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Education

Ph.D., Plant Taxonomy, 1987 University of Alberta, Edmonton, Alberta, Canada
(Sept 1982 – Mar 1987)
A biosystematic study of *Arnica* subgenus *Arctica* (Asteraceae)
Advisor: Keith E. Denford

B.Sc., Specialized Honours Botany, 1982 University of Guelph, Guelph, Ontario, Canada
(Sept 1978 – May 1982)

Professional Experience

Current Positions at University of Illinois:

Associate Director of Academic Affairs, School of Integrative Biology (Aug 2017 – present)
Professor, Dept of Plant Biology (Aug 2004 – present)
Director, Graduate Assistance in Areas of National Need (GAANN) program (Sept 2016 – present)
Curator, University of Illinois Vascular Plant Herbarium (ILL) (Mar 2019 – present)
Faculty Member, Program in Ecology, Evolution and Conservation Biology (Jun 1998 – present)

Previous Positions at University of Illinois:

Associate Curator, University of Illinois Vascular Plant Herbarium (ILL) (Feb 2005 – Mar 2019)
Associate Head, Dept of Plant Biology (Aug 2002 – Aug 2007)
Director of Graduate Studies, Dept of Plant Biology (Aug 2002 – Aug 2007)
Associate Professor, Dept of Plant Biology (Aug 1998 – Aug 2004)
Assistant Professor, Dept of Plant Biology (Jan 1992 – Aug 1998)

Previous Positions Elsewhere:

Visiting Scholar, The Univ of Texas at Austin (Sabbatical, Jan 2008 – Jun 2008, Laboratory of Robert K. Jansen)
Visiting Researcher, Royal Botanic Garden Edinburgh, Scotland (Sabbatical, Jun 1998 – Aug 1999)
Postdoctoral Fellow, Dept of Biology, Indiana Univ (Jul 1990 – Dec 1991, Laboratory of Jeffrey D. Palmer)
NSERC of Canada Postdoctoral Fellow, Indiana Univ (Aug 1989 – Jun 1990, Laboratory of Jeffrey D. Palmer)
NSERC of Canada Postdoctoral Fellow, Univ of Michigan (Jul 1988 – Aug 1989, Laboratory of Jeffrey D. Palmer)
Postdoctoral Fellow, Dept of Biology, Univ of Ottawa, Ontario (Apr 1987 – Jun 1988, Laboratory of John McNeill)
Visiting Researcher, Agriculture and Agri-Foods Canada, Ottawa (Fall 1986, Laboratory of Suzanne Warwick)
Instructor, Division of Science and Technology, Red Deer College, Alberta (Summer 1986)

Instruction

University of Illinois:

IB 100, Biology in Today's World	IB 469, Evolutionary Survey of Plants
IB 102, Plants, People and Environment	IB 490, Independent Study
IB 290, Introduction to Undergraduate Research	IB 510, Discussions in Plant Biology
IB 299, Undergraduate Special Course	IB 514, Discussions in Systematic Biology
IB 335, Plant Systematics	IB 590, Individual Topics
IB 390, Undergraduate Research Experience	IB 599, Thesis Research
IB 467 (as IB 360), Principles of Systematics	

Red Deer College, Red Deer, Alberta, Canada:

BT-180, Plant Systematics

Graduate Student Training Grant

Downie, S. R., Enhancing opportunities for research and training in integrative biology. U.S. Department of Education's Graduate Assistance in Areas of National Need (GAANN) program (Aug 2016 – present). \$1,181,472 plus \$653,622 UI matching contribution = \$1,835,094. These funds have supported 8-12 graduate students per year over the past three years in the School of Integrative Biology.

Teaching Committees, Workshops, Symposia, Retreats and Mentoring (*past six years*)

Mobile Summer Institutes on Scientific Teaching, Scientific Teaching Mentor (2018-2019, 2019-2020)
Mobile Summer Institutes on Scientific Teaching, Scientific Teaching Fellow (2017-2018)
SIB Teaching Retreat Organizer (2019) and participant at prior teaching retreats
SIB Conversation on Teaching and Learning (Fall, 2018)
Transformative Assignments, Mobilizing Students to be Creators (UI Campus, Feb 2019)
Reimagining the Classroom Symposium, Classrooms without Borders (UI Campus, Sept 2018)
Life Sciences Working Group on General Education Learning Outcomes (Spring 2019)
College of LAS Critical Courses Committee (Aug 2017 – present)
Learning Outcomes Assessment Community Brown Bag (May 2019)
Campus Conversation on Leadership Education (Fall 2014)
Campus Conversation of Undergraduate Education (Fall 2013)

Teaching Excellence and Awards

List of Teachers Ranked as Excellent By Their Students

IB 100: Fall 2013, 2015
IB 390: Fall 1994
IB 360: Fall 2000
IB 335: Spring 1996, 2002, 2006, 2007, 2013, 2018, 2019

Outstanding Staff Member, Panhellenic Council (1995)

Vice-Chancellor's Teaching Scholar Award (Aug 1993 – May 1994)

Fellowships, Scholarships and Awards

College of LAS Alumni Discretionary Award (2006, 2003, 2002)
Robert T. and Laura L. Fraley Young Faculty Award (1992)
NSERC of Canada Government Laboratory Visiting Fellowship (1988)

NSERC of Canada Postdoctoral Fellowship (1988 – 1990)
University of Alberta Graduate Faculty Fellowship (1986)
Lionel Cinq-Mars Award for Best Student Presentation, Canadian Botanical Association (1986)
University of Alberta Dissertation Fellowship (1986 – 1987)
NSERC of Canada Postgraduate Scholarship (1985)

Scholarly Accomplishments

130. Mustafina, F. U., D.-K. Yi, K. Choi, C. H. Shin, K. S. Tojibaev, and **S. R. Downie**. 2019. A comparative analysis of complete plastid genomes from *Prangos fedtschenkoi* and *P. lipskyi* (Apiaceae). *Ecology and Evolution* 9: 364-377.
129. Li, S., **S. R. Downie**, and Q.-Z. Wang. 2019. Antifungal activities of essential oil from *Ageratum conyzoides* L. against postharvest blue and green citrus molds. *Industrial Crops and Products*, in review.
128. Wojewódzka, A., J. Baczyński, L. Banasiak, **S. R. Downie**, A. Czarnocka-Cieciura, M. Gierek, I. Frankiewicz, and K. Spalik. 2019. Evolutionary shifts in fruit dispersal syndromes in Apiaceae tribe Scandiceae. *Plant Systematics and Evolution*, published online May 2019.
127. Spalik, K., A. Wojewódzka, T. Constantinidis, and **S. R. Downie**. 2019. *Laserocarpum*, a new genus of Apiaceae endemic to Greece. *Acta Societatis Botanicorum Poloniae*, in review.
126. Zhou, J., Y.-Z. Gao, J. Wei, Z.-W. Liu, and **S. R. Downie**. 2019. Molecular phylogenetics of *Ligusticum* (Apiaceae) based on nrDNA ITS sequences: placement of the Chinese endemic species and a reduced circumscription of the genus. *International Journal of Plant Sciences*, in review.
125. Chen, Z.-X., X.-Y. Yao, **S. R. Downie** and Q.-Z. Wang. 2019. Assembling and characterizing the complete chloroplast genome of *Sanicula orthacantha* (Apiaceae). *Biodiversity Science*, in press. [in Chinese]
124. Chen, Z.-X., X.-Y. Yao, **S. R. Downie** and Q.-Z. Wang. 2019. Fruit features of 15 species of *Sanicula* (Apiaceae) and their taxonomic significance. *Plant Science Journal* 37: 1-9. [in Chinese]
123. Chen, Z.-X., **S. R. Downie** and Q.-Z. Wang. 2019. Review of the taxonomy, origin and evolution of *Sanicula* (Umbelliferae). *Plant Science Journal* 36: 136-143. [in Chinese]
122. Wang, Q. Z., **S. R. Downie**, and Z. X. Chen. 2018. Genome-wide searches and molecular analyses highlight the unique evolutionary path of flavone synthase I (FNS1) in Apiaceae. *Genome* 61: 103-109.
121. Smith, J. F., D. H. Mansfield, M. Stevens, E. Sosa, M. A. E. Feist, **S. R. Downie**, G. M. Plunkett, and M. Darrach. 2018. Try tri again?: Resolving species boundaries in the *Lomatium triternatum* (Apiaceae) complex. *Journal of Systematics and Evolution* 56: 218-230.
120. Danderson, C. A., **S. R. Downie**, and M. Hermann. 2018. Rampant polyphyly in the *Arracacia* clade (Apiaceae) and an assessment of the phylogenetic utility of 20 noncoding plastid loci. *Molecular Phylogenetics and Evolution* 118: 286-305.
119. Mansfield, D. H., M. Darrach, **S. R. Downie**, M. A. E. Feist, R. L. Hartman, K. M. Mason, G. M. Plunkett and J. F. Smith. 2017. New combinations in *Pseudocymopterus* and *Cymopterus* (Apiaceae). *Phytoneuron* 57: 1-4.
118. Feist, M. A. E., J. F. Smith, D. H. Mansfield, M. Darrach, R. P. McNeill, **S. R. Downie**, G. M. Plunkett and B. L. Wilson. 2017. New combinations in *Lomatium* (Apiaceae, subfamily Apioideae). *Phytotaxa* 316: 95-98.

