

study of the alien flora and its impact on the indigenous one is a prime research topic for the immediate future. The older European farmers who know the history of agriculture here are rapidly disappearing, and time is of the essence. The new *Flora* will be indispensable for such a study.

For Wiggins, this work is the culmination of a decade of extraordinary accomplishment in which he has guided three monumental floras to completion. That much of this work has been done since his academic retirement is a tribute to his remarkable energy and decisiveness. The high standard set by these works is a challenge and example for the Flora North America Project now gaining momentum.

WILLIAM A. WEBER

University of Colorado Museum,  
Boulder

## Blood Constituent

**The Circulating Platelet.** SHIRLEY A. JOHNSON, Ed. Academic Press, New York, 1971. xx, 602 pp., illus. \$29.50.

The blood platelet was first visualized in the 1840's and shortly thereafter was recognized as important in clotting. It is largely over the last two decades, however, that detailed understanding of its various functions, its status as a metabolically active cell, albeit one of inevitable rapid senescence, its clinical importance, and its therapeutic uses has developed.

Two books, both edited by Shirley Johnson, summarize the work of these decades, the first (*Blood Platelets*, Little, Brown, 1961) covering the exciting decade of the 1950's, when the significance of the platelet in many fields was first appreciated, and the volume under review here covering a decade during which earlier knowledge was consolidated and further progress made. Comparison of the volumes demonstrates that both notable refinement in platelet investigative technique—for example, the exquisite electron micrographs illustrating White's chapter on platelet morphology—and a subtle change in approach have occurred. Formerly regarded as primarily concerned with hemostasis, the platelet is now recognized also as a nidus for thrombus formation. This subject is ably considered by Johnson in the new volume.

The role of the platelet in blood clotting, as distinct from thrombosis, is described by Walter Seegers in his usual

trenchant and nevertheless eloquent style. Seegers also takes up the important matters of nomenclature of the platelet coagulation factors. Although, as Seegers admits, a better classification is needed, his original nomenclature has yet to be supplanted. The purely clinical aspects of platelet disorders are described in an excellent chapter by Bowie and Owen. Advances in the clinical field have been relatively modest over the last decade. Similarly, while the use of platelet concentrates for therapeutic purposes has greatly increased recently, advances (described here by Perry and Yankee) have been mainly at the practical level.

The writing of a monograph in a specialized field of interest to a wide audience inevitably involves substantial compromise. The compromise in this instance has been emphasis on platelet morphology and the present state of the art at the expense of platelet biochemistry and the future. Nevertheless, the book serves as a good introduction to the platelet for the hematologist and constitutes a useful reference source for others with expertise in the field.

Shirley Johnson did not live to see the publication of her book, and the reviewer, together with many in the platelet field, lost a close friend. Seegers, Johnson's long-time colleague, contributes a graceful preface eulogizing her many attainments.

NORMA ALKJAERSIG

Department of Medicine,  
Washington University School  
of Medicine, St. Louis, Missouri

## Trends in Fertility

**Reproduction in the United States, 1965.** NORMAN B. RYDER and CHARLES F. WESTOFF. Published for the Office of Population Research, Princeton University, by Princeton University Press, Princeton, N.J., 1971. iv, 420 pp., illus. \$13.50.

The National Fertility Study of 1965, on which this book reports, is the third in the Growth of American Families series started by P. K. Whelpton and his colleagues at the Scripps Foundation in 1955. The volumes resulting from the 1955 and 1960 surveys were *Family Planning, Sterility, and Population Growth*, by R. Freedman, Whelpton, and A. A. Campbell (McGraw-Hill, 1959), and *Fertility and Family Planning in the United States*, by Whelpton, Campbell, and J. E. Patterson (Princeton University

Press, 1966). After the death of Whelpton in 1964 the Scripps Foundation turned its attention to aspects of population other than fertility, and the continuation of the series was undertaken by Ryder and Westoff, of Princeton's Office of Population Research, under the aegis of the National Institute of Child Health and Human Development.

