

CURRICULUM VITAE – JULIEN COTE

Evolution & Diversité Biologique, Université Paul Sabatier Bâtiment 4R1, 118, route de Narbonne 31062 Toulouse
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Professional experiences in Research Institutes

- 2011-ongoing **Research associate CNRS** at the department Evolution & Diversité Biologique at the University Paul Sabatier, Toulouse (France).
- 2007-2010 **Post-doctoral position** at the department of Environmental Science and Policy at the University of Davis, California (USA) on the project "Personality traits and the spread of invasion in an invasive mosquitofish (*Gambusia* sp)". Fyssen Foundation fellowship and AXA postdoctoral fund. Supervision: Prof. Andrew Sih.
- 2006-2007 **Post-doctoral position** at the Biogeosciences department at the University of Bourgogne (France) on the project "Immune activation and oxidant-antioxidant activities in the zebra finch (*Taeniopygia guttata*)". Supervision: Dr. G. Sorci and Pr. B. Faivre.
- 2003-2006 **PhD student position** at the Ecology Department of the University Pierre and Marie Curie (France) on the project "Socially acquired information in the common lizard (*Lacerta vivipara*)". Supervision: Dr. J. Clobert and Dr. P.S. Fitze. Awarded with honours.
- 2002-2003 **Master research** at the Ecology Department of the University Pierre and Marie Curie (France) on the project "Effects of carotenoids and corticosterone on the condition-dependant coloration in the common lizard (*Lacerta vivipara*)". Supervision: Dr. J. Clobert and Dr. P.S. Fitze. Awarded with honours.
- 2001 **Master research** at the Ecology Department of the University Pierre and Marie Curie (France) on the project "Effects of stress and leptin in basking behaviour and body temperature in the common lizard (*Lacerta vivipara*)". Supervision: Dr. A. Dufty and Dr. J.-F. Le Galliard.

Education

- 2003-2006 Ph.D. Biology at the University Pierre and Marie Curie (France)
- 2002-2003 M.Sc Biology at the University Pierre and Marie Curie (France)
- 2001-2002 Maitrise Biology at the University Paris Sud (France)
- 2000-2001 License Biology at the University Paris Sud (France)
- 1998-2000 DEUG Biology at the University Denis Diderot (France)

Teaching, supervising activities & other responsibilities

Supervision:

- Postdoctoral fellow **Jordi Salmons** (2016-ongoing)
Laurane Winandy (2016-ongoing, with D. Legrand)
Lieven Therry (2015-ongoing, with S. Blanchet)
Oscar Brusa (2014)
- PhD Students **Félix Pellerin** (2015-ongoing with Robin Aguilée), **Elvire Bestion** (2011-2015)

Undergraduates 57 1-5th year students

Teaching:

- 2011-ongoing **Behavioral ecology:** 2nd year master BEE, Toulouse
- 2006-2007 **Teaching assistant:** Ecology, Statistics (2nd to 3rd year students in Biology)
- 2003-2006 **Teaching assistant:** Biology, Ecology, Behavioural Ecology (1st to 4th year students)

Other responsibilities:

- 2017-ongoing **Co-head** of the *Processes of Adaptation* team in the laboratory Evolution & Biological Diversity
- 2016-ongoing **Scientific head** of the *Metatron* experimental system (<http://themetatron.weebly.com/>) in the Station of experimental and theoretical ecology
- 2016-ongoing **Member** of the organization committee of the 2017 French Landscape Ecology Conference
- 2012-2014 **Co-organizer** of Seminars in the laboratory Evolution & Biological Diversity

Research activities

Research themes :

- ✓ Habitat fragmentation, Invasion biology, Climate change
- ✓ Intraspecific phenotypic variation (behaviour, coloration, physiology)
- ✓ Dispersal processes linked to behavioural ecology and population dynamics
- ✓ Socially acquired information
- ✓ Ecophysiology of the stress-response, Carotenoid-based coloration, oxidative stress

Publications :

(ISI, h-index = 21, Sum of the Times Cited: 1979, 4 ISI highly cited articles)

(Google Scholar, h-index = 24, Sum of the Times Cited: 2759)

48) Bestion E, Jacob S, Zinger L, Di Gesu L, Richard M, White J & **J. Cote**. 2017. Climate warming reduces gut microbiota diversity in a vertebrate ectotherm. **Nature Ecology & Evolution**. In press.

