

**PERSONAL**

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**EDUCATION**

2001-2006 Boston University, Boston, Massachusetts, U.S.A.

Ph.D., Biology

1990-1995 Universidad Nacional, Heredia, Costa Rica

B.S., Tropical Biology

**POSTDOCTORAL EXPERIENCE**

2009-2012 Boston University, Boston, Massachusetts, U.S.A.

Postdoctoral Research Associate

2006-2008 Western Michigan University, Kalamazoo, Michigan, U.S.A.

Postdoctoral Researcher

**APPOINTMENTS**

2018- Research Associate, Smithsonian Tropical Research Institute

2011- Associate Professor, Universidad de Costa Rica, Golfito, Costa Rica

2001-2006 Teaching Fellow, Boston University, Boston, Massachusetts, U.S.A.

2000-2002 Adjunct Lecturer, Department of Biology, The University of Kansas

1998-2001 Administrative Assistant, Tropical Studies Institute, Golfito, Costa Rica

1998-2000 Tropical Biology Instructor, Tropical Studies Institute, Golfito, Costa Rica

1997-1999 Field Biology Course Assistant, Tropical Studies Institute, Golfito, Costa Rica

1995-1996 Research Assistant, Laboratory of Microbiology, Universidad Nacional, Costa Rica

**AWARDS**

Best student of the Department of Biological Sciences, Universidad Nacional, Honored by the Rector (1995 and 1996)

**REFEREE FOR SCIENTIFIC JOURNALS**

Acta Chiropterologica (4), Acta Ethologica (1), Animal Behaviour (5), Animal Behavior and Cognition (1), Behavioral Ecology (2), Behavioral Ecology and Sociobiology (6), Behavior Genetics (1), Behaviour (2), Bioacoustics (1), Biological Journal of the Linnean Society (1), Biology Letters (1), Biotropica (1), Caribbean Naturalist (1), Ceylon Journal of Science (1), Current Biology (1), Diversity (1), Ecology (1), Ecology and Evolution (1), Interciencia (1), International Journal of Comparative Psychology (1), Journal of Ethology (1), Journal of Comparative Physiology A (1), Journal of Mammalogy (4), Journal of Morphology (1), Journal of Zoology (2), Mammal Review (1), Mammalian Biology (2), Naturwissenschaften (1), New Zealand Journal of Ecology (1), PLoS ONE (5), Proceedings of the Royal Society of London B

(2), Revista de Biología Tropical (2), Revista Mexicana de Biodiversidad UNAM (1), Royal Society Open Science (1), UNED Research Journal (1), Zoologischer Anzeiger (1), Zoology (1).

#### **REFeree FOR GRANTING INSTITUTIONS**

National Science Foundation  
Animal Behaviour Society  
Graduate Women in Science  
Bat Conservation International  
Czech Science Foundation  
Rumanian National Council for Research and Development

#### **THESIS ADVISOR OR CO-ADVISOR**

Stanimira Deleva, Science Doctorate, Universidad de Costa Rica (2016-). Project: Diversity, ecology, and conservation of cave-dwelling bats in the Brunca region of Costa Rica.

Paula Iturralde-Pólit, Science Doctorate, Universidad de Costa Rica (2016-). Project: The effect of climate change on insectivorous bat communities in montane forests of Costa Rica.

Willy Pineda Lizano, Ph.D. Program in Natural Sciences for Development, Instituto Tecnológico de Costa Rica (2012- ). Project: Diversity, seasonal, and altitudinal movements of neotropical bat communities, and its relation to climatic conditions, reproduction, and food availability in Costa Rica.

Miriam Gioiosa, Masters in Science and Nature Management, School of Science, Università Degli Studi di Bologna (2019). Project: The use of vision in Spix's disc-winged bat *Thyroptera tricolor* to complement echolocation for roost finding.

Silvia Cháves Ramírez, Masters in Biology, Universidad de Costa Rica (2019-). Project: Roost competition and territoriality in Spix's disc-winged bats, *Thyroptera tricolor*.

Héctor Andrés Hernández Pinsón, Masters in Biology, Universidad de Costa Rica (2017-). Project: The role of ecological and social factors in the process of communication in Spix's disc-winged bats.

