Thijs Janzen
IT
Theoretical Research in Evolutionary Life Sciences
Type of address: Postal address.
Postal address:
University of Groningen
Theoretical Research in Evolutionary Life Sciences
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Research interests

Scientific expertise
- Phylogenetics
- Phylogenetic reconstruction
- Population genetics
- Developing (individual-based) computer simulations
- Programming in R, C++, Rcpp, Python

ICT Support
- Programming & modeling support of MSc and PhD students
- Development and maintenance of R packages
- Development and Support of course 'C++ for Biologists'

Research outputs

Programming alphavirus with IFN-γ overrides the adverse effects of macrophages on oncolytic virotherapy
Horváthová, L., Hoogeboom, B. N., Janzen, T., Weissing, F., Daemen, T. & Bhatt, D., 16-Feb-2025, BioRxiv, 26 p.

Inbreeding and demography interact to impact population recovery from bottlenecks
Zheng, J., Rees-Baylis, E., Janzen, T., Zhang, Z., Zhan, X., Wang, D. & Richter, X.-Y. L., 15-Dec-2024, (Submitted) BioRxiv, 19 p.

Phylogenetic tree statistics: A systematic overview using the new R package 'treestats'
Janzen, T. & Etienne, R. S., Nov-2024, In: Molecular Phylogenetics and Evolution. 200, 15 p., 108168.

simRestore: A decision-making tool for adaptive management of the native genetic status of wild populations
Hernández, F., Janzen, T. & Lavretsky, P., Feb-2024, In: Molecular Ecology Resources. 24, 2, 15 p., e13892.

Phylogenetic tree statistics: A systematic overview using the new R package 'treestats'
Janzen, T. & Etienne, R. S., 29-Jan-2024, (Submitted) BioRxiv, 57 p.

Effects of virus-induced immunogenic cues on oncolytic virotherapy
Bhatt, D. K., Janzen, T., Daemen, T. & Weissing, F. J., 2024, In: Scientific Reports. 14, 1, 16 p., 28861.

The evolutionary age-range size relationship is modulated by insularity and dispersal in plants and animals
Alzate, A., Rozzi, R., Velasco, J. A., Robertson, D. R., Zizka, A., Tobias, J. A., Hill, A., Bacon, C. D., Janzen, T., Pellissier, L., Plas, F. V. D., Rosindell, J. & Onstein, R. E., 13-Nov-2023, (Submitted) BioRxiv, 19 p.

From fossils to living canids: Two contrasting perspectives on biogeographic diversification
Porto, L. M. V., Maestri, R., Janzen, T. & Etienne, R. S., 1-Sept-2023, (Submitted) BioRxiv, 20 p.

Modelling the spatial dynamics of oncolytic virotherapy in the presence of virus-resistant tumour cells
Bhatt, D. K., Janzen, T., Daemen, T. & Weissing, F., 6-Dec-2022, In: PLoS Computational Biology. 18, 12, 21 p., e1010076.

Resource sharing is sufficient for the emergence of division of labour
Kreider, J. J., Janzen, T., Bernadou, A., Elsner, D., Kramer, B. H. & Weissing, F. J., 24-Nov-2022, In: Nature Communications. 13, 1, 9 p., 7232.

Modelling the spatial dynamics of oncolytic virotherapy in the presence of virus-resistant tumor cells
Bhatt, D. K., Janzen, T., Daemen, T. & Weissing, F. J., 21-Sept-2022, In: Journal for immunotherapy of cancer. 10, Suppl 1, p. A43 1 p.

Nucleotide substitutions during speciation may explain substitution rate variation
Janzen, T., Bokma, F. & Etienne, R. S., Sept-2022, In: Systematic biology. 71, 5, p. 1244-1254 11 p.

nodeSub package for R: Simulate DNA Alignments Using Node Substitutions
Janzen, T., 19-Aug-2022

nLTT package for R: Normalised Lineage-Through-Time statistic
Janzen, T. (Developer), Bilderbeek, R. (Other) & Santos Neves, P. (Other), 24-May-2022

Resource sharing leads to the emergence of division of labour
Kreider, J. J., Janzen, T., Bernadou, A., Elsner, D., Kramer, B. H. & Weissing, F. J., 16-Apr-2022, (Submitted) BioRxiv, 16 p.

Modelling the spatial dynamics of oncolytic virotherapy in the presence of virus-resistant tumor cells
Bhatt, D., Janzen, T., Daemen, T. & Weissing, F., 8-Apr-2022, BioRxiv.

Estimating the time since admixture from phased and unphased molecular data
Janzen, T. & Miró Pina, V., Apr-2022, In: Molecular Ecology Resources. 22, 3, p. 908-926 19 p.

GUILDS package for R
Janzen, T. (Developer), Haegeman, B. (Developer), Jabot, F. (Developer) & Chave, J. (Developer), 24-Mar-2022

GenomeAdmixR package for R: Simulate Admixture of Genomes
Janzen, T. (Developer), Diaz, F. (Developer) & Bilderbeek, R. (Developer), 1-Mar-2022

junctions package for R
Janzen, T. (Developer), 24-Feb-2022

Individual-based simulations of genome evolution with ancestry: The GenomeAdmixR R package
Janzen, T. & Diaz, F., Aug-2021, In: Methods in ecology and evolution. 12, 8, p. 1346-1357 12 p.