47) **Cote J.**, Bocedi B., Debeffe L., Chudzińska M.E., Weigang H.C., Dytham C., Gonzalez G., Matthysen E., Travis J., Baguette M. and A. J. M. Hewison. 2017. Behavioral synchronization of large-scale animal movements – disperse alone, but migrate together? **Biological Reviews**. In press.

46) **Cote J.**, Bestion E., Jacob D., Travis J., Legrand D. & M. Baguette. 2017. Evolution of dispersal strategies and dispersal syndromes in fragmented landscapes. **Ecography**. 40(1): 56-73.

45) Legrand D., **Cote J.**, Fronhofer E., Holt R.D., Ronce O., Schtickzelle N., Travis J. & J. Clobert. 2017. Eco-evolutionary dynamics in fragmented landscapes. **Ecography**. 40(1): 9-25.

44) Caplat P., Edeaar P., Dudaniec R.Y., Green A.J., Okamura B., **Cote J.**, Ekroos J., Jonsson P.R., Löndahl J., Tesson S.V.M. and E. Petit. 2016. Looking beyond the mountain: dispersal barriers in a changing world. **Frontiers in Ecology and the Environment**. 14(5): 261–268, doi:10.1002/fee.1280.

43) Bestion E., Cucherousset J., Teyssier A. and **J. Cote**. 2015. Non-consumptive effects of a top-predator decrease the strength of the trophic cascade in a four-level terrestrial food web. **Oikos**. 124(12): 1597-1603. DOI: 10.1111/oik.02196.

- 42) Bestion E., Teyssier A., Richard M., Clobert J., and **J. Cote**. 2015. Live fast, die young: experimental evidence of population extinction risk due to climate change. **Plos Biology**. 10.1371/journal.pbio.1002281. Highlights: Sciencedaily, phys.org, Tech Times (English), Le Monde, RTBF , CNRS, UPS (p 16-17) (French).
- 41) Bestion E., Clobert J., and **J. Cote**. 2015. Dispersal response to climate change: scaling down to intraspecific variation. **Ecology Letters**. 18(11): 1226-1233. Highlights: <http://www.nature.com/nclimate/journal/v5/n10/full/nclimate2817.html>
- 40) Jacob S., Bestion E., Legrand D., Clobert J. and **J. Cote**. 2015. Habitat matching and spatial heterogeneity of phenotypes: implications for metapopulation and metacommunity functioning. **Evolutionary Ecology**. 29(6): 851-871.
- 39) Cucherousset J., Fried G., Cote J. & Renault D. 2015. Biological invasions and ecosystem functioning; assessment of the ecological impacts driven by invasive species. **Revue d'Ecologie**. 70:49-52.
- 38) Bonnot N., Verheyden H., Blanchard P., **Cote J.**, Debeffe L., Cargnelutti B., Klein F., Hewison M., Morellet N. 2015. Inter-individual variability in habitat use: evidence for a risk management syndrome in roe deer? **Behavioral Ecology**. 26(1): 105-114.
- 37) Bestion E., Teyssier A., Aubret F., Clobert J. and **J. Cote**. 2014. Maternal exposure to predator scents: offspring phenotypic adjustment and dispersal. **Proc R Soc B-Biol Sci**. 281.
- 36) Juette T., Cucherousset J. and **J. Cote**. 2014. Animal personality and the ecological impacts of freshwater non-native species. **Current Zoology**. 60(3): 417 - 427.
- 35) Teyssier A., Bestion E., Richard M. and **J. Cote**. 2014. Partners' personality types and mate preferences: predation risk matters. **Behavioral Ecology**. 25(4): 723-733.
- 34) **Cote J.**, Fogarty S., Tymen B., Sih A. and T. Brodin. 2013. Personality-dependent dispersal cancelled under predation risk. **Proc R Soc B-Biol Sci**. 280 : 1773.
- 33) Trochet A., Legrand D., Larranaga N., Ducatez S., Calvez O., **Cote J.**, Clobert J. and M. Baguette. 2013 Population Sex Ratio and Dispersal in Experimental, Two-Patch Metapopulations of Butterflies. **Journal of Animal Ecology**. 82: 946-955.
- 32) Dardenne S., Ducatez S., **Cote J.**, Poncin P. and V.M. Stevens. 2013. Neophobia and social tolerance are related to breeding group size in a semi-colonial bird. **Behavioral Ecology and Sociobiology**. 67: 1317-1327.
- 31) Legrand D., Guillaume O., Baguette M., **Cote J.**, Trochet A., Calvez O., Zajitschek S., Zajitschek F., Lecomte J., Bénard Q., Le Galliard J.-F. and J. Clobert. 2012. The Metatron: an experimental system to study dispersal and metaecosystem dynamics for terrestrial organisms. **Nature Methods**. 9: 928-933.
- 30) **Cote, J.**, Fogarty, S. and A. Sih. 2012. Individual sociability and choosiness between shoal types. **Animal Behaviour**. 83: 1469-1476
- 29) Sih A., **Cote J.**, Evans M., Fogarty S. and J. Pruitt. 2012. Ecological implications of behavioral syndromes. **Ecology Letters**. 15(3): 278-289. ISI highly cited article.
- 28) Pruitt J.N., **Cote J.** and M.C.O. Ferrari. 2012. Condition dependent species interactions: trait variants in a habitat forming species mediate the nature of interactions with and among heterospecifics. **Functional Ecology**. 26: 29-36.
- 27) **Cote, J.**, Fogarty, S., Brodin, T., Weinersmith, K. and A. Sih. 2011. Personality-dependent dispersal in the invasive mosquitofish: group composition matters. **Proc R Soc B-Biol Sci**. 278(1712): 1670-1678.
- 26) Hoset, K.S., Ferchaud, A.-L., Dufour, F., Mersch, D., **Cote, J.** and J.-F. Le Galliard. 2011. Natal dispersal correlates with behavioural traits that are not consistent across early life stage. **Behavioral Ecology**. 22:176-183.
- 25) Fogarty, S., **Cote, J.**, and A. Sih. 2011. Social personality polymorphism and the spread of invasive species: a model. **The American Naturalist**. 177(3): 273-287.

