

Kelsey H. Jensen

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### EDUCATION

- 2016-Present      PhD student, Cornell University, Department of Ecology and Evolutionary Biology. (Advisor: Dr. Jed Sparks)
- 2010-2014      B.A Colgate University, Hamilton, NY. *Magna Cum Laude*. Chemistry w/honors (Advisor: Dr. Anthony Chianese) and Environmental Studies (Advisor: Dr. Catherine Cardelus)

### PUBLICATIONS

- 2016      Kim, D.; Le, L.; Drance, M. J.; **Jensen, K. H.**; Knapp, S. M.; Chianese, A. R.\* "Ester Hydrogenation Catalyzed by CNN-Pincer Complexes of Ruthenium" *Organometallics*, 2016, 35, pp 982-989.
- 2014      Chianese, A. R.\*; Drance, M. J.; **Jensen, K. H.**; McCollom, S. P.; Yusufova, N.; Shaner, S. E.; Shopov, D. Y.; Tandler, J. A. Acceptorless Alkane Dehydrogenation Catalyzed by Iridium CCC-Pincer Complexes. *Organometallics*, 2014, 33, 457-464.

### POSITIONS HELD

- July 2015- July 2016      Lab Technician, Cornell Stable Isotope Lab
- May 2016      Field and Lab Technician, Bahir Dar, Ethiopia
- May 2014- Dec 2014      Program Coordinator, Colgate University, Office of Admission
- 2014      Captain of Varsity Field Hockey team, Colgate University
- 2013-2014      Co-Leader of the Gamma Sigma Epsilon Chemistry Honor Society, Colgate University
- Summer 2012 & 2013      Research Assistant to Dr. Anthony Chianese, Colgate University

## HONORS and FELLOWSHIPS

2016	Cornell Traineeship in Cross-Scale Biogeochemistry and Climate
2016	Cornell University Graduate Fellowship
2014	Finalist for US Research Fulbright to Norway
2014	Finalist for NCAA Post-Graduate Scholarship
2014	Gottesman Award for Excellence in the Sciences and Athletics
2012 & 2013	All Patriot League Academic Team
Fall 2012	Patriot League All-Tournament Team
2013-2014	Gamma Sigma Epsilon National Chemistry Honor Society
2010-2014	Dean's Award for Academic Excellence

## GRANTS

2017	Orenstein Fund Travel Grant (\$1000)
2017	Andrew W. Mellon Student Research Grant (\$875)
2017	Cross-scale Biogeochemistry and Climate Small Grant (\$4000)

## PRESENTATIONS AND POSTERS

2014	<b>Jensen, K. H.</b> Soil Status of Ethiopian Church Forests. May 2014. Poster: Colgate Undergraduate Biology Research Symposium. Colgate University, Hamilton, NY.
2014	<b>Jensen, K. H.</b> , A. R. Chianese. Iridium-catalyzed acceptorless dehydrogenation of alkanes. March 2014. Poster: ACS, Dallas, TX.
2013	Drance, M., <b>Jensen, K. H.</b> Synthesis of CNN Pincer Ligands. July 2013. Oral Presentation: Summer Organic Research Symposium. Hobart & William Smith College; Geneva, NY.
2013	Baez, M., <b>Jensen, K. H.</b> , Lichtenaur, C. O., Sperling, A. Oh, Deer! Hamilton is Overabundant. December 2013. Presentation: Environmental studies department weekly seminar. Colgate University, Hamilton, NY.
2013	Baez, M., <b>Jensen, K. H.</b> , Lichtenaur, C. O., Sperling, A. Oh, Deer! Hamilton is Overabundant. December 2013. Oral Presentation: Community Forum. Hamilton Central School; Hamilton, NY.
2013	Baez <i>et al.</i> Deer Management Strategy Recommendations for the Town of Hamilton, NY. Upstate Institute Student Research. October 2013.

- 2013        **Jensen, K. H. et al.** Public Perception of Whitetail Deer in Hamilton, NY: Survey Results of Recommendations. Upstate Institute Student Research. October, 2013.
- 2012        **Jensen, K. H.** Stoichiometric Reactivity of Catalytic Dehydrogenation. July 2012. Oral Presentation: Summer Organic Research Symposium. Hamilton College; Clinton, NY.