117. Sun, F.-J. and **S. R. Downie**. 2017. *Perideridia*, Apiaceae. Flora of North America, vol. 13, in press.
116. Liu, M. and **S. R. Downie**. 2017. The phylogenetic significance of fruit anatomical and micromorphological structures in Chinese *Heracleum* species and related taxa (Apiaceae). Systematic Botany 42: 313-325.
115. Menemen, Y., A. Kandemir, and **S. R. Downie**. 2016. *Pastinaca erzincanensis* (Apiaceae), a new species from eastern Turkey and its phylogenetic position within Tordylieae. Annales Botanici Fennici 53: 373-382.
114. Wang, Q. Z., M. Huang, **S. R. Downie**, and Z. X. Chen. 2016. Development of expressed sequence tag-simple sequence repeat markers for genetic characterization and population structure analysis of *Praxelis clematidea* (Asteraceae). Genetics and Molecular Research 15 (2): gmr 15028038.
113. **Downie, S. R.**, R. M. Peery, and R. K. Jansen. 2016. Another first for the Apiaceae: Evidence for mitochondrial DNA transfer into the plastid genome. Proceedings of the VIII International Apiales Symposium, Istanbul. Journal of the Faculty of Pharmacy of Istanbul University 44: 131-144.
112. Zakharova, E. A., E. V. Kljuykov, G. V. Degtjareva, T. H. Samigullin, U. A. Ukrainskaya, and **S. R. Downie**. 2016. A taxonomic study of the genus *Hellenocarum* H. Wolff (Umbelliferae - Apioideae) based on morphology, fruit anatomy, and molecular data. Turkish Journal of Botany 40: 176-193.
111. Calviño, C. I., F. E. Teruel, and **S. R. Downie**. 2016. The role of the Southern Hemisphere in the evolutionary history of Apiaceae, a mostly north temperate plant family. Journal of Biogeography 43: 398-409.
110. Jogesh, T., R. Peery, **S. R. Downie**, and M. R. Berenbaum. 2015. Patterns of genetic diversity in the globally invasive species wild parsnip (*Pastinaca sativa*). Invasive Plant Science and Management 8: 415-429. Popular press coverage: Bee Culture, the Magazine of American Beekeeping (Feb 1, 2016); AG Professional (Jan 29, 2016); Weed Science Society of America (Feb 14, 2016); Hawaii News Now (Jan 29, 2016).
109. Wang, Q. Z., M. Huang, **S. R. Downie**, and Z. Chen. 2015. Genetic diversity and structure of the noxious alien grass *Praxelis clematidea* in southern China. Biochemical Systematics and Ecology 59: 183-189.
108. **Downie, S. R.** and R. K. Jansen. 2015. A comparative analysis of whole plastid genomes from the Apiales: Expansions and contraction of the inverted repeat, mitochondrial to plastid transfer of DNA, and identification of highly divergent noncoding regions. Systematic Botany 40: 336-351.
107. Liu, J., L. Shi, J. Han, G. Li, H. Lu, J. Hou, X. Zhou, F. Meng, and **S. R. Downie**. 2014. Identification of species in the angiosperm family Apiaceae using DNA barcodes. Molecular Ecology Resources 14: 1231-1238.
106. **Downie, S. R.**, R. M. Peery, and R. K. Jansen. 2014. Another first for the Apiaceae: Evidence for mitochondrial DNA transfer into the plastid genome. Journal of the Faculty of Pharmacy of Istanbul University 44: 131-144.
105. Wang, Z.-X., **S. R. Downie**, J.-B. Tan, C.-Y. Liao, Y. Yu, and X.-J. He. 2014. Molecular phylogenetics of *Pimpinella* and allied genera (Apiaceae), with emphasis on Chinese native species, inferred from nrDNA ITS and cpDNA intron sequence data. Nordic Journal of Botany 32: 642-657.
104. George, E. E., D. H. Mansfield, J. F. Smith, R. L. Hartman, **S. R. Downie**, and C. E. Hinchliff. 2014. Phylogenetic analysis reveals multiple cases of morphological parallelism and taxonomic polyphyly in *Lomatium* (Apiaceae). Systematic Botany 39: 662-675.

103. Spalik, K., Ł. Banasiak, M. A. E. Feist, and **S. R. Downie**. 2014. Recurrent short-distance dispersal explains wide distributions of hydrophytic umbellifers (Apiaceae tribe Oenantheae). *Journal of Biogeography* 41: 1559-1571.
102. Liao, C.-Y., **S. R. Downie**, Q. Li, Y. Yu, X.-J. He, and B. Zhou. 2013. New insights into the phylogeny of *Angelica* and its allies (Apiaceae) with emphasis on East Asian species, inferred from nrDNA, cpDNA, and morphological evidence. *Systematic Botany* 38: 266-281.
101. Banasiak, Ł., M. Piwczynski, T. Uliński, **S. R. Downie**, M. F. Watson, B. Shakya, and K. Spalik. 2013. Dispersal patterns in space and time: a case study of Apiaceae subfamily Apioideae. *Journal of Biogeography* 40: 1324-1335.
100. Ming, R., R. VanBuren, Y. Liu, M. Yang, Y. Han, L.-T. Li, Q. Zhang, M.-J. Kim, M. C. Schatz, M. Campbell, J. Li, J. E. Bowers, H. Tang, E. Lyons, A. A. Ferguson, G. Narzisi, D. R. Nelson, C. E. Blaby-Haas, A. R. Gschwend, Y. Jiao, J. P. Der, F. Zeng, J. Han, X. J. Min, K. A. Hudson, R. Singh, A. K. Grennan, S. J. Karpowicz, J. R. Watling, K. Ito, S. A. Robinson, M. E. Hudson, Q. Yu, T. C. Mockler, A. Carroll, Y. Zheng, R. Sunkar, R. Jia, N. Chen, J. Arro, C. M. Wai, E. Wafula, A. Spence, Y. Han, L. Xu, J. Zhang, R. Peery, M. J. Haus, W. Xiong, J. A. Walsh, J. Wu, M.-L. Wang, Y. J. Zhu, R. E. Paull, A. B. Britt, C. Du, **S. R. Downie**, M. A. Schuler, T. P. Michael, S. P. Long, D. R. Ort, J. W. Schopf, D. R. Gang, N. Jiang, M. Yandell, C. W. dePamphilis, S. S. Merchant, A. H. Paterson, B. B. Buchanan, S. Li, and J. Shen-Miller. 2013. Genome of the long-living sacred lotus (*Nelumbo nucifera* Gaertn.). *Genome Biology* 14:R41.
99. Brullo, C., S. Brullo, **S. R. Downie**, C. A. Danderson, and G. G. del Galdo. 2013. *Siculosciadium*, a new monotypic genus of Apiaceae from Sicily. *Annals of the Missouri Botanical Garden* 99: 1-18.
98. Liao, C.-Y., **S. R. Downie**, Y. Yu, and X.-J. He. 2012. Historical biogeography of the *Angelica* group (Apiaceae tribe Selineae) inferred from analyses of nrDNA and cpDNA sequences. *Journal of Systematics and Evolution* 50: 206-217.
97. Feist, M. A. E., **S. R. Downie**, A. R. Magee, and M. Liu. 2012. Revised generic delimitations for *Oxypolis* and *Ptilimnium* (Apiaceae) based on leaf morphology, comparative fruit anatomy, and phylogenetic analysis of nuclear rDNA ITS and cpDNA *trnQ-trnK* intergenic spacer sequence data. *Taxon* 61(2): 402-418.
96. **Downie, S.R.**, D. M. Ruffatto, and K. R. Robertson. 2012 to present. Systematics of Plants. Family Notes and Laboratory Exercises for Integrative Biology 335, Systematics of Plants, University of Illinois at Urbana-Champaign. Printed and distributed locally.
95. Yu, Y., **S. R. Downie**, X. He, X. Deng, and L. Yan. 2011. Phylogeny and biogeography of Chinese *Heracleum* (Apiaceae tribe Tordylieae) with comments on their fruit morphology. *Plant Systematics and Evolution* 296: 179-203.
94. Bone, T. S., **S. R. Downie**, J. M. Affolter, and K. Spalik. 2011. A phylogenetic and biogeographic study of the genus *Lilaeopsis* (Apiaceae tribe Oenantheae). *Systematic Botany* 36: 789-805.
93. Magee, A. R., B.-E. van Wyk, P. M. Tilney, and **S. R. Downie**. 2010. Phylogenetic position of African and Malagasy *Pimpinella* species and related genera (Apiaceae, Pimpinelleae). *Plant Systematics and Evolution* 288: 201-211.
92. Sun, F.-J. and **S. R. Downie**. 2010. Phylogenetic analyses of morphological and molecular data reveal major clades within the perennial, endemic western North American Apiaceae subfamily Apioideae. *Journal of the Torrey Botanical Society* 137: 133-156.

