investigating deployment in time. One does not wholly escape the trendy titles and jargon phrases that bestrew the sociobiological field; for instance, consider PMP, which **is the Pontryagin Maximum Principle (Mr P being a Soviet rocket engineer).** But on the whole the contributions are readable without too much irritation.

Throughout emphasis is laid on the theoretical development of quantitative predictions which can be tested, and are tested, by observation and experiment both in field and laboratory. Sometimes, as in much science, there is a flavour of proving the obvious. Sometimes one has the feeling of reading a modern Aesop's fable. But in general we feel the refreshing current of uncommitted thought that is throwing much light on the fascinating problems of how and why animals behave.

G.V.T. MATTHEWS

Malayan Forest Primates, edited by **David Chivers.** Plenum Press, $42.50.

This is a remarkable book. It summarises 10 years' work on the siamang and lar gibbons, as well as studies of dusky and banded leaf monkeys, and long-tailed macaques, their competitors, and their forest in the Krau Reserve of Malaysia. The style is academic, written for other primatologists, with quantitative analysis where possible – primatology has come of age. It takes a study of this precision and magnitude to deal with a rainforest whose emergent trees tower to 80 metres, and where a primate may have access to 400 species of large tree (over 50cm girth at breast height) without counting the hundreds more smaller trees and epiphytes. A gibbon's generation time is nearly a decade, so it also takes a study of this length to show patterns of group change.

Much of the data has been published before. The synthesis has not. Readers interested in cross-species or cross-forest comparison will turn to this volume for information, as will those who want quantitative background to efforts for forest primate conservation. One could cite many different articles – Curtin's deciphering of the unorthodox leaf-monkeys, the MacKinnons' direct comparison of different species at the same place and time, Fleagle's elegant analysis of locomotion. Perhaps the aspect which pleased me most was that Chivers and Raemakers, in their two summary articles dealt with both individuals and statistics. Where they have enough information for mathematical analysis, as in the interrelations of climate, tree phenology, and primate ranging, they have written straight ecology. Where individual lives are important, we are told that too. It is a healthy sign for primatology that both approaches have their place, and that his book of quantitative primate ecology is dedicated to the memory of the siamang, Murgatroyd, **'paragon of monogamous fidelity and fatherhood'.**

ALISON JOLLY

Ibexes in an African Environment, by **B. Nievergelt.** Springer-Verlag, $40.50.

This unusual monograph is centred on the biology of the walia ibex but also deals in detail with the biology of the partially sympatric gelada baboon and klipspringer. In addition there are thumbnail descriptions of the niches within the Ethiopian Simien Mountain ecosystem occupied by a further fourteen mammals, including man. Combined with the description of the vegetation at different altitudes, the work provides the reader with a complex picture of the way the mammals play their part in Simien ecology, and shows a depth of analysis not easily attained in studies of rare species such as the walia, whose low numbers and inaccessible habitat makes data gathering difficult. Academic biologists shun potentially important studies of rare species just because of these difficulties, so it is pleasing to see a work which makes an important contribution to the theory and practice of the accurate evaluation of sparse data typical of studies on rare species. The centre piece is an analysis of the preferred