Bibiana Rojas, Ph.D.

Nationality: Colombian
Current place of residence: Jyväskylä, Finland

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Current position:
Academy of Finland Research Fellow

Department of Biology and Environmental Science
University of Jyväskylä
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Finland

Education

2007-2012	PhD in Life and Environmental Sciences (Animal Behaviour and Sensory Ecology), Deakin University (Australia). Dissertation: 'The apparent paradox of colour pattern variation in aposematic frogs'. Adviser: Prof. John A. Endler (Oct 2007-Apr 2010 PhD student at the University of Exeter (UK), then transferred to Australia due to move of adviser)
2008	Postgraduate research course: Sensory Ecology, Lund University (Sweden)
2002-2005	MSc. in Biological Sciences - Biology (Behavioural Ecophysiology and Herpetology), University of Los Andes (Colombia)

Employment and research experience

2018-2023	Academy of Finland Research Fellow, University of Jyväskylä, Finland
2017	Visiting Fellow, Evolutionary Ecology Lab, Macquarie University, Australia (2 months)
2012-2018	Postdoctoral researcher, Centre of Excellence in Biological Interactions, University of Jyväskylä, Finland
2007-2010	Exeter Graduate Fellow, Teaching assistant, School of Psychology, University of Exeter, UK
2004	Guest Researcher (August-December), Konrad Lorenz Institute for Comparative Ethology (KLIVV), Vienna, Austria. Host: Prof. Richard Wagner.
2002-2006	Associate Researcher, Group of Behavioural Ecophysiology and Herpetology, University of Los Andes (Colombia)
1997-2005	Research Assistant, Group of Behavioural Ecophysiology and Herpetology, University of Los Andes (Colombia), PI: Adolfo Amézquita

Awards

2018-2023	**Academy Research Fellowship,** Academy of Finland

2015 **'Scientific activity, public outreach and team spirit' award**, Centre of Excellence in Biological Interactions, University of Jyväskylä, Finland.

2012 **Rector's grant award** (for 'attracting exceptionally talented foreign postdocs'), University of Jyväskylä, Finland.

2010-2012 **HDR International Scholarship**. Deakin University, Australia.

2010 **Best poster prize**. ISBE Conference. Perth, Australia.

2007-2010 **Exeter Graduate Fellowship** (Competitively awarded PhD studentship). University of Exeter, UK.

FUNDING

Total obtained: ~€ 860,000

2018 Academy Research Fellowship, Academy of Finland – University of Jyväskylä, PI (approx. € 800,000)

2018 'Species Spectrum Research Centre' (Macquarie University, Australia) funds. CoI (PI, Dr. Matthew Bulbert, Macquarie University)

2016 **Mobility grant, PI, Science Research Council, University of Jyväskylä,** to visit Dr. Darrell Kemp's laboratory at Macquaire University, Sydney, Australia (Spring 2017)

2015-2016 **Nouragues Grant**, **Joint PI (**with Dr. Andrius Pašukonis, University of Vienna, Austria**)**, **CNRS** (National Centre for Scientific Research, France).

2013-2014 **Labex-CEBA Grant**, **CoI,**CNRS, France. (PI, Brice Noonan, University of Mississippi, USA and Antoine Fouquet, CNRS, France).

2013-2014 **ASAB** (Association for the Study of Animal Behaviour, UK) **research grant**, **PI**

2012 Conference grant, **PI**, Faculty of Science and Technology, Deakin University, Australia, to attend the 7th World Congress of Herpetology in Vancouver.

2012 Conference grant, **PI**, Faculty of Science and Technology, Deakin University, Australia, to attend the 10th ISBE Meeting in Lund, Sweden.

2010 ASAB conference grant to attend the ASAB winter meeting in London, **PI**

2009 **Nouragues Grant**, **CNRS** (National Centre for Scientific Research, France). **PI**

2008 **Nouragues Grant**, **CNRS** (National Centre for Scientific Research, France). **PI**

2008 ASAB conference grant to attend the ASAB Easter meeting in Edinburgh.

2004 Support funds from the **Austrian Academy of Sciences**, guest researcher at the Konrad Lorenz Institute for Comparative Ethology, Vienna, Austria. **PI**

2002 Seed-grant, Faculty of Science, **University of Los Andes**. **CoI,** (PI Adolfo Amézquita).

2002 Seed-grant, Faculty of Science, **University of Los Andes**. **PI**

PUBLICATIONS

26 publications (3 book sections and 23 journal articles); (*) denotes corresponding author; (^) denotes senior authorship; underlined names correspond to supervised MSc students.

