Owl Education Methods Used Around the World

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ABSTRACT

In this study I provide an overview of different techniques used for educating people about owls around the world and associated laws. I surveyed 17 individuals from 11 countries on 5 continents. Most respondents reached all ages to some extent. Laws varied in different countries, which impacts the methods used. It is not legal to use live owls in some countries, but 86% of educators who live in countries that allow it use live owls. Of them, 27% allow the audience to hold or touch the owls, 27% allow touching only in special circumstances, and no one reported injuries to humans or owls as a result. Dead specimens or feathers were used by 76%. Sixty-five percent dissect owl pellets or give pellets to schools to dissect. Of them, only 45% heat treat pellets to lower the risk of salmonella or other illnesses that can be transmitted to humans through pellet dissection. Eighty-eight percent use real-life stories, 71% use games or activities, and 29% use wild owl experiences. Only 35% have conducted surveys to assess their program impact. Respondents listed a variety of calls to action included in their programs which reflect the prevailing positive or negative cultural attitudes in their area. Time and money were listed as the biggest obstacles for educators. The most important things cited that would help educators are networking, funding, and current research summaries.

KEYWORDS: Conservation, Cultural Beliefs, Education Methods, Laws, Owls

INTRODUCTION

Effective owl educators must connect with their audience. This will necessarily involve different techniques in different countries with different cultures and laws. I have been doing owl education in the United States for 19 years and have met numerous other owl educators from other countries. I noticed different countries had their own biases and laws about how education should be done. My goal was to conduct a survey of owl-focused educators from around the world to compile different education methods to share with other educators in hopes of broadening perspectives and comparing and contrasting techniques so educators can think more openly about which methods may work best in their context.

METHODS

I created a survey consisting of 28 main questions covering the educator’s level of experience, facilities, insurance, reach, audience, cultural attitudes, laws, methods, teaching aids, program content, take home message, assessment, and obstacles. I identified educators with a significant focus on owls on all contents in a variety of different countries based on people I knew, recommendations from people I knew and internet searches. Surveys were emailed to 24 people in 14 countries on all 6 continents inhabited by owls.

RESULTS

I received survey responses from 17 individuals (including myself) from 11 countries on 5 continents, for a 71% response rate. Not every respondent answered every question, and some did not understand the intent of certain questions due to different usages of specific English words.

 Respondents had been doing owl education for an average of 22 years (range 7-50 years). Five self-identified as experts, 4 as advanced, 5 as intermediate level educators and 3 did not identify with a specific level of expertise.

Sixty-five percent have facilities where they conduct programs, 88% travel to do programs, and only 53% reported having insurance for their programs. All but one of the 17 respondents reported the number of programs they or their facility conducted and the number of people reached per year. Forty-four percent conduct 25 or fewer programs per year, but 25% conduct 500 or more programs per year (Figure 1). While two respondents reach over 100,000 people per year (both facilities in large metropolitan areas in the United States), 31% reach 1,000-4,000 people per year and 38% reach 10,000-30,000 per year (Figure 2).

 Twelve respondents provided an age breakdown for their program participants. Most facilities conduct programming for all ages to some extent. Three respondents reported that at least 50% of their audience was adults, while 4 facilities noted at least 50% of their reach was ages 12 and under (Figure 3).

Live owls are used in owl education in many countries, but this is prohibited by law in India and Nepal. Permits are required to use live owls in educational programming in most respondent countries that allow it (Argentina, Manitoba and Saskatchewan in Canada, Germany, Portugal, South Africa, and the United States), with Belize not requiring permits and England not requiring permits for most species.

Of the respondents living in countries where it is legal to use live owls in educational programs (n=14), 86% use live owls. The two respondents who do not each conduct 5 or fewer educational programs per year. Of the 12 who use live owls, 50% use birds hatched in captivity and 75% use birds of wild origin that are non-releasable (three facilities, all in North America, use both.) The three European respondents all exclusively use captive bred birds. Three-quarters of respondents using live owls give them names for the purpose of creating a connection between the audience and the birds.

Respondents using live owls (n=9) employed them in different ways during programs. At one extreme, 2 use the live owls for 15% or less of the program, serving as the “grand finale,” including a short flight. Five facilities have birds out for the entire duration of the program (Figure 4.)

Three of 11 respondents allow people to touch or hold live owls to create a more powerful experience, three allow this only under special circumstances, and 5 do not allow it at all. It is not legal in the United States, where 4 facilities are located. Of the respondents that do allow people to come into contact with the owls, none has ever had an injury to a human or an owl as a result. Of the 11 countries represented by respondents, it is legal to have pet owls in only 3 (Japan, Portugal, and the United Kingdom.)

