

IoZ Publications

Staff and students at ZSL's Institute of Zoology have contributed to a wide range of publications over the academic year from August 2014 to July 2015.

- Acosta-Jamett, G., Cunningham, A.A., Bronsvooort, B.M.deC. and Cleaveland, S. (2014) Serosurvey of canine distemper virus and canine parvovirus in wild canids and domestic dogs at the rural interface in the Coquimbo Region, Chile. *European Journal of Wildlife Research* **61**: 329–332.
- Alexander, J.S., McNamara, J., Rowcliffe, J.M., Oppong, J. and Milner-Gulland, E.J. (2014) The role of bushmeat in a West African agricultural landscape. *Oryx* **49**: 643–651.
- Alter, S.E., Meyer, M., Post, K., Czechowski, P., Gravlund, P., Gaines, C., Rosenbaum, H.C., Kaschner, K., Turvey, S.T., van der Plicht, J., Shapiro, B. and Hofreiter, M. (2015) Climate impacts on transoceanic dispersal and habitat in gray whales from the Pleistocene to 2100. *Molecular Ecology* **24**: 1510–1522.
- Amon, D.J., Sykes, D., Ahmed, F., Copley, J.T., Kemp, K.M., Tyler, P.A., Young, C.M. and Glover, A.G. (2015) Burrow forms, growth rates and feeding rates of wood-boring *Xylophagaidae* bivalves revealed by micro-computed tomography. *Frontiers in Marine Science* **2**: 10.
- Andreone, F., Rosa, G.M. and Raselimanana, A.P. (2014) *Les amphibiens des zones arides de l'Ouest et du Sud de Madagascar*. Antananarivo: Vahatra Association.
- Ansari, M.S., Rakha, B.A., Andrabi, S.M.H., Ullah, N., Iqbal, R., Holt, W.V. and Akhter, S. (2014) Thioglycol in extender improves the post-thaw quality of buffalo (*Bubalus Bubalis*) bull spermatozoa. *Journal of Animal and Plant Sciences* **24**: 1256–1259.
- Ansari, M.S., Rakha, B.A., Malik, M.F., Andrabi, S.M.H., Ullah, N., Iqbal, R., Holt, W.V. and Akhter, S. (2014) Effect of cysteine addition to the freezing extender on the progressive motility, viability, plasma membrane and DNA integrity of Nili-Ravi buffalo (*Bubalus bubalis*) bull spermatozoa. *Journal of Applied Animal Research*. DOI: 10.1080/09712119.2014.987292
- Antwis, R.E., Preziosi, R.F., Harrison, X.A. and Garner, T.W.J. (2015) Amphibian symbiotic bacteria do not show a universal ability to inhibit growth of the global panzootic lineage of *Batrachochytrium dendrobatidis*. *Applied and Environmental Microbiology* **81**: 3706–3711.
- Baptista, N., Penado, A. and Rosa, G.M. (2015) Insights on the *Triturus marmoratus* predation upon adult newts. *Boletín de la Asociación Herpetológica Española* **26**: 2–4.
- Barnett, J., Dastjerdi, A., Davison, N., Deaville, R., Everest, D., Peake, J., Finnegan, C., Jepson, P. and Steinbach, F. (2015) Identification of novel cetacean poxviruses in cetaceans stranded in South West England. *PLoS ONE* **10**: e0124315.
- Beckmann, K.M., Harris, E., Pocknell, A.M., John, S.K., Macgregor, S.K., Cunningham, A.A. and Lawson, B. (2014) *Aprocta cylindrica* (Nematoda) infection in a European robin (*Erithacus rubecula*) in Britain. *Journal of Wildlife Diseases* **50**: 986–989.
- Belbachir, F., Pettorelli, N., Wachter, T., Belbachir-Bazi, A. and Durant, S.M. (2015) Monitoring rarity: the Critically Endangered Saharan cheetah as a flagship species for a threatened ecosystem. *PLoS One* **10**: e0115136.
- Bielby, J., Fisher, M.C., Clare, F.C., Rosa, G.M. and Garner, T.W.J. (2015) Host species vary in infection probability, sub-lethal effects, and costs of immune response when exposed to an amphibian parasite. *Scientific Reports* **5**: 10828.
- Blackburn, T.M., Delean, S., Pysek, P. and Cassey, P. (2015) On the island biogeography of aliens: a global analysis of the richness of plant and bird species on oceanic islands. *Global Ecology and Biogeography*. DOI: 10.1111/geb.12339
- Blackburn, T.M., Dyer, E., Su, S. and Cassey, P. (2015) Long after the event, or four things we (should) know about bird invasions. *Journal of Ornithology*. DOI: 10.1007/s10336-015-1155-z
- Blackburn, T.M., Lockwood, J.L. and Cassey, P. (2015) The influence of numbers on invasion success. *Molecular Ecology* **24**: 1942–1953.
- Bland, L.M., Collen, B., Orme, C.D.L. and Bielby, J. (2014) Predicting the conservation status of data-deficient species. *Conservation Biology* **29**: 250–259.
- Bland, L.M., Orme, C.D.L., Bielby, J., Collen, B., Nicholson, E. and McCarthy, M.A. (2015) Cost-effective assessment of extinction risk with limited information. *Journal of Applied Ecology* **52**: 861–870.
- Bletz, M.C., Rosa, G.M., Andreone, F., Courtois, E., Schmeller, D.S., Rabibisoa, N.H.C., Rabemananjara, F.C.E., Raharivololoniaina, L., Vences, M., Weldon, C., Edmonds, D., Raxworthy, C.J., Harris, R.N., Fisher, M.C. and Crottini, A. (2015) Widespread presence of the pathogenic fungus *Batrachochytrium dendrobatidis* in wild amphibian communities in Madagascar. *Scientific Reports* **5**: 8633.
- Bohm, M. and Collen, B. (2015) Toward equality of biodiversity knowledge through technology transfer. *Conservation Biology*. DOI: 10.1111/cobi.12529
- Brace, S., Turvey, S.T., Weksler, M., Hoogland, M.L.P. and Barnes, I. (2015) Unexpected evolutionary diversity in a recently extinct Caribbean mammal radiation. *Proceedings of the Royal Society of London B – Biological Sciences* **282**: 20142371.
