Doctoral Proficiencies:

A candidate for a doctoral degree in Ecology and Evolutionary Biology is expected to demonstrate a broad based knowledge in chosen discipline (Ecology, Evolutionary or Organismal Biology, or some combination), mastery of knowledge in the chosen sub-discipline (e.g., Ecosystem Biology, Community & Population Ecology, Evolutionary Genetics, Macroevolution, Systematics, Molecular Evolution, or some combination), and create new knowledge, making an original and substantial contribution to the sub-discipline in a timely fashion.

Proficiencies

1. Demonstrate broad-based knowledge in the discipline of Ecology, Evolutionary Biology, Organismal Biology, or some combination.

2. Make an original and substantive research contribution to sub-discipline
   - Think originally and independently to develop new knowledge, concepts and methods.
   - Identify new research questions.

3. Demonstrate advanced research skills
   - Be knowledgeable of historical development and able to articulate, discuss, and synthesize concepts and evidence in sub-discipline.
   - Be knowledgeable of organisms and ecological or evolutionary systems pertinent to doctoral research.
   - Master observational, experimental and analytical methods
   - Adhere to ethical standards of scientific research.
   - Interpret and evaluate research findings.
   - Demonstrate ability to communicate research findings, through oral presentation and written publications.
   - Demonstrate ability to write proposals for fellowships and research funding.

4. Demonstrate two or more of the following skills
   - Effective teaching skills in ecology and evolutionary biology.
   - Collaborative skills in research, teaching or outreach.
   - Involvement in departmental and university organizations.
   - Involvement in professional activities and organizations related to academic discipline.
   - Involvement in outreach activities with students or the broader public.