

Fernando Colchero
Associate Professor
Department of Mathematics and Computer Science (IMADA)
Statistics
Max-Planck Odense Center
Postal address:
Campusvej 55
5230
Odense M
Denmark
Email: colchero@imada.sdu.dk
Phone: 65502324
Web address: <http://www.colchero.com>



Publications

Sexual dimorphism in chimpanzee (*Pan troglodytes schweinfurthii*) and human age-specific fertility

Muller, M. N., Blurton Jones, N. G., Colchero, F., Thompson, M. E., Enigk, D. K., Feldblum, J. T., Hahn, B. H., Langergraber, K. E., Scully, E. J., Vigilant, L., Walker, K. K., Wrangham, R. W., Wroblewski, E. E. & Pusey, A. E., Jul 2020, In : Journal of Human Evolution. 144, p. 102795-16 p.

Sex differences in adult lifespan and aging rates of mortality across wild mammals

Lemaître, J-F., Ronget, V., Tidière, M., Allainé, D., Berger, V., Cohas, A., Colchero, F., Conde, D. A., Garratt, M., Liker, A., Marais, G. A. B., Scheuerlein, A., Székely, T. & Gaillard, J-M., 14. Apr 2020, In : Proceedings of the National Academy of Sciences of the United States of America. 117, 15, p. 8546-8553

Beyond the proportional frailty model: Bayesian estimation of individual heterogeneity on mortality parameters

Colchero, F. & Kiyakoglu, B. Y., Jan 2020, In : Biometrical Journal. 62, 1, p. 124-135

Performance of generation time approximations for extinction risk assessments

Staerk, J., Conde, D. A., Ronget, V., Lemaître, J. F., Gaillard, J. M. & Colchero, F., 1. Jun 2019, In : Journal of Applied Ecology. 56, 6, p. 1436-1446

Data gaps and opportunities for comparative and conservation biology

Conde, D. A., Staerk, J., Colchero, F., da Silva, R., Schöley, J., Baden, H. M., Jouvett, L., Fa, J. E., Syed, H., Jongejans, E., Meiri, S., Gaillard, J-M., Chamberlain, S., Wilcken, J., Jones, O. R., Dahlgren, J. P., Steiner, U. K., Bland, L. M., Gomez-Mestre, I., Lebreton, J-D. & 13 others, González Vargas, J., Flesness, N., Canudas-Romo, V., Salguero-Gómez, R., Byers, O., Berg, T. B., Scheuerlein, A., Devillard, S., Schigel, D. S., Ryder, O. A., Possingham, H. P., Baudisch, A. & Vaupel, J. W., 7. May 2019, In : Proceedings of the National Academy of Sciences of the United States of America. 116, 19, p. 9658-9664

The diversity of population responses to environmental change

Colchero, F., Jones, O. R., Conde, D. A., Hodgson, D., Zajitschek, F., Schmidt, B. R., Malo, A. F., Alberts, S. C., Becker, P. H., Bouwhuis, S., Bronikowski, A. M., De Vleeschouwer, K. M., Delahay, R. J., Dummermuth, S., Fernández-Duque, E., Frisenvaenge, J., Hesselsøe, M., Larson, S., Lemaître, J-F., McDonald, J. & 12 others, Miller, D. A. W., O'Donnell, C., Packer, C., Raboy, B. E., Reading, C. J., Wapstra, E., Weimerskirch, H., While, G. M., Baudisch, A., Flatt, T., Coulson, T. & Gaillard, J-M., Feb 2019, In : Ecology Letters. 22, 2, p. 342-353

Better the devil you know: common terns stay with a previous partner although pair bond duration does not affect breeding output

Rebke, M., Becker, P. H. & Colchero, F., 2017, In : Royal Society of London. Proceedings B. Biological Sciences. 284, 1846, 2016.1424.

