Instructions to Authors

1. GENERAL

Proceedings: Biological Sciences is published monthly. It contains announcements of important results within any field of the biological sciences, normally no more than 4000 words (including the abstract and references) and four figures and/or tables; equivalent to five printed pages in length. With the same restriction on length, reviews containing original and interesting ideas, and extensions to, or criticisms of, papers already published (subject to the criteria of interest, originality and good manners) will also be acceptable. The target publication time is three months from receipt of a paper, excluding the time that the typescript is in the hands of the author. Authors are advised that papers prepared in accordance with these instructions will be given priority. Acceptance of a paper will be determined by its quality and interest.

The format of the journal is A4 (297 mm × 210 mm), double column, with a normal text area of 255 mm × 167 mm.

2. SUBMISSION

Submitted papers must not have been published previously, nor be under consideration for publication elsewhere. In order to give the Royal Society authority to deal with matters of copyright, authors will be asked to assign to the Society the copyright in any article published in the journal. In assigning copyright, authors will not be forfeiting the right to use their original material elsewhere subsequently. This may be done without seeking permission and subject only to normal acknowledgement to the journal. However, it would be appreciated if authors would inform the Society in this event.

Papers should be submitted direct to the Editor: Professor B. C. Clarke, Department of Genetics, Queen’s Medical Centre, Clifton Boulevard, Nottingham NG7 2UH, U.K. The date of the paper’s receipt will be published if the paper is accepted. Authors are asked to include their telephone numbers, fax numbers and/or electronic mail addresses in correspondence about the paper.

Four copies of the typescript and any figures (together with one set of original drawings and prints) are required. A word count should be included. The extra copies of any photographs should be prints rather than photocopies.

Submission on computer disk is welcomed, but only the final version should be on disk (hard copy will be required for refereeing and a definitive copy should also accompany the disk). Use of the disk cannot be guaranteed, but will depend on the format, the program used and the nature of the material. MS-DOS and Macintosh disk formats are acceptable; preferred word-processor formats are Microsoft Word, WordPerfect and WordStar.

3. COPY

Papers should be clearly typewritten, with double spacing throughout, on one side of the paper only, with a margin of at least 3 cm all round; all sheets should be numbered serially and securely clipped together. Typescripts must be carefully corrected by authors before being sent in. Spelling should conform to the preferred spelling of the Shorter Oxford English Dictionary. Footnotes should be avoided.

4. TITLE, SUMMARY, KEYWORDS

It is very important that both the title and the summary should be comprehensible, and interesting, to the non-specialist. Authors are asked to make their titles as short and general as possible. The title should be typed on a separate covering sheet which should also bear the names of the authors and that of the laboratory or other place where the work has been done. Addresses for correspondence, where these differ from the place of work, should also be given, indicating which author correspondence should be addressed to. A very short title (maximum of 50 letters and spaces) suitable for page headings should also be given. The summary should not exceed 200 words, and should be precise and informative.

5. SECTIONS

Papers may be divided into sections, described by short headings. Subsections should not be used. Materials and methods sections should be marked in the margin for small type.

6. UNITS, SYMBOLS AND ABBREVIATIONS

As far as possible the recommendations contained in Quantities, units, and symbols (1975, The Royal Society, £2.50) should be followed; in particular the International System of Units (SI) should be used whenever it is practicable to do so.

Special care is necessary in differentiation between handwritten symbols of comparable shape, e.g., $V$ v, $w$ W, $s$ S, $p$ P, $T$ T. Marginal indications and differential underlinings should be used where necessary, the normal conventions being followed where applicable, e.g., $\cdots$ to signify bold characters. Mathematical variables should be underlined.

Wherever possible, only internationally agreed abbreviations should be used; see, for example, the list of accepted abbreviations for use in the Biochemical Journal.

7. ILLUSTRATIONS

Duplicate figures (e.g. Xerox or photographic copies, as appropriate) should be supplied with each copy.
The author's name and the number of the figure should be written on the back of all illustrations. Figures should be numbered in one sequence throughout the paper.

Colour illustrations will be included only if scientifically necessary and if the cost is met by the author (unless an acceptable case is made by the author why funds are not obtainable).

The position of each illustration should be clearly marked in the typescript thus:

**Figure 2 near here**

**Line drawings**

Long descriptions should appear not on the figures themselves but in the legends. Any labelling necessary for the understanding of a figure should be applied directly on the original drawings before duplicate copies are taken. All lettering should be in lower case except for the initial capital letters of proper names. Lettering should strictly follow the case of type called for in the text; Times or a close equivalent should be used. The height of capital letters after reduction should be as close to 2 mm as possible. When in doubt use smaller rather than larger lettering.

Consultation between authors or their draughtsmen and the Editorial Office (telephone 071-839 5561, extension 229) will help ensure satisfactory results.

**Legends**

These should be typed with double spacing on a separate sheet at the end of the paper. Figure legends should follow the style given below:

Figure 7. Time-course of changes in fibre type composition during post-stimulation recovery. (a) Type 1 fibres, (b) Type 2A fibres, including the transitional fibres (asterisks) referred to in the text. (c) Type 2B fibres. Bands indicate the range (mean ± s.d.) for the corresponding fibre type in control muscles.