- 24) **Cote, J.**, Clobert, J., Brodin, T., Fogarty, S. And A. Sih. 2010. Personality-dependent dispersal: characterization, ontogeny and consequences for spatially structured populations. **Philosophical Transactions of the Royal Society B: Biological Sciences**. 365: 4065-4076.
- 23) **Cote, J.**, Meylan, S., Clobert, J. and Y. Voituron. 2010. Carotenoid-based coloration, oxidative stress and corticosterone in common lizards. **Journal of Experimental Biology**. 213: 2116-2124.
- 22) **Cote, J.**, Fogarty, S., Weinersmith, K., Brodin, T. and A. Sih. 2010. Personality traits and dispersal tendency in an invasive mosquitofish (*Gambusia affinis*). **Proc R Soc B-Biol Sci**. 277: 1571-1579. ISI highly cited article.
- 21) **Cote, J.**, Clobert, J., Montes Poloni, L., Haussy, C. and S. Meylan. 2010. Food deprivation modifies corticosterone-dependent behavioural shifts in the common lizard. **General and Comparative Endocrinology**. 166: 142-151.
- 20) **Cote, J.**, Sorci, G., Arnoux, E. and B. Faivre. 2010. Age-dependent allocation of carotenoids to coloration versus antioxidant defences. **Journal of Experimental Biology**. 213: 271-277.
- 19) **Cote, J.** and J. Clobert. 2010. Risky dispersal: avoid kin competition despite uncertainty. **Ecology**. 91(5): 1485-1493.
- 18) Dreiss, A.N., **Cote, J.**, Federici, P., Clobert, J. and M. Richard. 2010. Age-specific response to change in population density and sex-ratio. **Behavioral Ecology**. 21: 356-364.
- 17) Fitze, P.S., **Cote, J.** and J. Clobert. 2010. Context-dependent mate choice in female common lizards *Lacerta vivipara*. **Oecologia**. 162: 331-341.
- 16) Fitze, P.S., **Cote, J.**, Isaksson, C., Andersson, S, Rossi, J.-M. and J. Clobert. 2009. Carotenoid-based colours reflect stress response in the common lizard. **PLoS One**. 4(4): e5111. doi:10.1371/journal.pone.0005111.
- 15) Clobert, J., Le Galliard, J-F., **Cote, J.**, Meylan, S. and M. Massot. 2009. Informed dispersal, heterogeneity in animal dispersal syndromes and the dynamics of spatially structured populations. **Ecology Letters**. 12: 197-209. ISI highly cited article.
- 14) **Cote, J.**, Dreiss, A. and J. Clobert. 2008. Social personality trait and fitness. **Proc R Soc B-Biol Sci**. 275: 2851-2858.
- 13) **Cote, J.**, Le Galliard, J.-F., Rossi, J.-M. and P.S. Fitze. 2008 Environmentally induced changes in a carotenoid-based coloration of female lizards: a comment of Vercken et al.. **Journal of Evolutionary Biology**. 21 : 1165-1172.
- 12) **Cote, J.**, Boudsocq, S. and J. Clobert. 2008. Density, social information and space use in the common lizard (*Lacerta vivipara*). **Behavioral Ecology**. 19(1) : 163-168.
- 11) Fitze, P.S., **Cote, J.**, Martinez-Rica J.P. and J. Clobert. 2008. Determinants of male fitness: disentangling between intra- and inter-sexual selection. **Journal of Evolutionary Biology**. 21(1): 246-255
- 10) Le Galliard, J.-F., **Cote, J.**, and P.S. Fitze. 2008. Lifetime and intergenerational fitness consequences of sexual aggression by males – can females compensate for a bad start? **Ecology**. 89(1): 56-64
- 9) **Cote, J.**, Clobert, J. and P.S. Fitze. 2007. Mother-offspring competition promotes colonization success. **PNAS**. 104(23): 9703-9708.
- 8) **Cote, J.** and J. Clobert. 2007. Social information and emigration: Lessons from immigrants. **Ecology Letters**.10: 411-417.
- 7) **Cote, J.** and J. Clobert. 2007. Social personalities influence natal dispersal in a lizard. **Proc R Soc B-Biol Sci**. 274: 383-390. ISI highly cited article.
- 6) **Cote, J.**, Clobert, J., Meylan, S. and P.S. Fitze. 2006. Experimental enhancement of corticosterone levels positively affects subsequent male survival. **Hormones and Behavior**. 49: 320-327.