### RESEARCH EXPERIENCE

- May 2016        Field Technician-Bahir Dar, Ethiopia (Dr. Catherine Cardelus)
- Continued involvement with long-term research project on the Church Forests in Ethiopia as a field technician and lab manager on a three-week field season. Responsible for training new Ethiopian collaborators and Colgate U undergraduates in field techniques and lab protocols, helped set up new lab facilities at the Bahir Dar University and managed undergraduates while abroad. Ongoing collaboration with Dr. Cardelus' lab at Colgate to analyze soil, litter and foliar samples. Manuscript in prep.
- 2015-2016        Lab technician- Cornell Stable Isotope Lab
- Assist in preparing, grinding and loading samples of different material for elemental and isotopic analysis. Responsible for daily maintenance of mass spectrometers, starting sample runs, working with undergraduate assistants and generally ensuring the lab is prepared and organized.
- Spring 2014        Independent Study- Ecosystem Ecology- *Soil Status of Ethiopian Church Forests* (Advisor: Dr. Catherine Cardelus)
- Engaged in three weeks of fieldwork on the conservation of Church Forests in Bahir Dar, Ethiopia, establishing long term research plots and collecting soil, foliar and liter samples. Soil samples collected were analyzed for nutrient content using biogeochemistry techniques, such as colorimetry and elemental analysis. Data were analyzed and results presented in a poster and formal written report. Manuscript in preparation.
- 2013-2014        Advanced Inorganic Chemistry Seminar – *Synthesis and Catalytic Reaction of N-Heterocyclic Carbene Ligands*. (Advisor: Dr. Anthony Chianese)
- This senior research seminar continued and expanded research on the stoichiometric reactivity and synthesis of NHC ligands started in previous fellowships. Literature research and lab work were combined to prepare a final senior thesis, which was defended in an oral presentation to the department.

- Fall 2013      Community Based Environmental Issues- *Impacts of White-tailed Deer in Central NY* (Advisor: Dr. Catherine Cardelus)
- Participated in a semester-long, interdisciplinary team research project on the impact of white-tailed deer in Hamilton, NY. Responsibilities included the development and execution of a public-perception survey, combining survey results with biological and economic assessments to generate a multifaceted assessment of the impact of white-tailed deer and potential management options. This research was presented to the community in a public forum, resulting in the development of a town task force to address the issue on an ongoing basis. Resulted in two publications (Upstate, 2013).
- Summer 2013    Research Fellowship- *Working Toward the Synthesis of CNN- Pincer Ligands* (Advisor: Dr. Anthony Chianese)
- Developed a procedure for the synthesis of a novel CNN pincer ligand for the coordination to transition metal centers. The carbene ligand was designed for the catalysis of hydrogenation of non-polar CO<sub>2</sub> molecules, ultimately for the use of hydrogen storage. Through a series of reductive aminations and Buchwald-Hartwig reactions the ligand can be synthesized on a large scale for metalation and catalysis testing. Manuscript in preparation.
- Summer 2012    Research Fellowship- Dr. Anthony Chianese  
*Stoichiometric Reactivity of Catalytic Dehydrogenation Utilizing Iridium Catalysts.*
- Research was focused on the stoichiometric analysis of an iridium centered pincer catalyst for the dehydrogenation of alkanes. By isolating intermediates in the catalytic cycle, the mechanism by which the catalyst reacts was analyzed. Intermediates were characterized using H-NMR, COSY, NOESY, IR and x-ray crystallography. Resulted in publication (Organometallics, 2014).

### TEACHING EXPERIENCE

Chemistry Department Tutor- Colgate University (2012-2014)

Worked individually with students from Introductory Chemistry and Organic Chemistry courses to clarify and strengthen comprehension of concepts.

Courses audited at Cornell: Principles of Biogeochemistry, Ecology and the Environment, Soil Science, Forest Ecology.

## OUTREACH

BESS Alumni Coordinator- Cornell University (2017)

Organized a database of all alumni from Cornell's Biogeochemistry, Environmental Science and Sustainability graduate student association.

FemSTEM- Cornell University (2017)

Work one-on-one with an undergraduate woman at Cornell to advise and mentor on overcoming obstacles facing women and minorities in STEM fields.

Expanding Your Horizons- Cornell University (2017)

Volunteered as a "buddy" for a one day program that matches middle school girls with graduate women in science to participate in science workshops and talk about careers in science.