JENNIFER A. MOORE

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EDUCATION

2008	Ph.D., Ecology and Biodiversity, Victoria University of Wellington, New Zealand
2004	M.S. Biology, Central Michigan University, USA
2001	B.S. Zoology, B.A. Spanish, Northern Michigan University, USA

PROFESSIONAL POSITIONS

2012-current	Assistant Professor, Natural Resource Management Program, Biology Department, Grand
	Valley State University
2010-2012	Research Associate, Department of Fisheries and Wildlife, Michigan State University
2009-2010	Postdoctoral Fellow, Biology Department, University of Alaska Southeast
2005-2008	Research Assistant, School of Biological Sciences, Victoria University of Wellington, New
	Zealand
2004	Teaching Assistant, Biology Department, Central Michigan University
2002-2003	Teaching Assistant, Biology Department, Central Michigan University
2000-2001	Biological Science Technician, Sea Lamprey Control Division, US Fish and Wildlife Service,
	Marquette, Michigan

TEACHING EXPERIENCE

Grand Valley State University	Conservation Biology, instructor
current	Herpetology, instructor
	Introduction to Natural Resource Systems, instructor
Michigan State University	Fisheries Management, instructor
2010-2012	Conservation Genetics (graduate level), guest lecturer
	Ecological Aspects of Behavior, guest lecturer
University of Alaska Southeast	Fundamentals of Biology, guest lecturer
2009	Landscape Genetics (graduate level), course coordinator
Victoria University of	Biodiversity and Conservation, guest lecturer
Wellington	New Zealand Conservation Practice (graduate level), teaching assistant
2005 - 2008	Introductory Geographic Information Systems (workshop), instructor
	Animal Ecology and Behaviour, guest lecturer
	Evolution, teaching assistant
Central Michigan University	General Zoology, teaching assistant and guest lecturer
2002 - 2004	Introductory Biology, teaching assistant
	Comparative Vertebrate Anatomy, teaching assistant

AWARDS AND HONORS

The Company of Biologists, travel award for the 6th World Congress of Herpetology, 2008. AU\$500 Weta Workshop, donation of tuatara model, 2007. NZ\$20,000 Education New Zealand, New Zealand International Doctoral Research Scholarship, 2006-2009. NZ\$120,000 Education New Zealand, New Zealand Postgraduate Study Abroad Award, 2005. NZ\$5,000 Allan Wilson Centre for Molecular Ecology and Evolution doctoral scholarship, 2005-2008. NZ\$72,000 Allan Wilson Centre for Molecular Ecology and Evolution summer studentship, 2004. NZ\$4,000 Central Michigan University Marion Whitney summer research scholarship, 2003. US\$1,000 US Fish and Wildlife Service On-The-Spot Award for Employee Excellence, 2001. Northern Michigan University, cum laude graduation honor, 2000. Northern Michigan University International Language scholarship, 1999.