Cristian Castillo Salazar, Masters in Biology, Universidad de Costa Rica (2017-). Project: Aggression and competition for high-quality roosts in the woolly bat *Kerivoula hardwickii* (co-advised with Dr. Caroline Schöner, University of Greifswald).

Karen Miranda Gamboa, Licenciatura en Gestión Ecoturística (2016-). Project: Adventure tourism in caves of the southwestern region of Costa Rica.

Marcela Peña Acuña, M.Sc. in Sustainable Development, Universidad de Costa Rica (2011-2015). Project: Frugivorous bats as indicators of ecological disturbance and their role in habitat restoration.

Guido Saborío, M.Sc. in Management of Protected Areas and Regional Development, Universidad para la Cooperación Internacional (2014-2015). Project: Terrestrial mammal monitoring in Corcovado National Park: protocol analysis and management recommendations.

#### **ADVISOR FOR POSTDOCTORAL FELLOWS**

Marcelo Araya-Salas (2018-2020). Project: Acoustic communication in Spix's disc-winged bat.

Caroline Schöner (2016). Project: Influence of sociality on spatial cognition in foliage roosting bats. Co-advisor with Dr. Rachel Page, Smithsonian Tropical Research Institute.

Michael Schöner (2017). Project: Effectiveness of artificial roosts for Neotropical bat species.  
Co-advisor with Dr. Rachel Page, Smithsonian Tropical Research Institute.

#### **MEMBERSHIP IN PROFESSIONAL SOCIETIES**

British Ecological Society. Member since 2017  
Behavioral Ecology Society. Member since 2013.  
Animal Behavior Society. Member since 2010.

#### **FUNDING**

##### **Research grants**

- 2020 Universidad de Costa Rica, Funds for Research Groups. Project: Causes and consequences of variation in vocal communication in Spix's disc-winged bat (*Thyroptera tricolor*). PI: Gloriana Chaverri; Co-PIs from UCR: Marcelo Araya-Salas, Hellen Solís, Jenny Stynoski; Co-PIs from other institutions: Gerry Carter (The Ohio State University), Maria Sagot (State University of New York at Oswego), Yimen Araya-Ajoy (Norwegian University of Science and Technology), Mirjam Knörnschild (Museum of Natural History Berlin), Martina Nagy (Museum of Natural History Berlin). \$50,000.
- 2020 Rufford Small Grant for Nature Conservation. Project: Will Neotropical insectivorous bats adapt to climate change? An approach from a sensory and physiological standpoint. PI: Paula Iturralde-Pólit (Universidad de Costa Rica), Co-PI: Gloriana Chaverri, Holger Goerlitz (Max Planck Institute), Adarli Romero-Vásquez (Universidad de Costa Rica), Hugo Hidalgo-León (Universidad de Costa Rica). \$1,500.
- 2019 Bat Conservation International, Student Research Scholarship. Project: Nutrient contribution of cave bat colonies to surface ecosystems in the Paleotropics. PI: Stanimira Deleva (Universidad de Costa Rica), Co-PI: Gloriana Chaverri, Andrea Vincent (Universidad de Costa Rica), Caroline Schöner (University of Greifswald). \$3,460.
- 2019 Consejo Nacional de Rectores, Max Planck Society Projects. Project: Acoustic communication for group coordination on the wing. PI: Gloriana Chaverri, Co-PI: Holger Goerlitz and Damien Farine (Max Planck Institute). \$50,000.
- 2019 American Society of Mammalogists, Latin American Student Field Research Awards. Project: Vocal adaptations of insectivorous bats in response to shifts in temperature and humidity. PI: Paula Iturralde-Pólit (Universidad de Costa Rica), Co-PI: Gloriana Chaverri, Holger Goerlitz (Max Planck Institute).
- 2018 Universidad de Costa Rica, Mentorship Fund. Project: Characterizing the soundscape of the town of Golfito, Puntarenas, Costa Rica. PI: Hellen Solís Hernández, Co-PI: Gloriana Chaverri, Roberval Almeida. \$8,500.
- 2018 National Geographic Society, Committee for Research and Exploration. Project: Exploring a new ecosystem service provided by bats as a tool to promote their conservation. PI: Stanimira Deleva (Universidad de Costa Rica), Co-PI: Gloriana Chaverri, Andrea Vincent (Universidad de Costa Rica), Caroline Schöner (University of Greifswald), Katzy O'Neal (Universidad de Costa Rica). \$4,780.
- 2018 National Geographic Society, Committee for Research and Exploration. Project: How insectivorous bats will cope with climate change in Neotropical montane forests. PI: Paula Iturralde-Pólit (Universidad de Costa Rica), Co-PI: Gloriana Chaverri, Holger

