

CURRICULUM VITAE

Camiel Doorenweerd, PhD.



Personals

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Languages: Dutch (native), English (fluent), French, German (passive),
Python, R, Bash, SQL

Research positions

2017-present **Junior Researcher** faculty, University of Hawai'i at Mānoa. Studying the evolution and recognition of invasive pests among orchid pollinating fruit flies (Tephritidae: Dacini).

Instruction

2018-present **Co-instructor** for PEPS 662 "Systematics and Phylogenetics" by Prof. Rubinoff
2019 **Co-instructor** USDA Fruit Fly workshop <http://www.fruitflyworkshop.com>
2019 **Instructor** for PEPS 690 Seminar on "Insect Evolution"
2018 **Instructor** one-day workshop on "Python for data analyses" for faculty and students
2017 **Guest lecturer** for University of Amsterdam "Evolution" (grad. lvl) by Prof. Roessingh
2015 **Guest lecturer** for Leiden University "Richness of the world" (grad. lvl) by Prof. Schilthuizen
2013-2016 Yearly **TA** for Leiden University "Biodiversity I" (undergrad. lvl) by Dr. Roos
2010 **Teacher** "Travelling DNA Lab" at Leiden University; teaching a molecular lab at highschools
2007 **TA** for Radboud University "Population Genetics" (grad. lvl) by Dr. Ouborg

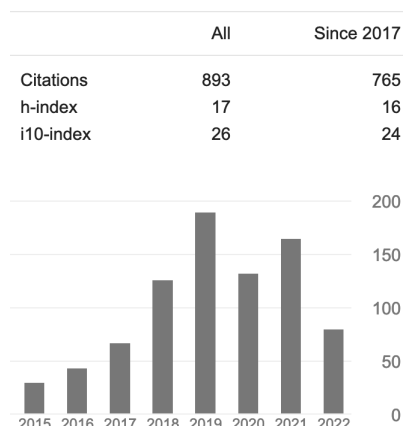
Education

2012-2016 **PhD** at **University of Amsterdam** and **Naturalis Biodiversity Center**. Research on the evolution of plant-insect interaction in leaf-mining moths using molecular methods. Promotor Prof. Dr. Steph B.J. Menken and co-promotor Dr. Erik J. van Nieukerken. Title obtained October 25, 2016.
2006-2009 **Masters Biology** (MSc.) at **Radboud University Nijmegen**, diploma received *bene meritum* August 31, 2010. Specialization: evolution and ecology.
2003-2008 **Bachelor Biology** (BSc.) at **Radboud University Nijmegen**, diploma received April 12, 2008. Includes one year of Dean's office membership as student-assessor.

Other relevant experience

2019-present **Treasurer** for Arch Climbing Foundation 501(c)(3) non-profit, an organization that promotes sustainable rock climbing in Hawai'i
2014-2017 **Secretary** for the microlepidoptera section Snellen of the Netherlands Entomological Society.
2010-2012 **Project manager** tasked with establishing molecular laboratory infrastructure [~1.2\$ million budget] for high-throughput DNA barcoding at Naturalis Biodiversity Center
2009-2010 **Senior technical assistant** curating the leaf-mining Lepidoptera collections at Naturalis Biodiversity Center

SCIENTIFIC PUBLICATIONS



Google scholar tracked citation statistics [June-06-2022]

Profile page: <https://scholar.google.com/citations?user=97LLeawAAAAJ&hl=en>

Reviewer for: Molecular Ecology (2), Molecular Ecology Resources (1), Heredity (2), ZooKeys (11), Zootaxa (2), Systematics and Biodiversity (1), Sustainability (1), Proceedings of the Hawaiian Entomological Society (4), Pest Management Science (1), Journal of the Kansas Entomological Society (1), Agricultural and Forest Entomology (1), Diversity (1), Systematic Entomology (3), Turkish journal of Zoology (1), Nota Lepidopterologica (3), Insects (3), PeerJ (2), PLoS One (2), BMC Evolutionary Biology (1), Proceedings B (1), Entomologische Berichten (3), Contributions to Zoology (1), Australian Entomologist (2), Foods (1), Ecological Research (1), Scientific Reports (3), Forensic Science International (1), Biochemical Systematics and Ecology (1), Zoology (1).

