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PUBLICATION IN THE JOURNAL OF CRUSTACEAN BIOLOGY

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A B S T R A C T

To facilitate submissions to the Journal of Crustacean Biology, we offer guidelines to provide some structure and advice to potential authors. Science is intrinsically fascinating, but scientists need to present their results in a way that conveys that fascination. Above all, JCB seeks submissions of interesting and readable papers with a strong evolutionary slant or other added value that maximizes their likely audience. The submission, review, and editorial process should facilitate this goal.

KEY WORDS: formats, guidelines, standards, styles

INTRODUCTION

The Journal of Crustacean Biology (hereafter JCB) has undergone some changes in recent years. A new quarto size format was adopted in 2005. The organization of issue contents has been improved, volumes now come in distinct colors for ease of identification and retrieval on a bookshelf, and we have speeded up the processes of submission/review/revision/production by placing the entire editorial operation on-line with AllenTrack [jcb.allentraack2.net]. The latter has been a critical step forward since the Board of Associate Editors now has a more active role in journal operations.

JCB has not altered its mission, however. It still aims to provide:

- complete coverage of the field of carcinology
- the highest possible quality of scientific contributions
- relatively quick publication
- a high technical standard of presentation

In 2006, we received some 120 submissions to the journal under the old paper-and-post system. Turn-around under this old system from submission to acceptance varied from 3 months to 10 months, with an average of a little over 4 months. In 2007, we have had close to 130 on-line submissions under the new system. Turnaround from submission to acceptance is running from 3 weeks to 9 months, with an average of around 2 months. [*Regrettably, the weakest links in the process still remain slow reviewers and sometimes even slower revisions by the authors - see below.*]

This is a lot of science to sort through. For one reason or another, we currently end up rejecting around 25-30% of what comes in. We believe the time has come to make clearer what the editors look for when sifting through the received submissions.

However, we also now want to focus on improving article content. The journal already has a solid reputation in carcinology and zoology in general, and submissions are coming in from all over the world. Most of our authors live outside of North America. Our Impact Factors are good. In striving to further improve content, we seek to have the journal reflect the latest advancements in the field with well-written articles that appeal to a broad spectrum. We owe this to our authors as well as our readers.

Hence, to better guide the carcinological community for what we would like to see more of in JCB, we offer the following guidelines.

STYLE AND FORMAT

The style and format of submissions is important. When submissions are in the correct format and employ journal style, it not only makes the job of the editorial staff easier, but also facilitates the process of review. Sometimes we have to send submissions back to authors to be put into proper journal format. These guidelines are presented here in JCB's format and are actually offered as a model, but consultation of any recent issue of the journal will provide additional models that should be followed faithfully.

Along these same lines, the use of correct English is mandatory. The English language is marvelously tolerant of different styles and expressions, and the editors appreciate that different authors have different ways of expressing themselves. Nonetheless, there are basic rules that must be followed. If English is not the native language of the authors, then they should have some person competent in English look over the text. In addition, telegraphic style in descriptions must be both consistent in form and comprehensible in syntax. The editors do not mind undertaking minor editing when preparing submissions for publication, but we do not have the time to completely re-write papers. More often than not we simply will return manuscripts to authors that require fixing before reviews will be undertaken. Hence, attention to the English before submission will actually speed the handling of articles.

#### GUIDELINES FOR SUBMISSION CONTENT

##### Regular Issues of the Journal

We outline here the various areas in which we publish. We also cite publications from recent issues of *JCB* as well as some other publications that provide good examples of what we seek in a submission.

**Review Papers.**—We invite submission of articles, including comprehensive overviews of advances in methodology in the subject areas below, cross-taxa reviews of advances in particular biological processes, and significant overviews of particular organismal groups relative to their systematics, ecology, or comparative physiology. Olesen (2007) is a recent example of the latter. Potential authors of review pieces should discuss their ideas with either the editor, or an appropriate associate editor before preparing a manuscript in order to confirm the appropriateness of the topic and fix the scope of the review. If well written, a review paper will be published in the next issue after the date of its acceptance.

