

Wildlife Education and Teacher Training

Introduction

There has also been an evident lack of appropriate training for wildlife educators, especially at the K-12 level (Campbell et al., 2005; Johnston et al., 2001; Seimer et al, 2022). Research has suggested that a lack of scientific literacy could be due to the science taught our schools lacking relevant context for students to apply learned skills (Conroy et al., 1999; Smith & Rayfield, 2017). Hastening the development of early and mid-career wildlife professionals in state and federal agencies is an acute need (Decker et al, 2019).

How It Works

To address the need for improved training in wildlife and ecology for agricultural science majors, [UNIVERSITY] offers an advanced, four-day training in partnering with professional wildlife educators and state Parks & Wildlife staff. This event is hosted in partnership with a south [STATE] wildlife foundation. The [FOUNDATION] is located on a 7,800 acre wildlife refuge that is guided by three tenants: research, conservation and education. This training involves hands-on wildlife labs (small mammal capture, skull track & scat ID, plant keying & pressing and angler education), lectures (habitat and populations level concepts) and project-based learning (Project/Aquatic WILD certifications). This is led by university faculty in wildlife, agricultural education, rangeland extension experts, ecology educators and [STATE] wildlife staff. This training has been hosted both in the late Fall and in early Summer.

The first day's agenda is centered around the conceptual framework of wildlife & environmental literacy within the contexts of agricultural education. Guiding this is teacher certification in the Project WILD curriculum. To address specifically agricultural educators, the training includes lining up the curriculum with state standards. This training is unique compared to many WILD trainings, in that it also integrates aspects of lesson plan development, parallels directly to the state agriculture curriculum standards and the demonstration of hands-on labs that can be replicated at participants schools.

Project WILD is sponsored by the [STATE] Parks and Wildlife Department in conjunction with the Association of Fish & Wildlife Agencies. It is one of the most widely used environmental education programs among K-12 educators. The mission of Project WILD is to provide wildlife-based conservation and environmental education that fosters responsible actions toward wildlife and related natural resources. Project WILD uses developmentally appropriate and meaningful activities that can be integrated into any school curriculum or program.

Students and teachers (as this is offered to both concurrently) who participate in this training are then offered the opportunity to lead a day long (6 hr) training at state teachers conference. During this training, the undergraduate students or current educators who have previously been trained in the WILD curriculum, will then lead a similar training for their peers. Many of the lessons were taught by teaching teams. This helped to show the diversity in material and gave teachers a broader understanding of the curriculum available to them. They are supported in their training by the university teacher educator and a local wildlife educator. Before attending the

Innovative Idea

training; all planning for the program agenda, collection of teaching materials and practice of lectures (WILD activities) has been completed by students and supervised by the university leader. Student/teacher teams lead different WILD activities during the teacher workshop, while the university leader guides the certification and curriculum training lectures.

RESULTS TO DATE

Over the past year, the initial training has been offered at [WILDLIFE REFUGE] during the fall semester. During the next Summer, selected participants attended the [STATE] vocational agriculture teachers' conference. At conference they delivered WILD certification training to 33 teachers. The initial workshop was received exceptionally well, with participants citing the hands-on nature and agricultural focused wildlife training as high points of the workshop. All preservice teachers who attend have used lesson from this workshop within their student teaching assignments and during practice teaching demonstrations. Follow-up emails with teacher attendees have shown positive results; with many teachers implementing the Project WILD training in their schools. Teachers appreciated the focus on WILD in connection with the state agriculture curriculum standards. The development of unit plans, hands-on labs that could easily be applied at their campuses and team-based approach were some of the highlighted positive aspects of the workshops.

Student WILD workshop leaders have expressed high levels of satisfaction with the program. Post-training interviews with students found that students appreciated the opportunity to network with current teachers and to apply their new knowledge in the WILD curriculum. They also mentioned that the further practice using the WILD activities helped them to increase their confidence and level of comfort in teaching overall.

FUTURE PLAN & ADVICE TO OTHERS

It is recommended that those who wish to host similar programs work with students to develop appropriate assessments and include ways to modify the lessons to fit agricultural science teachers especially (ex: modify WILD activity *Adaptation Artistry* to fit cattle breeds). Organization and time management are especially important, as these activities can get quite involved and keep participants engaged well beyond the time limits of the training. Many of the partner wildlife educators have emphasized understanding population level concepts and limiting factors for habitats to fully get the most out of the included materials.

COST & RESOURCES NEEDED

This project was funded as part of the [STATE] Parks and Wildlife grant. The lodging, meals & educational materials at [WILDLIFE REFUGUE] cost approximately \$10,000 for 30 participants. University vehicles were used to lower rental cost, but fuel costs are still incurred. The project WILD & Aquatic WILD curriculum costs \$65 per participant. An undergraduate assistant and graduate student are typically hired to support the project goals. The program directors' goal is to continue this program; either through further grant support or as a fee incurring professional development workshop.

References

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