For the enjoyment, education, and inspiration of the people: visitor profile, incentives, and information use in Point Reyes National Seashore

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ABSTRACT

Humans not only interact with the environment, but also completely transform it. Even as our species advances, we still utterly depend on ecosystems for food, water, fuel, materials and much more. To preserve these and other services in the face of a growing human population and growing human demands, the National Park System was created to set aside open public spaces for preservation of resources and species. In our democratic society, the continuance of this conservation hinges on people choosing to do so. This study was conducted in Point Reyes National Seashore to gain insight on public perceptions and incentives for visiting. We found that people are traveling from all around the world and where people are coming from significantly impacts incentives for visitation. In addition, distance travelled as well as visitor age had a marked effect on use of park information. Both relationships are integral in future park planning and information dissemination. Understanding the perceptions, incentives, and interactions of visitors serves as a window into the future of conservation of Point Reyes and the natural environment everywhere.

INTRODUCTION

Humans are both apart from nature and a part of nature. If one thing has separated humans from any other species on Earth, it is our ability wall ourselves off and transform the world around us to escape physiological and ecological limits that constrain and confine every other species. However, with all of our advances we cannot move past our dependence on the natural world and other species: food, water, air, reflection, rest and recharge, recreation, and inspiration are all irreplaceable services provided by ecosystems. As our species grows and continues to use natural resources at an increasing rate, the wild places that we depend upon are rapidly decreasing (Wood & Ehui 2005). In a society in which our daily connection to nature is diminishing we can
ill-afford the continued loss of the natural world.

In conjunction with this decrease in natural environments, studies show that people are spending only 89 minutes per day outside and more time encapsulated within distinctly man-made environments (Robinson et al. 2000). Many Americans and Europeans, especially those living within cities, have grown distant from nature to the point that they think they can live without it (Hertsgaard 1999). This is problematic because it has been shown that when humans are disconnected from nature they are less likely to make choices to protect and preserve it (Kals et al. 1999), and with our population growth rates and ecological dominance, ecosystems are only protected by our deliberate choosing. Put simply, the less we care about the preservation of nature, the less nature exists. Therefore, survival of wild places has become dependent upon humans for protection.

National parks in the United States were created with the express intent of setting aside natural areas for the benefit and enjoyment of the public. Since Yellowstone was designated a national park in 1872, the National Park system has grown to include national monuments, marine sanctuaries and more designations over a wide variety of landscape and ecosystem types. The federal government sets aside these landscapes and seascapes and established the National Park Service with the express mission to protect and administer them ‘for the enjoyment, education, and inspiration of this and future generations.’. There is a rich tradition of ecosystem protection in the United States, with the work of the National Park Service broadened and complemented by a tremendous variety and number of non-governmental organizations similarly mandated both here and abroad, but in a democratic society, this only happens and will continue to by the will and choice of the public. When we set aside land for one purpose, we are removing it from use for others. There is not an unlimited amount of land available for everything we want; people’s perceptions of ecosystem preservation in general and of specific protected areas can provide a leading indicator of expansion, stasis, or contraction and loss, and so are critical to gauge and understand as we assess how well national parks are fulfilling their mission and plan for the future of conservation.

We examined the motivations and information use of visitors to Point Reyes National Seashore, and how these vary by characteristics of visitor profile such as geographic origin and age. These data provide a snapshot of how the public values and understands Point Reyes, and a baseline from which to chart potential progress from outreach and education initiatives. We specifically considered the influence that distance travelled and visitor age had on visitation incentives and use of park-sponsored information outlets. Understanding visitation characteristics within national parks is crucial for park planning and management (Neuvonen et al. 2010). More broadly, engaging and including the public in conservation and ecosystem protection is essential to the long-term preservation of resources on which we all ultimately depend.
METHODS

Natural History of the Study System

Our research took place in Point Reyes National Seashore, a unit of the National Park Service along the coast of California north of San Francisco. With a rich history of ranching and abundant wildlife, Point Reyes came under threat of extensive logging and residential development in the 1950s and so was proposed for protection as a seashore park within the National Park Service. The peninsula and surrounding lands, over 21,000 hectares of dunes, wetlands, chaparral, rocky beaches, coastal prairie, Douglas fir and Bishop pine forests, were formally designated for protection in 1962, with more than 7,000 hectares allocated for continuation of ranching on the landscapes.

