

## Zoology Program Review: Zoology Faculty Response to Site-Visit Report

8 May 2023

This letter is a response to the recommendations provided in the Departmental Review Report to the Department of Zoology following the site visit that occurred on 1 and 2 March 2023. The review team consisted of Dr. Kimberly Bates from the Department of Biological Sciences, Winona State University, and Dr. Mark Stevenson, Department of Anthropology, Weber State University.

### **B. Curriculum Recommendations:**

**1. The use of adjuncts and non-tenure track instructors to teach General Education classes suggests they are not deemed as important as the major courses. These classes are important and should be taught by those with expertise and enthusiasm for the subject.**

*Response:* We agree that General Education classes are important and should be taught by people with expertise and enthusiasm. However, we think there was some confusion in the discussions with the review team. Although we pointed out that “most of our adjuncts teach Gen Ed classes,” this appears to have been mis-interpreted to mean “most of our Gen Ed classes are taught by adjuncts,” which is NOT TRUE. We have a smaller adjunct footprint than most departments on campus, and our adjuncts are former students who have gone on to earn M.S. degrees, as well as former faculty with PhDs. Our full-time tenure track faculty teach the majority of our Gen Ed classes (for Spring 2023, there were 10 GenEd sections taught by tenure track faculty – including the 2 most populous, compared with 5 taught by adjuncts). Interestingly, the university is promoting concurrent enrollment GenEd classes, in which High School classes would be taught by unvetted HS teachers. Thus far the Department of Zoology has resisted this push in part because we value the *expertise and enthusiasm* of our own vetted adjuncts.

*Implementation Timeline:* The department will continue to use quality, vetted adjunct instructors for whichever classes there is demand. Adjuncts are paid by Continuing Education, which funds GenEd classes taught online, evening, and off campus. These venues and time are often more convenient for adjuncts compared with regular Zoology faculty.

**2. Providing maps of different careers in biology would help students navigate which courses best suit their career goals.**

*Response:* We agree. The Zoology Department has majors who are interested in a wide variety of career paths. These paths could be outlined in a topic-specific advising sheets that can be made available to students via the department website as well flyers housed in the office suite.

*Implementation Timeline:* These flyers are in progress as of this writing and will be rolled out during Summer 2023. Presently we anticipate career flyers for coursework in: (1) pre-professional, (2) wildlife & conservation, (3) marine biology, (4) zoo/animal care, (5) cell & molecular biology, and (6) ecosystems biology.

**3. Having regular discussions about curriculum in the department will keep this excellent curriculum updated and relevant. One suggestion is to join your local PULSE (Partnership in Undergraduate Life Science Education) and attend some workshops and/or invite in Ambassadors. By inviting Ambassadors for a 3-day workshop you will critically evaluate your curriculum as well as decide as a department the areas you would like to improve the most. I (Kim Bates) highly recommend this exercise, it is eye-opening.**

*Response:* We agree, and believe that implementation of this discussion will help the curriculum.

*Implementation Timeline:* We will start adding a curriculum dialog to our department meetings beginning Fall 2023 semester and will use that semester to investigate joining PULSE.

### **C. STUDENT LEARNING OUTCOMES AND ASSESSMENT Recommendations:**

**1. Regularly revisiting the learning outcomes for each course taught will ensure that students are being assessed comprehensively for each outcome. It will also highlight redundancies (which are not necessarily a bad thing).**

*Response:* We agree, and believe that discussing learning outcomes will ensure that students are being assessed comprehensively for each outcome.

*Implementation Timeline:* We will start discussing learning outcomes in a more formal way in our department meetings beginning Fall 2023 semester.

**2. It is recommended that evaluation of student outcomes become a regular faculty meeting agenda item or retreat item.**

*Response:* We agree; see above response C1.

*Implementation Timeline:* We will start discussing learning outcomes in a more formal way in our department meetings beginning Fall 2023 semester.

**3. There is a tremendous need to evaluate the entire program. BioCore or another pre-built assessment tool would help with that assessment.**

*Response:* We agree that a program evaluation is needed. We indicated as much in our self-study report and were looking for some suggestions to assess student knowledge at a time close to their finishing the degree. Faculty have suggested that the creation of a 1-credit online "Capstone" class taken in the last semester would be a way to capture students finishing their major to use BioCore or some other assessment tool.

*Implementation Timeline:* Beginning Fall 2023, the department will begin the paperwork needed to create a "capstone course" for assessment; once that is established, we will begin to use BioCore or another assessment tool for assessment of student knowledge at the program level.

**4. Also recommend joining PULSE and utilizing their expertise and/or inviting an ambassador team to host a workshop for the department. It is almost free (you pay for a couple of meals) and very insightful.**

*Response:* Agree; See B3 above

*Implementation Timeline:* We will investigate joining PULSE in Fall 2023 (see B3 above).

