The name Pierre Pellegrin should be familiar to anyone who has studied Aristotle’s zoology intensively. With his monograph *La Classification des animaux chez Aristote: Statut de la biologie et unité de l’aristotélisme* from 1982 (translation by Anthony Preus: *Classification of Animals*, published 1986), Pellegrin made an important contribution to the question of Aristotle’s classification of animals.

The book reviewed here deals also with Aristotelian natural philosophy and brings together five essays by Pellegrin (again translated by Preus). The volume addresses, as Pellegrin notes in his introduction, two sorts of readers. First, he focuses on readers not belonging to the “circle of specialists”; the author’s aim for this group is to provide a “clearer understanding of certain concepts” of Aristotelian natural philosophy combined with the hope that “everyone will find food for thought.” The second group includes specialists in Aristotle’s biology. For this group Pellegrin offers a rereading of several well-known passages to which he thinks he can “bring new light.” I will discuss some parts of the book also with view to these two, admittedly very distinct, groups. However, as should be briefly anticipated here, the goal of addressing these two (disparate) groups, which differ considerably in their prior knowledge, interest, and therefore their requirements of academic texts, in one and the same text is not always successfully implemented throughout the book. Independent of the reader, the overall aim of the book, according to the author, is a “comprehending of the topics that it touches on” and only in a second step to “explain them [i.e., said topics] by referring them to a larger structure” (p. 3).

Beside these general preliminary remarks, one statement in the introduction is surprising. Pellegrin’s statement that “Aristotle’s treatises offer nothing to today’s biologists” seems provocative and can, to some extent, be doubted when facing the literature produced in recent years outside of classical scholarship by biologists with very different means of access to and inspirations from Aristotle’s biology (see, for instance, some works...
As mentioned above, all five essays revolve around Aristotelian natural philosophy. I use the term “natural philosophy,” but texts written by Aristotle, like the Historia animalium and De partibus animalium, actually contain questions and contents of an obviously “biological” nature. But can we say that Aristotle was a biologist? The first essay, titled “Is There an Aristotelian Biology?,” deals with exactly this question. Pellegrin asks: “Is it absolutely anachronistic to say that Aristotle was a biologist?” (p. 7). To answer this question, he discusses the relationship and influence of the Stagirite on other biologists, like Charles Darwin and George Cuvier, whom Aristotle profoundly resembled. Especially the method of comparative anatomy is in the focus of the analysis and is carefully worked out by Pellegrin as a common motif of research in both Aristotle and Cuvier.

After some exciting explanations on comparative anatomy and some reflections on taxonomy (which could have been fleshed out a bit more with discussions of modern research in this field[2]), the following chapters with remarks on the biological corpus of Aristotle and the relationship between the Historia animalium and De partibus animalium come across as somewhat surprising but are nevertheless certainly informative in content (particularly for the above-mentioned group of “non-specialists”). The remarks about the chronology of the biological works toward the end of the chapter are well written and instructive.

The second essay, “The New Horizon of Teleology,” focuses the principle of teleology within Aristotle’s biological enterprise. Pellegrin gives an overview of three of the four causes (formal, final, efficient) in Aristotle’s philosophy of science and turns then to the historical background of natural philosophy, namely, the Pre-Socratics. A paragraph on Aristotle’s cosmology without cosmogony follows. Pellegrin devotes the rest of the essay to questions regarding the concept of necessity in Aristotle. It is well known that within Aristotle’s theory of natural philosophy a distinction is made between two necessities: first, the hypothetical necessity (anankē ex hypotheseōs), and second, the necessity par excellence (anankē haplōs). The hypothetical necessity is present in things produced for a certain purpose—as is the case with technical things—while necessity par excellence is present in eternal things. Pellegrin offers a fresh and well-written discussion of important passages on this topic and closes with the issues of the two natures in Aristotle: the necessary and the material nature. The chapter is closed with a short discussion of nature’s excellence (with a citation of the famous Aristotelian saying: “nature does nothing in vain” [p. 107]). The chapter is instructive and offers good discussions. However, a short discussion of applications to modern biology and the meaning of teleology in the history of biology after Aristotle (like in the first essay) could have shed some light on the influence of the Stagirite.[3]