5) Le Galliard, J.-F., Fitze, P. S., **Cote, J.**, Massot, M. and J. Clobert. 2005. Female common lizards (*Lacerta vivipara*) do not adjust their sex-biased investment in relation to the adult sex ratio. **Journal of Evolutionary Biology**. 18(6):1455-1463.

Book chapters :

4) Bestion E. & **J. Cote**. Species responses to climate change: integrating individual-based ecology into community and ecosystem studies. 2017. In *Encyclopedia of the Anthropocene* (ed Dominick DellaSala and Mike Goldstein). Elsevier. In press

3) Rehage J., **Cote J.** & A. Sih. 2016. The role of dispersal behaviour and personality in post-establishment spread. In *Biological Invasions and Behavior* (ed J. Weis and D. Sol). Cambridge: Cambridge University Press.

2) **Cote, J.**, Clobert, J., Brodin, T., Fogarty, S. and A. Sih. 2014. Personality traits and spatial ecology in non-human animals. In *Geographical Psychology* (ed J. Rentfrow). Washington, DC: American Psychological Association.

1) **Cote, J.** and J. Clobert. 2012. Dispersal syndromes in the common lizard: personality traits, information use and context-dependent dispersal decisions. In *Dispersal. Causes and consequences* (eds J. Clobert, M. Baguette, T. Benton, J. Bullock & S. Ducatez). New York, NY: Oxford University Press.

Oral communications :

Oral Presentation at Functional Ecology Conference, Montpellier, France, March 2017: "Climate change reduces gut microbiota diversity in a vertebrate ectotherm"

Invited speaker at the Dipee (CNRS, Toulouse France, December 2016). "Behavioral syndromes and biological invasions".