- Butchart, S.H., Clarke, M., Smith, R.J., Sykes, R.E., Scharlemann, J.P., Harfoot, M., Buchanan, G.M., Angulo, A., Balmford, A., Bertzky, B., Brooks, T.M., Carpenter, K.E., Comeros-Raynal, M.T., Cornell, J., Ficetola, G.F., Fishpool, L.D., Fuller, R.A., Geldmann, J., Harwell, H., Hilton-Taylor, C., Hoffmann, M., Joolia, A., Joppa, L., Kingston, N., May, I., Milam, A., Polidoro, B., Ralph, G., Richman, N., Rondinini, C., Segan, D.B., Skolnik, B., Spalding, M.D., Stuart, S.N., Symes, A., Taylor, J., Visconti, P., Watson, J.E., Wood, L. and Burgess, N.D. (2015) Shortfalls and solutions for meeting national and global conservation area targets. *Conservation Letters*. DOI: 10.1111/conl.12158
- Carbone, C., Codron, D., Scofield, C., Clauss, M. and Bielby, J. (2014) Geometric factors influencing the diet of vertebrate predators in marine and terrestrial environments. *Ecology Letters* **17**: 1553–1559.
- Carter, A.J., Lee, A.E.G. and Marshall, H.H. (2015) Research questions should drive edge definitions in social network studies. *Animal Behaviour* **104**: e7–e11.
- Castles, M., Heinsohn, R., Marshall, H.H., Lee, A.E.G., Cowlshaw, G. and Carter, A.J. (2014) Social networks created with different techniques are not comparable. *Animal Behaviour* **96**: 59–67.
- Cini, A., Patalano, S., Segonds-Pichon, A., Busby, G.B.J., Cervo, R. and Sumner, S. (2015) Social parasitism and the molecular basis of phenotypic evolution. *Frontiers in Genetics* **6**: 32.
- Cito, F., Rijks, J., Rantsios, A.T., Cunningham, A.A., Baneth, G., Guardabassi, L., Kuiken, T. and Giovannini, A. (2015) Prioritization of companion animal transmissible diseases for policy intervention in Europe. *Journal of Comparative Pathology*. DOI: 10.1016/j.jcpa.2015.01.007
- Costelloe, B., Collen, B., Milner-Gulland, E.J., Craigie, I.D., McRae, L., Rondinini, C. and Nicholson, E. (2015) Global biodiversity indicators reflect the modeled impacts of Protected Area policy change. *Conservation Letters*. DOI: 10.1111/conl.12163
- Crees, J.J. and Turvey, S.T. (2015) What constitutes a 'native' species? Insights from the Quaternary faunal record. *Biological Conservation* **186**: 143–148.

- Cunningham, A.A., Beckmann, K., Perkins, M., Fitzpatrick, L., Cromie, R., Redbond, J., O'Brien, M.F., Ghosh, P., Shelton, J. and Fisher, M.C. (2015) Surveillance: emerging disease in UK amphibians. *Veterinary Record* **176**: 468.
- Curtis, R.J. and Isaac, N.J.B. (2014) The effect of temperature and habitat quality on abundance of the Glanville fritillary on the Isle of Wight: implications for conservation management in a warming climate. *Journal of Insect Conservation* **19**: 217–225.
- Curtis, R.J., Botham, M.S., Brereton, T.M. and Isaac, N.J.B. (2014) The rise and demise of the Glanville fritillary on the Isle of Wight. *Journal of Insect Conservation* **19**: 305–311.
- Cusack, J.J., Dickman, A.J., Rowcliffe, J.M., Carbone, C., Macdonald, D.W. and Coulson, T. (2015) Random versus game trail-based camera trap placement strategy for monitoring terrestrial mammal communities. *PLoS One* **10**: e0126373.
- Cusack, J.J., Swanson, A., Coulson, T., Packer, C., Carbone, C., Dickman, A.J., Kosmala, M., Lintott, C. and Rowcliffe, J.M. (2015) Applying a random encounter model to estimate lion density from camera traps in Serengeti National Park, Tanzania. *Journal of Wildlife Management* **79**: 1014–1021.
- Davies, T.E., Clarke, R.H., Ewen, J.G., Fazey, I.R.A., Pettorelli, N. and Cresswell, W. (2015) The effects of land-use change on the endemic avifauna of Makira, Solomon Islands: endemics avoid monoculture. *Emu* **115**: 199–213.
- Dawson, D.A., Brekke, P., Dos Remedios, N. and Horsburgh, G.J. (2015) A marker suitable for sex-typing birds from degraded samples. *Conservation Genetics Resources* **7**: 337–343.
- Dickman, A.J., Hazzah, L., Carbone, C. and Durant, S.M. (2014) Carnivores, culture and 'contagious conflict': multiple factors influence perceived problems with carnivores in Tanzania's Ruaha landscape. *Biological Conservation* **178**: 19–27.
- Duffus, A.L.J., Nichols, R.A. and Garner, T.W.J. (2014) Experimental evidence in support of single host maintenance of a multihost pathogen. *Ecosphere* **5**: 142.
- Duffus, A.L.J., Nichols, R.A. and Garner, T.W.J. (2015) Detection of a frog virus 3-like ranavirus in native and introduced amphibians in the United Kingdom in 2007 and 2008. *Herpetological Review* **45**: 608–610.
- Duncan, C., Chauvenet, A.L.M., Brown, M.E. and Pettorelli, N. (2014) Energy availability, spatio-temporal variability and implications for animal ecology. *Diversity and Distributions* **21**: 290–301.
- Duncan, R.P., Blackburn, T.M., Rossinelli, S. and Bacher, S. (2014) Quantifying invasion risk: the relationship between establishment probability and founding population size. *Methods in Ecology and Evolution* **5**: 1255–1263.
- Durant, S. (2014) Non-native species: UK bill could prompt biodiversity loss. *Nature* **512**: 253.
