- FINNEY, G. L.; FISHER, T. W., 1964: Culture of entomophagous insects and their hosts. In: Biological Control of Insect Pests and Weeds. Ed. by P. DeBach. New York: Reinhold, pp. 328–355.
- FISHER, T. W., 1964: Quarantine handling of entomophagous insects. In: Biological Control of Insect Pests and Weeds. Ed. by P. DEBACH. New York: Reinhold, pp. 305–327.
- KLOMP, H.; TEERINK, B. J., 1978: The elimination of supernumerary larvae of the gregarious eggparasitoid *Trichogramma embryophagum* (Hym.: Trichogrammatidae) in eggs of the host *Ephestia kuehniella* (Lep.: Pyralidae). Entomophaga 23, 153–159.
- Leius, K., 1967: Influence of wild flowers on parasitism of tent caterpillar and codling moth. Can. Ent. 99, 444-446.
- MESSENGER, P. S.; BOSCH, R. VAN DEN, 1971: The adaptability of introduced biological control agents. In: Biological Control. Ed. by C. B. HUFFAKER. New York: Plenum, pp. 68–92.
- SMITH, C. N. (ed.) 1966: Insect Colonization and Mass Production. New York: Academic Press. STAIRS, G. R., 1983: Oviposition by Glypta fumiferanae (Hymenoptera: Ichneumonidae) in Choristoneura fumiferana larvae and the effect of honey on their fecundity and survival. Can. Ent. 115, 689-692.
- WYLIE, H. G., 1965: Some factors that reduce the reproductive rate of Nasonia vitripennis (Walk.) at high adult population densities. Can. Ent. 97, 970-977.
- •— 1966: Some mechanisms that affect the sex ratio of *Nasonia vitripennis* (Walk.) (Hymenoptera: Pteromalidae) reared from superparasitized housefly pupae. Can. Ent. 98, 645–653.
- 1976: Interference among females of Nasonia vitripennis (Hymenoptera: Pteromalidae) and its effect on sex ratio of their progeny. Can. Ent. 108, 655-661.

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BUCHBESPRECHUNGEN

Experimental and Applied Acarology. (Journal) 1. Vol. 1985. Editor-in-Chief: Prof. Dr. W. Helle. Editorial Secretariat: P.O. Box 330, NL-1000 AH Amsterdam: Elsevier Science Publishers B.V. Subskriptionspreis Dfl 180,— + Dfl 22,— Postversand, Gesamtpreis ca. \$ 75.— für 1985.

Nachdem nunmehr von dieser Anfang 1985 gegründeten, vierteljährlich in einem Umfang von durchschnittlich 6 Bogen erscheinenden Zeitschrift der 1. Jahresband (1985) vorliegt, läßt sich ein erstes Fazit ziehen. Wer die stürmische Entwicklung der Akarologie in den vergangenen Jahrzehnten verfolgte, erkannte die immer dringendere Notwendigkeit zur Gründung einer weiteren Zeitschrift. Die bisherigen akarologischen Journale waren auf die Taxonomie und Morphologie ausgerichtet und boten den experimentell und angewandt arbeitenden Akarologen kein Forum. So stellt diese Neuschöpfung eine Ergänzung zu ihnen dar. Eine Durchsicht der in den 4 Heften 1985 enthaltenen 28 Originalarbeiten zeigt, daß in guter Balance alle Richtungen angewandter Milbenforschung: die medizinische und veterinäre, die land- und forstwirtschaftliche sowie die vorratswirtschaftliche vertreten sind. Die Beiträge sind jeweils kurz, aber erschöpfend und übersichtlich gegliedert. Das Inhaltsverzeichnis des Heftes ist auf der Rückseite des kartonförmigen Umschlags enthalten. Hervorzuheben ist die hervorragende Aufmachung, die die Ablichtungen und (meist mikroskopischen) Photos voll zur Geltung kommen läßt. Man darf der Zeitschrift voraussagen, daß sie zu einem unentbehrlichen Bestandteil der angewandten Entomologie, die ja traditionsgemäß die Akarologie mit umfaßt, werden wird.

