Instructions to Authors

1. GENERAL

Proceedings: Biological Sciences is published monthly. It contains announcements of important new developments in biology. Papers crossing the boundaries of subjects are particularly welcome. The normal maximum length is 4000 words including the abstract and references (plus four figures and/or tables; equivalent to five printed pages). 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.

Papers describing experiments with vertebrate animals will be accepted only if the procedures used are clearly described and conform to the British Home Office regulations for avoiding unnecessary suffering to the animals.

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. Submission to Proceedings B requires that authors accept that the Editor has final authority in all matters relating to the acceptability and propriety of publication. Authors should send papers to the Proceedings B Editorial Office, The Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, 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.

Papers should be submitted initially as typescripts. After a paper has been accepted, authors should submit the final version both on disk and as a typescript. 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 equally acceptable. In addition to text files, we welcome the submission of electronically prepared artwork on disk.

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 AND SUMMARY

It is very important that both the title and the summary should be comprehensive, 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 to which author correspondence should be addressed, and giving telephone numbers, fax numbers and e-mail addresses. A very short title (maximum of 50 letters and spaces) suitable for page headings should be given, and up to six index entries should be provided for inclusion in the subject index. 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. 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, £3.00) 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. $V_w v_w W$, $s S, p P, T r$. Marginal indications and differential underlinings should be used where necessary, the normal conventions being followed where applicable, e.g. $\sim$ 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. STATISTICS

As far as possible, the presentation of statistics should follow the guidelines published each year in the December issue of the Proceedings.

When referring to computer programs, authors should specify clearly the procedures used, and should quote publications that will allow the reader to ascertain how they are carried out.
8. ILLUSTRATIONS

Proceedings B welcomes the submission of papers containing colour illustrations. However, owing to the high cost of colour reproduction, a charge will be made of £300 for one colour figure, and £600 for two or more (up to a maximum of four figures). There are no page charges for Proceedings B. Exemption from charges for colour illustrations will only be made if referees decide colour is essential and if authors make an explicit case to the Editor explaining why they are unable to obtain the necessary funds.

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.

The position of each illustration should be clearly marked in the margin of the typescript.

Line drawings

If possible, authors should supply one set of unlabelled, original line drawings in addition to a set of labelled original drawings. 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 or where capitals are essential, e.g. for chemical abbreviations. Times or a close equivalent font 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.

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 x 167 mm. Photographs will be printed with the text, not on plates.

Authors should supply lettered glossy prints marked on the back with the authors’ names, the number of the figure and with the top and bottom indicated. If a single figure contains multiple prints, these should be mounted (ideally on flexible card). Each micrograph must include a scale bar, applied directly to the original, with an indication of the exact length.

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 clearly marked in the margin of the typescript.

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/MHz, 10^28σ/m^3 or g/(kJ mol^-1).

10. 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.

11. 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 must either inform the Society of their intended whereabouts or make other arrangements for the proofs to be checked quickly. Proof corrections may be returned by fax (the number is 0171-976 1837).

Authors are liable for the cost of excessive alterations to their proofs.

12. OFFPRINTS

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

13. COPYRIGHTS

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.

[September 1995]
TO APPEAR IN

PHILOSOPHICAL TRANSACTIONS SERIES B

*Philosophical Transactions*: series B publishes original papers in all aspects of the biological sciences, including clinical science. Papers up to 25,000 words long are welcomed, particularly those of an interdisciplinary or multidisciplinary nature. Longer papers and reviews are also invited; authors intending to submit these should consult with the Editor at an early stage in preparation. Papers will be published rapidly (normally within six months of receipt).

The proceedings of the Royal Society's Discussion Meeting on *Current understanding of intracellular signalling pathways*, held in July 1995, will be published in the February issue of the journal and will include the papers listed below.

**Michael Karin**
The regulation of AP-1 activity by mitogen-activated protein kinases

**James R. Woodgett, John M. Kyriakis, Joseph Avruch, Leonard I. Zon, Brent Zanke & Dennis J. Templeton**
Reconstitution of novel signalling cascades responding to cellular stresses

**B. Errede**
Dynamics and organization of MAPK pathways in yeast

**J. Saklatvala, W. Davis and F. Guesdon**
Interleukin 1 (IL1) and tumour necrosis factor (TNF) signal transduction

**Nicholas J. Finnie, Tanya M. Gottlieb, Tracy Blunt, Penny A. Jeggo and Stephen P. Jackson**
DNA-dependent protein kinase defects are linked to deficiencies in DNA repair and V(D)J recombination

Jaks, STATs and signal transduction in response to the interferons and other cytokines

**Morris F. White**
The IRS-signalling system in insulin and cytokine action

**Calum Sutherland, Richard M. O’Brien and Daryl K. Granner**
New connections in the regulation of PEPCK gene expression by insulin

**Enzo Lalli, Janet S. Lee, Monica Lamas, Katherine Tamai, Emmanuel Zazopoulos, François Nantel, Lucia Penna, Nicholas S. Foulkes and Paolo Sassone-Corsi**
The nuclear response to cAMP: role of transcription factor CREM

**Len Stephens, P. T. Hawkins, A. Eguinoa and F. Cooke**
A heterotrimeric GTPase-regulated isoform of PI3K and the regulation of its potential effectors

Structural and functional diversity of phosphoinositide 3-kinases

**Pablo Rodriguez-Viciana, Barbara M. Marte, Patricia H. Warne and Julian Downward**
Phosphatidylinositol 3’ kinase: one of the effectors of Ras

**Julie D. Saba, Lina M. Obeid and Yusuf A. Hannun**
Ceramide: an intracellular mediator of apoptosis and growth suppression
FUTURE PAPERS IN PROCEEDINGS SERIES B

Proceedings: series B publishes original papers in all aspects of the biological sciences, including those of an interdisciplinary or multidisciplinary nature. Papers up to 4000 words long are welcomed, particularly announcements of important developments in biology. Reviews containing original and interesting ideas, and criticisms of papers already published, are also invited. Papers will be published rapidly (normally within three months of receipt).

