

Spencer K. Monckton

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EDUCATION

Ph.D. Biology

York University, Toronto ON

August 2022

M.Sc. Biology

York University, Toronto ON

May 2015

B.Sc. Hon. Biology

University of Ottawa, Ottawa ON

May 2011

EMPLOYMENT

2022–
present **Postdoctoral Scholar**, Centre for Biodiversity Genomics, University of
Guelph, Guelph, ON

2021–
present **Technical Editor**, Canadian Journal of Arthropod Identification, Biological
Survey of Canada, Remote

2012 **Curatorial Assistant**, Canadian National Collection of Insects, Agriculture
and Agri-Food Canada, Ottawa ON

PUBLICATIONS

Peer-Reviewed Articles

1. Martel V., Morin O., **Monckton S.K.**, Eiseman C.S., Béliveau C., Cusson M., Blank S.M. (2021). Elm zigzag sawfly, *Aproceros leucopoda* (Hymenoptera: Argidae), recorded for the first time in North America through community science. The Canadian Entomologist, **154**: E1. [doi:10.4039/tce.2021.44](https://doi.org/10.4039/tce.2021.44)

2. **Monckton S.K.**, Johal S., Packer L. (2020). Inadequate treatment of taxonomic information prevents replicability of most zoological research. *Canadian Journal of Zoology*, **98**(9): 633-642. [doi:10.1139/cjz-2020-0027](https://doi.org/10.1139/cjz-2020-0027)
3. Kankaanpää T., Vesterinen E., Hardwick B., Schmidt N., Andersson T., Aspholm P., Barrio, I.C., Beckers N., Bêty J., Birkemoe T., Desiervo M., Drotos K., Ehrich D., Gilg O., Gilg G., Hein N., Hoyer T., Jakobsen K., Jodouin C., Jorna J., Kozlov M.V., Kresse J-C., Leandri-Breton D-J., Lecomte N., Loonen M., Marr P., **Monckton S.K.**, Olsen M., Otis J-A., Pyle M., Roos R., Raundrup K., Rozhkova D., Sabard B., Sokolov A., Sokolova N., Solecki A., Urbanowicz C., Villeneuve C., Vyguzova E., Zverev V., Roslin T. (2020). Parasitoids indicate major climate-induced shifts in Arctic communities. *Global Change Biology*, **26**: 6276-6295. [doi:10.1111/gcb.15297](https://doi.org/10.1111/gcb.15297)
4. Ferrari R.R., Onuferko T.M., **Monckton S.K.**, Packer L. (2020). The evolutionary history of the cellophane bee genus *Colletes* Latreille (Hymenoptera: Colletidae): molecular phylogeny, biogeography and implications for a global infrageneric classification. *Molecular Phylogenetics and Evolution*, **146**: 106750. [doi:10.1016/j.ympev.2020.106750](https://doi.org/10.1016/j.ympev.2020.106750)
5. Packer L., **Monckton S.K.**, Onuferko T.M., Ferrari R.R. (2018). Validating Taxonomic Identifications in Entomological Research. *Insect Conservation and Diversity*, **11**: 1-12. [doi:10.1111/icad.12284](https://doi.org/10.1111/icad.12284)
6. **Monckton S.K.** (2016). A revision of *Chilicola* (*Heteroediscelis*), a subgenus of xeromelissine bees (Hymenoptera, Colletidae) endemic to Chile, taxonomy, phylogeny, and biogeography, with descriptions of eight new species. *ZooKeys*, **591**: 1-144. [doi:10.3897/zookeys.591.7731](https://doi.org/10.3897/zookeys.591.7731)
7. Valenta K., Miller C.N., **Monckton S.K.**, Melin A.D., Lehman S.M., Styler S.A., Chapman C.A., Lawes M.J. (2016). Fruit ripening signals and cues in a Madagascan dry forest: haptic indicators reliably indicate fruit ripeness to dichromatic lemurs. *Evolutionary Biology*, **43**: 344-355. [doi:10.1007/s11692-016-9374-7](https://doi.org/10.1007/s11692-016-9374-7)
8. Valenta K., Brown K.A., Melin A.D., **Monckton S.K.**, Styler S.A., Jackson D.A., Chapman C.A. (2015). It's not easy being blue: a cost analysis of plant signal trade-offs. *PLoS ONE*, **10**(6): e0131725. [doi:10.1371/journal.pone.0131725](https://doi.org/10.1371/journal.pone.0131725)
9. **Monckton S.K.** (2014). Case 3670 - *Chilicola vicugna* Toro & Moldenke, 1979 (Insecta, Hymenoptera, COLLETIDAE): proposed replacement of the holotype by a neotype. *Bulletin of Zoological Nomenclature*, **71**(4): 234-236. [doi:10.21805/bzn.v71i4.a13](https://doi.org/10.21805/bzn.v71i4.a13)