Journal articles:

23. Burdfield-Steel, E., Brain, M., **Rojas, B.** & Mappes, J. 2018. The price of safety: food deprivation in early life influences the efficacy of chemical defence in an aposematic moth. *Oikos*, in press. DOI:10.1111/oik.05420

22. **Rojas, B.***, Burdfield-Steel, E., Gordon, S. P., De Pasqual, C., Hernández, L., Mappes, J., Nokelainen, O., Rönkä, K., Lindstedt, C. 2018. Multimodal aposematic signals and their emerging role in mate attraction. *Frontiers in Ecology and Evolution* **9**:93. DOI:10.3389/fevo.2018.00093

21. Rönkä, K., Mappes, J., Kiviö, R., Salokannas, J., Michalis, C. & **Rojas, B.^** Can multiple-model mimicry explain warning signal polymorphism in the wood tiger moth, *Arctia plantaginis* (Lepidoptera: Erebidae)? *Biological Journal of the Linnean Society* **124**: 237-260.

20. Henze, M. J., Lind, O., **Rojas, B.**, Mappes, J. & Kelber, A. 2018. An aposematic colour-polymorphic moth seen through the eyes of conspecifics and predators – sensitivity and colour discrimination in a tiger moth. ***Functional Ecology.*** **DOI:** 10.1111/1365-2435.13100

19. Burdfield-Steel, E., Pakkanen, H., **Rojas, B.**, Galarza, J. A. & Mappes, J. 2018. *De novo* synthesis of chemical defences in an aposematic moth. ***Journal of Insect Science*** 18(2) DOI: 10.1093/jisesa/iey020

18. Rönkä, K., De Pasqual, C., Mappes, J., Gordon, S. P. & **Rojas, B.^** 2017. Colour alone matters: no predator generalisation among morphs of an aposematic moth. ***Animal Behaviour*** 135: 153–163.

17. **Rojas, B.*†,** Burdfield-Steel, E.†, Pakkanen, H., Suisto, K., Maczka, M., Schulz, S. & Mappes, J. 2017. How to fight multiple enemies: Target-specific chemical defences in an aposematic moth. ***Proceedings of the Royal Society of London B.*** 284: 20171424 (†equal contribution).

    Featured in: Inside Science, Discover Magazine, Science Daily, Phys.org, Scientific American's *60 Seconds Science* Podcast, 'Ciencia Café pa' Sumercé' (Colombian initiative for scientific outreach), Biosphere Magazine.

16. White, T. E., **Rojas, B.**, Mappes, J., Rautiala, P. & Kemp, D. J. 2017. Colour and luminance contrasts predict the human detection of natural stimuli in complex visual environments. ***Biology Letters*** 13: 20170375.

15. **Rojas, B.*** 2016. Behavioural, ecological, and evolutionary aspects of diversity in frog colour patterns. ***Biological Reviews***. DOI: 10.1111/brv.12269

14. Stynoski, J. L.* †, Schulte, L. M.* † & **Rojas, B.* †** 2015. Poison frogs. Quick Guide. ***Current Biology*** 25:R1026–R1028 (†equal contribution).

13. **Rojas, B.*** 2015 Mind the gap: treefalls as drivers of parental tradeoffs. ***Ecology & Evolution*** **5:** 4028-4036. DOI: 10.1002/ece3.1648

    Featured in: Sciences et Avenir

12. **Rojas, B.*†**, Gordon, S. P.† & Mappes, J. 2015 Frequency-dependent display activity in the aposematic wood tiger moth, *Parasemia plantaginis*. ***Current Zoology*** 61:765-772 (invited contribution to a special issue on Anti-predator Colouration and Behaviour; †equal contribution).