91. Logacheva, M. D., C. M. Valiejo-Roman, G. V. Degtjareva, J. M. Stratton, **S. R. Downie**, T. H. Samigullin, and M. G. Pimenov. 2010. A comparison of nrDNA ITS and ETS loci for phylogenetic inference in the Umbelliferae: an example from tribe Tordylieae. *Molecular Phylogenetics and Evolution* 57: 471-476.
90. Spalik, K., M. Piwczyński, C. A. Danderson, R. Kurzyna-Młynik, T. S. Bone, and **S. R. Downie**. 2010. Amphitropic amphiantarctic disjunctions in Apiaceae subfamily Apioideae. *Journal of Biogeography* 37: 1977-1994.
89. Magee, A. R., C. I. Calviño, M. Liu, **S. R. Downie**, P. M. Tilney, and B.-E. van Wyk. 2010. New tribal delimitations for the early diverging lineages of Apiaceae subfamily Apioideae. *Taxon* 59: 567-580.
88. Calviño, C. I., S. G. Martínez, and **S. R. Downie**. 2010. Unraveling the taxonomic complexity of *Eryngium* L. (Apiaceae, Saniculoideae): Phylogenetic analysis of 11 non-coding cpDNA loci corroborates rapid radiations. *Plant Diversity and Evolution (formerly Botanische Jahrbücher)* 128: 137-149.
87. **Downie, S. R.**, K. Spalik, D. S. Katz-Downie, and J.-P. Reduron. 2010. Major clades within Apiaceae subfamily Apioideae as inferred by phylogenetic analysis of nrDNA ITS sequences. *Plant Diversity and Evolution (formerly Botanische Jahrbücher)* 128: 111-136.
86. Sun, F.-J. and **S. R. Downie**. 2010. Phylogenetic relationships among the perennial, endemic Apiaceae subfamily Apioideae of western North America: Additional data from the cpDNA *trnF-trnL-trnT* region continue to support a highly polyphyletic *Cymopterus*. *Plant Diversity and Evolution (formerly Botanische Jahrbücher)* 128: 151-172.
85. Magee, A. R., B.-E. van Wyk, P. M. Tilney, and **S. R. Downie**. 2010. A taxonomic revision of the South African endemic genus *Dasispermum* (Apiaceae, Apioideae). *South African Journal of Botany* 76: 308-323.
84. Reduron, J.-P., J. Mathez, **S. R. Downie**, C. A. Danderson, and T. Ostroumova. 2009. *Pseudoridolfia*, nouveau genre d'Apiaceae découvert au Maroc. *Acta Botanica Gallica* 156: 487-500.
83. Magee, A. R., B.-E. van Wyk, P. M. Tilney, F. Sales, I. Hedge, and **S. R. Downie**. 2009. *Billburtia*, a new genus of Apiaceae (tribe Apieae) endemic to Madagascar. *Plant Systematics and Evolution* 283: 237-245.
82. Feng, T., **S. R. Downie**, Y. Yu, X. Zhang, W. Chen, X. He, and S. Liu. 2009. Molecular systematics of *Angelica* and allied genera (Apiaceae) from the Hengduan Mountains of China based on nrDNA ITS sequences: Phylogenetic affinities and biogeographic implications. *Journal of Plant Research* 122: 403-414.
81. Zhou, J., X. Gong, **S. R. Downie**, and H. Peng. 2009. Towards a more robust molecular phylogeny of Chinese Apiaceae subfamily Apioideae: Additional evidence from nrDNA ITS and cpDNA intron (*rpl16* and *rps16*) sequences. *Molecular Phylogenetics and Evolution* 53: 56-68.
80. Magee, A. R., B.-E. van Wyk, P. M. Tilney, and **S. R. Downie**. 2009. Generic delimitations and relationships of the Cape genera *Capnophyllum*, *Dasispermum* and *Sonderina*, the North African genera *Kruberia* and *Stoibrax*, and a new monotypic genus of the subfamily Apioideae (Apiaceae). *Systematic Botany* 34: 580-594.
79. Spalik, K., **S. R. Downie**, and M. F. Watson. 2009. Generic delimitations within the *Sium* alliance (Apiaceae tribe Oenantheae) inferred from cpDNA *rps16-5'trnK(UUU)* and nrDNA ITS sequences. *Taxon* 58: 735-748.
78. Magee, A. R., B.-E. van Wyk, P. M. Tilney, and **S. R. Downie**. 2009. A taxonomic revision of *Capnophyllum*. *South African Journal of Botany* 75: 283-291.

77. Tilney, P. M., B.-E. van Wyk, **S. R. Downie**, and C. I. Calviño. 2009. Phylogenetic relationships in the genus *Lichtensteinia* (Apiaceae) based on morphological, anatomical and DNA sequence data. *South African Journal of Botany* 75: 64-82.
76. Magee, A. R., B.-E. van Wyk, P. M. Tilney, and **S. R. Downie**. 2008. *Ezosciadium* (Apiaceae): A taxonomic revision of yet another early diverging South African apioid genus. *Plant Systematics and Evolution* 276: 167-175.
75. **Downie, S. R.**, D. S. Katz-Downie, F.-J. Sun, and C.-S. Lee. 2008. Phylogeny and biogeography of Apiaceae tribe Oenantheae inferred from nuclear rDNA ITS and cpDNA *psbI-5'trnK(UUU)* sequences, with emphasis on the North American Endemics clade. *Botany (formerly Canadian Journal of Botany)* 86: 1039-1064.
74. Kurzyna-Młynik, R., A. A. Oskolski, **S. R. Downie**, R. Kopacz, A. Wojewódzka, and K. Spalik. 2008. Phylogenetic position of the genus *Ferula* (Apiaceae) and its placement in tribe Scandiceae as inferred from nrDNA ITS sequence variation. *Plant Systematics and Evolution* 274: 47-66.
73. Feist, M. A. E. and **S. R. Downie**. 2008. A phylogenetic study of *Oxypolis* and *Ptilimnium* based on nuclear rDNA ITS sequences. *Systematic Botany* 33: 447-458.
72. Sun, F.-J., G. A. Levin, and **S. R. Downie**. 2008. A multivariate analysis of *Pteryxia terebinthina* (Apiaceae). *Journal of the Torrey Botanical Society* 135: 81-93.
71. Calviño, C. I., S. G. Martínez, and **S. R. Downie**. 2008. The evolutionary history of *Eryngium* (Apiaceae, Saniculoideae): Rapid radiations, long distance dispersals, and hybridizations. *Molecular Phylogenetics and Evolution* 46: 1129-1150.
70. Calviño, C. I., S. G. Martínez, and **S. R. Downie**. 2008. Morphology and biogeography of Apiaceae subfamily Saniculoideae as inferred by phylogenetic analysis of molecular data. *American Journal of Botany* 95(2): 196-214.
69. Zhou, J., H. Peng, **S. R. Downie**, Z.-W. Liu, and X. Gong. 2008. A molecular phylogeny of Chinese Apiaceae subfamily Apiioideae inferred from nuclear ribosomal DNA internal transcribed spacer sequences. *Taxon* 57: 402-416.
68. Ajani, Y., A. Ajani, J. M. Cordes, M. F. Watson, and **S. R. Downie**. 2008. Phylogenetic analysis of nrDNA ITS sequences reveals relationships within five groups of Iranian Apiaceae subfamily Apiioideae. *Taxon* 57: 383-401.
67. Winter, P. J. D., A. R. Magee, N. Phephu, P. M. Tilney, **S. R. Downie**, and B.-E. van Wyk. 2008. A new generic classification for African peucedanoid species (Apiaceae). *Taxon* 57: 347-364.
66. Spalik, K. and **S. R. Downie**. 2007. Intercontinental disjunctions in *Cryptotaenia* (Apiaceae, Oenantheae): An appraisal using molecular data. *Journal of Biogeography* 34: 2039-2054.
65. Calviño, C. I. and **S. R. Downie**. 2007. Circumscription and phylogeny of Apiaceae subfamily Saniculoideae based on chloroplast DNA sequences. *Molecular Phylogenetics and Evolution* 44: 175-191.
64. Calviño, C. I., P. M. Tilney, B.-E. van Wyk, and **S. R. Downie**. 2006. A molecular phylogenetic study of southern African Apiaceae. *American Journal of Botany* 93(12): 1828-1847.
63. Sun, F.-J., G. A. Levin, and **S. R. Downie**. 2006. A multivariate analysis of *Pseudocymopterus* (Apiaceae). *Journal of the Torrey Botanical Society* 133(4): 499-512.

