

ROSS JONES

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POST-GRADUATE EDUCATION

J.D. *cum laude* 2000, Vermont Law and Graduate School.
Master of Studies in Environmental Law, *magna cum laude* 2000, Vermont Law School.
Ph.D. 1990, Dept. of Ecology and Evolutionary Biology, Northwestern University

CURRENT POSITIONS

Adjunct Professor, January 2012 – present; Vermont Law and Graduate School, South Royalton, VT
Senior Lecturer, July 2015-present; Environmental Studies Program, Dartmouth College, Hanover, NH: (Research Assistant Professor; 2008 to June, 2015; Research Fellow; 2000 to 2008)
Consultant and Freelance Writer, June 2000 - present on issues related to environmental law, policy, management, litigation and science.

TEACHING & COURSE DEVELOPMENT EXPERIENCE

Law/Graduate School Teaching: Vermont Law and Graduate School

2022 **Climate Change and the Law.** Revising and teaching an introductory course on the law, policy, and science of climate change mitigation and adaptation.

2021-present **Climate Change Adaptation in Human Systems.** Revising and teaching course dealing with how law, science, policy, and culture are used to develop climate adaptation strategies from the local to global level.

2013–present **Science for Environmental Law.** The course surveys the use of environmental science in environmental law and policy.

2014–present **Natural Resources Law.** The course surveys the law and policy of public land and natural resources management.

2012–present **Environmental Law.** The course surveys the major federal regulatory approaches for dealing with pollution, waste, and environmental assessments.

2018 **Climate Change and the Law.** Original version of course surveying the legal, policy, economic, and scientific foundations of climate change mitigation and adaptation from local to international levels.

2012-2013 **Ecology.** Taught a 7-week graduate-level ecology course for students in the Vermont Law School online Masters program.

2001 **Ecology.** I taught an introductory and interdisciplinary class on Ecology to a class of 40 law and environmental policy students during the Vermont Law School Summer Session.

Course Development: Vermont Law and Graduate School

- 2022** **Climate Change Adaptation in Human Systems & Climate Change and the Law.** Carrying out major revisions to the learning materials, assignments, and instructional design for these two courses.
- 2021** **Environmental Law Course Development.** Carried out major new revisions for the Vermont Law School's online Environmental Law course. These included revisions both to the instructional design and content of the course.
- 2020** **Natural Resources Law Course Development.** I am carrying out major revisions to the design and content of this course to increase the range and currency of the issues taught.
- 2020** **Science for Environmental Law Course Development.** I am carrying out major revisions to the design and content of this course, that I originally developed in 2013, to integrate it more fully with the school's programs on Energy, Agriculture, and Climate Change.
- 2017** **Environmental Law Course Development.** Carried out major revisions for the Vermont Law School's online Environmental Law course. These included revisions both to the instructional design and content of the course.
- 2013** **Science for Environmental Law Course Development.** Developed a new course for Vermont Law School's online Masters/LLM graduate school program. The course uses multi-media online tools to survey the use of science in environmental law. I continue to revise and update this course regularly.

Teaching & Course Development: Dartmouth College

- 2008-present** **Environmental Law.** I developed and I am teaching an undergraduate class surveying the major domestic and international environmental laws (ENVS 60). The class combines online lectures, in-class discussions, in-class/out-of-class group projects, and individual research projects.
- 2017-2018** **Introduction to Environmental Science.** I taught the introductory Environmental Studies class on Environmental Science (ENVS 3) to classes of approximately 60 in winter 2017 & 2018.
- 2011** **Guest Lecture in Marine Policy.** Lecture on the science and policy behind the collapse of the Newfoundland cod fishery.
- 2009** **Co-Instructor in Environment and Society.** I was one of two instructors in the introductory Environmental Studies class, ENVS 3. Lectured on various topics in environmental studies - including environmental law, policy, and science - as well as case studies highlighting specific course themes.
- 2006** **Guest Lecture in Natural Resource and Ecological Economics.** Lecture on interaction of economic and ecological factors associated with nuclear power plant operation.
- 2004** **Visiting Assistant Professor in Environmental Studies - I taught Conservation of Biodiversity.** This class blended an introduction to conservation biology with the environmental policy, law, and ethics related to biodiversity protection.
- 2000** **Visiting Assistant Professor in Environmental Studies - I taught Conservation of Biodiversity.**