11. Gordon, S. P., Kokko, H., **Rojas, B.**, Nokelainen, O. & Mappes, J. 2015 A colour polymorphism torn apart by both sexual and natural selection yet held together in space. ***Journal of Animal Ecology*** 84:1555-1564. DOI:10.1111/1365-2656.12416

    Featured in a Special Virtual Issue on Evolutionary Ecology (editor's choice) in the Journal of Animal Ecology (2016)

10. Exnerová, A., Jezová, D., Štys, P., Doktorovová, L., **Rojas, B.** & Mappes, J. 2015 Different reactions to aposematic prey in two geographically distant populations of great tits. ***Behavioral Ecology*** 26:1361-1370. DOI:10.1093/beheco/arv086

9. Hämäläinen, L. Valkonen, J., Mappes, J. & **Rojas, B.*^** 2015. Visual illusions in predator-prey interactions: birds find moving patterned prey harder to catch. ***Animal Cognition*** 18:1059-1068. DOI:10.1007/s10071-015-0874-0

8. **Rojas, B.***, Valkonen, J. & Nokelainen, O. 2015 Aposematism. ***Current Biology*** 25:R350-R351.

7. **Rojas, B.***, Rautiala, P. & Mappes, J. 2014. Differential detectability of polymorphic warning signals under varying light environments. ***Behavioural Processes*** 109(B):164-172. Special issue on 'Animal Cognition in the Wild' (invited contribution)

6. **Rojas, B.***, Devillechabrolle, J. & Endler, J. A. 2014. Paradox lost: colour pattern and movement are associated in an aposematic frog. ***Biology Letters*** 10:20140193.

   Featured in: Phys.org, Science News, Daily Mail, Sydney Morning Herald, Nature World News

5. **Rojas, B.*** 2014 Strange parental decisions: fathers of the dyeing poison frog deposit their tadpoles in pools occupied by large cannibals. ***Behavioral Ecology and Sociobiology*** 68:551-559.

   Featured in: Science Magazine, Science Daily, Phys.org, Springer Select, The Scientist magazine, Der Standard.

4. **Rojas, B.*** & Endler, J. A. 2013. Sexual dimorphism and intra-populational colour pattern variation in the aposematic frog *Dendrobates tinctorius*. Special Issue on the Evolutionary Ecology of Poison Frogs. ***Evolutionary Ecology*** 27:739-753. (BR invited contribution)

   Featured by: The Australasian Society for Evolution.

3. Ringler, E., **Rojas, B.**, Ringler, M. & Hödl, W. 2012. Characterisation of nine polymorphic microsatellite loci in the dyeing poison frog *Dendrobates tinctorius* (Dendrobatidae), and their cross-species utility in two other dendrobatoid species. ***Herpetological Journal*** 22:265-267.

2. Endler, J. A. & **Rojas, B.** 2009. The spatial pattern of natural selection when selection depends on experience. ***American Naturalist*** 173:E62-E78.

1. **Rojas, B.**, Amézquita, A.* & Delgadillo, A. 2006. Matching and symmetry in the frequency recognition curve of the poison frog *Epipedobates trivittatus*. ***Ethology*** 112:564-571.

Book sections:

3. **Rojas, B.*** & Burdfield-Steel, E. Predator Defense. 2017. In: J. Vonk & T. K. Shackelford (Eds.). ***Encyclopedia of Animal Cognition and Behavior.*** Springer International Publishing. DOI: 10.1007/978-3-319-47829-6_708-1

2. **Rojas, B.*,** Nokelainen, O., & Valkonen, J. Aposematism. 2017. In: T. K. Shackelford & V. A. Weekes-Shackelford (Eds.). ***Encyclopedia of Evolutionary Psychological Science***. Springer. DOI:10.1007/978-3-319-16999-6_2669-1

1. Nokelainen, O., **Rojas, B.**, & Valkonen, J. Camouflage. 2017. In: T. K. Shackelford & V. A. Weekes-Shackelford (Eds.). ***Encyclopedia of Evolutionary Psychological Science***. Springer. DOI:10.1007/978-3-319-16999-6_2665-1

Manuscripts under review/in revision:

1. **Rojas, B.*,** Burdfield-Steel, E. & Mappes, J. Multiple components of insect warning displays repel wild-caught predators at different stages of predation. Under review.

Manuscripts in preparation (available upon request):

3. **Rojas, B.***, Ringler, M., Valkonen, J. & Endler, J. A. Bold invaders are winners: poison frogs with simpler aposematic colour patterns lead tree-fall gap invasions and have higher survival.

2. Lawrence, J. P.‡, **Rojas, B.‡,** Fouquet, A., Mappes, J., Blanchette , A., Saporito, R., Bosque, R. J., Courtois, E., & Noonan, B. P. Weak warning signals can persist in the absence of gene flow. (‡Equal contribution).