Individual heterogeneity determines sex differences in mortality in a monogamous bird with reversed sexual dimorphism

Colchero, F., Aliaga, A. E., Jones, O. & Conde, D. A., 2017, In : Journal of Animal Ecology. 86, 4, p. 899-907

Sterbealter gleichen sich an

Colchero, F., Rau, R., Scheuerlein, A., Schwentker, B. & Vaupel, J. W., 2017, *Forschungsbericht 2017: Max-Planck-Institut für demografische Forschung*. München: Max-Planck-Gesellschaft, p. 1-6

Actuarial senescence in a long-lived orchid challenges our current understanding of ageing

Dahlgren, J., Colchero, F., Jones, O., Øien, D-I., Moen, A. & Sletvold, N., Nov 2016, In : Royal Society of London. Proceedings B. Biological Sciences. 283, 1842

Age and sex-specific mortality of wild and captive populations of a monogamous pair-bonded primate (*Aotus azarae*)

Larson, S., Colchero, F., Jones, O., Williams, L. & Fernandez-Duque, E., 2016, In : American Journal of Primatology. 78, 3, p. 315-325

Bayesian estimates of male and female African lion mortality for future use in population management

Barthold, J. A., Loveridge, A., Macdonald, D., Packer, C. & Colchero, F., 2016, In : Journal of Applied Ecology. 53, 2, p. 295-304

Bayesian inference to estimate mortality from incomplete historical data

Villavicencio, F., Missov, T. I. & Colchero, F., 2016. 21 p.

Dead or gone? Bayesian inference on mortality for the dispersing sex

Barthold, J., Packer, C., Loveridge, A., McDonald, D. & Colchero, F., 2016, In : Ecology and Evolution. 6, 14, p. 4910-4923

The emergence of longevous populations

Colchero, F., Rau, R., Jones, O. R., Barthold, J. A., Conde, D. A., Lenart, A., Nemeth, L., Scheuerlein, A., Schoeley, J., Torres, C., Zarulli, V., Altmann, J., Brockman, D. K., Bronikowski, A. M., Fedigan, L. M., Pusey, A. E., Stoinski, T. S., Strier, K. B., Baudisch, A., Alberts, S. C. & 1 others, Vaupel, J. W., 2016, In : National Academy of Sciences. Proceedings. 113, 48, p. E7681-E7690

Opportunities and costs for preventing vertebrate extinctions

Conde, D. A., Colchero, F., Güneralp, B., Gusset, M., Skolnik, B., Parr, M., Byers, O., Johnson, K., Young, G., Flesness, N., Possingham, H. & Fa, J., 16. Mar 2015, In : Current Biology. 25, 6, p. 219-221 3 p.

Disentangling the effects of climate, density dependence, and harvest on an iconic large herbivore's population dynamics

Koons, D., Colchero, F., Hersey, K. & Gimenez, O., 2015, In : Ecological Applications. 25, 4, p. 956-967

Roads and jaguars in the Mayan forests

Pallares, E., Manterola, C., Conde, D. A. & Colchero, F., 2015, *Handbook of Road Ecology*. van der Ree, R., Smith, D. & Grilo, C. (eds.). Wiley, p. 313-16

The COMPADRE Plant Matrix Database: an Open Online Repository for Plant Demography

Salguero-Gomez, R., Jones, O., Archer, C. R., Buckley, Y., Che-Castaldo, J., Caswell, H., Hodgson, D., Scheuerlein, A., Conde, D. A., Brinks, E., de Buhr, H., Farack, C., Gottschalk, F., Hartmann, A., Henning, A., Hoppe, G., Römer, G., Runge, J., Ruoff, T., Wille, J. & 16 others, Zeh, S., Vieregg, D., Baudisch, A., Altwegg, R., Colchero, F., Dong, M., de Kroon, H., Lebreton, J-D., Metcalf, C., Neel, M., Parker, I., Takada, T., Valverde, T., Velez-Espino, L., Franco, M. & Vaupel, J. W., 2015, In : Journal of Ecology. 103, 1, p. 202-218

Mortality as a bivariate function of age and size in indeterminate growers

Colchero, F. & Schaible, R., 23. Dec 2014, In : Ecosphere (Washington, D.C.). 5, 12, 161.

