David A. Donoso
Curriculum Vitae – Abril 2020

Nací el 1 de Diciembre de 1980. Soltero. CI:0801423351. david.donosov@gmail.com. Dirección Laboral: Instituto de Ciencias Biológicas, Escuela Politécnica Nacional, Quito, Ecuador. Celular: (593)-984-110610. Dirección Domicilio: Av. Siena Lote # 2 y Durero, La Primavera, Cumbaya, Quito, Ecuador. Tipo de Sangre A-Rh+

Honores

2016 – Presente	Miembro de la **Academia de Ciencias del Ecuador**.
2017 – 2019	Presidente IUSSI-Sección Andina y Caribe.

Trabajo Profesional

2016 – Presente	Profesor Titular a Tiempo Completo Agregado Nivel 1 Grado 3. Escuela Politécnica Nacional. Ecuador.
2006 – Presente	Investigador Asociado, Museo de Zoología QCAZ, PUCE, Ecuador.
2020 – Presente	Investigador Asociado, BioCamb, UTI, Ecuador.
2015 – 2016	Docente. Universidad de Cuenca, Ecuador.
2013 – 2015	Docente. Universidad Técnica Particular de Loja, Ecuador.
2014 – 2016	Director del Museo de Colecciones Biológicas MUTPL, Ecuador.
2006 – 2012	Docente Asistente e Investigador Asistente. Universidad de Oklahoma, USA.

Educación

2006 – 2012. PhD en Ecología y Biología Evolutiva. Universidad de Oklahoma.
Número de Registro Senescyt 7377R-12-5684. Fecha de Registro 10-10-2012

1999 – 2005. Licenciatura en Ciencias Biológicas. PUCE.
Número de Registro Senescyt 1027-06-661935. Fecha de Registro 31-01-2006

Intereses de Investigación

Ecología de Ecosistemas	Cadenas tróficas del suelo. Ciclos de nutrientes y Cambio Global.
Mirmecología Neotropical	Comunidades, biodiversidad y sistemática de hormigas.
Entomología Forense	Insectos con valor forense.

Manuscritos

En Revisión

1. **Donoso DA**, Kay A, Kaspari M. Top-down effects of litter ants in tropical brown food webs. In review at *Journal of Animal Ecology*.
2. Castillo-Monroy AP, **Donoso DA** Avances al conocimiento y perspectivas en investigación en el bosque tropical más amenazado de Colombia. In review at *Ecosystemas*.
3. Marín-Armijos D, Méndez M, Ramón P, **Donoso DA**. Forest management reduces the quantity of deadwood in a tropical dryland. In review at *Nature Conservation.*
4. Domínguez DF, Lattke JE, Páez M, Gusmán E, **Donoso DA**. Precipitation and temperature drives ant traits distribution along an altitudinal gradients. In review at *Biotropica.*
5. Domínguez DF, Luzuriaga C, Ruiz C, **Donoso DA**, Marín-Armijos D. Response of an Amazonian dung beetle community (Coleoptera: Scarabaeinae) to disturbance.

6. **Donoso DA**, Basset Y, Shik JZ, Arizala S, Polanco P, Beckett S, Barrios H. Which climatic variables induce ant male mating flights in a Neotropical forest? In review at *Myrmecological News*.

Escritos de divulgación popular

7. Salazar F, **Donoso DA** (2019) Declinación Masiva de Insectos ¿Se acerca el Armagedón? *Nuestra Ciencia* 21:44–46.
8. **Donoso DA** (2019) Patrones Macro de la Diversidad del Yasuni. In: Erwin TL, Pimienta MC (2018) Monitoreo Biológico Yasuní. Vol 7. Insectos y arañas de dosel. ECG. Quito. Ecuador.
9. Salazar F, **Donoso DA** (2017) Estudiar invertebrados… ¿y con qué se come eso? *Nuestra Ciencia* 19:37–40.
10. **Donoso DA**, Pinto M, Carpio C (2017) Editorial: Códigos de barras de ADN y el acceso a los recursos genéticos para potenciar al sector agropecuario. *Ecuador es Calidad* 4:10–13.
11. Salazar F, **Donoso DA** (2014) El mundo de los invertebrados: en busca del número total de especies del Ecuador. *Nuestra Ciencia* 16:37–40.

