

## Publications

### Book Chapters, reviews and selected short communications

1. Hadrys H & G Rüppell (1987) *Tramea lacerata* (Libellulidae) - Oviposition behaviour. *Publ. Wiss. Film*, Goettingen, E 2996, 1-7.
2. Rüppell G & H Hadrys (1988) *Anax junius* (Aeshnidae) - Sexual male competition and oviposition behaviour. *Publ. Wiss. Film*, Goettingen, E 2998, 1-12.
3. Rüppell G, Rudolph R, Hadrys H (1989) *Perithemis tenera* (Libellulidae) - Reproductive strategy. *Publ. Wiss. Film*, Goettingen, E 3000, 3-10.
4. Hadrys H & MT Siva-Jothy (1994) Unravelling the components that underlie insect reproductive traits using a simple molecular approach, in: Schierwater B, GP Wagner, B Streit, R DeSalle (eds.) *Molecular Ecology and Evolution: Approaches and Applications*. Birkhaeuser, Basel, 1994, 211-228.
5. Schierwater B, A Ender, W Schroth, H Holzmann, A Diez, B Streit & H Hadrys (1996) Arbitrarily amplified DNA in ecology and evolution, in: Caetano-Anolles G & Gresshoff PM (eds.). *DNA Markers: Protocols, Applications and Overviews*. Wiley & Son, New York, 196-214.
6. Siva-Jothy MT & H Hadrys (1998) A role for molecular biology in testing ideas about cryptic female choice, in: DeSalle R & B Schierwater (eds.). *Molecular Approaches to Ecology and Evolution*. Birkhaeuser, Basel, 37-53.
7. Hadrys H & A Melber (2004) Biodiversität und Artenschutz: Paradebeispiel Libellen. In: *Stiftung Tierärztliche Hochschule - Forschung fürs Leben 2004: Umwelt und Biodiversität*, VMK Verlag, Monsheim, 32-34.
8. Damm S, Hadrys H (2010) Dispersal strategies of desert inhabiting dragonflies – comparative population genetic study of five widely distributed species. – In: Schmiedel, U., Jürgens, N. [Eds.]: *Biodiversity in southern Africa. Volume 2: Patterns and processes at regional scale*: pp. 167–174, Klaus Hess Publishers, Göttingen & Windhoek
9. Schierwater B, Eitel M, Osigus HJ, von der Chevallerie K, Bergmann T, Hadrys H, Cramm M, Heck L, Jakob W, Lang M, DeSalle R (2011) Trichoplax and Placozoa: one of the crucial keys to understanding metazoan evolution. In: Schierwater B, DeSalle R, (eds.) *Key Transitions in Animal Evolution*. Science Publishers & CRC Press Enfield, pp. 289-326
10. Simon S and Hadrys H (2014) Phylogeny of the most species rich group on Earth, the Pterygota: Ancient problems, living hypotheses and bridging gaps. Chapter DFG Book "Deep Metazoan Phylogeny"

### Original Works

11. Rehfeldt G & H Hadrys (1988) Interspecific competition in *Sympetrum sanguineum* (M.) and *S. flaveolum* (L.) (Anisoptera: Libellulidae). *Odonatologica* 17, 213-225.
12. Hadrys H, Schierwater B, Mrowka W (1990) The feeding behaviour of a semi-sessile hydromedusa and how it is affected by the mode of reproduction. *Anim Behav* 40, 935-944.
13. Hadrys H (1991) Postcopulatory male competition and DNA fingerprinting in dragonflies. *Verh Dt Zool Ges* 84, 306-307.
14. Hadrys H, M Balick, B Schierwater (1992) Applications of Random Amplified Polymorphic DNA (RAPD) in molecular ecology. *Molecular Ecology* 1, 55-63.
15. Hadrys H, B Schierwater, R DeSalle, SL Dellaporta & LW Buss (1993) Determination of paternity in dragonflies by Random Amplified Polymorphic DNA fingerprinting. *Molecular Ecology* 2, 79-87.

