

JAMES “JACK” JUSTUS

curriculum vitae

Philosophy Department
Florida State University
Tallahassee, FL 32306-1500

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154 Dodd Hall

EMPLOYMENT

Professor, Philosophy, Florida State University, 2021 – present
Assistant and Associate Professor, Philosophy, Florida State University, 2008 – 2020
Visiting Fellow, Center for Philosophy of Science, University of Pittsburgh, 2018
Postdoctoral Research Fellow, University of Sydney, 2008, 2009 – 2010

EDUCATION

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

AREAS OF SPECIALIZATION

Philosophy of Science (esp. biology), History of Analytic Philosophy, Environmental Philosophy

AREAS OF COMPETENCE

Formal Epistemology, Logic and Philosophy of Mathematics, Metaphilosophy

BOOK

The Philosophy of Ecology: An Introduction. (2021), Cambridge University Press.

ARTICLES AND CHAPTERS

- “The ‘Niche’ in Niche-Based Theorizing: Much Ado About Nothing.” *Biology and Philosophy* (forthcoming). (with S. Wakil)
- “Verificationism.” In Uebel, T. and Limbeck-Lilienau, C. (eds.), *Handbook of Logical Empiricism*. New York: Routledge, pp. 157–167 (2022).
- “The Algorithmic Turn in Conservation Biology: On Characterizing Progress in Ethically-Driven Sciences.” *Studies in the History and Philosophy of Science* **88** (2021): 181–192. (with S. Wakil)
- “Ecological Theory and the Superfluous Niche.” *Philosophical Topics* **47** (2019): 105–123.
- “The Crucial But Underrepresented Role of Philosophy in Conservation Biology Curricula.” *Conservation Biology* **33** (2019): 217–220. (with D. Saltz and B. Huffaker)
- “Mathematical Explanation and the Biological Optimality Fallacy.” *Philosophy of Science* **84** (2017): 916–930. (with S. Wakil)
- “X-phi and Carnapian Explication.” *Erkenntnis* **80** (2015): 381–402. (with J. Shepherd)
- “Carnap’s Forgotten Criterion of Empirical Significance.” *Mind* **123** (2014): 415–436.
- “Methodological Individualism in Ecology.” *Philosophy of Science* **81** (2014): 770–784.
- “Voting Systems for Environmental Decisions.” *Conservation Biology* **28** (2014): 322–332. (with M. Burgman; H. Regan; L. Maguire; M. Colyvan; T. Martin; K. Rothley)
- “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).
- "The Conservation Game." *Biological Conservation* **144** (2011): 1246-1253. (with M. Colyvan, H. Regan)
- "The Natural Environment is Valuable but Not Infinitely Valuable." *Conservation Letters* **3** (2010): 224-228. (with M. Colyvan, H. Regan)
- "Buying into Conservation: Intrinsic versus Instrumental Value." *Trends in Ecology and Evolution* **24** (2009): 187-191. (with M. Colyvan; H. Regan; L. Maguire)
- "Response to Sagoff." *Trends in Ecology and Evolution* **24** (2009): 644. (with M. Colyvan; H. Regan; L. Maguire)
- [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).
- "Influence of Representation Targets on the Total Area of Conservation Area Networks." *Conservation Biology* **22** (2008): 673-682. (with T. Fuller and S. Sarkar)
- "Why Intrinsic Value is a Poor Basis for Conservation Decisions." *Bioscience* **58** (2008): 910-911. (with L. Maguire)
- "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).
- "Conservation Biology." In Sarkar, S. and J. Pfeifer (eds.), *Philosophy of Science: An Encyclopedia*. New York, NY: Routledge Press, 163-168 (2006). (with J. Garson)
- "Qualitative Scientific Modeling and Loop Analysis." *Philosophy of Science* **72** (2005): 1272-1286.
- "Effectiveness of Estimator Surrogates for the Selection of Conservation Area Networks." *Conservation Biology* **19** (2005): 815-825. (with S. Sarkar; T. Fuller; C. Kelley; J. Garson; and M. Mayfield)
- "The Principle of Complementarity in the Design of Reserve Networks to Conserve Biodiversity: A Preliminary History." *Journal of Biosciences* **27** (2002): 421-435. (with S. Sarkar)

BOOK REVIEWS, EDITED, AND SHORT WORKS

- "The Diversities of Biodiversity [review of J. Maclaurin and K. Sterelny, *What is Biodiversity?*]" *Metascience* **19** (2010): 247-250.
- "[Review of M. Friedman and R. Creath (eds.), *Cambridge Companion to Carnap*.]" *Bulletin of Symbolic Logic* **15** (2009): 428-431.
- "[Review of N. Nersessian, *Creating Scientific Concepts*.]" *Quarterly Review of Biology* **84** (2009): 277-278.

