## Political Ornithology

**Bird Study**. Andrew J. Berger. Wiley, New York, 1961. 400 pp. Illus. $9.

*Bird Study* is designed, according to its preface, to be used in a one-semester ornithology course for liberal arts students. Such students have seldom had extensive biological training, and their approach to ornithology can hardly be expected to be highly sophisticated. It is, therefore, a surprise to find that this text contains caustic criticisms of other workers or schools of workers (particularly in the chapters on behavior and systematics), "witty" jibes at ideas not held by the author, and facetious statements meant, apparently, to demolish the opposition. Little evidence for the views accepted or rejected is given, and students may thus be left with a biased attitude toward widely held ideas which they actually are unprepared to judge fairly. It is certainly advisable to expose beginning students to the different interpretations and approaches within a science, and, after the conflicting evidence has been fairly covered, it is perhaps even permissible for an author to indicate his own views. But care must be exercised lest students be led to accept these views uncritically. Sarcastic witticisms are out of place in such a text.

Personal bias is especially manifest in the chapter on conservation (which covers much material having little to do with ornithology), where federal farm policies are roundly lashed and a political cartoon from *Life* magazine is included. It is unusual to learn so much of an author's political position by reading his ornithology text.

The organization of the material is somewhat disturbing; portions of a subject may be covered in several different chapters. Thus anatomy appears in both the first and ninth chapters, and behavior theory is treated in at least four chapters, only one of which is entitled behavior.

The discussion of ethology includes some misleading sections; for example, displacement activities are poorly treated and mistakenly related to vacuum activity; a conflict between a "social-stimulation school" and a "hostile-behavior school" is emphasized, though it hardly exists in fact (fighting is considered by Berger as a device for "mutual stimulation," but it is difficult to see why he feels this automatically cancels its hostile nature).

A good introductory ornithology text has long been needed, and this one is certainly superior to its predecessors for it gives more extensive coverage to newer aspects of the subject and has an approach more in tune with modern evolutionary thought. It represents a welcome advance, but, unfortunately, not as great an advance as could be desired.

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## Sinews or Fat

**Educating Gifted Children**. Robert F. DeHaan and Robert J. Havinhurst. University of Chicago Press, Chicago, Ill., ed. 2, 1961. x + 362 pp. $5.

This volume, one of several on its topic recently appearing, is a third larger than the first edition of only 4 years ago [reviewed in *Science* **126**, 615 (1957)], and it well indicates the growth of interest in the subject. Concepts of giftedness are broadening; new to this edition are chapters on creativity and on "non-intellectual" talents, as in leadership and the arts. A fifth of the total school population is considered to deserve special attention, as superior in some respect. Selection should be on the basis of a variety of testings and other evidence, should begin early (so "creative rhythms" tests may be given in the first grade "to see how well a child could follow a definite dance pattern"), and should be reviewed periodically.

A new chapter on objectives and curriculum stresses adequate planning: the teachers of each local school district should study "the characteristics of the gifted children in its own schools . . . the lives of great men . . . and our national purposes and the desires of humanity all over the world." The values of and research support for acceleration are recognized. But enrichment is "the key concept." A great variety of materials and methods are suggested for use in the regular classroom, in special groups or classes, or in the community—the book ends with a description of a "junior theatre," with a professionally trained director, to serve children with dramatic talent from the third grade through high school. Sample programs for the gifted from elementary school through college are described.

No mention was noted of possible values of work in the total education of the gifted, though a relevant summer job has been part of some programs. The chapter on evaluation omits career and other outcomes in adult life, though Terman and others have shown the importance of such follow-ups.

But, in sum, the volume inclusively reports current experimenting in this field, much of it generously subsidized. Indeed, the necessity might be inferred of an elaborateness of approach beyond the ordinarily feasible, or perhaps sometimes desirable. Might an able youngster, eager to get ahead with his education and into his life-work, need help in avoiding some of the plentitude of testings and guidings and enrichings! Might a crowded school, with no Carnegie grant in sight, refuse to consider any program for its gifted! I believe that there can be lean vigorous programs, realistic about such problems, and that more consideration should be given them.

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## Glucuronic Acid

**Chemistry of Drug Metabolism**. William H. Fishman. Thomas, Springfield, Ill., 1961. xvii + 235 pp. Illus. $10.50.

The study of drug metabolism is an important field with an extensive and expanding literature; therefore current reviews are of considerable value to those engaged in research on the metabolism of drugs and toxic chemicals. William H. Fishman, the author of this monograph, is well known for his significant contributions to the study of metabolic conjugation of drugs with glucuronic acid and the biochemical role of $\beta$ glucuronidase. His discussion of this topic, which comprises one-half of the book, is a welcome and timely reference. He considers in detail the chemistry of glucuronic acid, its role in carbohydrate metabolism, and its physiological and pharmacological significance. He relates drug metabolism to normal biochemical mechanisms and presents some interesting conclusions concerning the role of conjugation in solubility, penetration, and the transport of active substances to target organs. The enzymatic functions of $\beta$ glucuronidase are also discussed in this context.