THE ABSENT-MINDED SQUIRREL?

In autumn squirrels cache seasonal foods such as nuts in shallow holes in the ground and then retrieve them again during the lean days of winter. It had always been assumed that squirrels forgot where caches were hidden and had to rediscover the nuts by their odour. Recent research by two biologists at Princeton University has shown that this view understimates the mental abilities of squirrels.

Lucia Jacobs and Emily Liman studied the caching and retrieval of hazelnuts by eight hand-reared grey squirrels in a large artificial enclosure. In turn, individual squirrels were allowed to cache ten nuts and the positions used by each was carefully mapped before nuts were removed by the experimenters. After a delay of two, four or twelve days, fresh nuts were replaced in the ten cache positions used by the test squirrel and in a random ten sites used by other individuals. The question was, would the squirrel remove a higher proportion of nuts from its own cache sites than from others which might be closer to it?

The results were unequivocal; the squirrel took nuts from its own hiding places 1½ - 2 times as often as expected by chance, even after a twelve day absence from the arena. When one considers that, in the wild, squirrels often have to retrieve food from beneath snow, the evolutionary advantage of being able to pinpoint caches in relation to landmarks is obvious. Jacobs and Liman conclude that grey squirrels probably use a combination of memory and odour during raids on their vital winter larders and that their absent-minded image is definately not justified.

Ref: Animal Behaviour 41 103 -110.

Geoff Oxford

BOOK REVIEWS

Seals by Sheila Anderson
Whittet Books Ltd., 18 Anley Rd., London W14 OBY.
1990 £6.95

Sheila Anderson's book "Seals" is ideal for the layman with a scanty knowledge of seal species and behaviour. It is written simply and clearly and is full of facts, laced with an ample helping of humour. A most readable and enjoyable book.

Ms Anderson has learnt a tremendous amount from her surveys of seals in different parts of this country and worldwide and is able to pass on this information with enthusiasm in an easy and direct style. The various species and their ways of life are clearly differentiated. The book is highly recommended to everyone who wishes to be enlightened on all aspects of the lives of seals. It is also illustrated with a plentiful supply of apt and humorous drawings by Guy Troughton which help to make it entertaining as well as educational.

Edna Shann

The Natural History of Shrews by Sara Churchfield
Christopher Helm Mammal Series 1990 £17.95

This 178 page book is one of a series published in association with the Mammal Society. The eight chapters examine various aspects of shrew biology, especially life cycle, social organization, breeding biology, feeding and energetics. In the final chapter, 'Shrews and man', a short section on studying shrews is of particular interest with regard to fieldwork.

The text is clear and contains numerous references to research, including that of the author. The graphs and tables are readily comprehensible. The book contains numerous line drawings, a small number of black and white photographs, but unfortunately no colour ones.

Overalll this is an informative and readable monograph on the family Soricidae.

Mary Youngman