

Conservation Connections Matter!

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Abstract

Zoos and aquariums play a powerful role in saving species in the wild while educating the public about wildlife and wild places through our ambassador animals. Employees are an integral part in bringing their institution's conservation efforts to the forefront, educating guests and inspiring them to take action to save animals. Recent research has shown that connections to field conservation projects by employees significantly impacts institutional conservation messaging.



Houston Zoo Carnivore Keeper, Angie Pyle connects with the Niassa Carnivore Project in Mozambique and has created an innovative on-grounds educational program in Houston to raise awareness about the decline of wild lions.

Photo courtesy of Dale Martin, Houston Zoo.

Introduction

Zoos and aquariums have come a long way since their inception in the 1800s, when institutions collected and held species in captivity for research, profit and visitor recreation (Turley, 1999). Today, zoos and aquariums are evolving into wildlife preservation and education centers that promote conservation messages through fun, recreational and inspirational experiences (Ballantyne, Packer, Hughes & Dierking, 2007; Falk et al., 2007). This shift in institutional mission and operations began in the late 20th Century in response to dramatically decreasing wildlife populations and habitats, and continues to evolve today (Ballantyne et al., 2007). To remain relevant, zoos and aquariums must maintain financial and cultural investments in conservation, combining enjoyable and educational experiences with conservation work (Rabb, 2004).

Zoos and aquariums have enormous potential to preserve species and habitats globally. Over 700 million people around the world visit zoos and aquariums every year, allowing staff at these institutions to message conservation issues and actions to an enormous population (Gusset & Dick, 2011). Beyond education and outreach, worldwide zoos and aquariums impact conservation financially, spending 350 million US dollars annually to save wild species (Gusset & Dick, 2011). Unfortunately, financial support alone will not suffice in protecting wildlife and wild places.

Human behavior must change for conservation to succeed. Zoos and aquariums are uniquely positioned to create this behavior change among their many visitors.

Zoos and aquariums can change behavior by inspiring and educating guests during their visits (Ballantyne et al., 2007). Using ambassador animals and offering engaging and educational talks have effectively influenced public attitudes about conservation (Ballantyne et al., 2007; Davison, McMahon, Skinner, Horton, & Parks, 1993; Fuhrman & Ladewig, 2008; Hutchins, Smith & Allard, 2003; Swanagan, 2000; Yerke & Burns, 1991). Interactive visitor experiences enhance guests' learning and increase attitudinal change (Moscardo, Ballantyne, & Hughes, 2007).

Research has proven that personal experiences with animals and their caregivers impact conservation knowledge and attitudes measurably (Falk et al., 2007). Zoos' and aquariums' ability to educate large populations about the power of collective action in conservation is most powerful when it involves animal encounters (Packer & Ballantyne, 2010). Further, encounters are more influential when staff integrates meaningful information into visitors' past experiences and the problems they comprehend (Ballantyne, Crabtree, Ham, Hughes & Weiler, 2000; Moscardo, 1999). Zoo and aquarium staff must connect with visitors to successfully deliver conservation messages (Ham & Weiler, 2002). To do that, staff must be knowledgeable and confident about conservation in their own institution to effectively deliver this information to the public. The purpose of this study was to measure the impact (and potential impact) of connections between field conservation projects and zoo and aquarium (zooquaria) employees. It was hypothesized that a connection to a field conservation project by zooquaria employees would improve their work ethic, ability to message conservation issues, passion for wildlife and conservation, passion for current position, and interest in making conservation more apparent in his/her institution.

Materials and Methods

To investigate whether zooquaria employees with direct connections to field conservation are more engaged in their work than those without connections, I developed and employed an online survey (Survey Monkey, 2013). For study purposes, field conservation projects were defined by work to preserve species in the wild. Surveys were distributed through personal emails, social media and university networks. Skip logic allowed for two primary respondent groups (those with and without field connections) to answer questions tailored to their experiences. The survey's 32 questions included open-ended, multiple choice, and Likert-like scale items.



Houston Zoo Facilities Department staff member connects to local sea turtle conservation efforts through installation of awareness signs on local beaches. Photo courtesy Ryan Draper, Houston Zoo.