- Goerlitz (Max Planck Institute), Adarli Romero-Vásquez (Universidad de Costa Rica), Hugo Hidalgo-León (Universidad de Costa Rica). \$5,000.
- 2018 Universidad de Costa Rica, Research Incentive Fund. Project: Cryptic diversity of bats in the Osa region. PI: Gloriana Chaverri, Co-PI: Federico Albertazzi (Universidad de Costa Rica), Emma Boston (AECOM, Ireland). \$13,250.
- 2018 Bat Conservation International, Student Research Scholarship. Project: The effect of climate change on insectivorous bats of Neotropical montane forests. PI: Paula Iturralde-Pólit (Universidad de Costa Rica), Co-PI: Gloriana Chaverri, Holger Goerlitz (Max Planck Institute), Adarli Romero-Vásquez (Universidad de Costa Rica), Hugo Hidalgo-León (Universidad de Costa Rica). \$3,984.
- 2018 Osa Conservation, Alvaro Ugalde Scholarship. Project: The hidden treasures of Osa - Research and conservation of caves and underground habitats in the Osa Peninsula. PI: Stanimira Deleva (Universidad de Costa Rica), Co-PI: Gloriana Chaverri. \$1,600.
- 2017 Wildlife Acoustics Scientific Product Grant. Project: Effectiveness of artificial roosts for Neotropical bat species. PI: Michael Schöner (University of Greifswald), Co-PIs: Rachel Page (Smithsonian Tropical Research Institute) and Gloriana Chaverri. \$4,921.
- 2015 Rufford Small Grant for Nature Conservation. Project: Protecting unique cave systems in Costa Rica using bats as flagship taxa. PI: Stanimira Deleva (University of Costa Rica), Co-PI: Gloriana Chaverri. £5000.
- 2015 NatureFund. Project: Reforestation of degraded tropical habitats using bat guano. PIs: Detlev Kelm (Estación Biológica Doñana), Gloriana Chaverri. €3,000.
- 2014 Universidad de Costa Rica, Research Incentive Fund. Project: Bats of the Osa Region: diversity and their function in forest regeneration. PI: Gloriana Chaverri. \$10,000.
- 2014 Animal Behavior Society. Project: The role of leaf acoustics on roost preference in Spix's disc-winged bat. PI: Gloriana Chaverri. \$800.
- 2014 Bat Conservation International, Student Research Scholarships. Project: Diversity, spatial and temporal patterns of bat communities in a tropical altitudinal gradient in Costa Rica. PI: Willy Pineda-Lizano (Technological Institute of Costa Rica), Co-PI: Gloriana Chaverri.
- 2014 American Society of Mammalogists, Student Field Research Grants. Project: Diversity and distribution (spatial and temporal patterns) of bat communities in a tropical altitudinal gradient in Costa Rica. PI: Willy Pineda-Lizano (Technological Institute of Costa Rica), Co-PI: Gloriana Chaverri.
- 2013 Conservation, Food and Health Foundation. Project: Fruit-eating bats and endophytic fungi: an unexplored indirect mutualism. PI: Priscila Chaverri (University of Costa Rica, University of Maryland), Co-PI: Gloriana Chaverri. \$19,970.
- 2013 Rufford Small Grant for Nature Conservation. Project: Artificial bat roosts and tropical forest regeneration. PI: Gloriana Chaverri, Co-PI: Detlev Kelm (Estación Biológica Doñana). £5,910.
- 2013 Osa Conservation, Greg Gund Memorial Fellowship. Project: Succession in bat colonization processes of artificial roosts and its effect on Neotropical forest regeneration. PI: Gloriana Chaverri, Co-PI: Guido Saborío (Sistema Nacional de Áreas de Conservación) and Detlev Kelm (Estación Biológica Doñana). \$2,000.
- 2013 Cleveland Metroparks Zoo, Scott Neotropical Fund. Project: Diversity and migration of neotropical bat communities in an altitudinal gradient as key information for the

