

**JAMES M. NOVAK**  
*Biological Sciences Department*  
*Eastern Illinois University*  
*Charleston, IL 61920*

(Tel) 217-581-6385 (FAX) 217-581-7141 (E-Mail) [jmnovak@eiu.edu](mailto:jmnovak@eiu.edu)

## EDUCATION

**Ph.D., Ecology, University of Georgia, Athens, 2003**

Dissertation: [Scale and organismal form: An ecological genetic perspective.](#)

**M.S., Forest Ecology, University of Illinois, Urbana, 1981**

Thesis: Structural habitat correlates of population dynamics of the white-footed mouse, *Peromyscus leucopus*

**B.S., Forestry (highest honors), University of Illinois, Urbana, 1978**

## GRANTS

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| <p>2010 Development of a Defensible Estimate of <sup>137</sup>Cs Background Levels for White-tailed Deer Harvested on the Department of Energy's Savannah River Site. K.F. Gaines, <b>J.M. Novak</b>. Washington Savannah River Company. \$14,500, In Progress</p> <p>2009 A Comprehensive Risk Assessment Model for the Tim's Branch – Steed Pond System. C.S. Romanek., A.L. Bryan, K.F. Gaines, <b>J.M. Novak</b>, H.A. Brant. Washington Savannah River Company. \$270,000 Total, \$78,418 to EIU, In Progress.</p> <p>2009 Development of a Predictive <sup>137</sup>Cs Toxicokinetic Model to Define Areas of High Risk for White-tailed Deer Harvest on the Department of Energy's Savannah River Site. K.F. Gaines, <b>J.M. Novak</b>. Washington Savannah River Company. \$33,000, In Progress.</p> <p>2008 The Common Snapping Turtle (<i>Chelydra serpentina</i>) as a Sentinel of Agricultural Effects on Lotic Ecosystems. <b>J. M. Novak</b>, D. L. Douros. EIU Proposal Initiative Fund. (\$6,750) Funded, Ongoing</p> <p>2008 Computer Interface Upgrades for Remote Learning Capabilities in the Biosciences Computer Laboratory. <b>J. M. Novak</b>. EIU Foundation Redden Grant. (\$1499.75) Funded, Ongoing</p> <p>2008 The Development of Enzyme-Linked Immunosorbant Assays (ELISA) to Screen for Unmonitored Pesticides and Hormonal Responses in Anuran Populations. K.F. Gaines, <b>J.M. Novak</b>. Illinois Waste Management and Research Center. Not Funded.</p> <p>2008 Development of a Predictive <sup>137</sup>Cs Toxicokinetic Model to Define Areas of High Risk for Game Harvest on the Department of Energy's Savannah River Site. K.F. Gaines, <b>J.M. Novak</b>. Washington Savannah River Company. (\$45,668), Completed.</p> <p>2008 The Effects of Habitat Fragmentation on Sensitive Aquatic Species. R. U. Fischer and <b>J. M. Novak</b>. Illinois Department of Natural Resources. (\$128,150), Funded, Ongoing.</p> | <p>2006 Have Humans Altered the Evolutionary Trajectory of Hilton Head Island Deer? <b>J. M. Novak</b>. EIU Faculty Research and Creative Activity Grant. (\$2256.32), Completed.</p> <p>2006 Travel to 13<sup>th</sup> Annual Wildlife Society Conference. <b>J. M. Novak</b>. Early Research Support Grant. (\$500), Completed.</p> <p>2004 Using Stable Isotopes of Nitrogen and Carbon to Study the Ecology of Small Mammals in Agricultural Mosaic Ecosystems. <b>J. M. Novak</b>, K. F. Gaines, R. DeMots and A. Gregor. MRI Pilot Award Renewal. (\$10,000), Completed.</p> <p>2004 Using Stable Isotopes of Nitrogen and Carbon to Study the Ecology of Amphibians in Agriculturally Dominated Ecosystems. K. F. Gaines, <b>J. M. Novak</b>, A. Gregor and R. DeMots. . MRI Pilot Award Renewal. (\$10,000), Completed.</p> <p>2003 Using Small Mammals as Indicator Species of Environmental Health for the Missouri National Recreational River Corridor: A Study of Individual, Population and Community Level Effects. <b>J. M. Novak</b> and K. F. Gaines. MRI Pilot Award. (\$9,915). Completed.</p> <p>2003 Environmental Monitoring Of The Missouri National Recreational River Corridor: An Amphibian Survey To Identify Indicator Species Appropriate For Assessing Environmental Health. K. F. Gaines and <b>J. M. Novak</b>. MRI Pilot Award. (\$9,910). Completed.</p> <p>2003 Spatial Modeling of Receptor Species for Ecological Risk Assessment Activities at the SRS. K.F. Gaines and <b>J.M. Novak</b>. Department of Energy – Environmental Restoration. (\$65,000). Completed.</p> <p>2002 River Otter Data Collection for Ecological Risk Assessment. <b>J.M. Novak</b> and K.F. Gaines. Department of Energy – Environmental Restoration. (\$43,500). Completed.</p> |
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- 2002 Contaminants and Risk at the SRS. K.F. Gaines, **J.M. Novak** and I.L. Brisbin, Jr. CRES - Rutgers University. (\$22,000) Completed.
- 2000 Spatial Modeling of Receptor Species for Ecological Risk Assessment Activities at the SRS. K.F. Gaines, J.W. Snodgrass, R.A. Kennamer, A.L. Bryan, Jr. J. Peles, **J.M. Novak**, G.R. Wein, and I.L. Brisbin, Jr. Department of Energy – Environmental Restoration. (\$200,000). Completed.
- 2000 Clapper Rail Hatchability Success.. K.F. Gaines, W.L. Stephens, Jr., T. C. Glenn, **J.M. Novak** & I.L. Brisbin, Jr. U.S. Fish and Wildlife Service. (\$34,000). Completed.
- 1999 Determination of Contaminant Burdens and DNA Strand Breakage in Clapper Rails Inhabiting the Troupe Creek and LCP Salt Marsh Systems, Brunswick, GA). K.F. Gaines, W.L. Stephens, Jr., T.C. Glenn, **J.M. Novak**, G.L. Mills & I.L. Brisbin, Jr. U.S. Fish and Wildlife Service. (\$46,000). Completed.
- 1998 Characters or Individuals? Individuals or Groups? How Do We Estimate Fluctuating Asymmetry? **J. M. Novak**. Society for Mathematical Biology Travel Grant. (\$500). Completed.
- 1997 Preliminary Analysis of the Use of *Gambusia holbrooki* as a Model Organism for the Quantitative Genetic Analysis of Organismal Form. **J. M. Novak**. NERP Research Grant (\$16,000). Completed.
- 1993 An Assessment of the Effect of 20 years of Succession on Spatial Patterning of Harvester Ant (*Pogonomyrmex badius*) colonies. **J. M. Novak** and R. U. Fischer. Savannah River Site Set-aside Area Research Grant (\$5,600). Completed.
- 1979 Structural Habitat Correlates of Population Dynamics of the White-footed Mouse, *Peromyscus leucopus*. **J. M. Novak** and G. R. Rolfe. University of Illinois Biomedical Research Grant (\$1200). Completed.