RESEARCH GRANTS AND CONTRACT WORK

- NSF Ecology and Evolution of Infectious Diseases Program, 2013. Landscape-dependent wildlife use of environments in managed agroecosystems predicts spatial and temporal prevalence and persistence of multiple enteric pathogens in livestock, \$2,400,000, (Co-PI w/ K.T. Scribner, J. Funk, S. Manning, B. Maurer, N. Walker) Submitted Dec. 2013, PENDING
- Michigan Space Grant Consortium, NASA, 2014. Survival, nesting, and sex ratios of temperature-sensitive species at the northern edge of their range, \$10,000.
- Grand Valley State University, Student Summer Scholars, 2013. *Landscape genetic analysis of eastern box turtles*, \$6,500 (Collaborator, w/ B. Gould)
- Pierce Cedar Creek Institute, Undergraduate Research Grants for the Environment, 2013. *Population demography of eastern massasauga rattlesnakes in relation to habitat management*, \$11,000 (collaborator, w/ D. Bradke and B. Kiel)
- GVSU FTLC, Pew Technology Enhancement Grant 2013., *Enhancement of the Biology Department's reptile and amphibian specimens*, \$3,000.00,
- WK Kellogg Foundation Research Grant, 2011. *The importance of natural and anthropogenic features on deer forage use and movements: implications for disease spread and transmission to livestock, \$14,000 (Co-PI, w/ K. Scribner)*
- NSF Experimental Program to Stimulate Competitive Research (EPSCoR) grant, 2009. *Landscape genetics of boreal toads*, \$32,000 (collaborator, w/ Co-PIs D. Tallmon and S. Pyare)
- Ecological Contractor, 2008. British Broadcasting Corporation (BBC), South Pacific series, NZ\$1,200
- Victoria University of Wellington, Science Faculty Research Grant, 2007. Patterns of paternity in tuatara, NZ\$1,650
- New Zealand Department of Conservation contract, 2006. *Genetic paternity analysis of Little Barrier Island* (*Hauturu*) *tuatara*, NZ\$1,200
- Victoria University of Wellington, Science Faculty Research Grant, 2006. Investigating the structure and transfer mechanism of tuatara sperm, NZ\$1,800
- San Diego Zoological Society, Institute for Conservation Research grant, 2005. *What affects the fitness of tuatara?*, \$10,000 (Co-PI, w/ N. Nelson)
- Victoria University of Wellington, Science Faculty small grant, 2005. NZ\$1,800
- Society for Research on the Amphibians and Reptiles of New Zealand, Research Award, 2005. What affects the fitness of tuatara?, NZ\$1,500
- Michigan Department of Natural Resources Non-game Wildlife grant, 2004. *Population genetic analysis of the eastern massasauga in Michigan*, \$10,000 (collaborator, w/ B. Swanson)

Central Michigan University, Student Research and Creative Endeavors grant, 2003. Spatial ecology and habitat use by the eastern massasauga, \$500

PUBLICATIONS

PEER REVIEWED

- 27. **Moore, J.A.**, H.M. Draheim, D. Etter, S. Winterstein and K.T. Scribner. In press. Application of largescale parentage analysis for investigating natal dispersal in highly vagile vertebrates: a case study of American black bears (*Ursus americanus*). PLOS One.
- Refsnider, J.M., C.H. Daugherty, S.S. Godfrey, S.N. Keall, J.A. Moore, and N.J. Nelson. 2013. Patterns
 of nesting migrations in the tuatara (*Sphenodon punctatus*), a colonially nesting island reptile.
 Herpetologica 69: 282-290.
- 25. Leafloor, J.O., J.A. Moore and K.T. Scribner. 2013. A hybrid zone between Canada geese (*Branta canadensis*) and cackling geese (*B. hutchinsii*). Auk 130(3):487-500.
- Miller, K.A., H.C. Miller, J.A. Moore, N.J. Mitchell, A. Cree, F.W. Allendorf, S.D. Sarre, S.N. Keall, and N.J. Nelson. 2012. Securing the demographic and genetic future of tuatara through assisted colonization. Conservation Biology 26(5):790-798.
- Jones, P.C., R.B. King, R.L. Bailey, N.D. Bieser, K. Bissell, H. Campa III, T. Crabill, M.D. Cross, B.A. Degregorio, M.J. Dreslik, F.E. Durbian, D.S. Harvey, S.E. Hecht, B.C. Jellen, G. Johnson, B.A. Kingsbury, M.J. Kowalski, J. Lee, J.V. Manning, J.A. Moore, J. Oakes, C.A. Phillips, J.M. Refsnider, K.A. Prior, J.D. Rouse, J. Sage, R.A. Seigel, D.B. Shepard, C.S. Smith, T.J. Vandewalle, P.J. Weatherhead, A. Yagi. 2012. Rangewide analysis of eastern massasauga survivorship. Journal of Wildlife Management 76(8):1576-1586. DOI: 10.1002/jwmg.418
- 22. Ramstad, K.M., **J.A. Moore**, and J.M. Refsnider. 2012. Intrasexual aggression in tuatara: males and females respond differently to same-sex intruders. Herpetological Review 43(1):19-21.
- 21. **Moore, J.A.**, A.M. Kamarainen, K.T. Scribner, C. Mykut and H. Prince. 2012. Investigating the effects of anthropogenic alteration of nesting habitat on rates of extra pair fertilization and intraspecific brood parasitism in Canada Geese. Ibis 154(2):354-362.
- Moore, J.A., D.A. Tallmon, J. Nielsen and S. Pyare. 2011. Effects of the landscape on boreal toad gene flow: does the pattern-process relationship hold true across distinct landscapes at the northern range margin? Molecular Ecology 20: 4858-4869.
- Doody, J.S. and J.A. Moore. 2010. Conceptual model for thermal limits on the distribution of reptiles. Herpetological Conservation and Biology (Proceedings of 6th World Congress of Herpetology) 5(2): 283-289.
- Nelson, N.J., J.A. Moore, S. Pillai, and S.N. Keall. 2010. Thermosensitive period for sex-determination in the tuatara. Herpetological Conservation and Biology (Proceedings of 6th World Congress of Herpetology) 5(2): 324-329.
- 17. Godfrey, S.S., **J.A. Moore**, N.J. Nelson, and C.M. Bull. 2010. Social network structure and parasite infection patterns in a territorial reptile, the tuatara (*Sphenodon punctatus*). International Journal for Parasitology 40: 1575-1585.
- 16. Herrel, A., J.A. Moore, E. Bredeweg, and N.J. Nelson. 2010. Sexual dimorphism, body size, bite force and male mating success in tuatara. Biological Journal of the Linnean Society 100: 287-292.
- 15. Moore, J.A., T. Grant, D. Brown, S.N. Keall and N.J. Nelson. 2010. Mark-recapture accurately estimates census for tuatara, a burrowing reptile. Journal of Wildlife Management 74(4): 897-901.
- Godfrey, S.S., J.A. Moore, N.J. Nelson, and C.M. Bull. 2010. Unravelling causality from correlations: revealing the impacts of endemic ectoparasites on a protected species (tuatara). Parasitology 137: 275-286.
- 13. Moore, J.A., C.H. Daugherty and N.J. Nelson. 2009. Large male advantage: phenotypic and genetic correlates of territoriality in tuatara. Journal of Herpetology 43(4): 570-578.
- Miller, K.A., N.J. Nelson, H.G. Smith and J.A. Moore. 2009. How do reproductive skew and founder group size affect genetic diversity in reintroduced populations? Molecular Ecology 18: 3792-3802. (featured in Molecular Ecology's News and Views section)
- 11. **Moore, J.A.**, C.H. Daugherty, S.S. Godfrey and N.J. Nelson. 2009. Seasonal monogamy and multiple paternity in a wild population of a territorial reptile (tuatara). Biological Journal of the Linnean Society 98: 161-170.