Revisión por pares

12. Moreno et al. (2020) Checklist, geographic distribution, and DNA barcodes of green bottle flies (Calliphoridae, Luciliinae) in Ecuador. In Press *Neotropical Biodiversity*.
13. García-Ruilova et al. (2020) First records in Ecuador of Díptera in human cadavers. In Press *Neotropical Biodiversity*.
14. Shik et al. (2020) Nutritional niches reveal fundamental domestication tradeoffs in fungus-farming ants. In Press *Nature Ecology and Evolution*
15. Hoenle et al. (2020) *Odontomachus davidsoni* sp. nov. (Hymenoptera, Formicidae), a new conspicuous trap-jaw ant from Ecuador. In Press *Zookeys*
16. Basset et al. (2020) Enemy-free space and the distribution of ants, springtails and termites in the soil of one tropical rainforest. *European Journal of Soil Biology* 99. 103193.
17. Ripple et al. (2020) World Scientists' Warning of a Climate Emergency. *BioScience* 70(1)8-12.
18. Moskowitz et al. (2020) Land use impacts poison frog chemical defenses through changes in leaf litter ant communities. *Neotropical Biodiversity* 6(1)75-87.
19. Vásquez et al. (2019) Bryophyte communities along a tropical urban river respond to heavy metal and arsenic pollution. *Water* 11 (813), 1-12. **DOI**: 10.3390/w11040813
20. McElroy M, **Donoso DA** (2019) Ant morphology mediates diet preference in a Neotropical toad (Rhinella alata). *Copeia* 107(3) 430-438. bioRxiv, 464511. **DOI**: 10.1101/464511.
21. Hoenle et al. (2019). Species-level predation network uncovers high prey specificity in a Neotropical army ant community. *Molecular Ecology* 28(9): 2423-2440. **DOI**: 10.1111/mec.15078
22. Pruna et al. (2019) Life cycle of Lucilia sericata (Meigen 1826) collected from Andean mountains, *Neotropical Biodiversity* 5(1): 3-9, **DOI**: 10.1080/23766808.2019.1578056
23. **Donoso DA** (2019) Subfamily Agroecomyrmecinae. *Ants of Colombia*. Chapter 19. Book Chapter. Hormigas de Colombia.
24. Checa et al. (2019) Combining sampling techniques aids monitoring of tropical butterflies. *Insect Conservation and Diversity.* **DOI**: 10.1111/icad.12328
25. Kooij et al. (2018) Cryptic diversity in Colombian edible leaf-cutter ants. *Insects* 2018(9): 191; doi:10.3390/insects9040191
26. Moskowitz et al. (2018) Seasonal changes in diet and toxicity in the Climbing Mantella frog (*Mantella laevigata*). *PLoS ONE* 13(12): e0207940.
27. Arnan et al. (2018) Dominance-diversity relationships in ant communities differ with invasion. *Global Change Biology* 24(10): 4614–4625. **DOI**: 10.1111/gcb.14331