W. Schwenke, München

SHAPA, V. A. (Chief Editor): Biological Plant Protection. Russian Translations Series 45. Rotterdam: A. A. Balkema 1986. 84 S. Geb. DM 40,~.

Die hier vorgelegten 17 Veröffentlichungen zum biologischen Pflanzenschutz entstammen der sowjetischen Zeitschrift "Biologischeskaya Zashchita Rastenii". In den zehn Jahren, die zwischen der Veröffentlichung in russischer und jetzt in englischer Sprache liegen, ist ein Teil der

Ergebnisse, wie jene über die Anwendung von Gammastrahlen gegen die Kohlfliege, von Beauveria-Präparaten gegen den Apfelwickler oder von JH-Analogen gegen den Kartoffelkäfer überholt. Andere Themen, wie Untersuchungen über die natürlichen Feinde verschiedener Schadinsektenarten oder zur Wirkungssteigerung von Trichogramma haben ihren grundlegenden Informationswert behalten. Unabhängig von der Aktualität liefern natürlich alle Arbeiten interessante Einblicke in die Probleme und Methoden des Pflanzenschutzes in der UdSSR. Die "Russian Translations Series" sind zweifellos eine gute Sache. Sie würden weiter an Wert gewinnen, wenn es gelänge, die Übersetzungs- und Herausgabezeiten zu verkürzen.

KLAUSNITZER, B.: Stag beetles, Lucanidae (Hirschkäfer oder Schröter, Lucanidae). Wittenberg-Lutherstadt: A. Ziemsen Verlag 1982. Die Neue Brehm-Bücherei 551. 83 pp., 55 fig., 6 tab. DM 12.-.

This book is a monographic elaboration on Central European species of the family Lucanidae (Coleoptera). The taxonomic position of the family Lucanidae within the order Coleoptera, as well as the division of this family into subfamilies and tribes have been given in introduction. This is followed by the descriptive key and the originally elaborated drawing key for the identification of 5 genera and 7 species occurring in Central Europe. The morphology of adults, eggs, larvae and pupae have been described in detail, and the geographical distribution of Central European species and the genera occurring in Holarctic, Oriental, Ethiopian, Neotropical and Australian regions have been given. A separate chapter has been devoted to bionomics, biology, ethology and ecology of all developmental stages, and the key for the identification of Central European genera on the basis of their larvae has been presented. The host plants and the breeding material of individual species have been listed. The final chapter deals with such problems as species protection and history of utilization of stag beetles in medicine, as a food source, and in heraldry. This book has been illustrated with numerous drawings and photographs of good quality, and similarly as the other recently published books from the series "Die Neue Brehm-Bücherei" has been edited very clearly and with great care.

J. R. Starzyk, Kraków

DANILEVSKIJ, M. L., MIROSHNIKOV, A. I.: Long-horned beetles (Coleoptera, Cerambycidae) of Caucasus. Identification key (Žuki – drovoseki Kavkaza [Coleoptera, Cerambycidae]. Opredelitel). Krasnodar: Kubanskij Ordena Trudovogo Krasnogo Znamenii Selskochozjajstvennyj Institut, Krasnodarskaja Stancija Zastshity Rastenii 1985. 419 pp., 517 fig., Rbl 1.60.

This book is a monographic elaboration on long-horned beetles (Cerambycidae) of Caucasus and surrounding region. A total of 343 species from 105 genera, including about 150 species occurring in Central Europe, have been taken into account. The general part deals with biology and ecology of long-horned beetles (time of appearance, feeding and breeding of adults, development of preadult stages, trophic connections of larvae, parasites and predators), and their economic importance as pests in forestry, wood industry, fruit-farming, agriculture and cultivation of ornamental trees. A separate chapter has been devoted to the problems of protection of rare and relict species in the region under discussion. Also morphology of adult and larva has been described in detail.

The main part of the book consist of clear and concise keys for the identification of subfamilies, genera and species of long-horned beetles on the basis of adults and larvae. Numerous, exact, and large original drawings of entire body as well as individual body parts, and colour photographs of selected species, help in the identification. A revised nomenclature of long-horned beetles, assumed with some exceptions after Lobanov, Danilevskij and Murzin (1981, 1982), taking most important synonyms into account, has been utilized in this book. The geographical distribution and short bioecological data have been given for the individual species.