## PROFESSIONAL EXPERIENCE

- Eastern Illinois University 2005 – Present**  
Animal Diversity, Biometrics, Genotoxicology, Experimental Design, Conservation Genetics, Ecology
- University of South Dakota 2003 – 2005**  
Biostatistics (Graduate, Undergraduate), Mammalogy, Foundation – Living in a Quality Environment, Capstone – Living in a Quality Environment
- Limestone College Block Program 1995-2002**  
Environmental Science, Introductory Statistics

## TEACHING

- University of South Carolina - Aiken 1989-1994**  
Man and His Environment, General Biology - nonmajors, Beginning and Intermediate Algebra
- University of Georgia 1981-1982**  
Vertebrate Zoology
- University of Illinois 1978-1979**  
Dendrology, Field Botany

## STUDENT MENTORING

I have mentored 4 undergraduate students through the SREL NSF Research Experience for Undergraduates program, 2 long-term masters' students and 1 short-term Ph.D. student at SREL. One masters student as co-major professor at USD(graduated), 2 masters students successfully graduated at EIU, a committee member on 11 masters student committee and supervision of 13 undergraduate students research experience.

I currently have 1 master's student as co-major professor at USD, am the faculty advisor for three Masters students, a committee member for five M.S. students and am mentoring 1 undergraduate at Eastern Illinois University.