28. Gibb et al. (2018) Habitat disturbance selects against both small and large species across varying climates. *Ecography* 41(7): 1184–1193. **DOI**: 10.1111/ecog.03244
29. Endara et al. (2017) Coevolutionary arms race versus host defense chase in a tropical herbivore–plant system. *Proceedings of the National Academy of Sciences* 114: E7499–E7505. **DOI**: 10.1073/pnas.1707727114. **Recommended F1000**
30. Roslin et al. (2017) Higher predation risk for insect prey at low latitudes and elevations. *Science* 356: 742–744. **DOI**: 10.1126/science.aaj1631. **Recommended F1000**
31. **Donoso DA** (2017) Tropical ant communities are in long-term equilibrium. *Ecological Indicators* 83C: 515–523. **DOI**: 10.1016/j.ecolind.2017.03.022
32. Wallis et al. (2017) Remote sensing improves prediction of tropical montane species diversity but performance differs among taxa. *Ecological Indicators* 83C: 538–549. **DOI**: 10.1016/j.ecolind.2017.01.022
33. Tiede et al. (2017) Ants as indicators of environmental change and ecosystem processes. *Ecological Indicators*. 83C: 527–537. **DOI**: 10.1016/j.ecolind.2017.01.029
34. Cárdenas et al. (2017) Functional consequences of realistic extinction scenarios in Amazonian soil food webs. *Ecosphere*. Article e01692. **DOI**: 10.1002/ecs2.1692. **Recommended F1000**
35. Gibb et al. (2017) A global database of ant species abundances. *Ecology* 98(3): 883–884. **DOI**: 10.1002/ecy.1682
36. Parr et al. (2017) GlobalAnts: a new database on the geography of ant traits (Hymenoptera: Formicidae). *Insect Conservation and Diversity* 10(1): 5–20. **DOI**: 10.1111/icad.12211
37. Ceríaco et al. (2016) Photography-based taxonomy is inadequate, unnecessary, and potentially harmful for biological sciences. *Zootaxa* 4196(3): 435–445. **DOI**: 10.11646/zootaxa.4196.3.9
38. Baez et al. (2016) Effects of climate change on the biodiversity of the Andean Region: a synthesis of published studies until 2015. *Neotropical Biodiversity* 2(1): 181–194. **DOI**: 10.1080/23766808.2016.1248710
39. Baez et al. (2016) Ant mutualism increases long-term growth and survival of a common Amazonian tree. *American Naturalist* 188(5): 1–8. **DOI**: 10.1086/688401
40. Dominguez et al. (2016) COI barcodes for ants (Hymenoptera: Formicidae) of drylands in the south of Ecuador. *Ecosistemas* 25(2): 76–78. **DOI**: 10.7818/ECOS.2016.25-2.09
41. Amorim et al. (2016) Timeless Standards for Species Delimitation: A Critique of the Use of Images as Types. *Zootaxa* 4137(1): 121–128. **DOI**: 10.11646/zootaxa.4137.1.9
42. Castillo-Monroy et al. (2016) Biocrust structure responds to soil variables along a tropical scrubland elevation gradient. *Journal of Arid Ecosystems* 124:31–38. **DOI**: 10.1016/j.jaridenv.2015.06.015
43. Delsinne T, Sonet G, **Donoso DA**. (2015) Two new species of Leptanilloides Mann, 1983 (Formicidae: Dorylinae) from the Andes of southern Ecuador. *European Journal of Taxonomy* 143:1–35. **DOI**: 10.5852/ejt.2015.143
44. Gibb et al. (2015) Climate mediates the effects of disturbance on ant assemblage structure. *Proceedings of the Royal Society of London. Series B* 282:20150418. **DOI**: 10.1098/rspb.2015.0418
45. Salazar et al. (2015) Mapping continental ecuadorian ant species. *Sociobiology* 62:132–162. **DOI**: 10.13102/sociobiology.v62i2.132-162.

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46. Volumen Especial en Entomología Forense en el Ecuador. Apoyado por la Fiscalía General del Estado. Nueve manuscritos editados por **Donoso DA** & Paucar A.
47. Ramón G, **Donoso DA** (2015) The role of ants (Hymenoptera: Formicidae) in forensic entomology. *Revista Ecuatoriana de Medicina y Ciencias Biológicas* 36:19–26.
48. Salazar F, **Donoso DA** (2015) Catalogo de insectos con valor forense en el Ecuador. *Revista Ecuatoriana de Medicina y Ciencias Biológicas* 36:49–59.
49. García-Ruilova AB, **Donoso DA** (2015) Casos sin resolver y la entomología forense en Ecuador.

Revista Ecuatoriana de Medicina y Ciencias Biológicas 36:61–65.

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50. Clay NA, **Donoso DA**, Kaspari M (2015) Urine as an important sodium source increases decomposition in in an inland but not coastal tropical forest. *Oecologia* 177:571–579. **DOI**: 10.1007/s00442-014-3183-4
51. **Donoso** et al. (2014) Invasive ants of continental Ecuador, a first account. *Revista Ecuatoriana de Medicina y Ciencias Biológicas* 35:133–141.
52. Kaspari et al. (2014) Sodium fertilization increases termites and enhances decomposition in an Amazonian forest. *Ecology* 95:795–800. **DOI**: 10.1890/13-1274.1
53. **Donoso DA** (2014) Assembly mechanisms shaping tropical litter ant communities. *Ecography* 37: 490–499. **DOI**: 10.1111/j.1600-0587.2013.00253.x
54. Shik JZ, **Donoso DA**, Kaspari M (2013) The life history continuum hypothesis links traits of male ants with life outside the nest. *Entomologia Experimentalis et Applicata* 149:99–109. **DOI**: 10.1111/eea.12117
55. Ramón et al. (2013) Can clay banks increase the local ant species richness of a montane forest? *Métodos en Ecología y Sistemática* 8:37–53.
56. Salazar F, **Donoso DA** (2013) New ant (Hymenoptera: Formicidae) records for Ecuador deposited at the Carl Rettenmeyer ant collection in the QCAZ Museum. *Boletín Tecnico 11, Serie Zoológica* 8:150–175.
57. **Donoso** et al. (2013) Trees as templates for trophic structure of tropical litter arthropod fauna. *Soil Biology and Biogeochemistry* 61:45–51. **DOI**: 10.1016/j.soilbio.2013.02.004
58. Kaspari et al. (2012) Using nutritional ecology to predict community structure: a field test in Neotropical ants. *Ecosphere* 3:1–15. **DOI:** 10.1890/ES12-00136.1
59. **Donoso DA** (2012) Additions to the taxonomy of the armadillo ants (Hymenoptera, Formicidae, *Tatuidris*). *Zootaxa* 3503:61–81.
60. **Donoso DA**, Johnston MK, Kaspari M(2010) Trees as templates for tropical litter arthropod diversity. *Oecologia* 164:201–211. **DOI**: 10.1007/s00442-010-1607-3
61. **Donoso DA** et al (2009) Diversity and distribution of type specimens deposited in the Invertebrate section of the Museum of Zoology QCAZ, Quito, Ecuador. *Annales de la Société Entomologique de France (ns)* 45:437–454. **DOI**: 10.1080/00379271.2009.10697628
62. Carpio et al. (2009) Short-term response of dung beetle communities to disturbance by road construction in the Ecuadorian Amazon. *Annales de la Société Entomologique de France (ns)* 45:455–469. **DOI:** 10.1080/00379271.2009.10697629
63. **Donoso DA**, Ramón G (2009) Composition of a high diversity leaf litter ant community (Hymenoptera: Formicidae) from an Ecuadorian pre-montane rainforest. *Annales de la Société Entomologique de France (ns)* 45:487–499. **DOI**: 10.1080/00379271.2009.10697631
64. **Donoso DA**, Vieira JM, Wild AL (2006) Three new species of *Leptanilloides* Mann from Andean Ecuador (Formicidae: Leptanilloidinae). *Zootaxa* 1201:47–62. **DOI**: http://dx.doi.org/10.11646/%25x

