

C. ISU Environment and Natural Resource Ecology and Management History

This appendix provides University and College background of the environment in which the Department of natural Resource Ecology and Management (NREM) operates and includes program, administrative structure, NREM Department history, and Iowa agricultural environment.

C.1 Iowa ranks 29th in size and 30th in population with over 3 million residents, but is dominated by agriculture, ranking second in the nation for the total value of agricultural products sold \$30 billion (NASS, 2012). In the heart of the Corn Belt, eighty five percent of Iowa's 30 million acres is in cropland. In 2005 Iowa ranked 49th of U.S. states in public land holdings. Iowa leads the nation in corn, soybean and ethanol production and ranks first in animal production of layers, hogs, and pullets. While direct agricultural crop production contributes only about 3.5% of Iowa's gross state product the total impact including agricultural-affiliated businesses was 16.4% in 2002. Other sectors such as manufacturing, biotechnology and finance and insurance services contribute substantially to Iowa's economy.

Ames is the home of Iowa State University, ranking 8th in the state with a population of 61,000. In addition to ISU, Ames is also home to Reiman Gardens, and CAST.

C.2 University: Iowa State University is a Carnegie Doctoral/Research Extensive University that serves society through instruction, research, extension and professional service programs and activities. Its mission (2010-2015) is to "Create, share and apply knowledge to make Iowa and the world a better place." The [ISU Strategic Plan](#) (2010-2015) outlines four goals that encompass instruction, research/creative activities, and addressing the challenges of the 21st century. The [ISU Fact Book](#) is published by the Office of Institutional Research and provides information about students, alumni, faculty and staff, courses and institutional data by department and program, and finances and facilities information. The [Common Data Set](#) are statistics about entering students, tuition and related expenses, student success, graduation rates; all available by year (2001-2014).

Iowa State University has eight colleges and two schools:

- Agriculture and Life Sciences
- Business
- Design
- Engineering
- Graduate
- Human Sciences
- Liberal Arts and Sciences
- Veterinary Medicine

Schools

- Greenlee School of Journalism and Communication
- School of Education

[Center for Excellent in Learning and Teaching \(CELT\)](#) offers training, workshops and seminars to faculty and staff; "Our mission is to support, promote, and enhance teaching effectiveness and student learning; encourage scholarship of teaching and learning; communicate the importance of teaching and learning to both internal and external audiences; and serve as a catalyst for learning-centered education."

[Presidential Initiatives](#) include a distinguished seminar support, graduate student support and new faculty hiring programs that support the university academic enterprise.

[Department Chair](#) training and support through monthly workshops and new department chair orientation [Emerging leaders Academy \(ELA\)](#) is a university-wide program to foster leadership development for tenured faculty and staff.

[Information Technology](#) office provides updated news, help desk, training, computer labs, and supports wireless locations throughout campus. IT has high performance computing (HPC) resources available for research and dedicated private circuits for species research needs.