**Special Sections.**—Groups of authors can submit related papers on a coordinated subject, e.g., identifying individuals (Gallardo-Escárate et al., 2007; Gosselin et al., 2007), and remipede biology (van der Ham and Felgenhauer, 2007; Wollermann et al., 2007). The editorial staff believes there is synergy to be had from publishing such papers together. Hence, we encourage coordinated submissions.

In addition, an adequate knowledge and appreciation of crustacean biology often involves the biology of related or associated non-crustacean taxa, e.g., pycnogonids (Schram and Newman, 2007), xiphosurans, or non-crustacean parasites of Crustacea (Shields and Segonzac, 2007). The editors of *JCB* do not discriminate against non-crustaceans.

**Anatomy and Functional Morphology.**—A sound understanding of crustacean form and function provides the foundation for the science as a whole. We look for papers in this field that: 1) serve to provide fresh insight into crustacean morphology (Richter and Kornicker, 2006); 2) utilize modern imaging techniques of scanning and transmission electron microscopy as well as the diverse new ways for optical imaging (Mayer et al., 2008); and 3) above all in the discussion of such observations seek to point out

why such data are important in an evolutionary or developmental context (Drumm, 2005; Maruzzo et al., 2007). Rather than simply cataloguing minutiae, authors should tell the reader why their discoveries are important towards understanding the evolution or functioning of crustaceans.

**Behavior.**—The science of ethology is a tricky one. It is a field that all too often consists of anecdotal observations and ad hoc explanations derived from a priori assumptions. Rather than this, we look for submissions in the behavioral sciences that: 1) record observations on living material for groups or taxa that have not heretofore been examined (Koenemann et al., 2007); or 2) place observations in some context that reflects our understanding of form and function, as well as evolutionary consequences for survival of the species (Kitaura and Wada, 2006). To these ends, authors should reconsider Niko Tinbergen's questions when structuring the format of their submission to the journal, e.g., Dolan and Butler (2006), Seidel et al. (2007). Proximate questions concerning mechanisms underlying behaviors (neural, hormonal, and genetic) should be mindful of the environmental conditions under which organisms actually live, rather than the typical, more sterile conditions found in laboratory experiments. Ultimate questions should focus on examining the evolutionary history or survival consequences of the behavior. By remaining true to this questioning scheme, the science of behavior becomes a more rigorous discipline in an experimental framework, and we wish to encourage more submissions that adhere to such a framework.

Furthermore, when this occurs, additional standards (Wenner, 1989; Wenner and Wells, 1990) must apply: 3) are the observations conducted in a rigorous manner that provides adequate controls? and 4) do such controls strive to test multiple alternative hypotheses against each other? In other words, we want to see conclusions about how specific behaviors contribute to long-term survivability and evolution of crustaceans that are well substantiated, and/or about what particular mechanisms are influencing crustacean behavior at any particular stage of ontogenetic development.

**Ecology.**—We currently receive more submissions in this field than almost any other, except for those in taxonomy and systematics. Many of these manuscripts are descriptive. This may sometimes be appropriate, since basic descriptive ecology or life-cycle information is lacking for many groups. Scinto et al. (2007) is an example, dealing with life history in amphipods. If an author submits a descriptive ecology paper, we would expect that the uniqueness of the observations would be clearly discussed.

However, the field of ecology has moved on from pure description some time ago. Consequently, we are especially interested in papers that: 1) explore the tolerances and responses of crustaceans to variations in abiotic and biotic components of their environment (Flinders and Magoulick, 2007); 2) investigate the molecular basis of ecological processes by using molecular markers that link individuals with populations and metapopulations from larval to adult stages of the life cycle, and by interpreting nucleotide changes (within or among species) at the geographical level to provide some sense as to how differences in environments

influence such changes; 3) conduct experiments with crustaceans under environmental and nutritional conditions that are properly controlled (Gavio et al., 2006); 4) provide a clear and well-organized analysis of the physiological and ecological potential of individuals, populations, and species (Orensanz et al., 2007; Shuster and Arnold, 2007); or 5) present experiments that plumb the role of crustaceans in community structure for both top down (predator effects) and bottom up (resource limitation) effects for structuring of crustacean communities (Steneck, 2006; Sato and Goshima, 2007).