Adult mortality in Catalonia in the 16th and 17th centuries

Villavicencio, F., Pujadas-Mora, J. M., Colchero, F. & Cabré, A., 2014. 21 p.

Aging Differently: Diet- and Sex-Dependent Late-Life Mortality Patterns in *Drosophila melanogaster*

Zajitschek, F., Jin, T., Colchero, F. & Maklakov, A. A., 2014, In : Journals of Gerontology. Series A: Biological Sciences & Medical Sciences. 69, 6, p. 666-674

Bayesian inference on the effect of density dependence and weather on a guanaco population from Chile
Zubillaga, M., Skewes, O., Soto, N., Rabinovich, J. & Colchero, F., 2014, In : PLOS ONE. e115307.

Foraging strategy of a Neotropical primate: how intrinsic and extrinsic factors influence destination and residence time
Plante, S., Colchero, F. & Calmé, S., 2014, In : Journal of Animal Ecology. 83, p. 116-125

The Pace and Shape of Senescence in Angiosperms

Baudisch, A., Salguero-Gómez, R., Jones, O., Wrycza, T., Mbeau-Ache, C., Franco, M. & Colchero, F., 2013, In : Journal of Ecology. 101, 3, p. 596-606

Zoos can lead the way with ex situ conservation.

Conde, D. A., Flesness, N., Colchero, F., Jones, O. & Scheuerlein, A., 2013, In : World Association of Zoos and Aquariums Magazine. p. 26-29 3 p.

Zoos through the lens of the IUCN Red List: a global metapopulation approach to support conservation breeding programs

Conde, D. A., Colchero, F., Pearce-Kelly, P., Gusset, M., Byers, O., Flesness, N., Browne, R. K. & Jones, O., 2013, In : PLOS ONE. 8, 12, 9 p., e80311.

BaSTA: an R package for Bayesian estimation of age-specific survival from incomplete mark-recapture/recovery data with covariates

Colchero, F., Jones, O. & Rebke, M., 2012, In : Methods in Ecology and Evolution. 3, 3, p. 466-470

Bayesian inference on age-specific survival for censored and truncated data.

Colchero, F. & Clark, J. S., 2012, In : Journal of Animal Ecology. 81, p. 139-149

Two parthenogenetic populations of *Chara canescens* differ in their capacity to acclimate to irradiance and salinity

Schaible, R., Gerloff-Elias, A., Colchero, F. & Schubert, H., 2012, In : Oecologia. 168, 2, p. 343-353

An emerging role of zoos to conserve biodiversity

Conde, D. A., Flesness, N., Colchero, F., Jones, O. & Scheuerlein, A., 2011, In : Science Magazine. 331, p. 1390-1391

El jaguar como elemento estratégico para la conservación: Corredor Biológico Mesoamericano México

Manterola, C., Conde, D. A., Colchero, F., Rivera, A., Huerta, E., Soler, A. & Pallares, E., 2011, Comisión Nacional para el Conocimiento y Uso de la Biodiversidad. 130 p.

Jaguars on the move: modeling movement to mitigate fragmentation from road expansion in the Mayan Forests

Colchero, F., Conde, D. A., Manterola, C., Cuahutemoc, C., Rivera, A. & Ceballos, G., 2011, In : Animal Conservation. 14, 2, p. 158-166

Zoos and captive breeding: response

Conde, D. A., Colchero, F. & Jones, O., 2011, In : Science Magazine. 332, 1777, p. 1150-1

Clustered nesting and vegetation thresholds reduce egg predation in sooty tern.

Colchero, F., Bass, O. L., Zambrano, R. & Gore, J. A., 2010, In : Waterbirds. 33, 2, p. 169-178

Sex matters: Modeling male and female habitat differences for jaguar conservation

Conde, D. A., Colchero, F., Zarza, H., Christensen Jr, N. L., Sexton, J. O., Manterola, C., Chávez, C., Rivera, A., Azuara, D. & Ceballos, G., 2010, In : Biological Conservation. 143, 9, p. 1980-1988 9 p.

Predicting population survival under future climate change: density dependence, drought and extraction in an insular bighorn sheep.

