

**CURRICULUM VITAE  
MATTHEW ORR**

Department of Integrative Biology  
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**A. EDUCATION & EMPLOYMENT INFORMATION**

**Education:**

1995. Ph.D., Population Biology, University of California, Davis, Hugh Dingle adviser, thesis title:  
Life history adaptation and reproductive isolation in a grasshopper hybrid zone.  
1987. B.A., Biology, Amherst College, Amherst, Mass. Magna Cum Laude, Phi Beta Kappa.

**Employment:**

2014-present. Assistant Professor, Department of Integrative Biology, OSU-Cascades Campus,  
Bend, OR  
2012-2013. Instructor, Biology, OSU-Cascades Campus, Bend, OR  
2003-2011. Instructor, General Science, University of Oregon, OSU-Cascades Campus, Bend,  
OR.  
2000-2003. Lecturer, Environmental Science, Policy, and Management, University of California,  
Berkeley, CA.  
1998-2000. Visiting Scholar, University of California, Center of Biological Control, Berkeley, CA.  
1994-1998. Postdoctoral Researcher, Brackenridge Field Station, University of Texas, Austin, TX.  
1991-1994. Ph.D. Candidate, Department of Entomology, University of California, Davis, CA.

**Credit Courses**

Course	Title	Credits	% Taught
Bi 370	Ecology	3	100
Bio 311	Genetics	4	50
Zoo 477	Aquatic Entomology	4	100
Bi 375	Field Methods in Ecological Restoration	4	50+
Bio 371	Ecological Methods	3	100
Zoo 349	Biodiversity	3	100
Bio 399	Undergraduate Research	1-3	variable

**Publications: Peer-Reviewed Journal Articles**

(\* = undergraduate coauthor)

20. Orr, M.R., K.M. Kocurek, Y.J. Bakos, R.C. McDowell\* 2019. A Restoration Ecology  
Perspective on the Treatment of Inflammatory Bowel Disease. *Evolution, Medicine, and  
Public Health* doi.org/10.1093/emph/eoz031 (JIF 4.4, 10 of 50 in Evolutionary Biology  
(Q1), 23 of 186 in Public, Environmental, and Occupational Health (Q1).) M. Orr  
contribution: conceived of and wrote manuscript.

19. Orr, M.R., N.P. Weber, W.N. Noone\*, M.G. Mooney\*, T.M. Oakes\*, H.M. Broughton 2019. Short-term stream and riparian responses to beaver dam analogs on a low-gradient channel lacking woody riparian vegetation. *Northwest Science* 93 (3-4) pages TBA. (JIF 0.57, 5-yr JIF 0.65, 152 of 164 in Ecology (Q4).) M. Orr contribution: raised funding; conceived of and designed study; performed or present to oversee 90% of fieldwork; compiled and analyzed data; wrote the manuscript.
18. Watson, J.W., M.S Vekasy, J.D. Nelson\*, M.R. Orr, 2019. Factors Affecting Visitation Rates of Eagles to Carrion in a Winter Scavenging Guild. *Journal of Wildlife Management* 83(8):1735-1743. (DOI 10.1002/jwmg.21760. JIF 1.88, 5-yr JIF 2.13; 37 of 170 in Zoology (Q1).) M. Orr contribution: helped to design hypotheses, collected 15% of field data, edited manuscript.
17. Orr, M.R., J.D. Nelson\*, J.W. Watson, 2019. Heterospecific information supports a foraging mutualism between corvids and raptors. *Animal Behaviour* 153: 105-113. <https://doi.org/10.1016/j.anbehav.2019.05.007>. (JIF 2.68, 5-yr JIF 3.10, 13 of 170 in Zoology (Q1).) M. Orr contribution: helped to conceive of study; designed and performed 20% of observational fieldwork and 95% of experimental fieldwork; >60% of data compilation, including behavior extraction from >300,000 photos; 75% of data analysis; wrote the manuscript.
16. Orr, M.R., R.J. Reuter, S.J. Murphy\*, 2019. Solarization to control downy brome (*Bromus tectorum*) for small-scale ecological restoration. *Invasive Plant Science and Management* 12: 112-119. <https://doi.org/10.1017/inp.2019.8>. (JIF 0.67, 5-yr JIF 1.03, 144 of 228 in Plant Sciences (Q3).) M. Orr contribution: conceived of and designed study; performed or directly oversaw (i.e. present at the site) 80% of fieldwork; compiled 80% of data; analyzed >80% of data; wrote the manuscript.
15. Orr, M.R., K.M. Kocurek, D.L. Young\*, 2018. Gut Microbiota and Human Health: Insights from Ecological Restoration. *Quarterly Review of Biology* 93(2): 73-90. DOI 10.1086/698021. (JIF 3.52, 5-yr JIF 4.98, 16 of 87 in Biology (Q1).) M. Orr contribution: conceived of study; conducted 80% of literature search; wrote all models; wrote the manuscript.
14. E.G. LeBrun, P.J. Diebold, M.R. Orr, L.E. Gilbert, 2015. Widespread chemical detoxification of alkaloid venom by formicine ants. *Journal of Chemical Ecology* 41: 884-895. DOI 10.1007/s10886-015-0625-3. (JIF 2.45, 5-yr JIF 3.02, 74 of 164 in Ecology (Q2).) M. Orr contribution: 100% of fieldwork and data compilation of foraging ants in Brazil—ms also included numerous N. American ants; edited the manuscript.
13. D. H. Feener, M. R. Orr, K. M. Wackford, J. M. Longo\*, Benson, W. W. & L. E. Gilbert, 2008. Geographic variation in resource dominance-discovery in Brazilian ant communities. *Ecology* 89:1824-1836. (JIF 4.29, 5-yr JIF 5.26, 27 of 164 in Ecology (Q1).) M. Orr contribution: helped to conceive of study; designed, performed, and/or directly oversaw >50% of fieldwork; managed additional 20% of fieldwork remotely; compiled 50% of data; drafted and edited the manuscript.
12. Orr, M. R., R. X. De Camargo\*, & W. W. Benson, 2003. Interactions between ant species increase arrival rates of an ant parasitoid. *Animal Behaviour* 65:1187-1193. (JIF 2.68, 5-yr JIF 3.10, 13 of 170 in Zoology (Q1).) M. Orr contribution: conceived of study; designed, performed and/or directly oversaw 75% of fieldwork; managed 25% of fieldwork remotely; analyzed data; wrote the manuscript.