- Durant, S.M., Becker, M.S., Creel, S., Bashir, S., Dickman, A.J., Beudels-Jamar, R.C., Lichtenfeld, L., Hilborn, R., Wall, J., Wittemyer, G., Badamjav, L., Blake, S., Boitani, L., Breitenmoser, C., Broekhuis, F., Christianson, D., Cozzi, G., Davenport, T.R.B., Deutsch, J., Devillers, P., Dollar, L., Dolrenry, S., Douglas-Hamilton, I., Dröge, E., FitzHerbert, E., Foley, C., Hazzah, L., Hopcraft, J.G.C., Ikanda, D., Jacobson, A., Joubert, D., Kelly, M.J., Milanzi, J., Mitchell, N., M'Soka, J., Msuha, M., Mweetwa, T., Nyahongo, J., Rosenblatt, E., Schuetz, P., Sillero-Zubiri, C., Sinclair, A.R.E., Stanley Price, M.R., Zimmermann, A. and Pettorelli, N. (2015) Developing fencing policies for dryland ecosystems. *Journal of Applied Ecology* **52**: 544–551.
- Dures, S. (2015) Wildlife Conservation: In the Belly of the Beast by Grahame J. W. Webb (2014). *Oryx* **49**: 563. [Book review.]
- Evans, D.M., Altwegg, R., Garner, T.W.J., Gompper, M.E., Gordon, I.J., Johnson, J.A. and Pettorelli, N. (2015) Biodiversity offsetting: what are the challenges, opportunities and research priorities for animal conservation? *Animal Conservation* **18**: 1–3.
- Everest, D.J., Shuttleworth, C.M., Grierson, S.S., Dastjerdi, A., Stidworthy, M.F., Duff, J.P. and Sainsbury, A.W. (2015) The impact of adenoviruses on red squirrel (*Sciurus vulgaris*) conservation – with notes on other enteric viruses of potential significance. In *Red Squirrels: Ecology, Conservation & Management in Europe*: 129–146. Shuttleworth, C.M., Lurz, P.W.W. & Hayward, M.W. (Eds). Woodbridge, Suffolk: European Squirrel Initiative, UK.
- Ewen, J.G., Soorae, P.S. and Canessa, S. (2014) Reintroduction objectives, decisions and outcomes: global perspectives from the herpetofauna. *Animal Conservation* **17** (Suppl. 1): 74–81.
- Ewen, J.G., Walker, L., Canessa, C. and Groombridge, J.J. (2014) Improving supplementary feeding in species conservation. *Conservation Biology* **29**: 341–349.
- Ewers, R.M., Boyle, M.J.W., Gleave, R.A., Plowman, N.S., Benedict, S., Bernard, H., Bishop, T.R., Bakhtiar, E.Y., Chey, V.K., Chung, A.Y.C., Davies, R.G., Edwards, D.P., Eggleton, P., Fayle, T.M., Hardwick, S.R., Homathevi, R., Kitching, R.L., Khoo, M.S., Luke, S.H., March, J.J., Nilus, R., Pfeifer, M., Rao, S.V., Sharp, A.C., Snaddon, J.L., Stork, N.E., Struebig, M.J., Wearn, O.R., Yusah, K.M. and Turner, E.C. (2015) Logging cuts the functional importance of invertebrates in tropical rainforest. *Nature Communications* **6**: 6836.
- Ferguson-Gow, H., Sumner, S., Bourke, A.F.G. and Jones, K.E. (2014) Colony size predicts division of labour in attine ants. *Proceedings of the Royal Society of London B – Biological Sciences* **281**: 20141411.
- Fernández, R., Pierce, G.J., MacLeod, C.D., Brownlow, A., Reid, R.J., Rogan, E., Addink, M., Deaville, R., Jepson, P.D. and Santos, M.B. (2014) Strandings of northern bottlenose whales, *Hyperoodon ampullatus*, in the north-east Atlantic: seasonality and diet. *Journal of the Marine Biological Association of the United Kingdom* **94**: 1109–1116.
- Flack, A., Biro, D., Guilford, T. and Freeman, R. (2015) Modelling group navigation: transitive social structures improve navigational performance. *Journal of the Royal Society Interface* **12**: 20150213.
- Ford, A.T., Goheen, J.R., Otieno, T.O., Bidner, L., Isbell, L.A., Palmer, T.M., Ward, D., Woodroffe, R. and Pringle, R.M. (2014) Large carnivores make savanna tree communities less thorny. *Science* **346**: 346–349.
- García-Párraga, D., Crespo-Picazo, J.L., De Quirós, Y.B., Cervera, V., Martí-Bonmati, L., Díaz-Delgado, J., Arbelo, M., Moore, M.J., Jepson, P.D. and Fernández, A. (2014) Decompression sickness ('the bends') in sea turtles. *Diseases of Aquatic Organisms* **111**: 191–205.
- Germano, J., Ewen, J.G., Mushinsky, H., McCoy, E. and Ortiz-Catedral, L. (2014) Moving towards greater success in translocations: recent advances from the herpetofauna. *Animal Conservation* **17** (Suppl. 1): 1–3.
- Gourlay, P., Decors, A., Moinet, M., Lambert, O., Lawson, B., Beaudreau, F. and Assié, S. (2014) The potential capacity of French wildlife rescue centres for wild bird disease surveillance. *European Journal of Wildlife Research* **60**: 865–873.
- Grueber, C.E., Knafler, G.J., King, T.M., Senior, A.M., Grosser, S., Robertson, B., Weston, K.A., Brekke, P., Harris, C.L.W. and Jamieson, I.G. (2015) Toll-like receptor diversity in 10 threatened bird species: relationship with microsatellite heterozygosity. *Conservation Genetics* **16**: 595–611.
- Harrison, X.A. (2014) Using observation-level random effects to model overdispersion in count data in ecology and evolution. *PeerJ* **2**: e616.
- Harrison, X.A., York, J.E. and Young, A.J. (2014) Population genetic structure and direct observations reveal sex-reversed patterns of dispersal in a cooperative bird. *Molecular Ecology* **23**: 5740–5755.