Colchero, F., Medellín, R. A., Clark, J. S., Lee, R. & Katul, G., 2009, In : Journal of Animal Ecology. 78, 3, p. 666-673

Understanding movement data and movement processes: current and emerging directions

Schick, R. S., Loarie, S. R., Colchero, F., Best, B. D., Boustany, A., Conde, D. A., Halpin, P. N., Joppa, L. N., McClellan, C. M. & Clark, J. S., 2008, In : Ecology Letters. 11, 12, p. 1338-1350

Activities

Male-female differences in mortality and cancer incidence birds and mammals

Johanna Stärk (Organizer), , Dalia Amor Conde (Chairman), , Fernando Colchero (Organizer), , Rita Silva (Organizer), & Annette Baudisch (Participant)
26. Jun 2019 → 27. Jun 2019

Diversity (Journal)

Fernando Colchero (Peer reviewer)
1. Feb 2019 → 1. Oct 2019

Nature Communications (Journal)

Fernando Colchero (Peer reviewer)
3. Jan 2019

The Pace and Shape of Primate Mortality

Fernando Colchero (Participant)
17. Dec 2018 → 22. Dec 2018

Ecology (Journal)

Fernando Colchero (Peer reviewer)
30. Oct 2018

Methods in Ecology and Evolution (Journal)

Fernando Colchero (Peer reviewer)
23. Oct 2018

International Statistical Ecology Conference

Fernando Colchero (Participant)
2. Jul 2018 → 6. Jul 2018

Nature Communications (Journal)

Fernando Colchero (Peer reviewer)
16. Jun 2018

Ecology Letters (Journal)

Fernando Colchero (Peer reviewer)
28. May 2018

Nature Communications (Journal)

Fernando Colchero (Peer reviewer)
21. May 2018

The American Naturalist (Journal)

Fernando Colchero (Peer reviewer)
18. May 2018

5th Evolutionary Demography Society Meeting

Fernando Colchero (Participant)

10. Jan 2018

Do Turtles Senesce Under Human Care?

Ana Rita da Silva (Guest lecturer), , Fernando Colchero (Other), & Dalia Amor Conde (Other)

9. Jan 2018

Scientific Data (Journal)

Fernando Colchero (Peer reviewer)

9. Jan 2018

5th Evolutionary Demography Society Meeting

Fernando Colchero (Participant)

8. Jan 2018

Ecology (Journal)

Fernando Colchero (Peer reviewer)

2. Jan 2018

The Pace and Shape of Primate Mortality

Fernando Colchero (Participant), , Susan C Alberts (Organizer), & Dalia Amor Conde (Organizer)

17. Dec 2017 → 19. Dec 2017

Journal of Animal Ecology (Journal)

Fernando Colchero (Peer reviewer)

13. Nov 2017

Oikos (Journal)

Fernando Colchero (Peer reviewer)

3. Nov 2017

Oikos (Journal)

Fernando Colchero (Peer reviewer)

13. Jul 2017

Ecological Modelling (Journal)

Fernando Colchero (Peer reviewer)

24. Apr 2017

Journal of Animal Ecology (Journal)

Fernando Colchero (Peer reviewer)

22. Mar 2017

The American Naturalist (Journal)

Fernando Colchero (Peer reviewer)

7. Mar 2017

Journal of Ecology (Journal)

Fernando Colchero (Peer reviewer)

15. Feb 2017

Ecology Letters (Journal)

Fernando Colchero (Peer reviewer)

1. Jan 2017

Mind the Gap: Filling Demographic Knowledge Gaps with Zoo Data

Ana Rita da Silva (Lecturer), , Johanna Stärk (Other), , Fernando Colchero (Other), & Dalia Amor Conde (Other)
14. Dec 2016

Ecology Letters (Journal)

Fernando Colchero (Peer reviewer)
30. Sep 2016

Evolution (Journal)

Fernando Colchero (Peer reviewer)
5. Sep 2016

Journal of Animal Ecology (Journal)

Fernando Colchero (Peer reviewer)
1. Sep 2016

Chairman of PhD Assessment Committee (External organisation)

