Curriculum Vitae

Norman J. Wickett
Senior Conservation Scientist and Adjunct Professor
Negaunee Institute for Plant Conservation Science and Action
Graduate Program in Plant Biology and Conservation, Northwestern University
Chicago Botanic Garden, 1000 Lake Cook Road, Glencoe, IL 60022
Phone: (847) 835-8280 | nwickett@chicagobotanic.org

wickettlab.github.io
www.chicagobotanic.org/research/staff/wickett

Education

09/2001 – 04/2007	PhD – Ecology and Evolutionary Biology, University of Connecticut, USA
09/1996 – 05/2001	Bachelor of Science – Biology (Botany), University of British Columbia, Canada Ecology requirments carried out at Lund University, Sweden, 1999–2000

Postdoctoral Positions

01/2011 – 09/2011	University of Georgia, GA, USA (Jim Leebens-Mack lab – remote) Building scalable pipelines for the analysis of 1KP transcriptome
09/2008 – 12/2010	Penn State University, PA, USA (Claude dePamphilis lab) Lead bioinformatician – The Parasitic Plant Genome Project
05/2007 – 08/2008	University of Connecticut, CT, USA (Bernard Goffinet lab) Plastid genome sequencing and analysis – the Liverwort Tree of Life Project

Employment	**Chicago Botanic Garden**	**Northwestern University**
03/2020 – present	Senior Conservation Scientist	Adjunct Professor
05/2015 – 03/2020	Associate Conservation Scientist	Adjunct Associate Professor
09/2011 – 05/2015	Assistant Conservation Scientist	Assistant Professor of Instruction; 1st yr advisor

Professional Appointments

04/2019 – present	Senior Associate Editor – Applications in Plant Sciences
07/2016 – 04/2019	Associate Editor – Applications in Plant Sciences
06/2013 – present	Committee on Evolutionary Biology – University of Chicago, IL, USA
09/2010 – present	Research Associate – Field Museum of Natural History, IL, USA

Awards and Honors

1. Botanical Society of America – selected for strategic planning committee
2. University of Connecticut – Keynote address, invited alumni speaker, 30th annual Ecology and Evolutionary Biology Graduate Student Symposium
3. Rancho Santa Ana Botanic Garden – Named “Best Seminar Speaker” for 2016–17
4. Graduate student invited speaker – University of Connecticut (2020); Rancho Santa Ana Botanic Garden (2017); University of Florida (2016); Oklahoma State University (2016); University of Massachussetts, Amherst (2013); Bucknell University (2012)
5. Northwestern University – Arts and Sciences Alumni Teaching Award, ***Nominated*** (2014)
6. American Bryological and Lichenological Society – A.J. Sharp Award (outstanding paper presented by a student at the annual meeting) ***Awarded***, 2006; ***Hon. mention***, 2003 & 2005.
7. University of Connecticut – Doctoral Dissertation Fellowship (2006)
8. University of Connecticut – Bamford Research Award (2002–2006)

Funding (total: $5,901,681; $3,489,138 to Wickett/CBG)

1. US Bureau of Land Management ($265,000): Testing species boundaries and the impacts of land-use change in *Amsonia* (Apocynaceae) using population genomics, phylogenomics, and reproductive biology**.** Jan. 2021 – Dec. 2024
   Investigators: K. Skogen (Project Manager), N. Wickett and J. Fant (Co-PIs)
2. NSF DEB-1752785 ($1,065,581; $471,491 to Wickett/CBG): Unlocking the evolutionary history of *Schiedea* (carnation family, Caryophyllaceae): rapid radiation of an endemic plant genus in the Hawaiian Islands). Aug. 2018 – July 2021.
   Investigators (collaborative): A. Sakai (Lead) and S. Weller (UC Irvine), M. Moore (PI: Oberlin College), W. Wagner (PI: National Tropical Botanic Garden), N. Wickett (PI: CBG)
3. NSF DBI-1757800 ($348,653): REU Site: Plant Biology and Conservation Research Experiences for Undergraduates – From Genes to Ecosystems**.** Mar. 2018 – Feb. 2021.
   Investigators: N. Wickett (current PI), A. Kramer (former PI), J. Fant (Co-PI)
4. Northwestern University ($12,460): Building mentoring networks to promote diversity and equity in STEM fields**.** Jan. 2019 – Sep. 2021.
   Investigators: J. Fant, A. Kramer, N. Wickett, N. Zerega
5. NSF (USA) DBI-1626407 ($101,048): Acquisition of a Ploidy Analyzer at Chicago Botanic Garden**.** Sep. 2016 – Aug. 2019.
   Investigators: J. Ault (Lead), A. Kramer, L. Egerton-Warburton, S. Wagenius, N. Wickett (Co-PIs)
6. NSF DEB-1353152 ($739,438.00; $300,176.00 to Wickett/CBG): Evaluating the contributions of horizontally transferred bacterial genes and endogenous duplication events to the diversification of diatoms**.** Apr. 2014 – Dec. 2019.
   Investigators (collaborative): A. Alverson, (Lead; University of Arkansas), N. Wickett (PI: CBG)
7. NSF DEB-1342873 ($1,988,555.00; $1,545,483.00 to CBG): Dimensions of Biodiversity: Landscapes of Linalool: Scent-mediated diversification of flowers and moths across western North America**.** Jan. 2014 – Dec. 2021.
   Investigators (collaborative): K. Skogen (Lead), N. Wickett and J. Fant (Co-PIs: CBG), R. Levin (PI: Amherst College), R. Raguso (PI: Cornell)
8. NSF DEB-1239992 ($1,364,397.00; $428,278.00 to Wickett): Assembling the Pleurocarp Tree of Life: Resolving the rapid radiation using genomics and transcriptomics**.** Jan. 2013 – Dec. 2017.
   Investigators (collaborative): B. Goffinet (Lead; University of Connecticut), J. Shaw (PI: Duke), N. Wickett (PI: CBG)
9. NSF DEB-0408043 ($11,549): Doctoral Dissertation Improvement Grant: Chloroplast evolution of the nonphotosynthetic liverwort *Cryptothallus mirabilis* (Aneruaceae)**.** July 2004 – June 2007.
   Investigators: N. Wickett (graduate student), B. Goffinet (PI – dissertation advisor)
10. National Geographic Society, Committee for Research and Exploration Grants ($5000): Investigating the occurrence of *Cryptothallus* in Cost Rica**.** Jan. 2004 – Dec. 2005.

Publications

Current or former †student author (principal advisor or committee), ‡postdoc author
Citation indices as of July 21, 2021 per Google Scholar – total: 6560; h-index: 32; i10-index: 47

60. Cooper†, BJ, MJ Moore, NA Douglas, WL Wagner, MG Johnson‡, RP Overson‡, AJ McDonnell‡, RA Levin, RA Raguso, H Flores Olvera, H Ochoterena, JB Fant, KA Skogen, **NJ Wickett**. Target enrichment and extensive population sampling help untangle the recent, rapid radiation of *Oenothera* sect. *Calylophus*. **In Revision**, ***Systematic Biology***.
    Preprint: doi.org/10.1101/2021.02.20.432097

59. Bechen†, LL, MG Johnson‡, GT Broadhead, RA Levin, RP Overson‡, T Jogesh‡, JB Fant, RA Raguso, KA Skogen, **NJ Wickett**. Differential gene expression associated with a floral scent polymorphism in the evening primrose *Oenothera harringtonii* (Onagraceae). **In Revision**, ***BMC Genomics***. Preprint: doi.org/10.1101/2021.01.12.426409

58. Patsis†, A, RP Overson‡, KA Skogen, **NJ Wickett**, MG Johnson‡, WL Wagner, RA Raguso, JB Fant, RA Levin. 2021. Elucidating the evolutionary history of *Oenothera* sect. *Pachylophus* (Onagraceae): A phylogenomic approach. In Press, ***Systematic Botany***.