1. Rönkä, K., Valkonen, J., Nokelainen, O., **Rojas, B.**, Gordon, S., Burdfield-Steel, E., Tasane, T. & Mappes, J. Warning signal polymorphism despite positive frequency-dependent selection.

POSTGRADUATE STUDENT SUPERVISION

PhD

2014-2017 Katja Rönkä, University of Jyväskylä.

Masters

2018 Cristina Ottocento (Erasmus Exchange Student), University of Jyväskylä-University of Padova.

2017 Miriam Furlanetto (Erasmus Exchange Student), University of Jyväskylä-University of Padova.

2015-2016 Chiara De Pasqual (Erasmus Exchange Student), University of Jyväskylä-University of Padova.

2014-2016 Morgan Brain, University of Jyväskylä.

2013-2014 Liisa Hämäläinen, University of Jyväskylä. **Best thesis work** in the Department of Biology and Environmental Science, University of Jyväskylä

2011 Jennifer Devillechabrolle, University of Marseille (France).

Bachelors

Since 2017 Tatiana Hernández, University of Magdalena, Colombia.

Since 2017 Sintana Rojas, University of Magdalena, Colombia.

TEACHING EXPERIENCE

Tertiary Education

2018 Lecture on Signal Evolution for the Evolutionary Ecology and Life Histories (EKOS1078) course for Masters students. University of Jyväskylä (Finland).

Field course "Tropical Ecology and Conservation", organized by the Organization for Tropical Studies (OTS). Las Cruces Research Station, Costa Rica, January 2018

2016 Lectures for the Ecology (EKO 101b) course for Masters students. University of Jyväskylä (Finland).

2007-2010 University of Exeter (UK), Teaching Assistant

Undergraduate programs in Psychology and Animal Behaviour:

Biological Basis of Behaviour, Introduction to Animal Behaviour, Evolution of Behaviour, Ethological Methods, Sensory Ecology, Research methods in Psychology, Statistics

Masters in Animal Behaviour and Welfare

Behavioural Ecology, Ethological methods

2004 University of Vienna, Austria, through the Konrad Lorenz Institute for Comparative Ethology, teaching assistant:
Practicals in Ethology.

Secondary education

2005-2007 Los Nogales School, Bogota, Colombia
Middle School (grades 5th through 8th): Basic Natural Sciences, High School (9th and 10th grades): Advanced Biology, High School (11th grade): Environmental Sciences

2001-2004 Science teacher for Middle School (grades 5th through 8th)

Mentoring and pastoral care

2007-2010 University of Exeter (UK), personal tutor for 13 undergraduate students and 3 MSc students.

Teaching qualifications

2014	Pedagogical Studies: 'Theoretical foundations of university teaching and learning' and 'Planning, practice and evaluation of teaching'. August-December 2014, Faculty of Education, University of Jyväskylä, Finland
2009	Associate of the Higher Education Academy from April 2009, UK

