

**Todd T. Tracy**  
204 Georgia Avenue SW  
Orange City, Iowa 51041  
(712) 707-7340 (office)  
(712) 737-2257 (home)  
(712) 470-4239 (cell)  
ttracy@nwcsiowa.edu

## **Educational background**

- 1993-2000 Colorado State University, Department of Biology  
• M.S., Ph.D.: Zoology – 1996, 2000  
Dissertation: *House Finch syllable dialects and repertoires in Northern Colorado*
- 1987-1991 Cornell College (Mt. Vernon, IA)  
• B. A., Chemistry and Environmental Studies  
*Cum Laude* with distinction in Environmental Studies

## **Grants and awards**

### Research grants:

- Northwestern College Scholarship Grants -- 2003, 2005, 2007, 2008, 2009, 2010, 2011, 2013, 2015
- Mellon Foundation Environmental Research Initiative grant (for work with student Erin Brogan Vander Stelt) -- 2008-2010
- Iowa Science Foundation grant #ISF-07-10 (\$4690) -- 2007-2008
- Iowa Science Foundation grant #ISF-06-08 (\$2100) -- 2006-2007
- American Ornithologists' Union's Marcia Brady Tucker Award -- 2000
- Sigma Xi research grant (\$500) -- 1995
- NSF Graduate Research Fellowship -- Honorable mention -- 1994

### Honors and academic awards:

- Phi Kappa Phi induction -- 2000
- Graduate Teaching Award, Colorado State University -- 1999
- Manufacturing Chemists Association Award -- 1991
- American Chemical Society's Analytical Chemistry Award -- 1990

## **Teaching and administrative experience**

**Associate Professor**, Department of Biology, Northwestern College, Orange City, IA  
-- Spring 2002-present

### *Current teaching responsibilities:*

- BIO101: Introduction to Environmental Science
- BIO115: General Biology: Molecular and Cellular Biology (team-taught)
- BIO116: General Biology: Ecological and Organismal Biology (team-taught)

- BIO205: Ecology
- BIO280: Vertebrate Zoology
- BIO330: Avian Ecology
- CHE101: College Chemistry I
- NSC101: Introduction to Earth Science

*Other courses taught:*

- BIO112: Zoology
- BIO202: Genetics
- BIO329: Stewardship Ecology (taught in Badlands, Rocky Mountain, and Yellowstone NPs)
- BIO330: Ecology of Invasives
- BIO330: Behavioral Ecology

*Institutional service:*

- Faculty advisor for Biology Ecological Science, Biology Teaching, and Biology majors
- Scorekeeper for Red Raider women's volleyball team -- 2009-present
- Co-manager: NWC forest (field station) and prairie -- 2002-present
- Online Advisory Workgroup -- 2012-2015
- Academic Affairs Committee -- 2012-2015; 2003-2007 (chair 2005-2006; 2014-2015)
- Academic Appeals Workgroup -- 2004-2006; 2012-2015
- Faculty/Staff Welfare Committee -- 2011-2012
- Research advisor for Junior Scholars program -- 2008-2012
- Co-advisor: Terra Nova/Creation Care Club -- 2002-present
- Campus recycling supervisor -- 2003-2010
- Co-directed and co-produced stewardship videos for chapel, new student orientation, and Earth Day -- 2006-2010 (e.g., <http://www.youtube.com/watch?v=DGVCloeTchQ>)
- Various activities for Admissions Office and Scholarship Days

*Tenure paper:*

Invasive Species and the Call to Christian Environmental Stewardship  
<http://home.nwciowa.edu/tracy/tenure/tenure%20paper%20page.htm>

**Visiting Professor**, Wheaton College Science Station, Rapid City, SD – Summer 2015

- Diversity of Life: Introduction to Zoology
- Environmental Science

**Affiliate Professor**, School of Professional Studies, Colorado Christian University, Ft. Collins, CO  
 -- Spring 2000-Summer 2002

- Biological Principles
- Introductory Photography
- Introduction to the Internet

**Interim Coordinator of Undergraduate Programs and Interim Center Administrator**, School of Adult and Graduate Studies, Colorado Christian University, Ft. Collins campus -- Jan-Dec 2001

**Instructor and Visiting Professor**, Department of Biology, Colorado State University -- 1999-2001

- Humans and Other Animals -- Summer 1999

- Attributes of Living Systems -- Summer 2001
- Biology of Animals and Plants -- Fall 2001

**Adjunct Faculty**, Science and Math Department, Front Range Community College -- 2000-2001

- General College Biology I -- Fall 2000
- General College Biology II -- Spring 2001

**Graduate Teaching Assistant**, Department of Biology, Colorado State University -- 1993-2000

- Ornithology laboratory -- Springs 1994-2000 (Head T.A. 1996-2000), Summer 1999
- Vertebrate Biology laboratory (Head T.A.) -- Falls 1996-1999
- Animal Biology laboratory -- Fall 1995, Summer 2000
- Biology of Animals and Plants laboratory -- Summers 1997 and 1998
- Attributes of Living Systems laboratory -- Falls 1993 and 1994