57. Carey, SB, J Jenkins, JT Lovell, F Maumus, A Sreedasyam, AC Payton, S Shu, GP Tiley, N Fernandez-Pozo, K Barry, C Chen, M Wang, A Lipzen, C Daum, CA Saski, JC McBreen, RE Conrad, LM Kollar, S Olsson, S Huttunen, JB Landis, JG Burleigh, **NJ Wickett**, MG Johnson‡, SA Rensing, J Grimwood, J Schmutz, SF McDaniel. 2021. Gene-rich UV sex chromosomes harbor conserved regulators of sexual development. ***Science Advances*** 7(27): eabh2488. doi.org/10.1126/sciadv.abh2488

56. Baker, WJ, P Bailey, V Barber, A Barker, S Bellot, D Bishop, LR Botigué, G Brewer, T Carruthers, JJ Clarkson, J Cook, RS Cowan, S Dodsworth, N Epitawalage, E Fancoso, B Gallego, MG Johnson‡, JT Kim, K Leempoel, O Maurin, C McGinnie, L Pokorny, S Roy, M Stone, E Toledo, **NJ Wickett**, AR Zuntini, WL Eiserhardt, PJ Kersey, IJ Leitch, F Forest. 2021. A comprehensive phylogenomic platform for exploring the angiosperm tree of life. ***Systematic Biology*** Advance Online: doi.org/10.1093/sysbio/syab035

55. Wenzell, KE, AJ McDonnell‡, **NJ Wickett**, JB Fant, KA Skogen. 2021. Incomplete reproductive isolation and low genetic differentiation despite floral divergence across varying geographic scales in *Castilleja*. ***American Journal of Botany*** 108(7):1–19. doi.org/10.1002/ajb2.1700

54. Ribeiro, CL, D Conde, KM Balmant, C Dervinis, MG Johnson‡, AP McGrath, P Szewczyk, F Unda, CA Finegan, HW Schmidt, B Miles, DR Drost, E Novaes, CA Gonzalez-Benecke, GF Peter, JG Burleigh, TA Martin, SD Mansfied, G Chang, **NJ Wickett,** M Kirst. 2020. The uncharacterized gene *EVE* contributes to vessel element dimensions in *Populus*. ***PNAS*** 117(9):5059-5066. doi.org/10.1073/pnas.1912434117

53. Wong, GK, DE Soltis, JH Leebens-Mack, **NJ Wickett**, MS Barker, Y Van de Peer, SW Graham, M Melkonian. 2020. Sequencing and analyzing the transcriptomes of a thousand species across the tree of life for green plants. ***Annual Review of Plant Biology*** 71:741-765. doi.org/10.1146/annurev-arplant-042916-041040

52. Gardner†, EM, MG Johnson‡, JT Pereira, ASA Puad, Sahromi, D Arifiani, **NJ Wickett,** NJC Zerega. 2020. Paralogs and off-target sequences improve phylogenetic resolution in a densely-sampled study of the breadfruit genus (*Artocarpus*, Moraceae). ***Systematic Biology*** 70(3):558-575. doi.org/10.1093/sysbio/syaa073

51. One Thousand Plant Transcriptomes Initiative*. 2019. One thousand plant transcriptomes and the phylogenomics of green plants. ***Nature*** 574:679-685. Web of Science Highly Cited Paper. doi.org/10.1038/s41586-019-1693-2

    *Consortium authorship: author 18 of 193; Major contributions to the “Framing of Research and Writing,” and “Gene-family circumscription and phylogenetic analyses,” sections; contributed figures 2 and 3.

50. Carpenter EJ, N Matasci, S Ayyampalayam, S Wu, J Sun, J Yu, F Rocha J Vieira, C Bowler, RG Dorrell, MA Gitzendanner, L Li, W Du, KK Ullrich, **NJ Wickett,** TJ Barkmann, MS Barker, JH Leebens-Mack, GKS Wong. 2019. Access to RNA-sequencing data from 1,173 plant species: The 1000 Plant transcriptome initiative. ***GigaScience*** 8(10):giz126. doi.org/10.1093/gigascience/giz126

49. Dodsworth S, L Pokorny, MG Johnson‡, JT Kim, O Maurin, **NJ Wickett,** F Forest, WJ Baker. 2019. Hyb-Seq for Flowering Plant Systematics. ***Trends in Plant* Science** 24(10):887-891. doi.org/10.1016/j.tplants.2019.07.011

48. Medina, R, MG Johnson‡, Y Liu, **NJ Wickett**, AJ Shaw, B Goffinet. 2019. Phylogenomic delineation of *Physcomitrium* (Bryophyta: Funariaceae) based on targeted sequencing of nuclear exons and their flanking regions rejects the retention of *Physcomitrella*, *Physcomitridium* and *Aphanorrhegma*. ***Journal of Systematics and Evolution*** 57(4):404-417. doi.org/10.1111/jse.12516
47. Liu, Y, MG Johnson‡, CJ Cox, R Medina, N Devos, A Vanderpoorten, L Hedenäs, NE Bell, JR Shevock, B Aguero, D Quandt, **NJ Wickett,** AJ Shaw, B Goffinet. 2019. Resolution of the ordinal phylogeny of mosses using targeted exons from organellar and nuclear genomes. ***Nature Communications*** 10:1485. Web of Science Highly Cited Paper. doi.org/10.1038/s41467-019-09454-w
46. Bruzzese†, DJ, DL Wagner, T Harrison, T Jogesh‡, RP Overson‡, **NJ Wickett**, RA Raguso, KA Skogen. 2019. Phylogeny, host use, and diversification in the moth family Momphidae (Lepidoptera: Gelechioidea). ***PLoS ONE*** 14(6): e0207833. doi.org/10.1371/journal.pone.0207833
45. Johnson‡, MG, L Pokorny, S Dodsworth, LR Botigué, RS Cowan, A Devault, WL Eiserhardt, N Epitawalage, F Forest, JT Kim, JH Leebens-Mack, IJ Leitch, O Maurin, DE Soltis, PS Soltis, GKS Wong, WJ Baker, **NJ Wickett**. 2019. A Universal Probe Set for Targeted Sequencing of 353 Nuclear Genes from Any Flowering Plant Designed Using k-medoids Clustering. ***Systematic Biology*** 68(4):594-606. Web of Science Highly Cited Paper. doi.org/10.1093/sysbio/syy086
44. Villaverde, T, L Pokorny, S Olsson, M Rincón, MG Johnson‡, EM Gardner†, **NJ Wickett**, J Molero, R Riina, I Sanmartín. 2018. Bridging the micro and macroevolutionary levels in phylogenomics: Hyb-Seq solves relationships from populations to species and above. ***New Phytologist*** 220:636–650. doi.org/10.1111/nph.15312
43. Guillory, WX, A Onyshchenko, EC Ruck, MB Parks‡, T Nakov, **NJ Wickett**, AJ Alverson. 2018. Recurrent loss, horizontal transfer, and the obscure origins of mitochondrial introns in diatoms (Bacillariophyta). ***Genome Biology and Evolution*** 6:1504–1515. doi.org/10.1093/gbe/evy103
42. Laricchia†, KM, MG Johnson‡, D Ragone, EW Williams, NJC Zerega, **NJ Wickett**. 2018. A transcriptome screen for positive selection in domesticated breadfruit and its wild relatives (*Artocarpus spp.*). ***American Journal of Botany*** 105(5):915–926. doi.org/10.1002/ajb2.1095
41. Parks‡, MB, T Nakov, EC Ruck, **NJ Wickett**, AJ Alverson. 2018. Phylogenomics reveals an extensive history of genome duplication in diatoms (Bacillariophyta). ***American Journal of Botany*** 105(3):330–347. doi.org/10.1002/ajb2.1056
40. Kates, HR, MG Johnson‡, EM Gardner†, NJC Zerega, **NJ Wickett**. 2018. Allele phasing has minimal impact on phylogenetic reconstruction from targeted nuclear gene sequences in a case study of *Artocarpus*. ***American Journal of Botany*** 105(3):404–416. doi.org/10.1002/ajb2.1068
39. Parks‡, MB, **NJ Wickett**, AJ Alverson. 2018. Signal, uncertainty, and conflict in phylogenomic data for a diverse lineage of microbial eukaryotes (diatoms, Bacillariophyta). ***Molecular Biology and Evolution*** 35(1):80–93. doi.org/10.1093/molbev/msx268
38. Medina, R, JG Johnson‡, Y Liu, N Wilding, TA Hedderson, **NJ Wickett**, B Goffinet. 2018. Evolutionary dynamism in bryophytes: Phylogenomic inferences confirm a rapid radiation in the moss family Funariaceae. ***Molecular Phylogenetics and Evolution*** 120:240–247. doi.org/10.1016/j.ympev.2017.12.002
37. Briscoe†, LRE, NJC Zerega, HT Lumbsch, M Stech, E Kraichak, MJ Von Konrat, JJ Engel, **NJ Wickett**. 2017. Molecular, morphological, and biogeographic perspectives on the classification of Acrobolboideae (Acrobolbaceae, Marchantiophyta). ***Phytotaxa*** 319(1):056–070. doi.org/10.11646/phytotaxa.319.1.2
36. Carvalho-Silva, M, M Stech, LH Soares-Silva, WR Buck, **NJ Wickett**, Y Liu, PEAS Camara. 2017. A molecular phylogeny of the Sematophyllaceae s.l. (Hypnales) based on plastid, mitochondrial, and nuclear markers, and its taxonomic implications. ***Taxon*** 66(4):811–831. doi.org/10.12705/664.2