- Miller, H.C., J.A. Moore, N.J. Nelson, and C.H. Daugherty. 2009. Influence of MHC genotype on mating success in a free-ranging reptile population. Proceedings of the Royal Society of London, B 276: 1695-1704.
- 9. Miller, H.C., J.A. Moore, F.W. Allendorf, and C.H. Daugherty. 2009. The evolutionary rate of tuatara revisited. Trends in Genetics 25 (1):13-15.
- 8. **Moore, J.A.**, H.C. Miller, C.H. Daugherty, and N.J. Nelson. 2008. Fine-scale genetic structure of a long-lived reptile reflects recent habitat modification. Molecular Ecology 17: 4630-4641.
- Chapple, D.G., M.N. Hutchinson, B. Maryan, M. Plivelich, J.A. Moore, and J. S. Keogh. 2008. Evolution and maintenance of colour pattern polymorphism in *Liopholis* (Squamata: Scincidae). Australian Journal of Zoology 56: 103-115.
- 6. Refsnider, J., **J.A. Moore**, and H. Streby. 2008. *Sphenodon punctatus* (Common tuatara): Prey detection. Herpetological Review 39(3): 347-348.
- 5. **Moore, J.A.**, B.D. Bell and W.L. Linklater. 2008. The behavior in conservation debate: New Zealand integrates theory with practice. Bioscience 58 (5): 454-459.
- 4. **Moore, J.A.**, N.J. Nelson, S.N. Keall, and C.H. Daugherty. 2008. Implications of social dominance and multiple paternity for the genetic diversity of a captive-bred reptile population (tuatara). Conservation Genetics 9 (5):1243-1251.
- 3. **Moore, J.A.**, J.M. Hoare, C.H. Daugherty and N.J. Nelson. 2007. Waiting reveals waning weight: monitoring over 54 years shows a decline in body condition of a long-lived reptile (tuatara, *Sphenodon punctatus*). Biological Conservation 135: 181-188.
- 2. **Moore, J.A.** and S. Godfrey. 2006. *Sphenodon punctatus* (common tuatara): Opportunistic predation. Herpetological Review 37(1): 81-82.
- 1. **Moore, J.A.** and J.C. Gillingham. 2006. Spatial ecology and multi-scale habitat selection by a threatened rattlesnake: the eastern massasauga (*Sistrurus catenatus*). Copeia 2006 (4): 742 -751.

