

rather singular conclusions concerning each military department. Yet almost all of these conclusions have been expressed at one time or another by individuals as members of the services themselves, even within the particular subordinate organizations under discussion. Thus in many respects, Janowitz has been a chronicler of military viewpoints as well as an analyst in his own right.

Where the author has leveled a criticism—or, perhaps more properly stated, has recorded a criticism leveled against one group, it will also be found that earlier or later he has commended that same group for some other attitude or action. The balance sheet, on the whole, gives all services a good bill of health and gives many pats on the back. In other words, it leaves the service reader proud to belong to the military.

But perhaps the main attribute of the book is that it gives those who have little first-hand knowledge of the military a chance to scrutinize this category of fellow-citizens under clinical conditions. And that is good, because it shows the homogeneity of Americans within and without the service and contributes something to the strength of the military-civilian defense team.

The timeliness of this work is remarkable. It has been published at a moment in United States history when both discerning civilians and military men are asking many questions along the lines of the author's inquiries. At the significant sixth National Military—Industrial Conference (held in Chicago, Ill., 25–27 April 1960, under the auspices of the Institute for American Strategy), a number of the key conference managers and conferees were pleased to learn that *The Professional Soldier* was a prolific source of information for inquiry into such subjects as the so-called “constabulary concept” in outlooks for the military forces in the future; the degrees of involvement in political matters on the part of the military; the comparison of the new “managerial” type of service supervision with the more traditional forms and their present relative acceptance; the reputed ascendancy of the “absolutists” over the “pragmatists” in matters of strategy; the attitude of the services toward creative ability on the part of personnel; the relative promotional opportunities between conformists and individualists; and the comparison of motivation in military men and civilians.

The book is a monument to industrious research and correlation of facts, which resulted in a thoroughly dynamic presentation from start to finish. It inquires into the historical development of myriad problems of management and control in relation to all facets of their environment as a means of assessing the present and the future military capabilities of the United States. Emphasis is given to personnel complexities and to the adaptability of the military as a whole, under the leadership of an elite group, to meet successfully the constantly changing situations of the present era.

The preface concludes that, “Despite its concern with managerial issues, the profession has been able to maintain its heroic posture, in varying degree, and its public service tradition. . . . Civilian control of military affairs remains intact and fundamentally acceptable to the military. . . .” From the military viewpoint it is believed that such conclusions are sound.

It is interesting to note the amount of attention Janowitz has devoted to ideological endeavors in the Armed Forces. In addition to his remarks, it might be said that there appears to be better receptivity to ideological considerations today than there was a few years ago and that this is attributable to the fact that the rank and file are now beginning to come to grips with the actual threat we are facing.

The author “speaks the language” of military strategy and tactics and of political warfare with professional ease. His discourses on the logic of war, on coalition warfare, and on total versus limited warfare and political situations, complexions, and attitudes are extremely knowledgeable and interesting. He has uncovered many nuances in the attitudes and reasoning of his personalities and much fresh background information to substantiate his conclusions.

As a bonus effect, his portrayal of the social conflict attendant on the competition for admission into the elite leadership group (with its observance of service social customs and ceremonies) intrigues the ladies—from those seeking to marry into the service to the dowagers seeking to arrange “suitable matches.” Young men will find it valuable for career planning purposes.

I consider the book to be a most important addition to my library.

MILLARD C. YOUNG

*U.S. Air Force,  
Washington, D.C.*

**Illustrated Flora of the Pacific States.** Washington, Oregon, and California. vol. 4, *Begoniaceae to Compositae*. Leroy Abrams and Roxana Stinchfield Ferris. Stanford University Press, Stanford, Calif., 1960. v + 732 pp. Illus. \$17.50.

This series of four volumes represents 60 years of diligent and painstaking study by the authors. This is no mere compilation from the published research of others, hastily thrown together to place a book on the market. It is much more a monograph of the flora of a vast and ecologically diversified region. Doubtless there are small errors of the type inevitably appearing in any major book and omissions of details concerning the occurrence of species in this or that political or minor geographic unit, but basically the work is both original and sound.

Volumes 1 (1923), 2 (1944), and 3 (1951), together with the present volume, form a completed series long awaited by botanists. Roxana Ferris is to be congratulated for completing the series and, thus, fulfilling the dream of Leroy Abrams, whose advancing age and death prevented the appearance of the final volume during his lifetime. The fourth volume, excellently done, is a fitting tribute to an outstanding man.