35. Johnson‡, MG, EM Gardner†, Y Liu, R Medina, B Goffinet, AJ Shaw, NJC Zerega, **NJ Wickett**. 2016. HybPiper: Extracting coding sequence and introns for phylogenetics from high-throughput sequencing reads using target enrichment. ***Applications in Plant Sciences*** 4(7):1600016. doi.org/10.3732/apps.1600016 4th most cited paper in APPS
34. Gardner†, EM, MG Johnson‡, D Ragone, **NJ Wickett**, NJC Zerega. 2016. Low-coverage, whole-genome sequencing of *Artocarpus camansi* (Moraceae) for phylogenetic marker development and gene discovery. ***Applications in Plant Sciences*** 4(7):1600017. doi.org/10.3732/apps.1600017
33. Johnson‡, MG, C Malley†, B Goffinet, AJ Shaw, **NJ Wickett**. 2016. A phylotranscriptomic analysis of gene family expansion and evolution in the largest order of pleurocarpous mosses (Hypnales, Bryophyta). ***Molecular Phylogenetics and Evolution*** 98:29–40. doi.org/10.1016/j.ympev.2016.01.008
32. Honaas, LA, EK Wafula, **NJ Wickett**, JP Der, Y Zhang, PP Edger, NS Altman, JC Pires, JH Leebens-Mack, CW dePamphilis. 2016. Selecting superior de novo transcriptome assemblies: lessons learned by leveraging the best plant genome. ***PLoS ONE*** 11(1):e0146062. doi.org/10.1371/journal.pone.0146062
31. Das, M, M Fernández-Aparicio, Z Yang, K Huang, **NJ Wickett**, S Alford, EK Wafula, CW dePamphilis, H Bouwmeester, MP Timko, JI Yoder, JH Westwood. 2015. Parasitic plants *Striga* and *Phelipanche* dependent upon exogenous strigolactones for germination have retained genes for strigolactone biosynthesis. ***American Journal of Plant Sciences*** 6(8):1151–1166. doi.org/10.4236/ajps.2015.68120
30. Wilson, A, **NJ Wickett**, P Grabowski, J Fant, J Borevitz, G Mueller. 2015. Examining the efficacy of a genotyping-by-sequencing technique for population genetic analysis of the mushroom *Laccaria bicolor* with either a reference genome or simple *denovo* analysis. ***Mycologia*** 107(1):217–226. doi.org/10.3852/13-278
29. **Wickett, NJ**, S Mirarab, N Nguyen, T Warnow, E Carpenter, N Matasci, S Ayyampalayam, M Barker, JG Burleigh, MA Gitzendanner, BR Ruhfel, E Wafula, JP Der, SW Graham, S Mathews, M Melkonian, DE Soltis, PS Soltis, NW Miles, CJ Rothfels, L Pokorny, AJ Shaw, L DeGironimo, DW Stevenson, B Surek, JC Villarreal, B Roure, H Philippe, CW dePamphilis, T Chen, MK Deyholos, RS Baucom, TM Kutchan, MM Augustin, J Wang, Y Zhang, Z Tian, Z Yan, X Wu, X Sun, G Ka-Shu Wong, J Leebens-Mack. 2014. A phylotranscriptomics analysis of the origin and diversification of land plants. ***PNAS*** 111(14):E4859–E4868. Web of Science Highly Cited Paper. doi.org/10.1073/pnas.1323926111
28. Matasci, N, LH Hung, Z Yan, EJ Carpenter, **NJ Wickett**, S Mirarab, N Nguyen, T Warnow, S Ayyampalayam, M Barker, JG Burleigh, MA Gitzendanner, E Wafula, JP Der, CW dePamphilis, B Roure, H Philippe, BR Ruhfel, NW Miles, SW Graham, S Mathews, B Surek, M Melkonian, DE Soltis, PS Soltis, C Rothfels, L Pokorny, AJ Shaw, L DeGironimo, DW Stevenson, JC Villarreal, T Chen, TM Kutchan, M Rolf, RS Baucom, MK Deyholos, R Samudrala, Z Tian, X Wu, X Sun, Y Zhang, J Wang, J Leebens-Mack, G Ka-Shu Wong. 2014. Data access for the 1000 Plants (1KP) pilot. ***Gigascience*** 3:17. Web of Science Highly Cited Paper. doi.org/10.1186/2047-217X-3-17
27. Kessenich, CR, EC Ruck, AM Schurko, **NJ Wickett**, AJ Alverson. 2014. Transcriptomic insights into the life history of bolidophytes, the sister lineage to diatoms. ***Journal of Phycology*** 50(6): 977–983. doi.org/10.1111/jpy.12222
26. Wicke, S, KF Müller, CW dePamphilis, D Quandt, **NJ Wickett**, Y Zhang, SS Renner, GM Schneeweiss. 2013. Mechanisms of Functional and Physical Genome Reduction in Photosynthetic and Nonphotosynthetic Parasitic Plants of the Broomrape Family. ***The Plant Cell*** 25(10):3711–3725. Web of Science Highly Cited Paper. doi.org/10.1105/tpc.113.113373