**Photographs**

When it is essential to include photographs they should make the most efficient use of the space required. The area covered by the photographs should be restricted to the subject in question, or to a minimum representative area in photomicrographs, etc. This enables the photograph to be reproduced at the largest possible scale. The text area available in Proceedings B is 255 mm × 167 mm. Photographs will be printed with the text, not on plates.

Authors should supply unlettered, unmounted glossy prints marked on the back with the authors' names, the number of the figure and with the top and bottom indicated. A rough set should be provided with any required lettering clearly marked.

9. TABLES

Tables, however small, should be numbered in arabic numerals and referred to in the text by their numbers. The position of each table should be shown as follows:

| Table 3 near here |

Table headings should be a brief title only; descriptions of experimental detail should follow, starting on a new line, in parentheses. Column headings should be in lower-case lettering except for the capital initial letters of proper names. The units of measurement and any numerical factors should be placed unambiguously at the head of the column, e.g.

\[ F/\text{MHz}, \quad 10^{25}\sigma/m^2 \quad \text{or} \quad g/(kJ \text{ mol}^{-1}). \]

9. REFERENCES

References to the literature cited must be given in double-spaced typing, in alphabetical order at the end of the paper. They should be prepared following the style of recent issues of Proceedings B.

Reference citations in the text are made by the name and year method; references by number are not permitted.

10. PROOFS

On acceptance of a paper, the Society’s Editorial Office will inform authors when they may expect to receive proofs for checking. Because of the need for fast publication, only a few days may be available for checking proofs, so authors who may be absent from their normal address should either inform the Society of their intended whereabouts or make other arrangements for the proofs to be checked quickly. Fax numbers are welcomed; the Society’s is 071-976-1837 for publication matters.

Great care is necessary in checking proofs to ensure that all misprints are detected. Authors should note that systematic emendations may have been made to their typescript in accordance with the normal style of the Society’s journals. If any changes are necessary to proofs every effort should be made by substituting matter of similar length to avoid extensive rearrangement. Authors are liable for the cost of excessive alterations to their proofs.

11. OFFPRINTS

Fifty offprints of each paper will be supplied free of charge; further copies may be ordered at extra cost at proof stage.

[August 1991]
THE EVOLUTIONARY INTERACTION OF ANIMALS AND PLANTS

Organized and edited by Professor W.G. Chaloner, Professor J.L. Harper and Professor J.H. Lawton

Why do some leaves have smooth margins whereas others have a jagged edge? Why do we have corals and other marine invertebrates with symbiotic photosynthetic microbes, but no green vertebrates? Why do those animals that eat plants generally rely on microbes in their guts to digest the cellulose, rather than producing the necessary enzymes for themselves? If the evolution of biotic pollination by angiosperms was the secret of their evolutionary success, why have so many of them (including the grasses) reverted to wind pollination? The contributors to this volume attempt to answer some of these questions, and indeed the broader problem of what do these questions have in common?

How far have the whole complex series of interactions between plants and animals influenced the evolutionary progression of each group? The topics dealt with here range from the fossil evidence for the earliest assault of the arthropods on the first land plants, to biochemical warfare between plant and herbivore, as each group has been driven to respond to the innovations of the other. Vertebrates and insects have, in their different ways, undergone major modifications of their structure, and particularly their mouthparts and gut, to cope with a vegetarian diet. But equally, the impact of browsing and grazing has forced higher plants to modify their programme of growth to cope with losing parts of the whole. This may have been one of the main forces favouring a flexible modular growth programme, rather than a determinate one.

This collection of papers, together with the lively discussion that they provoked, is taken from a Royal Society Discussion Meeting held on 27 and 28 February 1991. It records the state of development of one of the fast-growing areas of biology and brings together such diverse fields as biochemistry, palaeontology, cell biology, mammal and insect behavioural studies, plant development and pollination biology.

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The Royal Society,
6 Carlton House Terrace
London SW1Y 5AG
MOLECULES THROUGH TIME
Fossil Molecules and Biochemical Systematics

Organized and edited by G. Eglinton and G.B. Curry

Organic molecules survive in the geological record! In fact the organic remains of life are abundant in rocks and fossils, and some biomolecules are among the strongest and most resilient structures on this planet, and as a consequence have good fossilization potential.

'Molecules through time' is a comprehensive and up-to-date survey of the survival of organic molecules in the geological record. It covers the latest technical advances and discoveries in research on ancient proteins and amino acids, DNA, lipids, chlorophyll-derived pigments and other resistant biomolecules. These organic remnants of ancient life forms represent important sources of information for many scientific disciplines, including archaeology, biochemistry, evolutionary biology, organic geochemistry, genetics, geology and palaeontology. In recent years a range of technical developments have revolutionized biomolecular research, and these new techniques are increasingly being applied both to the study of fossil molecules and to related investigations of source compounds in living organisms. In addition to presenting the latest exciting information on the survival of fossil molecules in the geological record, this volume also discusses the diverse applications of these data and the fossilization conditions that may be conducive to biomolecule preservation.

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