Moreover, we expect that ecological papers should be based on a conceptual framework that allows for hypothesis-driven experiments where data can be effectively analyzed with appropriate techniques that will: a) establish that the results are not due to chance; and b) establish and evaluate multiple alternative hypotheses to explain the results rather than fall into the pitfalls associated with non-hypothesis driven work that resorts to mere speculation. We also would welcome submissions that employ ecological modeling and computer simulations in the realms of population genetics and ecological genome research, chemical ecology, and behavioral ecology.

**Larvae and Development.**—JCB is no longer particularly interested in publishing papers that only describe larval anatomy from laboratory-reared sequences and illustrate them with line drawings. There are other journals that are eager to handle such papers. The only such papers along these lines that we would entertain would: 1) deal with particularly important economic or phylogenetic species that have not been studied before (Goldstein et al., 2008); 2) have a clearly stated relevance to economic and/or phylogenetic applications (Rice and Tsukimura, 2007); and 3) and contain some SERIOUS attempt to demonstrate #2. Papers that employ SEM appropriately to illustrate larval form and structure will be looked upon favorably.

We particularly encourage the submission of papers that explore the dynamics of larval growth, plankton dispersal and ecology, and comparative larval studies in a phylogenetic context. Moreover, we are particularly eager to see submissions that address the genetic control mechanisms of crustacean development, including development gene expression, and new and fresh insights gained through utilizing modern imaging techniques, e.g., Scholtz (2004), Hrycaj and Popadic (2005).

**Paleobiology.**—A proper understanding of the past record of crustacean history is critical to understanding the evolution of the current biology of our animals. Any papers that deal with the crustacean fossil record are welcome, especially those that provide not only species descriptions, but also make serious attempts to examine paleobiology (Waugh et al., 2006), paleobiogeography, and phylogenetics of fossils (Karasawa et al., 2008).

**Physiology.**—This is an indescribably diverse field. Heretofore, we have not had a large number of physiological papers submitted or published in the journal. However, the fields of physiology that provide insights into evolutionary adaptations remain of particular interest. We invite papers that explore with sound experimental protocols the synthesis

and conversion of organic material; thermo-, ion-, osmo- and volume-regulation; stress tolerance; and non-genetic and genetic physiological adaptation. We also encourage the submission of papers dealing with comparative physiology within a phylogenetic and ecological context (Scholnick et al., 2006).

**Systematics, Evolution, and Biogeography.**—Papers that explore the phylogeny and evolution of crustaceans employing rigorous technical and analytical methods of morphological and molecular analysis will be favored. Well-executed studies in phylogeography should be tied to analysis of ecological and adaptational factors contributing to the evolution of crustaceans.

Likewise, we encourage submission of phylogenetic studies with complete sampling of the taxa being examined (Buhay and Crandall, 2008), not just the addition of a few subtaxa mingled with limited GenBank data. Similarly, for population genetic and/or phylogeographic studies either sampling should be carried out throughout the species range (Sotelo et al., 2008), or a good justification should be presented for more limited sampling. We don't want to see the papers that attempt the phylogeny of a family that might contain 30 genera and then sequenced representatives from 3 genera, added 3 more genera from GenBank data, and then claim this is a reasonable sampling. A high-quality paper would seek to sample all, or nearly all, of the relevant taxa.

We discourage submissions that merely enumerate faunal lists from limited numbers of localities.