## RESEARCH

- Eastern Illinois University 2006 - Present**  
Assistant Professor
- Eastern Illinois University 2005 - 2006**  
Annually Contracted Faculty
- University of South Dakota 2004 - 2005**  
Missouri River Institute – Co-Director
- University of South Dakota 2003**  
Missouri River Institute – Research Scientist
- Savannah River Ecology Laboratory**  
**2000 – 2003**      **Research Coordinator I**  
**1984 – 2000**      **Research Technician III**  
**1981 – 1984**      **Graduate Research Assistant**
- University of Illinois 1980-1981** Graduate Research Assistant

## PROFESSIONAL SERVICE

Conservation Biology  
The Auk  
Copeia  
Evolution  
Journal of Heredity  
Journal of Landscape Ecology  
Journal of Mammalogy

## MANUSCRIPT REVIEWS

Journal of Wildlife Management  
National Science Foundation  
Proc. Southeastern Association of Fish  
and Wildlife Agencies  
Southwestern Naturalist  
American Midland Naturalist

## BOOK REVIEWS

Biostatistics – A First Course by Triola/Triola. Addison Wesley.

## CHAired SESSIONS

Society for the Study of Evolution, 1986, 1989, 2002      American Society of Mammalogists, 1988

## MEETINGS HOSTED

Southeastern Ecological Genetics Group, 1985

## SEARCH COMMITTEES

EIU Fisheries Biologist, 2008      SREL Biostatistician, 2001  
USD Aquatic Biologist, 2004

## SOCIETY MEMBERSHIPS

Society for the Study of Evolution      Ecological Society of America  
American Society of Mammalogists      The Wildlife Society\*

\* Current

## PUBLICATIONS

### IN REVIEW

1. Fore, J. D., R. U. Fischer and **J. M. Novak**. *In Review*. Effects of agriculture on fluvial geomorphology and fish assemblages: Implications for ecosystem conservation. *Trans. Amer. Fish. Soc.*

### PUBLISHED

1. DeMots1, R.L., **J.M. Novak**, K.F. Gaines, A.J. Gregor, C.S. Romanek and D.A. Soluk. 2010. Tissue-diet discrimination factors and turnover of stable carbon and nitrogen isotopes in white-footed mice (*Peromyscus leucopus*). *Can. J. Zool.* 88:961-967.
2. Warrner, S.S., A.M. Holtrop, L.C. Hinz, Jr., **J.M. Novak** and R.U. Fischer. 2010. Evaluating the Illinois Stream Valley Segment Model as an Effective Management Tool. *Environ. Manage.* 46:761-770.
3. Murray, S.M., K.F. Gaines, **J. M. Novak**, M. Gochfeld, and J. Burger. 2010. DNA double-strand breakage as an endpoint to examine Ni and U exposure effects to watersnakes on a nuclear industrial site. *Human Ecol. Risk Assess.* 16:282-300.
4. Gaines K.F., and **J.M. Novak**. 2008. Raccoon (*Procyon lotor*) harvesting on and near the Department of Energy's Savannah River Site: Utility of metapopulation modeling for prediction and management of hunter risk? In R. Akcakaya, J. D. Stark and T. S. Bridges (eds). *Demographic Toxicity: Methods in Ecological Risk Assessment*. Oxford University Press, Oxford, England, UK.
5. J.C. Cumbee, Jr., K.F. Gaines, G.L. Mills, W.L. Stephens, Jr., **J.M. Novak** I.L. Brisbin, Jr.. 2008. Clapper Rails as indicators of mercury and PCB trophic transfer in a Georgia saltmarsh system. *Ecotoxicology.* 17:485-494
6. **Novak J.M.**, K.F. Gaines, J.C. Cumbee, Jr., G.L. Mills, A. Rodrigues-Navarro and C.S. Romanek. 2006. Clapper Rails as indicator species of estuarine marsh health. *Studies In Avian Biology* 32:270-281.
7. Burger, J., S. Murray, K.F. Gaines, **J.M. Novak**, T. Punshon, C. Dixon and M. Gochfeld. 2006. Element levels in snakes in South Carolina: Differences between a contaminated and a reference site on the Savannah River Site. *Environmental Monitoring and Assessment* 112:35-52.