MANUSCRIPTS IN REVIEW

PUBLISHED ABSTRACTS

1. **Moore, J.A.** and J.C. Gillingham. 2005. Spatial ecology and habitat use by the eastern massasauga rattlesnake (*Sistrurus catenatus*). New Zealand Journal of Zoology 32: 227-228 (Abstract).

TECHNICAL REPORTS AND POPULAR ARTICLES

- 1. **Moore, J.A.**, N.J. Nelson and C.H. Daugherty. 2006. Paternity analysis of juvenile tuatara (*Sphenodon punctatus*) on Little Barrier Island (Hauturu). Unpublished report, New Zealand Department of Conservation, Auckland.
- 2. **Moore, J.A**. 2005. The Dating Game How Do Tuatara Choose Their Mates? The Allan Wilson Centre Newsletter 3 (September 2005).
- 3. Swanson, B.J., J.C. Gillingham and **J.A. Moore**. 2005. A genetic evaluation of the eastern massasauga (*Sistrurus catenatus*) in Michigan. Unpublished report, Michigan Department of Natural Resources, Lansing, Michigan.
- 4. Moore, J.A. 2004. Black Rattlesnakes: Is It In Their Genes? Toronto Zoo Rattlesnake Tales 17 (1).

STUDENT SUPERVISION

UNDERGRADUATE STUDENTS

Breanna Gould (2013 GVSU, Student Summer Scholar), Danielle Bradke (2013, PCCI URGE), Brooke Kiel (2013, PCCI URGE), James Dupuie (2011, MSU), Catherine Frock (2009 NSF REU, UAS), Monica Gruber (2006, VUW Honours)

GRADUATE STUDENTS

Hope Draheim (2010- MSU PhD, mentor), Paige Howell (2010-2013, MSU PhD mentor), Katie McKenzie (2007, VUW MSc, co-advisor)

GRADUATE STUDENT COMMITTEE MEMBER

PROFESSIONAL ACTIVITIES

Society Memberships

American Society of Ichthyologists and Herpetologists (ASIH), American Society of Naturalists (ASN), Animal Behavior Society (ABS), International Association of Landscape Ecology (IALE) 2012, Society for Conservation Biology (SCB), Society for the Study of Amphibians and Reptiles (SSAR), Society for Research on Amphibians and Reptiles of New Zealand (SRARNZ) 2004 – 2008, The Wildlife Society (TWS)

AD HOC REVIEWER Biological Conservation Biological Journal of the Linnean Society Biology Letters Conservation Genetics Copeia Ecology Herpetological Journal Integrative Zoology Journal of Heredity

Journal of Herpetology Journal of Thermal Biology Molecular Ecology Molecular Ecology Notes New Zealand Journal of Ecology Pacific Conservation Biology PLOS One Wilson Journal of Ornithology

SERVICE

Grand Valley State University, Natural Resources Management Program Committee member, 2012-current.

National Center for Ecological Analysis and Synthesis (NCEAS) Distributed Graduate Seminar - *Developing Best Practices for Testing Landscape Effects on Gene Flow*, workgroup participant, 2009.

Biology Scholarships Training Day participant, Victoria University College of Education, 2008.

Tuatara Recovery Group, workgroup participant, 2006-2008.

Joint meeting of the Ecological Societies of New Zealand and Australia, organizing committee member, 2006.

Victoria University of Wellington Ecology and & Evolution seminar series, co-organizer, 2006.

Victoria University of Wellington, graduate student representative for Biology faculty search committee, 2005.

Eastern Massasauga Candidate Conservation Agreement, workgroup participant, 2003-2004.