25. Villarreal, JC, LL Forrest, **NJ Wickett**, B Goffinet. 2013. The plastid genome of the hornwort *Nothoceros aenigmaticus* (Dendrocerotaceae): Phylogenetic signal in inverted repeat expansion, pseudogenization, and intron gain. ***American Journal of Botany*** 100(3):467–477. doi.org/10.3732/ajb.1200429
24. Zhang, Y, M Fernandez-Aparicio, EK Wafula, M Das, Y Jiao, **NJ Wickett**, LA Honaas, PE Ralph, MF Wojciechowski, MP Timko, JI Yoder, JH Westwood, CW dePamphilis. 2013. Evolution of a horizontally acquired legume gene, albumin1, in the parasitic plant *Phelipanche aegyptiaca* and related species. ***BMC Evolutionary Biology*** 13:48. doi.org/10.1186/1471-2148-13-48
23. Bliss, BJ, S Wanke, A Barakat, S Ayyampalayam, **NJ Wickett**, PK Wall, Y Jiao, L Landherr, PE Ralph, Y Hu, C Heinhuis, J Leebens-Mack, K Arumuganathan, SW Clifton, SN Maximova, H Ma, CW dePamphilis. 2013. Characterization of the basal angiosperm *Aristolochia fimbriata*: a potential experimental system for genetic studies. ***BMC Plant Biol.*** 13:13. doi.org/10.1186/1471-2229-13-13
22. Honaas, LA, EK Wafula, Z Yang, JP Der, **NJ Wickett**, NS Altman, CG Taylor, JI Yoder, MP Timko, JH Westwood, CW dePamphilis. 2013. Functional genomics of a generalist parasitic plant: Laser microdissection of host-parasite interface reveals host-specific patterns of parasite gene expression. ***BMC Plant Biology*** 13:9. doi.org/10.1186/1471-2229-13-9
21. Merckx, VSFT, JV Freudenstein, J Kissling, MJM Christenhusz, RE Stotler, B Crandall-Stotler, **NJ Wickett**, PJ Rudall, HM de Kamer, PJM Maas. 2013. Taxonomy and Classification *In* Merckx, V (*Ed.*) Mycoheterotrophy: The Biology of Plants Living on Fungi. Springer, 356pp. doi.org/10.1007/978-1-4614-5209-6_2
20. Fernández-Aparicio, M, K Huang, EK Wafula, LA Honaas, **NJ Wickett**, MP Timko, CW dePamphilis, JI Yoder, JH Westwood. 2013. Application of qRT-PCR and RNA-Seq analysis for the identification of housekeeping genes useful for normalization of gene expression values during *Striga hermonthica* development. ***Molecular Biology Reports*** 40(4):3395–3407. doi.org/10.1007/s11033-012-2417-y
19. Jiao, Y, J Leebens-Mack, S Ayyampalayam, JE Bowers, MR McKain, J McNeal, M Rolf, DR Ruzicka, E Wafula, **NJ Wickett**, X Wu, Y Zhang, J Wang, Y Zhang, EJ Carpenter, MK Deyholos, TM Kutchan, AS Chanderbali, PS Soltis, DW Stevenson, R McCombie, JC Pires, G Wong, DE Soltis, CW dePamphilis. 2012. A genome triplication associated with early diversification of the core eudicots. ***Genome Biology*** 13:R3. doi.org/10.1186/gb-2012-13-1-r3
18. McKain, MR, **NJ Wickett**, Y Zhang, S Ayyampalayam, WR McCombie, MW Chase, JC Pires, CW dePamphilis, J Leebens-Mack. 2012. Phylogenomic analysis of transcriptome data elucidates co-occurrence of a paleopolyploid event and the origin of bimodal karyotypes in Agavoideae (Asparagaceae). ***American Journal of Botany*** 99(2):397–406. doi.org/10.3732/ajb.1100537
17. Bandaranayake, PCG, A Tomilov, NB Tomilova, QA Ngo, **NJ Wickett**, CW dePamphilis, JI Yoder. 2012. The TvPirin gene is necessary for haustorium development in the parasitic plant *Triphysaria versicolor*. ***Plant Physiology*** 158(2):1046–1053. doi.org/10.1104/pp.111.186858
16. Westwood, JW, CW dePamphilis, M Das, M Fernandez-Aparicio, LA Honaas, MP Timko, **NJ Wickett,** JI Yoder. 2012. Parasitic Plant Genome Project: New tools for understanding the biology of *Orobanche* and *Striga*. ***Weed Science*** 60(2):295–306. doi.org/10.1614/WS-D-11-00113.1
15. **Wickett, NJ**, LA Honaas, EK Wafula, M Das, K Huang, B Wu, L Landherr, MP Timko, J Yoder, JH Westwood, CW dePamphilis. 2011. Transcriptomes of the parasitic plant family Orobanchaceae reveal surprising conservation of chlorophyll synthesis. ***Current Biology*** 21(24): 2098–2104. doi.org/10.1016/j.cub.2011.11.011
14. **Wickett, NJ**, LL Forrest, JM Budke, B Shaw & B Goffinet. 2011. Frequent pseudogenization and loss of the plastid-encoded, sulfate transport gene *cys*A throughout the evolution of liverworts. ***American Journal of Botany*** 98(8):1263–1275. doi.org/10.3732/ajb.1100010

13. Hsu CY, JP Adams, H Kim, K No, C Ma, SH Strauss, J Drnevich, L Vandervelde, JD Ellis, BM Rice, **NJ Wickett**, LE Gunter, GA Tuskan, AM Brunner, GP Page, A Barakat, JE Carlson, CW dePamphilis, DS Luthe & C Yuceer. 2011. Flowering Locus T Duplication Coordinates Reproductive and Vegetative Growth. ***PNAS*** 108(26):10756–10761. Web of Science Highly Cited Paper. doi.org/10.1073/pnas.1104713108
12. Jiao Y, **NJ Wickett**, S Ayyampalayam, A Chanderbali, L Landherr, PE Ralph, LP Tomsho, Y Hu, H Liang, PS Soltis, DE Soltis, SW Clifton, SE Schlarbaum, SC Schuster, H Ma, J Leebens-Mack & CW dePamphilis. 2011. Ancestral polyploidy in seed plants and angiosperms. ***Nature*** 473:97–100. Web of Science Highly Cited Paper. doi.org/10.1038/nature09916
11. Der JP, MS Barker, **NJ Wickett**, CW dePamphilis & PG Wolf. 2011. De novo Characterization of the gametophyte transcriptome in bracken fern, *Pteridium aquilinum*. ***BMC Genomics*** 99:12. doi.org/10.1186/1471-2164-12-99
10. Forrest LL, **NJ Wickett**, CJ Cox & B Goffinet. 2011. Deep sequencing of *Ptilidium pulcherrimum* suggests evolutionary stasis in liverwort chloroplast structure. ***Plant Ecology and Evolution*** 144(1):29–43. doi.org/10.5091/plecevo.2011.535
9. Liang H, S Ayyampalayam, **NJ Wickett**, A Barakat, Y Xu, L Landherr, P Ralph, T Xu, SE Schlarbaum, H Ma, JH Leebens-Mack & CW dePamphilis. 2011. Generation of a large-scale genomic resource for functional and comparative genomics in *Liriodendron tulipifera* L. ***Tree Genetics and Genomes*** 7(5):941–954. doi.org/10.1007/s11295-011-0386-2
8. Preußing M, S Olsson, A Schäfer-Verwimp, **NJ Wickett**, S Wicke, D Quandt & M Nebel. 2010. New insights in the evolution of the liverwort family Aneuraceae (Metzgeriales, Marchantiophyta) with an emphasis on the genus Lobatiriccardia. ***Taxon*** 59(5):1424–1440. doi.org/10.1002/tax.595009
7. Cox CJ, B Goffinet, **NJ Wickett**, SB Boles & AJ Shaw. 2010. Moss diversity: a molecular phylogenetic analysis of genera. ***Phytotaxa*** 9:175–195. doi.org/10.11646/phytotaxa.9.1.10
6. **Wickett NJ**, Y Fan, PO Lewis & B Goffinet. 2008. Distribution and evolution of pseudogenes, gene losses and a gene rearrangement in the plastid genome of the non- photosynthetic liverwort, *Aneura mirabilis* (Metzgeriales, Jungermanniopsida). ***Journal of Molecular Evolution*** 67:111–122. doi.org/10.1007/s00239-008-9133-1
5. **Wickett NJ**, Y Zhang, SK Hansen, JM Roper, JV Kuehl, SA Plock, PG Wolf, CW dePamphilis, JL Boore & B Goffinet. 2008. Functional gene losses occur with minimal size reduction in the plastid genome of the parasitic liverwort *Aneura mirabilis.* ***Molecular Biology and Evolution*** 25(2):393–401. doi.org/10.1093/molbev/msm267
4. **Wickett, NJ**, & B Goffinet. 2008. Origin and relationships of the myco-heterotrophic liverwort *Cryptothallus mirabilis* Malmb. (Metzgeriales, Marchantiophyta). ***Botanical Journal of the Linnean Society*** 156:1–12. doi.org/10.1111/j.1095-8339.2007.00743.x
3. Goffinet B, **NJ Wickett**, O Werner, RM Ros, AJ Shaw & CJ Cox. 2007. Distribution and phylogenetic significance of the 71 kb inversion in the chloroplast genome in the Funariidae (Bryophyta). ***Annals of Botany*** 99:747–753. doi.org/10.1093/aob/mcm010
2. Goffinet, B, **NJ Wickett**, AJ Shaw, & CJ Cox. 2005. Phylogenetic significance of the RpoA loss in the chloroplast genome of mosses. ***Taxon*** 54 (2):353–360. doi.org/10.2307/25065363
1. Goffinet B, AJ Shaw, CJ Cox, **NJ Wickett** & S Boles. 2004. Phylogenetic inferences in the Orthotrichoideae (Orthotrichaceae: Bryophyta) based on variation in four loci from all genomes. ***Monographs in Systematic Botany from the Missouri Botanical Garden*** 98:270–289.