16. Hadrys H (1993) Analysis of reproductive success in insect mating systems by RAPD fingerprinting. *Verh Dt Zool Ges* 86.2, 15-20.
17. Schierwater B & H Hadrys (1998) Environmental Factors and Metagenesis in the Hydrozoan *Eleutheria dichotoma*. *Journal of Invertebrate Reproduction and Development* 34, 139-148.
18. Misof B, Anderson CL & H Hadrys (2000) A phylogeny of the damselfly genus *Calopteryx* (Odonata) using mitochondrial 16s rDNA markers. *Molecular Phylogenetics and Evolution* 15, 5-14.
19. Fincke OM & H Hadrys (2001) Unpredictable offspring survivorship in a tree hole damselfly shapes parental behavior, constrains sexual selection and challenges traditional fitness correlates. *Evolution* 55, 762-772.
20. Voigt O, Collins AC, Pearse VB, Pearse JS, Hadrys H, Ender A and B Schierwater (2004) Placozoa: No longer a phylum of one. *Current Biology* 14, R1-R3, R944-R945.
21. Collins AG, Winkelmann S, Hadrys H and B Schierwater (2005) Phylogeny of Capitata (Cnidaria, Hydrozoa) and Corynidae in light of mitochondrial 16S rDNA data. *Zoologica Scripta* 34, 91-99.
22. Hadrys H, Schroth W, Streit B and OM Fincke (2005) Tree hole odonates as environmental monitors: Non-invasive isolation of polymorphic microsatellites from the neotropical damselfly *Megaloprepus coerulatus*. *Conservation Genetics* 6, 481-483.
23. Giere S and H Hadrys (2006) Polymorphic microsatellite loci to study population dynamics in a dragonfly, the libellulid *Trithemis arteriosa* (Burmeister, 1839) *Molecular Ecology* N 6 (3), 933-935.
24. Hadrys H, Clausnitzer V and LF Groeneveld (2006) The present role and future promise of conservation genetics for forest odonates: Habitat specificity reflects population genetic structures in three African damselflies. In: Cordero A (ed.) *Forests and Dragonflies*. Pensoft Publishers, Sofia pp. 279-299.
25. Groeneveld LF, Clausnitzer V and H Hadrys (2007) Convergent evolution of gigantism in damselflies of Africa and South America? Evidence from nuclear and mitochondrial sequence data. *Molecular Phylogenetics and Evolution* 42 (2), 339-346.
26. Hadrys H, Wargel A, Giere S, Kraus B, and B Streit (2007) A panel of microsatellite markers to detect and monitor demographic bottlenecks in the riverine dragonfly *Orthetrum coerulescens* F. *Molecular Ecology* 7 (2), 287-289.
27. Hadrys H, Timm J, Streit B and S Giere (2007) A panel of microsatellite markers to study sperm precedence patterns in the Emperor Dragonfly *Anax imperator* (Odonata, Anisoptera). *Molecular Ecology* 7 (2), 296-298.
28. Lorenzo Carballa O, Giere S, Cordero A, and H Hadrys (2007) Isolation and characterization of microsatellite loci to study parthenogenesis in the Citrine Forktail *Ischnura hastata* (Odonata: Coenagrionidae). *Molecular Ecology* 7 (5), 839-841.
29. Dijkstra KDB, Groeneveld LF, Clausnitzer V and H Hadrys (2007) The Pseudagrion split: molecular phylogeny confirm the morphological and ecological dichotomy of Africa's most diverse damselfly genus (Odonata, Coenagrionidae). *International Journal of Odonatology* 10, 31-41.
30. Rach J, DeSalle R, Sarkar IN, Schierwater B and H Hadrys (2008) Character-based DNA barcoding allows discrimination of genera, species and populations in Odonata. *Proceeding of the Royal Society London B* 275, 237-247
31. Schierwater B, Eitel M, Jakob W, Oesigus HJ, Hadrys H, Dellaporta S, Kolokotronis SO and R DeSalle (2009). Concatenated Molecular and Morphological Analysis Sheds Light on Early

