Review articles
Vertically transmitted viral endosymbionts of insects: do sigma viruses walk alone? 3889
B. Longdon & F. M. Jiggins

Research articles
Lethal effects of habitat degradation on fishes through changing competitive advantage 3899
M. I. McCormick

Evolution of leaf form correlates with tropical–temperate transitions in Viburnum (Adoxaceae) 3905

Extraordinarily rapid life-history divergence between Cryptasterina sea star species 3914

Variability in solar radiation and temperature explains observed patterns and trends in tree growth rates across four tropical forests 3923
S. X. Dong, L. S. Ashworth, S. Bunyavejchewin, M. N. N. Supardi, S. Tan & P. R. Moorcroft

High morphological variation of vestibular system accompanies slow and infrequent locomotion in three-toed sloths 3912
G. Billet, L. Hautier, R. J. Asher, N. Crumpton, T. Marin & I. Ruf

Plant-ants use symbiotic fungi as a food source: new insight into the nutritional ecology of ant–plant interactions 3940
R. Blatrix, C. Djiéto-Lordon, L. Mondolot, P. La Fisca, H. Voglmayr & D. McKey

Coming out of the starting blocks: extended lag time narrows genetic diversity in introduced marine fishes of Hawai‘i 3948
M. K. Geithner, R. J. Toonen & B. W. Bowen

Abdicating power for control: a precision timing strategy to modulate function of flight power muscles 3958
S. Sponberg & T. L. Daniel

Resistant influenza A viruses in wild duck populations: effects on viral shedding and persistence in water 3967
C. Lebarbenchon, S. Sreevatsan, T. Lefèvre, M. Yang, M. A. Ramakrishnan, J. D. Brown & D. E. Stallknecht

Explaining differences in the lifespan and replicative capacity of cells: a general model and comparative analysis of vertebrates 3976
J. F. Gillooly, A. Hayward, C. Hou & J. G. Burleigh

Parental antagonism and parent-offspring co-adaptation interact to shape family life 3981
J. Meunier & M. Kölliker

Individual contributions to territory defence in a cooperative breeder: weighing up the benefits and costs 3989
R. Mares, A. J. Young & T. H. Clutton-Brock

Flying in the rain: hovering performance of Anna’s hummingbirds under varied precipitation 3996
V. M. Ortiz-Jimenez & B. Dudley

Adolescent fertility and risky environments: a population-level perspective across the lifespan 4003
C. D. Placek & R. J. Quinlan

Material effects in disease resistance: poor maternal environment increases offspring resistance to an insect virus 4009
M. Boots & K. E. Roberts

Functional and evolutionary trade-offs co-occur between two consolidated memory phases in Drosophila melanogaster 4015
F. Lagasse, C. Moreno, T. Preat & F. Mery

Reconstructing past species assemblages reveals the changing patterns and drivers of extinction through time 4024
L. Biro, R. Lameier, P. Cassay, C. Gibb & M. Cardillo

Plasmoid infection decreases fecundity and increases survival of mosquitoes 4033
J. Vézilier, A. Nicot, S. Gandon & A. Rivero

Social bonds affect anti-predator behaviour in a tolerant species of macaque, Macaca nigra 4042
M. Stoddard, M. K. Fallows & N. Neufeld

Mothers adjust offspring sex to match the quality of the rearing environment 4051
S. R. Pryde & L. A. Rolls

Thermal acclimation of interactions: differential responses to temperature change alter predator–prey relationship 4058
V. S. Grigorieva, A. J. W. Ward & F. Seebacher

Life histories and the evolution of cooperative breeding in mammals 4065
D. Lucas & T. Clutton-Brock

The island–mainland species turnover relationship 4071
Y. E. Stuart, J. B. Losos & A. C. Algar

Offspring fitness varies with parental extra-pair status in song sparrows, Melospiza melodia 4078
R. J. Sardell, P. Arcese & J. M. Reid

Innovative problem solving by wild spotted hyenas 4087
S. Benson-Amram & K. E. Holekamp