CURRICULUM VITAE

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Education

2006 -2010	Ph.D. at the E-vol Laboratory, University of Neuchâtel, Switzerland: "Inferring reciprocal evolutionary histories in associated species of plants and insects in two European pollination systems". PIs: Prof. Martine Rahier and Prof. Nadir Alvarez.
2002 –2006	Diploma in Biology (equivalent of B.Sc. and M.Sc.) at the E-vol Laboratory, University of Neuchâtel, Switzerland: "Interactions between *Horismenus butcheri* Hansson & Aebi (Hymenoptera: Eulophidae) and two *Phaseolus* (Fabaceae) bean species in Central Mexico. Biology, population genetics and geospatial studies". PI: Dr. Betty Benrey.
2000 -2002	Biology, at the National University of Córdoba, Argentina.

Appointments

06.2015 – present	National Science Foundation Postdoctoral Fellow; Department of Biological Sciences, University of Idaho, U.S.A.
06.2012 – 05.2015	Swiss National Science Foundation Postdoctoral Fellow; Department of Biological Sciences, University of Idaho, U.S.A.
01.2011 – 03.2012	Research Assistant; Department of Ecology and Evolution, University of Lausanne, Switzerland.
10.2006 -11.2010	Teaching Assistant; Laboratory of Evolutionary Biology, University of Neuchâtel, Neuchâtel, Switzerland.
2003-2006	Technician; Laboratory of Animal Ecology and Entomology, University of Neuchâtel, Switzerland.

Publications

Published or In Press

1. Vanbergen A., **Espíndola A**., Aizen M. *In press.* Threats to pollinators and pollination from invasive alien species. Nature Ecology and Evolution.
2. Kovács-Hostyánszki A, Aneni T., **Espíndola A.**, Kahono S., Szentgyörgyi H., Thompson H., Vanbergen A., Vandame R., Li J., Pettis J., Settele J. *In press.* Drivers of change of pollinators, pollination networks and pollination services. IPBES Pollination Assessment, Deliverable 3a, UNEP.
3. Kébé K., Alvarez N., Tuda M., Arnqvist G., Fox C. W., Sembène M., **Espíndola A.** 2017. Global phylogeography of the insect pest *Callosobruchus maculatus* L. (Coleoptera: Bruchinae) relates to the history of its main host, *Vigna unguiculata* L. Journal of Biogeography 44 (11): 2515-2526.
4. Murúa M., **Espíndola A.**, González A., Medel R. 2017. Pollinators and crossability as reproductive isolation barriers in two sympatric oil-rewarding *Calceolaria* (Calceolariaceae) species. Evolutionary Ecology 31 (4): 421-434.
5. Sosa Pivatto M., Cosacov A., Baranzelli M. C., Iglesias M. R., **Espíndola A.**, Sérsic A. N. 2017. Do 120,000 years of plant-pollinator interactions predict floral phenotype divergence in *Calceolaria polyrhiza*? A reconstruction using species distribution models. Anthropod-Plant Interactions 11 (3): 351-361.
6. Suchan T., **Espíndola A.**, Emerson B.C., Gori K., Dessimoz C., Arrigo N., Ronikier M., Alvarez N. 2017. Assessing the limitations of RAD-sequencing to resolve phylogenetic relationships within rapid radiations: the fly genus *Chiastocheta* as a case study. Molecular Phylogenetics and Evolution 114: 189-198.
7. Smith M., Ruffley M., **Espíndola A**., Tank D., Sullivan J., Carstens B. 2017. Demographic model selection using Random Forests and the Site Frequency Spectrum. Molecular Ecology 26 (17): 4562-4573.