Submitted Manuscripts

10. Sharkey M., Athey K.J., Fernández-Triana J.L, Penteadó-Dias A.M., **Monckton S.K.**, Quicke D. (*in press*). Key to the New World subfamilies of the family Braconidae (Hymenoptera: Ichneumonoidea). Canadian Journal of Arthropod Identification.
11. Van Achterberg C., Pitz K., **Monckton S.K.**, Sharkey M.J. (*accepted*). Cenocoeliinae of the New World. Canadian Journal of Arthropod Identification.

Manuscripts In Preparation

12. **Monckton S.K.** Systematic revision of the Nearctic species of the *Pristiphora litura*, *ruficornis*, and *rufipes* species groups (Hymenoptera, Tenthredinidae). Manuscript in preparation. [Dissertation chapter].
13. Taeger A., **Monckton S.K.**, Castro S., Loureiro J., Gaspar H. The first Palearctic Pergidae: *Acordulecera pellucida* established in Portugal (Hymenoptera: Tenthredinoidea). Manuscript in preparation.
14. **Monckton S.K.**, Packer L. A new species of bee from Argentinian Patagonia with the description of a new subgenus (Hymenoptera: Colletidae: Xeromelissinae). Manuscript in preparation.

Other Contributions

15. **Monckton S.K.** (2023). Aphid. In The Canadian Encyclopedia. Online: <https://www.thecanadianencyclopedia.ca/en/article/aphid>
16. **Monckton S.K.** (2023). Monarch Butterfly. In The Canadian Encyclopedia. Online: <https://www.thecanadianencyclopedia.ca/en/article/monarch-butterfly>
17. Baine, Q., Looney C., **Monckton S.K.**, Smith D.R., Schiff N.M., Goulet H., Redford A.J. (2022). Sawfly GenUS. USDA APHIS PPQ Identification Technology Program (ITP) and Washington State Department of Agriculture. April 2022 edition. Fort Collins, CO. <https://idtools.org/id/sawfly/>
18. **Monckton S.K.** (2022). Mantid. In The Canadian Encyclopedia. Online: <https://www.thecanadianencyclopedia.ca/en/article/mantid>
19. **Monckton S.K.** (2022). Yellowjacket. In The Canadian Encyclopedia. Online: <https://www.thecanadianencyclopedia.ca/en/article/yellowjacket>

20. **Monckton S.K.** (2022). Cicada. In *The Canadian Encyclopedia*. Online: <https://www.thecanadianencyclopedia.ca/en/article/cicada>
21. **Monckton S.K.** (2020). Midge. In *The Canadian Encyclopedia*. Online: <https://www.thecanadianencyclopedia.ca/en/article/midge>
22. **Monckton S.K.** "How British Columbia and Washington state are stopping the spread of Asian giant hornets." *The Conversation*, 7 July 2020, <https://theconversation.com/how-british-columbia-and-washington-state-are-stopping-the-spread-of-asian-giant-hornets-140518>.
23. **Monckton S.K.** "Our fear of giant hornets is oversized — and threatens native insects." *The Conversation*, 20 May 2020, <https://theconversation.com/our-fear-of-giant-hornets-is-oversized-and-threatens-native-insects-138508>.
24. **Monckton S.K.** (2020). Hornet. In *The Canadian Encyclopedia*. Online: <https://www.thecanadianencyclopedia.ca/en/article/hornet>
25. **Monckton S.K.**, Brust R.A. (2020). Black Fly. In *The Canadian Encyclopedia*. Online: <https://thecanadianencyclopedia.ca/en/article/black-fly>
26. Kevan P.G., **Monckton S.K.** (2017). Bee. In *The Canadian Encyclopedia*. Online: <https://www.thecanadianencyclopedia.ca/en/article/bee>
27. Campbell B., Campbell J.M., **Monckton S.K.** (2017). Beetle. In *The Canadian Encyclopedia*. Online: <https://www.thecanadianencyclopedia.ca/en/article/beetle>
28. Haufe W.O., **Monckton S.K.** (2016). Flea. In *The Canadian Encyclopedia*. Online: <https://www.thecanadianencyclopedia.ca/en/article/flea>
29. McEwan Kevan D.K., **Monckton S.K.** (2016). Termite. In *The Canadian Encyclopedia*. Online: <https://www.thecanadianencyclopedia.ca/en/article/termite>
30. Brust R.A., **Monckton S.K.** (2016). Mosquito. In *The Canadian Encyclopedia*. Online: <https://www.thecanadianencyclopedia.ca/en/article/mosquito>
31. Pritchard G., **Monckton S.K.** (2016). Mayfly. In *The Canadian Encyclopedia*. Online: <https://www.thecanadianencyclopedia.ca/en/article/mayfly>

