

CONTENTS

	PAGE
COOKE, IAN M. Electrophysiological characterization of peptidergic neurosecretory terminals	1
SATTELLE, D. B., HARROW, I. D., DAVID, J. A., PELHATE, M. AND CALLEC, J. J. Nereistoxin: actions on a CNS acetylcholine receptor/ion channel in the cockroach <i>Periplaneta americana</i>	37
AUGUSTINE, GEORGE J. AND FETTERER, RAYMOND H. Neurohormonal modulation of the <i>Limulus</i> heart: amine actions on cardiac ganglion neurones	53
WATSON, WINSOR H., III, HOSHI, TOSHINORI, COLBURNE, JOHN AND AUGUSTINE, GEORGE J. Neurohormonal modulation of the <i>Limulus</i> heart: amine actions on neuromuscular transmission and cardiac muscle	71
DALE, BRIAN. Sperm receptivity in sea urchin oocytes and eggs	85
PETERS, R. C. AND EVERS, H. P. Frequency selectivity in the ampullary system of an elasmobranch fish (<i>Scyliorhinus canicula</i>)	99
ANDREASEN, PETER. Free and total calcium concentrations in the blood of rainbow trout, <i>Salmo gairdneri</i> , during 'stress' conditions	111
TURNER, JEFFREY D., SCHRAG, JOSEPH D. AND DEVRIES, ARTHUR L. Ocular freezing avoidance in antarctic fish	121
WIESER, WOLFGANG. Developmental and metabolic constraints of the scope for activity in young rainbow trout (<i>Salmo gairdneri</i>)	133
SEYMOUR, R. S., BENNETT, A. F. AND BRADFORD, D. F. Blood gas tensions and acid-base regulation in the salt-water crocodile, <i>Crocodylus porosus</i> , at rest and after exhaustive exercise	143
BENNETT, A. F., SEYMOUR, R. S., BRADFORD, D. F. AND WEBB, G. J. W. Mass dependence of anaerobic metabolism and acid-base disturbance during activity in the salt-water crocodile, <i>Crocodylus porosus</i>	161
GRAHAM, MARK AND FARRELL, ANTHONY. The seasonal intrinsic cardiac performance of a marine teleost	173
JOSEPHSON, ROBERT K. AND YOUNG, DAVID. A synchronous insect muscle with an operating frequency greater than 500 Hz	185
HUSTERT, R. Multisegmental integration and divergence of afferent information from single tactile hairs in a cricket	209
COSSINS, A. R. AND RICHARDSON, P. A. Adrenalin-induced Na^+/H^+ exchange in trout erythrocytes and its effect upon oxygen-carrying capacity	229
RAYNER, J. M. V. AND ALDRIDGE, H. D. J. N. Three-dimensional reconstruction of animal flight paths and the turning flight of microchiropteran bats	247
LOUGHNA, P. T. AND GOLDSPIK, G. Muscle protein synthesis rates during temperature acclimation in a eurythermal (<i>Cyprinus carpio</i>) and a stenothermal (<i>Salmo gairdneri</i>) species of teleost	267
EDDY, F. G. Uptake and loss of potassium by rainbow trout (<i>Salmo gairdneri</i>) in fresh water and dilute sea water	277
GRAHAM, D. AND EPSTEIN, S. Behaviour of motor output for an insect walking on a slippery surface. II. Backward walking	287
WELLS, M. J. AND WELLS, J. Ventilation and oxygen uptake by <i>Nautilus</i>	297

Contents

	PAGE
GABRIEL, JULIE M. The development of the locust jumping mechanism. I. Allometric growth and its effect on jumping performance	313
GABRIEL, JULIE M. The development of the locust jumping mechanism. II. Energy storage and muscle mechanics	327
MALLEFET, J. AND BAGUET, F. Effects of adrenalin on the oxygen consumption and luminescence of the photophores of the mesopelagic fish <i>Argyropelecus hemigymnus</i>	341
COOKE, IAN R. C. AND MACMILLAN, DAVID L. Further studies of crayfish escape behaviour. I. The role of the appendages and the stereotyped nature of non-giant escape swimming	351
COOKE, IAN R. C. Further studies of crayfish escape behaviour. II. Giant axon-mediated neural activity in the appendages	367
WORK, ROBERT W. Viscoelastic behaviour and wet supercontraction of major ampullate silk fibres of certain orb-web building spiders (Araneae)	379
PHIFER, CURTIS B. AND PRIOR, DAVID J. Body hydration and haemolymph osmolality affect feeding and its neural correlate in the terrestrial gastropod, <i>Limax maximus</i> ...	405
SHORT COMMUNICATIONS	
HAGAN, STEPHEN AND COOK, ANTHONY. Modifications to a controlled environment cabinet to gain proportional control over temperature and humidity	423
BARBER, ANDREW AND TEN BRUGGENCATE, G. Extracellular changes in ion concentrations induced by acetylcholine in the salivary glands of the pond snail <i>Planorbis corneus</i>	427
NILSSON, STEFAN. Filament position in fish gills is influenced by a smooth muscle innervated by adrenergic nerves	433
DAINTON, BARBARA H. AND WRIGHT, JONATHAN. Falling temperature stimulates activity in the slug <i>Arion ater</i>	439
WELLS, M. J. AND WELLS, J. Ventilation frequencies and stroke volume in acute hypoxia in <i>Octopus</i>	445
BARTHOLOMEW, GEORGE A. AND LIGHTON, JOHN R. B. Ventilation and oxygen consumption during rest and locomotion in a tropical cockroach, <i>Blaberus giganteus</i>	449
POTTS, W. T. W., TALBOT, C. AND EDDY, F. B. Sodium balance in fresh-run Atlantic salmon	455
BOOTH, CHARLES AND MCMAHON, BRIAN R. Lactate dynamics during locomotor activity in the blue crab, <i>Callinectes sapidus</i>	461