

# JAMES "JACK" JUSTUS

curriculum vitae

Philosophy Department  
Florida State University  
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## EMPLOYMENT

Assistant Professor, Philosophy, Florida State University, Fall 2008 – present  
Core Faculty Member, History and Philosophy of Science, Florida State University, Fall 2008 – present  
Postdoctoral Research Fellow, University of Sydney, Spring 2008, Fall 2009 – Summer 2010

## EDUCATION

Ph.D. Philosophy, University of Texas at Austin, 2007  
M.A. Philosophy, University of Texas at Austin, 2002  
B.S. Mathematics, B.A. Philosophy, University of Illinois at Champaign-Urbana, 1999

## AREAS OF SPECIALIZATION

Philosophy of Science (esp. biology), Carnap, Environmental Philosophy

## AREAS OF COMPETENCE

Environmental Ethics, Logic and Formal Epistemology, History of Analytic Philosophy (esp. logical empiricism and Quine)

## BOOK

*The Philosophy of Ecology: An Introduction* (under contract, CUP).

## ARTICLES AND CHAPTERS

- "Carnap's Forgotten Criterion of Empirical Significance." *Mind* (forthcoming).
- "Methodological Individualism in Ecology." *Philosophy of Science* (forthcoming).
- Burgman, M.; Regan, H.; Maguire, L.; Colyvan, M.; Justus, J.; Martin, T.; Rothley, K. "Voting Systems for Environmental Decisions: A Review." *Conservation Biology* (forthcoming).
- "Philosophical Issues in Ecology." In Kampourakis, K. (ed.), *Philosophy of Biology: A Companion for Educators*. New York: Springer, pp. 343–371 (2013).
- "Darwin's Evolutionary Ecology." In Ruse, M. (ed.), *The Cambridge Encyclopedia of Darwin and Evolutionary Thought*. New York: Cambridge University Press, pp. 383–390 (2013).
- "The Elusive Basis of Inferential Robustness." *Philosophy of Science* **79** (2012): 795–807.
- "Carnap on Concept Determination: Methodology for Philosophy of Science." *European Journal for Philosophy of Science* **2** (2012): 161–179.
- "Evidentiary Inference in Evolutionary Biology." [review essay of Elliott Sober, *Evidence and Evolution: The Logic Behind the Science*.] *Biology and Philosophy* **26** (2011): 419–437.
- "A Case Study in Concept Determination: Ecological Diversity." In de Laplante, K.; B. Brown; and K. Peacock (eds.), *Handbook of the Philosophy of Ecology*. New York: Elsevier Press, 147–168 (2011).
- Colyvan, M.; Justus, J.; Regan, H. "The Conservation Game." *Biological Conservation* **144** (2011): 1246–1253.

Colyvan, M.; **Justus, J.**; Regan, H. "The Natural Environment is Valuable but Not Infinitely Valuable." *Conservation Letters* **3** (2010): 224–228.

**Justus, J.**; Colyvan, M.; Regan, H.; Maguire, L. "Buying into Conservation: Intrinsic versus Instrumental Value." *Trends in Ecology and Evolution* **24** (2009): 187–191.

\* **Justus, J.**; Colyvan, M.; Regan, H.; Maguire, L. "Response to Sagoff." *Trends in Ecology and Evolution* **24** (2009): 644.

[see Sagoff, M. "Intrinsic Value: A Response to Justus et al." *Trends in Ecology and Evolution* **24** (2009): 643.]

"Ecological and Lyapunov Stability." *Philosophy of Science* **75** (2008): 421–436.

"Complexity, Diversity, Stability." In Sarkar, S. and A. Plutynski (eds.), *A Companion to the Philosophy of Biology*. Malden, MA: Blackwell, 321–350 (2008).

"Exotic Species." In Callicott, J. B. and R. Frodeman (eds.), *Encyclopedia of Environmental Ethics and Philosophy*. Farmington, MI: Thomas Gale, 412–414 (2008).

**Justus, J.**; Fuller, T.; and Sarkar, S. "Influence of Representation Targets on the Total Area of Conservation Area Networks." *Conservation Biology* **22** (2008): 673–682.