This book has been based in the first place on authors' own investigation materials. Moreover, the authors examined numerous museum collections of many scientific institutions in USSR, as well as rich literature comprising 155 publications. Up to the present time there was no such elaboration in literature concerning the fauna of long-horned beetles of Caucasus and surrounding region. For this reason this book, written and edited with great care, is very useful for the entomologists, persons working in forest and plant protection, as well as specialists in nature preservation and university biology students.

J. R. Starzyk, Kraków

CHOMENTOVSKIJ, P. A.: Xylophagous insects of coniferous trees of Kamchatka (Nasekomyje – ksilofagi chvojnych porod Kamtshatki). Vladivostok: Biologo-potshvennyj Institut AN SSSR 1983. 176 pp., 43 fig., 41 tab. Rbl 1.40.

The results of studies lasting for several years (1973-1980) conducted by the author on the fauna. ecology and distribution of xylophagous insects of 4 main coniferous species of Kamchatka (USSR), namely Larix kurilensis, Picea ajanensis, Pinus silvestris and P. pumila are presented in this book. The geological, geomorphological, orographical, climatic, soil and plant conditions of Kamchatka have been described in the introductory part of the book, followed by description of study sites and methods used. Up to the present time there have been 23 species of xylophagous insects reported from this area. Largest number of species (18) feed on Larix kurilensis and Picea ajanensis. Various ecological groups of insects, depending on their food specialization and kind and decomposition degree of inhabited breeding material, have been distinguished. The occurrence of xylophagous insects in zone of volcanic activity has been discussed in a separate chapter. Detailed information has been presented on phenology, biology and ecology of selected species of xylophagous insects, taking into account, among other things, such problems as conditions for inhabiting trees, electric conductivity of phloem of weakened trees, parallelism in insect fauna formation in different Holarctic regions etc. Also the methods for estimating the harmfulness of xylophagous insects the measures in their control, and wood preserving technics have been discussed in detail. The literature listed at the end of the book comprises 338 publications, and the anex is made up of 41 tables and 13 examples of field forms used by the author in hylopathological investigations.

This book, based on source materials, was designated, first of all, for specialists in forest entomology, forest protection, nature conservancy and ecology. Certainly it will be very useful for forestry students of secondary as well as university level.

J. R. STARZYK, Kraków

NEUMANN, V.: Great capricorn beetle, Cerambyx cerdo (Der Heldbock, Cerambyx cerdo). Wittenberg-Lutherstadt: A. Ziemsen Verlag 1985. Die Neue Brehm-Bücherei 566. 103 pp., 68 fig., 20 tab. DM 14.80.

The publication of Dr. V. Neumann is a comprehensive, and at the same time concise, monograph of the species Cerambyx cerdo from the family Cerambycidae (Coleoptera), supplemented with numerous drawings. Almost a complete literature (about 140 items) concerning this species, as well as the results of the author's own investigations have been taken into account. The nomenclature and a short review of European species of the genus Cerambyx L. have been given in the introduction. This is followed by morphology and anatomy of adults (shape, size and colour of the body, number of chromosoms and spermatohistogenesis, teratology), and the distribution in Europe, also including the second Central European species Cerambyx scopolii Fuessly. The description of developmental stages, biology, ethology and life cycle makes a largest part of this monograph. Such problems as biotop, host plants, time of swarming, 24-h period activity, stridulation, oviposition and histology of larval stages have been discussed among other things. A separate chapter has been devoted to the results of very interesting studies on the biopotential of central nervous system and electric potential of muscles of Cerambyx cerdo. The monograph is concluded with discussion on the economic importance of this species as a pest of oak wood, and the factors limiting their reproduction and numbers (entomophagous insects and diseases), and with problems connected with protection of adults and larvae. Although this work mainly concerns Cerambyx cerdo, but many data also refer to Cerambyx scopolii. This monograph is very precise and modern, and it is very aesthetically edited. I. R. STARZYK, Kraków