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31 years old
Married, 2 kids



PROFESSIONAL EXPERIENCE

CURRENT POSITION

Sep 2013 - ... Lecturer at University Lille 1
Lab GEPV (Genetics and Evolution of Plant Populations)
Plant adaptations at range margins.

POST-DOCTORAL EXPERIENCE

May 12 – Aug 13 *Mechanistic and statistical modelling of species ranges: phenotypic plasticity, local adaptation and model robustness.* With I Chuine (CEFE, Montpellier) and O Ronce (ISEM, Montpellier). Financing: French National Research Agency.

Feb 10 – May 12 *Evolution of tree species ranges under climate change.* With M Kirkpatrick (UTexas Austin) and I Chuine (CEFE Montpellier). Financing: Marie Curie IOF.

Feb 09 – Jan 10 *Modelling life-history trait evolution on a shifting environmental gradient.* With M Kirkpatrick (UTexas Austin). Financing: AXA Research Fund.

EDUCATION

2004-2008 **PhD**, University Montpellier II, with D McKey. *From the radiation of Manihot in a biodiversity hotspot to the domestication of cassava.*

2003-2004 **Master 2 (M.Sc.)** in Evolutionary Biology & Ecology (Univ. Montpellier II, France), with D McKey & P David. *Study of a putative hybrid zone between cassava (Manihot esculenta Crantz) and a wild relative in French Guiana.*

2001-2003 **Magistère Biologie Moléculaire et Cellulaire** (Ecole Normale Supérieure, Lyons, France). Optional course: Population biology. Erasmus programme: 6 months at U Roma 1 (Italy); 5-month training period with E Capanna & M Corti : *Molecular and caryotypic diversification of the genus Acomys in Tanzania.*

1999-2001 Preparatory years for the nationwide competitive examination to the “Grandes Ecoles” (Lycée Camille Guérin, Poitiers, France).

TEACHING EXPERIENCE

2013-... Lecturer at University Lille 1.
Ecology and Evolution (would-be teachers)
Plant Biology (L1)
Biodiversity (L3)
Community Ecology (L3)

2005-2008 **Teaching assistant at University Montpellier II.**
Human ecology and biocultural interactions (M1, 36 h over two years)
Introduction to organisms biology (L1, 180 h practicals, 30 h tutorial over three years)
Reproduction biology (L1, 21 h)
Development biology (L1, 33 h)

Animal evolution (L3, 13 h)

STUDENT CO-SUPERVISION

- 2006 Léa Ménard, M1 BGAE, U Montpellier II (UMII). *Comparative biomechanics of two Manihot species*. With D McKey.
- 2006 Clément Lermyte, M2 EMTS, MNHN/Paris 7. *Hybridization between wild and cultivated cassava: the role of cultivators*. With D McKey
- 2007 Gilles Grisard, post-BsC, U Montpellier II. *Ecological trade-offs in the germination syndrome of Manihot species*. With D Renard.
- 2011 Paul Wennekes, M1 MEME, U Montpellier II. *The domestication history of sweet potato*. With C Roullier.
- 2012 Alexis Rutschmann, M2 BEE, U Montpellier II. *Importance of phenotypic plasticity in shaping species' niches - A simulation study*. With I Chuine.

SKILLS

Molecular biology: DNA and RNA extraction, PCR and RT-PCR, sequencing, SSR genotyping, expression patterns.

Field work: cartography, *in natura* sampling (tropical areas), trait measurement (field/greenhouse), participatory observation and sampling.

Software: **population biology** (e.g. Arlequin, FSTAT, Genepop, Genetix, Structure, Spagedi ...), **sequence analysis** (Codon Code Aligner, Sequencher, Staden, Clustal ...), **phylogeny** (alignment, tree reconstruction, molecular clocks, ancestral character reconstruction) ; **formal calculation software** (Mathematica); **GIS** (ArcGIS, QGIS); **programming** bases in Delphi; **statistics, GIS and programming in R**.

Languages: French, English (fluent); Portuguese, Italian, German.

SCIENTIFIC ACTIVITIES

Member of the *Ecological Society of America*, *European Society for Evolutionary Biology*, and of the *Société Française d'Ecologie*.

Reviewing activity for: *Acta Agriculturae Scandinavica*, *African Journal of Biotechnology*, *Canadian Journal of Forest Research*, *Diversity & Distributions*, *Ecography*, *Ecological Modelling*, *Genetica*, *Global Ecology and Biogeography*, *Journal of Biogeography*, *Journal of Plant Breeding and Crop Science*, *Molecular Ecology*, *Proceedings of the Royal Society B*.