62. Lee, C.-S. and **S. R. Downie**. 2006. Phylogenetic relationships within *Cicuta* (Apiaceae tribe Oenantheae) inferred from nuclear rDNA ITS and cpDNA sequence data. *Canadian Journal of Botany* 84: 453-468.
61. Spalik, K. and **S. R. Downie**. 2006. The evolutionary history of *Sium* sensu lato (Apiaceae): Dispersal, vicariance, and domestication as inferred from ITS rDNA phylogeny. *American Journal of Botany* 93(5): 747-761.
60. Hansen, A. K., L. E. Gilbert, B. B. Simpson, **S. R. Downie**, A. C. Cervi, and R. K. Jansen. 2006. Phylogenetic relationships and chromosome number evolution in *Passiflora*. *Systematic Botany* 31(1): 138-150.
59. Robertson, K. R., **S. R. Downie**, and S. L. Mason. 2006. Chapter 4, Botany. Pages 4:1-4:50 in R. Kanter (ed.), *East Central Illinois Master Naturalist Manual*, University of Illinois Extension, Urbana, IL.
58. Chung, K.-F., C.-I. Peng, **S. R. Downie**, K. Spalik, and B. A. Schaal. 2005. Molecular systematics of the trans-Pacific alpine genus *Oreomyrrhis* (Apiaceae): Phylogenetic affinities and biogeographic implications. *American Journal of Botany* 92(12): 2054-2071.
57. Sun, F.-J., G. A. Levin, and **S. R. Downie**. 2005. A multivariate analysis of *Cymopterus glomeratus*, formerly known as *C. acaulis* (Apiaceae). *Rhodora* 107(932): 359-385.
56. Hardway, T. M., K. Spalik, M. F. Watson, D. S. Katz-Downie, and **S. R. Downie**. 2004. Circumscription of Apiaceae tribe Oenantheae. *South African Journal of Botany* 70(3): 393-406.
55. Sun, F.-J. and **S. R. Downie**. 2004. A molecular systematic investigation of *Cymopterus* and its allies (Apiaceae) based on phylogenetic analyses of nuclear (ITS) and plastid (rps16 intron) DNA sequences. *South African Journal of Botany* 70(3): 407-416.
54. **Downie, S. R.**, F.-J. Sun, D. S. Katz-Downie, and G. J. Colletti. 2004. A phylogenetic study of *Perideridia* (Apiaceae) based on nuclear ribosomal DNA ITS sequences. *Systematic Botany* 29(3): 737-751.
53. Sun, F.-J., **S. R. Downie**, and R. L. Hartman. 2004. An ITS-based phylogenetic analysis of the perennial, endemic Apiaceae subfamily Apioideae of western North America. *Systematic Botany* 29(2): 419-431.
52. Spalik, K., J.-P. Reduron, and **S. R. Downie**. 2004. The phylogenetic position of *Peucedanum* sensu lato and allied genera and their placement in tribe Selineae (Apiaceae, subfamily Apioideae). *Plant Systematics and Evolution* 243: 189-210.
51. **Downie, S. R.**, R. L. Hartman, F.-J. Sun, and D. S. Katz-Downie. 2002. Polyphyly of the spring-parsleys (*Cymopterus*): Molecular and morphological evidence suggests complex relationships among the perennial endemic taxa of western North American Apiaceae. *Canadian Journal of Botany* 80: 1295-1324.
50. Spalik, K., A. Wojewódzka, and **S. R. Downie**. 2001. The evolution of fruit in Scandiceae subtribe Scandicinae (Apiaceae). *Canadian Journal of Botany* 79: 1358-1374.
49. Spalik, K. and **S. R. Downie**. 2001. The utility of morphological characters for inferring phylogeny in Scandiceae subtribe Scandicinae (Apiaceae). *Annals of the Missouri Botanical Garden* 88: 270-301.
48. Watson, M. F., G. M. Plunkett, **S. R. Downie**, and P. P. Lowry II. 2001. Introduction: evolution, biogeography and systematics of the Apiales (Araliaceae and Apiaceae). *Edinburgh Journal of Botany* 58(2): 179-181.

47. **Downie, S. R.**, G. M. Plunkett, M. F. Watson, K. Spalik, D. S. Katz-Downie, C. M. Valiejo-Roman, E. I. Terentieva, A. V. Troitsky, B.-Y. Lee, J. Lahham, and A. El-Oqlah. 2001. Tribes and clades within Apiaceae subfamily Apioideae: The contribution of molecular data. *Edinburgh Journal of Botany* 58(2): 301-330.
46. Spalik, K., A. Wojewódzka, and **S. R. Downie**. 2001. Delimitation of genera in Apiaceae with examples from Scandiceae subtribe Scandicinae. *Edinburgh Journal of Botany* 58(2): 331-346.
45. Lee, B.-Y., G. A. Levin, and **S. R. Downie**. 2001. Relationships within the spiny-fruited umbellifers (Scandiceae subtribes Daucinae and Torilidinae) as assessed by phylogenetic analysis of morphological characters. *Systematic Botany* 26(3): 622-642.
44. **Downie, S. R.**, M. F. Watson, K. Spalik, and D. S. Katz-Downie. 2000. Molecular systematics of Old World Apioideae (Apiaceae): Relationships among some members of tribe Peucedaneae sensu lato, the placement of several island-endemic species, and resolution within the apioid superclade. *Canadian Journal of Botany* 78: 506-528.
43. Clarke, H. D., **S. R. Downie**, and D. S. Seigler. 2000. Implications of chloroplast DNA restriction site variation for systematics of *Acacia* (Fabaceae: Mimosoideae). *Systematic Botany* 25: 618-632.
42. Plunkett, G. M. and **S. R. Downie**. 2000. Expansion and contraction of the chloroplast inverted repeat in Apiaceae subfamily Apioideae. *Systematic Botany* 25: 648-667.
41. **Downie, S. R.**, D. S. Katz-Downie, and K. Spalik. 2000. A phylogeny of Apiaceae tribe Scandiceae: Evidence from nuclear ribosomal DNA internal transcribed spacer sequences. *American Journal of Botany* 87: 76-95.
40. **Downie, S. R.**, D. S. Katz-Downie, and M. F. Watson. 2000. A phylogeny of the flowering plant family Apiaceae based on chloroplast DNA *rpl16* and *rpoC1* intron sequences: Towards a suprageneric classification of subfamily Apioideae. *American Journal of Botany* 87: 273-292.
39. Lee, B.-Y. and **S. R. Downie**. 2000. Phylogenetic analysis of cpDNA restriction sites and *rps16* intron sequences reveals relationships among Apiaceae tribes Caucalideae, Scandiceae and related taxa. *Plant Systematics and Evolution* 221: 35-60.
38. Katz-Downie, D. S., C. M. Valiejo-Roman, E. I. Terentieva, A. V. Troitsky, M. G. Pimenov, B.-Y. Lee, and **S. R. Downie**. 1999. Towards a molecular phylogeny of Apiaceae subfamily Apioideae: Additional information from nuclear ribosomal DNA ITS sequences. *Plant Systematics and Evolution* 216: 167-195.
37. **Downie, S. R.** and D. S. Katz-Downie. 1999. Phylogenetic analysis of chloroplast *rps16* intron sequences reveals relationships within the woody southern African Apiaceae subfamily Apioideae. *Canadian Journal of Botany* 77: 1120-1135.
36. Plunkett, G. M. and **S. R. Downie**. 1999. Major lineages within Apiaceae subfamily Apioideae: A comparison of chloroplast restriction site and DNA sequence data. *American Journal of Botany* 86: 1014-1026.
35. Lee, B.-Y. and **S. R. Downie**. 1999. A molecular phylogeny of Apiaceae tribe Caucalideae and related taxa: Inferences based on ITS sequence data. *Systematic Botany* 24: 461-479.
34. **Downie, S. R.**, D. S. Katz-Downie, E. J. Rogers, H. L. Zujewski, and E. Small. 1998. Multiple independent losses of the plastid *rpoC1* intron in *Medicago* (Fabaceae) as inferred from phylogenetic analyses of nuclear ribosomal DNA internal transcribed spacer sequences. *Canadian Journal of Botany* 76: 791-803.