INVITED AND SYMPOSIUM PRESENTATIONS

Moore, J.A. 2014. Conservation of New Zealand's iconic reptile, the tuatara. Owashtanong Islands Audubon Society, Grand Haven, MI. 21 Jan 2014. (*Invited*)

Moore, .J.A. 2013. A case study of conservation management down under: New Zealand's iconic tuatara. Bowling Green State University, Biology Department Seminar Series. (*Invited*)

Moore, J.A. 2012. A case study of conservation management down under: New Zealand's iconic tuatara. Distinguished Alumnus, Graduate Student Recruitment weekend, Central Michigan University. (*Invited*)

Doody, J.S. and J.A. Moore. 2008. Environmental gradients in traits affecting offspring fitness in water dragons. 6th World Congress of Herpetology, Manaus, Brazil. (*Symposium* - Reproduction in Reptiles: From Genes to Ecology)

- Moore, J.A., H.C. Miller, N.J. Nelson, and C.H. Daugherty. 2008. Competition, mate Choice, and genetic compatibility in tuatara (*Sphenodon punctatus*). 6th World Congress of Herpetology, Manaus, Brazil. (*Symposium* Reproduction in Reptiles: From Genes to Ecology)
- Miller, K.A., J.A. Moore, N.J. Nelson. 2008. Translocation and the maintenance of genetic diversity in tuatara (*Sphenodon*). 6th World Congress of Herpetology, Manaus, Brazil. (*Symposium* Herpetofaunal Reintroductions, Translocations, and Supplementations)
- Moore, J.A., N.J. Nelson, S.N. Keall, and C.H. Daugherty. 2007. Multiple paternity in an ancient reptile: Case study of tuatara on Little Barrier Island. Parasites, Conservation, and Evolutionary Ecology conference. Flinders University, Adelaide, Australia. (*Invited*)
- Moore, J.A., N.J. Nelson and C.H. Daugherty. 2006. The mating system and reproductive ecology of tuatara. Australian Research Council reptile parasite workshop, Brisbane, Australia. (*Invited*)
- Moore, J.A., J.C. Gillingham and B.J. Swanson. 2004. Population genetics of the eastern massasauga in Michigan. Eastern Massasauga Candidate Conservation Agreement Workgroup, Michigan, USA. (*Invited*)
- Moore, J.A. 2003. Spatial ecology of the eastern massasauga in Southern Michigan. Eastern Massasauga Candidate Conservation Agreement Workshop, Michigan, USA. (*Invited*)

SELECTED CONFERENCE PRESENTATIONS

- Hillman, T.L., P. Keenlance, J. Jacquot, J. Moore, M. Henshaw. 2013. Effects of a single founding event on reintroduction success of American marten. The Wildlife Society, Milwaukee, Wisconsin. (co-author only)
- Moore, J.A., H.M. Draheim, D.R. Etter, S.R. Winterstein, K.T. Scribner. 2012. Leaving home: factors affecting natal dispersal in American black bears. US-International Association for Landscape Ecology (IALE) 2012 Annual Symposium, Newport, Rhode Island.
- Draheim, H.M., J.A. Moore, K.T. Scribner, D.R. Etter, S.R. Winterstein. 2012. Applications of graphs to black bear source-sink dynamics. US-International Association for Landscape Ecology (IALE) 2012 Annual Symposium, Newport, Rhode Island.
- Draheim, H.M., K.T. Scribner, J.A. Moore, S.R. Winterstein, and D.R. Etter. 2011. Individual-based analysis of landscape effects on gene flow and connectivity of black bear (*Ursus americanus*) in Michigan's Northern Lower Peninsula. Evolution 2011, Norman, Oklahoma.
- Moore, J.A., J.K. Nielsen, S. Pyare, and D.A. Tallmon. 2010. Landscape effects on gene flow and connectivity of a widespread amphibian at the northern range margin. 24th Annual Meeting of the Society for Conservation Biology, Edmonton, Alberta.
- Nelson, N., K. Miller, H. Miller, S. Keall, and J. Moore. 2010. Can we effectively conserve tuatara in the face of climate Change? 24th Annual Meeting of the Society for Conservation Biology, Edmonton, Alberta.
- Moore, J.A., J. Nielsen, D. Tallmon, and S. Pyare. 2010. Effects of the landscape on gene flow and connectivity of boreal toads. Alaska. EPSCoR All-Hands Meeting 2010, Fairbanks, Alaska.
- Miller, K.A., H.C. Miller, J.A. Moore, S.N. Keall, and N.J. Nelson. 2009. Securing the demographic and genetic potential of tuatara: an experimental design for assisted colonization. 22nd Australasian Wildlife Management Society Annual Conference, Napier, New Zealand.
- Moore, J.A., C.H. Daugherty, S.S. Godfrey, and N.J. Nelson. 2009. Love on the rocks: seasonal monogamy, multiple paternity, and large-male advantage in tuatara. 2009 Joint Meeting of Ichthyologists and Herpetologists. Portland, Oregon, USA.
- Miller, H.C., J.A. Moore, N.J. Nelson, and C.H. Daugherty. 2008. Do MHC genes influence mate choice in reptiles? Genetics Society of Australasia, Adelaide, Australia.
- Miller, H.C., J.A. Moore and C.H. Daugherty. 2007. MHC diversity and mate choice in an archaic reptile. 11th Congress of the European Society of Evolutionary Biology, Uppsala, Sweden.
- Ramstad, K.M., J.A. Moore, and J.M. Refsnider. 2007. Fierce females: variation in intrasexual aggression among tuatara. 11th Congress of the European Society of Evolutionary Biology, Uppsala, Sweden. (*poster*)
- Porter, G., J.A. Moore, K. McKenzie, and N.J. Nelson. 2007. Density dependence in the mating system of tuatara, threatened reptiles of New Zealand. Society for Conservation Biology Australasia, Sydney, Australia.
- Moore, J.A., N.J. Nelson, S.N. Keall, and C.H. Daugherty. 2007. Multiple paternity in an ancient reptile. Evolution 2007, Christchurch, New Zealand.