Posters and Talks (Abstracts) in Conferences

65. **Donoso DA**. ARCE, 15 años de investigación en hormigas poco conocidas. XI Coloquio IUSSI. Perú.
66. Vanderheyden et al. (2017) DNA Barcoding of ants from the Galápagos: searching native and introduced species Vanderheyden. 8th International Barcode of Life Conference (IBOL). South Africa.
67. Moreno E, **Donoso DA**, Barragán A (2016) Megadiversity gets into the CSI room: Barcoding forensically important flies in Ecuador. 27th ICE Meeting. USA.
68. Sonet et al. (2015) Large-scale DNA barcoding of ants from Ecuador. 6th International Barcode of Life Conference (IBOL). Canada. Genome 58(5): 163-303.

69. **Donoso DA** (2015) COI barcodes link population genetics with soil food web structure. 6th International Barcode of Life Conference (IBOL). Canada. Genome 58(5): 163-303.
70. **Donoso DA** et al (2014) Predation by litter ants in a brown food web: diminishing effects from microbivory to decomposition rates. First Global Soil Biodiversity Conference. France.
71. Shik JZ, **Donoso DA**, Kaspari M (2013) Linking the traits of male ants with the ecological demands of diverse mating systems. 50th ATBC and OTS Meeting. Costa Rica.
72. Clay NA, **Donoso DA**, Kaspari M (2013) Urine increases woody decomposition in an inland, but not coastal, tropical forest despite depressing the detrital communities of both. 50th ATBC and OTS Meeting. Costa Rica.
73. **Donoso** et al (2012) (Invited Talk) Tropical trees influence trophic structure but not diversity of litter arthropod communities. 26th ICE Meeting. Korea.
74. **Donoso** et al (2011) Trees construct but seasonality deconstructs trophic structure of tropical litter arthropod communities. 96th ESA Annual Meeting. USA.
75. Clay NA, **Donoso DA**, Kaspari M (2011) Urine as an important sodium source increases decomposition in a Na-poor but not Na-rich tropical forest. 96th ESA Annual Meeting. USA.
76. **Donoso DA**, Kay AD, Kaspari M (2010) Revealing litter ant community assembly rules at different scales through ecological trait and phylogenetic tests. Poster. IUSSI 2010. Denmark.

Experiencia Docente

- **Posgrado.** Sistema Climatico Global. Lectura y Escritura de Articulos Científicos
- **Pregrado.** Ecología. Estadistica. Expresion Oral y Escrita. Morfofisiología Animal. Diversidad Animal. Zoología de Invertebrados. Zoología. Principles of Entomology. Principles of Zoology, Evolution.