Invited talks

17. O'Connell Lab, Stanford University, USA. August 9th, 2018. Host: A/Prof. Lauren O'Connell.
16. Chemical Ecology Lab, University of Amsterdam, The Netherlands. September 28th, 2017. Host: Prof. Astrid Groot.
15. Symposium on Colour and Genetics in Dendrobatid Poison Frogs. XI Latin American Congress of Herpetology. July 28th 2017. Quito, Ecuador. Hosts: Dr. Rebecca Tarvin and MSc Roberto Márquez (PhDc) (Symposium organisers).
14. Symposium on Women in Latin American Herpetology: challenges and achievements. XI Latin American Congress of Herpetology. July 24th 2017. Quito, Ecuador. Hosts: Dr. Jenny Stynoski, Dr. Patricia Salerno and Dr. Mónica Páez (Symposium organisers)
13. The Lizard Lab, Macquarie University, Sydney, Australia. April 27th 2017. Host: Prof. Martin Whiting.
12. Hawkesbury Institute for the Environment Seminar, University of Western Sydney, Sydney, Australia. April 26th 2017. Host: Dr. Kate Umbers.
11. Laboratoire d'Ecologie des Hydrosystèmes Naturels et Anthropisés, University of Lyon 1, Lyon, France. November 21st 2016. Host: Dr. Thierry Lengagne.
10. Symposium on Amphibian Visual Ecology. Vision Group, Lund University. April 16th-17th 2015. Lund, Sweden. Hosts: Dr. Carola Yovanovich and Prof. Almut Kelber (Symposium organisers).
9. Communication Symposium. X Latin American Congress of Herpetology. December 4th, 2014. Cartagena, Colombia. Hosts: Dr. Fernando Vargas and MSc Roberto Márquez (Symposium organisers).
8. Animal Behaviour Seminar Series, University of Exeter, Exeter, UK. November 14th, 2014. Host: Dr. Natalie Hempel.
7. Behaviour, Ecology and Evolution Seminar Series, University of Cambridge, Cambridge, UK. November 11th, 2014. Hosts: Dr. Hannah Rowland and Dr. Rose Thorogood.
6. Charles University, Prague, Czech Republic. April 16th, 2013. Hosts: Prof. Pavel Štys and Dr. Alice Exnerová.
5. Department of Cognitive Biology, University of Vienna. Vienna, Austria. April 15th, 2013. Hosts: Prof. Walter Hödl and Prof. Thomas Bugnyar.
4. Poison Frogs Symposium. 7th World Congress of Herpetology. August, 2012. Vancouver, Canada. Host: Dr. Jason L. Brown (Symposium organiser).
3. Invited lecturer for the PhD Programme in Cognition and Communication, University of Vienna. Vienna, Austria, September 2011. Host: Prof. Walter Hödl.
2. CIRAD/CNRS Seminars. Kourou, French Guiana. March 2010. Host: Mr. Philippe Gaucher, CNRS-Guyane.
1. Veterinary University of Hannover. Hannover, Germany. May 2008. Host: Dr. Heike Pröhl.

Oral presentations at scientific meetings

16. 16th ISBE Conference. August 11th - 16th, 2018. Minneapolis, USA.
15. 16th ESEB Meeting. Open Symposium. August 20th to 25th, 2017. Groeningen, The Netherlands.

14. 16th ESEB Meeting. Communication Symposium. Invited talk (on behalf of Prof. Johanna Mappes). August 20th to 25th, 2017. Groeningen, The Netherlands.

13. XI Latin American Congress of Herpetology. Invited speaker. Symposium on Challenges and Achievements of Women in Latin American Herpetology. July 24th – 28th, 2017. Quito, Ecuador.

12. XI Latin American Congress of Herpetology. Invited speaker. Symposium on Colour and Genetics in Dendrobatid Poison Frogs. July 24th – 28th, 2017. Quito, Ecuador.

11. 15th ISBE Conference. July 28th - August 2nd, 2016. Exeter, UK.

9. 34th International Ethological Conference, August 9th-14th, 2015. Cairns, Australia.

8. Graduate Seminar on Insect Evolutionary Ecology. University of Tartu. May 17th-19th, 2015. Kuke Talu, Estonia.

7. X Latin American Congress of Herpetology. Symposium on Parental Care in Anurans (which I co-organised). December 1st – 5th, 2014. Cartagena, Colombia.

6. X Latin American Congress of Herpetology. Invited speaker. Communication Symposium. December 1st – 5th, 2014. Cartagena, Colombia.

5. 14th ISBE Conference. July 31st - August 5th, 2014. Ney York, USA.

4. 14th ISBE Conference. August 12th - 17th, 2012. Lund, Sweden.

3. Poison Frogs Symposium. 7th World Congress of Herpetology. August 7th - 13th, 2012. Vancouver, Canada

2. ASAB Easter Meeting. April 2nd - 4th, 2008. Edinburgh, UK.

1. VI Latin American Congress of Herpetology. January 19th – 23rd, 2003. Lima, Perú.

Main external collaborators

(1) A/Prof. Darrell Kemp, Macquarie University; and Dr. Tom White, University of Sydney, Australia: Evolutionary ecology of colour perception in Humans; (2) A/Prof. Brice Noonan and PhD(c) JP Lawrence, University of Mississippi, USA: Origin and maintenance of colour polytypism and polymorphism in dyeing poison frogs; (3) Prof. John Endler, Deakin University, Australia: Analysis and quantification of animal colour patterns; (4) Prof. Astrid Groot, University of Amsterdam, The Netherlands: Chemical communication in wood tiger moths; (5) Dr. Lauren O'Connell, Stanford University, USA: Parental decision-making and larval aggression in dyeing poison frogs; (6) Dr. Andrius Pašukonis, University of Vienna, Austria: Spatial ecology of the dyeing poison frog (7) Dr. Jenny Stynoski, Colorado State University, USA and Dr. Lisa Schulte, East Carolina University, USA: Maternal alkaloid provisioning in dart poison frogs from a phylogenetic perspective; (8) Dr. Eva Ringler and Dr. Max Ringler, University of Vienna, Austria: Spatial structure and mating systems in poison frogs; (9) Dr. Matthew Bulbert, Macquarie University, Australia: 'Hotspotting plasticity – the juvenile enigma of metamorphosing animals'

