Meeting reports
161 Fostering the rebirth of natural history
S. L. Hauenstein & T. A. Wheeler

164 Predicting ecosystem shifts requires new approaches that integrate the effects of climate change across entire systems

Animal behaviour
167 Adaptive significance of permanent female residency in a bird of prey
A. Farnworth, J. M. Westoby & S. Widdicombe

171 Eurasian jays (Garrulus glandarius) overcome their current desires to anticipate two distinct future needs and plan for them appropriately
S. D. Veresoglou & M. C. Rillig

174 Suppression of fungal and nematode community ecology
S. Ridgway

Biomechanics
205 Context-dependent tool use in New Caledonian crows can decide if a future exchange is anticipated two distinct future needs and plan for them appropriately
R. Monclús, T. Cook & D. T. Blumstein

209 The transfer of motor functional strategies via action observation

212 Scared and less noisy: glucocorticoids are associated with alarm call entropy
R. Miller & T. Bugnyar

Evolutionary biology
215 Defence strategies against a parasitoid wasp in Drosophila: flight or flight?
J. L. Kovacs & N. M. Gerardo

219 Increased responsiveness in feeding behaviour of Camarhynchus algeorum after experimental colonisation with its microsporidial Bacteria thuringiensis
R. D. Schulte, B. Hasert, C. Makus, S. E. Hampton & T. A. Wheeler

222 Father absence predicts age at sexual maturity and reproductive timing in British men
P. Strohfeld & S. van der Meer

224 A stab in the dark: same-sex sexual behaviour in a wind-pollinated dioecious plant
J. M. Cornelius, C. W. Breuner

226 Embryonic exposure to conspecific mycorrhizal fungi suppresses cane toad growth and survival
M. R. Crossland & R. Shine

229 Defence strategies against a parasitoid wasp in Drosophila: flight or flight?
J. L. Kovacs & N. M. Gerardo

230 Defence strategies against a parasitoid wasp in Drosophila: flight or flight?
J. L. Kovacs & N. M. Gerardo

231 Defence strategies against a parasitoid wasp in Drosophila: flight or flight?
J. L. Kovacs & N. M. Gerardo

234 Defence strategies against a parasitoid wasp in Drosophila: flight or flight?
J. L. Kovacs & N. M. Gerardo

237 Father absence predicts age at sexual maturity and reproductive timing in British men
P. Strohfeld & S. van der Meer

239 Vertebrate ancient opsin photopigment spectra and the avian photoperiodic response
A. J. King, L. Cheng, S. D. Starke & J. P. Myatt

241 Father absence predicts age at sexual maturity and reproductive timing in British men
P. Strohfeld & S. van der Meer

244 A shot in the dark: same-sex sexual behaviour in a wind-pollinated dioecious plant
J. M. Cornelius, C. W. Breuner

Evolutionary biology
248 Evolutionary biology
A. Sternalski, F. Mougeot & V. Bretagnolle

250 Vertebrate ancient opsin photopigment spectra and the avian photoperiodic response
A. J. King, L. Cheng, S. D. Starke & J. P. Myatt

252 Father absence predicts age at sexual maturity and reproductive timing in British men
P. Strohfeld & S. van der Meer

255 Vertebrate ancient opsin photopigment spectra and the avian photoperiodic response
A. J. King, L. Cheng, S. D. Starke & J. P. Myatt

257 Vertebrate ancient opsin photopigment spectra and the avian photoperiodic response
A. J. King, L. Cheng, S. D. Starke & J. P. Myatt

259 Vertebrate ancient opsin photopigment spectra and the avian photoperiodic response
A. J. King, L. Cheng, S. D. Starke & J. P. Myatt

262 Opinion piece. Plasticity of preferred mycobacterial growth and demonstrates the harlequin ladybird, inhibits
P. J. Sharp, M. W. Hankins & R. G. Foster

264 Daily torpor is associated with telomere length and overwinter in Dianjurian barbets
C. Tschirky, L. Smith, C. Dawin & T. Ruliff

268 Hymenoptera, a defence compound from the harlequin ladybird, inhibits mycoasps and demonstrates the harlequin ladybird, inhibits
T. Lefèvre, J. C. de Roode, B. Z. Kacsoh

270 The Northward Passage opens for boreal white whales
M. P. Fraga-Gonzalez, K. L. Laursen, S. L. Quakenbush & M. J. Citta

Global change biology
272 Opinion piece. Plasticity of preferred biody temperatures as means of coping with climate change?
A. Sternalski, F. Mougeot & V. Bretagnolle

276 The mixing cost of warming waters: effects of temperature on the cost of swimming in fishes
A. M. Hunt & J. J. Firth

278 Antarctic killer whales make rapid, swimming in fishes
A. M. Hunt & J. J. Firth

280 Plating long distance migration to assess marine pollution impact
W. Montesi, D. Firth & C. Burke, S. Garth, A. Hoff, J. R. Bell & Robinson

282 A stab in the dark: same-sex sexual behaviour in a wind-pollinated dioecious plant
J. M. Cornelius, C. W. Breuner

283 Defence strategies against a parasitoid wasp in Drosophila: flight or flight?
J. L. Kovacs & N. M. Gerardo

286 High-altitude exposure to subalpine waters: evidence for physiological maintenance migrational
J. W. Durban & R. L. Pfitz

287 Assessment of hypotria-inducible factor-1α miRNA expression in mantis shrimp as a biomarker of environmental hypoxia exposure
E. Esan, M. S. Snyder & K. D. Hooge

290 Vertebrate ancient opsin photopigment spectra and the avian photoperiodic response
A. J. King, L. Cheng, S. D. Starke & J. P. Myatt

291 Vertebrate ancient opsin photopigment spectra and the avian photoperiodic response
A. J. King, L. Cheng, S. D. Starke & J. P. Myatt

295 Mid-Cretaceous charred fossil flowers reveal direct observation of arthropod feeding strategies
C. H. Hartliep-Koedoe, J. Rut, T. Wappler, S. M. Fis & A. Walther

299 Likelihood reinstantes Anthophotyae as a primitive bird
M. S. Lee & B. H. Worthy

299 Likelihood reinstantes Anthophotyae as a primitive bird
M. S. Lee & B. H. Worthy

304 Daily torpor is associated with telomere length and overwinter in Dianjurian barbets
C. Tschirky, L. Smith, C. Dawin & T. Ruliff

308 Hymenoptera, a defence compound from the harlequin ladybird, inhibits mycoasps and demonstrates the harlequin ladybird, inhibits
T. Lefèvre, J. C. de Roode, B. Z. Kacsoh

312 Coping with the extremes: stress physiology varies between winter and summer in Dianjurian barbets
C. Tschirky, L. Smith, C. Dawin & T. Ruliff

316 Taylor’s Law holds in experimental multi-stage antimalarial activity
P. J. Sharp, M. W. Hankins & R. G. Foster

318 Vertebrate ancient opsin photopigment spectra and the avian photoperiodic response
A. J. King, L. Cheng, S. D. Starke & J. P. Myatt

320 Experimental evidence for real-time song frequency shift in response to urban noise in a passerine bird
E. VanRooy-Coomans, A. A. Bul-Chenkin, O. Gil & C. M. García