- conservation of Costa Rican bats. PI: Willy Pineda-Lizano (Technological Institute of Costa Rica), Co-PI: Gloriana Chaverri. \$3,500.
- 2012 Natural Resource Defense Council. Project: Succession in bat colonization processes of artificial roosts and its effect on Neotropical forest regeneration. PI: Gloriana Chaverri, Co-PI: Guido Saborío (Sistema Nacional de Áreas de Conservación) and Detlev Kelm (Estación Biológica Doñana). \$3,714.
- 2012 National Geographic Society, Waitt Grants Program. Project: Exploring bat diversity in the Osa Peninsula: local capacity building for research and long term monitoring. PI: Emma Boston (Queen's University Belfast), Co-PI: Gloriana Chaverri and Sébastien Puechmaille (Queen's University Belfast). \$14,765.
- 2011 National Geographic Society, Committee for Research and Exploration. Project: Maintaining intra-group cohesion and extra-group segregation using individually recognized social calls. PI: Gloriana Chaverri. \$19,771.
- 2010 Idea Wild. Project: A comprehensive approach to understanding and protecting bat populations in a biodiversity hotspot. PI: Gloriana Chaverri. \$600.
- 2009 Cleveland Metroparks Zoo and Cleveland Zoological Society, Scott Neotropic Fund. Project: Understanding how bats cope with habitat loss. PI: Gloriana Chaverri. \$4,950.
- 2007 Rufford Small Grant for Nature Conservation. Project: Understanding how bats cope with habitat degradation and destruction. PI: Gloriana Chaverri. £4,967.
- 2005 American Society of Mammalogists, Grants-in-aid of Research. Project: Genetic consequences of a variable fission-fusion social system. PI: Gloriana Chaverri. \$1,468.
- 2004 Conservation, Food and Health Foundation. Project: The relationship between feeding and roosting resources and the abundance of bats. PI: Gloriana Chaverri. \$8,700.
- 2004 Bat Conservation International, Student Scholarship. Project: The relationship between feeding and roosting resources and the abundance of bats. PI: Gloriana Chaverri. \$2,500.
- 2004 Cleveland Metroparks Zoo, Scott Neotropic Fund. Project: The relationship between feeding and roosting resources and the abundance of tent-roosting bats in southwestern Costa Rica. PI: Gloriana Chaverri. \$4,800.
- 2003 Idea Wild. Project: Mating behavior of tent-making bats. PI: Gloriana Chaverri. \$700.
- 2003 American Society of Mammalogists, Latin American Student Field Research Award. Project: Roost construction in New World tent-making bats. PI: Gloriana Chaverri. \$1,000.
- 2003 Consejo Nacional para Investigaciones Científicas y Tecnológicas de Costa Rica (CONICIT) y Ministerio de Ciencia y Tecnología (MICIT). Project: Ecological correlates of mating systems in tent-making bats. PI: Gloriana Chaverri. \$1,000.

### **Databases**

- 2021 Netherlands Biodiversity Information Facility (NLBIF). Project: "Bat sounds on Xeno-canto & GBIF". Collaborators: Willem-Pier Vellinga (Xeno-canto), Gloriana Chaverri (Universidad de Costa Rica), Marcelo Araya Salas (Universidad de Costa Rica). Amount: 11.440 euros.

### **Extension grants**

- 2015 Junta de Desarrollo Regional de la Zona Sur. Improving education of science in high-schools of southwestern Costa Rica. Amount: \$160,700.

## **Travel grants**

- 2018 Behavioral Ecology Society. Travel award to attend the conference of the International Society for Behavioral Ecology. Amount: \$1,700.
- 2016 Behavioral Ecology Society. Travel award to attend the conference of the International Society for Behavioral Ecology. Amount: \$1,000.
- 2014 Behavioral Ecology Society. Travel award to attend the conference of the International Society for Behavioral Ecology. Amount: \$1,000.
- 2011 Consejo Nacional para Investigaciones Científicas y Tecnológicas de Costa Rica (CONICIT) y Ministerio de Ciencia y Tecnología (MICIT). Fund to Promote Participation in Scientific Events. Amount: \$1,500.
- 2011 Animal Behaviour Society. Emerging Nations Award to attend the joint meeting of the Animal Behaviour Society and the International Ethological Society. Amount: \$400.