List of publications in reverse chronological order:

2021

44. Cupedo F., **Doorenweerd C.** 2022. Mitochondrial DNA-based phylogeography of the large ringlet *Erebia euryale* (Esper, 1805) suggests recurrent Alpine-Carpathian disjunctions during Pleistocene (Nymphalidae, Satyrinae). *Nota Lepidopterologica*. 45:65–86. <https://doi.org/10.3897/nl.45.68138>
43. Li X., Laurent R.S., Earl C., **Doorenweerd C.**, van Nieukerken E.J., Davis D.R., Johns C.A., Kawakita A., Kobayashi S., Zwick A., Lopez-Vaamonde C., Ohshima I., Kawahara A.Y. 2021. Phylogeny of gracillariid leaf-mining moths: evolution of larval behaviour inferred from phylogenomic and Sanger data. *Cladistics*. 38(3): 277–300. <https://doi.org/10.1111/cla.12490>
42. Leblanc L., Tsatsia F., **Doorenweerd C.** 2021. Novel lures and COI sequences reveal cryptic new species of *Bactrocera* fruit flies in the Solomon Islands (Diptera, Tephritidae, Dacini). *ZooKeys*. 1057:49–103. <https://doi.org/10.3897/zookeys.1057.68375>
41. Rubinoff D., **Doorenweerd C.**, McElfresh J.S., Millar J.G. 2021. Phylogeography of an endemic California silkmoth genus suggests the importance of an unheralded central California province in generating regional endemic biodiversity. *Molecular Phylogenetics and Evolution*. 164:107256. <https://doi.org/10.1016/j.ympev.2021.107256>
40. **Doorenweerd C.**, Austin K.A., Rubinoff D. First Confirmed Record of Leaf Mining in the Fruitworm Moths (Carposinidae): A New Species Feeding on an Endemic Hawaiian *Clermontia* (Campanulaceae). *Proceedings of the Hawaiian Entomological Society*. 53:11–19. <http://hdl.handle.net/10125/75856>

2020

39. Lopez-Vaamonde C., Kirichenko N., Cama A., **Doorenweerd C.**, Godfray H.C.J., Guiguet A., Gomboc S., Huemer P., Landry J.F., Laštůvka A., Laštůvka Z., Lee K.M., Lees D.C., Mutanen M., Nieukerken E.J. van, Segerer A.H., Triberti P., Wieser C., Rougerie R. 2021. Evaluating DNA Barcoding for Species Identification

and Discovery in European Gracillariid Moths. *Frontiers in Ecology and Evolution*. 9:1–16. <https://doi.org/10.3389/fevo.2021.626752>

38. **Dooreenweerd, C.**, San Jose, M., Leblanc, L., Barr, N., Geib, S., Chung, A.Y.C., Dupuis, J., Ekayanti, A., Fiegalan, E.R., Hemachandra, K.S., Hossain, M.A., Huang, C.-L., Hsu, Y.-F., Morris, K.Y., Mustapeng, A.M., Niogret, J., Hong Pham, T., Sirisena, U.G.A.I., Rubinoff, D. 2020. DNA barcodes and reliable molecular identifications in a diverse group of invasive pests: lessons from *Bactrocera* fruit flies on variation across the COI gene, introgression, and standardization. *bioRxiv*. <https://doi.org/10.1101/2020.11.23.394510>
37. **Dooreenweerd, C.**, Ekayanti, A., Rubinoff, D. 2020. The Dacini fruit fly fauna of Sulawesi fits Lydekker's line but also supports Wallacea as a biogeographic region (Diptera, Tephritidae). *ZooKeys* 973: 103–122. DOI: <https://doi.org/10.3897/zookeys.973.55327>
36. **Dooreenweerd, C.**, Sievert, S., Rossi, W., Rubinoff, D. 2020. The paradoxical rarity of a fruit fly fungus attacking a broad range of hosts. *Ecology and Evolution* 1–9. DOI: <https://doi.org/10.1002/ece3.6585>
35. **Dooreenweerd, C.**, San Jose, M., Barr, N., Leblanc, L., Rubinoff, D. 2020. Highly variable COI haplotype diversity between three species of invasive pest fruit fly reflects remarkably incongruent demographic histories. *Scientific Reports* 10 6887 DOI: <https://doi.org/10.1038/s41598-020-63973-x>. [Preprint Aug 2019: *BioRxiv*. 742007. DOI: <https://doi.org/10.1101/742007>]
34. Cupedo, F., **Dooreenweerd, C.** 2020. The intraspecific structure of the Yellow-spotted ringlet *Erebia manto* (Denis & Schiffermüller, [1775]), with special reference to the bubastis group: an integration of morphology, allozyme and mtDNA data (Lepidoptera, Nymphalidae, Satyrinae). *Nota Lepidopterologica* 43: 43–60. DOI: <https://doi.org/10.3897/nl.43.47409>
33. Rubinoff, D., **Dooreenweerd, C.** 2020. Systematics and biogeography reciprocally illuminate taxonomic revisions in the silkmooth genus *Saturnia* (Lepidoptera: Saturniidae). *Journal of the Lepidopterists' Society* 74(1): 1–6. DOI: <https://doi.org/10.18473/lepi.74i1.a1>
32. Rubinoff, D., **Dooreenweerd, C.** 2020. In and out of America: Ecological and species diversity in Holarctic giant silkmooths suggests unusual dispersal, defying the dogma of an Asian origin. *Journal of Biogeography* 47(4): 903–914. DOI: <https://doi.org/10.1111/jbi.13756>

