2017 deadline.

Agriculture, Forestry, & Aquaculture: Edward Sismour, esismour@vsu.edu

Astronomy, Math, & Physics: Joseph Rudmin, rudminjd@jmu.edu

Biology with Microbiology & Molecular Biology: Michael Price, msprice@liberty.edu

Biomedical & General Engineering: Lauren Griggs, griggsla@vcu.edu

Botany: Marion Lobstein, mblobstein@earthlink.net

Chemistry: Thomas Devore, devoretc@jmu.edu

Computing, Data Science & Statistics: (proposed new section) Robert Marmorstein, marmorsteinrm@longwood.edu

Education: Deborah Neely-Fisher, dneely-fisher@reynolds.edu

Entomology: Kal Ivanov, kal.ivanov@vmnh.virginia.gov

Environmental Science: Chris Labosier, labosiercf@longwood.edu

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Psychology: Scott Hinze, shinze@vwc.edu

Structural Biology, Biochemistry & Biophysics: Randall Reif, rreif@umw.edu

NOTE: If abstracts are not received by the appropriate Section Secretary by the Abstract Submission Deadline (May 15, 2017), they will not be published in the *Virginia Journal of Science*.