Redes de trabajo internacionales

- **FOREST GEO Arthropod Iniciative.** (Link) I coordinate ant work in Yasuni, BCI KhaoChong, and Wanang. Coordinate monitoring work in the Yasuni Dynamics Plot. PI: Yves Basset.
- **GLAD Global ant Database.** (Link) I curate data from Ecuadorian, Thailand, Panamanian, and PNG ant communities. PIs: N Sanders, R Dunn, H Gibb and K Parr

People in my Lab

- **Technicians:** Washington Pruna (Current), Ana Belen García Ruilova (Current), Emilia Moreno**,** Aura Paucar-Cabrera, Mishelle Bustamante, Diego Dominguez.
- **Postdocs (Prometeo Grants):** Selene Baez; Thibaut Delsinne.
- **Grad Students:** Nora Moskovitz PhD (Current) Stanford U, co-mentored with Lauren O'Connell; Diego Marin MSc UTPL.
- **Undergrad Students:** Daniel Sanmartin BSc, UTPL. Ana Belén García-Ruilova BSc, UTPL.

Becas

- 2019 EPN-Group Grant: Dietas de Ranas del Ecuador. PI: D. Donoso. (50K).
- 2017 Seedlings Labs. To build a Molecular Lab at Escuela Politécnica Nacional. (120K) (Declined)
- Smithsonian Institution (2012) Yves Basset (PI). Near-complete barcode libraries for key insect groups from BCI-SIGEO plot Interno (40K).
- 2015 Senescyt-FWO Project: Poneroid Ants of Ecuador. (189K) PI: J. Lattke.
- 2012 Senescyt Postdoctoral Grant. The evol. of ecol. traits and biodiv. (145K). Declined.
- UTPL Grants, 6 becas (136K), 2013-2015.
- ESA SYP Travel Award, ICE Daegu Korea. (3K); 2012.

- Beca Postdoctoral Senescyt (120K). Declinada; 2012.
- Oklahoma PhD Program, cerca de 9 becas (16.4K), 2006-2012.

Cursos y Talleres Profesionales Recibidos
- Colombian Neotropical Ant Course. 2019
- Fiscalía General del Estado del Ecuador (2013) Alvaro Barragán (PI). Curso y Simposio de Entomología Forense. (50K).

Cursos y Talleres Profesionales Recibidos
- Peruvian DNA barcoding. Organizado por Museo de Historia Natural (Universidad Mayor de San Marcos) y Biodiversity Institute of Ontario (University of Guelph). Lima, Peru. 2016.
- The Ant Course. Organizado por la California Academy of Sciences y el Museum of Comparative Zoology en Harvard University. Southwestern Research Station, Portal, Arizona, USA. 2005.

Otros
- Español: Nativo Inglés: Bueno Francés: Aficionado
- Cocina de campo, montañista, gusto por viajar a lugares remotos
- Experiencia de Campo [Ecuador (21 años), Panama (15 años), Oklahoma, USA (6 años), Papua Nueva Guinea (5 años), Tailandia (5 años)]
- Membresías Profesionales: Ecological Society of America, ESA. Sociedad Ecuatoriana de Biología, SEB. Entomological Society of America, ESA. International Union for the Study of Social Insects, IUSSI.
- Especies de hormigas con mi nombre: *Pachycondyla donosoi* Mackay & Mackay 2010. *Procryptocerus donosoi* Serna & Mackay (en revisión)

Editor
eLife, Neotropical Biodiversity, Scientia

Revisor (5 de 43 revistas en los últimos 5 años)
Ecography, Ecology, Ecology Letters, ProcB PlosOne y Zootaxa.

Synergistic Activities
I have reviewed manuscripts over 70 manuscripts for over 40 journals. I am a member of the Ecological Society of America, *ESA*; the Entomological Society of America, *ESA*; and the Sociedad Ecuatoriana de Biología, *SEB*. I have published 20 manuscripts with undergrad students. Two of these students pursued PhD programs in France and Australia. During a 15-month NSF-funded fieldtrip to the Neotropics, I directed five groups of students from Panamanian and American Universities, and gave several invited talks (Bambi, Gigante Course, OTS course, Maestría Entomología Universidad de Panama). I have organized the IUSS Latin America 2019 Meeting.

Referencias Personales
- **Michael Kaspari** (Lab Link) **Mentor en el programa de Doctorado**. Department of Biology, University of Oklahoma, Norman, OK, USA. Email: mkaspari@ou.edu
- **Yves Basset (**Lab Link)**Colaborador en Panamá**. Tropical Biology Canopy Program & ForestGEO Arthropod Initiative coordinator, Smithsonian Tropical Research Institute, Panama City, Panama. Email: bassety@si.edu

- **Simon Queensborough (**Lab Link**) Colaborador en USA.** School of Forestry and Environmental Studies, Yale University, Connecticut, USA. Email: simon.queenborough@yale.edu