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TUXEN, S. L. 1967. *Insektenstimmen*. 2nd edition. Springer-Verlag, Berlin-Heidelberg. ix + 156 pp. 88 figs. 11 citations. Price - \$3.20

Tuxen begins with a discussion of the somewhat controversial terminology which has plagued biological acoustics, followed by an elementary review of the theory of sound.

The dust jacket is pleasing. It depicts a representative of the most thoroughly investigated group of stridulators, crickets, and it is with the stridulation and various methods of sound reception of these insects, as well as the field and leaf grasshoppers, that the bulk of the book deals with in a very readable, orderly fashion. A concise summary comparing these three is given in chapter eight.

Other stridulating insects, such as beetles, Lepidoptera, Hemiptera and underwater stridulators are discussed more briefly.

Three of the twenty-seven chapters are devoted to insect sounds produced by methods other than stridulation, including those of the termites, cicadas, sounds in bee hives, and finally a chapter of the method and purpose of sound emission by bats.

The descriptions are well supported by figures, and interspersed among the scientific data are amusing stories and a good deal of folklore from many countries about "singing" insects.

The biological significance of insect sounds is dealt with in a justifiably cautious manner, as are some of the theories on the origin of song.

Since the original publication in Danish, 1964, this book has been reproduced with new information, including work published on termites (Howse 1962-64), on cicadas (Strübing 1965), on bees (Von Frisch 1965), and above all, the sound produced by butterflies (Blest et al. 1963-64, Dunning and Roeder 1965, Roeder 1965). The author also utilized the unpublished manuscript about frequency differentiation written by Alex Nickolson of Copenhagen, and he states that the conclusions obtained from this manuscript may make some of the theories reiterated in this book untenable.

Tuxen says that this book cannot mention everything which is now known, and nothing about what is not known, but that it will try to give an insight into the problem. Although small, it has achieved this purpose very well, and is recommended to those with only a casual interest in insect singers, as well as to those more deeply embroiled.

Angie Burgess