11. Orr, M. R., D. L. Dahlsten, & W. W. Benson, 2003. Ecological interactions among ants in the genus *Linepithema*, their phorid parasitoids, and ant competitors. *Ecological Entomology* 28:203-210. (Q1, JIF 2.07, 5-yr JIF 2.27, 20<sup>th</sup> in the Entomology category.) M. Orr contribution: conducted entire study (coauthors were U.S. and Brazilian lab PIs).
10. Mattos, M. R. & M. R. Orr, 2002. Two new *Pseudacteon* (Diptera: Phoridae) parasitoids of ants in the genus *Linepithema* in Brazil. *Studia Dipterologica* 9:283-288. M. Orr contribution: discovered the new species described; edited the manuscript.
9. Orr, M. R., D. L. Dahlsten, & W. W. Benson, 2001. Host specificity of *Pseudacteon* (Diptera: Phoridae) parasitoids that attack *Linepithema* (Hymenoptera: Formicidae) in South America. *Environmental Entomology* 30:742-747. (Q2, JIF 1.45, 5-yr JIF 1.80, 36<sup>th</sup> in the Entomology category.) M. Orr contribution: conducted entire study (coauthors were U.S. and Brazilian lab PIs).
8. Orr, M. R. & T. B. Smith, 1998. Ecology and speciation. *Trends in Ecology and Evolution* 13 (12):502-506. (Q1, JIF 15.24, 5-yr JIF 18.96, 1<sup>st</sup> in the Ecology category.) M. Orr contribution: helped to design and conceive of the study; wrote the manuscript.
7. Orr, M. R. & S. H. Seike, 1998. Parasitic flies (Diptera: Phoridae) deter foraging by Argentine ants (*Linepithema humile*) in their native habitat in Brazil. *Oecologia* 117:420-425. (Q2, JIF 2.92, 5-yr JIF 3.03, 52<sup>nd</sup> in the Ecology category.) M. Orr contribution: conceived of study; designed, conducted and/or directly oversaw all fieldwork; wrote the manuscript.
6. Orr, M. R., S. H. Seike, L. E. Gilbert, 1997. Foraging ecology and patterns of diversification in parasitoids (Diptera: Phoridae) of fire ants in south Brazil. *Ecological Entomology* 22:305-314. M. (Q1, JIF 2.07, 5-yr JIF 2.27, 20<sup>th</sup> in the Entomology category.) Orr contribution: conceived of study; designed, conducted and/or directly oversaw all fieldwork; wrote the manuscript.
5. Orr, M. R., 1996. Host manipulation by *Wolbachia* is a neutral trait in single populations. *Animal Behaviour* 51:1183-1185. (JIF 2.68, 5-yr JIF 3.10, 13 of 170 in Zoology (Q1).) M. Orr contribution: conducted entire study.
4. Orr, M. R., 1996. Life history adaptation and reproductive isolation in a grasshopper hybrid zone. *Evolution* 50:704-716. (Q1, JIF 3.57, 5-yr JIF 4.09, 17<sup>th</sup> in the Evolution category.) M. Orr contribution: conducted entire study.
3. Orr, M. R., S. H. Seike, W. W. Benson, L. E. Gilbert, 1995. Flies suppress fire ants. *Nature* 373:292-293. (Q1, JIF 43.1, 5-yr JIF 45.8, 1<sup>st</sup> in the Multidisciplinary Sciences category.) M. Orr contribution: designed experiments; conducted or directly oversaw all fieldwork; wrote >50% of manuscript.
2. Orr, M. R., A. H. Porter, T. A. Mousseau, H. Dingle, 1994. Molecular and morphological evidence for hybridization between two ecologically distinct grasshoppers (*Melanoplus sanguinipes* and *M. devastator*) in California. *Heredity* 72:42-54. (Q2, JIF 3.12, 5-yr JIF 3.68, 19<sup>th</sup> in the Evolutionary Biology category.) M. Orr contribution: conducted >50% of field and lab work; wrote the manuscript.
1. Orr, M. R., 1992. Parasitic flies (Diptera: Phoridae) influence foraging rhythms and caste division of labor in the leaf-cutter ant *Atta cephalotes*. *Behavioral Ecology and Sociobiology* 30:395-402. (JIF 2.1, 5-yr JIF 2.3, 24 of 170 in Zoology (Q1).) M. Orr contribution: conducted entire study.