Maguire, L. and **Justus, J.** "Why Intrinsic Value is a Poor Basis for Conservation Decisions." *Bioscience* **58** (2008): 910–911.

"Loop Analysis and Qualitative Modeling: Limitations and Merits." *Biology and Philosophy* **21** (2006): 647–666.

"Cognitive Significance." In Sarkar, S. and J. Pfeifer (eds.), *The Philosophy of Science: An Encyclopedia*. New York, NY: Routledge Press, 131–140 (2006).

Garson, J. and **Justus, J.** "Conservation Biology." In Sarkar, S. and J. Pfeifer (eds.), *Philosophy of Science: An Encyclopedia*. New York, NY: Routledge Press, 163–168 (2006).

"Qualitative Scientific Modeling and Loop Analysis." *Philosophy of Science* **72** (2005): 1272–1286.

Sarkar, S.; **Justus, J.**; Fuller, T.; Kelley, C.; Garson, J.; and Mayfield, M. "Effectiveness of Estimator Surrogates for the Selection of Conservation Area Networks." *Conservation Biology* **19** (2005): 815–825.

**Justus, J.** and Sarkar, S. "The Principle of Complementarity in the Design of Reserve Networks to Conserve Biodiversity: A Preliminary History." *Journal of Biosciences* **27** (2002): 421–435.

#### **BOOK REVIEWS, EDITED, AND SHORT WORKS**

"The Diversities of Biodiversity [review of James Maclaurin and Kim Sterelny, *What is Biodiversity?*]" *Metascience* **19** (2010): 247–250.

"[Review of Michael Friedman and Richard Creath (eds.), *Cambridge Companion to Carnap*.]" *Bulletin of Symbolic Logic* **15** (2009): 428–431.

"[Review of Nancy Nersessian, *Creating Scientific Concepts*.]" *Quarterly Review of Biology* **84** (2009): 277–278.

**Justus, J.** and Maguire, L. Response letter to the editor. *Bioscience* **59** (2009): 101.

"[Review of Bryan Norton, *Searching for Sustainability: Interdisciplinary Essays in the Philosophy of Conservation Biology*.]" *Philosophy of Science* **71** (2004): 232–235.

“Taking Stock of Conservation Biology: Old Problems and New Directions.” [review of Michael Soulé and Gordan Orians, *Conservation Biology Research Priorities for the Next Decade*, and Peter Feinsinger, *Designing Field Studies for Biodiversity Conservation*.] *Bioscience* **52** (2002): 854–856.

*Journal of Biosciences*: (2002), “Special Issue on Biodiversity Conservation.” Vol. **27** (co-edited with Sahotra Sarkar).

## PRESENTATIONS

“Methodological Individualism in Ecology.”

- *International Society for the History, Philosophy and Social Studies of Biology*, Montpellier, July 2013
- IHSPT, Université Paris – Florida State University Philosophy of Biology Workshop, Paris, July 2013
- *Philosophy of Science Association Biennial Meeting*, San Diego, November 2012
- *Values and Norms in Modeling*, Eindhoven, Netherlands, June 2012

“X-Phi and Carnapian Explication.”

- *Canadian Society for the History and Philosophy of Science*, Victoria, Canada, June 2013

“X-Phi as Explication Preparation for Formal Epistemology.”

- California Institute of Technology, March 2012
- University of California at Riverside, February 2012

“The Algorithmic Turn in Conservation Biology: A Case Study in Scientific Progress.”

- Biology Department, University of California at Riverside, March 2012
- *17th International Conference of the Society for Philosophy and Technology*, Denton, May 2011
- *Philosophy of Biology at Dolphin Beach*, Moruya, Australia, August 2010
- *Australasian Association of Philosophy*, Sydney, July 2010
- *Spatial Ecology Lab Seminar*, Biology Department, University of Queensland, Brisbane, July 2010

“Inferential Robustness in Environmental Modeling and Decision-Making.”

- *International Society for the History, Philosophy and Social Studies of Biology*, Salt Lake City, July 2011
- *Philosophy of Science Association Biennial Meeting*, Montréal, November 2010

“The Status of the Fact-Value Distinction in the Teleological Sciences.”