Dead specimens or feathers are used by 13 of 17 (76%) of the respondents. Laws vary where respondents use specimens, with no permits required in South Africa, permits required for some species in the United Kingdom, and 6 countries requiring permits (Manitoba and Saskatchewan in Canada, United States, Belize, Argentina, Nepal and Japan).

When it comes to dissecting owl pellets, 11 of 17 respondents either dissect pellets with the public or give pellets to schools to dissect. Fifty-five percent use pellets from their own birds and 55% use pellets collected in the wild (one facility uses both.) Pellets were heat treated by 45% of respondents employing pellets. No health issues related to pellet dissection were reported.

In their educational programs, 88% of all respondents reported using real-life stories, 71% used games or activities, and 29% use experiences with wild owls. Only 35% have conducted some kind of impact survey to assess the effectiveness of their educational programs (n=17).

Respondents listed a variety of key messages and calls to action they convey during their programs: leave dead trees standing, plant native trees, protect habitat, use traps instead of poison to control rodents, take down soccer nets when not in use, take down unused barbed wire, use less paper, keep cats indoors, mow less lawn, put up owl nest boxes, report nesting owls, if young owls are found on the ground observe them to make sure they need help before intervening, owls don’t make good pets, get involved in owl research and conservation, donate to owl research and conservation, and be aware of the source of the products you purchase—you “vote” with your money, don’t harm owls, and report people who are harming or selling owls.

When listing obstacles to educating the public about owls, 13 people provided responses. Sixty-two percent cited lack of time and 46% cited lack of money. Travel/distance was listed by 15% and beliefs (negative cultural views, bias against conservation, and resistance to owls in urban areas) were cited by 23% (Figure 5).

Respondents were asked what would help them be more effective educators and a list of potential responses was offered. Three individuals did not provide responses, and most others indicated more than one item. The most cited response (79%) was networking. Next was funding (71%), then current research summaries (64%). Training in captive raptor care was indicated by 29% and lesson plans were also indicated by 29%. Fourteen percent noted that a “how to get started guide” would be helpful (Figure 6).

DISCUSSION

Laws in each country (and in Canada, each province) have a significant impact on the educational techniques that can be used, such as using live owls and dead specimens in education. In the United States, laws prohibit the public from coming into contact with live birds for the safety of birds and humans, yet none of the respondents in other countries who do allow contact reported any injuries to either. Religious and cultural beliefs may be the reason why using live owls in education is not legal in India or Nepal. Using live owls in education is unregulated in The Netherlands, but the owl working groups there have signed a position statement against the use of live owls in education (pers. obs.)

Many respondents choose to use live owl experiences because they feel they make a significant impression on people. In countries where they can be used, the live owls are often the incentive for people to attend educational programs. In countries with negative cultural attitudes about owls, positive experiences with live owls are a powerful method to help children overcome or avoid developing negative cultural views. Conversely, in countries where owls are allowed to be kept as pets, a person who attends a live owl education program may be so enamored with owls that they then purchase one as a pet, so educators try to discourage keeping owls as pets.

Continental bias is apparent in live owl education. All three Europeans surveyed used captive bred owls exclusively, generally considering it inhumane to use non-releasable birds due to the stress of adjusting to captivity. All other continent use non-releasable wild owls, although some captive bred owls are also used in North America. Educational programs in the United Kingdom include flying owls for nearly the entire program and to a shorter extent in Germany, while owls are held on the glove for all or some of programs elsewhere with little to no flying. This may relate to human-reared owls being easier to train.

None of the respondents reported illness associated with pellet dissection, although pellets have the potential to transmit salmonella (Smith 2005). Proper precautions should be taken when using them for dissection. Carolina Biological Supply Company commercially sells pellets which are heated to 121°C for 4 hours (<https://www.carolina.com/teacher-resources/Interactive/owl-pellets-in-the-classroom-safety-guidelines/tr11086.tr>). Unpublished student research formerly on the University of Arizona’s College of Agriculture and Life Science’s website indicated that microwaving pellets did not kill disease-transmitting bacteria in owl pellets but heating to 163°C for 40 minutes in an oven did.

Key messages conveyed in countries where people have a positive attitude about owls focused on what audience members can do to help owls. Messages in countries where negative cultural views prevail focused on not harming owls and reporting people who do. Few people surveyed conducted follow-up surveys to assess the effectiveness of their educational programs. This is an important way to determine if education methods are effective at communicating key messages.

Although funding can be a challenge, it seems feasible to crate networking opportunities for educators online and to provide current research summaries to support and improve owl educators.

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TABLES (none)

FIGURE CAPTIONS

Figure 1. The number of programs presented each year by respondents and their associated facilities (n=16).