- Metazoan Evolution and Fuels a Modern “Urmetazoon” Hypothesis. *PLoS Biology* 7(1): e1000020. doi:10.1371/journal.pbio.1000020
32. Damm S and H. Hadrys (2009) *Trithemis morrisoni* sp. nov. and *T. palustris* sp. nov. from the Okavango and Upper Zambezi Floodplains previously hidden under *T. stictica* (Odonata: Libellulidae). *International Journal of Odonatology*. 12, 131-145.
  33. de Jong D, Eitel M, Jakob W, Osigus H.-J, Hadrys H, DeSalle R and B Schierwater (2009) Multiple Dicer genes in the early diverging Metazoa. *Molecular Biology and Evolution* 26, 1333–1340.
  34. von Reumont BM, Meusemann K, Szucsich NU, Dell’Ampio E, Gowri-Shankar V, Bartel D, Simon S, Letsch HO, Stocsits RR, Luan Y, Wägele JW, Pass G, Hadrys H and B Misof (2009) Can comprehensive background knowledge be incorporated into substitution models to improve phylogenetic analyses? A case study on major arthropod relationships. *BMC Biology* 9, 119.
  35. Simon S, Strauss S, von Haeseler A and H Hadrys (2009) A phylogenomic approach to resolve the basal pterygote divergence. *Molecular Biology and Evolution* 26, 2719–2730.
  36. Bergmann T, Hadrys H, Breves G and B Schierwater (2009) Character-based DNA barcoding - A superior tool for species classification. *Berliner und Münchener Tierärztliche Wochenschrift - BMTW* 122, 446-450.
  37. Damm S, Dijkstra K-D B and H Hadrys (2010) Red drifters and dark residents: Africa’s changing environment reflected in the phylogeny and ecology of a Plio-Pleistocene dragonfly radiation (Odonata, Libellulidae, *Trithemis*). *Molecular Phylogenetics and Evolution* 54, 870-882.
  38. Damm S, Schierwater B and H Hadrys (2010) An integrative approach for species discovery - From character-based DNA-barcoding to ecology. *Molecular Ecology* 19, 3881-3893.
  39. Simon S, Schierwater B and H Hadrys (2010) On the value of Elongation factor-1 $\alpha$  for reconstructing pterygote insect phylogeny. *Molecular Phylogenetics and Evolution* 54(2), 651-656.
  40. Meusemann K, von Reumont BM, Simon S, Roeding F, Kück P, Strauss S, Ebersberger I, Walz M, Pass G, Breuers S, Achter V, von Haeseler A, Burmester T, Hadrys H, Wägele JW and B Misof (2010). A phylogenomic approach to resolve the arthropod tree of life. *Molecular Biology and Evolution* 27(11), 2451-2464.
  41. Eitel M, Guidi L, Hadrys H, Balsamo M and B Schierwater (2011) New insights into placozoan sexual reproduction and development. *PLoS ONE* 6(5), e19639
  42. Rehm P, Borner J, Meusemann K, von Reumont BM, Simon S, Hadrys H, Misof B and T Burmester (2011) Dating the arthropod tree based on large-scale transcriptome data. *Molecular Phylogenetics and Evolution* 61(3), 880-7.
  43. Olalla Lorenzo-Carballa M, Hadrys H, Cordero-Rivera A and JA Andrés (2011) Population genetic structure of sexual and parthenogenetic damselflies inferred from mitochondrial and nuclear markers. *Heredity* 108, 386-395.
  44. Damm, S and H Hadrys (2012) A dragonfly in the desert: genetic pathways of the widespread *Trithemis arteriosa* (Odonata: Libellulidae) suggests male-based dispersal. *Organisms Diversity and Evolution*, doi: 10.1007/s13127-012-0079-1
  45. Hadrys H, Simon S, Kaune B, Khadjeh S, Schmitt O, Schöner A and Jakob W (2012) Isolation of Antennapedia genes from insects in development and evolution. *PLoS ONE* 7(6), e34682
  46. Simon S, Narechania A, DeSalle R, Hadrys H (2012) Insect Phylogenomics: Exploring the Source of Incongruence Using New Transcriptomic Data. *Genome Biology and Evolution* 4: 1295-1309.

