



# Guillaume SOUCHAY

*Research fellow in population dynamics & interspecific relationships  
French Office for Biodiversity*

## external identifier

ORCID ID 0000-0003-0214-9362  
ResearchGate Guillaume Souchay  
ScholarGoogle Citations and H factor  
Publons Editor and reviewer activity

## Research Interest

Population dynamics and management of harvested species  
Development and applications of population dynamics models

## Research Experiences

- Mar 2017 – Now **Research fellow in population dynamics of European hare**, *Office Français de la Biodiversité*, Nantes - FR  
Investigation of population dynamics of European brown hare in France and link between demography and habitat, climate, anthropogenic activities.  
Scientific head of the French Hare Network.
- Mar 2015 – Mar 2017 **Research fellow in population dynamics of small game species**, *Office National de la Chasse et de la Faune Sauvage*, St Benoist - FR  
Estimation of demographics parameters for several small sedentary game species such as hares and red-legged partridge.  
Development of an integrated population model for the red-legged partridge.
- Nov 2013 – Feb 2015 **Post-doctoral fellow**, *Swiss Ornithological Institute*, Sempach - CH  
Effect of hunting on Northern Lapwing population.  
Variations in demographical parameters in a European Hoopoe population.  
Supervisor [Michael Schaub](#)
- Apr 2013 – Sep 2013 **Post-doctoral fellow**, *CEFE-CNRS and EAL 647, CNRS Strasbourg, Centre de Recherche Monaco*, Montpellier - FR  
Reproductive strategies in the King penguin.  
Supervisor [Roger Pradel](#) and [Céline Le Bohec](#)
- Sep 2009 – Mar 2013 **Ph.D. thesis with co-supervision**, *Laval University, QC, CA and Montpellier University, FR*  
Non-canalized aspects of greater snow goose population dynamics: breeding propensity and juvenile survival probability  
Supervisor [Gilles Gauthier](#) and [Roger Pradel](#)
- Feb 2008 – Sep 2008 **M.Sc. training**, *Tour du Valat*, Le Sambuc, Arles - FR  
Sex-dependent juvenile survival estimation in a dimorphic species: the case of the greater flamingo *Phoenicopterus roseus*  
Supervisor [Arnaud Béchet](#) and [Christophe Barbraud](#)

---

## Articles

C. Reséndiz-Infante, G. Gauthier, and G. **Souchay**, "Consequences of a changing environment on the breeding phenology and reproductive success components in a long-distance migratory bird," *Population Ecology*, vol. 62, pp. 284–296, apr 2020.

B. Folliot, G. **Souchay**, J. Champagnon, M. Guillemain, M. Durham, R. Hearn, J. Hofer, J. Laesser, C. Sorin, and A. Caizergues, "When survival matters: is decreasing survival underlying the decline of common pochard in western europe?," *Wildlife Biology*, 2020.

B. Arroyo, G. **Souchay**, and N. J. Aebischer, "Red-legged partridge. *Alectoris rufa*," in *The European Breeding Bird Atlas* (V. Keller, S. Herrando, P. Voříšek, M. Franch, M. Kipson, P. Milanese, D. Martí, M. Anton, A. Klvaňová, M. Kalyakin, H.-G. Bauer, and R. Foppen, eds.), pp. 76–77, European Bird Census Council & Lynx Edicions, Barcelona, 2020.

G. **Souchay**, A. Besnard, C. Perrot, C. Jakob, and F. Ponce, "Anthropic and natural factors drive variation of survival in the red-legged partridge in southern france," *Wildlife Biology*, vol. 2018, jan 2018.

G. **Souchay**, C. Barbraud, C. Germain, and A. Bechet, "Dispersal-dependent juvenile survival in a sexually dimorphic long-lived bird, the greater flamingo *phoenicopterus roseus*," *bioRxiv*, vol. preprint, jul 2018.

G. **Souchay**, R. E. V. Wijk, M. Schaub, and S. Bauer, "Identifying drivers of breeding success in a long-distance migrant using structural equation modelling," *Oikos*, vol. 127, pp. 125–133, jul 2018.

B. Mauvy, G. **Souchay**, and J.-S. Guitton, "Un réseau de sites de référence pour le suivi et l'étude du lièvre en france," *Faune Sauvage*, vol. 317, pp. 14–18, 2017.

J. Letty, G. **Souchay**, B. Baudoux, Y. Bray, Y. Léonard, B. Mauvy, T. Mendoza, R. Péroux, S. Ruelle, C. Urbaniak, and J.-S. Guitton, "Quel impact du renard sur la démographie du lièvre d'europe ? distinguer les effets de la prédation par le renard des autres facteurs de l'environnement," *Faune Sauvage*, vol. 317, pp. 78–82, 2017.

G. **Souchay** and M. Schaub, "Investigating rates of hunting and survival in declining european lapwing populations," *Plos One*, vol. 11, p. e0163850, sep 2016.

R. E. van Wijk, G. **Souchay**, S. Jenni-Eiermann, S. Bauer, and M. Schaub, "No detectable effects of lightweight geolocators on a palaeartic-african long-distance migrant," *Journal of Ornithology*, vol. 157, pp. 255–264, 2015/08/04 2016.

J. Champagnon, P. Legagneux, G. **Souchay**, P. Inchausti, V. Bretagnolle, F. Bourguemestre, L. Van Ingen, and M. Guillemain, "Robust estimation of survival and contribution of captive-bred mallards *anas platyrhynchos* to a wild population in a large-scale release programme," *Ibis*, vol. 158, no. 2, pp. 343–352, 2016.