RESEARCH PRESENTED

Invited Talks

32. **Monckton S.K.** (2022). Tracing the diversity of North American sawflies. Invited talk at Nature PEI, virtual presentation, 28 June.
33. **Monckton S.K.** (2022). On the surprising diversity of North American sawflies. Invited talk at the Ottawa Entomology Club, virtual presentation, 21 April.
34. **Monckton S.K.** (2014). Describing a group of Chilean bees, *Chilicola (Heteroediscelis)*. Invited talk at Biodiversity Institute of Ontario, University of Guelph, 24 April.

Conference Talks

35. **Monckton S.K.** (2021). A case study in detecting species introductions using social media and community science. Presented at ESC-ESO JAM 2021, virtual meeting, 16 November.
36. **Monckton S.K.**, Johal S., Packer L. (2020). Making identifications replicable in entomology and beyond. Presented at Entomology 2020, virtual meeting, 11-25 November.
37. **Monckton S.K.** (2020). Applying collections-based phylogenomics to everyone's favourite vegetarian wasps. Presented at 2020 Southern Ontario Bee Researchers' Symposium, Toronto, 16 October.
38. **Monckton S.K.** (2019). Combining integrative systematics and comparative phylogeography to better understand patterns of nearctic sawfly diversity. Presented at the 9th Biennial Conference of the International Biogeography Society, Málaga, Spain, 10 January.
39. **Monckton S.K.** (2018). Systematics and biogeography of nearctic sawflies in the nematine genus *Pristiphora* (Hymenoptera: Tenthredinidae). Presented at the 2018 ESA, ESC, and ESBC Joint Annual Meeting, Vancouver, BC, 14 November.
40. **Monckton S.K.** (2018). Systematics and biogeography of nearctic sawflies in the nematine genus *Pristiphora* (Hymenoptera: Tenthredinidae). Presented at XXXVII Annual Meeting of the Willi Hennig Society, Barcelona, Spain, 17 September.

41. **Monckton S.K.** (2017). Systematics and biogeography of the sawfly genus *Pristiphora* in the Nearctic. Presented at Toronto Entomologists' Association, Toronto, ON, 25 March.
42. **Monckton S.K.** (2015). *Chilicola (Heteroediscelis)*: A revised group of Chilean bees. Presented at ESC-SEQ JAM 2015: Entomology in the Anthropocene, Montreal, QC, 9 November.
43. **Monckton S.K.** (2014). Describing a group of Chilean bees, *Chilicola (Heteroediscelis)*. Presented at Ontario Ecology, Ethology, and Evolution Colloquium (OE3C), University of Guelph, 9 May.
44. **Monckton S.K.** (2012). Systematics of a subgenus of Chilean bees, *Chilicola (Heteroediscelis)*. Presented at Southern Ontario Bee Researchers Symposium, Toronto, 23 November.

Departmental Talks

45. **Monckton S.K.** (2021). Searching for sawflies in Northern North America. BEEc Speaker Series, York University, 26 March.