47. Bergmann T, Rach J, Damm S, Desalle R, Schierwater B and Hadrys H (2013) The potential of distance-based thresholds and character-based DNA barcoding for defining problematic taxonomic entities by CO1 and ND1. *Mol Ecol Resour.* 13, 1069-1081.
48. Bernt M, Bleidorn C, Braband A, Dambach J, Donath A, Hadrys H et al. (2013) A comprehensive analysis of bilaterian mitochondrial genomes and phylogeny. *Molecular Phylogeny and Evolution* 69/2, 352-364.
49. Simon S and Hadrys H (2013) A comparative analyses of complete mitochondrial genomes among Hexapoda. *Molecular Phylogeny and Evolution* 69/2, 393-403.
50. Feindt W, Fincke O and Hadrys H (2014) Genetic diversification and niche conservatism in the world's largest living Odonate, the Neotropical damselfly *Megaloprepus caerulatus*. *Conservation Genetics* 15, 469-481
51. Paknia O, Bergmann T and Hadrys H (2015) Some 'ant's' answers: Application of a layered barcode approach to problems in ant taxonomy. *Molecular Ecology Resour.* 15, 1262-1274.
52. Feindt W, Osigus HJ, Herzog R, Mason CE and Hadrys H (2016) The complete mitochondrial genome of the neotropical helicopter damselfly *Megaloprepus caerulatus* (Odonata: Zygoptera) assembled from next generation sequencing data. *Mitochondrial DNA Part B. Volume 1, Issue 1* pp. 497-499, DOI: 10.1080/23802359.2016.1192504
53. Feindt W, Herzog R, Osigus HJ, Schierwater B and Hadrys H (2016) Short read sequencing assembly revealed the complete mitochondrial genome of *Ischnura elegans* Vander Linden, 1820 (Odonata: Zygoptera). *Mitochondrial DNA Part B, Volume 1, Issue 1*, 574-576.
54. Herzog R, Feindt W, Osigus HJ and Hadrys H (2016) The complete mitochondrial genome of the emperor dragonfly *Anax imperator* LEACH, 1815 (Aeshnidae: Odonata) via NGS sequencing. *Mitochondrial DNA*, DOI: 10.1080/23802359.2016.1186523
55. Schleicherová D, Dulias K, Osigus HJ, Paknia O, Hadrys H and Bernd Schierwater (2017) The most primitive metazoan animals, the placozoans, show high sensitivity to increasing ocean temperatures and acidities. *Effects of global warming on placozoans. Journal of Ecology and Evolution*, 1-10, DOI: 10-1002/ece3.2678
56. Rach J, Bergmann T, Paknia O, DeSalle R, Schierwater B and Hadrys H (2017) The marker choice: Unexpected resolving power of an unexplored CO1 region for layered DNA barcoding approaches. *PLOS One* 12(4) e0174842
57. DeSalle R, Schierwater B, Hadrys H (2017) MtDNA: The small workhorse of evolutionary studies. *Frontiers in Bioscience Landmark* 22, 873-887
58. Herzog R, Hadrys H (2017) Long-term genetic monitoring of a riverine dragonfly, *Orthetrum coerulescens* (Odonata: Libellulidae]: Direct anthropogenic impact versus climate change effects, *PLOS One* 12(5) e0178014
59. DeSalle R, Hadrys H (2017) *Evolutionary Biology and Mitochondrial Genomics: 50,000 Mitochondrial DNA Genomes and Counting*, eLS A27270.R1
60. Simon S, Sagasser S, Saccenti E, Brugler MR, Schranz ME, Hadrys H, Amato G, DeSalle R (2017) Comparative transcriptomics reveal developmental turning points during embryogenesis of a hemimetabolous insect, the damselfly *Ischnura elegans*. In press
61. Feindt W and Hadrys H ( ) Retour to History: the revision of the monotypic damselfly genus *Megaloprepus* (Odonata: Zygoptera, Pseudostigmatidae): no longer a single species genus. *Zootaxa*. Accepted

62. Feindt W, Hadrys H () Transcriptomic profiling of the damselfly with the worlds largest wings (*Megalopterus Caerulutory*): preliminary geno expression analyses to study the wing development and evolution. PLOS One, submitted