Non-Peer Reviewed Publications

Current or former †student author (principal advisor or committee), ‡postdoc author

1. McDonnell‡, AJ, WJ Baker, S Dodsworth, F Forest, SW Graham, MG Johnson‡, L Pokorny, J Tate, S Wicke, **NJ Wickett**. 2021. Exploring Angiosperms353: Developing and applying a universal toolkit for flowering plant phylogenomics (editorial). In Press, **Applications in Plant Sciences**.
2. Baker, WJ, S Dodsworth, F Forest, SW Graham, MG Johnson‡, AJ McDonnell‡, L Pokorny, J Tate, S Wicke, **NJ Wickett**. 2021. Exploring Angiosperms353: an open, community toolkit for collaborative phylogenomic research on flowering plants (editorial). ***American Journal of Botany*** 108(7):1–7. doi.org:10/1002/ajb2.1703
3. Gitzendanner, MA, Y Yang, **NJ Wickett**, M McKain, MJ Beaulieu. 2018. Methods for exploring the plant tree of life (editorial). ***Applications in Plant Sciences*** 6(3):e1039. doi.org/10.1002/aps3.1039

Invited Seminars

2021 University of Vienna, Austria, Department of Botany and Biodiversity Research
2020 **Keynote Address** – **Invited Alumni Speaker** – University of Connecticut, 30th annual Ecology and Evolution Graduate Student Symposium
2020 University of Colorado, Denver, Department of Integrative Biology
2019 Smithsonian National Museum of Natural History, Phylopizza series
2019 Smithsonian National Museum of Natural History, Botany series
2018 University of Wisconsin, Deptartment of Botany
2017 University of Arizona, Department of Ecology & Evolutionary Biology
2017 Missouri Botanical Garden 64th Annual Fall Symposium
2017 Rancho Santa Ana Botanic Garden – **graduate student invited speaker**
Named 'Best Seminar Speaker' for the 2016-17 academic year
2016 University of Florida, Deptartment of Biology – **graduate student invited speaker**
2016 Oklahoma State University, Department of Plant Biology – **graduate student invited speaker**
2016 Smithsonian National Museum of Natural History, Frontiers in Phylogenetics Symposium
2015 Ohio State University, Department of Evolution, Ecology & Organismal Biology
2015 Oberlin College, Department of Biology
2014 University of Connecticut, Department of Ecology and Evolutionary Biology.
2014 University of British Columbia, Department of Botany
2013 University of Missouri, Division of Biology
2013 University of Massachusetts, Department of Biology – **graduate student invited speaker**.
2012 Westfälische Wilhelms-Universität Münster, Institute for Evolution and Biodiversity
2012 University of Zurich, Institute for Systematic and Evolutionary Botany
2012 Bucknell University, Department of Biology – **hosted by the BSA student chapter**.
2012 The Field Museum, Chicago, IL – Chicago Plant Science Symposium 2012
2011 San Francisco State University, Department of Biology
2010 Duke University, Department of Biology
2009 The Field Museum, Chicago, IL, Department of Botany
2008 Penn State University, Institute of Molecular Evolutionary Genetics seminar series
2007 58º Congresso Nacional Botânica, São Paulo, Brazil
2007 New York Botanical Garden

Teaching

1. **BIOL SCI 378: Functional Genomics** (Northwestern; Winter 2013–2020; 3hr/wk)
A comparative approach to studying the evolution of genome structure and function, this course introduces material in a way that follows the typical trajectory of a genome sequencing project from

hypothesis to data collection, analysis, and interpretation. Topics include 1st, 2nd and 3rd generation sequencing technologies, genome assembly and graph theory, structural and functional annotation, whole genome duplication, transposable elements, horizontal gene transfer, and genome-wide association studies. 35 students max enrollment.

2. **BIOL SCI 109: The Nature of Plants** (Northwestern; Spring 2012–2015; 3hr/wk)
   As an introduction to plant biology for non-science majors. Topics included plant diversity, plant life cycles, photosynthesis, plant adaptations, and the origin of agriculture. 105 students max enrollment.
3. **BIOL SCI 101: Understanding Evolution from Seaweed to Salad** (Northwestern; Fall 2011–2015; 3hr/wk)
   A required first-year course to develop writing skills, with the topic in the professor's area of expertise. This seminar used popular and scientific literature to explore plant evolution. Written assignments emphasize the communication of complex topics for a non-scientific audience. 15 students max enrollment. Instructor serves as the first-year college advisor for all enrolled students.
4. **PBC 450: Field & Lab Methods in Plant Biology & Conservation** (Northwestern; Fall 2018, 2019; 6hr/quarter)
   Team-taught course to provide students with skills in plant biology and conservation research. I teach the phylogenetics component of this course; I also use this course as a way to provide training in course/lecture design to postdocs.
5. **PBC 451: Critical Topics in Ecology & Conservation** (Northwestern; Fall 2019; 8hr/wk)
   Seminar class based on works ranging from historical literature to recent studies including conservation policy, economics of conservation, climate change, invasive species, habitat fragmentation, and applied conservation case studies. Co-taught as a replacement Professor in 2019.