2019

31. Leblanc, L., Hossain, M. A., **Dooreenweerd, C.**, Khan, S. A., Momen, M., San Jose, M., Rubinoff, D. 2019. Six years of fruit fly surveys in Bangladesh: a new species, 33 new country records and recent discovery of the highly invasive *Bactrocera carambolae* (Diptera: Tephritidae). *ZooKeys* 109: 87–109 Aug 15 2019. DOI: <https://doi.org/10.3897/zookeys.876.38096>
30. Sohn, J.-C., **Dooreenweerd, C.**, Nam, K. S., Choi, S.-W. 2019. New leaf-mine fossil from the Geumgwangdong Formation, Pohang Basin, South Korea, associates pygmy moths (Lepidoptera, Nepticulidae) with beech trees (Fagaceae, Fagus) in the Miocene. *Journal of Paleontology* 93(2): 337–342. DOI: <https://doi.org/10.1017/jpa.2018.83>
29. Breeschoten, T., **Dooreenweerd, C.**, Tarasov, S., Vogler, A.P. 2019. Incorporating older literature into genomic studies: A response to Zunino & Halffter. *Molecular Phylogenetics and Evolution* 133: 164. DOI: <https://doi.org/10.1016/j.ympev.201901010>
28. **Dooreenweerd, C.**, Leblanc, L., Hsu, Y-F, Huang, C-L, Lin, Y-C, San Jose, M., Rubinoff, D. 2019. Taiwan's Dacini fruit flies: rare endemics and abundant pests, along altitudinal gradients. *Pacific Science* 74(1): 35–59. DOI: <https://doi.org/10.2984/73.1.3>

2018

27. Leblanc, L., **Dooreenweerd, C.**, San Jose, M., Pham, H.T., Rubinoff, D. 2018. Descriptions of four new species of *Bactrocera* and new country records highlight the high biodiversity of fruit flies in Vietnam (Diptera, Tephritidae, Dacinae). *ZooKeys* 797: 87–115. DOI: <https://doi.org/10.3897/zookeys.797.29318>
26. Reil, J. B., **Dooreenweerd, C.**, San Jose, M., Sim, S., Geib, S., Rubinoff, D. 2018. Transpacific coalescent pathways of coconut rhinoceros beetle biotypes: resistance to biological control catalyzes resurgence of an old pest. *Molecular Ecology* early online. DOI: <https://doi.org/10.1111/mec.14879>