8. **Kovács-Hostyánszki A.*, Espíndola A.***, Vanbergen A., Settele J., Kremen C., Dicks L. 2017. Ecological intensification to mitigate impacts of land use change on pollinators and pollination. Ecology Letters 20 (5): 673-689. *co-first-authors.
9. **Espíndola A.**, Ruffley M., Smith M., Tank D., Carstens B., Sullivan J. 2016. Identifying cryptic diversity with predictive phylogeography. Proceedings of the Royal Society of London B. DOI: 10.1098/rspb.2016.1529.
10. Dicks L., Viana B., Bommarco R., Brosi B., Arizmendi M. del C., Cunningham S., Galetto L., Hill R., Lopes A. V., Pires C., Taki H., Potts S., **Espíndola A**., Imperatriz-Fonseca V., Ngo H. T., Aizen M. A., Biesmeijer J. C., Breeze T. D., Garibaldi L. A., Settele J., Vanbergen A. J. 2016. Response to Ammann et al, on treatment of GM crops in 'Ten policies for pollinators'. Science, e-letters.
11. Kébé K., Alvarez N., **Espíndola A.**, Justy F., Olivieri I., Sembène M. 2016. Insights into the genetic structure of the cowpea pest *Callosobruchus maculatus* in African J. of Pest Science 89 (2): 449–458.
12. Metzger G., **Espíndola A.**, Waits L. P., Sullivan J. 2015. Genetic structure across broad spatial and temporal scales: Rocky Mountain tailed frogs (*Ascaphus montanus*; Anura: Ascaphidae) in the Inland Temperate Rainforest. Journal of Heredity 106 (6): 700–710.
13. Triponez Y., Arrigo N., **Espíndola A.,** Alvarez N. 2015. Decoupled post-glacial history in mutualistic plant-insect interactions: insights from the yellow loosestrife (*Lysimachia vulgaris*) and its associated oil-collecting bees (*Macropis europaea* and *M. fulvipes*). Journal of Biogeography 42 (4): 630–640.
14. **Espíndola A.**, Carstens B., Alvarez N. 2014. Comparative phylogeography of mutualists and the effect of the host on the genetic structure of its partners. Biol. J. of the Linnean Society 113 (4): 1021–1035.
15. Murúa M. and **Espíndola A.** 2014. Pollination syndromes in a specialized plant-pollinator interaction: does floral morphology predict pollinators in *Calceolaria*? Plant Biology 17 (2): 551–557.
16. Delplancke M., Alvarez N., Benoit L., **Espíndola A.**, Joly H. I., Neuenschwander S., Arrigo N. 2013. Evolutionary history of almond tree domestication in the Mediterranean basin. Molecular Ecology 22 (4): 1092–1104.
17. Pellissier L., **Espíndola A.**, Pradervand J.-N., Dubuis A., Pottier J., Ferrier S., Guisan A. 2013. A probabilistic approach to niche-based community models for spatial forecasts of assemblage properties and their uncertainties. Journal of Biogeography 40 (10): 1939–1946.
18. **Espíndola A.**, Buerki S., Alvarez N. 2012. Ecological and historical drivers of diversification in the fly genus *Chiastocheta* Pokorny. Molecular Phylogenetics and Evolution 63 (2): 466–474.
19. Revel N., Alvarez N., Gibernau M., **Espíndola A.** 2012. Investigating the relationship between pollination strategies and the size-advantage model in zoophilous plants using the reproductive biology of *Arum cylindraceum* and other European *Arum* species as case studies. Arthropod-Plant Interactions 6: 1. 35–44.
20. Delplancke M., Alvarez N., **Espíndola A.**, Joly L H.I., Brouck E., Benoit L., Arrigo N. 2012. Gene flow among wild and domesticated almond species: insights from chloroplast and nuclear markers. Evolutionary Applications 5 (4): 317–329.
21. **Espíndola A.**, Pellissier L., Maiorano L., Hordijk W., Guisan A., Alvarez N. 2012. Predicting present and future intra-specific genetic structure through niche hindcasting across 24 millennia. Ecology Letters 15 (7): 649–657.
22. **Espíndola A.**, Buerki S., Jacquier A., Ježek J., Alvarez N. 2012. Molecular relationships and diversification in the subfamily Psychodinae (Diptera: Psychodidae). Zoologica Scripta 41 (5): 489–498.
23. Pellissier L., Alvarez N., **Espíndola A.**, Pottier J., Dubuis A., Pradervand J.-N., Guisan A. 2012. Phylogenetic alpha and beta diversities of butterfly communities correlate with climate in the western Swiss Alps. Ecography 36 (5): 541–550.
24. **Espíndola A.**, Pellissier L., Alvarez N. 2011. Variation in the proportion of flower visitors of *Arum maculatum* along its distributional range in relation with community-based climatic niche analyses. OIKOS 120: 728–734.
25. **Espíndola A.** and Alvarez N. 2011. Comparative phylogeography in a specific and obligate pollination antagonism. PLoS ONE 6: 12. e28662.
26. **Espíndola A.**, Buerki S., Bedalov M., Küpfer P., Alvarez N. 2010. New insights into the phylogenetics and biogeography of *Arum* (Araceae): unravelling its evolutionary history. Botanical Journal of the Linnean Society 163, 14–32.

27. Alvarez N. and **Espíndola A.** 2010. Comprendre la dispersion des espèces dans l'espace et dans le temps: un défi pour les biogéographes. Actes de la Société Jurassienne d'Emulation. Pp. 27–41.