The final volume includes the major items dependent upon completion of the book as a whole—the keys to the families and the indexes of popular and scientific names appearing in the the four volumes.

LYMAN BENSON

*Department of Botany,  
Pomona College*

**Systema Helminthum.** vol. 2, *The Cestodes of Vertebrates*. Satyu Yamaguti. Interscience, New York, 1959. vii + 860 pp. \$90.

This second volume of a series designed to present a systematic treatment of all known parasitic worms on the basis of their morphological and, at times, biological characteristics, deals only with the cestodes. The plan and treatment are the same as in volume 1 [*Science* 129, 956 (1959)].

As in volume 1, the figures are grouped on plates, but frequently the figures pertaining to related genera and species are widely separated, and com-

parison is, therefore, difficult. The figures, all copied from the original works, are small. Some are excellent, but unfortunately many of the original figures were poor, and they have not been improved by reproduction. For details a reading glass is helpful, often necessary.

Diagnoses of the various taxa are clearly stated and appear to be adequate. Typographical errors are relatively few in number. However, on page 432 *Trilobium* is used for *Tribolium*.

This latest classification of the Cestoda inevitably differs in some respects from earlier classifications, the most recent of which is that of Wardle and McLeod, *The Biology of Tapeworms* (1952).

Yamaguti rejects the cestodarian order Biporophyllidea Subramanian (1939) on the ground that *Biporophyllaeus madrassensis* Sub., 1939, appears to be a free proglottis of a tetraphyllidean or trypanorhynchidean cestode.

The ordinal name Lecanicephalidea (syn. Lecanicephala Wardle and McLeod, 1952) is credited by Yamaguti (on page 94) to Baylis (1920). I am at a loss, however, to determine the origin of the name. It does not appear in the only 1920 paper by Baylis dealing with cestodes which Yamaguti lists. Can it be that Yamaguti was misled by a card in the files of the *Index Catalogue of Medical and Veterinary Zoology* at Beltsville, Maryland, on which appears the entry: "Lecanicephalidea [sic] Baylis, 1920, p. 263"? Examination of the paper, here referred to, shows that it deals entirely with nematodes and that the name in question was one which Drasche (1884) had given to a category in which he placed the nematode genus *Lecanicephalus* (= *Goezia*). The orthography Lecanicephalidea was used by Mola (1928), page 10, line 7, and is evidently a *lapsus* or typographical error for the family name Lecanicephalidae.

In place of the ordinal name Proteocephala Wardle and McLeod (1952), Yamaguti has used the name Proteocephalidea Mola (1928) to contain the family Proteocephalidae. Mola (1928, page 15, line 1), in error (probably typographical), used the spelling credited to him, but in this sentence he was assigning the genus *Ephedrocephalus* to the "famiglia Proteocephalidea." However, on page 19 in his system, he used the correct orthog-

raphy when he placed the family *Protecephalidae* under the order Tetraphyllidea Carus, 1863. In my opinion, credit for the first use of Proteocephalidea as an ordinal name should belong to Yamaguti.

In Yamaguti's system the order Diphyllidea Carus, 1863, is represented by the single family Echinbothriidae Perrier, 1897, with the single genus *Echinobothrium* Beneden, 1849. This genus is considered by Wardle and McLeod (1952) to be a *genus inquirendum* under the order Lecanicephala.

New families erected by Yamaguti in this volume are Cephalochlamydidae and Parabothriocephalidae in the order Pseudophyllidea; Triplotaeniidae in the order Cyclophyllidea; Adelobothriidae and Tetragonocephalidae in the order Lecanicephalidea; and Triloculariidae and Maccallumiellidae in the order Tetraphyllidea. He has erected three new subfamilies and 26 new genera of which no less than 20 are in the subfamily Hymenolepidinae Ransom, 1909.

It has not been possible to check with care many of the synonymies listed by Yamaguti. However, I am at a loss to understand why the family name Dibothriocephalidae Lühe, 1902, and the generic name Dibothriocephalus Lühe, 1899, which are used by Wardle and McLeod (1952), are not recorded as synonyms of Diphyllbothriidae Lühe, 1910, and Diphyllbothrium Lühe, 1910, respectively.