**Taxonomy.**—JCB still does publish single species descriptions - especially when they involve groups that are little or poorly known (Koenemann et al., 2008), or require concomitant erection of new higher taxonomic categories (Alvarez et al., 2006). However, all such papers should include a serious "value added" component such as a comprehensive key to the groups in question (Gonzalez et al., 2006), phylogenetic analyses (Rudolph and Crandall, 2007), elucidation of the patterns of biogeographic distribution (Hernandez et al., 2007), or in-depth discussions of the broader significance of the taxa in question (Marin and Chan, 2006). In fact, what we strive to achieve is to see strict alpha-taxonomy shift to papers that, while describing new taxa, also explore in meaningful ways their systematics, evolution, and biogeography.

**Short Communications.**—These are papers that should not exceed 2-3 printed pages. They can record some significant new observations about form or function (Olesen et al., 2006), behavior, or aspects of ecology or physiology; or describe some new technique for study or collection (Lee and Shirayama, 2008), new or improved items of equipment (Chevaldonne et al., 2008), nomenclatural announcements (Gutu, 2007), or preliminary announcements of results from on-going research programs (Viker et al., 2006). These should be papers that, because of their subject matter, generally do not require extensive Discussion sections.

**Conservation.**—This section is relatively new to the journal and is more practically oriented in focus, and it has a format somewhat different from the regular contributions discussed above. Potential authors should consult a recent issue of the



journal in this field (Simon and Thoma, 2006). A submission in this area strives to present in an outline form some basic data concerning the biology and distribution of endangered or threatened crustaceans. To date, these submissions have involved crayfish, but we welcome and encourage alerts concerning other kinds of crustaceans as well.

**Celebratory Pieces and Obituaries.**—JCB has long had an interest in celebrating and memorializing our membership as well as significant non-member carcinologists. Format and content are flexible, but typically include details of the career of the individual, listings of publications, lists of taxa described or taxa named in honor of the celebratee, and enumerations of significant professional achievements. Details can be discussed with the editor.

**Book Reviews.**—These are coordinated through the Book Review Editor, currently Gary Poore at the Victoria Museum, Melbourne.

#### Special Issues of the Journal

From time to time, JCB undertakes to publish either special issues (Clark et al., 2001), or special sections within issues (Wahle, 2006). We do not do this often since they require extra time and effort on the part of all involved, and they can only be undertaken in a way that will not adversely affect the timely publication of regular submissions to the journal. Nevertheless, it is possible to consider special sections if full funding of the costs are provided by the organizers. In such instances, the organizer of the section will also serve as Guest Editor under the guidance of the General Editor. The organizer will be responsible for obtaining competent reviews of all submissions to the issue and coordinating the revision process thereafter. Special issues will emulate the normal standards to which regular submissions must adhere.

#### TECHNICAL MATTERS

##### Reviewers

One of the most vexing issues for any journal editor is the solicitation and processing of timely reviews. Most reviewers are a pleasure to deal with, accepting or declining quickly, and taking on their task efficiently and without delay. Nevertheless, there are all too many reviewers who, even when they agree to review a manuscript, take longer than promised or, even worse, never complete the review. Such behavior is totally unprofessional and inexcusable, especially since many of these people when they are awaiting the results of their own journal submission are often the first to start badgering the editor about delays in getting reviews back.

When one cannot undertake a review, tell the editor immediately and suggest some appropriate alternate reviewers. With the AllenTrack on-line system that JCB uses, that declination is as easy as clicking on the relevant link in the soliciting message. When you have agreed to do a review and something comes up [illness, death in the family, press of other duties] promptly inform the editor so that a substitute can be quickly solicited. When you have agreed to do a review, then take up the task IMMEDIATELY and submit the review within a week of being asked.

Do unto others as you would have done unto yourself.