Keynote speaker at the Ecology & Behaviour conference (Lyon, France, June 2016). "Ecological implications of dispersal syndromes: the example of an invasive fish".

Invited speaker at the Department of Ecology and Environmental Sciences (Umea University, Sweden, March 2016). "Impacts of climate change on a temperate ectotherm: from individuals to the community".

Invited speaker at the Department of Ecology and Evolution (University of Lausanne, Switzerland, February 2016). "Impacts of climate change on a temperate ectotherm: from individuals to the community".

Invited speaker at the Centre for research on Biodiversity (UC Louvain, Belgium, October 2015). "Impacts of climate change on a temperate ectotherm: from individuals to the community".

Invited speaker at the Symposium "Putting personality on the map: New perspectives on person-environment links" (ECP, Lausanne 2014, Switzerland). "Personality and spatial ecology in non-human animals: The example of the invasive mosquito-fish".

Invited speaker at the Symposium "Evolution et implications de la variation comportementale intra-spécifique » (SFECA, Dijon 2013). "Population personality composition effects on ecosystem functioning".

Invited speaker at the Centre de Recherche sur la Cognition Animale, Toulouse, France (March 2013). "Personality-dependent dispersal: the example of an invasive fish".

Invited speaker at the Max Planck Institute for Ornithology, Seewiesen, Germany (February 2013). "Personality-dependent mate choice: predation risk matters".

Invited speaker at the Symposium on "Causes and Consequences of Organism Dispersal" (Jan 30th –Feb 1st 2013), Lund, Sweden. "Personality-dependent dispersal: the example of an invasive fish".

Invited speaker at the INRA Behavioral Ecology network, Toulouse, France, June 2012. "The Ecology of Personality Traits".

Invited speaker at the Evolution and Biological Diversity Department, Toulouse, France, March 2010. "Personality-dependent dispersal and the spread of an invasive fish, the mosquitofish".

Oral Presentation at 31st International Ethological Conference (IEC), Rennes, France, August 2009: "Personality and individual's ability to invade in the mosquitofish"

Invited speaker at the Center for Population Biology, University of California, Davis, USA, February 2009. "Heterogeneity in dispersal syndromes and the dynamic of spatially structured populations".

Oral Presentation at 4th European Conference on Behavioural Biology (ECBB), Dijon, France, July 2008: "Personality and individual's ability to invade in the mosquitofish"

Invited speaker at the Evolution and Biological Diversity Department, Toulouse, France, March 2008. "Individual variation in dispersal decision and habitat choice in common lizards".

Invited speaker of the Evolutionary Ecology Department, Bern, Switzerland, October 2007: "Individual variation in dispersal decision and habitat choice in common lizards"

Oral Presentation at 11th European Society for Evolutionary Biology (ESEB 2007), Uppsala, Sweden, August 2007: "Social personalities influence natal dispersal and fitness outcomes in common lizard (*Lacerta vivipara*)".

Oral Presentation at 11th International Behavioural Ecology Congress (ISBE 2006), Tours, France, July 2006: "Kin competition promotes colonisation success".

Invited speaker at Institut de Recherche pour le Développement, Bondy, France, May 2006. "Natal dispersal : Causes, mechanisms and consequences"

Oral Presentation at Meeting "Ecology and Behaviour", Strasbourg, France, March 2006: "Kin competition promotes colonisation success"

Oral Presentation at Meeting "Ecology and Behaviour", Chizé, France, March 2005: "Public information and emigration: Take a look at immigrants"

Oral Presentation at the scientific week of the Ecology Department, Paris, France, October 2004: "Experimental enhancement of corticosterone levels positively affects subsequent male survival"

Peer and Media Interest

General interest in my research on dispersal and population biology:

Radio show "MAP vous explique". **RTBF**. Belgium National radio Channel.

Radio show "Curieux de Nature". **France inter**. National radio Channel.

TV show "Les Héros du climat". **France 2**, National Channel.

Newspaper "Au métatron, le réchauffement climatique en action". **Charlie Hebdo**.