33. Valiejo-Roman, C. M., M. G. Pimenov, E. I. Terentieva, **S. R. Downie**, D. S. Katz-Downie, and A. V. Troitsky. 1998. Molecular systematics of the Umbelliferae: Using nuclear rDNA internal transcribed spacer sequences to resolve issues of evolutionary relationships. *Botanicheskii Zhurnal* 83: 1-22.
32. Campagna, M. L. and **S. R. Downie**. 1998. The intron in chloroplast gene *rpl16* is missing from the flowering plant families Geraniaceae, Goodeniaceae, and Plumbaginaceae. *Transactions of the Illinois State Academy of Science* 91: 1-11.
31. **Downie, S. R.**, S. Ramanath, D. S. Katz-Downie, and E. Llanas. 1998. Molecular systematics of Apiaceae subfamily Apioideae: Phylogenetic analyses of nuclear ribosomal DNA internal transcribed spacer and plastid *rpoCl* intron sequences. *American Journal of Botany* 85: 563-591.
30. Cosner, M. E., R. K. Jansen, J. D. Palmer, and **S. R. Downie**. 1997. The highly rearranged chloroplast genomes of *Trachelium caeruleum* (Campanulaceae): Multiple inversions, inverted repeat expansion and contraction, transposition, insertions/deletions, and several repeat families. *Current Genetics* 31: 419-429.
29. **Downie, S. R.**, D. S. Katz-Downie, and K.-J. Cho. 1997. Relationships in the Caryophyllales as suggested by phylogenetic analyses of partial chloroplast DNA ORF2280 homolog sequences. *American Journal of Botany* 84: 253-273.
28. **Downie, S. R.**, E. Llanas, and D. S. Katz-Downie. 1996. Multiple independent losses of the *rpoCl* intron in angiosperm chloroplast DNAs. *Systematic Botany* 21: 135-151.
27. **Downie, S. R.**, D. S. Katz-Downie, and K.-J. Cho. 1996. Phylogenetic analysis of Apiaceae subfamily Apioideae using nucleotide sequences from the chloroplast *rpoCl* intron. *Molecular Phylogenetics and Evolution* 6(1): 1-18.
26. **Downie, S. R.** and D. S. Katz-Downie. 1996. A molecular phylogeny of Apiaceae subfamily Apioideae: Evidence from nuclear ribosomal DNA internal transcribed spacer sequences. *American Journal of Botany* 83(2): 234-251.
25. Halls, S. C., **S. R. Downie**, and Govindjee. 1995. Phylogenetic analysis of photosystems I and II reaction center protein sequences. In P. Mathis (ed.), *Photosynthesis: From Light to Biosphere*, Vol. I, 955-958. Kluwer Academic Publishers, Dordrecht, The Netherlands.
24. **Downie, S. R.**, D. S. Katz-Downie, K. H. Wolfe, P. J. Calie, and J. D. Palmer. 1994. Structure and evolution of the largest chloroplast gene (ORF2280): Internal plasticity and multiple gene loss during angiosperm evolution. *Current Genetics* 25: 367-378.
23. **Downie, S. R.** and J. D. Palmer. 1994. Erratum: A chloroplast DNA phylogeny of the Caryophyllales based on structural and inverted repeat restriction site variation. *Systematic Botany* 19(3): 487.
22. **Downie, S. R.** and J. D. Palmer. 1994. A chloroplast DNA phylogeny of the Caryophyllales based on structural and inverted repeat restriction site variation. *Systematic Botany* 19: 236-252.
21. Palmer, J. D., **S. R. Downie**, J. M. Nugent, P. Brandt, M. Unseld, M. Klein, A. Brennicke, W. Schuster, and T. Borner. 1994. Chloroplast and mitochondrial DNAs of *Arabidopsis thaliana*: conventional genomes in an unconventional plant. In E. M. Meyerowitz and C. R. Somerville (eds.), *Arabidopsis*, 37-62. Cold Springs Harbor Laboratory Press, New York, NY.
20. **Downie, S. R.** and J. D. Palmer. 1994. Phylogenetic relationships using restriction site variation of the chloroplast DNA inverted repeat. In H.-D. Behnke and T. H. Mabry (eds.), *Caryophyllales: Evolution and Systematics*, 223-233. Springer-Verlag, Heidelberg, Germany.

19. Knox, E., **S. R. Downie**, and J. D. Palmer. 1993. Chloroplast genome rearrangements and the evolution of giant lobelias from herbaceous ancestors. *Molecular Biology and Evolution* 10: 414-430.
18. **Downie, S. R.** and J. D. Palmer. 1992. Use of chloroplast DNA rearrangements in reconstructing plant phylogeny. In P. S. Soltis, D. E. Soltis, and J. J. Doyle (eds.), *Molecular Systematics of Plants*, 14-35. Chapman and Hall, New York, NY.
17. **Downie, S. R.** and J. D. Palmer. 1992. Restriction site mapping of the chloroplast DNA inverted repeat: A molecular phylogeny of the Asteridae. *Annals of the Missouri Botanical Garden* 79(2): 266-283.
16. **Downie, S. R.**, R. G. Olmstead, G. Zurawski, D. E. Soltis, P. S. Soltis, J. Watson, and J. D. Palmer. 1991. Six independent losses of the chloroplast DNA *rpl2* intron in dicotyledons: Molecular and phylogenetic implications. *Evolution* 45(5): 1245-1259.
15. Olmstead, R. G., R. K. Jansen, H. J. Michaels, **S. R. Downie**, and J. D. Palmer. 1990. Chloroplast DNA and phylogenetic studies in the Asteridae. In S. Kawano (ed.), *Biological Approaches and Evolutionary Trends in Plants*, 119-134. Academic Press, San Diego, CA.
14. Palmer, J. D., P. J. Calie, C. W. dePamphilis, J. M. Logsdon, Jr., D. S. Katz-Downie, and **S. R. Downie**. 1990. An evolutionary genetic approach to understanding plastid gene function: Lessons from photosynthetic and nonphotosynthetic plants. In M. Baltscheffsky (ed.), *Current Research in Photosynthesis*, Vol. III, 475-482. Kluwer Academic Publishers, Dordrecht, The Netherlands.
13. Price, R. A., P. J. Calie, **S. R. Downie**, J. M. Logsdon, Jr., and J. D. Palmer. 1990. Chloroplast DNA variation in the Geraniaceae -- a preliminary report. In P. Vorster (ed.), *Proceedings of the International Geraniaceae Symposium*, 235-244. University of Stellenbosch, Monville, South Africa.
12. **Downie, S. R.** and J. McNeill. 1990. The taxonomic status of *Euphrasia randii* (Scrophulariaceae). *Canadian Journal of Botany* 68(7): 1531-1535.
11. **Downie, S. R.**, A. Quintin, and J. McNeill. 1988. Le statut des *Euphrasia borealis*, *E. nemorosa* et *E. stricta* dans l'est de l'Amérique du Nord: une analyse numérique. *Canadian Journal of Botany* 66(11): 2208-2216.
10. **Downie, S. R.** and J. McNeill. 1988. Description and distribution of *Euphrasia stricta* in North America. *Rhodora* 90: 223-231.
9. **Downie, S. R.** 1988. Morphological, cytological and flavonoid variability of the *Arnica angustifolia* aggregate (Asteraceae). *Canadian Journal of Botany* 66(1): 24-29.
8. **Downie, S. R.** and K. E. Denford. 1988. Taxonomy of *Arnica* subgenus *Arctica*. *Rhodora* 90: 245-275.
7. **Downie, S. R.** and K. E. Denford. 1988. Flavonoid variation in *Arnica* subgenus *Arctica*. *Biochemical Systematics and Ecology* 16: 133-137.
6. **Downie, S. R.** 1987. A biosystematic study of *Arnica* subgenus *Arctica* (Asteraceae). Ph.D. Thesis, University of Alberta, Edmonton, Alberta, Canada. (Keith E. Denford, Advisor)
5. **Downie, S. R.** 1987. *Arnica lonchophylla* Greene. In K. M. Pryer and G. W. Argus (eds.), *Atlas of the Rare Vascular Plants of Ontario*, Part 4. National Museum of Natural Sciences, Ottawa, Canada.
4. **Downie, S. R.** and K. E. Denford. 1987. The biosystematics of *Arnica fulgens* and *A. sororia* (Asteraceae). *Canadian Journal of Botany* 65(3): 559-570.

3. **Downie, S. R.** and K. E. Denford. 1986. The flavonoids of *Arnica frigida* and *A. louiseana* (Asteraceae). Canadian Journal of Botany 64(11): 2748-2752.
2. **Downie, S. R.** and K. E. Denford. 1986. The taxonomy of *Arnica frigida* and *A. louiseana* (Asteraceae). Canadian Journal of Botany 64(7): 1355-1372.
1. **Downie, S. R.** 1985. Chromosome number reports LXXXVIII. Taxon 34: 550.

Published Abstracts and Presentations

81. Clarkson, J. J., O. Maurin, G. Brewer, N. Epitawalage, A. R. Zuntini, J. Kim, P. Bailey, J. F. Smith, G. M. Plunkett, **S. R. Downie**, F. Forest, and W. J. Baker. 2019. The plant and fungal trees of life (PATOL) project: a case study from the carrot family (Apiaceae). Botany 2019 Meetings, Tucson, Arizona.
80. **Downie, S. R.** 2017. A comparative analysis of plastid genomes from the Apiales: expansion and contraction of the inverted repeat, mitochondrial to plastid transfer of DNA, and highly divergent noncoding regions. Huaqiao University, Xiamen, China.
79. **Downie, S. R.** 2017. Species delimitations in the perennial, endemic North American clade of Apiaceae: *Cymopterus glomeratus*, *Pseudocymopterus montanus*, and *Pteryxia terebinthina* revisited. IX Apiales Symposium, Guangzhou, China.
78. Smith, J. F., M. Stevens, E. Sosa, D. H. Mansfield, M. Darrach, **S. R. Downie**, G. M. Plunkett, and M. A. Feist. 2016. Try, try again?: Resolving species boundaries within *Lomatium triternatum* (Apiaceae) and its close relatives. Botany 2016 Meetings, Savannah, Georgia.
77. **Downie, S. R.** and R. M. Peery. 2014. A comparative analysis of plastid genomes from the Apiales: expansion and contraction of the inverted repeat, mitochondrial to plastid transfer of DNA, and highly divergent noncoding regions. Apiales 2014 Conference, Istanbul, Turkey.
76. Peery, R. and **S. R. Downie**. 2014. Plastome evolution of the apioid superclade (Apiaceae subfamily Apioideae). Evolution 2013 Conference, Raleigh, North Carolina.
75. Bowker, C. L., P. J. Ode, W. Black, M. R. Berenbaum, and **S. R. Downie**. 2013. Tracing the invasion history of a parasitoid wasp in North America. Ecological Society of America, 98th Annual Meeting, Minneapolis, Minnesota.
74. Peery, R., S. Mathews, and **S. R. Downie**. 2013. Update on the quest to resolve higher-level relationships in Apiaceae subfamily Apioideae. Botany 2013 Meetings, New Orleans, Louisiana.
73. Peery, R., Y. Xu, and **S. R. Downie**. 2012. Towards an understanding of phylogenetic relationships in the apioid superclade (Apiaceae subfamily Apioideae). Plant Biology 2012, American Society of Plant Biologists, Austin, Texas.
72. Haberle, R., **S. R. Downie**, J. Kuehl, C. Zhengqiu, J. Boore, and R. K. Jansen. 2012. Comparative plastid genomics of the Campanuloideae (*Wahlenbergia* and *Platycodon*) and close relative *Pseudonemacladus*: Implications for phylogeny and genome evolution. Botany 2012 Meetings, Columbus, Ohio.
71. Peery, R., **S. R. Downie**, R. K. Jansen, and L. A. Raubeson. 2011. Apiaceae organellar genomes. XVIII International Botanical Congress, Melbourne, Australia. P0412 (ePoster).