## **TEACHING EXPERIENCE**

Professor, Universidad de Costa Rica

Introductory Biology (2011-2017), Ecology (2011-2017), Research Seminar (2012-2013)

Invited Resource Faculty, Organization for Tropical Studies

An Introduction to Tropical Ecology (2014), Tropical Biology (2014), Field Ecology (2015), Tropical Biology: An Ecological Approach (2015, 2016), Tropical Biology and Conservation (2017)

Instructor, Fundación Saimiri

Field Techniques for Bat Research (2014)

Invited Instructor, Instituto de Biodiversidad Tropical

Lecture on Capturing and Handling Bats for International Wildlife Rescuers (2013, 2014)

Teaching Fellow, Boston University

Ecology (2001-2006), Biology of Mammals (2002)

Adjunct lecturer, Department of Biology, The University of Kansas

Field Research on Behavior and Ecology of Bats (2002), Introduction to the Ornithology of Costa Rica (2000-2001), Tropical Ecology (2000-2001), Mammals of the Neotropics (2000-2001), People and the Forest (2000-2001)

Tropical Biology Instructor, Tropical Studies Institute, Golfito, Costa Rica

Introduction to the Ornithology of Costa Rica (1998-2000), Tropical Ecology (1998-2000), Mammals of the Neotropics (1998-2000), Biodiversity of the Rainforest (1998-2000), Ethnobotany of Costa Rica (1998-2000)

Field Biology Course Assistant, Tropical Studies Institute, Golfito, Costa Rica

Natural History of Costa Rica (1997-1999), Ethnobotany of Costa Rica (1997-1999), Socio-biology of Purruja Mangroves (1997-1999)

## **ACADEMIC PRESENTATIONS**

### **Keynote speaker**

- 2017 Social communication in bats: so far and the way forward. European Bat Research Symposium, Donostia, Basque Country.

### **Invited speaker**

- 2015 Bats and their roosts, Universidad del Quindío, Colombia (virtual talk)

- 2015 Social communication and group cohesion in Spix's disc-winged bats, Osa Conservation
- 2015 Social communication and group cohesion in Spix's disc-winged bats, Page Lab, Smithsonian Tropical Research Institute
- 2015 Artificial bat roosts and tropical forest regeneration, Osa Conservation
- 2014 Ecology and behavior of Costa Rican bats, Instituto Tecnológico de Costa Rica.
- 2014 Osa bats, Talk on biodiversity and development in Península de Osa, Sistema Nacional de Áreas de Conservación
- 2013 Artificial bat roosts and tropical forest regeneration, Universidad Nacional Autónoma de Nicaragua-León
- 2013 Capture and handling of Chiroptera. Course International Wildlife Rescuers, Institut de Biodiversitat Tropical
- 2011 Acoustic communication in bats. Course on the Biology of Tropical Bats. Freie Universität Berlin and University of Bristol
- 2011 Costa Rican Ecosystems. Course on the Biology of Tropical Bats. Freie Universität Berlin and University of Bristol
- 2008 Geographic variation in the social behavior of two foliage-roosting bats. Monteverde Institute
- 2006 Bats: cultural vision and their role in the ecosystem. Universidad Nacional
- 2005 Geographic variation in behavior. Universidad Latina de Costa Rica
- 2005 Bats: myth, reality and importance. Universidad Nacional
- 2002 Bat mating systems. Programa de Conservación de Murciélagos de Costa Rica, Museo Nacional de Costa Rica

