

## CURRICULUM VITAE

Espíndola, (María) Anahí  
Phone: +1 208 874 4866  
anahi.espindola@gmail.com

838, E 8th St.  
Moscow, ID 83843  
USA

### 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”. PI: 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 <i>Horismenus butcheri</i> Hansson & Aebi (Hymenoptera: Eulophidae) and two <i>Phaseolus</i> (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 at the University of Idaho, U.S.A.
06.2012 – 05.2015	Swiss National Science Foundation Post-doctoral Fellow at the University of Idaho, Moscow, U.S.A.
01.2011 – 03.2012	Research Assistant at the Department of Ecology and Evolution, University of Lausanne, Switzerland.
10.2006 -11.2010	Teaching assistant at the Laboratory of Evolutionary Biology, University of Neuchâtel, Neuchâtel, Switzerland.
2003-2006	Laboratory technician at the Laboratory of Animal Ecology and Entomology of the University of Neuchâtel, Switzerland.

### Publications

1. Murúa M., **Espíndola A.**, González A. and Medel R. *Under review*. Assessment of reproductive barriers in two sympatric oil-rewarding *Calceolaria*. American Journal of Botany.
2. Kébé K., Alvarez N., **Espíndola A.**, Justy F., Olivieri I., Sembène M. *In press*. Insights into the genetic structure of the cowpea pest *Callosobruchus maculatus* in Africa. Journal of Pest Science.
3. Metzger G., **Espíndola A.**, Waits L. P. and Sullivan J. *In press*. Genetic structure across broad spatial and temporal scales: Rocky Mountain tailed frogs (*Ascaphus montanus*; Anura: Ascaphidae) in the Inland Temperate Rainforest. Journal of Heredity.
4. Triponez Y., Arrigo N., **Espíndola A.** and 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.
5. Murúa M. and **Espíndola A.** 2015. Pollination syndromes in a specialized plant-pollinator interaction: does floral morphology predict pollinators in *Calceolaria*? Plant Biology 17 (2): 551–557.
6. **Espíndola A.**, Carstens B. and Alvarez N. 2014. Comparative phylogeography of mutualists and the effect of the host on the genetic structure of its partners. Biological Journal of the Linnean Society 113 (4): 1021–1035.
7. Delplancke M., Alvarez N., Benoit L., **Espíndola A.**, Joly H. I., Neuenschwander S. and Arrigo N. 2013. Evolutionary history of almond tree domestication in the Mediterranean basin. Molecular Ecology 22 (4): 1092–1104.

8. Pellissier L., **Espíndola A.**, Pradervand J.-N., Dubuis A., Pottier J., Ferrier S. and 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.
9. **Espíndola A.**, Buerki S. and Alvarez N. 2012. Ecological and historical drivers of diversification in the fly genus *Chiastocheta* Pokorny. *Molecular Phylogenetics and Evolution* 63 (2): 466–474.
10. Revel N., Alvarez N., Gibernau M. and **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.
11. Delplancke M., Alvarez N., **Espíndola A.**, Joly L.H.I., Brouck E., Benoit L. and Arrigo N. 2012. Gene flow among wild and domesticated almond species: insights from chloroplast and nuclear markers. *Evolutionary Applications* 5 (4): 317–329.
12. **Espíndola A.**, Pellissier L., Maiorano L., Hordijk W., Guisan A. and Alvarez N. 2012. Predicting present and future intra-specific genetic structure through niche hindcasting across 24 millennia. *Ecology Letters* 15 (7): 649–657.
13. **Espíndola A.**, Buerki S., Jacquier A., Ježek J. and Alvarez N. 2012. Molecular relationships and diversification in the subfamily Psychodinae (Diptera: Psychodidae). *Zoologica Scripta* 41 (5): 489–498.
14. 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.
15. **Espíndola A.**, Pellissier L. and 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.
16. **Espíndola A.** and Alvarez N. 2011. Comparative phylogeography in a specific and obligate pollination antagonism. *PLoS ONE* 6: 12. e28662.
17. **Espíndola A.**, Buerki S., Bedalov M., Küpfer P. and 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.
18. 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.