Despite the criticisms expressed here, this volume on the class Cestoda must be accorded a very high place in the literature relating to this group of parasitic worms. To the serious worker in cestode systematics, it will be indispensable.

GEORGE R. LA RUE

U. S. Agricultural Research Service,  
Beltsville, Maryland

## New Books

### Biological and Medical Sciences

Berger, E., and J. L. Melnick, Eds. *Progress in Medical Virology*. vol. 2. Hafner, New York, 1959. 240 pp. \$10. Contributors are M. P. Chumakov, E. A. Evans, Jr., N. Higashi, R. Koppelman, M. G. Smith, M. Staehelin, M. K. Voroshilova, Th. G. Wardt.

Clark, F., and J. K. Grant, Eds. *The Biosynthesis and Secretion of Adrenocortical Steroids*. Cambridge Univ. Press, New York, 1960. 119 pp. \$5. This volume, No. 18 in the *Biochemical Society Symposium* series, contains information on methods of separating, identifying, and measuring the adrenocortical steroids. Re-

cent ideas on the control of the secretion of the adrenal cortex by hypophysis and higher centers also receive attention.

Kelemen, E. *Permeability in Acute Experimental Inflammatory Oedema*. In the light of the action of salicylates. Hungarian Acad. of Sciences, Budapest, 1960. 256 pp.

Lardy, Henry A., Ed. *Biochemical Preparations*. vol. 7. Wiley, New York, 1960. 111 pp. \$5.25.

Martin, Phyllis C., and Elizabeth Lee Vincent. *Human Development*. Ronald, New York, 1960. 546 pp. \$6.50.

Nicol, J. A. Colin. *The Biology of Marine Animals*. Interscience, New York, 1960. 718 pp. \$14.

Pomerantzev, B. I. *Fauna of U.S.S.R. Arachnida*. vol. 4, No. 2, *Ixodid Ticks Ixodidae*. Translated by Alena Elbl. George Anastos, Ed. American Inst. of Biological Sciences, Washington, D.C., 1960. 199 pp. \$10.

Stacy, Ralph W. *Biological and Medical Electronics*. McGraw-Hill, New York, 1960. 319 pp. \$9.50.

Stecher, Paul G., Ed. *The Merck Index of Chemicals and Drugs*. An encyclopedia for chemists, pharmacists, physicians, and members of the allied professions. Merck, Rahway, N.J., ed. 7, 1960. 1642 pp. \$12. Contains approximately 10,000 descriptions of individual substances, more than 3300 structural formulas, and about 30,000 names of chemicals and drugs alphabetically arranged and cross-indexed.

### Mathematics, Physical Sciences, and Engineering

Halliday, David, and Robert Resnick. *Physics for Students of Science and Engineering*. Part 2. Wiley, New York, 1960. 524 pp.

Ivill, T. E. *Electronic Computers*. Principles and applications. Iliffe, London; Philosophical Library, New York, 1960. 271 pp. \$15.

Lapp, Ralph E. *Roads to Discovery*. Harper, New York, 1960. 191 pp. \$3.75.

Lindsay, Robert B. *Mechanical Radiation*. McGraw-Hill, New York, 1960. 423 pp. \$10.

Low, William. *Paramagnetic Resonance in Solids*. Suppl. 2, *Solid State Physics*. Academic Press, New York, 1960. 220 pp. \$7.50.

Reid, Constance. *From Zero to Infinity*. What makes numbers interesting. Crowell, New York, ed. 2, 1960. 171 pp. \$3.95

Seitz, Frederick, and David Turnbull, Eds. *Solid State Physics*. Advances in research and applications. vol. 10. Academic Press, New York, 1960. 531 pp. \$14.50. Contributors to this volume: F. J. Adrian, F. De Wit, B. S. Gougary, D. Lazarus, M. R. Schafroth, P. R. Wallace.

Wade, F. Alton, and Richard B. Mattox. *Elements of Crystallography and Mineralogy*. Harper, New York, 1960. 346 pp. \$7.50.

Weidner, Richard T., and Robert L. Sells. *Elementary Modern Physics*. Allyn and Bacon, Boston, 1960. 524 pp. \$8.50.

Zenz, Frederick A., and Donald F. Othmer. *Fluidization and Fluid-Particle Systems*. Reinhold, New York; Chapman and Hall, London, 1960. 523 pp. \$15.