The geology, soils, and climate of Point Reyes produce a highly-varied landscape that hosts over 45% of North American bird species and nearly 18% of California’s plant species. In addition, thirty-eight threatened and endangered species exist within the seashore. The diversity in landscape types, flora, and fauna brings over two million visitors to the park each year to engage in various recreational activities, sightseeing, and nature appreciation. Popular destinations within the park include the lighthouse, which sits on an isolated tip of the Point Reyes peninsula, as well as Limantour Beach and Drake’s Beach, which both sit protected within Drake’s Bay. Also popular is the new Bear Valley Visitor’s Center encountered when first entering the park.

Research Design

Four sites were selected around Point Reyes to coincide with popular tourist destinations and maximize the coverage and expected variety of visitors that we surveyed. We selected the sites based on different reasons for visitation and varying levels of accessibility (Figure 1). Limantour Beach takes an extended time to reach by car, while Bear Valley Visitor center is easily accessible located right off the main entrance to the park. The two other sites, Drake’s Beach and the Point Reyes Lighthouse, are equally accessible while offering the public independent attractions. Each of the four sites was visited twice, once during the week and once over the weekend.
We set up a large sign clearly labeled *University of California-Point Reyes Visitor Survey* in front of the main entrance of each site. For each person that walked by, we asked whether they would be willing to take a short informal survey to assist with an undergraduate research project. Each visitor who agreed to be surveyed was asked five questions in order:

- Where are you from?
- What is the duration of your stay?
- What brings you to the Park?
- Have you used the park website, the visitor’s center, or the kiosks for information about the park?
- Among these four animals which do you most closely associate with the park: whales, elephant seals, spotted owls, or Tule elk?

Each interviewee was further categorized into one of four age classifications, young adult (18-30), adult (30-65), and Senior (65+), and family (adult or senior with youth) by appearance. All four research team members worked together at each site until forty total surveys were completed.

*Statistical Analysis*

After surveying at the four locations within Point Reyes, the data was organized and refined. We binned points of origin into regional categories (local, California resident, national, and international) as a proxy to convey distance traveled to the park. We used Chi Square to analyze the effect of distance travelled on visitation on weekends versus weekdays, site visitation, visitation incentives, and age, for insights concerning our larger question; Do visitor’s incentives vary by distance travelled. We also analyzed park information usage by comparing distance travelled and age on the use of park kiosks, visitor’s center, and website, by conducting chi-square analyses.

**RESULTS**

Across all sites, 328 total surveys were administered. A Chi-Square test showed significant variation in weekend vs. weekday visitation by distance travelled (n = 328, $\chi^2 = 18.573, P < 0.0001$, Figure 2), with higher weekend use among California residents and higher weekday use among out-of-state travelers.

![Figure 2: Weekday and weekend visitation from California and out-of-state residents.](image)

Data represent the proportions of California versus out-of-state residents visiting on weekends (blue) and weekdays (red).

Additionally, site visitation within Point Reyes varied significantly between in-state and out-of-state visitors (n = 328, $\chi^2 = 50.681, P < 0.0001$, Figure 3). The Lighthouse, in particular, was a
disproportionately common destination for out-of-state visitors, while showing no increased popularity relative to other park destinations for in-state visitors.

Figure 3. Park destinations and visitor origin. Data represent proportions of California versus out-of-state residents encountered at the Lighthouse (blue), Drake’s Beach (red), Limantour Beach (green) and the Visitor Center (purple). Note higher Lighthouse visitation by out-of-state visitors and higher beach visitation by in-state visitors.