**D. ACADEMIC ADVISING Recommendations:**

**1. Require mandatory initial advising for all majors, regardless of when they declare.**

*Response:* Agree strongly; in fact, we ALREADY DO THIS and explained it in our self-study report. Prospective Zoology majors are *required* to meet with an advisor (Dr. Christopher Hoagstrom - New Major Advisor) or Dr. Ron Meyers (Dept Chair) *before* they can declare a zoology major. During this meeting, the major courses and requirements are reviewed. Students are told of the advisors for specific career paths at this time as well.

*Implementation Timeline:* As stated above, we already do this. Adding the new advising sheets (see B2 above) can only make this more effective.

**2. Assign students an advisor and/or require more frequent advising intervals. Particularly for students not on pre-professional or research tracks and who aspire to non-academic careers, additional required advisement touchpoints prior to graduation could enhance student understanding of different topical areas and elective choices, contributing to timely degree completion and effective career preparation. Given the large number of majors, this is a challenge, but could consist of a combination of required advisement with faculty in different topic areas, and dedicated staff resources within the department or across the life science programs, as recommended in the last program review.**

*Response:* We agree. We have specific advisors for a number of career paths, and an advising sheet is already on the department website as well as in the form of a handout in the office suite. Students can be more specifically directed to this resource when meeting with Drs. Hoagstrom or Meyers.

*Implementation Timeline:* We are hopeful that the new career advising maps (see B 2 above) will give students more access to career paths and advising.

**3. The program currently provides graduate maps based on math placement levels, but should consider offering additional graduation maps or suggested pathways through the degree based on topic area interests and career goals.**

*Response:* We agree, and are implementing career-advising sheets for the 6 most popular career paths that zoology majors pursue: (1) pre-professional, (2) wildlife & conservation, (3) marine biology, (4) zoo/animal care, (5) cell & molecular biology, and (6) ecosystems biology.

*Implementation Timeline:* As described in B2 above, we will be implementing these advising sheets in office and online during summer 2023.

**E. FACULTY Recommendations:**

**1. Get institutional buy-in to give more credit to student research. This could possibly help increase the number of students engaging in research and maybe help increase the number of students as authors on peer-reviewed manuscripts.**

*Response:* The issue of faculty credit for student research is a longstanding one that has never been satisfactorily resolved. Although research mentoring does help with tenure and promotion, it is not given full weight when determining teaching loads. However, if mentoring were given larger credit such that it replaced teaching a class (General Education or required or elective zoology course), then that class either couldn't be offered, or an adjunct would have to be hired to teach it (see B1 above and the review team's criticism of using adjuncts). It is unlikely that lack of credit impacts student research; most faculty are committed to student research pedagogy despite the lack of "credit." We are still dealing with the effects of how COVID has impacted student research, and we suspect that this will loosen soon and more students will become engaged in research, present their work at meetings and author publications.

*Implementation Timeline:* N/A

**2. Institute a formal mentoring process for adjunct/non-tenure full time hires. It might not be as extensive as for a tenure-track hire but could be a way to help with the lower evaluation scores.**

*Response:* A formal review format has recently put forth by the Dean's office in the College of Science. Mentoring of adjuncts is a good idea. We will solicit volunteers from within the department to serve in this capacity when any new adjunct faculty is hired. (Finding time and faculty willingness is always a challenge.)

*Implementation Timeline:* In addition to the Department Chair's regular review of the teaching evaluations completed by students taking classes from adjunct instructors, the COS dean's office has recently developed (Spring, 2023) a schedule and process through which regular formal evaluation of adjunct faculty teaching will be implemented.

**3. Recommend having a once a year or more faculty meeting/seminar to discuss new, exciting pedagogy and how it affects learning outcomes. Open dialogue about how each instructor is improving their course will have a ripple effect on the program.**

*Response:* We agree. This was discussed at a recent faculty meeting and there was much support and enthusiasm for such an activity at future department meetings/retreats.

*Implementation Timeline:* We will start discussing approaches to teaching pedagogy in a more formal way in our department meetings beginning Fall 2023 semester.

**4. Finally, maintain your approximately 50:50 male to female ratio of faculty but try to hire more culturally diverse faculty, especially Latinx to reflect the demographics of the community and university.**

*Response:* Agreed. Hiring is based on those who are in the graduate school pipeline and are in a position to apply for faculty positions when openings occur. Hiring diverse faculty is also dependent and reflective of the diversity of students in graduate programs that produce applicants. In each of our recent faculty searches we gave a weighted value to a diversity hire in assessing candidates.

*Implementation Timeline:* For our Fall 2023 job search we contacted the university's diversity office for assistance in advertising in a way that will attract the most diverse applicants possible. This will continue with subsequent hires.

**F. SUPPORT (STAFF, ADMINISTRATION, FACILITIES, EQUIPMENT, AND LIBRARY). Recommendations:**  
**1. Faculty identified access to reliable, affordable, and appropriately-sized campus vehicles for field trips as one significant obstacle, as such experiences are a regular and significant feature of numerous classes.**

*Response:* We agree and hope that reliable vehicles can be obtained for field work. This would ideally include vehicles that can carry 10 or more students at a time. In addition, the fleet would ideally be large enough to have multiple vehicles with such capacity for larger classes or for multiple trips happening simultaneously.

