

body size, thickness of the skin cover). Hence not only the population density and frequency of inter-specimen contacts exert an effect on the origin, development and extinction of the epizootic pest. In addition one should take into consideration some pathogenic traits of the microorganisms which modify in a various degree the relationship between the host and a parasite.

The content of the book is enriched by numerous tables (141) and figures (123). The bibliography includes 399 positions, from which over 320 is of Russian authors.

M. G.

Anton B. Bubenik: Das Geweih. Entwicklung, Aufbau und Ausformung der Geweihe und Gehörne und ihre Bedeutung für das Wild und für die Jagd. Verlag Paul Parey, Hamburg und Berlin, 1966. 214 pp, figs 87 (215), price 42 DM.

To meet the requirements of numerous hunters and students of forestry the Publishing House of Paul Parey in Hamburg specializes in publications of monographs concerning particular species of game or summarizing practical aspects of actual knowledge in the field or rational economy in hunting grounds. It is fortunate that this renowned series has been supplemented by a book which may be equally interesting for practical hunters and for research workers studying the physiology and biology of *Cervidae*.

The monograph by Dr. Bubenik constitutes an original synthesis of achievements of world scientific literature on the problem of formation of antlers and points. At the same time it is a presentation of original results of the author's studies carried out for several years. The publication has been carefully elaborated by the editors and is adorned by excellent figures and illustrative schematic diagrams by the author.

The arrangement of the book with clear numerical classification of chapters introduces the reader at the beginning to general characteristics of ruminants bearing points, their evolutionary development, as well as formation and structure of antlers. A comprehensive chapter covers the problem of biological and physiological aspects of formation and change of the antlers, presented on a broad morpho-physiological background. These problems are even more thoroughly discussed in connection to a theory of »trophic centres of antlers« propounded in an outline by the author. The theory attempts to correlate the hormonal mechanism of the antlers cycle with the influence of external stimuli by means of autonomic centres of the central nervous system. Subsequent chapters are much nearer to the interest of practical hunters. They deal with the effect of food and animal's age on the formation of antlers, as well as with the appearance of pathological forms of antlers.

The thorough knowledge of the subject both in detailed studies and in general biological problems enabled the author to give a synthetic view in the chapter entitled: »Mechanism of development and biological significance of antlers«. The phenomenon of formation of organs, the origin and function of which is still lacking a uniform theory, obtained there an interesting interpretation with new and often original conceptions. Although the chapter contains some as yet unconfirmed hypotheses, which in the future must be subjected to detailed studies, but one has to emphasize a broad and biological method applied by the author to the problems being for years under the domination of practitioners. From this point of view the most interesting and deserving generalization among hunters and students of forestry are the author's ideas on the subject of actual criteria of selection and real values of trophies in the deer. Similarly many practical hints and ideas arising from a desire of maintaining some species traits of reared animals may be found in the author's considerations on the subject of scientific organization of breeding work in a hunting-ground.

In general one has to conclude that the method of discussion and scope of the subject qualify this book by Bubenik to a group of synthetic monographs so helpful for biologists of various specialities. On the other hand the appearance of the book in the series so popular among hunting experts ensures its popularity and world-wide range.

J. R.