AWARDS AND HONOURS

2022-2024	Weston Family Award in Northern Research (Postdoctoral), University of Guelph	\$ 100,000 CAD
2022-2024	BIOSCAN Postdoctoral Fellowship, University of Guelph	\$ 30,000 CAD
2020	Royal Entomological Society Award for Best Paper, Insect Conservation and Diversity, York University	£ 750 GBP
2020	Northern Scientific Training Program, York University	\$ 2,891 CAD
2018	Willi Hennig Society Kurt Milton Pickett Award, York University	\$ 1,200 USD
2015–2018	NSERC Postgrad. Scholarship PGS-D, York University	\$ 63,000 CAD
2017	Northern Scientific Training Program, Declined	\$ 2,400 CAD
2016	Northern Scientific Training Program, University of Guelph	\$ 2,521 CAD
2013	NSERC Alexander Graham Bell CGS-M, York University	\$ 17,500 CAD
2013	Ontario Graduate Scholarship, Declined	\$ 15,000 CAD
2012–2013	Graduate Scholarship, York University	\$ 42,000 CAD
2012	C.D. Fowle Scholarship in Ecology, York University	\$ 12,500 CAD

TEACHING EXPERIENCE

Course Director, York University

Entomology, Course Director (Summer 2023)

Teaching Assistant, York University

Biodiversity, Lab Demonstrator (2018, 2019, 2020, 2021, 2022) – As TA I designed and sole-taught labs for this course.

Entomology, Lab Demonstrator (2013, 2014, 2017, 2019, 2020, 2021, 2022) – As TA I designed and sole-taught labs for this course.

Conservation Biology, Lab Demonstrator (2019, 2020, 2021)

Animal Physiology, Lab Demonstrator (2014, 2020)

Biology II, Lab Coordinator (2017)

Biology II, Lab Demonstrator (2015)

Plants, Lab Demonstrator (2014)

Animals, Lab Demonstrator (2012)

Biology I, Marker (2012)

Teaching Assistant, University of Guelph

Evolution, Lecture TA (2016)

Invert Morphology & Evolution, Lab Demonstrator (2016)

Teaching Assistant, University of Ottawa

Entomology, Lab Demonstrator (2012)

Animal Form and Function, Marker (2011)

RESEARCH EXPERIENCE

2022-2024 **Postdoctoral Scholar**, Paul Hebert, University of Guelph, Guelph, ON. Species discovery and delimitation of cryptic, diverse Northern sawflies using novel long-read DNA barcoding techniques. Improving existing DNA barcode reference library for the sawflies of Canada. Assisting in the development of new high-throughput barcoding and metabarcoding techniques to accelerate species discovery and investigate species interactions.

- 2017-2022 **Ph.D. Candidate**, Laurence Packer, York University, Toronto, ON. Systematics and biogeography of North American sawflies, integrating morphology, ecology, and molecular genomics.
- 2015-2016 **Ph.D. Student**, Terry A. Wheeler & M. Alex Smith, University of Guelph, Guelph, ON. Systematics and community ecology of Yukon sawflies (withdrew from program following TAW's diagnosis with advanced cancer).
- 2012-2015 **M.Sc Thesis**, Laurence Packer, York University, Toronto ON. Systematic revision of *Chilicola (Heteroediscelis)*, a subgenus of bees endemic to Chile, using morphological and genetic data.

SERVICE TO PROFESSION

Peer Review

- 2022-2023 Zootaxa, 2 manuscripts
- 2022 Forests, 1 manuscript
- 2020-2022 Proceedings of the Entomological Society of Washington, 4 manuscripts
- 2018-2022 Journal of Hymenoptera Research, 6 manuscripts
- 2020 Biological Journal of the Linnean Society, 1 manuscript
- 2020 ZooKeys, 1 manuscript
- 2020 Zoologia, 1 manuscript
- 2019-2020 Molecular Ecology Resources, 2 manuscripts
- 2016-2020 Deutsche Entomologische Zeitschrift, 3 manuscripts
- 2019 PeerJ, 1 manuscript,
- 2018-2019 Zoosystematics and Evolution, 2 manuscripts
- 2017 Ecosphere, 2 manuscripts
- 2017 Tạp chí Sinh học (now Academic Journal of Biology), 1 manuscript
- 2015 PLOS One, 1 manuscript

PROFESSIONAL TRAINING

- 2019 Workshop on Molecular Evolution, Marine Biological Laboratory, Woods Hole, MA
- 2019 RadCamp, Málaga, Spain

MEDIA ENGAGEMENTS

2021 Quirks & Quarks, CBC, radio interview, 21 November
2020 Your Morning, CTV, television interview, 17 July
2020 The Shift, Global News Radio, radio interview, 10 July
2016 BuzzFeed Canada, internet news interview, 2 June
2016 El Mercurio Chile, newspaper interview, 4 June

LANGUAGES

English, first language
French, fluent, spoken & written
Spanish, conversational, spoken & written