Teaching & Course Development: Other

- 2011** Graduate Legal Studies Program, **Kaplan University**. Facilitated three 10-week online graduate courses (Environmental Foundations and Principles).
- 2006-2009** **Faculty, Goddard College (Vermont)**. Hybrid in-person/distance learning undergraduate and graduate programs. Presenting workshops/classes in various topics of environmental studies, science, mathematics, and law during 9-day long semester residencies. Advising and evaluating the work of graduate students in socially responsible business and sustainable communities program and undergraduate students in individually designed B.A. program in a variety of disciplinary and interdisciplinary studies via online learning – including the use of specialized online websites.
- 2007** **Adjunct Professor at Green Mountain College, Vermont**. Developed the content and taught an intensive 6-week online course on *Business Law* for students in the M.B.A. in Sustainable Business program.
- 1992** **Memorial University of Newfoundland**; Guest lecture in **Introduction to Genetics**. Lectured to an undergraduate class of approximately 70 students on Mendelian genetics, chromosome theory of inheritance, and sex-linkage.
- 1991** **Memorial University of Newfoundland. Co-instructor for Molluscan Physiology and Genetics**. Lectured a graduate class of 10 students on quantitative genetics.

Thesis & Independent Study Advisor: Vermont Law and Graduate School

- 2019** **Master's Thesis Advisor, Vermont Law and Graduate School**. Advised VLS online Master's student on thesis work, *Comprehensive and Specific Solutions for the Dual Threat of Dangerous Pesticide Use and Anthropogenic Habitat Deterioration in the Decline of the Lesser Horseshoe Bat*.
- 2015 – 2016** **LLM Thesis Advisor, Vermont Law and Graduate School**. Advised VLS online LLM student on thesis on the environmental impacts of corporate social responsibility programs.
- 2015** **Independent Study Advisor, Vermont Law and Graduate School**. Advised VLS online Masters student on independent study project, *Climate Change Impacts to the Arctic Marine Ecosystem and the Laws and Policies in Place to Mitigate Them*.

Thesis & Independent Study Advisor: Dartmouth College

- 2021 - present** **Mentor**. Advising Dartmouth undergraduate, Nicholas Mancini, on his Stamps Scholars work on the policy and economic factors involved in Endangered Species Act species listing decisions. I also served as his advisor for his summer, 2021 Independent Research Program.
- 2019 – 2021** **Advisor/Mentor**. Advising Environmental Studies major, Michael McGovern on his ongoing Stamps Scholars research on the potential role of ecotourism on the conservation of tigers in southeast Asia. I also served as his advisor for his summer, 2019 Independent Research Program.
- 2013-2014** **Senior Thesis Advisor, Environmental Studies Program**. Advised Environmental Studies Major, Maya Johnson, on her senior thesis: *Cultural and*

Scientific Drivers of Water Quantity and Quality Law on the Flathead Reservation.

2009-2010 **Senior Thesis Advisor, Environmental Studies Program.** Advised Environmental Studies Major, Samuel Welch, on his senior thesis: *Standing on Ice: A Study of Standing and Scope in Kivalina v. ExxonMobil.*

2004 **Independent Study Advisor** for a student in the Master of Arts in Liberal Studies (MALS) program at **Dartmouth College**. The MALS program is designed for adult students who want to engage in self-directed study in the liberal arts at the graduate level. I advised a student on the design and completion of a study of the ecological, cultural, and ethical considerations of wolf reintroduction into the northeastern U.S.

CURRENT RESEARCH INTERESTS

- The interplay of science, law, policy, and culture in biodiversity protection
- Connections between climate change, natural resources management, and ecosystem services
- Analysis of the interactions of ecology, environmental law, policy, & ethics
- Application of ecological and evolutionary theory to environmental law and policy

CURRENT & RECENT RESEARCH EXPERIENCE

Dartmouth College - Environmental Science & Policy (Funded, in part, by National Science Foundation New Hampshire EPSCoR (Rich Howarth, Dartmouth College, PI)

2012-present Determining how climate variability, climate change and human land use affect the ability of northeastern forest landscapes to provide essential aquatic and terrestrial ecosystem services across multiple scales –

2010-present Conducting research on how ecology and environmental law are integrated in a variety of state and federal agency documents, as well as designing tests for the effectiveness of these documents in meeting their legal purposes.

