

Curriculum Vitae

Jackson W. Kusack

Academic History

2019–	PhD, Biology Supervisor: Dr. Keith Hobson	University of Western Ontario Co-supervisor: Dr. Doug Tozer
2016–18	MSc, Biology Supervisor: Dr. Keith Hobson	University of Western Ontario Co-supervisor: Dr. Greg Mitchell
2012–16	BSc Honours, Animal Biology Supervisor: Dr. Matthew Reudink	Thompson Rivers University Co-supervisor: Dr. Nancy Flood
2011–12	BSc (transferred)	University of the Fraser Valley

Awards and Distinctions

2021–	NSERC (\$63,000)
2020	Graduate Teaching Award
2020–21	QEII-GSST (\$15,000)
2020	OFAH Ankney/Johnson Award (\$3,500)
2019	NADS Student Travel Award (\$645)
2019–20	QEII-GSST (\$15,000)
2018	BSC-SCO/SOC Student Travel Award (\$200)
2018	Graduate Teaching Award – Western University
2016	Leadership in Environmental Sustainability Certificate
2015	SOC-SCO Student Poster Award - Ornithology Meeting
2015	AFO / SOC-SCO / WOS Student Travel Award (\$1,460)
2015	Undergraduate Research Experience Award (\$4,500)

Teaching Experience

2018–22	Graduate Teaching Assistant, Wildlife Ecology and Management (BIOL 3446). University of Western Ontario, London, Ontario, Canada Winner of <i>Graduate Student Teaching Award</i> (2020)
2016–18, 22	Graduate Teaching Assistant, Analysis and Interpretation of Biological Data (BIOL 2244). University of Western Ontario, London, Ontario, Canada Winner of <i>Graduate Student Teaching Award</i> (2018)

Invited Talks and Public Presentations

2023	Guest Lecture (<i>Citizen Science</i>) and Guest Lecture (<i>Graduate Research Using stable isotopes to determine origin of harvested American Black Ducks</i>), Wildlife Ecology and Management (BIOL 3446) University of Western Ontario, London, Ontario, Canada
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- 2022 Guest Lecture (*Research at Western Biology Using stable-isotopes to study migratory animals*), SHAD Canada at Western University of Western Ontario, London, Ontario, Canada
- 2021 Guest Lecture (*American Black Duck Conservation: Spatially explicit assignment of harvested waterfowl using stable isotopes*), Wildlife Ecology and Management (BIOL 3446) University of Western Ontario, London, Ontario, Canada
- 2020 Guest Tutorial (*Likelihood-based Assignment Tutorial*), Graduate Course: Stable Isotopes for Biologists University of Western Ontario, London, Ontario, Canada

Supervision and Mentorship

- 2022–23 Visscher, E., Honours Thesis, Biology, Mentor University of Western Ontario, London, Ontario, Canada
- 2020–21 Leonard, V., Honours Thesis, Biology, Mentor University of Western Ontario, London, Ontario, Canada
- 2019–20 Matan, S., Honours Thesis, Biology, Mentor University of Western Ontario, London, Ontario, Canada
- 2018–19 Wojtaszek, D., Honours Thesis, Biology, Mentor (informal) University of Western Ontario, London, Ontario, Canada

Peer-reviewed Contributions

14. **Kusack, J.W.**, Tozer, D.C., Harvey, K.M., Schummer, M.L., Hobson, K.A. (2023) Assigning harvested waterfowl to geographic origin using feather $\delta^2\text{H}$ isoscapes: What is the best analytical approach? PLOS One [in press - PONE-D-23-08212R2].
13. Kucia, S.R., Schummer, M.L., **Kusack, J.W.**, Hobson, K.A., Nicolai C.A. (2023) Natal origins of mallards harvested in the Atlantic flyway of North America: Implications for conservation and management. Avian Conservation and Ecology 18:1.
12. **Kusack, J.W.**, Tozer, D.C., Schummer, M.L., Hobson, K.A. (2023) Origins of harvested American black ducks: stable isotopes support the flyover hypothesis. The Journal of Wildlife Management 87:e22324.
11. Hobson, K.A., **Kusack, J.W.**, Gootgarts, J., Longstaffe, F.J., McNeil, J.N. (2022) Using stable isotopes ($\delta^2\text{H}$, $\delta^{13}\text{C}$) to identify natal origins and larval host plant use by western bean cutworm, *Striacosta albicosta* (Lepidoptera: Noctuidae) captured in southern Ontario. Ecological Entomology 47: 347-356.

