Höbe, Helve, Laurent, Pierre and McMahon, Brian R. Whole body calcium flux rates in freshwater teleosts as a function of ambient calcium and pH levels: a comparison between the euryhaline trout, Salmo gairdneri and stenohaline bullhead, Ictalurus nebulosus ........................................ 237
Metcalfe, J. D. and Butler, P. J. On the nervous regulation of gill blood flow in the dogfish (Scyliorhinus canicula) .......................................................... 253
Morton, David B. and Evans, Peter D. Octopamine release from an identified neurone in the locust ................................................................. 269
Cooke, Ian M. and Haylett, Beverley A. Ionic dependence of secretory and electrical activity evoked by elevated K+ in a peptidergic neurosecretory system ........................................ 289
Sublykke, Annemarie. Hearing in notodontid moths: a tympanic organ with a single auditory neurone ........................................................ 323
Tuft, Pamela J. and Gilly, Wm. F. Ionic basis of action potential propagation along two classes of 'giant' axons in the ophiurid, Ophiopinaster papillosa .......................................................... 337
McCrohan, C. R. Initiation of feeding motor output by an identified interneurone in the snail Lymnaea stagnalis ...................................................... 351
Marshall, Cameron G. and Lent, Charles M. Calcium-dependent action potentials in leech giant salivary cells .................................................. 367
Wales, N. A. M. Vascular and renal actions of salmon calcitonin in freshwater- and seawater-adapted European eels (Anguilla anguilla) ........ 381
Johansen, Kjell and Burggren, Warren W. Venous return and cardiac filling in varanid lizards ................................................................. 389
Tamm, Sidney L. Mechanical synchronization of ciliary beating within comb plates of ctenophores ................................................................. 401
Proux, B., Proux, J. and Phillips, J. E. Antidiuretic action of a corpus cardiacum factor (CTSH) on long-term fluid absorption across locust recta in vitro ........................................... 409
London, J. A. and Gillette, R. Functional roles and circuitry in an inhibitory pathway to feeding command neurones in Pleurobranchae ........ 423
Huntley, Anthony C., Costa, Daniel P. and Rubin, Robert D. The contribution of nasal heat exchange to water balance in the northern elephant seal, Mirounga angustirostris ........................................ 447

SHORT COMMUNICATIONS
Friesen, W. Otto and Brodfuehrer, Peter D. Identification of neurones in the leech through local ionic manipulations ........................................ 455
O'Dor, R. K. and Wells, M. J. Circulation time, blood reserves and extracellular space in a cephalopod ................................................................. 461
Evans, David H. Gill Na+/H+ and Cl−/HCO3− exchange systems evolved before the vertebrates entered fresh water ........................................ 465
Howard, Jonathan. Calcium enables photoreceptor pigment migration in a mutant fly ................................................................. 471
Blaugburn, J. M., Beadle, D. J. and Sattelle, D. B. Synapse between an identified giant interneurone and a filiform hair sensory neurone in the terminal ganglion of first instar cockroaches (Periplaneta americana L.) ........................................ 477
Gilles-Bailhien, M., Meister, M. F., Kirsch, R. and Gillard, Ch. pH profile along the gut of the silver eel and its modification during seawater acclimation ........................................ 483
Giordana, B., Sacchi, V. F. and Zerial, K. Ion transport in the midgut of the cockroaches, Leucophaea maderae and Blabera gigantea ........................................ 487
Walle, P. and Lansner, A. Do the motoneurones constitute a part of the spinal network generating the swimming rhythm in the lamprey? .... 493

INDEXES TO VOLUMES 108-113 ................................................................. 1