### **Conference presentations**

- 2020 ¿Por qué son importantes los grupos de animales para la conservación y la gestión? Jornadas de Investigación, Sede del Sur, Universidad de Costa Rica.
- 2020 Comunicación acústica durante la búsqueda de refugios efímeros en el murciélago de ventosas. Simposio Nacional de Bioacústica, Universidad Estatal a Distancia.
- 2019 The energetics of social signaling during roost location in Spix's disc-winged bats. International Conference on Bat Research, Phuket, Thailand.
- 2018 Social groups need (a few) vocal individuals to coordinate roost location. Tupper Seminar, Smithsonian Tropical Research Institute, Panamá.
- 2018 The energetics of social signaling during roost location in Spix's disc-winged bats. North American Symposium on Bat Research, Puerto Vallarta, México.
- 2018 Energetics of social signaling in the disc-winged bat. Jornadas de Investigación, Recinto de Golfito, Universidad de Costa Rica.
- 2018 Social groups need (a few) vocal individuals to coordinate roost location. Paper presented at the International Society for Behavioral Ecology Congress, Minneapolis, Minnesota.
- 2016 Bat cryptic diversity in a tropical montane forest. Paper presented at the Jornadas de Investigación, Recinto de Golfito, Universidad de Costa Rica.
- 2016 Social roles in communication networks. Poster presented at the International Society for Behavioral Ecology Congress, Exeter, UK.
- 2015 Carotenoids and skin pigmentation in the white bat (*Ectophylla alba*). Paper presented at the Jornadas de Investigación, Centro de Investigaciones en Productos Naturales, Universidad de Costa Rica.

- 2014 Personalities in the communication system of Spix's disc-winged bat (*Thyroptera tricolor*). Paper presented at the Jornadas de Acción Social e Investigación, Recinto de Golfito, Universidad de Costa Rica.
- 2014 Social roles in communication networks: the case of Spix's disc-winged bat. Paper presented in the Annual North American Symposium on Bat Research, Albany, New York.
- 2014 Roosts amplify social calls in Spix's disc-winged bat. Poster presented at the International Society for Behavioral Ecology meeting in New York city, New York.
- 2014 Personalities in the communication system of Spix's disc-winged bat (*Thyroptera tricolor*). Paper presented at the Latin American Bat Conference in Quito, Ecuador.
- 2013 Artificial bat roosts and tropical forest regeneration. Paper presented at the Jornadas de Acción Social e Investigación, Recinto de Golfito, Universidad de Costa Rica.
- 2013 Roosts amplify social calls in Spix's disc-winged bat. Paper presented at the International Bat Research Conference in San José, Costa Rica.
- 2012 Social calls facilitate group cohesion in Spix's disc-winged bat. Paper presented in the Annual North American Symposium on Bat Research, San Juan, Puerto Rico.
- 2012 Succession in the colonization of artificial roosts by bats and its effect on neotropical forest regeneration. Paper presented at the Jornadas de Acción Social e Investigación, Recinto de Golfito, Universidad de Costa Rica.
- 2012 Cooperation during roost search and its role in the formation and maintenance of cohesive groups in the disc-winged bat, *Thyroptera tricolor*. Paper presented at the Jornadas de Acción Social e Investigación, Recinto de Golfito, Universidad de Costa Rica.
- 2011 The use of social calls during roost search in bats. Paper presented at the First Research Symposium in ACOSA, Osa Peninsula, Costa Rica.
- 2011 Acoustic signaling of roost location in tent-making bats. Paper presented in the Joint Meeting of the Animal Behavior Society and the International Ethological Society, Bloomington, Indiana.
- 2010 Understanding cooperation in the Neotropical leaf-roosting bat *Thyroptera tricolor*. Paper presented in the International Bat Research Conference in Prague, Czech Republic.
- 2007 Comparative social structure of Spix's disc-winged bat, *Thyroptera tricolor*. Paper presented in the International Bat Research Conference in Mérida, México.
- 2005 Ecological correlates of home range size variation in the tent-making bat *Artibeus watsoni*. Paper presented in the Annual North American Symposium on Bat Research, Sacramento, California.
- 2004 Reproductive biology and behavior of the tent-making bat *Artibeus watsoni*. Paper presented in the Annual North American Symposium on Bat Research, Salt Lake City, Utah.
- 2002 Roost fidelity in the tent-making bat *Artibeus watsoni* (Chiroptera: Phyllostomidae). Poster presented in the Annual North American Symposium on Bat Research, Burlington, Vermont.