Detecting phylodiversity-dependent diversification with a general phylogenetic inference framework
Richter Mendoza, F., Janzen, T., Hildenbrandt, H., Wit, E. & Etienne, R., 31-Jul-2021, (Submitted) BioRxiv, 19 p.

Community structure of vascular epiphytes: A neutral perspective
Janzen, T., Zotz, G. & Etienne, R. S., Jun-2020, In: Oikos. 129, 6, p. 853-867 15 p.

Recombining your way out of trouble: The genetic architecture of hybrid fitness under environmental stress
Zhang, Z., Bendixsen, D. P., Janzen, T., Nolte, A. W., Greig, D. & Stelkens, R., Jan-2020, In: Molecular Biology and Evolution. 37, 1, p. 167-182 16 p.

A simple spatially explicit neutral model explains the range size distribution of reef fishes
Alzate, A., Janzen, T., Bonte, D., Rosindell, J. & Etienne, R. S., Jul-2019, In: Global Ecology and Biogeography. 28, 7, p. 875-890 16 p.

Identifying hybrids & the genomics of hybridization: Mallards & American black ducks of Eastern North America
Lavretsky, P., Janzen, T. & McCracken, K. G., Mar-2019, In: Ecology and Evolution. 9, 6, p. 3470-3490 21 p.

The breakdown of genomic ancestry blocks in hybrid lineages given a finite number of recombination sites
Janzen, T., Nolte, A. W. & Traulsen, A., Apr-2018, In: Evolution. 72, 4, p. 735-750 16 p.

Modeling the contributions of chromosome segregation errors and aneuploidy to *Saccharomyces* hybrid sterility
Boynton, P. J., Janzen, T. & Greig, D., Jan-2018, In: Yeast. 35, 1, p. 85-98 14 p.

Inferring the role of habitat dynamics in driving diversification: evidence for a species pump in Lake Tanganyika cichlids
Janzen, T. & Etienne, R., 22-Dec-2017, (Submitted) BioRxiv, 42 p.

Community assembly in Lake Tanganyika cichlid fish: Quantifying the contributions of both niche-based and neutral processes
Janzen, T., Alzate Vallejo, A., Muschick, M., Maan, M. E., van der Plas, F. & Etienne, R. S., Feb-2017, In: Ecology and Evolution. 7, 4, p. 1057-1067 11 p.

STEPCAM package for R: STEPwise Community Assembly Model
Janzen, T. (Developer), van der Plas, F. (Developer) & Hauffe, T. (Developer), 21-Sept-2016

STEPCAM package for R: STEPwise Community Assembly Model
Janzen, T., Plas, F. V. D. & Hauffe, T., 21-Sept-2016

Haplotype block dynamics in hybrid populations
Janzen, T., Nolte, A. W. & Traulsen, A., 9-Jun-2016, (Submitted) BioRxiv, 13 p. (BioRxiv).

A sampling formula for ecological communities with multiple dispersal syndromes (vol 387, pg 258, 2015)
Janzen, T., Haegeman, B. & Etienne, R. S., 21-Dec-2015, In: Journal of Theoretical Biology. 387, p. 258-261 4 p.

A sampling formula for ecological communities with multiple dispersal syndromes
Janzen, T., Haegeman, B. & Etienne, R. S., 7-Jun-2015, In: Journal of Theoretical Biology. 374, p. 94–106 13 p.

A new modeling approach estimates the relative importance of different community assembly processes
van der Plas, F., Janzen, T., Ordonez, A., Fokkema, W., Reinders, J., Etienne, R. S. & Olff, H., Jun-2015, In: Ecology. 96, 6, p. 1502-1515 14 p.

Approximate Bayesian Computation of diversification rates from molecular phylogenies: Introducing a new efficient summary statistic, the nLTT
Janzen, T., Hoehna, S. & Etienne, R. S., May-2015, In: Methods in ecology and evolution. 6, 5, p. 566-575 10 p.

Cyclical succession in grazed ecosystems: The importance of interactions between different-sized herbivores and different-sized predators
Ruifrok, J. L., Janzen, T., Kuijper, D. P. J., Rietkerk, M., Olff, H. & Smit, C., May-2015, In: Theoretical Population Biology. 101, p. 31-39 9 p.

What lies beneath? How patterns in ecology and evolution inform us about underlying processes
Janzen, T., 2015, [S.l.]: [S.n.]. 221 p.

Can clade age alone explain the relationship between body size and diversity?
Etienne, R. S., de Visser, S. N., Janzen, T., Olsen, J. L., Olff, H. & Rosindell, J., 6-Apr-2012, In: Interface Focus. 2, 2, p. 170-179 10 p.

Employment

Scientific programmer
IT
Theoretical Research in Evolutionary Life Sciences
University of Groningen
1-Jul-2019 → present

Post Doc
Carl-von-Ossietzky University Oldenburg
Oldenburg, Germany
1-Jan-2017 → 1-Feb-2019

Post Doc
Department of Evolutionary Theory, Max Planck Institute for Evolutionary Biology, 24306, Plön, Germany.
1-Jan-2015 → 1-Jan-2017