

Published earlier

P. N. Witt

Die Wirkung von Substanzen auf den Netzbau der Spinne als biologischer Test

Mit 49 Abbildungen. IV, 79 Seiten. 1956
Geheftet DM 15,60; US \$ 3.90

From reviews: This book deals with a testing method which is based on the fact that spiders, under the influence of a substance whose effect on man is known, display a specifically changed "web spinning behavior". The web of the spider *Zilla-X-notata* and its construction are described. There follows a detailed analysis of the web spinning behavior, e.g. from the point of view of animal psychology, under the influence of differences in temperature and light, and of molting; the various phases in the construction of the web, the individuality and the musical sense of spiders are discussed, as well as some significant anatomical data. One chapter is concerned with capture, culture, life span, nutrition, pharmacological methodics, application and dosage, test time and quantity, and other details in the web spinning behavior. Another one deals with the experimental results in comparison with the known effects of the same substances on man. The effects of the various substances are individually described and the different web forms illustrated. A hypothesis is set forth as to the mode of operation of the substances. The results are summarized in the last chapter, and there are many figures and a bibliography.

Biological Abstracts

11. 68. 330. ST. Printed in Germany



A BOOK
PUBLISHED
BY
SPRINGER-
VERLAG

Witt/Reed/Peakall:
A Spider's Web

Obtainable from

US & PRICES SHOWN ARE NO LONGER VALID

Witt / Reed / Peakall: A Spider's Web

Problems in Regulatory Biology

By Peter N. Witt, Division of Research, North Carolina Department of Mental Health, Raleigh/N. C., Charles F. Reed, Department of Psychology, Temple University, Philadelphia/Pa., and David B. Peakall, Division of Biological Sciences, Langmuir Laboratories, Cornell University, Ithaca/N.Y.

With 47 figures. VIII, 107 pages. 1968
Cloth DM 36,—; US \$ 9.00

The geometric cart-wheel web of the cross or garden spider, *Araneus diadematus* Cl., is the object of the converging efforts of the three authors who have carried out individual investigations at various levels of analysis in the laboratory. The biochemist focuses interest mainly on the rapid synthesis of single polypeptides in the various silk glands. Changing the pace of production through end-product depletion or neuro-humoral signals makes the glands *in vitro* suitable objects for the study of regulation of protein synthesis at the cellular and

organ levels. Application of drugs to spiders has enabled the pharmacologist to investigate effects at the cellular as well as central nervous system level: in the latter case the changes in web geometry, expressed in size, regularity and shape measures, provide objective information on the several ways in which chemicals can interfere with motor behavior. The psychologist uses computer analysis of changes in statistical web measures to develop hypotheses about ways in which a complex behavior pattern, like the construction of the web, is

coded in an animal's central nervous system and varied through incoming signals and preceding experience.

Fields of interest: Zoology; arachnology; psychology: experimental analysis of behavior, comparative and fine motor behavior; physiology: neuro-, sensory, central nervous system, comparative; biochemistry: comparative, protein-metabolism, regulatory; pharmacology: comparative, psycho-, central nervous system. Further: biophysics, bioengineering, cybernetics and statistics.

Please send the following publication
of Springer-Verlag
Berlin · Heidelberg · New York

_____ cop. **Witt/Reed/Peakall:**
A Spider's Web. 1968
Title No: 1528
Cloth DM 36,—
US \$ 9.00

Also send _____

Name | Full address (please print)

Date _____

Signature _____

Postcard

To the bookseller