Under Review or In Preparation

28. Ruffley M.R., Smith M.L., **Espíndola A.**, Carstens B.C., Sullivan J., Tank D.C. *Under review.* Phylogeographic model selection in fastsimcoal2 and PHRAPL using herbarium specimens. Molecular Ecology.
29. Lucid M., Rankin A., **Espíndola A.**, Chichester L., Ehlers S., Robinson L., Sullivan J. *Under review.* Taxonomy and distribution of the *Hemphillia* genus in the Idaho Panhandle, United States, with description of a new species: *Hemphillia skadi*. (Gastropoda: Pulmonata: Arionidae). Can. J. of Zoology.
30. Murúa M., **Espíndola A.**, González A., Medel R. *Under review.* Patterns of floral evolution in oil-rewarding *Calceolaria* species. Plant Systematics and Evolution.
31. Pelletier T. A., Carstens B.C., Tank D.C., Sullivan J., **Espíndola A.** *In prep.* Predicting plant conservation priorities on a global scale. PNAS.
32. Sérsic A., Baranzelli M., Cosacov A., **Espíndola A.**, Iglesias M., Chan L., Johnson L. *In prep.* Echoes of the whispering land: the evolutionary history of two bird-pollinated *Calceolaria* (Calceolariaceae) species from Patagonia and Malvinas/Falkland Islands. Journal of Biogeography.
33. **Espíndola A.**, Weber U.K., Nuismer S. *In prep.* The relative contributions of climate and floral visitors to floral morphology. Annals of Botany.
34. **Espíndola A.**, Weber U.K., Laritz A., Nuismer S. *In prep.* Floral visitation and reproductive strategies in specialized pollination interactions. American Journal of Botany.
35. Egorov E., Gossner M.M., Krauss J., Klein A.-M., **Espíndola A.**, Weisser W.W., Brändle M. *In prep.* No effects of phylogenetic diversity on the relationship between insect and plant diversity in managed grasslands. Ecography.

Conferences and Talks

5-8 Nov 2017	Invited Speaker. **Espíndola A.** *Calceolaria* and its oil collecting bees: Understanding pollination over large spatial scales. Entomology Meeting 2017. Denver, CO, USA.
24-29 Jun 2017	Talk. **Espíndola A.**, Pelletier T., Sullivan J., Tank D., Carstens B. Predictive methods for conservation prioritization. Evolution meetings. Portland, OR, USA.
27 Apr 2017	Invited Speaker. **Espíndola A.** How does the environment affect plant-pollinator interactions and pollination? Dept. Entom. and Nematol. University of Florida, FL, USA.
17 Nov 2016	Invited Speaker. **Espíndola A.** Identifying cryptic diversity with predictive phylogeography. PEES, University of Idaho, ID, USA.
17-21 Jun 2016	Talk. **Espíndola A.**, Ruffley M., Smith M., Carstens B., Tank D and Sullivan J. Predicting cryptic diversity from phylogeographic, climatic and taxonomic data. Evolution meetings. Austin, TX, USA.
15-17 Apr 2016	Poster. **Espíndola A.**, Ruffley M., Smith M., Carstens B., Tank D and Sullivan J. Predicting cryptic diversity from phylogeographic, climatic and taxonomic data in the Pacific Northwest temperate rainforest. Evo-WIBO. Port Townsend, WA, USA.
9 Oct 2015	Poster. **Espíndola A.**, Carstens B., Tank D., Sullivan J. Predicting cryptic diversity from comparative phylogeography and climatic data. IBEST Science Expo. Moscow, ID, USA.
27 Jan 2015	Invited Speaker. **Espíndola A.** The phylogeography of plant-insect interactions. Stockholm University, Sweden.
20-24 Jun 2014	Poster. **Espíndola A.** and Nuismer S. What drives trait (co)variation in oil-rewarding *Calceolaria* and its pollinators? Evolution meetings. Raleigh, NC, USA.
25-27 Apr 2014	Poster. **Espíndola A.** and Nuismer S. Understanding partner trait (co)variation in an oil-rewarding pollination. Evo-WIBO. Port Townsend, WA, USA.
21 Oct 2013	Invited Speaker. **Espíndola A.** Plant-insect interactions in space and time. Entomology Department, Washington State University, WA, USA.
22-25 Jun 2013	Poster. **Espíndola A**., Settles M., Jones J., Sullivan J. High throughput sequencing as a tool for pollen identification. Evolution meetings. Snowbird, UT, USA.
20-25 Aug 2011	Poster. **Espíndola A.,** Carstens B., Alvarez N. Are the histories of mutualistic partners interrelated? ESEB. Tübingen, Germany.