8. Collyer, M.C., **J.M. Novak**, and C.A. Stockwell. 2005. Morphological divergence in recently established populations of White Sands pupfish (*Cyprinodon Tularosa*). *Copeia* 2005:1-11.
  9. Staub, B.P., W.A. Hopkins, **J.M. Novak**, J.D. Congdon. 2004. Respiratory and reproductive characteristics of eastern mosquitofish (*Gambusia holbrooki*) inhabiting a coal ash settling basin. *Arch. Environ. Contam. Toxicol.* 46:96-101.
  10. Oleksyk, T.K., **J.M. Novak**, J.R. Purdue, S.P. Gashchak and M.H. Smith. 2004. High levels of fluctuating asymmetry in populations of *Apodemus flavicollis* from the most contaminated areas in Chernobyl. *J. Environmental Radioactivity* 73:1-20. (<http://authors.elsevier.com/sd/article/S0265931X03002224>)
  11. Smith, M.H., **J.M. Novak**, T.K. Oleksyk, J.R. Purdue, and S.P. Gashchak. 2002. Fluctuating Asymmetry of Shape in Rodents from Radioactively Contaminated Environments at Chernobyl. In: Scientific and Technical Aspects of Chernobyl. Collection of Scientific Articles. Eds. V. Glygalo and A. Nosovsky. Slavutich, Ukraine: POLYTECHNIKA, 4:492-503.
  12. Oleksyk, T.K., M.H. Smith, S.P. Gashchak, **J.M. Novak**, and J.R. Purdue. 2002. Problems with developmental stability in two rodent species from Chernobyl. *Radioprotection-Colloques*, 37(C1):859-864.
  13. Smith, M.H., **J.M. Novak**, J.D. Peles and J.R. Purdue. 2001. Genetic heterogeneity of white-tailed deer: management lessons from a long-term study. *Mamm. Biol.* 66:1-12.
  14. Mayer, J.J., **J.M. Novak** and I.L. Brisbin, Jr. 1998. Evaluation of Molar Size as a Basis for Distinguishing Wild Boar from Domestic Swine: Employing the Present to Decipher the Past. *MASCA Research Papers in Science and Archaeology* 15: 39 – 53.
  15. Serfass, T.L., R.P. Brooks, **J.M. Novak**, P.E. Johns, and O.E. Rhodes, Jr. 1998. Genetic Variation Among Populations of River Otters in North America: Considerations For Reintroduction Projects. *J. Mammalogy* 79:736-746.
  16. Hernandez-Martich, J.D., **J.M. Novak**, M.H. Smith and P.E. Johns. 1995. Genetic structure of mosquitofish populations in the Altamaha and Ogeechee drainages of Georgia: reporting an undescribed form in the Ocmulgee River. *Biochemical Systematics and Ecology* 23:617-625.
  17. **Novak, J.M.** , O.E. Rhodes, Jr., M.H. Smith and R.K. Chesser. 1993. Morphological asymmetry in mammals: Genetics and homeostasis reconsidered. *Acta Theriologica* 38:7-18.
  18. Chesser, R.K., D.W. Sugg, O.E. Rhodes, Jr., **J.M. Novak** and M.H. Smith. 1993. Evolution of mammalian social organization. *Acta Theriologica* 38:163-174.
  19. McDonald, M.M., M.H. Smith, M.W. Smith, **J.M. Novak**, P.E. Johns and A.L DeVries. 1992. Biochemical systematics of notothenioid fishes from Antarctica. *Biochem. Syst. Ecol.* 20:233-241.
  20. Rhodes, O.E. Jr., **J.M. Novak**, M.H. Smith and P.E. Johns. 1991. Frequency distribution of conception dates in a white-tailed deer herd. *Acta Theriol.* 36:131-140.
  21. **Novak, J.M.**, K.T. Scribner, W.D. Dupont and M.H. Smith. 1991. Catch-effort estimation of white-tailed deer population size. *J. Wildl. Manage.* 55:31-38.
  22. Teska, W.R., M.H. Smith and **J.M. Novak**. 1990. Effects of food quality and heterozygosity upon fitness of *Peromyscus polionotus*. *Evolution* 44:1318- 1325.
  23. Lamb, T., **J.M. Novak** and D.L. Mahoney. 1990. Morphological asymmetry and interspecific hybridization: a case study using hylid frogs. *J. Evol. Biol.* 3:295- 309.
  24. **Novak, J.M.**, L.M. Smith and L.D. Vangilder. 1989. Genetic variability within and among wintering populations of brant. *J. Heredity.* 80:160-163.
  25. Hepp, G.R., **J.M. Novak**, K.T. Scribner and P.W. Stangel.<sup>1</sup> 1988. Genetic distance and hybridization of black ducks and mallards: A morph of a different color? *The Auk* 105:804-807.
- <sup>1</sup>Order of authors alphabetical
26. Rhodes, O.E. Jr., **J.M. Novak**, M.H. Smith and P.E. Johns. 1986. Assessment of fawn breeding in a South Carolina deer herd. *Proc. Ann. Conf. SE. Assoc. Fish Wildl. Agencies.* 40:430-437