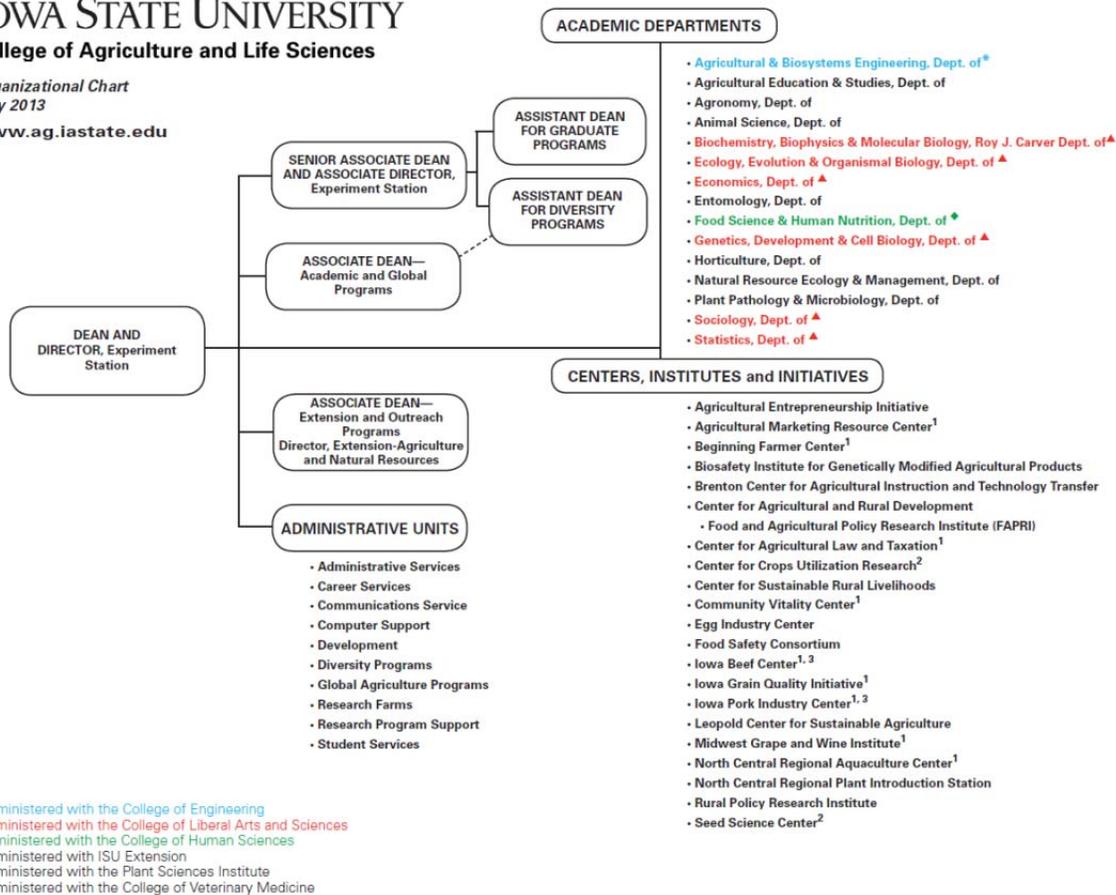
C.3. College: The College of Agriculture and Life Sciences (CAL S) is ranked fifth among universities worldwide offering agriculture and forestry ([Quacquarelli Symonds World University Rankings](#)). [Fifteen departments](#) are administered or co-administered by the Dean of Agriculture and Life Sciences. There are more than twenty centers and thirteen ISU [Research and Demonstration Farms](#) located throughout the state.

The College's research program emphasizes mission-oriented research that has a significant role in application of science to the practical problems facing Iowa today and solving challenges for the future. The Experiment Station's work represents the efforts of scientists in more than 35 departments, centers, and programs across the Iowa State campus. Although the work primarily focuses on areas in the College of Agriculture and Life Sciences, the Experiment Station also supports research in other colleges and cooperates with other states' experiment stations to ensure that critical problems are addressed, research results are shared and duplication is avoided.

IOWA STATE UNIVERSITY

College of Agriculture and Life Sciences

Organizational Chart
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www.ag.iastate.edu



The [Agriculture and Natural Resource \(ANR\)](#) is also led from CALS with leaderships for the entire extension program at ISU led by the Vice Provost Cathann Kress. Dr. Erin Hodgson (ENT) has assumed leadership of the ANR Crops Team. The extension structure was changed 2009 from county-based system to the one that exists today with 11 [regional specialists](#) that are distributed throughout the state. The regional specialists are primarily trained in agronomy/soil science/crop production with one plant pathologist.

C.3.1 Support Services

[Brenton Center](#) for Agricultural Instruction and Technology Transfer is a high-technology instructional center located in Curtiss hall that facilitates internet-based distance delivery. Three video capture classrooms allow for synchronous or asynchronous course delivery. [Online class lists](#) are available.

[Study Abroad Program](#) and [Global Studies](#) Major: These opportunities ensure student have high quality interational academic opportunities, gaining familiarity with agriculture and natural resources while experiencing a foreign culture. Global Studies offers faculty-led travel courses, internships and exchange programs.

[Student Services](#) offers a wide range of academic resources for students including advising, scholarship information, and graduation planning.

[Career Services](#) sponsors a biannual Career Fair and offers resources for career-oriented resources for students including practice interviews, employment opportunities, resume writing and others.

[Graduate Program](#) services include scholarships, orientation for new graduate students, welcome activities and recruitment weekend (spring).

[Diversity programs](#) are offered that provide resources for all faculty, staff and students as CALS continues its commitment to supporting diversity.

C.4 History of Natural Resource Ecology and Management at Iowa State University

Animal Ecology: The Department of Zoology and Entomology at Iowa State College of Agriculture and Mechanical Arts (ISC) was established in the Division of Industrial Science in 1919 (a Department of Zoology preceded this); in 1939 the Division was renamed the Division of Science and remained that until 1959. New undergraduate courses were initiated in 1924, which began the trend toward development of a program in fisheries and wildlife.

