

[SG.07-O-4]

martes, 17 octubre, (bloque de mañana: 11:30 h.)
SALA 5: Sala Conferencias. Edificio CC. de la Salud**Functional biogeography of vertebrate scavengers drives carcass removal across biomes**

Gutiérrez Cánovas, Cayetano¹; Moleón, Marcos²; Sánchez-Zapata, José A.³; Allen, Maximilian L.⁴; Anadón, José D.⁵; Arrondo, Eneko⁶; Ballejo, Fernando⁷; Beasley, James C.⁸; Bhattacharjee, Aishwarya⁹; Bishop, Rebecca¹⁰; Botella, Francisco¹¹; Buechley, Evan R.¹²; Butler, James R.A.¹³; Ceballos, Olga¹⁴; Cendejas-Zarelli, Sara¹⁵; Cortés-Avizanda, Ainara¹⁶; Cunningham, Calum¹⁷; Donázar, José A.¹⁸; Eguia, Sergio¹⁹; Elbroch, L. Mark²⁰; Frehner, Ethan²¹; Gerke, Hannah C.²²; Heurich, Marco²³; Hiraldo, Fernando²⁴; Inagaki, Akino²⁵; Jerina, Klemen²⁶; Kendall, Corinne J.²⁷; Koike, Shinsuke²⁸; Krofel, Miha²⁹; Lambertucci, Sergio A.³⁰; Margalida, Antoni³¹; Magalhães Barbosa, Jomar³²; Morales-Reyes, Zebensui³³; Naves-Alegre, Lara³⁴; Newsome, Thomas M.³⁵; Nordli, Kristoffer³⁶; Ordiz, Andrés³⁷; Orihuela-Torres, Adrián³⁸; Oliva-Vidal, Pilar³⁹; Pérez-García, Juan M.⁴⁰; Rhodes Jr, Olin E.⁴¹; Selva, Nuria⁴²; Rodríguez Estrella, Ricardo⁴³; Samson, Arockianathan⁴⁴; Spencer, Emma⁴⁵; du Toit, Johan T.⁴⁶; Turner, Kelsey L.⁴⁷; Wabakken, Petter⁴⁸; Wikenros, Camilla⁴⁹; Wittmer, Heiko U.⁵⁰; Sebastián-González, Esther⁵¹

(1) Universidad Rey Juan Carlos; (2) University of Granada; (3) Miguel Hernández University; (4) University of Illinois; (5) Pyrenean Institute of Ecology-CSIC; (6) University of Granada; (7) INIBIOMA, CONICET - Universidad Nacional del Comahue; (8) University of Georgia; (9) University of New York; (10) University of Utah; (11) Miguel Hernández University; (12) Smithsonian Migratory Bird Center; (13) Cawthron Institute; (14) UGARRA; (15) Lower Elwha Klallam Tribe; (16) IMEDEA (CSIC)-UIB; (17) University of Tasmania; (18) Doñana Biological Station-CSIC; (19) MENDIJOB, S.L.; (20) Panthera; (21) University of Utah; (22) University of Georgia; (23) Bavarian Forest National Park; (24) Doñana Biological Station-CSIC; (25) Tokyo University of Agriculture and Technology; (26) University of Ljubljana; (27) North Carolina Zoo; (28) Tokyo University of Agriculture and Technology; (29) University of Ljubljana; (30) INIBIOMA, CONICET - Universidad Nacional del Comahue; (31) Pyrenean Institute of Ecology (CSIC); (32) Miguel Hernández University; (33) Advanced Social Studies (IESA-CSIC); (34) Miguel Hernández University; (35) University of Sydney; (36) Inland Norway University of Applied Sciences; (37) Universidad de León; (38) University of Alicante; (39) Institute for Game and Wildlife Research IREC (CSIC-UCLM-JCCM); (40) Miguel Hernández University; (41) University of Georgia; (42) Institute of Nature Conservation, Polish Academy of Sciences; (43) Centro de Investigaciones Biológicas del Noroeste, S.C.; (44) Government Arts College Udhagamandalam; (45) The University of Sydney; (46) Utah State University; (47) University of Georgia; (48) Inland Norway University of Applied Sciences; (49) Swedish University of Agricultural Sciences; (50) Victoria University of Wellington; (51) University of Alicante

E-mail de correspondencia: [cayetano.gutierrez@urjc.es]

Vertebrate scavengers play a crucial role in food web stability and cycling of organic matter and nutrients. However, the global factors that influence their functional biogeography and impact on ecosystem functioning at regional and local levels remain poorly understood. We aim to address this challenge by analyzing a global dataset covering 49 regions in all inhabited continents, including information on 1,847 locally monitored carcasses and 204 vertebrate scavenger species along with their functional traits. We investigate the importance of biogeographical (spatial), environmental and anthropogenic factors in structuring vertebrate scavengers' functional trait composition, diversity and abundance. Additionally, we investigate how these biodiversity attributes affect carcass removal at regional and local scales. Our results show that the functional trait composition of assemblages across studied regions was primarily explained by latitude and longitude, suggesting a strong biogeographical signature. In addition, while functional richness remained unexplained, scavenger abundance responded to both environmental and spatial factors. Further, we found that carcass removal was mainly driven by functional composition, but with the relative importance of particular functional traits varying from local to regional scales. At the local scale, carcass removal was positively related to large carnivorous species with large home ranges, while at the regional scale, carcass removal was better explained by the presence of vultures, other raptors and diurnal birds. Our study provides a better understanding of the factors controlling the functional biogeography of terrestrial vertebrates and their role in maintaining essential ecological functions and services.