



BOOK REVIEW

ATLAS OF AN INSECT BRAIN. By Nicholas J. Strausfeld, published by Springer Verlag, N. Y. Cost \$100.00. This is one of the best contributions to the study of arthropod brain since Bullock and Horridge's superb 2 volume set of 1965. This is far more specialized than Bullock and Horridge since it deals only with the insects and in particular, only one species, *Musca domestica* L., where the most extensive research has been done. The arrangement of the text is as follows: Chapter 1 reviews some of the more significant contributions historically in insect neuroanatomy, Chapter 2 introduces the main cellular constituents of the brain i.e. glia, neurons and trachea as well as demonstrating some of the complexities of the ramifications of insect neurons. Chapter 3 details the main divisions of the brain according to their affiliations with visual, chemo and mechanosensory inputs. Chapter 4 presents a coordinate system which is imposed on several different sections and is of considerable value not only to electrophysiologists but also to morphologists. Chapter 5 provides some numerical data about the absolute numbers of neurons, the distribution of glia, and some comments on the relative packing of neurons in some sensory synaptic regions. Chapter 6 is an atlas of sections through the brain with a number of excellent photographs. Chapter 7 is on the forms and dispositions of neurons in the brain, and is packed with very fine photos and diagrams. Chapters 6 and 7 constitute the main body of the book and because of the large numbers of photographs both in black-and-white and color, it is easy to see how the cost of printing rose so high. The Appendix is excellent and details all the histological techniques used in the preparation of the sections and also includes embedding and dehydration procedures for electron microscopy.

The book contains a wealth of information and is well worth reading. My major gripe is that in translation somebody goofed because throughout the book neuropil is used instead of neuropile and neural lemma instead of neurilemma. The prohibitive cost of this work precludes most scientists from owning personal copies, but I do believe it is an excellent addition to any research library especially where neurophysiological, electrophysiological, and/or advanced morphological research is being conducted.

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GROUND SPEED OF 3 SPECIES OF MIGRATING LEPIDOPTERA—(Note). On 7 October 1975, between 2 and 4 PM, the ground speed of 4 spp. of migrating Lepidoptera was measured in a plowed field in Alachua Co., FL. Two 15.2 m lines were spaced 30.4 m apart perpendicular to the SSE migratory direction, and the traverse times were recorded. The Lepidoptera were flying into a ca. 8 k/m wind, which gusted out of the SE. The mean ground speeds were as follows: the cloudless sulfur, *Phoebis sennae* (L.), 13.0 km/hr ($n=66$, $s=0.81$, $s\bar{x}=0.10$); the bean leaf roller, *Urbanus proteus* (L.), 15.5 km/hr ($n=60$, $s=0.66$, $s\bar{x}=0.08$); the buckeye, *Precis lavinea* Cramer, 9.7 km/hr ($n=7$, $s=0.49$, $s\bar{x}=0.09$); and the gulf fruitlary, *Agraulis vanillae* (L.), 10.1 km/hr ($n=2$, $s=0.66$, $s\bar{x}=0.47$). S. Correale and R. L. Crocker, University of Florida, Gainesville, 32611.