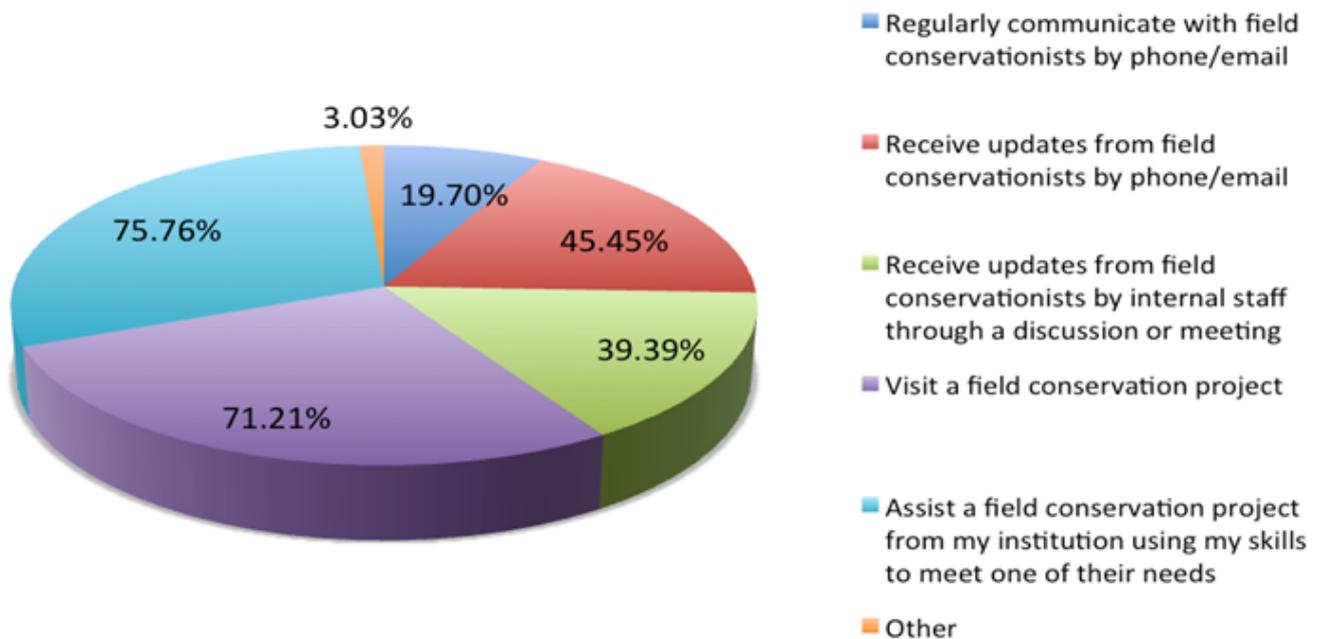
Results

Among 272 total responses: 64.71% of people had connections to field conservation projects and 35.29% of respondents did not. Of the connected staff; 46.32% had visited a field site at least once, 34.56% had continuous communication with a project and had acted to benefit the project/species, and 33.46% had organized or hosted a fundraiser for a project. Zoo employees (72.73%) comprised the majority of respondents, with 21.93% employed by institutions considered both zoos and aquariums and 5.35% employed by aquariums. The prominent accrediting organization Association of Zoos and Aquariums (AZA) oversees 94.09% of zoo and aquarium respondents' institutions. Almost half (48.68%) of respondents had served their institutions for at least 5 years. Animal keeper/curator and education/volunteer staff described the largest respondent populations, but respondents represented over 20 department types. Both subsamples (with and without connections) were asked whether opportunities for conservation project involvement exist at their institutions and whether these opportunities have institutional funding. Out of 192 respondents, 83.33% confirmed that opportunities for involvement exist, and 65.59% of respondents in the following question stated that their institutions fund such activities.

Respondents Without Field Conservation Project Connections

When asked about their desires to connect with projects, 71.05% replied affirmatively. Open-ended responses regarding potential contributions and obstacles to field projects captured qualitatively; 55% mentioned public outreach and education efforts, with time and money posing the biggest obstacles.

Involvement Interest Areas from Non-Connection Respondents (n=66)



Involvement Interest Areas from Non-Connection Respondents (n=66). Participants selected the way(s) in which they would like to become involved with field conservation projects.

Respondents With Field Conservation Project Connections

Of the 272 total respondents taking this survey, 64.71% of people had connections to field conservation projects. Respondents' field connections involved diverse species and geographies including coral reef restoration in Indonesia, Eastern-barred bandicoot recovery in Australia, orangutan conservation in Borneo, and reintroduction of ground squirrels in Idaho. Project sites ranged from North and South America to Africa and Asia.

The majority (85.53%) of respondents connected with field conservation projects through current or previous institutions; 72.37% have visited project sites. The most frequently reported time spent at sites was a few hours and between 1 and 2 weeks. Among those with connections to field projects, 70.73% responded that they had worked additional hours outside of normal responsibilities to facilitate the connection.

Respondents who confirmed connections to field projects were asked whether they were subsequently more excited, passionate and engaged in their work since developing that connection, and 53.66% responded affirmatively. Respondents reported communicating conservation messages more clearly (mentioned in 25% of responses), building broader professional networks (mentioned in 24% of responses), and understanding conservation issues and processes more completely (mentioned in 18% of responses).

Comparison Between Connection and Non-Connection Respondents

Each respondent ranked him or herself on several parameters: work ethic, ability to message conservation issues to the public (including fellow staff and guests), passion for wildlife and conservation, passion for current position, and interest in making institution's conservation efforts more evident. Those with a connection to a field conservation project ranked themselves on these parameters twice, once reflecting their roles prior to connection development and again reflecting time of survey. Ranking choices for each topic included very poor (1), poor (2), fair (3), strong (4), and very strong (5). Averages were calculated for each topic and compared between respondents in two ways. The first comparison was between those without a connection to a project and those with a connection to a field project, and the second comparison was between the retrospective and current rankings for those who have project connections. Paired t-tests were used for each comparison.