2010-present How human-caused changes to the environment is changing the evolutionary landscape of humans and other species.

2005-2011 The use of scientific data and theories in environmental litigation (with a focus on the effects of thermal discharge by Vermont Yankee Nuclear Power Plant on Connecticut River ecosystem).

Workforce & Labor Issues

2010 **Research contract from the Center for Human Capital Innovation (Alexandria, VA).** Research, analysis, and writing on topics related to management of the federal government workforce, including a short-term study on the optimal program for the decrease in sexual harassment and assaults in the U.S. Army.

2008-2009 **Research contract from the Human Capital Institute (Wilder, VT & Washington, D.C.).** Research, analysis, and writing on multiple topics related to the current state of workforce (labor) management in business and non-business organizations, as well as research on future trends and proposed changes to labor management in the future.

PAST RESEARCH EXPERIENCE

- 1994-1996** **Research Associate, Department of Biology, Memorial University of Newfoundland** - Designed and began an applied research program, using genetics and ecology, for the development of a viable scallop aquaculture industry in Newfoundland. This entailed close collaboration with both government agencies and the private industry.
- 1990-1994** **Postdoctoral Fellow, Department of Biology, Memorial University of Newfoundland**. - Used the sea scallop to study the genetic and environmental variation of morphological and physiological traits associated with growth, reproduction, and predator avoidance. I used techniques of population genetics, quantitative genetics, morphometrics, physiological ecology, and behavioral ecology. I published this work in the leading journal for marine biology research; MARINE BIOLOGY.
- 1986-1990** **Graduate Student, Department of Ecology and Evolutionary Biology, Northwestern University** - Combined population and quantitative genetics with ecological field work to determine the relative roles of selection, genetic drift, gene flow, and developmental constraints on the evolution of body and sensory structure size of cave and surface populations of the amphipod Gammarus minus in southern West Virginia. I published this work in the leading evolutionary biology journal; EVOLUTION.

WRITING & CONSULTING EXPERIENCE

Ecology, Law and Policy: Writing, and Editing

Book Authorship:

- 2006** **Environmental Science: Foundations and Applications**. Co-authored the first draft of an upcoming introductory textbook on Environmental Science with Prof. Andrew Friedland, Dartmouth College, and Ms. Susan Weisberg, freelance writer (listed as contributor for published version).
- 2003** **Law and Ecology; The rise of the ecosystem regime**: Co-authored a book concerning the interaction of ecology and environmental law (with Dr. Ross Virginia, Dartmouth and Prof. Richard Brooks, Vermont Law School); published by Ashgate Press in winter, 2003.

Editor:

- 1999-2000** **Senior Articles Editor, Vermont Law Review**. Soliciting, selecting, and editing articles for publication; Editorial Staff member, 1998-1999.
- 1999-2000** **Science Editor, Vermont Journal of Environmental Law**, Soliciting, editing, and writing environmental science articles; Staff member, 1998-1999 (included helping develop the journal website.)

Book Reviewer:

- 2014** Served as a reviewer for the University of Chicago Press for a book manuscript on *Environmental Law for Biologists*.
- 2012** Served as a reviewer for *Environmental Law, 8th ed (Kubasek & Silverman)*, Prentice Hall publishers.

Environmental Science, Policy, & Law Consultant

2000-present Research, writing, and consultation (with not-for-profit environmental groups and private industry) on several environment topics, including the economic and ecosystem health of the Northern Forest.

Environmental Law Litigation Consultant/Expert Witness

2005-2007 Served as scientific advisor and expert witness for two environmental groups challenging Vermont Yankee Nuclear Power Plant's proposed increase in thermal discharge into the Connecticut River. My role focused on researching and reporting on the ecological effects of thermal discharge on the Connecticut River ecosystem and specific species. I also conducted research on how federal and state environmental law requirements regarding ecosystem protection from thermal discharge. In addition, I gave both written and live testimony before the Vermont Environmental Court in July and August, 2007.