- Hellgren, O., Atkinson, C.T., Bensch, S., Albrayak, T., Dimitrov, D., Ewen, J.G., Kim, K.S., Lima, M.R., Martin, L., Palinauskas, V., Ricklefs, R., Sehgal, R.N.M., Valkiunas, G., Tsuda, Y. and Marzal, A. (2015) Global phylogeography of the avian malaria pathogen *Plasmodium relictum* based on MSP1 allelic diversity. *Ecography* **38**: 842–850.
- Hudson, L.N., Newbold, T., Contu, S., Hill, S.L.L., Lysenko, I., De Palma, A., Phillips, H.R.P., Senior, R.A., Bennett, D.J., Booth, H., Choimes, A., Correia, D.L.P., Day, J., Echeverría-Londoño, S., Garon, M., Harrison, M.L.K., Ingram, D.J., Jung, M., Kemp, V., Kirkpatrick, L., Martin, C.D., Pan, Y., White, H.J., Aben, J., Abrahamczyk, S., Adum, G.B., Aguilar-Barquero, V., Aizen, M.A., Ancrenaz, M., Arbeláez-Cortés, E., Armbrrecht, I., Azhar, B., Azpiroz, A.B., Baeten, L., Báldi, A., Banks, J.E., Barlow, J., Batáry, P., Bates,

- A.J., Bayne, E.M., Beja, P., Berg, Å., Berry, N.J., Bicknell, J.E., Bihn, J.H., Böhnning-Gaese, K., Boekhout, T., Boutin, C., Bouyer, J., Brearley, F.Q., Brito, I., Brunet, J., Buczkowski, G., Buscardo, E., Cabra-García, J., Calviño-Cancela, M., Cameron, S.A., Canello, E.M., Carrijo, T.F., Carvalho, A.L., Castro, H., Castro-Luna, A.A., Cerda, R., Cerezo, A., Chauvat, M., Clarke, F.M., Cleary, D.F.R., Connop, S.P., D'Aniello, B., da Silva, P.G., Darvill, B., Dauber, J., Dejean, A., Diekötter, T., Dominguez-Haydar, Y., Dormann, C.F., Dumont, B., Dures, S.G., Dynesius, M., Edenius, L., Elek, Z., Entling, M.H., Farwig, N., Fayle, T.M., Felicioli, A., Felton, A.M., Ficetola, G.F., Filgueiras, B.K.C., Fonte, S.J., Fraser, L.H., Fukuda, D., Furlani, D., Ganzhorn, J.U., Garden, J.G., Gheler-Costa, C., Giordani, P., Giordano, S., Gottschalk, M.S., Goulson, D., Gove, A.D., Grogan, J., Hanley, M.E., Hanson, T., Hashim, N.R., Hawes, J.E., Hébert, C., Helden, A.J., Henden, J.-A., Hernández, L., Herzog, F., Higuera-Diaz, D., Hilje, B., Horgan, F.G., Horváth, R., Hylander, K., Isaacs-Cubides, P., Ishitani, M., Jacobs, C.T., Jaramillo, V.J., Jauker, B., Jonsell, M., Jung, T.S., Kapoor, V., Kati, V., Katovai, E., Kessler, M., Knop, E., Kolb, A., Körösi, Á., Lachat, T., Lantschner, V., Le Féon, V., LeBuhn, G., Légraré, J.-P., Letcher, S.G., Littlewood, N.A., López-Quintero, C.A., Louhaichi, M., Lövei, G.L., Lucas-Borja, M.E., Lujza, V.H., Maeto, K., Magura, T., Mallari, N.A., Marin-Spiotta, E., Marshall, E.J.P., Martínez, E., Mayfield, M.M., Mikusinski, G., Milder, J.C., Miller, J.R., Morales, C.L., Muchane, M.N., Muchane, M., Naidoo, R., Nakamura, A., Naoe, S., Nates-Parra, G., Navarrete Gutierrez, D.A., Neuschulz, E.L., Noreika, N., Norfolk, O., Noriega, J.A., Nöske, N.M., O'Dea, N., Oduro, W., Ofori-Boateng, C., Oke, C.O., Osgathorpe, L.M., Paritsis, J., Parra-H, A., Pelegrin, N., Peres, C.A., Persson, A.S., Petanidou, T., Phalan, B., Philips, T.K., Poveda, K., Power, E.F., Presley, S.J., Proença, V., Quaranta, M., Quintero, C., Redpath-Downing, N.A., Reid, J.L., Reis, Y.T., Ribeiro, D.B., Richardson, B.A., Richardson, M.J., Robles, C.A., Römbke, J., Romero-Duque, L.P., Rosselli, L., Rossiter, S.J., Roulston, T.H., Rousseau, L., Sadler, J.P., Sáfián, S., Saldaña-Vázquez, R.A., Samnegård, U., Schüepp, C., Schweiger, O., Sedlock, J.L., Shahabuddin, G., Sheil, D., Silva, F.A.B., Slade, E.M., Smith-Pardo, A.H., Sodhi, N.S., Somarriba, E.J., Sosa, R.A., Stout, J.C., Struebig, M.J., Sung, Y.-H., Threlfall, C.G., Toniazzo, R., Tóthmérés, B., Tschamtker, T., Turner, E.C., Tylianakis, J.M., Vanbergen, A.J., Vassiliev, K., Verboven, H.A.F., Vergara, C.H., Vergara, P.M., Verhulst, J., Walker, T.R., Wang, Y., Watling, J.I., Wells, K., Williams, C.D., Willig, M.R., Woinarski, J.C.Z., Wolf, J.H.D., Woodcock, B.A., Yu, D.W., Zaitsev, A.S., Collen, B., Ewers, R.M., Mace, G.M., Purves, D.W., Scharlemann, J.P.W. and Purvis, A. (2014) The PREDICTS database: a global database of how local terrestrial biodiversity responds to human impacts. *Ecology and Evolution* **4**: 4701–4735.
