

To Know a Fly

Vincent Gaston Dethier
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Vincent Gaston Dethier : To Know a Fly before purchasing it in order to gage whether or not it would be worth my time, and all praised To Know a Fly:

0 of 0 people found the following review helpful. Everything We Needed To Know About a Fly - and More!By Don's GirlI would not have dreamed there is so much detail in a tiny creature like a fly. Afterreading this wonderful book, I will certainly follow my son's lead and, finding one inmy house, will capture it in a glass and let it fly outside!0 of 2 people found the following review helpful. Very funny and informativeBy CustomerOrdered this book for a psychology class and it laughed all the way through it! It was very easy to understand and I enjoyed discussing parts of it with the class and my instructor. It is a very cute book!1 of 1 people found the following review helpful. The Anti-TextbookBy John Richard SchrockTo Know a Fly by Vincent G. Dethier; McGraw-Hill, © 1962 119 pages, softcover. I have long suspected that the job of science book editors is to remove all of the interesting stories from a textbook and leave only the systematic but boring outline of facts. That did not happen with this marvelous journey in entomology written by a fly physiologist. The brief forward by legendary animal behavior and Nobel Laureate Niko Tinbergen introduces the lay reader to this narrative that shows the unique but utter enjoyment of working in science. Vincent Gaston Dethier (1915–1993) was an expert in insect neurophysiology at the University of Massachusetts Amherst, and wrote nearly 200 scientific papers and books. However, this small book is readily accessible to the lay reader and students from middle school upward. Appropriate cartoons, only funny if you have read the narrative, are peppered through the short chapters. The six pages of Chapter 1 reveal the uniqueness of the fly as an experimental animal, and the concerns of scientists who study them for the same reason people climb mountains, because they are there. The 10

pages of Chapter 2 parse out the expenses of various animals in research, with humorous references to the cheap feeding and easy disposal of the fly. Chapter 3 is a clever discussion of how scientist formulates an experiment and the value of controls, although the explication is so casual and humorus that most readers will not recognize the lesson. Dethier uses quotes from Lewis Carroll's *Alice in Wonderland* or Don Marquis's *The Lives and Times of Archie and Mehitabel* at the beginning of each chapter, and then proceeds to "one up" the weirdness of the quote. In Chapter 4, Dethier explains why, "Whether he realizes it or not, the average person is interested in the feeding habits of insects." And then he ably convinces us that it is indeed interesting. These 8 pages explain in common language the reasons that a fly seta can detect more than one taste—a feat that many entomology texts fail to do in twice as many pages. Chapter 5 continues the simple experiments that detect the ability of the most minuscule structures. Chapter 6 takes 12 pages to determine exactly what "hunger" means to a fly. Chapter 7 explains water loss and the difficulties of microsurgery. These chapters "fly by" thanks to the genuine fascination and humor the author perceives in his work. In Chapter 8, the researchers play with proteins and sugars. Chapter 9 includes the explanation of the random walk and how an insect with a minimum of neurons achieves its goals. Throughout these stories, graduate students are given their just credit for inventing marvelous devices to tease out behaviors, etc. Chapter 10 briefly digresses to insect dances and particularly the honey bee, but then returns to the fly to dissect the sequence of responses that lead to its "dance." Chapter 11 follows an ant trail to the training of a fly to "write" the professor's name. This leads to educated musing about conditioned responses and learning in Chapter 12. Thus the very small brain of the fly is the subject of Chapter 13. The concluding Chapter 14 looks back over the venture of fly research and the value of publishing research, and its use in measuring the stature of a scientist, concluding that "To know the fly is to share a bit of the sublimity of Knowledge. That is the challenge and the joy of science."