

Dr. Carsten Nowak Short CV 03/2018

- Current Affiliation** Conservation Genetics Section
Senckenberg Research Institute and Natural History Museum Frankfurt
Clamecystraße 12, 63571 Gelnhausen, Germany
www.senckenberg.de/conservationgenetics
- Professional Interests** Population Genetics, Ecological Genomics, eDNA, Wildlife Ecology, Conservation Biology, Global Change Ecology

Scientific Career

- 2018- Head of project area *Genomic Biomonitoring*, LOEWE Centre for Translational Biodiversity Genomics (LOEWE-TBG), Frankfurt am Main
- 2008 - 2014 Project group leader and coordinator of project area *Adaptation & Climate*, Biodiversity and Climate Research Centre (BiK-F), Frankfurt am Main
- since 2008 Head of Conservation Genetics Section, Senckenberg Research Institute and Natural History Museum Frankfurt, Research Station Gelnhausen
- 2007 - 2008 Research associate at the Centre for Aquatic Conservation, Department of Biological Sciences, University of Notre Dame, Indiana, USA
- 1998 - 2007 Studies in Biology at the Department of Ecology and Evolution, Goethe-University Frankfurt am Main. PhD on the *Consequences of Environmental Pollution on Genetic Diversity of the midge Chironomus riparius*

Scientific & Societal Service (selection)

- Coordinator of national reference center for genetic analyses of large carnivores
- Member of the Dokumentations- und Beratungsstelle des Bundes zum Thema Wolf
- Founding member of the Central European Wolf Genetics Consortium (CEwolf)
- >175 conference contributions and public talks

Selected recent Publications (*69 ISI papers since 2006, GoogleScholar H = 20, 1564 citations*)

- Bálint M, **Nowak C**, Márton O, Pauls SU, Wittwer C, Aramayo JL, Schulze A, Chambert T, Cocchiararo B, Jansen M: Twenty-five species of frogs in a liter of water: eDNA survey for exploring tropical frog diversity. *bioRxiv*, 176065
- Steyer K, Tiesmeyer A, Munoz-Fuentes V, **Nowak C**: Low rates of hybridization between European wildcats and domestic cats in a human dominated landscape. *Ecology & Evolution* 10.1002/ece3.3650.
- Bayerl H, Kraus RHS, **Nowak C**, Foerster DW, Fickel J, Kuehn R: Fast and cost-effective single nucleotide polymorphism (SNP) detection in the absence of a reference genome using semi-deep next generation random amplicon sequencing (RAMseq). *Molecular Ecology Resources* 10.1111/1755-0998.12717 61.

- Hollerbach L, Heurich M, Reiners TE, **Nowak C**: Detection dogs allow for systematic non-invasive collection of DNA samples from Eurasian lynx (*Lynx lynx*). *Mammalian Biology* 90, 42-46.
- Karamanlidis AA, Skrbinek T, Krampokoukis L, de Gabriel Hernando M, Munoz-Fuentes V, Bailey Z, **Nowak C**, Stronen A (2018) History-driven population structure and asymmetric gene flow in a recovering large carnivore at the rear-edge of its European range. *Heredity* 120, 168.
- Von Thaden, Cocchiararo B, Jarausch A, Jüngling H, Karamanlidis AA, Tiesmeyer A, **Nowak C**, Munoz-Fuentes V (2017) Assessing SNP genotyping of noninvasively collected wildlife samples using microfluidic arrays. *Nature Scientific Reports* 7, 10768.
- Barnosky AD, Hadly EA, Gonzalez P, Head J, Polly PD, Lawing AM, Eronen JT, Ackerly DD, Alex K, Biber E, Blois J, Brashares J, Ceballos G, Davis E, Dietl GP, Dirzo R, Doremus H, Fortelius M, Greene H, Hellmann J, Hickler T, Jackson ST, Kemp M, Koch PL, Kremen C, Lindsey EL, Looy C, Marshall CR, Mendenhall C, Mulch A, Mychajliw AM, **Nowak C**, Ramakrishnan U, Schnitzler J, Kashish DS, Solari K, Stegner L, Allison Stegner M, Stenseth NC, Wake MH, Zhang Z (2017) No Going Back: Merging paleontology with conservation biology to guide the future of terrestrial ecosystems. *Science* 355, eaah4787.
- Lesniak I, Heckmann I, Heitlinger E, Szentiks CA, **Nowak C**, Harms V, Jarausch A, Reinhardt I, Kluth G, Hofer H, Krone O (2017) Endoparasite richness and diversity increase with population size and change with individual age in a recolonising expanding large carnivore population. *Nature Scientific Reports* 7, 41730.
- Hindrikson M, Remm J, Pilot M, Godinho R, Stronen AV, Baltrūnaitė L, Czarnomska SD, Leonard JA, Randi E, **Nowak C**, Åkesson M, López-Bao JV, Álvares F, Llana L, Echegaray J, Vilà C, Ozolins J, Rungis D, Aspi J, Paule L, Skrbinek T, Saarma U (2017) Wolf population genetics in Europe: a systematic review, meta-analysis and suggestions for conservation and management. *Biological Reviews* 92, 1601-1629.
- Zwijacz-Kozica T, Ważna A, Muñoz-Fuentes V, Tiesmeyer A, Cichocki J, **Nowak C** (2017): Not European wildcats, but domestic cats inhabit Tatra National Park. *Polish Journal of Ecology* 65, 115-121.
- Steyer K, Kraus RHS, Mölich T, Anders O, Cocchiararo B, Frosch C, Geib A, Götz M, Herrmann M, Hupe K, Kohnen A, Krüger M, Müller F, Pir J B, Reiners TE, Roch S, Schade U, Schiefenhövel P, Siemund M, Simon O, Steeb S, Streif S, Streit B, Thein J, Tiesmeyer A, Trinzen M, Vogel B, **Nowak C** (2016) Large-scale genetic census of an elusive carnivore, the European wildcat (*Felis s. silvestris*). *Conservation Genetics* 17, 1183–1199.
- de Groot GA, **Nowak C**, Skrbinek T, Andersen L, Aspi J, Fumagalli L, Godinho R, Harms, V, Jansman HAH, Liberg O, Marucco F, Mysłajek RW, Nowak S, Pilot M, Randi E, Reinhardt I, Śmietana W, Szewczyk M, Taberlet P, Vilà C, Muñoz-Fuentes V (2016) Decades of population genetic research call for harmonization of molecular markers: the grey wolf, *Canis lupus*, as a case study. *Mammal Review* 46, 44-59.
- Harms V, **Nowak C**, Carl S, Munoz-Fuentes V (2015) Experimental evaluation of genetic predator identification from saliva traces on wildlife kills. *Journal of Mammalogy* 96: 138-143.
- Kraus RHS, vonHoldt B, Cocchiararo B, Harms V, Bayerl H, Kühn R, Förster DW, Fickel J, Roos C, **Nowak C** (2015) A single-nucleotide polymorphism-based approach for rapid and cost-effective genetic wolf monitoring in Europe based on non-invasively collected samples. *Molecular Ecology Resources* 15: 295-305.