Mentoring (Students and Postdocs)

Postdocs

1. Angela McDonnell, Postdoc, 2019 – present
2. Matthew Parks, Postdoc, 2016 – 2018
3. Tania Jogesh, Postdoc, 2014 – 2018 (Co-mentored with Dr. Krissa Skogen and Dr. Jeremie Fant)
4. Rick Overson, Postdoc, 2014 – 2017 (Co-mentored with Dr. Krissa Skogen and Dr. Jeremie Fant)
5. Matthew Johnson, Postdoc, 2013 – 2017

Students (Primary advisor or co-advisor)

6. Haley Carter, PhD 2020 – present (Co-advised with Dr. Krissa Skogen)
7. Colby Witherup, PhD (2021 expected completion)
8. Elena Loke, MS 2019 – present
9. Ben Cooper, MS (2017; Co-advised with Dr. Krissa Skogen)
10. Claire Malley, MS (2016)
11. Kristen Laricchia, MS (2014; Co-advised with Dr. Nyree Zerega)
12. Laura Briscoe, MS (2012)

Committee

13. Nora Gavin-Smyth, PhD 2018 – present (Principal advisor: Dr. Patrick Herendeen)
14. Aleks Radosavljevic, PhD (ABD: 2021; Principal advisor: Dr. Patrick Herendeen)
15. Benjamin Morgan, PhD (ABD: 2021; Principal advisor: Dr. Louise Egerton-Warburton)
16. Lynnaun Johnson, PhD (2019; Principal advisor: Dr. Greg Mueller)
17. Elliot Gardner, PhD (2017; Principal advisor: Dr. Nyree Zerega)
18. Lauren Audi, MS (2018; Principal advisor: Dr. Nyree Zerega)
19. Daniel Bruzzese, MS (2017; Principal advisor: Dr. Krissa Skogen)

20. Amanda Patsis, BS, Amherst College (2017; Thesis advisor: Dr. Rachel Levin)
21. Lindsey Bechen, BS, Amherst College (2017; Thesis advisor: Dr. Rachel Levin)

Summer Undergraduate Research Students:

22. Cristian Molina, independent research (bioinformatics), University of Chicago Odyssey Scholar
23. Juan Angulo, REU student (moss phylogenetics), University of Georgia
24. Samad Montgomery, independent research (population genomics), Northwestern University
25. Christina Shehata, independent research (bioinformatics), Northwestern University
26. Anni Wang, REU student (diatom protein conservation), Florida State University
27. Marissa Ashner, REU student (diatom intron evolution), Illinois Institute of Technology
28. Nina Denne, high school student (diatom transposable element annotation)
29. Raudel Cabral, independent research (GBS sequencing), Northwestern University
30. Lisa Kim, independent research (bioinformatics), Northwestern University
31. Arianna Farmer, independent research (bioinformatics), Northwestern University
32. Ryan Anderson, independent research (phylogenetics), Northwestern University
33. Brian Cacioppo, independent research (gene family evolution), Northwestern University
34. Barry Liu, summer research experience (bioinformatics), Cornell University
35. Jonathan Paulson, high school student (bioinformatics)
36. Cassandra Huizenga, independent research (PCR and sequencing), University of Connecticut
37. Lauren Parry, independent research (PCR and sequencing), University of Connecticut

Professional and Institutional Service and Outreach

Departmental Service

2017–2021	Committee on Equity, Diversity, Inclusion, and Accessibility (Chair, 2017–2020)
2012–2015	PhD Admissions Committee (ad hoc member in 2020)
2008–2010	Biology Climate Committee (Penn State)
2002–2003	Graduate Student Senate (University of Connecticut)

Botanical Society of America

2021	BSA Secretary (full board member; nominated – election occurs in spring, 2021)
2021	American Journal of Botany & Applications in Plant Sciences – Special Issue Editor *Exploring the potential of Angiosperms353, a universal toolkit for flowering plant phylogenomics*
2020–2023	Awards Committee
2020–2021	Strategic Planning Committee (Research and Scholarly Excellence sub-committee)
2018	Applications in Plant Sciences – Special Issue Editor *Methods for exploring the plant tree of life*
2014, 2018	George R. Cooley Award judge – Awarded to the best student talk in systematics at the annual meeting of the BSA (awarded by the American Society of Plant Taxonomists)
2012–2016	Technology Committee (Chair, 2016)

Workshops Organized or Co-organized

2017	HybSeq: Wet-lab tips and dry-lab skills (Royal Botanic Gardens, Kew) https://github.com/mossmatters/KewHybSeqWorkshop
2013	Bioinformatics and moss phylogenomics workshop (Chicago Botanic Garden)
2010	Phylogenetic analysis for molecular biologists (Penn State)
2006	Biodiversity and forensic sciences: Phylogenetics (University of Connecticut)
2003	13th Annual EEB Graduate Student Symposium (University of Connecticut)

Press and Outreach

2021 Diatom Diversity: A public exhibit at the Chicago Botanic Garden
Installation postponed due to COVID-19; scheduled for fall 202

2021 Plants are Cool, Too (YouTube series) – How to save a species from going extinct
Broader impacts component of our NSF-Funded *Schiedea* grant
https://www.youtube.com/watch?v=Y1zNfODhM4o

2020 Plants are Cool, Too (YouTube series) – Protecting biodiversity at NTBG
Broader impacts component of our NSF-Funded *Schiedea* grant
https://www.youtube.com/watch?v=GOnuk1naI50

2019 Northwestern University Now – Study provides strong framework for 1 billion years of green plant evolution
https://news.northwestern.edu/stories/2019/11/study-provides-strong-framework-for-1-billion-years-of-green-plant-evolution/

2017 Bryodiversity: It's all about moss – Demonstration table for World Environment Day event at Chicago Botanic Garden

2014 How did plants move to land? Plant Evolution Infographic for the Chicago Botanic Garden
http://my.chicagobotanic.org/science_conservation/plant-evolution-infographic/

2014 "Garden Stories" at the Chicago Botanic Garden – Genomic discovery unearths new theories on plant evolution
http://my.chicagobotanic.org/science_conservation/genomic-discovery-unearths-new-theories-on-plant-evolution/

2007 Teachers for a New Era Program – Implementation of a biodiversity curriculu
Wilbert Snow School, Middletown, CT

Peer Review

National Science Foundation (Panel and ad hoc reviewer)
Systematic and Biodiversity Science Cluster; Dimensions of Biodiversity Program

Ad hoc journal reviewer

American Fern Journal	American Journal of Botany	Annals of Botany
BMC Evolutionary Biology	BMC Genomics	Current Opinion in Plant Biology
Frontiers in Plant Science	Genome Biology and Evolution	Journal of Molecular Evolution
Molecular Biology & Evolution	Molecular Phylo. & Evolution	New Phytologist
Nature Plants	Organisms, Diversity & Evol.	Phytotaxa
PLoS One	PNAS	Systematic Biology

Conference Presentations

*presenting author; current or former †student presenting author, ‡postdoc presenting author

2021 New perspectives on the evolution of plant breeding systems in the radiation of Hawaiian *Schiedea* (Caryophyllaceae). *Society for Integrative and Comparative Biology (SICB) Annual Meeting*, Virtual: Jan. 3 – Feb. 28. AJ McDonnell‡, MJ Moore, AK Sakai, SG Weller, **NJ Wickett**.

2020 Reconstructing the rapid radiation of pleurocarpous mosses using 802 nuclear genes. *Botany 2020*. J Angulo†, **NJ Wickett**, L Pokorny, MG Johnson, R Medina, B Goffinet, AJ Shaw, Y Liu.

Expanded phylotranscriptomic sampling reveals gene family expansion in pleurocarpous mosses. *Botany 2020*. K Buckowing*, Y Liu, R Medina, AJ Shaw, B Goffinet, **NJ Wickett**, MG Johnson.

A phylogenomic approach to decode contentious relationships across flowering plants. *Botany 2020*. L Pokorny*, MG Johnson, S Dodsworth, O Maurin, N Epitawalage, S Bellot, LR Botigué, GE Brewer, et al. (16 additional authors, including AJ McDonnell and **NJ Wickett**)

2019 Reconstructing green plant relationships using over one thousand transcriptomes. *Botany 2019*. **NJ Wickett***, M Barker, M Gitzendannert, S Graham, I Grosse, L Zheng, M Melkonian, S Mirarab, M Porsch, M Quint, D Soltis, P Soltis, K Ulrich, G Ka-Shu Wong, J Leebens-Mack.