Their study is based on interviews with a national sample of 5617 white and Negro women under 55 years of age, in which were collected—as in the two preceding GAF studies—detailed pregnancy and contraceptive histories, attitudes toward family size and family planning, and a range of descriptive data of demographic, social, and economic nature. There was, however, some change of objective. As described by Ryder and Westoff (p. 37), "The primary purpose of the first [GAF study] was to find a better way of making fertility forecasts, specifically to develop ways of using survey data to estimate the completed fertility of married women still in the childbearing ages. The method was daring in its simplicity: ask each woman to make her own forecast of her future fertility." Even before they began the 1965 study Ryder and Westoff had challenged the trustworthiness of "expectation" data for the estimation of future fertility and population trends, and they adopted the somewhat more modest objective of trying to learn more about the trends and differentials in fertility and the cultural determinants of reproductive behavior.

In preparing the interview schedules the authors constantly had to decide between making the data as comparable as possible with those of the preceding surveys, on the one hand, and improving the data, on the other. Rightly, they generally gave more weight to the latter possibility, but in several instances they were able to provide for both comparability and improvement.

The authors are disarmingly honest in their reporting of findings. In fact one frequently gets the impression that they conceived their task to be that of explaining the complexities of fertility trends and differentials, of warning readers about concealed biases and selections, and of pointing out the limitations of data resulting from respondents' misinterpretation of questions, lack of recall, and deliberate falsification. As a result, any disappointment the reader may have over the apparent

lack of striking and unequivocal findings is tempered by the feeling that the authors have no axe to grind and have made the report as truthful as possible.

Some of the outstanding findings are as follows: "Negro women expect to have more children than white women because they already have more, but the number they say they *want* is, on the average, about the same as for whites" (p. 90). The fertility differentials by education may have increased a little, or they may be reflecting a selective effect of the diminution of the lowest educational category (p. 88). "Generally speaking, however, the change in the pattern of fertility by occupational class has not altered appreciably" (p. 88). As for the trend of differentials by religion, "we offer the generalization that the widening of the Protestant-Catholic differential in fertility between 1955 and 1960 (as reflected in the average number of children expected) has not persisted between 1960 and 1965 and shows some indications of reversing" (p. 83).

As for proportions of women practicing contraception: "(1) the upward trend evident between 1955 and 1960 has continued through 1965, though necessarily at a reduced rate; (2) couples appear to be adopting contraception earlier in marriage; (3) Protestant-Catholic differences in use are continuing to diminish; (4) use of contraception has increased most sharply among the more educated Catholic women; (5) education is generally becoming less important in differentiating use; and, (6) due to a substantial increase in use among non-white women, especially young women in the South, the white and nonwhite differences in proportions using contraception will probably disappear in the near future" (p. 136).

The dramatic popularization of the pill during 1960-1965 is discussed. Curiously, the intrauterine device gets only a bare mention in the book. This device was being used extensively in Latin America and Asia as early as 1963. Among 216 women in the U.S. sample who had quit the pill because of the side effects, none reported ever using the intrauterine device before using the pill and only 5 percent reported resort to it after the pill (p. 169). Apparently the number of non-users of the pill who had experience with the device was not large enough to merit discussion.

Despite the increase in contraception there is still much failure in family

planning. "For all measures of planning failure there are distinct differentials by race, religion, and education: higher failure rates for Negroes than for whites, for white Catholics than for white non-Catholics, and for wives with less education (except among Catholics). Nevertheless, these variations seem secondary in importance to the finding that there is substantial lack of success in fertility planning [with respect to timing] across the entire sample, regardless of race, religion, or education" (p. 235).

The reviewer has a few criticisms. The authors give very few comparisons of their findings with those of other students. They are aware of this shortcoming and plead lack of space and inconvenience. Nevertheless, it is necessary to synthesize the results of various studies if maximum usefulness of research is to be attained.

Because of "an incredibly low number of women in [their] sample who admitted ever having experienced an abortion" the authors decided to present no data whatsoever on the prevalence of reported abortion. Yet they present an elaborate analysis of attitudes toward abortion. One might well question the implicit assumption that although the women's reports of abortion are untrustworthy their statements about their attitudes toward it are sound.

