ADVERTISEMENTS

This is a great book,
and an exciting book. . .
readable, worth
reading and
enlightening.

Sir Karl Popper

Cosmology, Physics & Philosophy

by
Prof Ben Gal-Or

A Master Piece!
*Indian Journal of
Physics*

...shines a welcome
light in some dark
corners of science.
New Scientist

2nd Edition
Springer-Verlag, 1987
175 5th Ave.,
N.Y., 10010.

Reader Service No.7

Announcing J. T. Fraser's
**TIME, THE FAMILIAR
STRANGER**

No part of existence is more elusive
and mysterious than time. Written
in an engaging narrative style,
Fraser considers time in the every-
day world, in science and the
humanities - a fascinating history of
the idea and experience of time.

December 1987, 328pp, illus.,
Cloth £16.95

THE UNIVERSITY OF
MASSACHUSETTS PRESS
3 Henrietta Street,
London WC2E 8LU

Reader Service No.6

Copies of articles from
this publication are now
available from the UMI
Article Clearinghouse.

**UMI
Article
Clearinghouse**

Mail to: University Microfilms International
300 North Zeeb Road, Box 91 Ann Arbor, MI 48106

good indication of the general areas that
are covered.

The very specialized reader may not
find that his or her particular area of in-
terest is covered — there is no information
on catabolism of aromatic compounds, for
example. Perhaps more surprising is the
absence of chapters specifically devoted to
topics of wider interest, such as the bio-
logy of plasmids other than F, or bac-
teriophages. On the other hand, a careful
use of the index (thoughtfully included in
each volume) reveals that much of the
information that would be expected to be
found in such chapters is covered piece-
meal elsewhere.

Overall we and other colleagues are
very impressed by these books. As is usual
with endeavours of this kind the various

chapters vary in quality according to the
amount of effort and objectivity that their
authors have put into them, but the
majority are stimulating and readable yet
comprehensive. The editors have obvi-
ously put a lot of effort into this enterprise
and played an effective disciplinary role in
maintaining breadth without overlap, and
a uniform style. There is nothing com-
parable available on the market and
everyone working with, or teaching
about, *E.coli* and *S.typhimurium* will find
these books to be invaluable. Final year
undergraduates and postgraduate stu-
dents will also find them an excellent
resource. □

B. M. Wilkins and R. H. Pritchard are in the
Department of Genetics, University of Leices-
ter, Leicester LE1 7RH, UK.

In the blooming business

Jane Lewis

The Biology of Dinoflagellates. Edited by
F.J.R. Taylor. *Blackwell Scientific*: 1987.
Pp.785. £90, \$195.

WHEN passing through US immigration
controls to attend a meeting on toxic
dinoflagellate blooms, I was much sur-
prised to find that the officer interviewing
me knew something about the topic of the
conference. The gentleman's interest was
due to the potential health hazard of the
shellfish he much enjoyed. Toxic blooms
(or red tides) of dinoflagellates are just
one of the reasons this immensely diverse
group of the phytoplankton is the subject
of scientific and occasionally public atten-
tion. Other dinoflagellate features of in-
terest are their cysts, which are increas-
ingly used for the dating of sediments for
the oil industry, their spectacular symbio-
tic associations in coral reefs, their impres-
sive displays of bioluminescence and their
unusual cell biological features.

Two fields of research have been largely
responsible for the recent rapid growth in
the literature on dinoflagellates — the
study of blooms and the use of cysts in
stratigraphic dating. Both of these sub-
jects are multidisciplinary in nature, and
the appearance of a book on the general
biology of the group is thus especially
useful.

The Biology of Dinoflagellates covers 15
aspects of the subject written by 18
authors. The contributions divide into two
types, general biological reviews being
interspersed with accounts of more speci-
alist topics. Most facets of dinoflagellate
biology have a chapter devoted to them,
with the exception of evolution. Particu-
larly notable is the discussion of hetero-
trophic nutrition, which brings together

much scattered information on this neg-
lected subject; the phenomenon has long
been known in dinoflagellates, but only
recently has a clear mechanism been docu-
mented in certain species. The contribu-
tion on dinoflagellate behaviour is also
stimulating, as is that on the biochemistry
of the dinoflagellate nucleus. The final
chapter on cysts is a welcome inclusion,
giving a view of the group from the fossil
record.

Taxonomic problems are particularly
thorny when a group has been claimed by
both botanists and zoologists — where,
after all, does a motile group having both
photosynthetic and non-photosynthetic
members, many with cell walls, belong?
Throughout the book these difficulties are
dealt with clearly, and the editor (who
declares himself a "card-carrying protist-
ologist") has provided an appendix ex-
plaining recent changes to those less
familiar with taxonomic intricacies. Read-
ing the work as a whole there is some
repetition of material, but this is limited
and is sufficient to allow each chapter to
be studied on its own. The various contri-
butions are written with clarity, which
should allow researchers of any discipline
to get to grips with the subject matter,
and most of them provide food for thought
for the specialist, although there is some
unevenness in the depth of coverage.

I first saw mention of this book being
"in press" in 1983, and although it con-
tains some 2,500 references, the long
gestation period shows. Many of the
authors have managed to slip in the more
important recent references, but the book
is only reliably up to date until 1982.
Nevertheless this is a useful reference
work for researchers looking for a wider
understanding of dinoflagellates. I look
forward to another volume covering the
lost ground. □

Jane Lewis, 70 Queens Road, Slough, Berkshire
SL1 3QP, UK, was formerly in the Department
of Biology, Royal Holloway and Bedford New
College, University of London.