25. San Jose, M., **Dooreenweerd, C.**, Leblanc, L., Barr, N., Geib, S., Rubinoff, D. 2018. Tracking the origins of fly invasions: using mitochondrial haplotype diversity to identify potential source populations in two genetically intertwined fruit fly species (*Bactrocera carambolae* and *Bactrocera dorsalis*). *Journal of Economic Entomology* 111(6): 2914–2926 DOI: <https://doi.org/10.1093/jee/toy272>
24. **Dooreenweerd, C.**, Leblanc, L. 2018. Unusual dark forms of the *Solanum* fruit fly *Bactrocera latifrons* (Hendel) in Hawaii (Tephritidae: Dacini). *Proceedings of the Hawaiian Entomological Society* 50: 17–23.
23. Kirichenko, N., Triberti, P., Kobayashi, S., **Dooreenweerd, C.**, Ohshima, I., Huang, G.H., Wang, M., Magnoux, E., Lopez-Vaamonde, C. 2018. Systematics of *Phyllocnistis* leaf-mining moths (Lepidoptera, Gracillariidae) feeding on dogwood (*Cornus* spp.) in Northeast Asia, with the description of three new species. *Zookeys* 736: 79–118. DOI: <https://doi.org/10.3897/zookeys.736.20739>
22. Kobayashi, S., John, C.A., Lopez-Vaamonde, C., **Dooreenweerd, C.**, Kawakita, A., Ohshima, I., Lees, D.C., Hanabergh, S., Kawahara, A.Y. 2018. Hawaiian *Philodoria* (Lepidoptera, Gracillariidae, Orniolininae) leaf mining moths on *Myrsine* (Primulaceae): two new species and biological data. *Zookeys* 773: 109–141. DOI: <https://doi.org/10.3897/zookeys.773.21690>
21. van Nieukerken, E.J., Lees, D.C., **Dooreenweerd, C.**, Koster, J.C., Bryner, R., Scheurs, A., Timmermans, M.J.T.N., Sattler, K. 2018. Two European *Cornus* L. feeding leafmining moths, *Antispila petryi* Martini, 1899, sp. rev. and *A. treitschkiella* (Fischer von Röslerstamm, 1843) (Lepidoptera, Heliozelidae): an unjustified synonymy and overlooked range expansion. *Nota Lepidopterologica* 41(1): 39–86. DOI: <https://doi.org/10.3897/nl.41.22264>
20. Milla, L., van Nieukerken, E.J., Vijverberg, R., **Dooreenweerd, C.**, Wilcox, S.A., Halsey, M., Young, D.A., Jones, T.M., Kallies, A., Hilton, D.J. 2018 A preliminary molecular phylogeny of shield-bearer moths (Lepidoptera: Heliozelidae) highlights rich undescribed diversity. *Molecular Phylogenetics and Evolution*, 120: 129–143. DOI: <https://doi.org/10.1016/j.ympev.2017.12.004>
19. **Dooreenweerd, C.**, Leblanc, L., Norrbom, A.L., San Jose, M., Rubinoff, D. 2018. A global checklist of the 932 fruit fly species in the tribe Dacini (Diptera, Tephritidae). *Zookeys*, 730, 19–56. DOI: <https://doi.org/10.3897/zookeys.730.21786>
18. San Jose, M., **Dooreenweerd, C.**, Leblanc, L., Barr, N., Geib, S., Rubinoff, D. 2018. Incongruence between molecules and morphology: A seven-gene phylogeny of Dacini fruit flies paves the way for reclassification (Diptera: Tephritidae). *Molecular Phylogenetics and Evolution* 121: 139–149. DOI: <https://doi.org/10.1016/j.ympev.2017.12.001>

2017

17. **Dooreenweerd, C.**, van Nieukerken, E.J., Hoare, R. 2017. Phylogeny, classification and divergence times of pygmy leafmining moths (Lepidoptera: Nepticulidae): the earliest lepidopteran radiation on Angiosperms? *Systematic Entomology*, 42 (1), 267–287. DOI: <https://doi.org/10.1111/syen.12212>

2016

16. van Nieukerken, E.J., **Dooreenweerd, C.**, & Hoare, R.J.B. 2016. Revised classification and catalogue of global Nepticulidae and Opostegidae (Lepidoptera: Nepticuloidea). *Zookeys* 628: 65–246. DOI: <https://doi.org/10.3897/zookeys.628.9799>
15. Breeschoten, T., **Dooreenweerd, C.**, Tarasov, S., & Vogler, A.P. (2016) Phylogenetics and biogeography of the dung beetle genus *Onthophagus* inferred from mitochondrial genomes. *Molecular Phylogenetics and Evolution* 105: 86–95. DOI: <https://doi.org/10.1016/j.ympev.2016.08.016>
14. Jordan, M.P., Langmaid, J.R., & **Dooreenweerd, C.** 2016. Morphological difference between upperside and underside leaf-mining larvae of *Phyllocnistis unipunctella* (Stephens, 1834) (Lep.:Gracillariidae) and its changing phenology. *Entomologist's Record and Journal of Variation* 128: 121–127.
13. Mutanen, M., Kivela, S.M., Vos, R.A., **Dooreenweerd, C.**, Ratnasingham, S., Hausmann, A., Huemer, P., Dinca, V., van Nieukerken, E.J., Lopez-Vaamonde, C., Vila, R., Aarvik, L., Decaens, T., Efetov, K.A., Hebert, P.D., Johnsen, A., Karsholt, O., Pentinsaari, M., Rougerie, R., Segerer, A., Tarmann, G., Zahiri, R., & Godfray, H.C. 2016. Species-level Para- and Polyphyly in DNA Barcode Gene Trees: Strong Operational Bias in European Lepidoptera. *Systematic Biology* 65(6): 1024–1040. DOI: <https://doi.org/10.1093/sysbio/syw044>