- University of Florida, Gainesville, April 2011
- HPS Department, Florida State University, Tallahassee, April 2011
- University of Sydney, March 2010
- *Australasian Association of Philosophy*, Melbourne, July 2009
- *International Society for the History, Philosophy and Social Studies of Biology*, Brisbane, July 2009
- *Sydney-Tilburg Conference on Evidence, Science and Public Policy*, Sydney, March 2009

“Biological Information as Game-Theoretic Information.”

- *IHPST Colloquium Series*, University of Toronto, February 2011
- Biology Department, Florida State University, Tallahassee, January 2011
- *Philosophy of Biology at Madison Workshop (POBAM)*, Madison, May 2010
- *Tempo and Mode Seminar*, Centre for Macroevolution and Macroecology, ANU, Canberra, May 2010
- *Canadian Society for the History and Philosophy of Science*, Montréal, May 2010

“The Search for a Formal Criterion of Empirical Significance: A Reconsideration.”

- *Philosophy of Science Association Biennial Meeting*, Montréal, November 2010
- Australian National University, Canberra, May 2010
- University of Sydney, December 2009

“Explicative Definition: Defending Carnap on Concept Determination.”

- *Sydney-Tilburg Conference on The Future of Philosophy of Science*, Tilburg, April 2010
  - HPS Department, University of Sydney, September 2009
- “A Case Study in Concept Determination: Ecological Diversity.”
- *Sydney-ANU Philosophy of Biology Workshop*, Sydney, August 2009
  - Biology Department, Florida State University, Tallahassee, February 2009
- “Buying into Conservation: Intrinsic versus Instrumental Value.”
- *Faculty Luncheon Series*, Florida State University, Tallahassee, November 2008
  - HPS Department, Florida State University, Tallahassee, October 2008
- “Emergence of the Stability-Diversity-Complexity Debate of Community Ecology: 1955-1975.”
- *Ecological Society of America Annual Meeting*, Milwaukee, August 2008  
(for the symposium description see: [Chew, M. K. \(2009\), “Symposium 19 Good Ideas at the Time: Historians Look at Ecology.” \*Bulletin of the Ecological Society of America\* 90: 142–152](#))
- “A Theory of Stability.”
- *Australasian Association of Philosophy*, Melbourne, July 2008
  - University of Sydney, May 2008
  - Colorado State University, Fort Collins, February 2008
  - University of Michigan at Flint, February 2008
  - Florida State University, Tallahassee, January 2008
  - University of California at Irvine, January 2008
- “Commentary on ‘The Prior Probabilities of Phylogenetic Trees’ by Joel Velasco.”
- *Formal Epistemology Workshop*, Pittsburgh, June 2007 [[pdf](#)]
- “Defining Ecological Stability.”
- McGill University, Montréal, February 2007
  - Michigan State University, East Lansing, February 2007
  - University of California at Santa Cruz, January 2007
  - University of Wisconsin at Madison, January 2007
- “Ecological and Lyapunov Stability.”
- *Philosophy of Science Association Biennial Meeting*, Vancouver, November 2006
- “How Should Ecological Stability be Defined?”
- *International Society for the History, Philosophy and Social Studies of Biology*, Guelph, July 2005
- “Commentary on ‘New Life for Carnap’s *Aufbau*?’ by Hannes Leitgeb.”
- *Formal Epistemology Workshop*, Austin, May 2005 [[pdf](#)]
- “Qualitative Scientific Modeling and Loop Analysis.”
- *Philosophy of Science Association Biennial Meeting*, Austin, November 2004
  - *Southwest Colloquium in History and Philosophy of the Life Sciences*, Austin, March 2004
- “Effectiveness of Estimator Surrogates for the Selection of Conservation Area Networks.”
- *Society for Conservation Biology 18<sup>th</sup> Annual Meeting*, New York, August 2004
- “Commentary on ‘The Probability of Evidence’ by Sherrilyn Roush.”
- *Formal Epistemology Workshop*, Berkeley, May 2004 [[pdf](#)]
- “Scientific Explication and Ecological Stability.”
- *International Congress of Logic, Methodology, and Philosophy of Science*, Oviedo, August 2003
- “A Case Study in Scientific Maturation: Technological Innovation and Early Conservation Biology.”