A phylogenomic approach to decode contentious relationships across all angiosperm families. *Botany 2019*. L Pokorny, S Dodsworth, MG Johnson‡, O Maurin, N Epitawalage, S Bellot, LR Botigué, G Brewer, et al. (15 additional authors, including **NJ Wickett**)

Phylogenetic delineation of *Physcomitrium* based on targeted sequencing of nuclear exons and their flanking regions rejects the retention of *Physcomitrella* and other genera. *Botany 2019*. MG Johnson‡, R Medina, Y Liu, **NJ Wickett**, AJ Shaw, B Goffinet.

The power of population sampling, splash-zone introns, and summary coalescent methods in target enrichment: Untangling species relationships in *Oenothera* sect. *Calylophus*. *Botany 2019*. B Cooper†, MJ Moore, **NJ Wickett**, WL Wagner, MG Johnson, RP Overson, KA Skogen.

Galaxy tools for comparative gene family analysis in plant genomics. *Plant & Animal Genome XXVII*. EK Wafula*, G Von Kuster, JP Der, S Ayyampalayam, **NJ Wickett**, LA Honaas, DW dePamphilis, J Leebens-Mack.

A universal probe set for targeted sequencing of 353 nuclear genes from any flowering plant designed using k-medoids clustering (poster). *Plant & Animal Genome XXVII*. MG Johnson‡, L Pokorny, S Dodsworth, JT Kim, A Devault, IJ Leitch, WJ Baker, **NJ Wickett**.

PAFTOL: Plant and fungal trees of life (poster). *Plant & Animal Genome XXVII*. PJ Kersey*, LR Botigué, G Brewer, RS Cowan, S Dodsworth, WL Eiserhardt, N Epitawalage, F Forest, E Gaya, MG Jonson, et al. (10 additional authors including **NJ Wickett**).

2018 Designing and testing a kit to enrich phylogenetically informative exons for all angiosperms. *Botany 2018*. **NJ Wickett***, MG Johnson, LR Botigué, A Devault, S Dodsworth, F Forest, JT Kim, J Leebens-Mack, D Soltis, P Soltis, WJ Baker, L Pokorny.

Differential gene expression associated with a floral scent polymorphism in the evening primrose *Oenothera harringtonii* (Onagraceae). *Botany 2018*. LL Bechen, **NJ Wickett***, MG Johnson, R Levin, T Jogesh, RP Overson, JB Fant, RA Raguso, KA Skogen.

Testing the monophyly of bryophytes using expanded genome and transcriptome sampling. *Botany 2018*. **NJ Wickett***, M Parks, MG Johnson, S Mirarab, U Mai, P Szovenyi, A Kirbis, M Waller, A Neubauer.

Adapting new phylogenetic methods for detecting selection for use in plants. *Botany 2018*. C Witherup†, **NJ Wickett**.

Allele phasing has minimal impact on phylogenetic reconstruction from targeted nuclear gene sequences in a case study of *Artocarpus*. *Botany 2018*. HR Kates*, MG Johnson, E Gardner, N Zerega, **NJ Wickett**.

Characterizing persistent bacterial co-habitants and their genetic contribution to an araphid pennate diatom. *Botany 2018*. M Parks‡, **NJ Wickett**, AJ Alverson.

Completing the plant tree of life. *Botany 2018*. WJ Baker*, V Barber, A Barker, LR Botigué, G Brewer, RS Cowan, S Dodsworth, N Epitawalage, WL Eiserhardt, F Forest, MG Johnson, JT Kim, I Leitch, O Maurin, L Pokorny, **NJ Wickett**.

Designing and testing a kit to enrich phylogenetically informative exons for all angiosperms. *Plant & Animal Genome XXVI*. **NJ Wickett***.

2017 Revisiting the relationships among bryophyte lineages with increased taxon and gene sampling, and phylogenomic approaches. *International Botanical Congress 2017*. **NJ Wickett***.

Elucidating the evolutionary history of *Oenothera* sect. *Pachylophus* using phylogenomic. *Botany 2017*. A Patsis†, RP Overson, MG Johnson, KA Skogen, WL Wagner, RA Raguso, **NJ Wickett**, RA Levin.

2016 Circumscribing a core set of conserved orthologous genes for moss phylogenetics. *Botany 2016*. C Malley, MG Johnson, B Goffinet, AJ Shaw, **NJ Wickett***.

A phylogeny of the evening primrose family (Onagraceae) using a target enrichment approach for 322 nuclear loci. *Botany 2016*. RP Overson‡, MG Johnson, JB Fant, RA Levin, MJ Moore, WL Wagner, RA Raguso, KA Skogen, **NJ Wickett**.

A re-evaluation of ancient horizontal gene transfer in bryophytes using comparative transcriptome data. *Botany 2016*. MG Johnson‡, B Goffinet, AJ Shaw, **NJ Wickett**.

Hitting the century mark in an understudied, hyper-diverse lineage: Transcriptome-based phylogenomic analyses across the diatoms (Bacillariophyta). *Botany 2016*. MB Parks‡, MG Johnson, ER Ruck, AJ Alverson, **NJ Wickett**.

Organ-specific transcriptomes of *Oenothera harringtonii* (Onagraceae) and assocated variation in floral scent. *Botany 2016*. LL Bechen†, RP Overson, MG Johnson, JB Fant, RA Levin, RA Raguso, KA Skogen, **NJ Wickett**.

Phylogenomics of *Artocarpus* (Moraceae) from 333 nuclear genes: insights into pollination transitions. *Botany 2016*. E Gardner†, MG Johnson, JT Pereira, RA Raguso, KA Skogen, **NJ Wickett**, NJC Zerega.

Resolving the backbone phylogeny of mosses using targeted NGS data from plastid, mitochondrial and nuclear genomes. *Botany 2016*. Y Liu*, MG Johnson, R Medina, N Devos, **NJ Wickett**, AJ Shaw, B Goffinet.

Testing hypotheses on the repeated origination of polyploidy in plants. *Botany 2016*. C. Witherup†, MG Johnson, **NJ Wickett**.

Using target enrichment to resolve the phylogeny of *Oenothera* sect. *Calylophus* (Onagraceae) with 322 nuclear loci. *Botany 2016*. BJ Cooper†, MJ Moore, **NJ Wickett**, RP Overson, MG Johnson, KA Skogen.

Zooming in on the rapid radiation of the Funariaceae. *Botany 2016*,. R Medina*, MG Johnson, Y Liu, J Budke, N Wilding, T Hedderson, **NJ Wickett**, B Goffinet.

PlantTribes: A collection of automated plant gene family analysis pipelines. *Plant & Animal Genome XXIV*. EK Wafula*, JP Der, L Honaas, S Ayyampalayam, **NJ Wickett**, J Leebens-Mack, CW dePamphilis.

Reconstructing the ancestral gene set of bryophytes from comparative transcriptome data. *Plant & Animal Genome XXIV*. MG Johnson‡, KK Ullrich, SA Rensing, **NJ Wickett**.

2015 A comparison of ortholog detection methods and their application to the moss phylogeny (poster). *Botany 2015*. C Malley†, MG Johnson, B Goffinet, AJ Shaw, **NJ Wickett**.

Linking 1KP back to plant biology: some evo/devo possibilities. *Botany 2015*. D Stevenson*, S Graham, **NJ Wickett**, G Ka-Shu Wong.

Phylotranscriptomic insights into the radiation of mosses: gene family expansions and paleopolyploidy. *Botany 2015*. M Johnson‡, **NJ Wickett**, R Medina, Y Liu, N Devos, AJ Shaw, B Goffinet.