In the chapter titled “A Philosophy of Life,” the author tackles the question of whether Aristotle deals with the problem of the transition from “non-living” to “living” (a question intensively discussed in the history of biology). He states that the “question of the difference between living and non-living is ... an Aristotelian question, posed explicitly by Aristotle” (p. 112). The following discussion of two terms referring to “life” in Greek, bios and zōē, and the reading of important passages containing criteria for “natural living beings” is, again, carefully worked out and demonstrates Pellegrin’s eloquence (as well as that of his translator).[4] In his discussion of the homoiomeries (transliteration for ὁμοιομερής), the “basic bricks of the living things,” and the anhomoiomeries (ἀνομοιομερής), he works out that living beings always are composed of completely anhomoiomerous parts and that their homoiomerous parts are mixed in a given proportion (p. 115). Typical processes of living beings, like feeding, growing, reproducing, and dying, can be connected to the nutritive soul (threptikē psychē), described in Arist-
tote as one of three capabilities of the soul because this capability is responsible for physiological processes. Hence, Pellegrin offers ample discussions on the nutritive soul and sexual reproduction, as well as spontaneous generation, while working out the differences between both modes of reproduction carefully. Some reflections on a theory of homoiomeries close the chapter.

The essay with the title “Diversity” starts with a short discussion of a popular passage, the first chapter of book I of the Historia animalium, where Aristotle describes four categories in which animals may differ: their ways of life, their activities, their characters, and their parts.[5] Pellegrin rightly emphasizes that the first three criteria function together, but “they also combine with the fourth, the parts” (p. 180). Hence, the study of diversity in animals should start with the study of the diversity of their parts. Especially when studying the parts, we need to be aware of the fact that some parts resemble each other (in modern terms, by analogy), while other parts are rather identical (in modern terms, by homology). Pellegrin cites one of the, as he names it, “canonical texts” on this but then turns back to Cuvier and continues onward (the modern reader expects at least a short discussion of the influence on Richard Owen, who coined the terms “homology” and “analogy” and knew Aristotle’s zoological writings) (p. 181).[6] Unfortunately, Pellegrin, himself a distinguished scholar on the question of animal classification in Aristotle, does not address this question here again and he also does not discuss or summarize, at least for the “circle of specialists,” the newest scholarship on this still hotly debated question.[7]

He then discusses, again, the nutritive soul as a condition for a living being and describes the “parts” or “faculties” or “powers” (dunameis) of the soul (p. 183). Pellegrin shows that some faculties or powers of the soul cannot exist without others: “Nothing alive has a sensitive soul without first having a nutritive soul, because it wouldn’t be alive, while plants have a nutritive soul without a sensitive soul; nothing alive has a motive soul without a sensitive soul” (p. 184). To sum up, some faculties presuppose others. On the following pages, the author thoroughly discusses the relationship between the faculties.

The last essay, “Animal Nature and Human Nature,” starts with the three great Kränkungen (woundings, humiliations) of mankind introduced by Sigmund Freud and leads to a question about the degree to which Aristotelian zoology is anthropocentric (the topic of anthropocentrism in biology relates this question to the second Kränkung: the Darwinian revolution). As in the previous essays, Pellegrin offers a rereading of well-known passages of Aristotle’s biology dealing with the relation between human and animal. The volume is wrapped up by a short conclusion that not only summarizes points made in the essays but also touches on several broader aspects, such as the influence of Aristotle on Alexandrian medicine.

The book offers interesting discussions of the question on Aristotle’s biology and some well-written overviews (for instance, about his zoological work, the homoiomeries and anhomoiomeries, and the partition of the soul). In these parts, the book takes on the character of a companion or handbook owing to its clear style and the brief overview of certain aspects of Aristotle’s natural philosophy. For beginners interested in Aristotelian zoology, one of the book’s intended readerships, it is certainly valuable, stimulating, and for the most part easy to read. Another good point is that, at times, illuminating historical background is given (for instance, Aristotle’s relationship to Plato or to the writings of the Pre-Socratics).

A minor shortcoming, which makes it difficult to thoroughly contextualize the essays within the wider body of research, is the lack of engagement with current literature. This would, of course, have been of great interest to the second intended group of readers, the “specialists.” The most recent entry in the bibliography is dated from 2020 and is in French. Numerous articles from English- and
German-language research are not included. A reader familiar with the basic themes of Aristotle’s biology would certainly be interested in receiving a review or evaluation, even if only a brief one, of recent works on some topics from an excellent scholar like Pellegrin.

But this does not diminish the usefulness of the book as an enjoyable introduction to the major themes of Aristotle’s biology and natural philosophy fleshed out by some fresh rereadings and new inputs.

Notes


[2]. On modern research in the field, see, for example, Voultsiadou and Vafidis, “Marine Invertebrate Diversity”; Fürst von Lieven and Humar, “Cladistic Analysis of Aristotle’s Animal Groups”; and Leroi, Lagoon.

[3]. For Aristotelian teleology and its relevance regarding modern biology, see Wolfgang Kullmann, Aristoteles und die moderne Wissenschaft (Stuttgart: Franz Steiner, 1998), 300–306.


[6]. Aristotle, Historia animalium, I.1 486a16.