## PUBLICATIONS

- Chaverri, G., Sandoval-Herrera, N.I., Iturralde-Pólit, P., Romero-Vásquez, A., Chaves-Ramírez, S., Sagot, M. 2021. The energetics of social signaling during roost location in Spix's disc-winged bats. *Journal of Experimental Biology*, in press.
- Giacomini, G., A. Herrel, G. Chaverri, R.P. Brown, D. Russo, D. Scaravelli and C. Meloro. 2021. Functional correlates of skull shape in Chiroptera: feeding and echolocation adaptations. *Integrative Zoology*, in press.
- Hernández-Pinsón, H. A., S. Chaves-Ramírez, G. Chaverri. 2021. Seasonality in the emission of contact calls in Spix's disc-winged bats (*Thyroptera tricolor*) suggests a potential role in mate attraction. *Acta Chiropterologica*. In press.
- Fraser, E. E., A. Silvis, R. M. Brigham, and Z. J. Czenze, eds. (with 46 authors). 2020. *Bat Echolocation Research: A handbook for planning and conducting acoustic studies*. Second Edition. Bat Conservation International. Austin, Texas, USA.
- Chaverri, G., Y.G. Araya-Ajoy, M. Sagot. 2020. Contact calling in context: Intra and intergroup variation in vocalization rates depend on a call's function. *Behavioral Ecology and Sociobiology*, 74: 57.
- Araya-Salas, M., H.A. Hernández-Pinsón, N. Rojas, G. Chaverri. 2020. Ontogeny of an interactive call-and-response system in Spix's disc-winged bats. *Animal Behaviour*, 166: 233-245.
- Boerma, D.B., J.P. Barrantes, C. Chung, G. Chaverri, and S.M. Swartz. 2019. Specialized landing maneuvers in Spix's disk-winged bat (*Thyroptera tricolor*) reveal linkage between roosting ecology and landing biomechanics. *Journal of Experimental Biology*, 222: jeb204024.
- Pérez-Cárdenas, N., K. Porras-Brenes, L.V. Auccacusi-Choque, J.J. Suárez-Torres, R.M. Brooks & G. Chaverri. 2019. Microclimate of developing tubular leaves used as roost sites by bats. *Acta Chiropterologica*, 21: 175-181.
- Wilkinson, G.S., G. Carter, K.M. Bohn, B. Caspers, G. Chaverri, D. Farine, L. Günther, G. Kerth, M. Knörnschild, F. Mayer, M. Nagy, J. Ortega & K. Patriquin. 2019. Kinship, association and social complexity in bats. *Behavioral Ecology and Sociobiology*, 73:7.
- Garin I., G. Chaverri, L. Jimenez, C. Castillo-Salazar, J. Aihartza. 2018. Contrasting Thermal Strategies of Montane Neotropical Bats at High Elevations. *Journal of Thermal Biology*, 78: 352-355.
- Sagot, M., C.R. Schöner, A.J. Jago, I. Razik, & G. Chaverri. 2018. The importance of group vocal behaviour in roost finding. *Animal Behaviour*, 142: 157-164.
- Chaverri, G., L. Ancillotto, and D. Russo. 2018. Social communication in bats. *Biological Reviews*, 93: 1938-1954.
- Deleva, S. and G. Chaverri. 2018. Diversity and conservation of cave-dwelling bats in the Brunca region of Costa Rica. *Diversity*, 10:43.
- Chaverri, G. and O. E. Quirós. 2017. Variation in echolocation call frequency in two species of free-tailed bats according to temperature and humidity. *Journal of the Acoustical Society of America*, 142:146-150.
- Chaverri, G. and E.H. Gillam. 2016. Acoustic communication and group cohesion in Spix's disc-winged bats. In *Sociality in Bats* (ed. J. Ortega), pp. 161-178. Berlin: Springer-Verlag.
- Chaverri, G., I. Garin, A. Alberdi, L. Jimenez, C. Castillo-Salazar, and J. Aihartza. 2016. Unveiling the Hidden Bat Diversity of a Neotropical Montane Forest. *PLoS One*, 11: e0162712.