2014 Constructing phylogenetic datasets from bait-capture data without a genome: strategies and challenges. *Botany 2014*. MG Johnson‡, **NJ Wickett**, N Devos, Y Liu, R Medina, B Goffinet, AJ Shaw.

Reconstructing gene family evolution in bryophytes: diversification, duplication, and horizontal transfer. *Botany 2014*. **NJ Wickett***, MG Johnson, AJ Shaw, B Goffinet.

Transcriptome analysis of breadfruit (*Artocarpus altilis*) to reveal impacts of domestication (poster). *Botany 2014*. K Laricchia†, NJC Zerega, **NJ Wickett**.

A plant gene family classification and analysis pipeline for comparative genomics (poster). *Botany 2014*. JP Der*, EK Wafula, **NJ Wickett**, S Ayyampalayam, N Matasci, J Leebens-Mack, CW dePamphilis.

Inferring relationships of early land plants using 1KP data. *Plant & Animal Genome XXII*. **NJ Wickett***.

2013 Reconstructing the rapid radiation of pleurocarpous mosses using genomic approaches. *Botany 2013*. **NJ Wickett***, Y Liu, AJ Shaw, B Goffinet.

Inferring relationships of early land plants using a transcriptome-based approach. *Plant & Animal Genome XXI*. **NJ Wickett***.

2012 Scaling phylogenomics to over one thousand species: Relationships of Viridiplantae inferred from the 1KP (One Thousand Plants) Project pilot data set. *Botany 2012*. **NJ Wickett*** & the One Thousand Plants Initiative.

Broomrape plastid genomes reveal distinct patterns of functional and physical gene deletion under relaxed selective constraints. *Botany 2012*. S Wicke*, K Mueller, D Quandt, **NJ Wickett**, CW dePamphilis, G Schneeweiss.

Large-scale transcriptome sequencing and phylogenetic hypotheses for monocots based on analyses of 970 (and up to 1888) low copy nuclear genes. *Botany 2012*. CW dePamphilis, **NJ Wickett**, J Duarte, JP Der*, MR McKain, J Leebens-Mack, et al. (12 additional authors)

The effect of paleopolyploidy on genome evolution in Agavoideae. *Botany 2012*. MR McKain*, **NJ Wickett**, Y Zhang, S Ayyampalayam, R McCombie, M Chase, JC Pires, DW dePamphilis, J Leebens-Mack.

The Parasitic Plant Genome Project. *Botany 2012*. L Honaas*, EK Wafula, **NJ Wickett**, & the Parasitic Plant Genome Consortium.

2011 Reconstructing plant phylogenies using the cDNA sequences of over 900 low copy nuclear genes. *Botany 2011*. **NJ Wickett***, J Duarte, EK Wafule, J Leebens-Mack, CW dePamphilis.

Using stage specific cDNA sequencing to uncover the origin and evolution of parasitism in Orobanchaceae. *Botany 2011*. **NJ Wickett***, L Honaas, EK Wafula, M Timko, J Westwood, J Yoder, CW dePamphilis.

Ancestral polyploidy in seed plants and angiosperms. *Plant & Animal Genome XIX*. Y Jiao*, **NJ Wickett**, S Ayyampalayam, A Chanderbali, L Landherr, PE Ralph, LP Tomsho, Y Hu, H Liang, DE Soltis, et al. (six additional authors).

The evolution of weediness in parasitic plants of the Orobanchaceae. *Plant & Animal Genome XIX*. J Westwood*, M Fernandez-Aparicio, M Das, S Alford, V Stromberg, **NJ Wickett**, K Huang, B Wu, J Yoder, CW dePamphilis.

2010 Exploring the causes and consequences of parasitism through stage specific transcriptome sequencing in the parasitic plant family Orobanchaceae. *Botany 2010*. **NJ Wickett***, LA Honaas, EK Wafula, MP Timko, J Yoder, J Westwood, CW dePamphilis.

Liverwort chloroplasts – into the next generation. *Botany 2010*. LL Forrest*, **NJ Wickett**, B Goffinet.

Plastid genome evolution – What's so different between autotrophs, semi- and non-autotrophic flowering plants? *Botany 2010*. S Wicke*, D Quandt, KF Müller, **NJ Wickett**, CW dePamphilis, GM Schneeweiss.

Evolution of floral development genes and gene families in basal angiosperms. *Plant & Animal Genome* XVIII. **NJ Wickett***, Y Zhang, Y Jiao, S Ayyampalayam, AS Chanderbali, PK Wall, H Liang, L Landherr, P Ralph, S Schuster, H Ma, et al. (six additional authors).

2009 Genome evolution in the Orbanchaceae: evidence from large-scale EST studies and the Parasitic Plant Genome Project. *Botany 2009*. **NJ Wickett***, PK Wall, J Yoder, CW dePamphilis.

Plastid genomes on the liverwort tree of life: challenges and progress. *Botany 2009*. **NJ Wickett***, CA Huizenga, LL Forrest, EK Wafula, B Goffinet.

2008 Evolution of twochloroplast-encoded sulfate import genes, *cys*A and *cys*T, in liverworts. *Botany 2008*. C Huizenga*, **NJ Wickett**, JM Budke, LE Parry, B Goffinet.

2007 Plastid genome decay in parasitic plants: insight from the non-photosynthetic liverwort *Aneura mirabilis*. *Botany 2007*. **NJ Wickett***, Y Fan, PO Lewis, B Goffinet.

Multiple losses of the *cys*A gene from the chloroplast genome of liverworts (Marchantiophyta). *Botany 2007*. J Budke*, **NJ Wickett**, B Goffinet.

2006 Towards a complete chloroplast genome sequence of the non-photosynthetic liverwort *Cryptothallus mirabilis* (Metzgeriales, Marchantiophyta). *Botany 2006*. **NJ Wickett***, Y Zhang, SK Hansen, JM Roper, JV Kuehl, SA Plock, B Goffinet, CW dePamphilis, PG Wolf, JL Boore.

Refining the circumscription of the Funariales (Bryophyta) bsed on chloroplast genome structure. *Botany 2006*. B Goffinet, **NJ Wickett***, AJ Shaw, RM Ros Espin, O Werner.

2005 Relationships of the non-photosynthetic liverwort *Cryptothallus mirabilis* Malmb. (Metzgeriales; Aneuraceae) inferred from seven loci. *Botany 2005*. **NJ Wickett***, B. Goffinet.

2004 Phylogenetics and genomics of the non-photosynthetic liverwort, *Cryptothallus mirabilis* (poster). *Bryophylogeny* 2004, Göttingen, Germany. **NJ Wickett***, B Goffinet.

The evolution of the rpoA (cpDNA) region in mosses. *Bryophylogeny* 2004, Göttingen, Germany. **B Goffinet***, NJ Wickett, CJ Cox, AJ Shaw.

Evolution of a non-photosynthetic liverwort, *Cryptothallus mirabilis*. 2nd annual Northeastern Ecology and Evolution Conference. **NJ Wickett***, B Goffinet.

The Moss Diversity Project. *Botany 2004*. C Cox*, B Goffinet, AJ Shaw, **NJ Wickett**, WR Buck.

2003 The consequences of achlorophylly on the structure and function of thechloroplast genome of *Cryptothallus mirabilis* (Aneuraceae). *Molecular systematics of bryophytes: Progress, problems and perspectives*. Missouri Botanical Garden. **NJ Wickett***, B Goffinet.

Molecular evolution of the achlorophyllous liverwort, *Cryptothallus mirabilis*. *Botany* 2003. **NJ Wickett***, B Goffinet.

Circumscription and affinities of the Sematophyllaceae (Bryophyta, Hypnales) based on multigenomic phylogenetic inferences. *Botany 2003*. B Goffinet, WR Buck, C Cox, AJ Shaw, **NJ Wickett***.