2000-2005 Research and consultation on a range of challenges of private, state, and federal actions related to the environment. Most of this work was done in collaboration with faculty at the Vermont Law School and/or with the Environmental and Natural Resources Law Clinic at the Vermont Law School. This work has included:

- Challenge of decision by National Marine Fishery Service to withdraw listing of harbor porpoise as endangered or threatened under the Endangered Species Act (ESA).
- Challenge of decision by National Park Service not to release Grizzly Bear data.

GRANTS, CONTRACTS, AWARDS AND FELLOWSHIPS

2010 **Center for Human Capital Innovation**, Alexandria, VA. Contract to develop cost-benefit and root cause analysis models of factors associated with causing (and decreasing) sexual assault and harassment in the U.S. Army.

2008-2009 **Human Capital Institute**, Washington D.C, Two year contract to conduct research on scientific analysis of workforce management issues.

2003 **CHOICE award** (with Richard Brooks and Ross Virginia) for the book, *Law and Ecology, the rise of the ecosystem regime*, as one of the outstanding academic books of 2003.

2001-2003 **Rockefeller Center Grant**, Dartmouth College. The Interaction of Ecology and Public Policy: An Analysis of Bridge Documents.

1999-2000 **Environmental Scholar Award**, Vermont Law School.

1997-2000 **Faculty Fellowship Award**, Vermont Law School.

1996 **Contract from the Canadian Centre For Fisheries Innovation**, 1996; "Scallop Broodstock Enhancement Plan: Identification and Selection of Optimal Broodstock" - Co-PI with David Innes and Ray Thompson - (approved but not funded because of budget cutback)

- 1990-1994** **Postdoctoral Fellowship**, Memorial University of Newfoundland. Awarded by the Ocean Production Enhancement Network of the National Science and Engineering Research Council of Canada
- 1990-1993** **National Research Service Award from the National Institutes of Health** - Genetic Analysis of Variation in an Identified Neuron. - (declined in favor of Postdoctoral Fellowship at Memorial University of Newfoundland)
- 1989** **Grant from the Theodore Roosevelt Memorial Fund** - American Museum of Natural History, "Regressive Evolution of Eyes in Cave Animals."
- 1987-1989** **Pre-doctoral Fellowship** - Northwestern University.
- 1987** **Grant from the Cave Research Foundation**, "A Neuroanatomical Analysis of Regressive Evolution of Cave Animals."

PROFESSIONAL MEMBERSHIP

- **Society for the Study of Evolution**
- **Society for Human Ecology**
- **International Society for Ecological Economics**

PUBLICATIONS & OTHER WORKS

(Grouped by area: Law, Policy & Science; Science; Workforce practices & policies)

Law, Policy & Science

Books

- 2011 Friendland, A. R. Relyea, and D. Courard-Hauri (with R. Jones, & S. Weisberg). *Environmental Science; Foundations and Applications* (W.H. Freeman & Co.). Co-author of first draft in 2006.
- 2003 Brooks, R., Jones, R., & Virginia, R., *Law and Ecology: The Rise of the Ecosystem Regime* (Ashgate Publishers, Winter 2003).

Peer-Reviewed Journal Papers

- 2022 Jones, R., D. Lutz, and R. Howarth. Integrating climate regulating ecosystem services into the management of U.S. National Forests. (manuscript in preparation).
- 2004 Friedland, A.J., Jones, R.T., T.F. Gross, and S.D. Blackmer. Towards a Sustainable Northern Forest: Forest Health and Potential Threats. *Journal of Sustainable Forestry*. 18(1): 1-22.

Papers Presented

- 2013 Jones, R. and R. Howarth. Integrating Carbon Sequestration Into The Ecological and Economic Multiple-Use Policy and Management Of U.S. National Forests. U.S. Society for Ecological Economics. Burlington, Vermont. June 11, 2013.

Law Review

- 2000 Jones, R. A comparison of biological and legal frameworks for biodiversity protection. (Note accepted for publication in the Vermont Law Review).
- 1999 Jones, R. A Note From the Editors, Blackmailing for Mutual Good: A Reply to Russell Hardin. *Vermont Law Review* 24 (No. 1): 119-120.