- Sagot, M. and G. Chaverri (equal contribution). 2015. The effect of roost specialization on extinction risk in bats. *Conservation Biology*, 29: 1666-1673.
- Quirós, O.E. and G. Chaverri. 2015. To art or not to art? That is the communal question! *Escena*, 74:109-124.
- Chaverri, G. and E. H. Gillam. 2015. Repeatability in the contact calling system of Spix's disc-winged bat (*Thyroptera tricolor*). *Royal Society Open Science*, 2:140197.
- Buchalski, M. R., G. Chaverri, M.J. Vonhof. 2014. When genes move farther than offspring: Gene flow by male gamete dispersal in the highly philopatric bat species *Thyroptera tricolor*. *Molecular Ecology*, 23: 464-480.
- Chaverri, G. and E. H. Gillam. 2013. Sound amplification by means of a horn-like roosting structure in Spix's disc-winged bat. *Proceedings of the Royal Society of London*, 280: 20132362.
- Gillam, E.H., G. Chaverri, B.K. Montero, and M. Sagot. 2013. Social calls produced within and near the roost in two species of tent-making bats, *Dermanura watsoni* and *Ectophylla alba*. *PLoS ONE*, 8: e61731.
- Chaverri, G., E.H. Gillam, and T.H. Kunz. 2013. A call-and-response system facilitates group cohesion among disc-winged bats. *Behavioral Ecology*, 24: 481-487.
- Gillam, E.H. and G. Chaverri. 2012. Strong individual and weaker group signatures in the contact calls of Spix's disk-winged bat, *Thyroptera tricolor*. *Animal Behaviour*, 83: 269-276.
- Chaverri, G. and T.H. Kunz. 2011. Response of a bat specialist to the loss of a critical resource. *PLoS ONE*, 6(12): e28821.
- Chaverri, G. and T.H. Kunz. 2011. All-offspring natal philopatry in a neotropical bat. *Animal Behaviour*, 82: 1127-1133.
- Chaverri, G. and M.J. Vonhof. 2011. Reproduction and growth in a neotropical insectivorous bat. *Acta Chiropterologica*, 13: 147-155.
- Chaverri, G. and T.H. Kunz. 2010. Ecological determinants of social systems: perspectives on the functional role of roosting ecology in the social behavior of tent-roosting bats. In *Advances in the Study of Behavior*, vol. 42 (ed. R. Macedo), pp. 275-318. Burlington: Academic Press.
- Chaverri, G., and E.H. Gillam. 2010. Cooperative signaling behavior of roost location in a leaf-roosting bat. *Communicative & Integrative Biology*, 3: 1-4.
- Chaverri, G. 2010. Comparative social network analysis in a leaf-roosting bat. *Behavioral Ecology and Sociobiology*, 64: 1619-1630.
- Chaverri, G., E.H. Gillam (equal contribution) and M.J. Vonhof. 2010. Social calls used by a leaf-roosting bat to signal location. *Biology Letters*, 6: 441-444.
- Chaverri, G., C.J. Schneider and T.H. Kunz. 2008. Mating system of the tent-making bat *Artibeus watsoni* (Chiroptera: Phyllostomidae). *Journal of Mammalogy*, 89:1361-1371.
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### **Papers in review**

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Pineda-Lizando, W., G. Chaverri. Spatio-temporal distribution of Neotropical bat assemblages in an altitudinal gradient in Costa Rica. In review: *Acta Chiropterologica*.

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### **SELECTED PRESS COVERAGE**

2017 **Berria**: [http://www.berria.eus/paperekoa/1845/032/001/2017-08-11/saguzarrek\\_asko\\_laguntzen\\_diete\\_batzuek\\_besteei\\_deigarria\\_da.htm](http://www.berria.eus/paperekoa/1845/032/001/2017-08-11/saguzarrek_asko_laguntzen_diete_batzuek_besteei_deigarria_da.htm)

**Noticias UCR**: <https://www.ucr.ac.cr/noticias/2017/09/18/cientificos-exploran-cavernas-de-la-region-brunca-en-busca-de-murcielagos.html>

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2013 **Nature**: <http://www.nature.com/news/bats-use-ear-trumpets-for-social-calls-1.13960>

**Science**: <http://news.sciencemag.org/plants-animals/2013/10/scienceshot-bats-use-megaphones-jungle>

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- 2012 **Labor&More:** <http://www.laborundmore.de/research/5370,439818/Prof.-Dr.-Gloriana-Chaverri/Sozialrufe-und-Gruppenbildung-bei-Fledermaeusen.html>
- 2010 **Spiegel:** <http://www.spiegel.de/wissenschaft/natur/0,1518,671550,00.html>
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