



INTERNATIONAL JOURNAL OF INSECT MORPHOLOGY & EMBRYOLOGY

Editor-in-Chief: A P GUPTA,
*Department of Entomology and
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The journal publishes original contributions on all aspects of the gross morphology, paleomorphology, macro- and microanatomy and ultrastructures of insects, and similar studies of other related arthropods, which have direct bearing on our understanding of insect morphology. In addition to descriptive embryologic and post-embryologic papers, the journal will accept reviews developing new concepts, hypotheses and theories, and a limited number of notes and book reviews. Relevant papers are welcomed for editorial consideration. Papers in German and French will be published on a restrictive basis.

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Midgut cellular responses to bloodmeal digestion in the mosquito, *Culex tarsalis* Coquillett (Diptera: Culicidae), E J HOUK & J L HARDY.

Contact chemoreceptors on the ovipositor of the potato moth, *Phthorimaea operculella* (Zell.) (Lepidoptera: Gelechiidae), L VALENCIA & M J RICE.

Tarsal sensilla of *Chironomus* (Diptera: Chironomidae): number, parasitogenic changes, ultrastructure, and function, W WULKER *et al.*

Contact chemoreceptors among wind-sensitive head hairs of *Locusta migratoria* L. (Orthoptera: Acrididae), H WUNDERER & U SMOLA.

Larval hemocytes in Noctuidae (Insecta: Lepidoptera), J W ARNOLD.

Interpopulation differences in egg sculpturing of the stick insect, *Clonopsis gallica* (Charp.) (Phasmatodea: Bacillidae), V SCALI & M MAZZINI.

Stages of living embryos in the jewel wasp *Mormoniella (Nasonia) Vitripennes* (Walker) (Hymenoptera: Pteromalidae), A L BULL.

Stridulatory structure and acoustic spectra of seven species of New Zealand wetas (Orthoptera: Stenopelmatidae), L H FIELD.

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Photoperoxidation of lens lipids: prevention by vitamin E, S D VARMA *et al.*
Energetics of DNA repair in UV-irradiated peripheral blood leukocytes from chronic myeloid leukaemia patients, A VERMA *et al.*

Association of chlorophyll with amides on plasticized polyethylene particles — I. N,N-dimethylmyristamide, G R SEELY *et al.*

Mimicry of carotenoid function in photosynthesis: synthesis and photophysical properties of a carotenopyropheophorbide, P A LIDDELL *et al.*

Chlorophyll photosensitized electron transfer in phospholipid vesicle bilayers: inside vs outside asymmetry, W E FORD & G TOLLIN.

Picosecond fluorescence kinetics in spinach chloroplasts at low temperature, P REISBERG *et al.*

Permeability and structural changes induced by phytochrome in lipid vesicles, G GEORGEVICH & S J ROUX.

The colors of firefly bioluminescence — I. Optimization model, H H SELIGER *et al.*

The colors of firefly bioluminescence — II. Experimental evidence for the optimization model, H H SELIGER *et al.*

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Edited by **Gerald M Slutzky**, *The Sanford F Kuvin Centre for the Study of Infectious and Tropical Diseases, Jerusalem*

The study of parasite biochemistry is of fundamental importance in the continuing search for effective ways of combating diseases caused by parasites. The aim of this conference was to gather information and point to areas for further research.

Subjects covered by these lectures include parasitic

Volume 1

THE PHYSIOLOGY OF TICKS

Edited by **F D Obenchain**, *International Centre of Insect Physiology and Ecology, Nairobi* and **R Galun**, *Hebrew University, Jerusalem*

This volume concentrates on various aspects of tick physiology, in which recent findings have broadened our understanding of the biology of this important group of parasitic Acari.

The book sheds light on future areas of productive research, and will help in achieving the rational manipulation of tick populations through the application of recently developed technologies.

Contents (partial)

The tick cuticle, R H HACKMAN & B K FILSHIE; Humidity relationships and water balance of ticks, W KNÜLLE & D RUDOLPH; The sensory basis of tick feeding behaviour, S M WALADDE & M J RICE; Tick attachment and feeding: role of the mouth parts, feeding apparatus, salivary gland secretions and the host response, D H KEMP *et al*; Immunological basis of host resistance to ticks, S K WIKEL & J R ALLEN; Blood digestion in ticks, S AKOV; Ion and water balance in feeding ticks: mechanisms of tick excretion, W R KAUFMAN & J R SAUER; Tick reproduction: sperm development and cytogenetics, J H OLIVER, Jr.; Tick reproduction: oogenesis and oviposition, P A DIEHL *et al*; Structure and function of the circulatory, nervous and neuroendocrine systems of ticks, K C BINNINGTON & F D OBENCHAIN.

450pp
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1982

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US\$150.00 £62.50

biomembranes and adherence, protozoal and helminth intermediary metabolism, host response, and approaches to immuno- and chemotherapy. Particularly outstanding contributions are those by D M Dwyer, M Gottlieb, and A G Hernandez on the leishmanial membrane; that of I Sherman on malarial proteases and that of M Dunn on liver fibrosis in schistosomiasis.

Contents (Main subject headings)

BIOMEMBRANES SECTION

Part 1: The parasite membrane. Part 2: Adherence.

METABOLISM SECTION

Part 1: Protozoal metabolism. Part 2: Helminth metabolism. Part 3: Immuno- and chemotherapy.

236pp 78 illus X 478 lit refs May 1981
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Circadian variation of temperature regulation in the sympathectomized pigeon, H RINTAMAKI & A NIKULA.

Thermoreceptor localization in the deep and surface skin layers, K IVANOV *et al.*

Thermoregulatory effects of Carbachol in the posterior hypothalamus of the pigeon, H LAHTI *et al.*

Temperature regulation of golden hamsters during acute hypercapnia, W WUNNENBERG & D BALTRUSCHAT.

Heat production of Reuber H35 rat hepatoma cells under normo- and hyperthermia conditions, C LOESBERG *et al.*

Temperature dependence of the electric resistivity of the hornet cuticle, J S ISHAY & T B SHIMONY.

Hatching success of eggs of *Hexagenia bilineata* (Ephemeroptera) exposed to brief thermal shock, K J TENNESSEN *et al.*

The time courses of CTMax and CTMin acclimation in the salamander *Desmognathus fuscus*, J R LAYNE Jr & D L CLAUSSEN.

Plasma catecholamine levels during cold adaptation and hibernation in woodchucks (*Marmota monax*), G L FLORANT *et al.*

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