Legal Documents (Public Record: on file with state and/or federal agencies/courts or available upon request)

- 2007 Jones, R., Written Testimony Submitted to Vermont Environmental Court in Rebuttal of Vermont Yankee's Expert Witness Testimony. In Re: Entergy Nuclear Vermont Yankee Discharge Permit (Permit Number 3-1199), Vermont Environmental Court Docket NO. 89-4-06 Vtec (July 2007).

- 2007 Jones, R., Pre-filed Written Testimony Submitted to Vermont Environmental Court on the Effects of Vermont Yankee's Past, Current, and Proposed Thermal Discharge on American Shad Biology and the Connecticut River Ecosystem. In Re: Entergy Nuclear Vermont Yankee Discharge Permit (Permit Number 3-1199), Vermont Environmental Court Docket NO. 89-4-06 Vtec (June 2007).
- 2007 Jones, R., Affidavit of Ross T. Jones in Support of Motion For to Renew Stay. In Re: Entergy Nuclear Vermont Yankee Discharge Permit (Permit Number 3-1199), Vermont Environmental Court Docket NO. 89-4-06 Vtec. A report on the effects Vermont Yankee's thermal discharge on the Connecticut River Ecosystem in support of a motion to renew stay Vermont Yankee's proposed increase in thermal discharge for a second year (April 2007). Renewal of Stay Granted.
- 2006 Jones, R., Affidavit of Ross T. Jones in Support of Motion For Stay. In Re: Entergy Nuclear Vermont Yankee Discharge Permit (Permit Number 3-1199), Vermont Environmental Court Docket NO. 89-4-06 Vtec. A report on the effects Vermont Yankee's thermal discharge on the Connecticut River Ecosystem in support of a motion to stay Vermont Yankee's proposed increase in thermal discharge (June 2006). Stay granted.
- 2006 Jones, R. Effects of Vermont Yankee's Thermal Discharge on the Connecticut River Ecosystem. Entergy Nuclear Operations Inc. Vermont Yankee Nuclear Power Station, declaration prepared for hearing before the United States Nuclear Regulatory Commission (Case No. 50-271)
- 2005 Comments of the Connecticut River Watershed Council on the Draft Amended Discharge Permit (No. 3-1199) for Entergy Nuclear Vermont Yankee. Co-authored along with Pat Parenteau, Natural Resources Law Clinic, Vermont Law School.

Science

Dissertation

- 1990 Jones, R. Evolution of cave and surface populations of the amphipod Gammarus minus. submitted to Northwestern University, Evanston , Il. in partial fulfillment for Ph.D. 228 pages.

Peer-Reviewed Journal Papers

- 1996 Jones, R., J. A. Bates, D. J. Innes, and R. J. Thompson. A quantitative genetic analysis of growth in larval scallops (*Placopecten magellanicus*). *Marine Biology*. 124: 671-677.
- 1992 Jones, R., D. C. Culver, and T. C. Kane. Are parallel morphologies of cave organisms the result of similar selection pressures? *Evolution*. 46: 353-365.
- 1992 Kane, T. C., D. C. Culver, and R. Jones. Genetic structure of morphologically differentiated populations of the Amphipod *Gammarus minus*. *Evolution*. 46: 272-278.
- 1989 Jones, R. and D. C. Culver. Evidence for selection on sensory structures in a cave population of *Gammarus minus* (Amphipoda). *Evolution*. 43: 688-693.
- 1989 Culver, D. C., T. C. Kane, D. W. Fong, R. Jones, M. Taylor, and S. C. Saurerisen. The morphology of cave organisms - Is it adaptive? *Memoirs de Biospeologie*. 17: 3-16.

Reports

- 1995 Jones, R. Genetics and physiological energetics of scallops. The Ocean Production Enhancement Network: Final Scientific Report.
- 1988 Jones, R. Genetic and morphological variation in populations of *Gammarus minus* (Amphipoda). Cave Research Foundation 1988 Ann. Report. 42-44.
- 1987 Jones, R. Selection and regressive evolution in a cave population of the amphipod *Gammarus minus*. Cave Research Foundation 1987 Ann. Report. 32-34.