J. Champagnon, M. Guillemain, J.-Y. Mondain-Monval, G. **Souchay**, P. Legagneux, V. Bretagnolle, L. Van Ingen, F. Bourguemestre, and J.-D. Lebreton, "Contribution of released captive-bred mallards to the dynamics of natural populations," *Ornis Fennica*, vol. 93, no. 1, pp. 3–11, 2016.

G. **Souchay**, G. Gauthier, J. Lefebvre, and R. Pradel, "Absence of difference in survival between two distant breeding sites of greater snow geese," *Journal of Wildlife Management*, vol. 79, no. 4, pp. 570–578, 2015.

G. **Souchay**, O. Gimenez, G. Gauthier, and R. Pradel, "Variations in band reporting rate and implications for kill rate in greater snow geese," *Avian Conservation and Ecology*, vol. 9, no. 1, p. 1, 2014.

G. **Souchay**, G. Gauthier, and R. Pradel, "To breed or not: a novel approach to estimate breeding propensity and potential trade-offs in an arctic-nesting species," *Ecology*, vol. 95, no. 10, pp. 2745–2756, 2014.

G. **Souchay**, G. Gauthier, and R. Pradel, "Temporal variation of juvenile survival in a long-lived species: the role of parasites and body condition," *Oecologia*, vol. 173, pp. 151–160, Sep 2013.

---

## Peer-review experience

since 2018 Academic editor for PLOS ONE

since 2012 45 reviews

Journals Animal Conservation, Ecology, Ecology and Evolution, Evolution, Global Change Biology, Ibis, Journal of Animal Ecology, Journal of Applied Ecology, Journal of Avian Biology, Journal of Field Ornithology, Methods in Ecology and Evolution, Oecologia, PeerJ, PLOS ONE, Population Ecology, Proceedings of the Royal Society B, The Auk, The Journal of Wildlife Management

statistics [Publons profile](#)

---

## Workshop

2016 **Advanced Techniques and Recent Developments in Distance Sampling with Spatial Modelling**, *St Andrews University*, St Andrews - Scotland

Teachers E Rexstad, L Thomas, D Borchers, L Burt, L Marshall, Gui Bortolotto

2015 **Bayesian integrated population modeling (IPM) using BUGS and JAGS**, *Tour du Valat*, Arles - France

Teachers M Schaub, M Kéry

2014 **Matrix Population Models for Population Management and Conservation**, *CEFE-CNRS*, Montpellier - France

Teachers J-D Lebreton, O Gimenez, D Koons

2013 **Bayesian population analysis using WinBUGS**, *Swiss Ornithological Institute*, Sempach - Switzerland

Teachers M Schaub, M Kéry

2009-2010 **Modelling Individual Histories with State Uncertainty**, *CEFE-CNRS*, Montpellier - France

Teachers R Pradel, J-D Lebreton, O Gimenez, R Choquet

---

## International conference

2017 **Investigating survival of wild and hand-reared red-legged partridges in Southern France**, *33rd International Union of Game Biologist*, Montpellier - France

Lead author G Souchay, A Besnard and F Ponce  
Oral communication

2017 **Exploring predator-prey relationship through experimental reduction of red fox and its effect on brown hare population dynamics**, *33rd International Union of Game Biologist*, Montpellier - France

Co-author J Letty, G Souchay, B Baudoux, Y Bray, Y Léonard, B Mauvy, T Mendoza, R Péroux and J-S Guitton  
Oral communication

2017 **The French Hare Network: a tool to study European hare populations dynamics on a large scale**, *33rd International Union of Game Biologist*, Montpellier - France

Co-author B Mauvy, G Souchay, J-P Arnauduc and J-S Guitton

Poster

2014 **Use of multi-events framework to explore breeding strategies in a long-breeding-cycle species**, *International Statistical Ecology Conference 2014*, Montpellier - France

Lead author G Souchay, R Pradel and C Le Bohec

Oral communication

2013 **A new approach to account for temporary emigration using a multi-event framework**, *EURING Conference*, Athens, Ga - USA

Lead author G Souchay, R Pradel and G Gauthier

Oral communication

---

## Skills

Analysis Capture-Mark-Recapture ; Matrix models ; N-mixture models ; Distance Sampling ; Bayesian hierarchical modelling

Software Capture-Mark-Recapture: MARK, E-SURGE, U-CARE; R packages: JAGS, WinBUGS, Rmark, Popbio, lme4, nlme

Fieldwork Breeding survey, goose capture-marking, small rodent live/dead trapping

---

## Education

2009–2013 **Ph.D in Ecology and Population biology**, *Laval University*, Québec - CA  
Co-supervision with Montpellier University, Montpellier - FR

2007–2008 **M.Sc Earth Sciences, Environment and Ecology speciality Ecology, Biodiversity, Evolution**, *Université Pierre et Marie Curie*, Paris - FR , *Magna cum laude*  
2nd year

2006–2007 **M.Sc speciality Organism, Population and Ecosystem biology**, *Université de Rennes 1*, Rennes - FR , *Magna cum laude*  
1st year

2003–2006 **B.Sc Biology speciality Organism biology**, *Université de Rennes 1*, Rennes - FR , *Magna cum laude*

---

## Languages

French native

English B2-C1

German A2

---

## Interests

Sport Running, Soccer

Hiking Day-trip

Photography Wildlife photography

Cooking traditionnal French recipes, savoury dish