From 1962-74, the department included; Zoology, Entomology, and Fisheries and Wildlife Biology, with a professor in charge of each section. On January 1, 1975, the Department of Zoology and Entomology was separated by action of the State Board of Regents into separate Departments of Animal Ecology, Entomology, and Zoology. Animal Ecology took most of the basement and first floors of the new Science II building (completed in 1972) and kept most of east and north corridors of the basement of Science.

The Cooperative Wildlife Research Unit was established in 1932 and Paul L. Errington was its Unit Leader until 1935. The three “Cooperators” in this unit were Iowa State College, the Iowa Fish and Game Commission, and J.N. “Ding” Darling. In 1935 this became the Iowa Cooperative Wildlife Research Unit (ICWRU) with Logan J. Bennett (1935-1938), as its first Unit Leader. In 1941 a Cooperative Fisheries Research Unit parallel to the Wildlife Unit was established with state funding. In 1965 the federal government joined into an agreement with the Iowa Conservation Department and Iowa State University to form the Iowa Cooperative Fisheries Research Unit (ICFRU) with Robert “Jess” Muncy as its Unit Leader (1965-1979). In 1985 the two units were combined into the Iowa Cooperative Fisheries and Wildlife Research Unit (ICFWRU) that is still in existence today.

Carlander developed his reputation in fisheries with his work on fish population dynamics, and studies of fish age and growth analysis publishing his first edition of *Handbook of Freshwater Fishery Biology* in 1953 and graduating 34 Ph.D. and 60 M.S. students. On the fisheries side of the department it is clear that Carlander’s reputation greatly influenced the reputation of the fisheries program at Iowa State.

On the wildlife side, Paul Errington’s reputation continued to grow after his death, in part because Carolyn Errington continued to edit and publish his works; in addition the annual Errington Lecture at ISU brings in well-known ecologists and conservationists, and reintroduces Errington to an audience of new graduate and undergraduate students each year.

Forestry: Forestry at ISU has its roots in horticulture. In 1874 two 'major' areas were recognized in agriculture 1) Agriculture, 2) Horticulture and Forestry; Iowa State holds the distinction of offering the first formal college course in forestry in the U.S. From 1874 to 1900 forestry was included under horticultural studies and forestry professional training was recognized in 1904. In 1946 the Horticulture and Forestry Department was separated into two departments.

NREM is created: Beginning in 2000 discussions began about a reorganization including realignment of the natural resource departments. In the end, a Department of Natural Resource Ecology and Management; NREM came into being in July 2002 that included the Department of Forestry and Animal Ecology. The first Chair of NREM was J. Michael Kelly, the former Chair of Forestry and the Coop Unit (ICFWRU) remained with NREM.

This self-study focuses on years 2008-2015. This period of time covers a major U.S. economic turndown in 2008 that affected Iowa State as well as other public universities. During this time we have moved to a combined administrative structure between NREM and the Entomology Department with a shared Department Chair and a business office that serves both departments. However, the department's budgets, instruction and faculty are managed independently. There have been changes in faculty, instructional focus and documents detailed below.

Significant Milestones (2008-2015):

- Faculty Transitions:
 - Heidi Abjorsen, resigned
 - Mike Quist, resigned
 - Steven Jungst (remote sensing) retired
 - Sue Fairbanks (mammologist) resigned
 - John Obrickyi (biological control) resigned
- Administrative Structure has changed to a single department chair (Blodgett) shared between two departments, Entomology and Natural Resource Ecology and Management (NREM). Support staff positions have been organized into a single, shared business office. This has required some redistribution of responsibilities and modifying support staff position descriptions.
- Instructional focus: Fluctuations in undergraduate student enrollment during this time, with a trend to higher student enrollments. Faculty members have had good involvement in the interdisciplinary programs (EEB, SusAg, Toxicology).
- Graduate Handbook was recently updated.
- A Strategic Plan resulted from a retreat in January 2012. The strategic plan was reviewed in a retreat held in January 2014 and is referred to in this document.
- Governance Document outlining processes and procedures that guide the department
- Faculty have been recognized for numerous teaching, research, service awards at university, regional and national levels
- Leadership of the North Central Aquaculture Regional Center was shifted from Michigan State University to Iowa State University