Papers Presented

- 1996 Jones, R. Causes of selection and evolution in cave and surface populations of *Gammarus minus* (Amphipoda). Presented at the annual of the Canadian Society of Zoologists. St. John's, Newfoundland, Canada.

- 1994 Jones, R., D. Innes and R. Thompson. Sources of variation in the morphology and physiology of the scallop *Placopecten Magellanicus*. Presented at the fourth annual meeting of the Ocean Production Enhancement Network. Dartmouth, Nova Scotia, Canada.
- 1992 Jones, R., J. Bates, D. Innes and R. Thompson. Quantitative genetic analysis of scallops (*Placopecten magellanicus*): Larval growth and mortality. Presented at the third annual meeting of the Ocean Production Enhancement Network. Halifax, Nova Scotia, Canada.
- 1991 Jones, R. Selection and the evolution of sensory structures in cave and surface populations of *Gammarus minus* (Amphipoda). Presented at the annual meeting of the Society for the Study of Evolution. Hilo, Hawaii.
- 1988 Jones, R., D. C. Culver, and T. C. Kane. Genetic and morphological differentiation of surface and cave populations of the amphipod *Gammarus minus*. Presented at the annual meeting of the Society for the Study of Evolution. Pacific Grove, California.
- 1987 Jones, R. and D. C. Culver. Measuring selection in a cave population of the amphipod *Gammarus minus*. Presented at the annual meeting of the Society for the Study of Evolution, Bozeman, Montana.

Invited Seminars

- 1987 Northwestern University - Department of Ecology and Evolutionary Biology.
- 1990 Northwestern University - Department of Biochemistry, Molecular Biology and Cell Biology.
- 1991 Memorial University of Newfoundland - Department of Biology.
- 2003 Rockefeller Center, Dartmouth College.
- 2006 Environmental Studies Program, Dartmouth College - The Environmental and Economic Impacts of Vermont Yankee Nuclear Power Plant's Thermal Discharge.
- 2007 Vermont Law School - Ecosystem Management and Biodiversity Protection.

Workforce practices & policies

Major Research Reports

- 2010 Social Networking in Government: Opportunities & Challenges. A three-part series of articles published by the Human Capital Institute – available at: < <http://www.hci.org/research>>.
Part I: An Overview of Opportunities & Challenges
Part II: Diverging Patterns of Use Among Government Agencies
Part III: Closing the Satisfaction Gap in Using Social Networking Tools in Training and Development
- 2009 The Value and ROI in Employee Recognition --- available at: < <http://www.hci.org/lib/value-and-roi-employee-recognition>>
- 2009 Workforce Mobility Drives Productivity and More Agile Cost Structures - An International Perspective, Ross Jones and Erik Berggren -- available at: <http://www.hci.org/hci/research_library.guid>
- 2009 Tapping the Power of Social Networking to Manage Talent, Ross Jones, Allan Schweyer, and Rob Cross. -- available at: <http://www.hci.org/hci/research_library.guid>
- 2008 Recruitment Process Outsourcing: Today's Challenges and Opportunities, Ross Jones -- available at: <http://www.hci.org/hci/research_library.guid>
- 2008 Integrated Talent Management: Part 1 - Understanding the opportunities for success, Tim Ringo, Allan Schweyer, Michael DeMarco, Ross Jones, and Eric Lesser -- available at: <http://www.hci.org/hci/research_library.guid>
- 2008 Integrated Talent Management: Part 2 - Surviving corporate adolescence and reaching organizational maturity, Tim Ringo, Allan Schweyer, Michael DeMarco, Ross Jones, and Eric Lesser -- available at: < <http://www.hci.org/research> >
- 2008 Integrated Talent Management: Part 3 - Turning talent management into a competitive advantage: An industry view, Tim Ringo, Allan Schweyer, Michael DeMarco, Ross Jones, and Eric Lesser -- available at: < <http://www.hci.org/research>>
- 2008 The Branding Imperative in Talent Management. A Report from the Human Capital Institute, by Ross Jones -- available at: < <http://www.hci.org/research> >
- 2008 The Role of Online Recruiting Services in the Attraction of Talent. A Report from the Human Capital Institute, by Ross Jones -- available at: < <http://www.hci.org/research> >