

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.

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## 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.

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## 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