
 Book reviews

Real, Leslie (ed.): Pollination Biology. Orlando, San Diego, San Francisco, New York London: Academic Press 1983. xvii + 338 pp., several figs. and tabs. Hard bound £ 36.-.

Just as Peter Raven says in the foreword, the authors of this book and their articles made it clear that pollination biology will be an important area of investigation for many years to come. Initially, Baker gives an "Old Testament" and "New Testament" (including quantitative and experimental studies) outline. Crepet speculates on early insect pollination mechanisms based on fossil records without, however, exploring newer data on beetle pollination. Wyatt, while discussing evolution of breeding systems, ignores the fact that an increasing number of primitive living Angiosperms are being detected which are self-compatible, suggesting that Angiosperms themselves have started as inbreeders. Whitehead summarizes and discusses biological adaptations in different environmental conditions of wind pollination. While Stephenson and Bertin explore the question of sexual selection in plants through competition between male gametes for fertilization of ovules or as selective fertilization of ovules as female choice. Mulcahy presents a model to evaluate evolutionary consequences through gametic competition in *Geranium maculatum*. An intensive discussion on how much pollination biology depends on plant population structures is provided by Handel. In continuation, Waddington summarizes information on pollinator foraging behavior as related to floral form and plant population and community structures. The question of the adaptive nature of floral traits (color, form, distribution) and their influence on pollinator behavior, pollination mechanisms, and plant fitness is explored by Waser. Real gives a theoretical foundation for the mechanisms that generate the macrostructure in communities from individual behavior of plants and their visitors. Finally, Rathcke shows the competitive interactions between flowering plants in relation to their pollinators. The authors and their articles expand on the tremendously increasing interest of evolutionary biologists in pollination biology. The new insights they give, approaching the matter from different standpoints, obviously will stimulate future research.

G. K. Gottsberger, Giessen

Schwintzer, Ida: Das Milchschaaf. Stuttgart: Ulmer 1983. 208 pp., 108 figs. Hard bound DM 32.-.

The attitude of the author to her book and to the animal in question is clear from the first page. Her theme, the milk sheep, is treated with so much love and devotion and even the uninitiated, who must be an animal lover, will become enthralled in the book. However, the book gives such a broadly-based consideration of the topic, that even experts are likely to find much valuable information. The well-presented text is supported by clear and informative diagrams and photographs covering not only aspects of maintaining milk sheep but also the processing and utilisation of the various sheep products. One learns the various demands of milk sheep with respect to climate, pasture and feed supplements. Even the influence of various herbs on the well-being of the animal is mentioned. The labour involved in maintaining the sheep throughout the year, the breeding of milk sheep and the prevention of disease are described. The second part of the book shows methods of using the products obtained from milk sheep, some of which will be little known by most people. For example, the chemical composition of sheep milk is given and we learn that the protein and vitamin content is greater than that of either cow- or goat-milk. A variety of methods for preparing cheese, butter, cottage cheese and yoghurt are explained and there are even several recipes where one can use these products. Other sections describe the preparation of the meat and associated dishes, the production of soap and candles that can be made out of the leftovers, and the processing of the wool from shearing the sheep to knitting jackets, preparing blankets and even mattresses.

However, the main lesson of the work must remain that life with the milk sheep and its products is far more diverse than one could have believed before beginning to leaf through the pages of "Das Milchschaaf" from Ida Schwintzer.

U. Langridge, Glen Osmond