12. van Nieukerken, E.J., **Dooreenweerd, C.**, Nishida, K., Snyers, C., & Hoare, R.J.B. 2016. New taxa, including two new genera show uniqueness of Neotropical Nepticulidae (Lepidoptera). *ZooKeys* 628: 1–63. DOI: <https://doi.org/10.3897/zookeys.628.9805>

2015

11. **Dooreenweerd, C.**, van Nieukerken, E.J., Menken, S.B.J. 2015. A global phylogeny of leafmining *Ectoedemia* moths (Lepidoptera: Nepticulidae): exploring host plant family shifts and allopatry as drivers of speciation. *PLoS One*, 10, e0119586. DOI: <https://doi.org/10.1371/journal.pone.0119586>
10. van Roosmalen, J.A.M. & **Dooreenweerd, C.** 2015. *Coleophora gryphipennella* (Hübner, 1796) (Lepidoptera, Coleophoridae) on *Fragaria vesca* L. (Rosaceae), a novel host, in the coastal dunes of The Netherlands. *Nota Lepidopterologica* 38, 147–155.
9. **Dooreenweerd, C.**, van Nieukerken, E.J., Sohn, J.-C., Labandeira, C.C. 2015. A revised checklist of Nepticulidae fossils (Lepidoptera) indicates an Early Cretaceous origin. *Zootaxa* 422, 87–101. DOI: <https://doi.org/10.11646/zootaxa.3963.3.2>

2014

8. **Dooreenweerd, C.**, As, B.v., & Scheffers, J. 2014. The explosive expansion of the lime leaf miner in Europe: invading the Netherlands? *Entomologische Berichten* 74, 111–114.
7. Trimbos, K.B., **Dooreenweerd, C.**, Kraaijeveld, K., Musters, C.J.M., Groen, N.M., de Knijff, P., Piersma, T., & de Snoo, G.R. 2014. Patterns in Nuclear and Mitochondrial DNA Reveal Historical and Recent Isolation in the Black-Tailed Godwit (*Limosa limosa*). *PLoS One*, 9(1), e83949. DOI: <https://doi.org/10.1371/journal.pone.0083949>
6. **Dooreenweerd, C.**, van Haren, M.M., Schermer, M., Pieterse, S., & van Nieukerken, E.J. 2014. A Linnaeus NG (TM) interactive key to the Lithocolletinae of North-West Europe aimed at accelerating the accumulation of reliable biodiversity data (Lepidoptera, Gracillariidae). *ZooKeys* 422, 87–101. DOI: <https://doi.org/10.3897/zookeys.422.7446>

2013

5. Groenen, F., Huisman, K.J.H., & **Dooreenweerd, C.** 2013. *Phalonidia manniana*, a complex of two species: *Ph. manniana* and *Ph. udana* (Lepidoptera: Tortricidae). *Entomologische Berichten* 73, 191–196.

2012

4. van Nieukerken, E.J., **Dooreenweerd, C.**, Stokvis, F.R., Groenenberg, D.S.J. 2012. DNA barcoding of the leaf-mining moth subgenus *Ectoedemia* s. str. (Lepidoptera: Nepticulidae) with COI and EF1- α : two are better than one in recognising cryptic species. *Contributions to Zoology* 81, 1–24.
3. van Nieukerken, E., Wagner, D., Baldessari, M., Mazzon, L., Angeli, G., Girolami, V., Duso, C., & **Dooreenweerd, C.** 2012. *Antispila vinophylla* new species (Lepidoptera, Heliozelidae), a new North American grapevine leafminer invading Italian vineyards: taxonomy, DNA barcodes and life cycle. *ZooKeys*, 170, 29–77. DOI: <https://doi.org/10.3897/zookeys.170.2617>
2. van Nieukerken, E.J., **Dooreenweerd, C.**, Ellis, W.N., Huisman, K.J., Koster, J.C., Mey, W., Muus, T.S.T., & Schreurs, A. 2012. *Bucculatrix ainsliella* Murtfeldt, a new North American invader already widespread on northern red oaks (*Quercus rubra*) in Western Europe (Bucculatricidae). *Nota Lepidopterologica* 35, 135–159.
1. van Nieukerken, E.J., Mutanen, M., & **Dooreenweerd, C.** 2012. DNA barcoding resolves species complexes in *Stigmella salicis* and *S. aurella* species groups and shows additional cryptic speciation in *S. salicis* (Lepidoptera: Nepticulidae). *Entomologisk Tidskrift* 132, 235–255.