Figure 2. The number of people reached each year by respondents and their associated facilities (n=16).

Figure 3. Age groups reached by each respondent (n=12), by percent. Each column represents one respondent.

Figure 4. How live owls are presented by respondents during their programs (n=9). Each column represents one respondent and the percentage of time during the program the bird is not visible, on the glove, or in flight.

Figure 5. Obstacles to conducting owl education programs. Respondents could select more than one option, and 13 individuals provided responses. The vertical axis indicates the total number of respondents who listed each response.

Figure 6. Respondents (n=14) indicated what would help them be more effective owl educators. Each respondent could report more than one option.

FIGURES

Figure 1

Figure 2

Figure 3.

Figure 4.

Figure 5.

Figure 6.

APPENDIX I

The following is the survey sent to the respondents.

**Owl Education Survey**

*Thank you for taking the time to fill out this survey! Results will be compiled, presented and discussed at the Owl Education Workshop at the World Owl Conference in Évora, Portugal September 26-30, 2017. The end goal is to create a free online resource for owl educators around the world to help foster more effective owl education in various cultural contexts. Please note if you would prefer that some of your answers not be shared publicly, such as specific program ideas.*

**Name:**

**Organization, if any:**

**Country:**

How many years have you been doing owl education?

Do you consider yourself a beginner, intermediate, advanced, or expert owl educator?

Do you have insurance for you educational programs?

Do you have a facility where you do programs?

 Do you have educational displays about owls at your facility?

 What do they focus on?

 What is your most effective display?

 Do you travel to do programs?

Roughly how many owl programs do you (or your facility) do per year?

 For how many people?

What ages do you educate? Give a rough percentage:

 Ages 5 and under:

 Ages 6-12:

 Ages 13-18:

 Adults

 Older adults

Which ages are you able to most effectively educate?

Do people in your country generally have a positive or negative view of owls? If negative, please describe:

Is it legal to use live owls in educational programs in your country?

 Are permits required?

 Are there housing and care regulations?

Do you use live owls in your programs?

 What is your rationale for using live owls in your programs?

 Do you use captive bred owls?

 Do you use owls of wild origin?

 Do you use permanently injured owls?

 Do you use accidental human imprints?

 Do you use owls on display?

 On the fist?

 Flying?

 Do you let people hold the owls?

 Have you had any injuries to humans or owls as a result?

 Do you let people stroke the owls?

 Have you had any injures to humans or owls as a result?

 For what percent of the program do you have a bird on the fist? Flying?

 Do you name your owls?

Why or why not?

Is it legal for private people to have pet owls in your country?

 How common are pet owls in your country?

 Do people who see live owl programs sometimes get pet owls afterwards?

 Do you talk about having pet owls in your programs, and if so, do you discourage it?

Do you use dead owl specimens (mounts, wings, feathers, wings, skulls) in programs?

 Are permits required?

 Do you prepare the specimens yourself?

Do you dissect owl pellets?

 Purchased, or from your own owls?

 If from your own owls, do you heat treat them?

 Have you had any problems with pellet dissection?

If so, please describe.

Do you use real-life stories to help the audience connect to owls?

Do you use other props in owl programs that you find particularly effective? If so, please describe.

Do you use any games or activities in your programs? If so, please briefly describe.

Do you incorporate wild owl experiences into your programming (banding, owl prowls, etc.)? Please list:

Do you keep up with recent owl research? Do you incorporate it into your programs?

Do you do any owl research? Do you involve the public?

Do you do any direct owl conservation? Do you involve the public?

Program content: What major theme(s) do you talk about in your programs? (E.g. cultural views about owls, identification, conservation issues, etc.)

 Do you have more than one type of owl program that you present?

If so, please list your different programs:

What is the “take home” message you are trying to convey?

Do you have a call to action, asking people to do or not do certain things? If so, what is it?

Have you done any surveys or other follow-ups to assess the effectiveness of your take-home message?

 If so, what kind of impact is your education having?

 Can you see the impact of your education without a formal assessment?

On a scale of 1-10, how much do you feel your programs helping to make the world better for owls?

(1 is not at all and 10 is having a huge impact.):

Do you have any obstacles to doing owl education? If so, what are they?

What would help you be a more effective owl educator? *(Delete or add items to the list as appropriate.)*

 Full lesson plans

 Training to care for captive raptors

 Networking with others

 Funding

 Current owl research summaries

 A “How to get started” guide or webinar

Do you have any tips, tricks, or insights you would like to share with other educators that may help them be more effective?

*Please email this survey back to the International Owl Center,* *karla@internationalowlcenter.org**, by May 15, 2017. Thank you for your time and input!*