Response letter to the editor. *Bioscience* **59** (2009): 101. (with L. Maguire)

“[Review of B. 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 M. Soulé and G. Orians, *Conservation Biology Research Priorities for the Next Decade*, and P. 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 S. Sarkar).

PRESENTATIONS

“Vetting Theoretical Virtues: Parsimony and the Framing Effect” (poster, with S. Wakil and N. Byrd [presenter])

- *Philosophy of Science Association Biennial Meeting*, Baltimore, November 2021

“The Algorithmic Turn in Conservation Biology: On Characterizing Progress in Ethically-Driven Sciences”

- “Doing Science in a Pluralistic Society,” University of Dayton, April 2020 [virtual]

“Vicious Virtues” (with S. Wakil; unable to attend due to COVID-19)

- Philosophy, Politics, and Economics Society Conference, New Orleans, March 2020

“Normativity in a Natural World” (with M. Bishop)

- University of Nevada, Las Vegas, February 2020

“Parsimony as a Framing Effect” (with S. Wakil)

- *Experimental Philosophy Group*, Florida State University, Tallahassee, October 2019

“On Implicitly Defining Biodiversity”

- *International Society for the History, Philosophy and Social Studies of Biology*, Oslo, July 2019

“Ecology and the Dispensable Niche”

- “Philosophical Perspectives on the Niche Concept,” University of Münster, July 2019

“Fact and Value in Ethically-Driven Sciences”

- “Conservation Ethics and Philosophy,” 20th Sde Boker Symposium in Memory of Merav Ziv, Jacob Blaustein Institute for Desert Research, Ben Gurion University, Israel, May 2019 [keynote]

“Global Environmental Threats and What Justice Demands”

- “A Night of Philosophy,” Moody Center, Rice University, Houston, January 2019
- commUNITY Dialogue Series, Florida State University, Tallahassee, November 2017

“Ecological Theory and the Niche”

- *Philosophy of Science Association Biennial Meeting*, Seattle, November 2018
- *Concept Formation in the Natural and Social Sciences*, Zurich, October 2018
- Pittsburgh Center for Philosophy of Science, January 2018
- University of Minnesota, Minneapolis, November 2015
- HPS Program, Florida State University, Tallahassee, November 2015
- *International Society for the History, Philosophy and Social Studies of Biology*, Montréal, July 2015

“Commentary on ‘Objectivity and Orgasm’ by Samantha Wakil”

- *Southern Epistemology Congress*, Tallahassee, October 2017

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

- American Association for the Advancement of Science, Hawaii, June 2017
- Environmental Service Program, Florida State University, Tallahassee, March 2015
- 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

“Limitations of ‘Natural Function’ Concepts for the Ethics of Environmental Aesthetics”

- University of Oxford, Uehiro Centre for Practical Ethics, March 2017
- *Environmental Aesthetics and Ethics: At the Intersection*, Indiana University, Bloomington, May 2016

“Mathematical Explanation and the Biological Optimality Fallacy”

- *Deep South Darwinian Philosophy*, Birmingham, Alabama, March 2017
- *Philosophy of Science Association Biennial Meeting*, Atlanta, November 2016 (with Samantha Wakil)
- Philosophy Department Brownbag Talk, Florida State University, October 2016 (with Samantha Wakil)
- *Nordic Network for Philosophy of Science*, Parnu, Estonia, April 2016

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

- University of Helsinki, March 2017
- National Undergraduate Bioethics Conference, *American Society for Bioethics and Humanities*, Tallahassee, April 2015
- 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”

- HPS Department, University of Pittsburgh, September 2016
- *Society for Exact Philosophy*, Pasadena, June 2014
- *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 Limits of Aesthetic Appeals for Conservation Ethics”

- *North American Congress for Conservation Biology*, Madison, July 2016

“Reanimating Ayer’s Significance Criterion”

- *Society for the Study of the History of Analytic Philosophy*, Dublin, June 2015
- *Society for Exact Philosophy*, Hamilton, Canada, May 2015

“X-Phi and Carnapian Explication”

- Southern Methodist University, Dallas, March 2014
- *Canadian Society for the History and Philosophy of Science*, Victoria, Canada, June 2013

“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 as Explication Preparation for Formal Epistemology”