##### Authors

**Figures.**—Good figures make a paper. For an informative guide on this, consult [http://www.allentrack.net/figures/figure\\_workshop\\_files/frame.htm](http://www.allentrack.net/figures/figure_workshop_files/frame.htm). An important part of publishing good figures is preparing good figure files for uploading into AllenTrack. It is absolutely critical that figure files be in the correct format (we prefer TIFF) and saved at the correct resolution (600 d.p.i. for a photo figure and 1200 d.p.i. for a line art figure). We suggest you prepare the figure files to these specifications right away - before you even submit the paper. You can check the appropriateness of your figure files by engaging <http://figchecker.allenpress.com/cgi-bin/upload.cgi> [using “allenpresscmk” as the password]. Each figure must be in a separate file. DO NOT embed the figure files into the WORD text file; embedded figures are useless to Allen Press for making final, high quality figures for publication.

We suggest you read this last paragraph again - out loud.

**Author Behavior.**—At the end of every paper in JCB there is a record of the date received and the date of acceptance. When there is a long lag time between those two dates, more often than not it is because the authors have taken an excessive amount of time to revise their submissions.

JCB aims to turn papers around as fast as it can. The new AllenTrack on-line submission system is designed to do that. Of course, we are all hostage to proper reviewer behavior, but there is also proper author behavior. When you submit a paper to a scientific journal, you are committing yourself to follow through in a timely and prompt manner to the end. Your reviewers have expended a lot of time reading and evaluating your work. Your editors, both the Associate as well as the General, have spent an even greater amount of time reading, seeking and evaluating reviews, and doing a fair amount of editorial work on your text. In the welcome event of a go-ahead to revise and submit for publication, you then owe it to all of us to promptly take up the task, make the revisions, and resubmit the final manuscript.

All authors have 180 days (6 months) to revise and resubmit manuscripts. If you miss that deadline, the AllenTrack system is programmed to consider the submission as “abandoned” and to purge the file. Ultra-late revisions will then have to be submitted as a new manuscript and treated accordingly.

Finally, JCB now, and for the foreseeable future, uses hardcopy for page proofs. This is done so that the authors, editor, and production staff can see what the page composition and the figures will look like in the final product. Each corresponding author receives a packet with several things in it. These are: 1) a reprint order form, which normally should be returned directly to Allen Press [since this involves business matters between the Press and the authors]; 2) a blue copyright assignment form, which should be signed and returned to the General Editor; 3) a yellow payment commitment form, which should also be signed and returned to the Editor; 4) a copy of the page proofs upon which corrections should be made and which should be returned to the Editor; and 5) a set of high-quality, glossy proof prints of the figures, which ABSOLUTELY must be

returned to the Editor [these are part of the page proofs and are NOT souvenirs for authors to keep].

The corresponding author should turn around the page proofs and forward them to the General Editor by express post, within 4 working days! There is no excuse for page proof reading to go on for weeks. It is the duty of the corresponding author to have everything at hand to be able to read page proofs immediately upon receipt. If the author is not going to be available during the time period when proofs will be circulated, it is the duty of that author to designate someone to read those proofs for him or her - someone at the receiving institution, not someone to whom the proofs have to be forwarded.

#### CONCLUSIONS

The Journal of Crustacean Biology was founded almost 30 years ago to facilitate the growth and dissemination of knowledge about crustaceans. That remains our objective. In recent years, we have changed in relatively small ways how this is done, and we will continue to explore other newer and more effective ways to speed up the processing of submissions and the publication of the results. We offer the above guidelines and comments not only to clarify our goals and objectives, but also to encourage potential authors to submit the kinds of research we delight in publishing.

#### ACKNOWLEDGEMENTS

We must thank the staff of Allen Press, and especially those involved with AllenTrack, for their friendly, professional, and patient service to this and past editors of the journal. Without them, the journal production and publication processes would have been immeasurably more difficult. We cannot envision life without Allen Press. We must also extend our appreciation to the management of BioOne and JSTOR, who not only are providing additional sources of financial support for The Crustacean Society, but also are facilitating our mission of disseminating knowledge about Crustacea in ways that the founders of the journal could not have envisioned.

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