- Jacobson, A., Dhanota, J., Godfrey, J., Jacobson, H., Rossman, Z., Stanish, A., Walker, H. and Riggio, J. (2015) A novel approach to mapping land conversion using Google Earth with an application to East Africa. *Environmental Modelling and Software* **72**: 1–9.
- Jacoby, D.M.P., Fear, L.N., Sims, D.W. and Croft, D.P. (2014) Shark personalities? Repeatability of social network traits in a widely distributed predatory fish. *Behavioral Ecology and Sociobiology* **68**: 1995–2003.
- Jakob-Hoff, R., Carraro, C., Sainsbury, A.W., Ewen, J. and Canessa, S. (Eds) (2014) *Regent honeyeater disease risk analysis report*. Apple Valley, MN: IUCN SSC Conservation Breeding Specialist Group (CBSG).
- Jordan, F.F.J., Murphy, S., Martinez, E., Amiot, C., van Helden, A. and Stockin, K.A. (2015) Criteria for assessing maturity of skulls in the common dolphin, *Delphinus sp.*, from New Zealand waters. *Marine Mammal Science* **31**: 1077–1097.
- Kamins, A.O., Rowcliffe, J.M., Ntiamoa-Baidu, Y., Cunningham, A.A., Wood, J.L.N. and Restif, O. (2015) Characteristics and risk perceptions of Ghanaians potentially exposed to bat-borne zoonoses through bushmeat. *EcoHealth* **12**: 104–120.
- Lawson, B., Dastjerdi, A., Shah, S., Everest, D., Núñez, A., Pocknell, A., Hicks, D., Horton, D.L., Cunningham, A.A. and Irvine, R.M. (2015) Mortality associated with avian reovirus infection in a free-living magpie (*Pica pica*) in Great Britain. *BMC Veterinary Research* **11**: 20.
- Leblanc, J., Faruk, A., Dort, E., Govindarajulu, P., Quah, E., Abdul Muin, M. and Hintz, W. (2015) Multi-year surveillance for *Batrachochytrium dendrobatidis* in amphibians of peninsular Malaysia. *Herpetological Review* **45**: 603–608.
- Leclaire, S., Nielsen, J.F. and Drea, C.M. (2014) Bacterial communities in meerkat anal scent secretions vary with host sex, age, and group membership. *Behavioral Ecology* **25**: 996–1004.
- Letessier, T.B., De Grave, S., Boersch-Supan, P.H., Kemp, K.M., Brierley, A.S. and Rogers, A.D. (2015) Seamount influences on mid-water shrimps (Decapoda) and gnathophausiids (Lophogastridea) of the South-West Indian Ridge. *Deep-Sea Research Part 2: Topical Studies in Oceanography*. DOI: 10.1016/j.dsr2.2015.05.009
- Lo Iacono, G., Cunningham, A.A., Fichet-Calvet, E., Garry, R.F., Grant, D.S., Khan, S.H., Leach, M., Schieffelin, J.S., Shaffer, J.G., Webb, C.T. and Wood, J.L.N. (2015) Using modelling to disentangle the relative contributions of zoonotic and anthroponotic transmission: the case of Lassa fever. *PLoS Neglected Tropical Diseases* **9**: e3398.
- Lorgen, M., Casadei, E., Król, E., Douglas, A., Birnie, M., Ebbesson, L., Nilsen, T., Jordan, W., Jørgensen, E.H., Dardente, H., Hazlerigg, D. and Martin, S. (2015) Functional divergence of type 2 deiodinase paralogs in the Atlantic salmon. *Current Biology* **25**: 936–941.
- Louis, M., Fontaine, M.C., Spitz, J., Schlund, E., Dabin, W., Deaville, R., Caurant, F., Chereil, Y., Guinet, C. and Simon-Bouhet, B. (2014) Ecological opportunities and specializations shaped genetic divergence in a highly mobile marine top predator. *Proceedings of the Royal Society of London B – Biological Sciences* **281**: 20141558.
- Lucas, T.C.D., Moorcroft, E.A., Freeman, R., Rowcliffe, J.M. and Jones, K.E. (2015) A generalised random encounter model for estimating animal density with remote sensor data. *Methods in Ecology and Evolution* **6**: 500–509.
- Mac Aodha, O., Stathopoulos, V., Brostow, G.J., Terry, M., Girolami, M. and Jones, K.E. (2014) Putting the scientist in the loop – accelerating scientific progress with interactive machine learning. In *Proceedings: 22nd International Conference on Pattern Recognition, 24–28 August 2014, Stockholm, Sweden*: 9–17. Piscataway, NJ: Institute of Electrical and Electronics Engineers, Inc. (IEEE).
- Maggs, G., Nicoll, M., Zuël, N., White, P.J.C., Winfield, E., Poongavanam, S., Tatayah, V., Jones, C.G. and Norris, K. (2015) Rattus management is essential for population persistence in a critically endangered passerine: combining small-scale field experiments and population modelling. *Biological Conservation* **191**: 274–281.
- Marshall, H.H., Carter, A.J., Ashford, A., Rowcliffe, J.M. and Cowlshaw, G. (2015) Social effects on foraging behavior and success depend on local environmental conditions. *Ecology and Evolution* **5**: 475–492.
- Martel, A., Blooi, M., Adriaenssens, C., Van Rooij, P., Beukema, W., Fisher, M.C., Farrer, R.A., Schmidt, B.R., Tobler, U., Goka, K., Lips, K.R., Muletz, C., Zamudio, K.R., Bosch, J., Lötters, S., Wombwell, E., Garner, T.W.J., Cunningham, A.A., Spitzen-van der Sluijs, A., Salvadio, S., Ducatelle, R., Nishikawa, K., Nguyen, T.T., Kolby, J.E., Van Bocklaer, I., Bossuyt, F. and Pasmans, F. (2014) Recent introduction of a chytrid fungus endangers Western Palearctic salamanders. *Science* **346**: 630–631.
