

Contents

<i>List of contributors</i>	ix
<i>Preface</i>	xii
Adaptation of biological membranes to temperature: biophysical perspectives and molecular mechanisms A.Y. GRACEY, J. LOGUE, P.E. TIKU and A.R. COSSINS	1
Temperature adaptation: molecular aspects G. DI PRISCO and B. GIARDINA	23
Stenotherms and eurytherms: mechanisms establishing thermal optima and tolerance ranges G.N. SOMERO, E. DAHLHOFF and J.J. LIN	53
Ecological and evolutionary physiology of stress proteins and the stress response: the <i>Drosophila melanogaster</i> model M.E. FEDER	79
Temperature adaptation and genetic polymorphism in aquatic animals A.J.S. HAWKINS	103
Phenotypic plasticity and evolutionary adaptations of mitochondria to temperature H.E. GUDERLEY and J. ST PIERRE	127
Temperature and ontogeny in ectotherms: muscle phenotype in fish I.A. JOHNSTON, V.L.A. VIEIRA and J. HILL	153

Ectotherm life-history responses to developmental temperature D. ATKINSON	183
Testing evolutionary hypotheses of acclimation R.B. HUEY and D. BERRIGAN	205
Experimental investigations of evolutionary adaptation to temperature J.A. MONGOLD, A.F. BENNETT and R.E. LENSKI	239
Thermal evolution of ectotherm body size: why get big in the cold? L. PARTRIDGE and V. FRENCH	265
Physiological correlates of daily torpor in hummingbirds J.E.P.W. BICUDO	293
Development of thermoregulation in birds: physiology, interspecific variation and adaptation to climate Z.A. EPPLEY	313
Evolution of endothermy in mammals, birds and their ancestors J. RUBEN	347
The influence of climate change on the distribution and evolution of organisms A. CLARKE	377
<i>Index</i>	409