**Proposal for 2024 HASTI conference**

**Title:** Birdwatching: A field-based unit or short course

**Format:** Presentation

**Presenter:** Donald Winslow, Ph.D.

**School:**  Indiana Academy for Science, Mathematics, and Humanities

**Strand:** Inspiring Instruction

The Indiana Academy for Science, Mathematics, and Humanities offers a two-week May Term. I taught a course in Birdwatching in 2023. There were no prerequisites for this course, and it does not fulfill any specific requirements for anything else. This self-contained nature afforded latitude and flexibility, which provided opportunities for students to express their creativity. The focus was on recreational observation of birds with a modest introduction to the science of ornithology. The student learning outcomes were to gain skills in identification of birds of the Muncie area by sight and sound, develop the ability to classify bird species by order and family, describe avian morphology and physiology, interpret behavioral observations, and design studies of ecological interactions involving birds. The only text book was a field guide to the birds of eastern North America. The students’ lab fees paid for the field guide and a binocular, so students were able to keep both of these after the course was complete. Students were instructed to install and use the free mobile app Merlin, which is developed by the Cornell Laboratory of Ornithology. We met each morning for a total of 10 class sessions, each 3-4 hours long. Topics included the fundamentals of ornithology, avian systematics, binocular use, the Merlin app, avian morphology, bird identification by sight and sound, the eBird project, avian physiology, taking field notes, classification of birds by order and family, bird behavior, birds of the Muncie area, design of behavioral and ecological studies, North American birds, observation of bird behavior, distribution ranges, bird nests, habitat, and subspecies. We took field excursions every morning, usually on foot but with two trips by van to nearby birding hotspots. We conducted field quizzes every morning for students to demonstrate the bird identification skills they acquired. In lab, students examined study skins and mounted specimens. Each student kept a journal of lab and field observations. Students worked in pairs to design and conduct two studies, one on behavior and one on ecology. The instructor developed a list of questions of interest, and each student pair chose questions and collected data to answer them by observing birds in the field. Each student wrote two research reports presenting the results of these investigations. On the last day, students completed a final examination and a lab practical and submitted their field journals. Scores on these assessments indicated that the student learning outcomes were achieved by most students. This course could be adapted as a unit at the end of a spring semester course in biology or zoology.