- California Institute of Technology, March 2012
 - University of California at Riverside, February 2012
- “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 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, <http://fitelson.org/few/few_07/justus.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, <http://www.fitelson.org/few/few_05/justus.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 18th Annual Meeting*, New York, August 2004

“Commentary on ‘The Probability of Evidence’ by Sherrilyn Roush”

- *Formal Epistemology Workshop*, Berkeley, May 2004, <http://www.fitelson.org/few/few_04/justus.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

Developing Scholar Award, Florida State University, 2016–2017

University Undergraduate Teaching Award, Florida State University, 2015–2016

Risley Fellowship, Florida State University, 2012–2013

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

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

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

Phi Beta Kappa, University of Illinois, 1999

PROFESSIONAL EXPERIENCE AND SERVICE

Director of Graduate Studies, Philosophy Department, Florida State University, 2019–present

Associate Chair, Philosophy Department, Florida State University, 2019–present

External Dissertation Committee Member: Katie Morrow, University of Pittsburgh HPS (current); Samantha Wakil, University of North Carolina at Chapel Hill (completed 2020).

Referee: *Mind* 2022; *Philosophy of Science* 2022, 2021, 2020, 2018, 2016(2x), 2015, 2014(2x), 2013(2x), 2011, 2007; *Cambridge University Press* 2021; *Biology and Philosophy* 2021, 2020, 2019, 2017, 2016, 2015, 2014, 2013, 2011, 2008, 2007, 2006; *Studies in the History and Philosophy of Science* 2021, 2019, 2016, 2015, 2014; *European Journal for Philosophy of Science* 2021(2x), 2020, 2012; *Synthese* 2021(2x), 2020, 2019, 2018(2x), 2017; *Analysis* 2020, 2019, 2017; *Australasian Journal of Philosophy* 2020, 2019, 2017; *Erkenntnis* 2020, 2019, 2016; *Bioscience* 2020, 2013; *Conservation Letters* 2020, 2019, 2017, 2012, 2011; *National Science Foundation* 2019, 2009; *Philosophy, Theory, and Practice in Biology* 2019, 2017; *Philosophical Quarterly* 2018; *Volkswagen Foundation* 2018; *Oxford University Press* 2016, 2014, 2009; *Disputatio* 2016;

Ratio 2015; *British Journal for the Philosophy of Science* 2014, 2012, 2008; *Ethics, Policy & Environment* 2014; *Springer Press* 2014, 2011; *Cengage Learning* 2014; *Conservation Biology* 2013, 2009; *Environment, Systems and Decisions* 2013; *Philosophy Compass* 2012; *Swiss National Science Foundation* 2012; *Philosophical Psychology* 2012, 2011; *Journal of Experimental Zoology* 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; *Ecological Modeling* 2008

Developing Scholar Award Committee, Florida State University, 2018, 2020, 2021

Core Faculty Member, History and Philosophy of Science Program, Florida State University, 2008–2020

Chair of the Chair Search Committee, Philosophy Department, Florida State University, 2018–2019

Faculty Travel Award Committee, Florida State University, 2018, 2019

Philosophy of Science Association, Lectures and Awards Committee Member, 2018

Outstanding Teaching Assistant Awards Committee, Florida State University, 2018

Graduate Policy Committee, Florida State University, 2018

Risely Fellowship Committee, Florida State University, 2016

Symposium co-organizer: “Why Conservation: Current Philosophical Thinking in Conservation Biology” (with David Saltz), *North American Congress for Conservation Biology*, Madison, July 2016

“Values in Environmental Science and Policy” (with Kevin Elliott), *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

Carnap and Quine [Graduate: F17, F20]

Environmental Ethics [S09; F10, F11, F13, S14, S15, S16, F16, F17, S19, F19, F21]

Environmental Philosophy [Graduate: S14]

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

General Philosophy of Science [Graduate: F15]

Introduction to Philosophy (honors) [F22]

Logical Empiricism [Graduate: S11]

Metaphilosophy [Graduate: F21; Undergraduate: S22]

Normativity in a Natural World [Graduate, with Mike Bishop: S19; Undergraduate S20]

Philosophy in Literature [S22]

Philosophy of Biology [Graduate: F08; Undergraduate F22]

Philosophy of Ecology and Conservation Science [Graduate: S12; Undergraduate: F12]

Philosophy of Mathematics [F15, F17]

Philosophy of Science [F08, F10, F11; S09, S11, S12, S13, F13, S15, S16, F16, S19, F20]

Quinean Naturalism [S21]