10. Zhao, Q., Mitchell, G.W., Cadman, M.D., **Kusack, J.W.**, Evans, D.R., Bumelis, K., Hobson, K.A., Weegman, M.D., Salvadori, A., Wilson, S. (2021) Integrating regional and site-level data to assess drivers of population decline in insectivorous birds. *Biological Conservation* 265: 10924.
9. Put, J.E., Mitchell, G.W., Mahony, N.A., Costa, J., Imlay, T.L., Bossuyt, S., Boynton, C.K., Burness, G., Evans, D.R., Hobson, K.A., **Kusack, J.W.**, Lansdorp, O., Lenske, A.K., McClenaghan, B., Nol, E., Salvadori, A., Smith, A.C., Williams, T.D., Whittam, B., Cadman, M.D. (2021) Regional variability in trajectories of Barn Swallow populations across Canada are not predicted by breeding performance. *Avian Conservation and Ecology* 16: 10.
8. **Kusack, J.W.**, Mitchell, G.W., Evans, D.R., Cadman, M.D., McCune, J.L., Hobson, K.A. (2021) Diet of nestling Barn Swallows in an agroecosystem: insights from fecal DNA barcoding and feather stable isotopes ($\delta^{13}\text{C}$, $\delta^{15}\text{N}$). *Journal of Ornithology*.
7. Hobson, K.A., **Kusack, J.W.**, Mora-Alvarez, B.X. (2021) Origins of six species of butterflies migrating through Northeastern Mexico: new insights from stable isotope ($\delta^2\text{H}$) analyses and a call for documenting butterfly migrations. *Diversity* 13: 102.
6. Hobson, K.A., Jinguji, H., Ichikawa, Y., **Kusack, J.W.**, Anderson, R.C. (2020) Long-distance migration of the Globe Skimmer Dragonfly through Japan revealed using stable hydrogen ($\delta^2\text{H}$) isotopes. *Environmental Entomology*, 50: 247–255.
5. Beauchamp, A.T., **Kusack, J.W.**, Hobson, K.A., Guglielmo, C.G. (2020) Testing the utility of condition indices in nestling swallows: a quantitative magnetic resonance approach. *Journal of Ornithology*, 162: 1–13.
4. **Kusack, J.W.**, Mitchell, G.W., Evans, D.R., Cadman, M.D., Hobson, K.A. (2020) Effects of agricultural intensification on condition and fledging success of nestling barn swallows (*Hirundo rustica*). *Science of the Total Environment*, 709: 136195.
3. Palumbo, M.D., **Kusack, J.W.**, Tozer, D.C., Meyer, S.W., Roy, C., Hobson, K.A. (2020) Origins of Blue-winged Teal harvested in Ontario relative to Prairie Canada: implications for the management of a sustainable population in Ontario using stable isotopes. *Journal of Field Ornithology*, 91: 64–76.
2. Evans, D.R., Hobson, K.A., **Kusack, J.W.**, Cadman, M.D., Falconer, M.J., Mitchell, G.W. (2020) Individual condition but not fledging phenology carries over to affect post fledging survival in a Neotropical migratory songbird. *Ibis*, 162: 331–344.
1. LaZerte, S.E., Reudink, M.W., Otter, K.A., **Kusack, J.**, Bailey, J.M., Woolverton, A., Paetkau, M., de Jong, A., Hill, D.J. (2017) feedr and animalnexus.ca: A paired

R package and user-friendly Web application for transforming and visualizing animal movement data from static stations. *Ecology and Evolution*, 7: 7884–7896.