70. Feist, M. A., **S. R. Downie**, A. R. Magee, and M. Liu. 2011. Revised generic delimitations for *Oxyopolis* and *Ptilimnium* (Apiaceae tribe Oenantheae) based on nuclear rDNA ITS and cpDNA sequence data and fruit anatomy. XVIII International Botanical Congress, Melbourne, Australia. P0792 (ePoster).
69. Magee, A. R., B.-E. Van Wyk, P. M. Tilney, and **S. R. Downie**. 2011. Phylogenetic significance of African Apiaceae and a new tribal classification for the protoapioids. Symposium 079: From molecules to morphology: an integrative perspective on the evolution and biogeography of Apiales. XVIII International Botanical Congress, Melbourne, Australia.
68. Spalik, K., Ł. Banasiak, M. Piwczynski, and **S. R. Downie**. 2011. Historical biogeography of Apiaceae subfamily Apioideae: from southern Africa to the northern hemisphere and back to the south again. Symposium 079: From molecules to morphology: an integrative perspective on the evolution and biogeography of Apiales. XVIII International Botanical Congress, Melbourne, Australia.
67. **Downie, S. R.**, R. Peery, L. A. Raubeson, and R. K. Jansen. 2011. A comparative analysis of plastid genomes in the Apiales. Symposium 079: From molecules to morphology: an integrative perspective on the evolution and biogeography of Apiales. XVIII International Botanical Congress, Melbourne, Australia.
66. Haberle, R. C., **S. R. Downie**, Z. Cai, J. Kuehl, J. Boore, and R. K. Jansen. 2011. Evolutionary implications of highly rearranged chloroplast genomes in major lineages of Campanuloideae (Campanulaceae). XVIII International Botanical Congress, Melbourne, Australia.
65. Banasiak, Ł., M. Piwczynski, **S. R. Downie**, and K. Spalik. 2011. The distribution of fossil umbellifer pollen is not consistent with the phylogeography of extant Apiaceae. The 7th International Apiales Symposium, The National Herbarium of New South Wales, Sydney Australia, Book of Abstracts.
64. Feist, M. A. E., **S. R. Downie**, A. R. Magee, and M. Liu. 2011. Revised generic delimitations for *Oxyopolis* and *Ptilimnium* (Apiaceae tribe Oenantheae) based on comparative fruit anatomy and phylogenetic analysis of nuclear rDNA ITS and cpDNA trnQ and trnK sequence data. The 7th International Apiales Symposium, The National Herbarium of New South Wales, Sydney Australia, Book of Abstracts.
63. Peery, R., **S. R. Downie**, R. K. Jansen, and L. A. Raubeson. 2011. A comparative analysis of plastid genomes in the Apiales. The 7th International Apiales Symposium, The National Herbarium of New South Wales, Sydney Australia, Book of Abstracts.
62. Piwczynski, M., **S. R. Downie**, and K. Spalik. 2011. Dating the origin and early diversification of Apiaceae (Magnoliophyta). The 5th International Conference of the International Biogeography Society, Irakleion, Crete, Greece.
61. Banasiak, Ł., B. Shakya, M. F. Watson, **S. R. Downie**, and K. Spalik. 2011. Dating the origin and locating the diversification centre of apioid umbellifers (Magnoliophyta, Apiaceae subfamily Apioideae). The 5th International Conference of the International Biogeography Society, Irakleion, Crete, Greece.
60. Calviño, C. I. and **S. R. Downie**. 2010. Systematics of Apiaceae subfamilies Apioideae and Saniculoideae: phylogenetic affinities and biogeographic implications. VI Southern Connections Congress, Bariloche, Argentina.
59. Magee, A. R., C. I. Calviño, M. Liu, **S. R. Downie**, P. M. Tilney, and B.-E. van Wyk. 2009. New tribal delimitations in African Apiaceae. South African Journal of Botany 75(2): 410-411.
58. Spalik, K., M. Piwczynski, and **S. R. Downie**. 2009. Inter- and intracontinental disjunctions in the Holarctic: an example from tribe Oenantheae (Magnoliophyta, Apiaceae). The 4th International Conference of the International Biogeography Society, Merida, Mexico.

57. Winter, P. J. D., B.-E. van Wyk, A. R. Magee, **S. R. Downie**, and P. M. Tilney. 2008. The demise of *Peucedanum* (Apiaceae) in Africa. *South African Journal of Botany* 74(2): 383.
56. **Downie, S. R.**, K. Spalik, D. S. Katz-Downie, and J.-P. Reduron. 2008. An ITS-based classification of Apiaceae subfamily Apioideae. Proceedings of the 6th International Symposium on the Apiales, Moscow State University, Moscow, Russia.
55. Calviño, C. I., S. G. Martínez, and **S. R. Downie**. 2008. Unraveling the taxonomic complexity of *Eryngium* L. (Apiaceae). Proceedings of the 6th International Symposium on the Apiales, Moscow State University, Moscow, Russia.
54. Spalik, K. and **S. R. Downie**. 2008. Did dispersal or morphological novelties drive diversification of Apiaceae tribe Oenantheae? Proceedings of the 6th International Symposium on the Apiales, Moscow State University, Moscow, Russia.
53. Magee, A. R., B.-E. van Wyk, P. M. Tilney, A. A. Oskolski, and **S. R. Downie**. 2008. New generic circumscriptions of southern African peucedanoid genera. Proceedings of the 6th International Symposium on the Apiales, Moscow State University, Moscow, Russia.
52. Cordes, J. M. and **S. R. Downie**. 2008. Molecular systematic evidence supporting distinction of a rare Greek endemic and its southern African relatives: the genus *Conium* redefined. Botany 2008 Meetings, University of British Columbia, Vancouver, Canada.
51. Feist, M. A. and **S. R. Downie**. 2008. Changes to the generic delimitation of *Oxypolis* and *Ptilimnium* based on nrDNA ITS and cpDNA sequence data. Botany 2008 Meetings, University of British Columbia, Vancouver, Canada.
50. Danderson, C. A., M. Hermann, and **S. R. Downie**. 2008. Resolving phylogenetic relationships within the *Arracacia* clade (Apiaceae subfamily Apioideae) using ITS and cpDNA sequence data. Botany 2008 Meetings, University of British Columbia, Vancouver, Canada.
49. Calviño, C. I., S. G. Martínez, and **S. R. Downie**. 2007. Morfología y filogenia molecular de la subfamilia Saniculoideae (Apiaceae) [Morphology and molecular phylogeny of subfamily Saniculoideae (Apiaceae)]. 31st Argentinean Meeting of Botany, Corrientes, Argentina.
48. Tilney, P. M., B.-E. Van Wyk, and **S. R. Downie**. 2007. A revision of the genus *Lichtensteinia* (Apiaceae). *South African Journal of Botany* 73(2): 317. XXXIII Annual Conference of the South African Association of Botanists, University of Cape Town, South Africa.
47. Magee, A. R., B.-E. Van Wyk, P. M. Tilney, and **S. R. Downie**. 2007. New generic circumscriptions of Cape peucedanoid species (Apiaceae). *South African Journal of Botany* 73(2): 298-299. XXXIII Annual Conference of the South African Association of Botanists, University of Cape Town, South Africa.
46. van Wyk, B.-E., P. M. Tilney, M. Liu, A. R. Magee, P. J. D. Winter, C. I. Calviño, and **S. R. Downie**. 2007. Systematic studies of African Apiaceae: a progress report. *South African Journal of Botany* 73(2): 318-319. XXXIII Annual Conference of the South African Association of Botanists, University of Cape Town, South Africa.
45. **Downie, S. R.** 2007. Tribe Oenantheae: A contribution to a family-wide phylogenetic classification of Apiaceae. Plant Biology and Botany 2007 Joint Congress, Chicago, Illinois.
44. Peery, R., **S. R. Downie**, J. V. Kuehl, J. L. Boore, and L. A. Raubeson. 2007. Chloroplast genome evolution in Apiaceae. Plant Biology and Botany 2007 Joint Congress, Chicago, Illinois.