27. **Novak, J.M.** 1983. Multiple captures of *Peromyscus leucopus*: social behavior in a small rodent. *J. Mammal.* 64:710-713.
28. Brown, S., G. Gertner, A.E. Lugo and **J. Novak**. 1981. Carbon dioxide dynamics of the biosphere. Pp. 19-28 in W. J. Mitsch, R. W. Bosserman and J. M. Klopatek, eds. *Energy and ecological modeling*. Elsevier, Amsterdam, Holland
29. Applegate, R.D., L.L. Rogers, D.A. Casteel and **J.M. Novak**. 1979. Germination of cow parsnip seeds from grizzly bear feces. *J. Mammal.* 60:655.
30. **Novak, J.M.** 1978. Distribution and relative abundance of small mammals in the Illini Forest Plantation, Urbana, Illinois. *For. Res. Rpt. No. 78(11):1-5*.

## REPORTS

1. K.F. Gaines and **J.M. Novak**. Spatiotemporal-Toxicodynamic modeling of <sup>137</sup>Cs to estimate white-tailed deer background levels for the Department of Energy's Savannah River Site. 2009. Report to U.S. Department of Energy. US Document No.: SRNS-RP-2009-01283
2. K.F. Gaines and **J.M. Novak**. Toxicodynamic modeling of <sup>137</sup>Cs to estimate white-tailed deer background levels for the Department of Energy's Savannah River Site. 2008. Report to U.S. Department of Energy. US Document No.: WSRC-RP-2008-4073, Rev. 0.
3. **Novak, J.M.**, A. E. Jacobs, and K.F. Gaines. 2004. A Spatially Explicit Model for Cotton Mouse (*Peromyscus gossypinus*) Habitat Preference on the Department of Energy's Savannah River Site. *Official DOE Document Number Pending*, Savannah River Ecology Laboratory
4. **Novak, J.M.**, J.D. Peles, and K.F. Gaines. 2002. A Spatially Explicit Model for Cotton Rat (*Sigmodon hispidus*) Habitat Preference on the Department of Energy's Savannah River Site. SREL-62, UC-66e. Savannah River Ecology Laboratory
5. K.F. Gaines, **J.M. Novak**, W.L. Stephens, Jr. and J.C. Cumbee, Jr. 2000. Determination of Contaminant Burdens, DNA Strand Breakage and Nesting Success in Clapper Rails Inhabiting the Salt Marsh Estuary in Brunswick, GA - PART I&II. Report to the U.S. Fish and Wildlife Service.
6. **Novak, J.M.**, P.E. Johns and M.H. Smith. 1999. Current Status of the SRS Deer Herd: Demographic Health and the Attainment of Management Objectives. Ten Year Summary Report. SREL-57, UC-66e. Savannah River Ecology Laboratory.
7. Scribner, K.T. and **J.M. Novak**. 1987. Harvest Characteristics and Population Structure of the Savannah River Plant Deer Herd. DE-AC09-76SROO-819. Savannah River Ecology Laboratory.

## PRESENTATIONS

1. K. F. Gaines, **J. M. Novak**, C. W. Bobryk and S. S. Dyer. 2010. Spatiotemporal-toxicodynamic modeling of <sup>137</sup>Cs to estimate white-tailed deer background levels for the Department of Energy's Savannah River Site. The 17<sup>th</sup> Annual Meeting of The Wildlife Society, Snowbird, UT.
2. C. W. Bobryk, K. F. Gaines, **J. M. Novak** and S. S. Dyer. 2009. A Spatially Explicit Model to Predict White-tailed Deer Radiocesium Body Burdens on the Department of Energy's Savannah River Site. The 16<sup>th</sup> Annual Meeting of The Wildlife Society, Monterey, CA.
3. P. W. Salvadori, **J. M. Novak**. 2009. Habitat Fragmentation and the effect on Populations of Darters. The 70<sup>th</sup> Midwest Fish and Wildlife Conference, Springfield, IL.
4. D. L. Douros, **J. M. Novak**. 2009. Population Ecotoxicology of the Common Snapping Turtle in Agriculturally Impacted Lotic Ecosystems. The 70<sup>th</sup> Midwest Fish and Wildlife Conference, Springfield, IL.
5. D. L. Douros, K. K. Allen, **J. M. Novak**. 2008. Rapid evolution of white-tailed deer on Hilton Head Island, South Carolina. The Wildlife Society, Miami, FL.
6. R.L. DeMots, **J.M. Novak**, K.F. Gaines, C.S. Romanek. 2008. Using stable isotopes to infer seasonal dietary changes and niche separation between deer mice and white-footed mice in southeastern South Dakota. The Wildlife Society, Miami, FL.