Fernando Colchero (Member)
17. Aug 2016 → 30. Nov 2016

Journal of Animal Ecology (Journal)

Fernando Colchero (Peer reviewer)
17. Aug 2016

Chair of PhD Committee (External organisation)

Fernando Colchero (Chairman)
3. Aug 2016 → 18. Oct 2016

Conservation Biology (Journal)

Fernando Colchero (Peer reviewer)
11. Jul 2016

Keynote speaker: Ecology and Behavior 2016 (Conference, Lyon, France)

Fernando Colchero (Speaker)
27. Jun 2016 → 1. Jul 2016

Journal of the Royal Society. Interface (Journal)

Fernando Colchero (Peer reviewer)
24. May 2016

Evolutionary Ecology of Primate Life Histories

Fernando Colchero (Participant)
5. May 2016 → 8. May 2016

Oecologia (Journal)

Fernando Colchero (Peer reviewer)
22. Apr 2016

Ecological Applications (Journal)

Fernando Colchero (Peer reviewer)
22. Feb 2016

Frontiers in Ecology and Evolution (Journal)

Fernando Colchero (Peer reviewer)

21. Jan 2016

Invited Speaker, Departmental Lecture Series, Department of Biology SDU: Under the hood: modelling hidden demographic processes

Fernando Colchero (Lecturer)

8. Jan 2016

P L o S One (Journal)

Fernando Colchero (Peer reviewer)

21. Aug 2015

Statistical Ecology and Environmental Monitoring (SEEM)

Fernando Colchero (Speaker)

22. Jun 2015 → 26. Jun 2015

The Era of Big Data Hits Conservation Biology

Fernando Colchero (Speaker)

15. Jun 2015 → 19. Jun 2015

BES Symposium: Demography beyond the Population

Fernando Colchero (Organizer)

22. Mar 2015 → 26. Mar 2015

Danish Society for Theoretical Statistics

Fernando Colchero (Organizer)

18. Nov 2014 → 19. Nov 2014

Theoretical Population Biology (Journal)

Fernando Colchero (Peer reviewer)

18. Nov 2014 → 1. Dec 2014

Workshop on Demographic Forecasting

Fernando Colchero (Speaker)

29. Sep 2014

Ecological Modelling (Journal)

Fernando Colchero (Peer reviewer)

17. Sep 2014 → 18. Sep 2014

American Naturalist (Journal)

Fernando Colchero (Peer reviewer)

15. Jul 2014 → 1. Aug 2014

Royal Society of London. Proceedings B. Biological Sciences (Journal)

Fernando Colchero (Peer reviewer)

1. Jun 2014 → 9. Sep 2014

Methods in Ecology and Evolution (Journal)

Fernando Colchero (Peer reviewer)

13. Apr 2014 → 20. May 2014

Evolutionary Applications (Journal)

Fernando Colchero (Peer reviewer)

9. Feb 2014

Frontiers in Ecology and Evolution (Journal)

Fernando Colchero (Editor)
6. Jan 2014 → 6. Jan 2020

International Advanced Studies in Demography

Fernando Colchero (Participant)
27. Nov 2013 → 28. Nov 2013

Bayesian Survival Trajectory Analysis (BaSTA) Workshop.

Fernando Colchero (Organizer)
10. Oct 2013 → 11. Oct 2013

1st EvoDemoS Annual Meeting

Fernando Colchero (Participant)
9. Oct 2013

Ecological Modelling (Journal)

Fernando Colchero (Peer reviewer)
12. Jun 2013

Journal of Applied Ecology (Journal)

Fernando Colchero (Peer reviewer)
3. Jun 2013

Marine Ecology - Progress Series (Journal)

Fernando Colchero (Peer reviewer)
24. May 2013

Bayesian inference on age-patterns of mortality, from wild animals to historical data

Fernando Colchero (Lecturer)
7. Mar 2013

A methodological approach to the study of adult mortality using historical marriage data

Fernando Colchero (Advisor)
1. Sep 2012 → 20. Jun 2013