13-16 Oct 2009	Poster. **Espíndola A**. and Alvarez N. Does nursery pollination promote species diversification in the West-Palearctic? DIVERSITAS Open Science Conference 2. "Biodiversity and Society: Understanding connections, adapting to change", Cape Town, South-Africa.
8-10 Jul 2009	Talk. **Espíndola A**. and Alvarez N. Biogeography of *Arum maculatum* pollinators. Xth International Aroid Society Conference. Nancy, France.
8-10 Jul 2009	Poster. Revel N. and **Espíndola A.** Pollination biology of *Arum cylindraceum*. International Aroid Society Conference. Nancy, France.
17-21 Sep 2007	Poster. **Espíndola A.**, Alvarez N., and Benrey B. Population and landscape genetics of a Mexican parasitoid. Xth European Workshop on Insect Parasitoids, Erice, Italy.

Grants and Awards

2016	Stephen J. O'Brien Award for best student paper (Metzger *et al.*, 2015), awarded by the American Genetic Association.
2015	NSF grant "Collaborative research: a comparative phylogeographic approach to predicting cryptic diversity - the inland temperate rainforest as a model system", with Profs. Sullivan, Tank, Hohenlohe and Carstens (US$ 906,614.-).
2014	International collaborator in Chilean postdoctoral grant "The role of floral specialization in the evolution of mating systems in the oil-rewarding genus *Calceolaria*", to investigate the evolution of mating systems in *Calceolaria* (US$ 120,225.-).
2014	Top Reviewer for Molecular Ecology 2014.
2014	"Advanced.Mobility.PostDoc" Swiss National Science Foundation grant, for a one-year postdoc "How do present and past environments affect coevolving plant-insect interactions?", at the University of Idaho, U.S.A. (US$ 60,400).
2013	IBEST Technology Access Grant for performing ddRAD-sequencing on interacting plants and pollinators (US$ 15,000).
2013	Grant from the Systematic Association, for inferring a molecular phylogeny of genus *Chalepogenus s.l.*, in collaboration with Dr. J. Litman (SwissBOL, Switzerland) and Prof. A. Aguiar (U. of Brasília, Brazil) (£1,163.52).
2012	Grant ("Beca de pasantía doctoral en el extranjero, becas Chile, convocatoria 2012") for a Chilean PhD student (M. Murúa Ibarra) to perform analytical work at the University of Idaho under my supervision (US$ 6,996.-).
2012	Grant "Egalité des chances" of the University of Lausanne, for field work in Chile for the project "How does the environment affect the coevolutionary dynamics of specific and obligate plant-insect interactions?" (CHF 4,370.-).
2012	Grant from the Société Académique Vaudoise, for field work in Chile for the project project "How does the environment affect the coevolutionary dynamics of specific and obligate plant-insect interactions?" (CHF 6,000.-).
2012	"Prospective Researcher" Swiss National Science Foundation grant, for a two-year postdoc "How does the environment affect the coevolutionary dynamics of specific and obligate plant-insect interactions?", at the University of Idaho, U.S.A. (US$ 110,001.-).
2010 - 2011	Elaboration of the Sciex-NMS project "Comparative Evolutionary Ecology of an Emblematic European Plant-Insect Mutualism". Submitted by Prof. N. Alvarez and T. Suchan. (CHF 99,900.-).
12.2009 - 03.2010	"Fonds des Donations" grant of the University of Neuchâtel, to get training on Statistical Phylogeography with Prof. B. Carstens, Department of Biological Sciences, Louisiana State University, USA. (CHF 4,000.-).
04. - 06.2008	Matthey-Wütrich grant for inferring the phylogeography of *Arum cylindraceum*. (CHF 1,500.-).
04. - 06.2008	SCNAT+ grant for field work, sampling of *Arum cylindraceum* and its pollinators. (CHF 5,203.-).
2006	Jean Landry Prize, for a mean of 5.73/6 at the end of the studies (CHF 1,500.-).
07. - 09.2004	Matthey-Wütrich grant; for an internship at the Laboratory of Prof. R. K. Butlin, Leeds, UK. (CHF 3,040.-).