SCIENTIFIC PUBLICATIONS

PEER-REVIEWED

[P]

- P1. **Duputié A.**, David P., Debain C. & McKey D. 2007. Natural hybridization between a clonally propagated crop, cassava (*Manihot esculenta* ssp. *esculenta*) and a wild relative in French Guiana. *Molecular Ecology*, 16: 3025–3038
- P2. **Duputié A.**, Massol F., David P., Haxaire C. & McKey D. 2009. Traditional Amerindian cultivators combine directional and ideotypic selection for sustainable management of cassava genetic diversity. *Journal of Evolutionary Biology*, 22: 1317–1325.
- P3. **Duputié A.**, Delêtre M., Granville J.-J. de & McKey D. 2009. Population genetics of *Manihot esculenta* ssp. *flabellifolia* gives insight into past distribution of xeric vegetation in a postulated forest refugium area in northern Amazonia. *Molecular Ecology*, 18: 2897–2907.
- P4. Léotard G.*, **Duputié A.***, Kjellberg F., Douzery E., Debain C., Granville J.-J. de & McKey D. 2009. Phylogeography and the origin of cassava: new insights from the northern rim of the Amazonian basin. *Molecular Phylogenetics and Evolution*, 53: 329–334. *equal contributions.
- P5. McKey D., Elias M., Pujol B. & **Duputié A.** 2010. The evolutionary ecology of clonally propagated domesticated plants. *New Phytologist*, 186: 318–332.
- P6. Massol F., **Duputié A.**, David P. & Jarne P. 2011. Asymmetric patch size distribution leads to disruptive selection on dispersal. *Evolution*, 65:490–500.
- P7. **Duputié A.**, Salick J. & McKey D. 2011. Evolutionary biogeography of *Manihot*, a rapidly radiating Neotropical genus restricted to dry environments. *Journal of Biogeography*, 38: 1033–1043.

- P8. McKey D., Elias M., Pujol B. & **Duputié A.** 2012. Ecological approaches to crop domestication. Pp 377-406 in: Gepts P., Famula T.R., Bettinger R., Brush S.B., Damania A.B., McGuire P.E., Qualset C.O. eds. *Biodiversity in Agriculture – Domestication, Evolution, and Sustainability*. Cambridge, UK: Cambridge University Press.
- P9. Tran VG, Court F, **Duputié A.**, Antoine E, Aptel N, *et al.* (2012) *H19* antisense RNA can up-regulate *Igf2* transcription by activation of a novel promoter in mouse myoblasts. *PLoS ONE*, 7(5): e37923.
- P10. **Duputié A.**, Massol F., Chuine I., Kirkpatrick M., Ronce O. 2012. How do genetic correlations affect species range shifts in a changing climate? *Ecology Letters*, 15: 251-259.
- P11. Roullier C., **Duputié A.**, Wennekes P., Benoit L., Manuel V., Rossel G., Tay D., McKey D. & Lebot V. 2013. Disentangling the origins of sweet potato. *PLoS One*, 8(5):e62707.
- P12. Bradbury E. J., **Duputié A.**, Delêtre M., Roullier C., Narváez Trujillo, A., Manu-Aduening, J. W., Emshwiller, E. & McKey D. 2013. Genetic differentiation of bitter and sweet cassava (*Manihot esculenta* Crantz: Euphorbiaceae): an analysis at global and continental levels. *American Journal of Botany*, 100:857-866.
- P13. Stojanović D., Kržič A., Matović B., Orlović S., **Duputié A.**, Djurdjević V., Galić Z. & Stojnić S. 2013. Prediction of the European beech (*Fagus sylvatica* L.) xeric limit using a regional climate model: an example from southeast Europe. *Agricultural and Forest Meteorology*, 176:94-103.
- P14. Gritti E.S.*, **Duputié A.***, Massol F. & Chuine I. 2013. Estimating consensus and uncertainty of inherently different species distribution models. *Methods in Ecology & Evolution*, 4:442-452. *equal contributions.
- P15. **Duputié A** & Massol F. 2013. An empiricist's guide to theoretical predictions on the evolution of dispersal. *Interface Focus*, 3:20130028.
- P16. **Duputié A.**, Zimmermann NE, Chuine I. 2014. Where are the wild things? Why we need better species distribution data. *Global Ecology and Biogeography*, **23**: 457-467.
- P17. Schiffrers K., Schurr F.M., Travis J.M.J., **Duputié A.**, Eckhart V., Lavergne S., McInerney G., Moore K.A., Pearman P.B., Thuiller W., Wüest R. & Holt R.D. *In press*. Landscape structure and genetic architecture jointly impact rates of niche evolution. *Ecography*, doi:10.1111/ecog.00768.
- P18. Saltré F., **Duputié A.**, Gaucherel C. & Chuine I. *Accepted*. How climate, migration ability and habitat fragmentation affect the projected future distribution of European beech. *Global Change Biology*.