43. Cordes, J. M. and **S. R. Downie**. 2007. Ascertaining the phylogenetic position and infrageneric relationships of *Conium*, the odd man out. Plant Biology and Botany 2007 Joint Congress, Chicago, Illinois.
42. Danderson, C. A. and **S. R. Downie**. 2007. Resolving phylogenetic relationships within the apioid superclade (Apiaceae subfamily Apioideae) using cpDNA sequence data, with emphasis on tribe Apieae. Plant Biology and Botany 2007 Joint Congress, Chicago, Illinois.
41. Calviño, C. I. and **S. R. Downie**. 2007. Phylogenetic relationships within Apiaceae subfamily Saniculoideae based on cpDNA *trnQ-trnK* 5'exon sequences. Plant Biology and Botany 2007 Joint Congress, Chicago, Illinois.
40. Spalik, K. and **S. R. Downie**. 2007. Phylogeny and biogeography of *Cryptotaenia* and related taxa, with emphasis on Macaronesian endemics (Magnoliophyta, Family Apiaceae). Third International Biogeography Society Conference, Tenerife, Canary Islands.
39. Calviño, C. I., **S. R. Downie**, P. Tilney, and B.-E. van Wyk. 2005. The phylogenetic positions of southern African Apiaceae relative to subfamilies Apioideae and Saniculoideae. Botany 2005 Meetings, Austin, Texas.
38. Feist, M. A. and **S. R. Downie**. 2005. A phylogenetic examination of *Oxypolis* and *Ptilimnium* (Apiaceae) using nuclear ribosomal DNA ITS sequences. Botany 2005 Meetings, Austin, Texas.
37. Bone, T. S., **S. R. Downie**, and J. M. Affolter. 2005. A phylogenetic study of the genus *Lilaeopsis* (Apiaceae). Botany 2005 Meetings, Austin, Texas.
36. van Wyk, B.-E., **S. R. Downie**, P. M. Tilney, and N. N. Phephu. 2005. A taxonomic study of the woody southern African species of *Peucedanum*. Proceedings of the Apiales V Symposium, Vienna, Austria.
35. **Downie, S. R.**, D. S. Katz-Downie, K. Spalik, C.-S. Lee, M. A. Feist, C. Calviño, T. Bone, and F.-J. Sun. 2005. Further phylogenetic studies in Apiaceae tribe Oenantheae: generic-level relationships and resolution within the "North American endemics" clade. Proceedings of the Apiales V Symposium, Vienna, Austria.
34. Calviño, C. I., **S. R. Downie**, P. M. Tilney, and B.-E. van Wyk. 2005. Relationships within Apiaceae subfamilies Saniculoideae and Apioideae based on phylogenetic analyses of cpDNA *rps16* intron sequences. Proceedings of the Apiales V Symposium, Vienna, Austria.
33. Spalik, K. and **S. R. Downie**. 2005. The phylogeography of Apiaceae tribe Oenantheae Dumort.: assessing the role of long-distance dispersal in shaping biogeographic patterns in hydrophytes. Proceedings of the Apiales V Symposium, Vienna, Austria.
32. Calviño, C. I., **S. R. Downie**, P. M. Tilney, and B.-E. van Wyk. 2005. Major clades within Apiaceae subfamilies Saniculoideae and basal Apioideae: implications for evolution of the woody habit. XVII International Botanical Congress, Vienna, Austria.
31. Lee, C. and **S. R. Downie**. 2005. A phylogenetic study of water-hemlock (*Cicuta*; Apiaceae tribe Oenantheae). XVII International Botanical Congress, Vienna, Austria.
30. Spalik, K., A. Wojewódzka, and **S. R. Downie**. 2005. Reconstructing common ancestors using mapping of qualitative and quantitative characters: a case study of Apiaceae tribe Scandiceae. XVII International Botanical Congress, Vienna, Austria.
29. **Downie, S. R.**, F.-J. Sun, and R. L. Hartman. 2003. Relationships among the perennial, endemic umbellifers of western North America as inferred by phylogenetic analysis of nuclear rDNA ITS sequences. Proceedings of the Apiales IV Symposium, Pretoria, South Africa.

28. **Downie, S. R.**, K. Spalik, M. Watson, and D. S. Katz-Downie. 2003. Phylogenetic studies in Apiaceae tribe Oenantheae: circumscription and relationships. Proceedings of the Apiales IV Symposium, Pretoria, South Africa.
27. **Downie, S. R.** 2000. Tribes and clades within Apiaceae subfamily Apioideae: the contribution of molecular data. Botany 2000 Meetings, Portland, Oregon. American Journal of Botany 87(6): 123.
26. Sun, F.-J., **S. R. Downie**, and R. L. Hartman. 2000. A phylogenetic study of *Cymopterus* and related genera. Botany 2000 Meetings, Portland, Oregon. American Journal of Botany 87(6): 161-162.
25. Spalik, K., A. Zochowska, M. Zych, and **S. R. Downie**. 1999. The definition of genera and infrageneric taxa in Apiaceae: some examples from subtribe Scandicinae. XVI International Botanical Congress, St. Louis, Missouri.
24. **Downie, S. R.**, G. M. Plunkett, M. F. Watson, D. S. Katz-Downie, K. Spalik, and B. Lee. 1999. Major clade determination within Apiaceae subfamily Apioideae. XVI International Botanical Congress, St. Louis, Missouri.
23. Clarke, H. D., D. S. Seigler, and **S. R. Downie**. 1998. Systematics and biogeography of *Acacia* subgenus *Acacia* in the West Indies. American Journal of Botany 85(6): 120.
22. Hansen, K. A., **S. R. Downie**, L. E. Gilbert, and R. K. Jansen. 1997. Phylogenetic implications of the loss of the *rpoCl* intron in *Passiflora* L. American Journal of Botany 84(6): 200.
21. Lee, B., S. Ramanath, M. Choi, and **S. R. Downie**. 1997. A molecular phylogeny of Umbelliferae tribe Caucalideae: evidence from nuclear ribosomal DNA internal transcribed (ITS) sequences. American Journal of Botany 84(6): 208-209.
20. Potgieter, K., **S. R. Downie**, D. Seigler, and V. Albert. 1996. Preliminary phylogenetic study of the genus *Aspidosperma* (Apocynaceae) using ITS sequence data. American Journal of Botany 83(6): 187.
19. Lee, B., S. Ramanath, and **S. R. Downie**. 1996. Phylogenetic relationships within tribe Caucalideae (Umbelliferae): discordance between nuclear ribosomal ITS and morphological based topologies. American Journal of Botany 83(6): 172.
18. **Downie, S. R.**, G. M. Plunkett, S. Ramanath, D. S. Katz-Downie, D. E. Soltis, and P. S. Soltis. 1996. Relationships in Apiaceae subfamily Apioideae as inferred by phylogenetic analyses of chloroplast and nuclear DNA sequences. American Journal of Botany 83(6): 153.
17. **Downie, S. R.**, D. S. Katz-Downie, and E. Llanas. 1996. Phylogenetic analysis of the cpDNA *rpoCl* intron: sequence variation and multiple losses. American Journal of Botany 83(6): 153.
16. Ramanath, S., D. S. Katz-Downie, and **S. R. Downie**. 1995. A molecular phylogeny of Apiaceae subfamily Apioideae: evidence from nuclear ribosomal DNA. American Journal of Botany 82(6): 157.
15. Lee, B., S. Ramanath, and **S. R. Downie**. 1995. Phylogenetic relationships of Umbelliferae tribe Caucalideae: preliminary investigations. American Journal of Botany 82(6): 143.
14. **Downie, S. R.**, D. S. Katz-Downie, and K.-J. Cho. 1995. Structural and sequence variation in the highly conserved cpDNA inverted repeat region: implications for higher-level taxonomic studies. American Journal of Botany 82(6): 126.