**Guest Instructor**, Department of Biology, Colorado State University -- 1997-2000

- Ornithology -- 1998, 2000
- Vertebrate Biology -- 1997, 1998

**Laboratory Coordinator**, Department of Math/Science, Kirkwood Community College, Cedar Rapids, Iowa -- 1991-1993

- Coordinated biology, anatomy, chemistry, microbiology, and physics laboratories  
- Averaged ~30 total lab sections of ~10 courses per semester
- Supervised 5 work-study students per semester
- Purchased laboratory equipment and supplies
- Maintained a computerized chemical inventory for OSHA and campus safety office
- Facilitated proper collection and disposal of laboratory wastes

**Laboratory Instructor**, Kirkwood Community College -- 1992-1993

- College Biology for Non-majors
- Basic Anatomy & Physiology

## **Research experience**

**Ecologist**, Northwestern College -- 2002-present

- Effects of invasive species on the native flora, fauna, and soils of the Midwest
- Prairie restoration (NWC prairie and Landsmeer Golf Course)
- Geographic variation in the House Finch (*Haemorrhous mexicanus*) song
- Route monitor for USGS Breeding Bird Survey (Gaza route)
- Route-level diversity trends in Iowa's Breeding Bird Survey results
- Bander for USGS Bird Banding Lab
- Water quality monitor for Iowa DNR's IOWATER program
- Produced checklist of the birds of Sioux County and Orange City/Alton
- Produced checklist of the flora of Northwestern's prairie and Landsmeer Golf Course

**Researcher**, Department of Biology, Colorado State University -- 1993-2000

**Research Technician**, Genesis Laboratories, Wellington, CO -- Summer-Fall 2000

**Research Mentor and Advisor**, Colorado State University -- 1994-2000

**Research assistant**, Natural Resources Ecology Laboratory, Colorado State University -- 1995

**Undergraduate Researcher**, ACM Wilderness Field Station, Ely, Minnesota -- Summer 1990

**Research Intern**, United States Geological Survey, Iowa City, Iowa -- Fall 1989

## **Other scholarly activities**

### ***Current/Ongoing:***

**AP Environmental Science Exam**, Educational Testing Service -- Summers 2005-present

- **Reader**, 2005-2007 (Clemson, SC & Lincoln, NE)
- **Table Leader**, 2008-2010 (Lincoln, NE & Cincinnati, OH)
- **Question Leader**, 2011-2014 (Cincinnati, OH)
- **Test bank developer**

**Environmental Science Content Expert**, Pearson-Benjamin Cummings -- Summer 2010-present

- Resolutions of content issues on publisher's MasteringEnvironmentalScience website

**Test Bank Editor and Author**, Pearson/Benjamin Cummings -- Summers 2012-present

- Edited and authored test bank and homework questions for five environmental science textbooks

**Textbook Reviewer**, Pearson/Benjamin Cummings -- 2005-present

- Brennan and Withgott's *Environment* and *Essential Environment* textbooks, 3-6e.
- Jason Neff's *A Changing Planet* e-textbook, 1e.

### **Iowa Academy of Science:**

- **Societal Issues Committee** -- 2009-present
- **Student Programs Committee** -- 2012-present
- **Board of Directors** -- 2008-2009

**Member**, Au Sable Institute Academic Advisory Council, Au Sable Institute -- 2002-present

### ***Other:***

**External Reviewer of curriculum modules**, College Board -- Fall 2010

**Participant**, Pedagogy Project, Northwestern College -- 2002-2003

**Participant**, CCCU New Faculty Workshop, Bethel College -- 2002

**Colorado Preparing Future Faculty Fellow** -- 1999-2000

**Textbook Reader**, Resources for Disabled Students, Colorado State University -- 1999

## **Publications**

**Tracy, T.**, H. Zasadny, J. Erickson, and J. Siemers. 2009. Syllable and song sharing in a recently established population of House Finches. *Auk* 126:823-830.

**Tracy, T.**, J. Junell, B. VanWieren, and G. Packard. 1999 & 2000. Laboratory manual of vertebrate biology, 1st & 2nd eds. Colorado State University.

**Tracy, T.** and M. Baker. 1999. Geographic syllable variation in the House Finch song in northern Colorado. *Auk* 108:666-676.

Baker, M., **T. Tracy**, and L. Miyasato. 1996. Gargle vocalizations of black-capped chickadees: test of repertoire and video stimuli. *Animal Behaviour* 52:1171-1175.