- McBurney, S., Kelly-Clark, W.K., Forzán, M.J., Lawson, B., Tyler, K.M. and Greenwood, S.J. (2015) Molecular characterization of *Trichomonas gallinae* isolates recovered from the Canadian Maritime provinces' wild avifauna reveals the presence of the genotype responsible for the European finch trichomonosis epidemic and additional strains. *Parasitology* **142**: 1053–1062.
- McNamara, J., Kusimi, J.M., Rowcliffe, J.M., Cowlshaw, G., Brenyah, A. and Milner-Gulland, E.J. (2015) Long-term spatio-temporal changes in a West African bushmeat trade system. *Conservation Biology*. DOI: 10.1111/cobi.12545
- Murphy, S., Perrott, M., McVee, J., Read, F.L. and Stockin, K.A. (2014) Deposition of growth layer groups in dentine tissue of captive common dolphins *Delphinus delphis*. *NAMMCO Scientific Publications* **10**. DOI: 10.7557/3.3017
- Nunes, L.A., Turvey, S.T. and Rosindell, J. (2015) The price of conserving avian phylogenetic diversity: a global prioritization approach. *Philosophical Transactions of the Royal Society of London Series B* **370**: 20140004.
- Papachlimitzou, A., Barber, J.L., Losada, S., Bersuder,

- P., Deaville, R., Brownlow, A., Penrose, R., Jepson P.D. and Law, R.J. (2015) Organophosphorus flame retardants (PFRs) and plasticisers in harbour porpoises (*Phocoena phocoena*) stranded or bycaught in the UK during 2012. *Marine Pollution Bulletin* **98**: 328–334.
- Penny, S.G., Andreone, F., Crottini, A., Holderied, M.W., Rakotozafy, L.S., Schwitzer, C. and Rosa, G.M. (2014) A new species of the *Boophis rapiodes* group (Anura, Mantellidae) from the Sahamalaza Peninsula, northwest Madagascar, with acoustic monitoring of its nocturnal calling activity. *ZooKeys* **435**: 111–132.
- Pettorelli, N., Duncan, C., Owen, H. and Turvey, S. (2015) Spatial autocorrelation and congruence in the distribution of language and mammal richness: a reply to Cardillo et al. (2015) *Proceedings of the Royal Society of London B – Biological Sciences* **282**: 20150591.
- Pettorelli, N., Hilborn, A., Duncan, C. and Durant, S. (2015) Individual variability: the missing component to our understanding of predator-prey interactions. *Advances in Ecological Research* **52**: 19–44.
- Pettorelli, N., Laurance, W.F., O'Brien, T.G., Wegmann, M., Nagendra, H. and Turner, W. (2014) Satellite remote sensing for applied ecologists: opportunities and challenges. *Journal of Applied Ecology* **51**: 839–848.
- Pew, J., Muir, P.H., Wang, J. and Frasier, T.R. (2015) related: An R package for analysing pairwise relatedness from codominant molecular markers. *Molecular Ecology Resources* **15**: 557–561.
- Pipek, P., Pysek, P. and Blackburn, T. (2015) A clarification of the origins of birds released by the Otago Acclimatisation Society from 1876 to 1882. *Notornis* **62**: 105–112.
- Price, S.J., Garner, T.W.J., Nichols, R.A., Balloux, F., Ayres, C., Mora-Cabello de Alba, A. and Bosch, J. (2014) Collapse of amphibian communities due to an introduced ranavirus. *Current Biology* **24**: 2586–2591.
- Quintavalle Pastorino, G., Albertini, M., Carlson, F., Cunningham, A.A., Daniel, B.A., Flach, E., Hofer, H., Junhold, J., Kock, R., Leather, S., Masters, N., Preziosi, R., Routh, A., Sainsbury, A.W., Sato, Y., Spencer, W. and Pearce-Kelly, P. (2015) *Project MOSI*: rationale and pilot-study results of an initiative to help protect zoo animals from mosquito-transmitted pathogens and contribute data on spatio-temporal distribution change. *International Zoo Yearbook* **49**: 172–188.
- Richardson, K., Castro, I.C., Brunton, D.H. and Armstrong, D.P. (2015) Not so soft? Delayed release reduces long-term survival in a passerine reintroduction. *Oryx* **49**: 535–541.
- Richman, N.I., Böhm, M., Adams, S.B., Alvarez, F., Bergey, E.A., Bunn, J.J.S., Burnham, Q., Cordeiro, J., Coughran, J., Crandall, K.A., Dawkins, K.L., Distefano, R.J., Doran, N.E., Edsman, L., Eversole, A.G., Füreder, L., Furse, J.M., Gherardi, F., Hamr, P., Holdich, D.M., Horwitz, P., Johnston, K., Jones, C.M., Jones, J.P.G., Jones, R.L., Jones, T.G., Kawai, T., Lawler, S., López-Mejía, M., Miller, R.M., Pedraza-Lara, C., Richardson, A.M.M., Schultz, M.B., Schuster, G.A., Sibley, P.J., Souty-Grosset, C., Taylor, C.A., Thoma, R.F., Walls, J., Walsh, T.S. and Collen, B. (2015) Multiple drivers of decline in the global status of freshwater crayfish (Decapoda: Astacidea). *Philosophical Transactions of the Royal Society of London Series B* **370**: 20140060.
- Rodriguez-Ramilo, S.T., Toro, M.A., Wang, J. and Fernandez, J. (2014) Improving the inference of population genetic structure in the presence of related individuals. *Genetics Research* **96**: e003.
- Rosa, G.M., Crottini, A., Noel, J., Rabibisoa, N., Raxworthy, C.J. and Andreone, F. (2014) A new phytotelmic species of *Platypelis* (Microhylidae: Cophylinae) from the Betampona Reserve, eastern Madagascar. *Salamandra* **50**: 201–214.
- Sanderson, J.L., Wang, J., Vitikainen, E.I.K., Cant, M.A. and Nichols, H.J. (2015) Banded mongooses avoid inbreeding when mating with members of the same natal group. *Molecular Ecology* **24**: 3738–3751.