Future issues of the journal will include the papers listed below.

N. E. Langmore, N. B. Davies, B. J. Hatchwell & I. R. Hartley
  Female song attracts males in the Alpine accentor *Prunella collaris*

V. S. Ramachandran & D. Rogers-Ramachandran
  Synaesthesia in phantom limbs induced with mirrors

M. Ilan, J. Aizenberg & O. Gilor
  Dynamics and growth patterns of calcereous sponge spicules

T. Guilford & J. Chappell
  When pigeons home alone: does flocking have a navigational function?

C. R. Freeman-Gallant
  DNA fingerprinting reveals female preference for male parental care in Savannah sparrows

F. Vollrath, T. Hollet, H. C. Thogerson & S. Frische
  Structural organization of spider silk

R. A. Barton
  Neocortex size and behavioural ecology in primates

G. Mather
  Image blur as a pictorial depth cue

B. Kempanaers, F. Adriaensen, A. J. van Noordwijk & A. A. Dhondt
  Genetic similarity, inbreeding and hatching failure in blue tits: are unhatched eggs infertile?

B. Karlsson
  Male reproductive reserves in relation to mating system in butterflies: a comparative study

K. J. Gaston & T. M. Blackburn
  The spatial distribution of threatened species: macro-scales and New World birds

M. E. Viney
  Developmental switching in the parasitic nematode *Strongyloides ratti*

C. Wills & D. Field
  Long polymorphic microsatellites in simple organisms

J. A. G. M. de Visser, R. F. Hoekstra & H. van den Ende
  The effect of sex and deleterious mutations on fitness in *Chlamydomonas*

R. V. Solé & J. Bascompte
  Are critical phenomena relevant to large-scale evolution?

D. K. Price
  Sexual selection, selection load and quantitative genetics of zebra finch bill colour

L. S. Peck
  Feeding and metabolism in the Antarctic brachiopod *Liothyrella uva*: a low energy lifestyle species with restricted metabolic scope

J. P. Veiga & M. Puerta
  Nutritional constraints determine the expression of a sexual trait in the house sparrow,*Passer domesticus*
H. G. E. Hentschel & A. Fine
Diffusion regulated control of cellular dendritic morphogenesis  
pages 1–8

J. Potti & S. Merino
Parasites and the ontogeny of sexual size dimorphism in a passerine bird  
9–12

C. D. Bull, N. B. Metcalfe & M. Mangel
Seasonal matching of foraging to anticipated energy requirements in anorexic juvenile salmon  
13–18

M. M. Lambrechts, P. Perret & J. Blondel
Adaptive differences in the timing of egg laying between different populations of birds result from variation in photoresponsiveness  
19–22

P. N. M. Brotherton & A. Rhodes
Monogamy without biparental care in a dwarf antelope  
23–29

Density-dependent selection in a fluctuating ungulate population  
31–38

O. Ellers & M. Telford
Advancement mechanisms of growing teeth in sand dollars (Echinodermata, Echinoidea): a role for mutable collagenous tissue  
39–44

D. M. Unwin, E. Frey, D. M. Martill, J. B. Clarke & J. Riess
On the nature of the pteroid in pterosaurs  
45–52

A. F. Møller
Developmental stability of flowers, embryonic abortion, and developmental selection in plants  
53–56

S. Korneev, S. E. Blackshaw, K. Kaiser & J. A. Davies
cDNA libraries from identified neurons  
57–62

K. J. Gaston & T. M. Blackburn
The tropics as a museum of biological diversity: an analysis of the New World avifauna  
63–68

R. A. Allan, M. A. Elgar & R. J. Capon
Exploitation of an ant chemical alarm signal by the zodariid spider Habronestes bradleyi Wahlkowner  
69–73

R. J. Knell, M. Begon & D. J. Thompson
Transmission dynamics of Bacillus thuringiensis infecting Plodia interpunctella: a test of the mass action assumption with an insect pathogen  
75–81

B. J. Hatchwell & A. F. Russell
Provisioning rules in cooperatively breeding long-tailed tits Aegithalos caudatus: an experimental study  
83–88

H. L. Gibbs, M. de L. Brooke & N. B. Davies
Analysis of genetic differentiation of host races of the common cuckoo Cuculus canorus using mitochondrial and microsatellite DNA variation  
89–96

L. D. Hurst & G. T. McVean
Clade selection, reversible evolution and the persistence of selfish elements: the evolutionary dynamics of cytoplasmic incompatibility  
97–104

D. Osorio
Symmetry detection by categorization of spatial phase, a model  
105–110

M. S. Y. Lee
The homologies and early evolution of the shoulder girdle in turtles  
111–117

S. Morand, S. D. Manning & M. E. J. Woolhouse
Parasite-host coevolution and geographic patterns of parasite infectivity and host susceptibility  
119–128

B. S. Schneider, H. M. Hastings & G. Matal
The spatial distribution of pancreatic islets follows a universal power law  
129–131

Cover Illustration. Remains of the Russian pareiasaur, Deltaeiajattia vihakensis, a primitive reptile closely related to modern turtles. (From the paper by M. S. Y. Lee, pp. 111–117.)