- *Southwest Colloquium in History and Philosophy of the Life Sciences*, Phoenix, April 2003
- *History of Science Society Annual Meeting*, Milwaukee, November 2002

“Was the Search for a Criterion of Empirical Significance Utterly Hopeless After All?”

- *Central Texas Philosophy of Science Meeting*, College Station, September 2002

“The Emergence and Fate of Cognitive Significance.”

- *History of the Philosophy of Science Working Group (HOPOS)*, Montréal, June 2002

“The Principle of Complementarity in the Design of Reserve Networks to Conserve Biodiversity: A Preliminary History.”

- *International Society for the History, Philosophy and Social Studies of Biology*, Quinnipiac, July 2001
- *HPS Seminar Series*, University of Texas at Austin, April 2001

## **FELLOWSHIPS, GRANTS, HONORS**

Risley Fellowship, Florida State University, 2012–2013

Postdoctoral Research Fellowship, University of Sydney, Spring 2008 and 2009–2010

Provost Faculty Travel Grant, 2008, 2010, 2011

First Year Assistant Professor Research Grant, Florida State University, 2009

Bruton Fellowship, University of Texas, 2005–2006

University Continuing Fellowship, University of Texas, 2004–2005

Josephine De Kármán Fellowship, 2004–2005

Summer Language Fellowship, German, University of Texas, 2004

Distinguished Teaching Award, 2003–2004

University Continuing Tuition Fellowship, University of Texas, 2003–2004

Donald Doersherer Award, University of Illinois, 1999 (given to top philosophy undergraduate)

*Phi Beta Kappa*, University of Illinois, 1999

## **PROFESSIONAL EXPERIENCE AND SERVICE**

Referee: *Philosophy of Science* 2013 (2x), 2011, 2007; *Biology and Philosophy* 2013, 2011, 2008, 2007, 2006; *Bioscience* 2013; *Conservation Biology* 2013, 2009; *Environment, Systems and Decisions* 2013; *Philosophy Compass* 2012; *British Journal for the Philosophy of Science* 2012, 2008; *European Journal for Philosophy of Science* 2012; *Swiss National Science Foundation* 2012; *Philosophical Psychology* 2012, 2011; *Conservation Letters* 2012, 2011; *Journal of Experimental Zoology* 2011; *Springer Press* 2011; *Science & Education* 2011; *American Midland Naturalist* 2011; *Philosophy & Theory in Biology* 2010; *Ecological Economics* 2010; *Biological Conservation* 2010; *Broadview Press* 2010; *Wiley-Blackwell Press* 2009; *Oxford University Press* 2009; *National Science Foundation* 2009; *Ecological Modeling* 2008

Symposium co-organizer (with Kevin Elliott): “Values in Environmental Science and Policy.”

*International Society for the History, Philosophy and Social Studies of Biology*, Brisbane, July 2009

Conference co-organizer: “Evidence, Science and Public Policy.”

*Sydney-Tilburg Conference on Evidence, Science and Public Policy*, Sydney, March 2009

Invited Contributor: “Making Decisions on Complex Environmental Problems.” *National Center for Ecological Analysis and Synthesis Workshop*, Santa Barbara, 12/2007, 6/2008, 11/2008

Member: Biodiversity and Biocultural Conservation Laboratory, University of Texas, 2000–2008

Editorial Assistant: *The Philosophy of Science: An Encyclopedia*, Routledge, 2001–2006

## **TEACHING EXPERIENCE**

Environmental Ethics [Undergraduate: S09; F10, F11, F13]

Epistemology: Naturalized and Formal [Graduate, with Michael Bishop: S13]

Logical Empiricism [Graduate: S11]

Philosophy of Biology [Graduate: F08]

Philosophy of Ecology and Conservation Science [Graduate: S12; Undergraduate: F12]  
Philosophy of Science [Undergraduate: F08, F10, F11; S09, S11, S12, S13, F13]