- Scantlebury, D.M., Mills, M.G.L., Wilson, R.P., Wilson, J.W., Mills, M.E.J., Durant, S.M., Bennett, N.C., Bradford, P., Marks, N.J. and Speakman, J.R. (2014) Flexible energetics of cheetah hunting strategies provide resistance against kleptoparasitism. *Science* **346**: 79–81.
- Scharf, I., Feldman, A., Novosolov, M., Pincheira-Donoso, D., Das, I., Böhm, M., Uetz, P., Torres-Carvajal, O., Bauer, A., Roll, U. and Meiri, S. (2015) Late bloomers and baby boomers: ecological drivers of longevity in squamates and the tuatara. *Global Ecology and Biogeography* **24**: 396–405.
- Schmeller, D.S., Julliard, R., Bellingham, P.J., Böhm, M., Brummitt, N., Chiarucci, A., Couvet, D., Elmendorf, S., Forsyth, D.M., García Moreno, J., Gregory, R.D., Magnusson, W.E., Martin, L.J., McGeoch, M.A., Mihoub, J.-B., Pereira, H.M., Proenca, V., van Swaay, C.A.M., Yahara, T. and Belnap, J. (2015) Towards a global terrestrial species monitoring program. *Journal for Nature Conservation* **25**: 51–57.
- Shoji, A., Owen, E., Bolton, M., Dean, B., Kirk, H., Fayet, A., Boyle, D., Freeman, R., Perrins, C., Aris-Brosou, S. and Guilford, T. (2014) Flexible foraging strategies in a diving seabird with high flight cost. *Marine Biology* **161**: 2121–2129.
- Shotton, J. (2015) University of Pretoria One Health Summer School 2014. *Journal of Comparative Pathology* **152**: 3–8.
- Sick, C., Carter, A.J., Marshall, H.H., Knapp, L.A., Dabelsteen, T. and Cowlshaw, G. (2014) Evidence for varying social strategies across the day in chacma baboons. *Biology Letters* **10**: 20140249.
- Southon, R.J., Bell, E.F., Graystock, P. and Sumner, S. (2015) Long live the wasp: adult longevity in captive colonies of the eusocial paper wasp *Polistes canadensis* (L.). *PeerJ* 2015: e848.
- Stanton, D.W.G., Hart, J., Kumpel, N.F., Vosper, A., Nixon, S., Bruford, M.W., Ewen, J.G. and Wang, J. (2015) Enhancing knowledge of an endangered and elusive species, the okapi, using non-invasive genetic techniques. *Journal of Zoology* **295**: 233–242.
- Stanton, D.W.G., Hart, J., Vosper, A., Kumpel, N.F., Wang, J., Ewen, J.G. and Bruford, M.W. (2014) Non-invasive genetic identification confirms the presence of the Endangered okapi *Okapia johnstoni* south-west of the Congo River. *Oryx*. DOI: 10.1017/S0030605314000593
- Stanton, D.W.G., Helsen, P., Shephard, J., Leus, K., Penfold, L., Hart, J., Kumpel, N.F., Ewen, J.G., Wang, J., Galbusera, P. and Bruford, M.W. (2015) Genetic structure of captive and free-ranging okapi (*Okapia johnstoni*) with implications for management. *Conservation Genetics* **16**: 1115–1126.
- Stephens, P.A., Pettorelli, N., Barlow, J., Whittingham, M.J. and Cadotte, M.W. (2015) Management by proxy? The use of indices in applied ecology. *Journal of Applied Ecology* **52**: 1–6.
- Stöhr, A.C., López-Bueno, A., Blahak, S., Caeiro, M.F., Rosa, G.M., Alves de Matos, A.P., Martel, A., Alejo, A. and Marschang, R.E. (2015) Phylogeny and differentiation of reptilian and amphibian ranaviruses detected in Europe. *PLoS One* **10**: e0118633.
- Su, S., Casey, P., Vall-Ilosera, M. and Blackburn, T.M. (2015) Going cheap: determinants of bird price in the Taiwanese pet market. *PLoS One* **10**: e0127482.
- Tapley, B., Harding, L., Sulston, M., Durand, S., Burton, M., Spencer, J., Thomas, R., Douglas, T., Andre, J., Winston, R., George, M., Gaworek-Michalczenia, M., Hudson, M., Blackman, A., Dale, J. and Cunningham, A. A. (2014) An overview of current efforts to conserve the critically endangered mountain chicken (*Leptodactylus fallax*) on Dominica. *Herpetological Bulletin* **128**: 9–11.
- Taylor, G., Scharlemann, J.P.W., Rowcliffe, M., Kumpel, N., Harfoot, M.B.J., Fa, J.E., Melisch, R., Milner-Gulland, E.J., Bhagwat, S., Abernethy, K.A., Ajonina, A.S., Albrechtsen, L., Allebone-Webb, S., Brown, E., Brugiere, D., Clark, C., Colell, M., Cowlshaw, G., Crookes, D., De Merode, E., Dupain, J., East, T., Edderaï, D., Elkan, P., Gill, D., Greengrass, E., Hodgkinson, C., Ilambu, O., Jeanmart, P., Juste, J., Linder, J.M., Macdonald, D.W., Noss, A.J., Okorie, P.U., Okouyi, V.J.J., Paillet, S., Poulsen, J.R., Riddell, M., Schleicher, J., Schulte-Herbrüggen, B., Starkey, M., van Vliet, N., Whitham, C., Willcox, A.S., Wilkie, D.S., Wright, J.H. and Coad, L.M. (2015) Synthesising bushmeat research effort in West and Central Africa: a new regional database. *Biological Conservation* **181**: 199–205.
- Turner, W., Rondinini, C., Pettorelli, N., Mora, B., Leidner, A.K., Szantoi, Z., Buchanan, G., Dech, S., Dwyer, J., Herold, M., Koh, L.P., Leimgruber, P., Taubenboeck, H., Wegmann, M., Wikelski, M. and Woodcock, C. (2015) Free and open-access satellite data are key to biodiversity conservation. *Biological Conservation* **182**: 173–176.

- Turvey, S.T. and Pettoirelli, N. (2014) Spatial congruence in language and species richness but not threat in the world's top linguistic hotspot. *Proceedings of the Royal Society of London B – Biological Sciences* **281**: 20141644.