13. Clarke, H. D., **S. R. Downie**, and D. S. Seigler. 1994. Biogeographic and evolutionary implications of chloroplast DNA restriction site variation in New World *Acacia* series *Gummiferae* (Fabaceae: Mimosoideae). *American Journal of Botany* 81(6): 148.
12. **Downie, S. R.**, S. Ramanath, and D. S. Katz-Downie. 1994. A molecular phylogeny of Apiaceae subfamily Apioideae: evidence from nuclear ribosomal DNA internal transcribed spacer sequences and chloroplast DNA restriction site polymorphisms. *American Journal of Botany* 81(6): 153.
11. Clarke, H. D., **S. R. Downie**, and D. S. Seigler. 1993. Systematics of New World *Acacia* series *Gummiferae* (Fabaceae: Mimosoideae): evidence from chloroplast DNA restriction site mapping. *American Journal of Botany* 80(6): 137.
10. **Downie, S. R.** 1993. Molecular systematics of Umbelliferae subfamily Apioideae: preliminary investigations. *American Journal of Botany* 80(6): 146.
9. **Downie, S. R.**, D. S. Katz-Downie, and J. D. Palmer. 1993. Internal plasticity and multiple gene loss of the largest chloroplast gene during angiosperm evolution. *American Journal of Botany* 80(6): 146-147.
8. Knox, E., **S. R. Downie**, and J. D. Palmer. 1991. Phylogenetic relationships in the Lobeliaceae based on chloroplast DNA restriction site mutations and major structural rearrangements. *American Journal of Botany* 78(6): 197.
7. Logsdon, J. M. Jr., K. H. Wolfe, **S. R. Downie**, and J. D. Palmer. 1991. Chloroplast introns: molecular evolution and phylogenetic studies. *Journal of Cellular Biochemistry, Suppl.* 15D: 71.
6. **Downie, S. R.** and J. D. Palmer. 1990. Chloroplast DNA evidence for phylogenetic relationships in the Asteridae. *American Journal of Botany* 77(6): 112.
5. **Downie, S. R.** and J. D. Palmer. 1989. Chloroplast DNA rearrangement variation in the Asteridae: phylogenetic implications. *American Journal of Botany* 76(6): 238.
4. **Downie, S. R.** 1988. The status of *Euphrasia borealis*, *E. nemorosa* and *E. stricta* in eastern North America: a numerical analysis. *American Journal of Botany* 75(6): 171.
3. **Downie, S. R.** 1988. *Arnica angustifolia* (Asteraceae): a circumpolar polyploid complex. *American Journal of Botany* 75(6): 171.
2. **Downie, S. R.** and K. E. Denford. 1987. *Arnica fulgens* and *A. sororia* (Asteraceae): a biosystematic study. *American Journal of Botany* 74(5): 732.
1. **Downie, S. R.** and K. E. Denford. 1986. A biosystematic study of the *Arnica frigida* – *louisiana* complex. *American Journal of Botany* 73(5): 760-761.

Service (*only major duties indicated and most dates removed for brevity*)

Campus:

Life Sciences Working Group on General Education Learning Outcomes (Spring 2019)
Senator, University of Illinois Academic Senate (3 years, Fall 2013 – Spring 2016)
Biological Sciences Panel, Illinois Board of Higher Education (Fall 2001 – Spring 2004)

College of Liberal Arts and Sciences:

Critical Courses Committee (Fall 2017 – present)
Council on General Education (Fall 2002 – Spring 2004; Fall 2011 – Spring 2014)
Committee on Committees (Fall 2006 – Spring 2007; Fall 2010 – Spring 2013)
Committee on Courses and Curricula (Fall 2000 – Spring 2001; Fall 2001 – Spring 2002, Chair)

School of Integrative Biology and School of Life Sciences:

Director, Graduate Assistance in Areas of National Need (GAANN) program
Academic Integrity Appeals Committee, Chair
Courses and Curricula Committee, Chair (*or ex officio*)
Distinction Committee, Chair (*or ex officio*)
Fellowship Committee, Chair
Steering Committee, Program in Ecology and Evolutionary Biology
Executive Committee
SOLS Reorganization, Undergraduate Curriculum Planning
Faculty & Staff Searches and Review Committees

Department of Plant Biology:

Associate Head (Aug 2002 – Aug 2007)
Director of Graduate Studies
Instruction Committee, Chair
Herbarium Committee, Chair
Advisory Committee
Graduate Student Award Committee, Chair
M.S. and Ph.D. Graduate Student Committees
Peer Teaching Evaluations, Chair
Third Year Review Committees
Promotion Dossier Preparation

Professional:

Associate Editor, Canadian Journal of Botany (Aug 1999 – Aug 2003)
Istanbul University Journal of Pharmacy Advisory Board
Grant Proposal Reviewer (NSF, NRC, NRF, NSERC, UI Research Board)
ad hoc Peer Reviewer (Journal Articles, Textbook Chapters)
Promotion, Scholarship, and Tenure Dossier Reviewer
External Ph.D. Thesis Examiner

Graduate Student Supervision

Peery, Rhiannon, Ph.D. 2015, Aug 2009 – May 2015, Understanding angiosperm genome interactions and evolution: insights from sacred lotus (*Nelumbo nucifera*) and the carrot family (Apiaceae).

Feist, Mary Ann E., Ph.D. 2011, Aug 2002 – May 2011, A phylogenetic and monographic study of *Oxyopolis*, *Ptilimnium*, and closely related genera (Apiaceae).

Danderson, Clark A., Ph.D. 2011, Aug 2005 – May 2011, A systematic study of the *Arracacia* clade.

- Cordes, Jenny M., M.S. 2009, Aug 2006 – May 2009, A systematic study of poison hemlock (*Conium*, Apiaceae).
- Calviño, Carolina I., Ph.D. 2007, Aug 2002 – Nov 2007, Systematic studies within Apioideae, Saniculoideae and Eryngium L. (Apiaceae): molecular phylogenies, evolution of morphological characters, and historical biogeography.
- Bone, Tiffany, M.S. 2007, Aug 2004 – May 2007, A phylogenetic and biogeographic study of the umbellifer genus *Lilaeopsis*.
- Sun, Fengjie, Ph.D. 2003, Sep 1997 – Sep 2003, A phylogenetic study of *Cymopterus* (Apiaceae) and its allies.
- Hardway, Tricia, M.S. 2001, Sep 1997 – Jul 2001, A phylogenetic study of Apiaceae tribe Oenantheae.
- Byoungyoon Lee, Ph.D. 1998, Sep 1993 – May 1998, A phylogenetic study of Apiaceae tribe Caucalideae.
- Ramanath, Seemanti, M.S. 1997, Sep 1993 – May 1997, A molecular phylogeny of Apiaceae subfamily Apioideae using evidence from the internal transcribed spacer (ITS) region of nuclear ribosomal DNA.

International Visitors and Postdoctoral Research Associates

- Dr. Chenyang Liao, Sichuan University, China (Sept 2017 – Sept 2018)
- Dr. Taner Özcan, Balıkesir University, Turkey (May 2016 – Oct 2016)
- Dr. Qizhi Wang, Huaqiao University, China (Sept 2014 – Sept 2015)
- Dr. Hong-Li Chang, Northwest University, China (July 2013 – Mar 2014)
- Dr. Yue Xu, Jilin University, China (May 2011 – Apr 2012)
- Dr. Anthony R. Magee, University of Johannesburg, South Africa (Aug 2008)
- Dr. Changshook Lee, Seoul National University, Korea (Aug 2002 – Jul 2003)
- Dr. Carolina I. Calviño, Instituto de Botánica Darwinion, Argentina (Aug 02 – Aug 06; Jul 07 – Nov 07)
- Dr. Krzysztof Spalik, University of Warsaw, Poland (May 97 – Aug 97; May 98 – Aug 98; Jul 02 – Aug 02; Jul 03 – Aug 03)
- Dr. Christine Desfeux, postdoc (Sept 96 – May 97)
- Dr. Carmen Valiejo-Roman, Moscow State University, Russia (Oct 95 – Nov 95; Jun 96 – Sept 96)
- Dr. Aleksey V. Troitsky, Moscow State University, Russia (Oct 95)
- Dr. Gregory M. Plunkett, postdoc (Aug 95 – Aug 96)
- Dr. Kyung-Jin Cho, Korea University (Jan 93 – Dec 94)

Graduate Student Committees

- | | |
|------------------------------------|--------------------------------|
| Kollipara, Krishna P. (Ph.D. 1993) | Danderson, Clark (M.S. 2005) |
| Song, Choon-Bok (Ph.D. 1993) | Anderson, Lynn (Ph.D. 2006) |
| Potgieter, Kurt (Ph.D. 1998) | Raja, Huzefa (Ph.D. 2007) |
| Clark, H. David (Ph.D. 1995) | Sagun, Vernie (Ph.D. 2007) |
| Khashnobish, Aruna (Ph.D. 1995) | Choi, Won-Young (Ph.D. 2006) |
| Hill, Jerry L. (Ph.D. 1998) | Riggins, Chance (Ph.D. 2008) |
| Lee, Jeongran (Ph.D. 2000) | Lynch, Tara (M.S. 2008) |
| Anderson, Jennifer (M.S. 2000) | Chaudhary, Preeti (Ph.D. 2007) |
| McKenna, Duane (M.S. 2000) | Zahniser, James (Ph.D. 2008) |
| Kiss, Andor (Ph.D. 2002) | Magee, Anthony R. (Ph.D. 2009) |
| Glass, Catherine (Ph.D. 2003) | Zhou, Jing (Ph.D. 2009) |
| Taylor, Chris (Ph.D. 2003) | Aryal, Rishi (Ph.D. 2013) |
| Favret, Colin (Ph.D. 2003) | Arro, Jie A. (Ph.D. 2014) |
| Hauser, Christopher (M.S. 2004) | Jogesh, Tania (Ph.D. 2014) |
| Mah, Christopher (Ph.D. 2005) | Zelski, Steve (Ph.D. 2015) |

Belaffif, Mohammad B. (Ph.D. 2016)

Wadlington, William H. (Ph.D. 2017)

Societal Memberships

American Society of Plant Systematists
Botanical Society of America
International Association for Plant Taxonomy

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