Media

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| 2023 | CBC Afternoon Drive. Tundra swans return to southwestern Ontario during spring migration. [https://www.cbc.ca/listen/live-radio/1-80-afternoon-drive/clip/15971256-tundra-swans-return-southwestern-ontario-spring-migration] |
| 2022 | The Weather Network. Why is there a robin in my yard in the middle of winter? [https://www.theweathernetwork.com/en/news/nature/animals/how-to-help-winter-robins] and 5 facts about robins – spring’s unofficial mascot. [https://www.theweathernetwork.com/en/news/nature/animals/5-facts-about-robins] |
| 2021 | Biology Research Digest Spring 2021, Issue 6. Graduate Student Highlight. University of Western Ontario, London, Ontario, Canada |
| 2020 | Biology Research Digest Winter 2020, Issue 3. First-first Highlight. University of Western Ontario, London, Ontario, Canada |
| 2020 | Black Duck Joint Venture - Habitat Matters 2020 Canadian NAWMP Report |
| 2015 | TRU Newsroom Article, Pathways to learning: Songbird research [http://inside.tru.ca/2015/08/25/songbird-research-ureap/]
Thompson Rivers University, Kamloops, British Columbia, Canada |

Conference Contributions

Presenting author indicated by asterisks ()

15. Visscher, E.*, Ludwig, J., **Kusack, J.**, Hobson, K. (2023) Dietary niches of colonial waterbirds breeding on the Laurentian Great Lakes established with stable-isotope analysis ($\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) of chick blood. OCTWS meeting 2023. Peterborough, Ontario, Canada. (Poster; Provincial)
14. **Kusack, J.W.***, Tozer, D.C., Hobson, K.A. (2022) Regional differences in natal and moult origin of harvested American Black Duck (*Anas rubripes*). OCTWS meeting 2022. Virtual meeting. (Oral; Provincial)
13. Mitchell, G.W.*, Evans, D.R., **Kusack, J.W.**, Cadman, M.D., Falconer, C.M., Hobson, K.A. (2021) Post-fledging movement and habitat associations of an at-risk aerial insectivore: A Motus Wildlife Tracking System study. AOS & SCO-SOC 2021 Meeting. Virtual meeting. (Oral; International)

12. Beauchamp, A.T.*, **Kusack, J.W.**, Hobson, K.A., Guglielmo, C.G. (2021) Testing the utility of condition indices in nestling swallows: A quantitative magnetic resonance (QMR) approach. AOS & SCO-SOC 2021 Meeting. Virtual meeting. (Poster; International)
11. Hobson, K.A.*, Genier, C., Bumelis, K., **Kusack, J.**, Cadman, M., Mitchell, G., Guglielmo, C. (2021) Tracking the importance of aquatic-emergent insects in the diets of aerial insectivores in southern Ontario, Canada: Towards an understanding of nutritional landscapes. AOS & SCO-SOC 2021 Meeting. Virtual meeting. (Oral; International)
10. **Kusack, J.W.***, Tozer, D.C., Hobson, K.A. (2021) Origins of harvested American Black Duck (*Anas rubripes*): testing the flyover hypothesis. IsoEcol 2021. Virtual meeting. (Poster; International)
9. **Kusack, J.W.***, Tozer, D.C., Hobson, K.A. (2019) Origins of harvested American Black Ducks: a stable isotope approach. North American Duck Symposium 2019. Winnipeg, Manitoba, Canada. (Poster; International)
8. **Kusack, J.W.***, Mitchell, G.W., Evans, D.R., Cadman, M.D., Bumelis, K., Hobson, K.A. (2018) Agricultural intensity and diet of Barn Swallow (*Hirundo rustica*) nestlings: insights from fecal DNA and stable isotopes analyses. International Ornithological Congress 2018. Vancouver, British Columbia, Canada. (Poster; International)
7. Evans, D.R.*, Hobson, K.A., **Kusack, J.W.**, Cadman, M.D., Bumelis, K.H., Mitchell, G.W. (2018) Post-fledging survival of Barn Swallows (*Hirundo rustica*): New insights from an automated telemetry approach. International Ornithological Congress 2018. Vancouver, British Columbia, Canada. (Poster; International)
6. **Kusack, J.W.***, Mitchell, G.W., Evans, D.R., Cadman, M.D., Bumelis, K., Hobson, K.A. (2018) Agricultural intensity and diet of Barn Swallow (*Hirundo rustica*) nestlings: Insights from fecal DNA and stable isotope analyses. Ontario Ecology, Ethology, and Evolution Colloquium 2018. London, Ontario, Canada. (Oral; Provincial)
5. **Kusack, J.W.***, Mitchell, G.W., Evans, D.R., Cadman, M.D., Bumelis, K., Hobson, K.A. (2017) The effect of agricultural intensity on the diet of Barn Swallow (*Hirundo rustica*) nestlings. AOS and SCO-SOC Conference 2017. East Lansing, Michigan, USA. (Oral; International)
4. **Kusack, J.W.***, Paetkau, M., LaZerte, S., Flood, N.J., Reudink, M.W. (2016) Monitoring House Finch movements across a variable landscape using radio-frequency identification technology. North American Ornithological Conference VI. Washington, DC, USA. (Poster; International)

