months of each winter in Victoria playing eighteen holes of golf every day, and the summers at Salmon Arm or on Shuswap Lake at Celista. In November 1962 he wrote saying that he felt extremely fit but a month later he died suddenly from a heart attack within sight of his house as he was walking home from Salmon Arm—just as he always said he wanted to go. He was buried 21 December 1962 in a peaceful little cemetery in the woods below Mt. Ida, near Salmon Arm.

He is survived by one sister and two nieces to whom are willed his house just outside Salmon Arm and his hillside property at Celista; his books were donated to men friends and to the Library in Salmon Arm and his splendid collection of mounted game heads and skins, to a museum to be founded in Salmon Arm, together with two other collections.

-G. J. SPENCER

## BOOK REVIEW

*Wasp Farm.* H. S. Evans, New York, Natural History Press, 1963. Pp viii and 178, \$4.75.

If there were more books like this there would be more entomologists, for biology is contagious when it is presented by an enthusiast like Dr. Evans. Despite the title the book is entirely on wasps: spider, digger, mud, sand, and social wasps. The farm, an agriculturally unproductive 8 acres in upstate New York, was kept as a sort of insect refuge and is really only the point of departure.

Probably none of the information is appearing for the first time. It is compiled from the immense literature and largely from the experience of the author and his students, as presented in scientific journals and in publications such as Natural History and Nature Magazine. The level of writing falls somewhere between these types. It is lucid, factual, unsentimental, non-technical, graced with a deft use of words, and tailored for swift, effortless reading.

Dr. Evans (b. 1919) earned his Ph.D. in Insect Taxonomy at Cornell University, and is currently Associate Curator of Insects at the Museum of Comparative Zoology at Harvard University. He is thus a taxonomist *par excellence* and also a student of live insects. All taxonomists should follow suit.

He does not experiment with wasps, believing that experiments often merely pose situations which wasps never encounter in nature. ". . . the urgent need is to know precisely what wasps and other creatures do . . . until our understanding of animal behavior is on a very much higher plane than it is now . . ."

discussing In the Ammophila, wasps that use tools to close their nest holes, much of his own observation is used to give a reasonable slant to the much-discussed problem of instinct, intelligence, and behavior patterns. He puts the matter neatly in describing a spider-hunting Prioc*nemis*, which emerges from pupation "ready to enact a script which is already largely codified in its nervous system". And again in outlining the instinctive vestigial behavior of Microbembix, which goes through the motion of stinging the dead, dried insect detritus with which it stocks its nest. This is a recent development from Bembix. In fact, the evolutionary history and arrangement of the

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groups are traced clearly for laymen, to whom the connection between evolution and taxonomy may well be new.

This is a tidy book. The loose ends are pulled together: nesting habits, types and numbers of prey, anatomy of the larvae, methods of stinging and carrying prey, are all discussed and arranged in tentative order of complexity, efficiency and development, and with no hint of anthropomorphism. Even the scanty fossil record is brought in and the author traces the relationships of wasps with other Hymenoptera and other orders.

Physically this is a neat little hard covered book, well presented and organized. The paper, type, and 16 text figures are good, as they should be at the price. There are 25 photographs by the author, with captions, but no reference to them in the text. At the end of each of the 15 chapters bibliography of significant is а papers and some general texts. At the ends of 12 chapters are listed the species described (50 in all), with Latin or Greek roots translated and the pronunciation indicated. Proper names are used throughout but not italicised. The book is a natural for the paperback trade.

-H. R. MacCarthy

## BOOK REVIEW

The Insect Factor in Wood Decay, by Norman E. Hickin. London. Hutchinson & Co. Ltd. 1963. Pp. 336, illus., 2 colored plates. £2 10s.

The author regards conservation of building timber in situ as an important new technology that becomes more so as we use up forests and demand longer service from wood already in use. For pest control operators, inspectors, builders, lumberyard operators, and those in related work, he has produced a valuable reference book. It is clearly written and very well illustrated with numerous line drawings, some photographs and a spectacular colored fold-out plate of 9 longicorns. There is an adequate index. The high quality, paper, printing, and illustrations may account for the price.

There is one irritating feature: certain references, cited normally in the text by author and date, are omitted from the list at the end of each chapter. In a book so carefully written the omissions are probably deliberate, but they are not explained and they are disconcerting. In 33 pages of chapter III alone there are 9.

The book is written with special reference to Great Britain and the insects concerned are covered very thoroughly and mostly keyed. The coverage of Anobium punctatum de Geer and Xestobium rufovillosum de Geer is particularly detailed, since these anobiids are the most economically important insects in the field. The groups dealt with are: Anobiidae, Lyctidae, Bostrichidae, Buprestidae, Lymexilidae, Cossoninae, Cerambycidae, Scolytidae, the ambrosia beetles, termites, and wood-boring wasps and moths. Other chapters deal with the nature of wood, direct factors causing decay, the importance of the various wood-boring insects, and research on wood preservation.

--Peter Zuk