*Implementation Timeline:* The department has already contacted the Development Director for the College and made this a priority. Hopefully a donor can be found.

**2. The need for a permanent field station or other external site was expressed, which could serve as a base for field work, short courses and other activities for a variety of majors across the college. Given the importance of field work for many classes, such a facility could significantly enhance longer-term, in-depth high-impact learning experiences across the curriculum.**

*Response:* Agreed! The field station is a priority of the Dean of the College of Science.

*Implementation Timeline:* Unknown; this is ongoing and dependent on securing donor funding.

**G. RELATIONSHIPS WITH EXTERNAL COMMUNITIES. Recommendations:**

**1. Community outreach activities include significant contributions from the Multicultural Advancement of Science and Zoology student clubs, providing valuable opportunities for student engagement. Enhanced departmental and faculty support for these groups could provide greater opportunities for impactful student engagement and learning experiences.**

*Response:* We agree; however, many faculty members are busy with student research mentoring and view that activity as "impactful student engagement and learning experiences." The committee has already noted that faculty do not receive enough credit for student research. This situation is even worse for outreach activities. There is no mechanism in place to provide any credit for outreach activities. Of

note, support for our clubs has increased dramatically under the current Dean and future recognition or awards for faculty outreach may motivate faculty participation when release time credit is not available.

*Implementation Timeline:* We will discuss this at upcoming department meetings and solicit additional faculty involvement.

**2. Students in the program expressed an interest in community engagement but were uncertain about the availability of such opportunities. Improved dissemination of outreach opportunities could broaden student access to such extracurricular experiences.**

*Response:* Yes. Many students take “Zoology 4890: Cooperative Work Experience” and get involved in one of a number of community engagement opportunities (e.g., Ogden Nature Center, Northern Utah Animal Rehabilitation Center, Humane Society). Students can find out about such opportunities by visiting the (1) zoology department office suite (where many listings are posted), (2) reading emails and the department newsletter, submitted several times a semester from the department (where many opportunities are announced) or (3) talking with their professors/advisors.

*Implementation Timeline:* We will work to get this information more widely disseminated.

**3 The last program review identified the “functionality of the external advisory committee” as a concern. In the context of the institutional emphasis on community-engaged learning and strengthening ‘town-gown’ relationships, this seems to be a missed opportunity for providing students with engaged learning, career mentoring and placement opportunities.**

*Response:* As explained in the self-study report, the Zoology Department decided not to have an external advisory committee at the department level (with the support of the Dean of the College). Various faculty have connections with local entities (e.g., Ogden Nature Center, Northern Utah Animal Rehabilitation Center, etc.) and can inform interested students for “engaged learning, career mentoring and placement opportunities.”

*Implementation Timeline:* N/A

#### **H. RESULTS OF PREVIOUS PROGRAM REVIEWS. Recommendations:**

**1. Need to address program-level assessment and then use the data from this plus course assessment to direct curriculum changes.**

*Response:* As stated earlier, we will devote future department meetings to discussing program-level assessment and curricular issues.

*Implementation Timeline:* We will begin this Fall 2023.

**2. Faculty need to visit assessment data at least once per year to determine if the program is working. Advising is still a problem.**

*Response:* Yes, assessment data will be discussed at the department level. However, we DISAGREE that advising is a problem. Although we recognize that improvement is always possible, the Zoology

Department works hard to advise students at the earliest stages of their degree (before declaring their major) as well as in preparation for upcoming registration (via email, the department chair solicits meetings with students to plan schedules prior to registration – twice a year). An anonymous survey of graduating students assessed their experience with zoology advising (begun Spring 2023) showed that on a scale of 1-5 (with 5 being the highest rating) 11 respondents selected “5” and 2 selected “3.” An overwhelming majority of graduating students found their zoology advising helpful.

*Implementation Timeline:* New advising career sheets will roll out summer 2023 (see B2).

**3. A more formal avenue of student advising needs to be implemented, especially for students who are not on a professional track.**

*Response:* We are implementing career-advising sheets for the 6 most popular career paths that zoology majors pursue: (1) pre-professional, (2) wildlife & conservation, (3) marine biology, (4) zoo/animal care, (5) cell & molecular biology, and (6) ecosystems biology.

*Implementation Timeline:* New career advising sheets will roll out summer 2023 (see B2).

**4. Keep pursuing diversity in your faculty lines.**

*Response:* Agreed, see E4

*Implementation Timeline:* See E4

**5. Think about using faculty as the Zoology Club advisor and as the external community relationship organizers**

*Response:* We will discuss the use of regular faculty in this role. As our lab manager, Susan Gurr is in a position where she interacts with student workers and is an adjunct in the department. She is a valuable resource in this role.

*Implementation Timeline:* Discussion on this matter will begin Fall 2023.