PRESENTATIONS

2020

Invited speaker at the 5th webinar of the Sabah Forestry Department, 101 viewers from 36 organizations. **Orchid pollinating fruit flies: both a pest and a conservation concern in the forests of Sabah.** C. Doorenweerd, D. Rubinoff, A. Chung & A. Maryani Mustapeng

2019

Oral presentation at the Evolution conference in Providence (USA: RI): **Unprecedented convergence in the world's largest mimicry complex yet.** C. Doorenweerd, M. San Jose & D. Rubinoff

2018

Poster presentation at the American Genetics Association conference in Hawaii: **Synomone driven evolutionary diversification of Dacini fruit flies?** C. Doorenweerd, M. San Jose, L. Leblanc, N. Barr, S. Geib, J. Dupuis, D. Rubinoff

Poster presentation at the Evolution symposium in Montpellier (FR): **Fossil calibrated phylogenies reveal patterns of diversification in leaf-mining micromoths.** C. Doorenweerd, C. Lopez-Vaamonde, F. Condamine, S.B.J. Menken, E.J. van Nieukerken

2017

Oral presentation at the Symposium on Insect-Plant Interactions in Tours (FR): **Host plant use and diversification in leaf-mining moths.** C. Doorenweerd, C. Lopez-Vaamonde, F. Condamine, S.B.J. Menken, E.J. van Nieukerken.

Invited speaker at retirement symposium for Dr. Erik van Nieukerken in Leiden (NL): **Is there a future for DNA Barcoding?** C. Doorenweerd

Oral presentation at the Entomological Society of America conference in Denver (USA): **A genetic approach for the systematics of Dacini fruit flies (Diptera: Tephritidae: Dacinae).** C. Doorenweerd, M. San Jose, L. Leblanc, D. Rubinoff

2016

Oral presentation at the Gracillariidae working group symposium in Hawaii: **Diversification and host relations in Lithocolletinae and Nepticulidae.** C. Doorenweerd, E. J. van Nieukerken, C. Lopez-Vaamonde, S.B.J. Menken.

2015

Organized conference session “Multitropic interactions” with Carlos-Lopez Vaamonde at the Societas Europaeas Lepidopterologica conference in Dresden (GER). Oral presentation: **Adaptive radiations and speciation rates in Holarctic lineages of leafmining Lepidoptera.** C. Doorenweerd, E.J. van Nieukerken & C. Lopez-Vaamonde

Invited speaker at retirement symposium for Dr. Sandrine Ulenberg in Leiden (NL): **Macro-evolutionary speciation patterns of leafmining moths.** C. Doorenweerd

2014

Oral presentation at the Gracillariidae working group symposium in Kozagawa (JPN): **Phylogenies, ecological and allopatric speciation, and leaf-mining moths.** C. Doorenweerd

2013

Oral presentation at the Societas Europaeas Lepidopterologica conference in Bulgaria: **Diet conservatism and distant host shifts allowed for global radiation in *Ectoedemia* sensu stricto (Nepticulidae).** C. Doorenweerd & E.J. van Nieukerken

2011

Oral presentation at the Societas Europaeas Lepidopterologica conference in Luxembourg: **Barcoding complete Lepidopteran fauna's: challenges and opportunities.** C. Doorenweerd & E.J. van Nieukerken

Poster presentation at the International DNA Barcoding conference in Adelaide (AUS): **DNA Barcoding at the NCB Naturalis.** B. van der Hoorn, C. Doorenweerd, F.R. Stokvis, O.F.J. Vorst, E.J. van Nieukerken, J. van Tol