DIVULGATION PAPER

McKey D., Elias M., Pujol B., **Duputié A.**, Delêtre M., Renard D. 2012. Maintien du potentiel adaptatif chez les plantes domestiquées à propagation clonale. Leçons de gestion par les cultivateurs de manioc Amérindiens. *Revue d'Ethnoécologie*. [in French]

ORAL COMMUNICATIONS

[O]

- O1. **Duputié A.**, Massol F., David P., Haxaire C. & McKey D. Selection of sexually produced seedlings of a clonally propagated crop in a traditional Amerindian agroecosystem. *ATBC meeting*, Morelia, Mexique. July 2007.
- O2. **Duputié A.**, Fabre P.H., Salick J. & McKey D. Phylogeny & biogeography of *Manihot*. *Global Cassava Partnership II*, Ghent, Belgium, July 2008.
- O3. **Duputié A.**, Massol F., Chuine I., Ronce O, Kirkpatrick M. Adaptation in space and time: genetic interactions between traits and species distributional ranges. *Ecologie 2010*, Montpellier, France, Sept 2010.
- O4. **Duputié A.**, Massol F., Chuine I., Kirkpatrick M, Ronce O. How do genetic correlations affect species distribution ranges in a changing environment? *ESA 96*, Austin, Texas, August 2011.
- O5. **Duputié A.**, Massol F., Chuine I., Kirkpatrick M, Ronce O. « Responding to rapid environmental change » - How fast exactly? A theoretical model in a multivariate environment. *EEF 12*, Avila, Spain, Sept 2011.
- O6. **Duputié A.**, Rutschmann A. & Chuine I. La plasticité des traits phénologiques a-t-elle un impact sur la largeur de niche ? Une approche par modélisation. *PPD*, Avignon, August 2012.

POSTERS

[A]

- A1. **Duputié A.**, David P., Debain C. & McKey D. Natural hybridization between cassava and a wild relative in French Guiana. *Plants, People and Evolution*, London, UK, August 2006.
- A2. **Duputié A.**, Grisard G., David P., Debain C. & McKey D. Natural hybridization between cassava and a wild relative: implications for conservation. *ATBC meeting*, Morelia, Mexico, July 2007.
- A3. **Duputié A.**, Massol F., David P., Haxaire C. & McKey D. Management of genetic diversity of a clonally propagated crop in a traditional Amerindian farming system. *ESEB XI*, Uppsala, Sweden, August 2007.

- A4. **Duputié A.**, Massol F., David P., Haxaire C. & McKey D. Création et maintien de la diversité génétique d'une plante cultivée dans un agroécosystème traditionnel. *Le Réveil du Dodo III*, Montpellier, France, March 2009.
- A5. Massol F., **Duputié A.**, David P. & Jarne P. Asymmetric patch size distribution leads to disruptive selection on dispersal. *ESEB XII*; Turin, Italy, August 2009.
- A6. **Duputié A.**, Salick J., McKey D. Adaptive radiation of the genus *Manihot* gives insight into past dry vegetation in the Neotropics and into the origin of cassava. *ESEB XII*; Turin, Italy, August 2009.
- A7. **Duputié A.**, Gritti E.S., Massol F. & Chuine I. Estimating consensus and uncertainty of inherently different species distribution models. *Final conference of the EcoChange project*; Zürich, Switzerland, March 2012.
- A8. **Duputié A.**, Rutschmann A. & Chuine I. The role of phenotypic plasticity in enlarging a species' geographic range and environmental niche: A simulation study involving three common European tree species. *Global Change in the Mediterranean*, Sevilla, Spain, Nov 2012.

SEMINARS

[B]

- B1. **Duputié A.** Aspects génétiques et écologiques de la domestication du manioc. CEMAGREF, Aix en Provence, June 2008.
- B2. **Duputié A.**, Massol F., Ronce O., Kirkpatrick M. Species ranges in space and time: some consequences of having to cope with several traits. Austin, TX, Mar 2010.
- B3. **Duputié A.**, Pujol B., Elias M., McKey D. The evolutionary ecology of clonally propagated crops. EcoLunch, Austin, TX, Oct 2010.
- B4. **Duputié A.**, Massol F., Ronce O., Kirkpatrick M. Evolution d'une espèce complexe soumise à un gradient environnemental changeant dans le temps. Team GENEV, CEFE, Montpellier, Feb 2011.
- B5. **Duputié A.**, Massol F., Chuine I., Kirkpatrick M., Ronce O. Dans quelles conditions l'adaptation permet-elle un déplacement de l'aire de répartition d'une espèce soumise à un changement environnemental ? EDB, Toulouse, France, Dec 2011.
- B6. **Duputié A.** Modélisation de la répartition d'espèces d'arbres européens fondée sur les traits : quelques applications, et incertitudes associées. EDB Toulouse, May 2012.
- B7. **Duputié A.** Modélisation de l'évolution de le niche : conséquences sur les changements d'aires de répartition. GEPUV Lille, March 2013.
- B8. **Duputié A.** Modélisation de l'évolution de le niche : conséquences sur les changements d'aires de répartition. Orsay, April 2013.