Respondents without connections were asked whether a connection would change self-ratings in any of the 5 areas of self-assessment. The most frequent responses to this open-ended question included increase in passion for current job (22% of responses), feeling more involved and/or knowledgeable about conservation (23% of responses), and improved ability to message conservation topics to others (30% of responses).

Impacts of Conservation Connections

Results demonstrate that zooquaria employees' connections to field conservation projects improve their work ethic, ability to message conservation issues, passion for wildlife and conservation, passion for current position, and interest in making conservation more apparent at their institution. Respondents with connections scored themselves significantly higher in these 5 areas compared to their pre-connection self-ratings, and compared to those without connections. Results demonstrate that zooquaria employees with field project connections work additional hours (weekly) to support these efforts and are now more excited, passionate and engaged in their work than they were before developing their conservation link. Drivers for these improvements may include seeing the results of conservation work and how individuals can make a difference. Conservation connections may also help employees build useful professional networks, discuss and message difficult conservation topics, and understand conservation issues and processes more thoroughly.

Most employees with conservation connections formed their relationships through their workplace without visiting the project's field site. Of those employees who did travel to field sites, visits were typically short. This is an important aspect for zoo and aquarium executives to consider when creating more connections between their employees and conservation projects. Connections may not require field site visits, and if they do, extensive visits may not provide additional benefits. Respondents who visited field sites expressed interest in continuing their involvement with conservation projects. Means of continuation included working with other species (locally and abroad); receiving project updates; assisting with photo, video and social media outreach; fundraising; educational efforts; administrative tasks; designing field equipment; visiting the same site or other sites; and connecting their gift shop with conservation projects.

More than half of the employees with conservation connections felt "very strongly connected" to that effort and remain associated with the project through survey administration. Employees with conservation connections described their associations through a variety of means including fundraising, education, outreach, communication, marketing, research, habitat restoration, site visits, animal care and captive breeding. The types of connections employees have to conservation projects are diverse, however all forms are important.

The majority of employees without field project connections expressed the desire to establish them (71.05%). This involvement or connection can take many forms, and field site visits are not required to engage staff. Non-connection respondents were asked to identify desired connections and expressed

interest in assisting projects from their institutions using their skills (75.76%). This subset group felt that they could contribute many skills to a conservation effort including outreach and education, collecting data, conducting fieldwork, providing manual labor, analyzing data, organizing project logistics, and providing knowledge in a specific field. Non-connection respondents felt that a connection to a project would improve their ability to message conservation issues to others (including zoo and aquarium visitors), create more passion for their job, and feel more involved and knowledgeable about conservation in general.

Impeding Factors on Creating Connections

Respondents without connections described time and money as the main barriers to beginning work with a conservation project. Other barriers included lack of transportation, not knowing the correct people, minimal staff to share current job duties, lack of scientific knowledge, family obligations and health issues. If zoos and aquariums are to reap the benefits of having connected employees, they will need to develop a strategy that outlines a plan for these barriers.

Influence of Conservation Connections Beyond Employees

Creating conservation connections between zooquaria employees and field conservation projects is vital for long-term conservation efforts. Perhaps most importantly, field conservation connections can improve staff members' abilities to communicate conservation issues to others. This has far-reaching impacts beyond improving the employees' communication skills, as the guests receiving these messages will also benefit. With deeper understanding and increased excitement about conservation issues, zooquaria employees may have more confidence in their abilities to message conservation issues. Connections with field projects may also promote desire to market institutions' conservation efforts to the public. This is vital as zoos and aquariums work to situate conservation at the forefront of institutional mission and operations (Ballantyne et al., 2007; Falk et al., 2007). Staff interactions with visitors influences their experiences, so staff must tailor their information to meet audiences' needs, curiosities, and knowledge (Dierking et al., 2004; Orams, 1994). Employees in all departments of zoos and aquariums must be willing, able and eager to provide guests with tools to help save species and protect habitats (Ballantyne et al., 2007). By increasing inspiration, knowledge and excitement among staff through field project connections, zooquarias can enhance guest experiences and increase the likelihood that visitors will receive, understand, and internalize conservation messages.

Creating conservation cultures in communities begins internally. Significant effort should go to establish connections between employees and field conservation projects, as the potential benefits are enormous. These connections appear to have very significant impacts on zoo and aquarium employees. Relationships between field conservation projects and staff have the potential to greatly impact visitors, their experiences, and behavior among guests for the benefit of wildlife and wild places.



Houston Zoo Facilities Staff Member Brandon Patterson with Painted Dog Conservation (PDC) Dr. Greg Rasmussen. Brandon became connected to PDC after a site visit to help with construction in Zimbabwe and now assists the project from the Houston Zoo by designing anti-snare radio collars for the dogs. Photo courtesy of Dale Martin, Houston Zoo.

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