After discussing the "deplorably high levels of inconsistency" in response revealed in a reinterview of a subsample, the authors rightly emphasize that "we must devote considerably more time to the data collection problem." They again put their fingers on the nub of the problem in the concluding statement of their book: "The data reported in this chapter [on birth and pregnancy intervals] are probably the most crucial to our understanding of the processes underlying fertility but at the same time the most fraught with possibilities of misinterpretation because of unreliability. The subtleties of complex explanatory systems, employing sophisticated social, economic, and psychological concepts, will provide meagre returns unless and until we learn how to measure more accurately the dependent variables at the core of the analysis of fertility."

Despite the criticisms mentioned the book is of the first water. It deserves a better index than the skimpy one provided.

CLYDE V. KISER  
P.O. Box 187, Princeton, New Jersey

## Books Received

**Advances in Pharmaceutical Sciences.** Vol. 3. H. S. Bean, A. H. Beckett, and J. E. Carless, Eds. Academic Press, New York, 1971. x, 242 pp., illus. \$14.50.

**Analytical Chemistry of Gallium.** A. M. Dymov and A. P. Savostin. Translated from the Russian edition (Moscow, 1968) by J. Schmorak. Ann Arbor Science Publishers, Ann Arbor, Mich., 1970 (distributor, Keter, New York). vii, 262 pp., illus. \$20. Analytical Chemistry of the Elements.

**Anatomy of the Cat.** An Atlas and Dissection Guide. Martin J. Ulmer, Robert E. Haupt, and Ellis A. Hicks. Harper and Row, New York, 1971. x, 210 pp. Paper, \$5.

**Annual Review of Ecology and Systematics.** Vol. 2. Richard F. Johnston, Peter W. Frank, and Charles D. Michener, Eds. Annual Reviews, Palo Alto, Calif. x, 510 pp., illus. \$10.

**Applied Plastic Design in Steel.** Robert O. Disque. Van Nostrand Reinhold, New York, 1971. xii, 244 pp., illus. \$13.95.

**Aspects of Modern Turkish Society.** Six Papers. Translated and edited by Peter Suzuki. Wds-Schnelldruck, Wiesbaden, Germany, 1971. 106 pp. Newsletters, supplement No. 2.

**Aspects of the Theory of Bounded Integral Operators in Lp-Spaces.** G. O. Okiolu. Academic Press, New York, 1971. x, 522 pp. \$29.

**Basic Physics of Stellar Atmospheres.** Thomas L. Swihart. Pachart, Tucson, Ariz., 1971. xii, 86 pp. \$7.95. Intermediate Short Texts in Astrophysics.

**The Bee Language Controversy.** An Experience in Science. Adrian M. Wenner. Educational Programs Improvement Corp., Boulder, Colo., 1971. xii, 110 pp., illus. Cloth, \$3.95; paper, \$1.95.

**Black's Medical Dictionary.** William A. R. Thomson. Barnes and Noble, New York, ed. 29, 1971. x, 1006 pp. + plates. \$9.

**The Bracero Program.** Interest Groups and Foreign Policy. Richard B. Craig. University of Texas Press, Austin, 1971. xviii, 234 pp. \$7.50.

**The Chemistry of the Azido Group.** Saul Patai, Ed. Interscience (Wiley), New York, 1971. xiv, 626 pp., illus. \$32.50. The Chemistry of Functional Groups.

**Color and Symmetry.** Arthur L. Loeb. Wiley-Interscience, New York, 1971. xvi, 180 pp. + plates. \$14.95. Wiley Monographs in Crystallography.

**The Correspondence of Henry Oldenburg.** Vol. 8, 1671-1672. Edited and translated by A. Rupert Hall and Marie Boas Hall. University of Wisconsin Press, Madison, 1971. xxviii, 664 pp., illus. \$20.

**A Course in Continuum Mechanics.** Vol. 1, Basic Equations and Analytical Techniques. L. I. Sedov. Translated from the Russian edition by J. R. M. Radok. Wolters-Noordhoff, Groningen, The Netherlands, 1971. xx, 242 pp., illus. Dfl. 43.50.

**The Course of Human Development.** Mary Cover Jones, Nancy Bayley, Jean Walker Macfarlane, and Marjorie Pyles Honzik, Eds. Xerox College Publishing, Waltham, Mass. 1971. xiv, 490 pp., illus. \$17.95.

(Continued on page 340)