- Miller, H.C., J.A. Moore, and C.H. Daugherty. 2007. Evolution of MHC genes in tuatara. Evolution 2007, Christchurch, New Zealand.
- Ramstad, K.M., J.A. Moore, and J.M. Refsnider. 2007. Fierce females: variation in intrasexual aggression among tuatara. Evolution 2007, Christchurch, New Zealand. (*poster*)
- Godfrey, S.S., J.A. Moore, CM Bull, and N.J. Nelson. 2007. Social connectivity and parasite dynamics in tuatara (*Sphenodon punctatus*). Wildlife Disease Association International Conference, Estes Park, Colorado, USA.
- Moore, J.A., N.J. Nelson, and C.H. Daugherty. 2006. The social mating system of tuatara (*Sphenodon punctatus*). Joint meeting of the Ecological Societies of New Zealand and Australia, Wellington, New Zealand.
- Godfrey, S.S., J.A. Moore, C.M. Bull, and N.J. Nelson. 2006. Host-parasite ecology of tuatara (*Sphenodon punctatus*). Joint meeting of the Ecological Societies of New Zealand and Australia, Wellington, New Zealand.
- Moore, J.A., N.J. Nelson and C.H. Daugherty. 2006. Is bigger better? The social mating system of tuatara (*Sphenodon punctatus*). Joint Meeting of Ichthyologists and Herpetologists, New Orleans, USA.
- Godfrey, S.S., C.M. Bull, J.A. Moore, and N.J. Nelson. 2006. The ectoparasites of tuatara (*Sphenodon punctatus*). Annual Meeting of the Australian Society of Herpetologists, Healesville Sanctuary, Victoria, Australia.
- Moore, J.A., N.J. Nelson and C.H. Daugherty. 2005. What affects the fitness of tuatara? Annual meeting of the Allan Wilson Centre for Molecular Ecology and Evolution, Wellington, New Zealand.
- Moore, J.A., N.J. Nelson and C.H. Daugherty. 2005. Are tuatara polygynous? Investigating the mating system of an endangered reptile. Animal Behavior Society, Snowbird, Utah, USA.
- Moore, J.A. and J.C. Gillingham. 2005. Spatial ecology and habitat use by the eastern massasauga rattlesnake, *Sistrurus c. catenatus*. ASH/SRARNZ/FiSH Joint Meeting, Springbrook, Australia.
- Moore, J.A. and J.C. Gillingham. 2004. A rattlesnake's tale: spatial ecology and habitat use by the eastern massasauga, *Sistrurus c. catenatus*. Michigan Academy of Sciences, Michigan, USA.