### ***Grants and Awards***

2015	Participation to the writing of the 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 <i>Calceolaria</i> ” awarded to M. Murúa Ibarra, to investigate the evolution of mating systems in a set of <i>Calceolaria</i> species (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. In collaboration with Profs. S. Nuismer and J. Sullivan. (US\$ 60,400).
2013	IBEST Technology Access Grant for performing ddRAD-sequencing on a set of Chilean interacting species (US\$ 15,000).
2013	Grant from the Systematic Association, for inferring a molecular phylogeny of genus <i>Chalepogenus</i> 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. In collaboration with Profs. S. Nuismer and J. Sullivan. (US\$ 110,001.-).
2010 - 2011	Participation to the 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 <i>Arum cylindraceum</i> . (CHF 1,500.-).
04. – 06.2008	SCNAT+ grant for field work, sampling of <i>Arum cylindraceum</i> 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***

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.
2015	Organizer of the reading group on Communities’ Ecology and Evolution (communitEE), at the University of Idaho (BIOL 504).
11.2013 – 05.2014	Supervision of undergraduate student Audra Borden. “Disentangling the evolutionary, biogeographic and ecological evolution of <i>Chalepogenus</i> Holmberg (Apidae: Tapinotaspidini)”. University of Idaho.
04.-08.2013	Supervision of undergraduate student Allyssa Laritz. “Shifts in the reproductive strategies of <i>Calceolaria glandulosa</i> under different biotic environments”. University of Idaho.
01.2013	PhD committee member for Khadim Kébé. “Genetic diversity, evolutionary history and bio-ecology of <i>Callosobruchus maculatus</i> 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 <i>Arum cylindraceum</i> Gasp. (Araceae); sa pollinisation, sa stratégie reproductive et sa phylogéographie”. University of Neuchâtel.
2007 - 2010	Participation to Bachelor lectures at the University of Neuchâtel: “Ecologie Evolutive”, “Méthodes Quantitatives en Ecologie”, “Biologie des Invertébrés”. “Entomology” laboratory.

- 2007 - 2010 Participation to Master lectures at the University of Neuchâtel, Master of Physiology and Ecology of Plants (PEP): “Classics in Biology”, and “Biogéographie et modélisation espèces-environnement”.
- 07.-08.2008 Supervision of undergraduate student Anouchka Jacquier. Two months of molecular work to infer a phylogeny for Psychodinae (Diptera: Psychodidae).

### *Synergistic Activities*

- Lead-Author (Pollination deliverable) for the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES, within the United Nations Environment Program).
- Expert for the Biodiversity and Ecosystem Services Network (BES-Net). Managed by the United Nations Development Programme.
- 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 for understanding 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.

### *Conferences*

- 20-24 June, 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 April, 2014 Poster. **Espíndola A.** and Nuismer S. Understanding partner trait (co)variation in an oil-rewarding pollination. Evo-WIBO. Port Townsend, WA, USA.
- 22-25 June 2013 Poster. **Espíndola A.**, Settles M., Jones J., Sullivan J. High throughput sequencing as a tool for pollen identification. Evolution Meeting. Snowbird, UT, USA.
- 20-25 August 2011 Poster. **Espíndola A.**, Carstens B.C., Alvarez N. Are the histories of mutualistic partners interrelated? 13<sup>th</sup> Congress of the European Society for Evolutionary Biology. Tübingen, Germany.
- 13-16 October 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 July, 2009 Oral communication. **Espíndola A.** and Alvarez, N. Biogeography of *Arum maculatum* pollinators. Xth International Aroid Society Conference. Nancy, France.
- 8-10 July, 2009 Poster. Revel, N. and **Espíndola, A.** Pollination biology of *Arum cylindraceum*. Xth International Aroid Society Conference. Nancy, France.
- 17-21 September, 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.

***Reviewer***

---

Biological Journal of the Linnean Society, Botanical Journal of the Linnean Society, Ecography, Ecology Letters, International Journal of Molecular Sciences, Journal of Heredity, Molecular Ecology, Nordic Journal of Botany, Plant Systematics and Evolution, PLoS ONE, Scientific Reports, Systematic Entomology

***Membership of Academic Societies***

---

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.

***Field experience***

---

09.2012 – 03.2013	Field work in central Chile and West Argentina.
04. – 08.2007/2008	Field work covering the European continent (Great Britain, Scandinavia, Balkans and Carpathians, Central Europe, Italy and Spain).
01. – 03. 2005	
12.2005 – 02.2006	Field work in Central Mexico.