7. P. W. Salvadori, R. U. Fischer, **J. M. Novak**. 2008. The Effect of Habitat Fragmentation on Sensitive Aquatic Species. The 69<sup>th</sup> Midwest Fish and Wildlife Conference, Columbus, OH.
8. D. L. Douros, **J. M. Novak**. 2008. The Common Snapping Turtle as a Sentinel of Agricultural Effects on Lotic Ecosystems. The 69<sup>th</sup> Midwest Fish and Wildlife Conference, Columbus, OH.
9. **J.M. Novak** and K. F. Gaines. 2007. What are appropriate chronic exposure endpoints? DNA strand breakage and eggshell integrity in clapper rails at the LCP site. The 68<sup>th</sup> Midwest Fish and Wildlife Conference, Madison, WI.
10. C. E. Ciak, R. U. Fischer, C. L. Pederson, and **J. M. Novak**. 2007. Influence of extreme hydrologic alteration on Invertebrate Assemblages in the Sangamon River, Decatur, Illinois. The 68<sup>th</sup> Midwest Fish and Wildlife Conference, Madison, WI.
11. A. J. Gregor, K. F. Gaines, **J. M. Novak**, R. L. DeMots, and C. S. Romanek. 2007. Stable carbon and nitrogen isotopes to infer seasonal dietary changes and niche separation between deer mice and white-footed mice in southeastern South Dakota, The Wildlife Society, Tucson, AZ.
12. R. L. DeMots, **J. M. Novak**, K. F. Gaines, A. J. Gregor, and C. S. Romanek. 2007. Using stable carbon and nitrogen isotopic diet-tissue discrimination factors and turnover rates in the North American bullfrog, The Wildlife Society, Tucson, AZ.
13. **J.M. Novak** and K. F. Gaines. 2006. What are appropriate chronic exposure endpoints within an ecological trap? DNA strand breakage in clapper rails at the LCP site. The Wildlife Society, Anchorage, AK.
14. K. F. Gaines, **J.M. Novak** and G. L. Mills. 2006. Is the LCP site an ecological trap? A case study using the clapper rail. The Wildlife Society, Anchorage, AK.
15. E. D. Casey, P. M. Bertsch, K. F. Gaines, **J. M. Novak** and W. L. Stephens, Jr. 2006. Red-eared sliders as long-term indicators of environmental contamination over time. Joint Meeting of Ichthyologists and Herpetologists, New Orleans, LA.
16. E.D. Casey, K.F. Gaines, **J.M. Novak**, P.M. Bertsch, W.L. Stephens, Jr. 2005. The use of red-eared sliders as indicators of environmental ecotoxicological stress over time. Society for Toxicology and Environmental Chemistry, Baltimore, MD
17. E.D. Casey, K.F. Gaines, **J.M. Novak**, P.M. Bertsch, W.L. Stephens, Jr. 2005. Red eared sliders as indicators of ecotoxicological environmental stress over time: an update Joint Meeting of Ichthyologists and Herpetologists, Tampa, FL
18. **J.M. Novak**, J. R. Purdue and M. H. Smith. 2005. The shape of things to come? Organismal form and wildlife management. The Wildlife Society, Madison, WI.
19. A.J. Gregor, R.L. DeMots, K.F. Gaines, **J.M. Novak**. 2005 The influence of landscape heterogeneity on resource selection by amphibians and small mammals in southeastern South Dakota.. The Wildlife Society, Madison, WI
20. **J. M. Novak**. 2004. Cordgrass, Crabs and Clappers: Ecotoxicology in a Southeastern salt marsh. Invited Seminar, University of North Dakota, Fargo, ND.
21. **J. M. Novak**. 2004 Real-Time Water Quality Assessment of the MNRR Corridor: Assessing Spatial and Temporal Variance of a Dynamic Ecosystem. MRI Research Symposium, Vermillion, SD.
22. E.D. Casey, K.F. Gaines, **J.M. Novak**, P.M. Bertsch, W.L. Stephens, Jr. 2005. The ecological significance of red eared sliders as indicators of ecotoxicological stress on the environment over time Joint Meeting of Ichthyologists and Herpetologists, Norman, OK
23. R. L. DeMots, **J. M. Novak** and K.F. Gaines. 2004. Community Structure of Small Mammals within the Missouri National Recreational River Watershed of Southeast South Dakota. MRI Research Symposium, Vermillion, SD.
24. A.J. Gregor, K.F. Gaines and **J. M. Novak**. 2004. An Inventory to Assess the Community Structure, Distribution and Abundance of Herpetofauna within the Missouri National Recreational River and its Associated Tributaries. MRI Research Symposium, Vermillion, SD.
25. **Novak, J. M.**, K. F. Gaines, and W. L. Stephens, Jr. 2002. DNA strand breakage and anthropogenic insults in clapper rails. The Wildlife Society, Bismarck, ND.