#### Other Peer-Reviewed Published Work

2. Orr, M.R. 2019. Testing hypotheses about behavioral interactions between cats, coyotes, and birds at carcasses. EcoEd Digital Library, an Ecological Society of America platform for scientists and educators to locate and contribute peer-reviewed resources for undergraduate ecology education. <https://tinyurl.com/y2e6wmuf>
1. Orr, M.R. 2018. Finding a species-area relationship for island birds using Solver in Excel. EcoEd Digital Library. <https://tinyurl.com/y4zpvx29>

**Published Abstracts from Professional Meetings (\* = undergraduate coauthor)**

11. Orr, M.R. (invited speaker), N. Weber, W. Noone\*, T. Oakes\*. Testing the Appropriateness of beaver dam analogs in a Low-gradient Watershed Lacking Woody Riparian Vegetation. Joint Regional Conference, Society for Ecological Restoration Northwest and Society of Wetland Scientists, Spokane WA (Oct. 15-18, 2018).
10. Orr, M.R. (invited speaker), J.D. Nelson\*, J.W. Watson. 2018. Social information supports a scavenger mutualism between corvids and raptors. Ecological Society of America Meetings, New Orleans, LA (Aug. 5-10, 2018).
9. Noone\*, W., R. Gilmer\*, D. Reynolds\*, J. Greenwald\*, N. Weber, M. Orr (video). Beaver dam analogs for restoration of the South Fork of the Crooked River. OSU-Corvallis undergraduate research symposium, 2017.
8. Noone\*, W., R. Gilmer\*, D. Reynolds\*, J. Greenwald\*, N. Weber, M. Orr (poster). Beaver dam analogs for restoration of the South Fork of the Crooked River. American Fisheries Society Meeting, Bend OR (Feb 28-Mar 3 2017).
7. Casey\*, R., M. R. Orr, & G. McMillan (poster). Potential Effects of Alkaline pH on Passage of Juvenile Anadromous Fish through Lake Billy Chinook. Poster, American Fisheries Society Meeting, Bend OR (Feb 28-Mar 3 2017).
6. Prive, K.A.; M.R. Orr, R.J. Reuter, B. St. Clair, F.L. Kilkenny, H. Prendeville (poster). Restoration with Bluebunch Wheatgrass: Soils, Seeds & Seedlings. Society for Ecological Restoration Great Basin Chapter / Great Basin Native Plant Project annual meeting, Boise ID (April 11-12, 2016). 3<sup>rd</sup> place, student poster award.
5. Orr, M.R. (invited speaker). Creating a collaborative undergraduate field course in restoration. Joint Regional Conference, Society for Ecological Restoration, Northwest & Great Basin Chapters, Eagle Crest, OR (October, 2014).
4. Reuter, R. (invited speaker), & M.R. Orr. Use of solarization to restore cheatgrass-infested uplands. Joint Regional Conference, Society for Ecological Restoration, Northwest & Great Basin Chapters, Eagle Crest, OR (October, 2014).
3. Childers\*, L. (invited speaker), & M.R. Orr. 2014. The relative performance of Deschutes Native Seedbank seed and cultivar squirreltail seed. Joint Regional Conference, Society for Ecological Restoration, Northwest & Great Basin Chapters, Eagle Crest, OR (October, 2014).
2. K. Regan\*, D. Stringer (invited speakers), & M.R. Orr. Bark beetle pheromones restore standing dead wood in a ponderosa forest. Joint Regional Conference, Society for Ecological Restoration, Northwest & Great Basin Chapters, Eagle Crest, OR (October, 2014).
1. Nelson, J.D.\*, M.R. Orr, E.C. Weidner\* (poster). Heterospecific information transfer within a guild of avian scavengers in Central Oregon. The Wildlife Society, OR Chapter, Bend (Feb. 2014).