

investigations have done is to make an unanswerably cogent case for the scientific establishment taking some notice of the problem. At present their attitude is perilously near that of Cuvier, when he declared that no large animals could exist on the earth that were not already known to him. Since then we have discovered the okapi and the giant panda, to name only two.

RICHARD FITTER

Eryri, the Mountains of Longing, by Amory Lovins. Friends of the Earth and Allen & Unwin, £10.

Report of the Commission on Mining and the Environment. Obtainable from Land Use Consultants, 139 Sloane Street, London SW1, £1.25.

In Britain it seems that to declare a region a national park is to invite the attention of half the speculators and developers in the country. Most of the small fish among these can, we trust, be dealt with adequately by each park's Planning Committee, with the conservation societies playing a vital part on the touchline. But when powerful consortia are involved, as in the recent RTZ threat to Snowdonia, then the essential vulnerability of the parks is brought to light. In the event RTZ withdrew. But what a furore their coming to Snowdonia caused! What fervent protest meetings were held, what pages written! And of these pages none were penned with more fire, more poetry, more authority than those by Amory Lovins. A Welshman? Far from it. Lovins is a young American scientist who came to study at Oxford, went on holiday to Eryri (the ancient name of the Caernarvonshire mountains), fell in love with it, and, when it was threatened, rose with passion and powerful language in its defence. His book ranges easily from first class topographical description to an acute analysis of the national park's chief problems: increased traffic; excess of caravans; dearth of car parks; unorganised, toilet-less camping; litter; erosion of the mountain paths; climbing and hiking accidents; friction between farmers and ramblers; the private ownership of most of the land; local employment and unemployment; the proper use of natural resources.

So to the most telling part of the book. This is a powerful refutation of RTZ's repeated claim that they too are conservationists. Their case is that 'natural beauty and mining can go hand in hand'—the words are from Lord Byers, Director of Exploration for RTZ and Leader of the Liberal Party in the House of Lords. Of Lord Byers, Lovins comments: 'When he writes about conservation the right catch-words come out, but there is disturbingly little evidence that they express the right thoughts'. The book is spectacularly illustrated by page after page of colour photographs by Philip Evans, many of which are perfect lyrics.

It was with anxiety that we awaited the Report of the Commission on Mining and the Environment because all along the RTZ spokesmen had said that the company would drop its plans for mining in Coed y Brenin if the Report considered that this would be environmentally desirable. Then, anticlimax: the Report gave no decision at all! Had never been asked to, explained its Chairman, Lord Zuckerman. So it came about that, instead of being a document with crucial implications for the future of our national parks, it is little more than a useful summary of mining statistics, environmental problems, planning procedures and legal issues. The opinions it does manage to express are in the most general terms, and, not surprisingly in a report paid for by the mining companies, one of its inferences is that with modern techniques even the scars of a vast open-cast copper mine can be beautifully healed. But how many of us would believe that? In fact if the mining companies' motive in commissioning this Report

was to make mining in national parks more acceptable to public opinion I doubt if it will get them very far. In contrast, *Eryri, the Mountains of Longing* will be a powerful voice for conservation. It would do a lot more if it could now appear in paperback and so reach a much wider public.

WILLIAM CONDRY

Conserving Life on Earth, by David W. Ehrenfeld. OUP, £4.50.
Ecological Principles for Economic Development, by Raymond F. Dasmann, John P. Milton, and Peter H. Freeman. Wiley, £2.

Here are two more books to add to that groaning shelf marked Conservation, and as the pile grows larger the niches to be filled become harder to perceive. Both are concerned with a very broad definition of conservation, but otherwise bear little similarity. Ehrenfeld's text belies his title, for virtually all his examples refer to vertebrates—he devotes only 2½ pages to plants, considered *per se* rather than as habitat for vertebrates, and is virtually silent on invertebrates. This seems to be the result of the characteristics he deduces for a typical, if hypothetical, endangered species: it must be a large predator, provide valuable products, and be hunted in areas where no effective game management exists. It is easy to see how discussion becomes restricted to vertebrates, but any conservationist could mention many endangered organisms with none of these characteristics.

The book is most valuable for its clear exposition of a wealth of largely depressing case-histories, building up a picture of the problems facing conservationists. Unfortunately, he has frequently had to rely on hearsay evidence, perhaps a reflection of the resources available for the study of endangered habitats, and some of his figures are, to say the least, puzzling.

But though his book is a powerful, impassioned, and well-written plea for conservation, it scarcely justifies its description (page 334) as 'many pages of "objective" scientific writing'. Much of it is extremely subjective, and it is in the early chapters, where he gives the scientific background, that the presentation is least clear. He claims, for example, that the stability of eco-systems depends on their diversity (a still unproven proposition, as he recognises later, on page 257) and that, therefore, climax communities are the most stable; but later he talks of 'fragile climaxes'.

Though readable and well documented, with much to recommend it, the book's title is ill-chosen and it falls between two stools, for it preaches very much to the converted without perhaps adding greatly to their knowledge.

Ecological Principles for Economic Development, however, is a most welcome addition to the literature, delineating clearly both the essential similarities of aim of economists and conservationists ('the rational use of the earth's resources to achieve the highest quality of living for mankind') and the compromises necessary where these aims are attained by different routes.

After two introductory chapters, the bulk of the book is devoted to consideration of the implications of development in five areas: humid tropical lands, pastoral lands in semi-arid and sub-humid regions, tourism, agriculture, and river basins. Inevitably there is some overlap, and the specialisation the headings imply means that certain currently contentious areas where economic development and ecological considerations appear to conflict have been omitted (for example tundra areas), but the scope is still commendably broad. It is essentially a realistic book, intended for use by practising ecologists involved in development programmes, for whom it will be invaluable. It should also become required reading for all interested in conservation—even if they only read the very sensible chapter summaries which take up the first 14 pages.