26. **Novak, J. M.** and M. H. Smith. 2002. Evolutionary dynamics of organismal form among populations of white-tailed deer. Society for the Study of Evolution, Urbana, IL.
27. **Novak, J. M.**, L. W. Robbins and R. J. Sarno. 2001. Estimating spatial and temporal interactions for population viability analysis. Society for Conservation Biology, Hilo, HI.
28. Collyer, M. L., **J. M. Novak**, and C. A. Stockwell. 2001. Analysis of morphological variation among White Sands pupfish (*Cyprinodon tularosa*) populations using geometric morphometric techniques. Desert Fish Council, Reno, NV.
29. **Novak, J. M.**, K. F. Gaines, W. L. Stephens, Jr., L. A. Dueck, and T. C. Glenn. 2000. DNA strand breakage and anthropogenic insults in clapper rails. American Ornithologists Union, St. Johns, Newfoundland.
30. **Novak, J. M.** and M. H. Smith. 1999. Radiocesium, white-tailed deer and the cold war: Using long-term monitoring data to disentangle local and global effects. The Wildlife Society, Snowmass, CO.
31. **Novak, J. M.** and M. H. Smith. 1999. Path Analytic Analysis of Developmental Stability in the Hispid Cotton Rat. Society for the Study of Evolution, Madison, WI.
32. **Novak, J. M.** 1998. Characters or Individuals? Individuals or Groups? How Do We estimate Fluctuating Asymmetry? On Growth and Form: Spatio-temporal Patterning in Biology. Celebrating the Life and Work of D'Arcy Wentworth Thompson, 1860 – 1948. University of Dundee, Dundee, Scotland.
33. **Novak, J. M.** 1998. Characters or Individuals? Individuals or Groups? How Do We estimate Fluctuating Asymmetry? American Society of Mammalogists, Blacksburg, VA.
34. **Novak, J. M.** and J. D. Krenz. 1997. Genotypic and phenotypic effects of heavy metal toxicants in hispid cotton rats. The Wildlife Society, Snowmass, CO.
35. **Novak, J. M.** and J. D. Krenz. 1996. Morphological asymmetry and ecological toxicity in hispid cotton rats. Society for the Study of Evolution, St. Louis, MO.
36. **Novak, J. M.** 1993. The path(s) to asymmetry. The Southeastern Population Ecology and Genetics Group. Camp Sertoma, NC.
37. **Novak, J. M.** 1993. Historical constraints on evolutionary change at multiple spatial scales. Society for the Study of Evolution, Snowbird, UT.
38. **Novak, J. M.** 1993. Quantitative assessment of historical factors on covariation among life history traits. American Society of Ichthyologists and Herpetologists, Austin, TX.
39. **Novak, J. M.** and M. H. Smith. 1992. Morphological asymmetry in *Sigmodon*: Truss and fractal analysis of sex, age, heterozygosity and population size classes. Symposium on Ecological Genetics in Mammals. University of Łódź, Łódź, Poland.
40. **Novak, J. M.**, Lynn W. Robbins and Michael H. Smith. June 1992. Spatial and temporal structure of mosquitofish populations. American Society of Ichthyologists and Herpetologists, Urbana-Champaign, IL.
41. Smith, M. H., **J. M. Novak** and P. E. Johns. 1992. Genetic disequilibrium in a natural population of white-tailed deer. American Society of Mammalogists, Salt Lake City, UT.
42. **Novak, J. M.** June 1991. Morphological Asymmetry in *Sigmodon*: Truss and fractal analysis of sex, age and heterozygosity classes. Society for the Study of Evolution, Hilo, HI.
43. **Novak, J. M.** June 1991. Truss and fractal analysis of fluctuating asymmetry in *Sigmodon hispidus*. American Society of Mammalogists, Manhattan, KS.
44. **Novak, J. M.** April 1991. Catch-effort estimation of white-tailed deer population size. Southeastern Deer Study Group, Baton Rouge, LA.
45. **Novak, J. M.** June 1989. Genes, demes and dispersal schemes: It's not where you go, but who you "know". Society for the Study of Evolution, State College, PA.
46. **Novak, J. M.** June 1989. Dispersal and gene flow: estimation in relation to hierarchical population structure. American Society of Mammalogists, Fairbanks, AK.