- Turvey, S.T., Hansford, J., Kennerley, R.J., Nunez-Mino, J.M., Brocca, J.L. and Young, R.P. (2015) A new subspecies of hutia (*Plagiodontia*, Capromyidae, Rodentia) from southern Hispaniola. *Zootaxa* **3957**: 201–214.
- Turvey, S.T., Trung, C.T., Quyet, V.D., Nhu, H.V., Thoai, D.V., Tuan, V.C.A., Hoa, D.T., Kacha, K., Sysomphone, T., Wallate, S., Hai, C.T.T., Thanh, N.V. and Wilkinson, N.M. (2014) Interview-based sighting histories can inform regional conservation prioritization for highly threatened cryptic species. *Journal of Applied Ecology* **52**: 422–433.
- Valenzuela-Sánchez, A., Harding, G., Cunningham, A.A., Chirgwin, C. and Soto-Azat, C. (2014) Home range and social analyses in a mouth brooding frog: testing the coexistence of paternal care and male territoriality. *Journal of Zoology* **294**: 215–223.
- van Andel, M., Jackson, B.H., Midwinter, A.C., Alley, M.R., Ewen, J.G., McInnes, K., Hoff, R.J., Reynolds, A.D. and French, N. (2015) Investigation of mortalities associated with *Salmonella* spp. infection in wildlife on Tiritiri Matangi Island in the Hauraki Gulf of New Zealand. *New Zealand Veterinary Journal* **63**: 235–239.
- Van Bresseem, M.-F., Duignan, P.J., Banyard, A., Barbieri, M., Colegrove, K.M., de Guise, S., di Guardo, G., Dobson, A., Domingo, M., Fauquier, D., Fernandez, A., Goldstein, T., Grenfell, B., Groch, K.R., Gulland, F., Jensen, B.A., Jepson, P.D., Hall, A., Kuiken, T., Mazzariol, S., Morris, S.E., Nielsen, O., Raga, J.A., Rowles, T.K., Saliki, J., Sierra, E., Stephens, N., Stone, B., Tomo, I., Wang, J., Waltzek, T. and Wellehan, J.F.X. (2014) Cetacean morbillivirus: current knowledge and future directions. *Viruses* **6**: 5145–5181.
- Villar, D., Berthelot, C., Aldridge, S., Rayner, T.F., Lukk, M., Pignatelli, M., Park, T.J., Deaville, R., Erichsen, J.T., Jasinska, A.J., Turner, J.M.A., Bertelsen, M.F., Murchison, E.P., Flicek, P. and Odom, D.T. (2015) Enhancer evolution across 20 mammalian species. *Cell* **160**: 554–566.
- Wang, J. (2015) Does GST underestimate genetic differentiation from marker data? *Molecular Ecology* **24**: 3546–3558.
- Warren, I.A., Ciborowski, K.L., Casadei, E., Hazlerigg, D.G., Martin, S., Jordan, W.C. and Sumner, S. (2014) Extensive local gene duplication and functional divergence among paralogs in Atlantic salmon. *Genome Biology and Evolution* **6**: 1790–1805.
- Washington, H., Baillie, J., Waterman, C. and Milner-Gulland, E.J. (2015) A framework for evaluating the effectiveness of conservation attention at the species level. *Oryx* **49**: 481–491.
- Welker, F., Collins, M.J., Thomas, J.A., Wadsley, M., Brace, S., Cappellini, E., Turvey, S.T., Reguero, M., Gelfo, J.N., Kramarz, A., Burger, J., Thomas-Oates, J., Ashford, D.A., Ashton, P.D., Rowsell, K., Porter, D.M., Kessler, B., Fischer, R., Baessmann, C., Kaspar, S., Olsen, J.V., Kiley, P., Elliott, J.A., Kelstrup, C.D., Mullin, V., Hofreiter, M., Willerslev, E., Hublin, J.-J., Orlando, L., Barnes, I. and MacPhee, R.D.E. (2015) Ancient proteins resolve the evolutionary history of Darwin's South American ungulates. *Nature* **522**: 81–84.
- Woodroffe, R. (2015) Bovine TB in the pilot badger cull zone in Gloucestershire. *Veterinary Record* **176**: 258.
- Woodroffe, R. and Redpath, S.M. (2015) When the hunter becomes the hunted: effective predator management relies on social acceptability as well as scientific evidence. *Science* **348**: 1312–1314.
- Woodroffe, R., Hedges, S. and Durant, S. (2014) In defense of fences – response. *Science* **345**: 389–390.
- Wright, E.P., Waugh, L.F., Goldstein, T., Freeman, K.S., Kelly, T.R., Wheeler, E.A., Smith, B.R. and Gulland, F.M.D. (2014) Evaluation of viruses and their association with ocular lesions in pinnipeds in rehabilitation. *Veterinary Ophthalmology* **18** (Suppl. 1): 148–159.
- Yesson, C., Bush, L.E., Davies, A.J., Maggs, C.A. and Brodie, J. (2015) Large brown seaweeds of the British Isles: evidence of changes in abundance over four decades. *Estuarine, Coastal and Shelf Science* **155**: 167–175.
- Yesson, C., Bush, L.E., Davies, A.J., Maggs, C.A. and Brodie, J. (2015) The distribution and environmental requirements of large brown seaweeds in the British Isles. *Journal of the Marine Biological Association of the United Kingdom* **95**: 669–680.
- Yeste, M., Holt, W.V., Bonet, S., Rodríguez-Gil, J.E. and Lloyd, R.E. (2014) Viable and morphologically normal boar spermatozoa alter the expression of heat-shock protein genes in oviductal epithelial cells during co-culture in vitro. *Molecular Reproduction and Development* **81**: 805–819.

IoZ enquiries 020 7449 6610
The Zoological Society of London
Regent's Park, London NW1 4RY
zsl.org/science
Registered charity in England
and Wales: no 208728

ZSL
**LET'S WORK
FOR WILDLIFE**