Leadership and service

2017 Examiner, MSc Thesis, Miia Kokkonen, University of Jyväskylä, Finland

2017 Examination committee, PhD Thesis, Aravin Chakravarthi, Lund University, Sweden.

2016 External examiner, MScThesis, Pablo Palacios, University of Los Andes, Colombia.

Since 2016 Member of the Scientific Committee of COLEVOL (Colombian Association of Evolutionary Biology)

2015-2017 Departmental Seminar organiser for the EKO section. Department of Biology and Environmental Science, University of Jyväskylä.

2013-2015 'Darwin Meeting' organiser. Centre of Excellence in Biological Interactions, Jyväskylä branch. University of Jyväskylä.

Since 2013 Creator and administrator of Social Media for the Centre of Excellence in Biological Interactions and the Predator-Prey Interactions Group. University of Jyväskylä.

Science Communication and outreach

My research has been covered by several different scientific outlets, such as Science Daily, Discover Magazine, the 'Science Shot' section in Science Magazine, Scientific American's *'60 second science*' podcast, The Scientist, Inside Science, Phys.Org, Biosphere Magazine, among others. Lately, I also contributed to a recently launched science outreach project in my home country, Colombia, called 'Ciencia Café Pa' Sumercé' (https://cienciacafesumerce.wordpress.com/blog), where I was interviewed to explain my latest findings (target-specific chemical defences in an aposematic moth) to a lay audience. For further details about media coverage, please visit my personal website: www.bibianarojas.co

Professional Memberships

European Society for Evolutionary Biology (ESEB); Association for the Study of Animal Behaviour (ASAB); International society for Behavioral Ecology (ISBE); Asociación Colombiana de Herpetología (ACh).

Peer-review

Journal articles

57 papers for 28 journals since 2012: PNAS; American Naturalist; Proceedings of the Royal Society of London B; Royal Society Open Science; Scientific Reports; Biology Letters; Animal Behaviour; Behavioral Ecology and Sociobiology; Behavioral Ecology; Evolutionary Ecology; Biological Journal of the Linnean Society; Ecology and Evolution; Frontiers in Ecology and Evolution; Communications Biology; Ethology; Frontiers in Zoology; Behavioural Processes; Journal of Zoology; Current Zoology; Ecological Entomology; Naturwissenschaften (The Science of Nature); Behaviour; Peer J; Zoomorphology; Actualidades Biológicas; Biosemiotics; Herpetological Journal; African Journal of Herpetology.

Grants

2018 "Botas al Campo (Boots on the Ground)" Research Grants, Colombian Herpetological Society (ACH), Colombia

2016 "SDE/GWIS (Sigma Delta Epsilon/Graduate Women in Science) Fellowships", USA.

2016 "IKIAM Seed Funding", Universidad Regional Amazónica IKIAM, Ecuador.

Fieldwork experience

COLOMBIA: Andean High-lands near Bogotá, (1997-2002); Chingaza Natural Park (Paramo ecosystem, 1997-2002); Villavicencio (Piedmont ecosystem, 1999-2001); Leticia, Colombian Amazon (Tropical Rainforest: TRF, 2002 & 2003); Yotoco Private Reserve (Biogeographic Chocó, TRF, 2004); Quibdó & Acandí (Chocó Region, TRF, 2005). UNITED KINGDOM: Lundy Island (2008 & 2009). COSTA RICA: Osa Península, Pacific coast (TRF, 2008). FRENCH GUIANA: Les Nouragues Research Station

(TRF, 2009-2013; 2016); other localities (TRF, 2013). FINLAND: Central Finland (2013-2017). GEORGIA: Caucasus region (Alpine meadows, 2013-2017). ESTONIA: Parnu region (2016).

Languages

Spanish: Native speaker; English: Full proficiency; French: Intermediate level; German: Basic level.

Academic References

Prof. John A. Endler
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Prof. Johanna Mappes
University of Jyväskylä
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Prof. Almut Kelber
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