47. **Novak, J. M.** June 1988. Catch-effort density estimation of white-tailed deer population size. American Society of Mammalogists, Clemson, SC.
48. **Novak, J. M.** June 1988. The spandrels revisited: heterozygosity distributions, bottlenecks and Kipling. Society for the Study of Evolution, Asilomar, CA.
49. **Novak, J. M.** November 1987. Catch-effort density estimation of white-tailed deer population size: methods and biological implications. Invited Seminar, Colorado State University, Dept. of Fish. and Wild., Ft. Collins, CO.
50. **Novak, J. M.** June 1987. Sampling considerations for the estimation of population genetic statistics. Society for Conservation Biology, Bozeman, MT.
51. **Novak, J. M.**, T. Lamb and D. E. Casey. June 1987. Hybridization and Asymmetry: a case study using hybrid frogs. Society for the Study of Evolution, Bozeman, MT.
52. **Novak, J. M.** April 1987. Heterozygosity and sample sizes in population genetic studies of vertebrates. Association of Southeastern Biologists, Athens, GA.
53. Teska, W. R., M. H. Smith and **J. M. Novak.** June 1986. Effects of food quality and heterozygosity upon fitness of *Peromyscus polionotus*. Society for the Study of Evolution, Durham, NH.
54. Rhodes, O. E. Jr. and **J. M. Novak.** June 1986. Age-specific heterozygosity shifts and selection in white-tailed deer. Society for the Study of Evolution, Durham, NH.
55. **Novak, J. M.** June 1986. Heterozygosity and geographic range within the Rodentia: a test of an hypothesis. Society for the Study of Evolution, Durham, NH.
56. Rhodes, O. E. Jr., **J. M. Novak** and M. H. Smith. June 1986. A comparison of techniques used to estimate conception dates of female white-tailed deer. American Society of Mammalogists, Madison, WI.
57. **Novak, J. M.** June 1986. Spatio-temporal demographic trends of hardwood forest small mammal populations. American Society of Mammalogists, Madison, WI.
58. **Novak, J. M.** June 1985. Genetic hitchhiking in Atlantic Brant. Society for the Study of Evolution, Chicago, IL.
59. **Novak, J. M.** June 1985. Spatial dynamics in overwintering populations of the white-footed mouse. American Society of Mammalogists, Orono, ME.
60. **Novak, J. M.**, L. M. Smith and L. D. Vangilder. January 1985. Genetic variation within and among wintering populations of Atlantic Brant. Waterfowl in Winter Symposium, Galveston, TX.
61. **Novak, J. M.** August 1984. Quantifying spatial structure and breeding unit size in a population of *Sigmodon hispidus*. Southeastern Ecological Genetics Group, Clemson, SC.
62. **Novak, J. M.** and M. H. Smith. June 1984. Estimating migration rate and effective population size in a subdivided cotton rat population. American Society of Mammalogists, Arcata, CA.
63. **Novak, J. M.** and M. H. Smith. June 1983. Spatial and genetic subdivision in *Sigmodon hispidus*. American Society of Mammalogists, Gainesville, FL.
64. **Novak, J. M.** June 1982. Structural habitat correlates of population dynamics in *Peromyscus leucopus*. American Society of Mammalogists, Snowbird, UT.

## HONORS AND AWARDS

Xi Sigma Pi Freshman Award  
Gamma Sigma Delta Sophomore Award  
Xi Sigma Pi (Forestry Honor Society)

Gamma Sigma Delta (Agriculture Honor Society)  
Phi Kappa Phi (Academic Honor Society)  
Sigma Xi (Scientific Research Society)

## SCHOLARSHIPS AND FELLOWSHIPS

1984 Savannah River Ecology Laboratory Graduate  
Research Fellowship  
1983 University of Georgia University-wide Assistantship

1983 Savannah River Ecology Laboratory Graduate  
Research Fellowship  
1982 University of Georgia University-wide Assistantship



*Novak, J.M.*

1982 Savannah River Ecology Laboratory Graduate  
Summer Internship  
1978 Hackett Fellowship

1975 Garden Club of Illinois Scholarship  
1974 Moorman's Scholarship

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