Teaching and student supervision

2015 – present	Coordinator of the reading group Community Ecology and Evolution (communitEE), at the University of Idaho (BIOL 504; Washington State University class ENVR_SCI 592-03).
10.2015 – 06.2017	Supervision of undergraduates Bethany Hammerstrom. Kyle Grunwald, William Gentry, Lauren Goss, Emily Clark and Elizabeth Musser, in the framework of my current NSF project. Supervision and training in molecular and taxonomic work.
06.26.2015	Instructor at "Model-based Molecular Systematics Workshop" funded by the National Science Foundation and the Society for Systematic Biologists. "Ecological Niche Modelling / Species Distribution Modelling (using R) for phylogeography". Guarujá, Brazil.
11.2013 – 05.2014	Supervision of undergraduate Audra Borden. "Disentangling the evolutionary, biogeographic and ecological evolution of *Chalepogenus* Holmberg (Apidae: Tapinotaspidini)". University of Idaho.
04.-08.2013	Supervision of undergraduate Allyssa Laritz. "Shifts in the reproductive strategies of *Calceolaria glandulosa* under different biotic environments". University of Idaho.
01.2013	PhD committee member for Khadim Kébé. "Genetic diversity, evolutionary history and bio-ecology of *Callosobruchus maculatus* F. (Coleoptera, Bruchinae), a pest of cowpea seeds". Cheikh Anta Diop University, Dakar (Senegal).
12.2008 – 01.2010	Supervision of Master student Natacha Revel. Master thesis: "Etude sur l'espèce *Arum cylindraceum* Gasp. (Araceae); sa pollinisation, sa stratégie reproductive et sa phylogéographie".University of Neuchâtel.
2007 - 2010	Bachelor lectures at the University of Neuchâtel: "Ecologie Evolutive", "Méthodes Quantitatives en Ecologie", "Biologie des Invertébrés", "Entomology" lab.
2007 - 2010	Master lectures at the University of Neuchâtel: "Classics in Biology" and "Biogéographie et modélisation espèces-environnement".
07.-08.2008	Supervision of undergraduate Anouchka Jacquier. Two months of molecular work to infer a molecular phylogeny for Psychodinae (Diptera: Psychodidae).

Synergistic Activities

- Lead-Author (Pollination deliverable) for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES, within the United Nations Environment Program).
- Phylogenetics and population genetics analyses, and pollinator specialist within the Competitive State Wildlife Grant Program, for the Idaho Department of Fish and Game, and the Washington Department of Fish and Wildlife; U.S. Fish and Wildlife Service.
- Expert for the Biodiversity and Ecosystem Services Network (BES-Net). Managed by the United Nations Development Program.
- Associated investigator in comparative phylogeography of Patagonian species, in collaboration with Dr. A. Cosacov (U. de Córdoba, Argentina).
- Molecular analyses in a Chilean research program (Fondecyt project) dealing with understanding sympatric speciation mediated by changes in pollinator preferences, in collaboration with Prof. C. Villagra (UMCE, Santiago, Chile).
- Phylogenetic analyses for a team of spatial ecologists as a part of the European Commission-(ECOCHANGE) and the SNSF-funded (BIOASSEMBLE) projects (collaboration at the University of Lausanne, Switzerland).
- Phylogenetic and demographic analyses to understand the evolution of the wild and domesticated almond trees (FruitMed Project; collaboration with the University of Montpellier, France).
- Phylogenetic and demographic analyses for studying the molecular evolution, biogeography and worldwide invasions of the cowpea beetle *Callosobruchus maculatus* (University Cheikh Anta DIOP, Dakar, Senegal).
- Post-doctoral coordinator of the Graduate student mentorship program at the University of Idaho.
- Participation in Women in Math and Science event at the University of Idaho, Coeur d'Alene, ID, USA. The event seeks to promote science among middle- and high-school young women.

Reviewer

Biological Journal of the Linnean Society, BMC Evolutionary Biology, Botanical Journal of the Linnean Society, Ecography, Ecology Letters, Frontiers of Biogeography, International Journal of Molecular Sciences, Journal of Heredity, Journal of Insect Conservation, Molecular Ecology, Molecular Ecology Resources, Nordic Journal of Botany, Plant Systematics and Evolution, PLoS ONE, Scientific Reports, Systematic Entomology, Trends in Ecology and Evolution
CONICYT (Chile), FONCyT (Argentina)
Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES)

Membership of Academic Societies

Entomological Society of America, International Aroid Society, International Biogeography Society, Société Académique Vaudoise, Société Neuchâteloise d'Entomologie, Society for the Study of Evolution, Society of Systematic Biologists, Systematics Association, Swiss Academy of Sciences, Swiss Zoological Society

Languages

Spanish: native speaker.
English: excellent written and spoken knowledge.
French: excellent written and spoken knowledge.
German: very good spoken (Swiss-German) and some written knowledge (German).