## **Posters and talks**

Iowa Academy of Science annual conference – 2015 (University of Iowa)

- **T. Tracy**, A. Daumer, J. Inge, A. Schweighart, J. Tampio, and J. Tolsma. *If you farm it, will they come? Route-level diversity trends in Iowa's Breeding Bird Survey results*
- A. Daumer, J. Inge, L. Morris, A. Schweighart, E. Stricklin, J. Tampio, E. Thies, K. Thomson, J. Tolsma, and **T. Tracy**. *Soil, cedars, and fire: Interactions and effects on invertebrate diversity at Niobrara Valley Preserve*

Iowa Academy of Science annual conference – 2014 (Iowa Central Community College)

- J. Reinders, K. Cleveringa, B. Schmidt, E. Stricklin, S. Kaltenbach, **T. Tracy**, and L. Furlong. *Earth, trees, and fire: Ecological interactions at Niobrara Valley Preserve.*
- M. Feuchtenberger, L. Hurley, E. Nienhuis, Kelley Thurman, E. Heeg, and **T. Tracy**. *Is MRSA among us?*

Iowa Academy of Science annual conference – 2013 (Simpson College)

- **T. Tracy** and O. Norman. *Does European buckthorn affect the distribution of anurans in a gallery forest?*
- O. Norman and **T. Tracy**. *The effect of eastern redcedar on soil properties in a northwest Iowa prairie.*

Iowa Academy of Science annual conference – 2011 (Wartburg College)

- O. Norman, **T. Tracy**, S. Burmakow, H. Craven, A. Mattila. *The effects of European buckthorn *Rhamnus cathartica* on soil properties in a riparian forest.*

Iowa Academy of Science annual conference – 2010 (Graceland University)

- H. Pagelkopf, T. McKenney, A. Wentworth, **T. Tracy**. *Seed dormancy in leafy spurge *Euphorbia esula* and the potential for enhanced germination in the soil of eastern redcedar *Juniperus virginiana*.*

Iowa Academy of Science annual conference – 2009 (Des Moines University)

- E. Brogan, J. Gaster, J. Noble, H. Doty, E. Boyd, **T. Tracy**, M. Vander Molen. *Effects of eastern redcedar and its removal on invertebrate abundance and richness in two relict prairies.*
- J. Knibbe, E. Heeg-Truesdell, **T. Tracy**. *PCR analysis as a possible means for sex determination of eastern redcedar (*Juniperus virginiana*).*
- E. Boyd, **T. Tracy**, J. Noble, E. Brogan, J. Gaster, and H. Doty. *The allelopathic properties of fruit and leaf extracts of the invasive European buckthorn (*Rhamnus cathartica*) and white mulberry (*Morus alba*).*

Iowa Academy of Science annual conference – 2008 (Kirkwood Community College)

- **T. Tracy**, J. Nieuwenhuis, J. Knibbe. *Predation of artificial nests placed in invasive vs. native shrubs and trees.*
- G. Dubois, J. Noble, L. Walters, **T. Tracy**. *Allelopathy in an invasive shrub: A comparison of European buckthorn to other species.*
- L. Furlong, **T. Tracy**, L. Walters, J. Knibbe, J. Nieuwenhuis. *Monitoring the effects of European buckthorn (*Rhamnus cathartica*) removal from a forest community: Ground beetle (*Coleoptera: Carabidae*) richness and abundance.*
- J. Noble, **T. Tracy**, J. Nieuwenhuis, J. Gesink. *Effects of red cedar on invertebrate abundance and morphospecies richness.*

Iowa Academy of Science annual conference – 2007 (Central College)

- **T. Tracy**, D. Dockter, E. Vander Broek, J. Boersma, R. Weeks, L. Furlong, A. Kolb, G. Dubois, J. Olson, and L. Rensink. *Monitoring the impact of European buckthorn in two forest communities in Northwestern Iowa.*
- E. Vander Broek, **T. Tracy**, J. Boersma, and R. Weeks. *The effects of a spring burn on noxious weeds in a tallgrass prairie.*

Iowa Academy of Science annual conference – 2006 (Buena Vista University)

- **T. Tracy**, H. Zasadny, and J. Erickson. *Syllable and song sharing in a recently established population of house finches.*
- **T. Tracy**, N. Boersma, G. Dubois, L. Walters, A. Arthur, M. Bradley, M. Garrels, J. Jansen, C. Mick, T. Swart, and A. Tenold. *The effects of European buckthorn (*Rhamnus cathartica*) on a floodplain forest in Sioux County, Iowa.*

American Ornithologists' Union annual conference -- 2000 (St. John's, Newfoundland)

- *Brightly colored male House Finches sing fewer syllable types*

Colorado State University Department of Biology Student Symposium – 1995-2000

- *House Finch song dialects in Northern Colorado -- 1995*
- *Differential response of female House Finches to local and distant song types -- 1998*
- *Brightly colored male House Finches sing fewer syllable types -- 2000*

Animal Behavior Society annual conference -- 1996 (Flagstaff, Arizona)

- *A syllable-level analysis of House Finch song dialects in Northern Colorado*

## **Volunteer activities**

- **Cubmaster, Orange City Pack 208**, 2015-present
- **Cub Scout Den Leader, Orange City Pack 208**, 2011-2015
- **Sioux County Bird Expo**, Hike leader and presenter -- April 2013
- **Regional reviewer**, Audubon Society's Great Backyard Bird Count -- 2010-2012
- **Volunteer**, Iowa DOT Roadside Cleanup Program -- 2002-2011
- **Guest speaker**, MOPS meeting, Sibley, IA -- Earth Day 2009
- **Workshop presenter**, NWC Day of Learning in Community -- April 2008
- **Instructor**, Annual Outdoor Classroom at Oak Grove County Park, sponsored by Sioux County Soil and Water Conservation District -- May 2005