Experiment tracks lizards and butterflies through climate change. **Reuters**, UK.

Une nature en cage. Highlighted research of the **National Center of scientific research**, France.

TV show "Télématin". **France 2**, National channel. Video not available anymore.

National evening news. **France 3**. Video not available anymore.

National evening news. **TF1**.

Specific interest in particular publications:

Bestion et al. 2015 Plos Biol was featured in [Plos Biology](#) and in 7 scientific websites.

Bestion et al. 2015 Ecol Lett was featured in [Nature Climate Change](#).

Bestion et al. 2014 PRSB was featured in [Sciences et Avenir](#).

Legrand et al. 2012 Nat Meth was featured in [Nature methods](#) and [Science](#).

Cote et al. 2010 PRSB was featured in [Nature](#) and in Conservation Journal.

Cote and Clobert 2007 PRSB was featured in [New Scientist](#).

Reviewing:

(110 articles for 32 journals since 2007 and 14 grant proposals since 2010)

Ecology Letters - Hormones and Behavior – Journal of Herpetology – Ethology – Behavioural Processes – Naturwissenschaften – Animal Behaviour – Functional Ecology – Animal Conservation – Journal of Experimental Zoology Part A - Journal of Comparative Psychology - Behavioral Ecology- The American Naturalist – Behavioral Ecology and Sociobiology – Journal of Animal Ecology – Acta Oecologica – Oikos – Behaviour – Current Zoology – Physiological and Biochemical Zoology – Climatic Change – Evolution – Ecosphere – Ecography – Scientific reports – PloS One – The American Naturalist – Movement Ecology – Biological Invasions – Journal of Experimental Biology - Frontiers in Ecology and Evolution – Nature Ecology & Evolution

Review of research proposals for the *Council for Earth and Life Sciences of the Netherlands* (2 proposals), the *National Science Foundation* (NSF, USA, 3 proposals), *Chercheur d'Avenir Languedoc-Rousillon 2011* (1 proposal), the *Graduate Women in Science* (GWIS, 1 proposal) Fellowship, the *Research Foundation Flanders* (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO, 3 proposals), the *University of Nottingham Research Fellowship Scheme* (1 proposal), the *Fonds de la Recherche Scientifique* (FNRS, Belgium, 1 proposal), *Kentucky Science and Engineering Foundation* (USA, 1 proposal) and the *Natural Environment Research Council* (NERC, UK, 1 proposal).

Editorial activities:

Associate Editor for BMC Ecology since 2012

Subject Editor for Oikos since 2017

Review Editor for Frontiers in Ecology and Evolution since 2015

Funded projects

Ongoing projects:

2014-2017: Contribution de la génétique à une Trame verte plus fonctionnelle en Région Midi-Pyrénées, funding: Contrat de Recherche Laboratoires-Entreprises (141000 euros, **Participant**, PI : M. Baguette).

2013-2017: Heterogeneity of patterns and processes along biological invasion successions, funding: Biodiversa research fund (675000 euros, **Co-Pi** with S. Blanchet, J. Clobert).

2013-2017: Fragmented populations and dispersal syndromes: from genes to metapopulations dynamic, funding: Young researcher ANR research grant (240000 euros, **PI**)

Past projects:

2014-2016: Transgenerational consequences of human-induced phenotypic changes on ecosystem functioning, funding: IDEX Université de Toulouse (55300 euros, **Participant**, PI: J. Cucherousset).

2012-2013: Do animal personalities affect ecosystem functioning? An integrative experimental approach, funding: Fyssen foundation research grant (35000 euros, **Participant**, PI: Dr Julien Cucherousset).

2011-2012: Personality traits and heterogeneity in habitat preferences: consequences for spatially structured populations, funding: Fyssen foundation research grant (30000 euros, **PI**).

2007-2010: Personality traits, new insights for ecological invasion, funding: Fyssen foundation fellowship for postdoctoral scholar (32400 euros, **PI**), AXA research fund for postdoctoral scholar (76000 euros, **PI**)

Awards:

2010: Award for excellence in postdoctoral studies at UC Davis 2010

July 2009: Animal Behavior Society travel grant for International Ethological Conference 2009 (\$2000)