3. **Kusack, J.W.***, Paetkau, M., Hill, D., LaZerte, S., Flood, N.J., Reudink, M.W. (2016) Chasing HOFI: An RFID Approach to Tracking Movement and Behaviour in the House Finch. TRU Undergraduate Research and Innovation Conference. Kamloops, British Columbia, Canada. (Poster; Institutional)
2. **Kusack, J.W.***, Flood, N.J., Eustache, J., Murphy, T.G., Betts, M.G., Wilson, S., Reudink, M.W. (2015) Evolution of moult strategies in Nearctic-Neotropical long-distance migratory songbirds. AFO, SCO-SOC, and WOS Conference 2015. Wolfville, Nova Scotia, Canada. (Poster; International)
1. **Kusack, J.W.***, Flood, N.J., Reudink, M.W. (2015) Evolution of moult strategies in Nearctic-Neotropical long-distance migratory songbirds. TRU Undergraduate Research and Innovation Conference. Kamloops, British Columbia, Canada. (Poster; Institutional)

Workshops

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| 2023 | Introduction to stable isotope assignments in R. Ontario Chapter of the Wildlife Society, Methods in Wildlife Research, 2023 Annual Conference. Peterborough, Ontario, Canada |
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Professional and Academic Service

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| 2021 | Session (Conservation II) Moderator, AOS & SCO-SOC 2021 Meeting |
| 2021 | Scientific Advisory Committee, AOS & SCO-SOC 2021 Meeting |
| 2018 | Seminar Committee Member |

Outreach and Volunteer Activities

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| 2023 | Ontario Breeding Birds Atlas Volunteer
Bird Studies Canada, London, Ontario, Canada |
| 2023 | Event Leader, Nocturnal Insect Biodiversity Event
City Nature Challenge, London, Ontario, Canada |
| 2018 | Swift Watch Volunteer
Bird Studies Canada, London, Ontario, Canada |
| 2016–17 | Bank Swallow Monitoring Volunteer
Canadian Wildlife Service, Saugeen River, Ontario, Canada |
| 2012–15 | Wildlife Rehabilitation Volunteer
BC Wildlife Park, Kamloops, British Columbia, Canada |

Professional and Academic Affiliations

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| 2022– | Ontario Field Ornithologists (OFO) – Co-editor for <i>Ontario Birds</i> |
| 2016– | Society of Canadian Ornithologists–Société des ornithologistes du Canada (SCO-SOC) |

Professional Work Experience

2018	Graduate Student Assistant University of Western Ontario, London, Ontario, Canada
2016	Field Technician Canadian Wildlife Service, London, Ontario, Canada
2015	Field Assistant Thompson Rivers University, Kamloops, British Columbia, Canada
2015	Undergraduate Directed Studies Student Thompson Rivers University, Kamloops, British Columbia, Canada