Book Reviews

Les Chromosomes des Vertébrés. Robert Matthey. Lausanne, Switz.: F. Rouge, 1949. Pp. 360. (Illustrated.) 48 Sw. fr.

The chaotic state of our knowledge of vertebrate chromosomes is one that makes every cytologist shudder. The prevailing confusion touches every aspect of the subject, extending even to chromosome counts. Thus the number of chromosomes reported by a long series of investigators for *Gallus domesticus*, the common chicken, ranges from 12 to 78, and cytological disagreement has been almost as great for other vertebrates. To the initiate this is perhaps not surprising, for these investigations demand the utmost in judgment and technical skill and some workers in the field have been far from realizing this.

The first important step toward putting things to rights was taken in 1937 by Oguma and Makino, who published lists of all vertebrate chromosome numbers with references that had been reported up to that time. But the Japanese cytologists did not attempt to make critical evaluations of the many discordant results, a task which has now been undertaken by Matthey.

In a great many cases Matthey encounters no difficulty in recognizing erroneous findings, and he frees the subject of such encumbrances without mercy. But in all too many instances a final decision is impossible, and Matthey, whose own excellent researches give his judgment a considerable weight, is forced to suspend his verdict. That is especially true of the sex chromosomes, and he quite rightly devotes a quarter of the book to this important aspect. The long and the short of the matter is that even in such familiar animals as frogs, various domestic fowls, and rodents, where so much breeding work might be expected to serve as an aid to cytological investigation, no final conclusion about the constitution and behavior of the sex chromosomes is yet possible. Matthey makes it clear that progress is indeed now being made, but, as he has elsewhere remarked—not without a twinkle in his eye—one hindrance lies in the fact that whereas one important group of workers derives theoretically beautiful generalizations from sadly inadequate material, another does not sufficiently utilize our present knowledge of cytogenetics in interpreting its preparations that are close to perfection. But much clarification is brought about by Matthey's clear statements of the issues that are now important to a final solution. His presentation of the problems of chromosomal evolution among the vertebrates should prove to be extremely useful in further researches.

It may not be amiss to point out that even in a work so crammed with numbers and facts, the author's freshness of expression and charming style do much to ease our progress through the pages. The book will no doubt become the basis from which all further work on vertebrate chromosomes will take its start. There are 490 illustrations, judiciously chosen and well reproduced. A bibliography, species index, and list of text figures terminate the volume.

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Best science fiction stories: 1949. Everett F. Bleiler and T. E. Dikty. (Eds.) New York (16): Frederick Fell, 1949. Pp. 314. $2.95.

Whether the *Best science fiction stories: 1949* are or are not the best is of course a matter of taste, but most of them are good of their kind, and they do not misrepresent the field. Readers of *Science* who have read science fiction will know what to expect. To others, some of the stories should perhaps be recommended with a word of guidance.

Science fiction has its conventions and, like the mystery story, a bag of tricks. Thus, in "Genius," by Poul Anderson, "subdimensional quasivelocity" is merely a way of double-talking oneself past the speed of light in order to write about a galactic empire. I don't find this more annoying than the witches in *Macbeth*, because the story is both exciting and well thought out within its framework.

Indeed, science fiction writers have acquired a knack of constructing worlds in which things stick together so well as to make some solemn books about the future seem a little silly. Dr. Asimov, for instance, manages ingeniously to confront sanity, in a race of evolved bears, with humanity. If we miss moving characterization and hot love scenes in "No Connection," we are at least spared a raising of the devil, red or otherwise.

Some stories rely less on technology. I don't know how to describe Ray Bradbury's "Mars is Heaven" and "And the Moon Be Still As Bright" in a few words, but you might like them. Certainly, Wilmar H. Shiras's story of a child should convince anyone that not all science fiction is machines, monsters, thud and blunder.

Space is short; as for the rest, Henry Kuttner mixes such science fiction stand-bys as time travel, a robot, and teleportation with an ingenious plot and a surprise ending to make just plain enjoyment. In Lewis Padget's "Ex Machina" this and more than a dash of Thorne Smith make fun for those who can take it. Frederick Brown does better than might be expected with the hackneyed last man theme. Murray Leinster's story is acceptable. J. J. Coupling's "Period Piece" is an honest effort to set one's teeth on edge. I will lay what I think of the other two stories to prejudice.

Melvin Korshak's introduction is a good historical summary. The reader should leave Bleiler's and Dickty's preface till after the stories, because it gives away some of the plots. So do the heads above the titles.

In a reviewer's last say, I commend the good plotting and good writing that make these stories easy to read and leave no doubt about what has happened and no wonder concerning what was meant. However, this poor