We conducted chi-square tests to analyze visitor utilization of park-sponsored information outlets by distance travelled and visitor age. Distance travelled had marginally significant effects on website use (n = 328, $\chi^2 = 6.593, P > 0.05$) and visitor center use (n = 328, $\chi^2 = 6.59, P > 0.05$) and no significant effect on kiosk use (n = 328, $\chi^2 = 3.328, p>0.1$). Distance travelled correlated significantly with whether visitors use any park information sources at all (n = 328, $\chi^2 = 8.182, P < 0.05$, Figure 4) with locals and national visitors more likely to use information and California and international visitors less likely to do so.

Figure 4. Information use by visitor origin. Visitors coming in from surrounding counties (Local) and out-of-state (National) were more likely to use park information sources than visitors coming in from the rest of California or internationally.

Distance traveled explained highly significant variation in incentives behind visitation (Figs. 5 and 6). Locals expressed much lower interest in sightseeing than visitors coming in from further afield (Fig. 5) and much greater interest in recreation (Fig. 6).

Figure 5. Sightseeing incentive by visitor origin. Locals expressed little interest in sightseeing while almost half of national visitors were interested in sightseeing (n = 328, $\chi^2 = 36.739, P < 0.0001$).
DISCUSSION

People travel from all over the world to experience national parks, and where they come from influences their incentives for visiting the park. Our results indicate that the region from which people travel often shapes the reason for their visit. People traveling from overseas or from different states are more incentivized to come to the park for sightseeing, while locals tailor their experience more towards recreation (Figure 5, Figure 6). Destinations such as the lighthouse are a much larger draw for out of state visitors than those traveling from within California. Of the 93 visitors surveyed at the lighthouse, none were local residents. Studies have shown that parks providing a wide range of features are better suited to attract potential visitors (Neuvonen et al. 2010). This demonstrates that parks with a diversity of characteristics such as sightseeing and recreation based attractions will bring in visitors from a wider area. Attracting a large base of visitors is essential to building societal support and achieving conservation goals (Moyle et al. 2017). The results surrounding visitor incentives are intuitive and integral to park planning and information outreach. Increasing visitation for the mutual benefit of the park, and its visitors, begins with the effective dissemination of information pertaining to captivating park features and characteristics.

Park-provided information services play a pivotal role in both bringing visitors to the park and facilitating their experiences once arrived. Results indicate that California residents and international visitors are less likely to use park information resources in
comparison to those visiting from other states. One contributing factor may be the inaccessibility of park information to foreign visitors. All resource center information, signage, and website content is displayed in English. Language differences may present a barrier to international visitor interaction with park resources (Figure 5). Studies have shown that information outreach to potential park patrons can be influential in conservation and planning efforts (Brown & Reed 2009). The majority of visitors traveling shorter distances within California do not utilize park information resources. This may be due to the regional visitor’s familiarity with the park and the lack of updated resources. Also, California visitors are far more likely to frequent the park for recreational activities. Availability of recreational activities is a major factor in drawing visitors into the park (Moyle et al. 2017). Providing additional information on the many recreational activities offered by the park could increase park attendance across visitors of all backgrounds.

The continuation of this study is essential for accumulating a greater diversity of visitor information. Seasonality is likely to have a substantial impact on both incentives for visitation and where people are visiting from. Future surveys would be of great benefit to the Parks Service by narrowing the focus to specific departmental challenges. Due to the subdivided nature of the National Parks Service, general surveys do not provide enough specificity for department heads to effectively utilize the information. The future of this project is contingent on researchers understanding specific departmental needs. Gathering relevant information is critical for promoting public engagement in conservation management. This cooperative effort will be integral to achieving the parks goal of prioritizing community participation in the management process.

Humans are an essential component to the continued preservation of the natural world. The conversation surrounding conservation has shifted in recent years to include humans in the ecosystem. Conservation has also shifted towards a more inclusive community centered approach and away from the exclusionary expert based model of the past (Berkes 2004). The engagement of community members and multiple stakeholders in the land management decision-making process is key to the future successes of conservation efforts. National parks rely on the community and society at large more than ever, as visitation and funding are the lifeblood of the national parks design. The continuation and expansion of the dialogue between park management and park patrons will facilitate visitor experiences for generations to come.

REFERENCES


