

Chapter 13: Connecting Latinos With Nature

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Abstract

Experts around the world have identified ecosystem services that benefit humans. Ecosystem services provided by natural areas include cultural (such as providing outdoor recreation locations) and regulating (such as protecting water quality) services. It is important to understand both public perceptions about the importance of particular ecosystem services and the availability of natural areas to provide these ecosystem services. This study of Latino recreationists to Forest Service day use sites in two canyons in southern California examined these perceptions. These Latino respondents strongly agreed with the importance of managing natural areas for several of the cultural services items and almost all of the regulating services items. In order of importance, they felt it was most important to manage natural areas for regulating services such as protection of water quality, protection of wildlife, improved air quality, and protection of plants, as well as cultural services such as swimming, visitor safety, camping, day hiking, picnicking at developed sites, scenic values, stream play, and watching wildlife. The Latino respondents also felt that more areas needed to be set aside for particular regulating and cultural services. In order of most needed, these included protection of water quality, protection of wildlife, improved air quality, and protection of plants, as well as visitor safety, watching wildlife, swimming, camping, picnicking in developed sites, scenic values, stream play, and educational purposes.

Keywords: Outdoor recreation, Latino, ecosystem services.

Introduction

Ecosystem services is a term used to describe the benefits to people from natural areas (Millennium Ecosystem Assessment 2005). Services to humans can range from food production to water purification to aesthetics. The Millennium Ecosystem Assessment (MEA) was initiated in 2001 to assess the consequences of ecosystem change for human well-being and the scientific basis for actions needed to enhance the conservation and sustainable use of those systems. The assessment involved more than 1,300 experts worldwide. Key messages from the assessment (2005) included the following:

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- Everyone in the world depends on nature and ecosystem services to provide the conditions for a decent, healthy, and secure life.
- Humans have made unprecedented changes to ecosystems in recent decades to meet growing demands for food, fresh water, fiber, and energy. But at the same time, they weakened nature's ability to deliver other key services such as preservation of air and water, protection from disasters, and the provision of medicines.
- Pressures on ecosystems will increase globally in coming decades unless human attitudes and actions change. Measures to conserve natural resources are more likely to succeed if local communities are given ownership of them, share the benefits, and are involved in decisions.

Ecosystem services can be categorized as cultural services (such as providing outdoor recreation locations), regulating services (such as protecting water quality), provisioning services (such as timber for houses and paper), and supporting services (such as nutrient cycling) (see fig. 13-1). These services are important because they are linked to human well-being (MEA 2005). In particular, the items in the top of the figure are linked to security (personal safety, secure resource access, security from disasters), basic material for a good life (adequate livelihoods, sufficient nutritious food, shelter, access to goods), health (strength, feeling well, access to clean air and water), and good social relations (social cohesion, mutual respect, ability to help others). These all contribute to freedom of choice and action.

It is unclear how familiar urban residents are with the ecosystem services provided by natural areas. Research conducted in southern California addressed beliefs about natural areas and how those areas should be managed. The original study included all visitors to the research sites although this chapter includes only the Latino visitors. Objectives of the study were to understand human connections to public lands (e.g., do they spend a lot of time or little time in natural settings, such as woods, mountains, desert, lakes, ocean), their perceptions about how natural areas ought to be managed (e.g., for long-term study of the relationships between weather, fire patterns, plants, animals, and soils or open to outdoor recreation opportunities), and their perceptions about whether there are currently enough natural areas set aside for particular purposes (such as for camping or for the protection of wildlife). Latino respondents were chosen because they are the largest and fastest growing population in California as well as in other states. There are approximately 12 million Latinos in California (about a third of the population); by 2025 this is expected to grow to 21 million people (about 40 percent of the population) (Smith 2004). Knowing their opinions and beliefs is essential to serving and providing information to Latinos about ecosystem services.

Ecosystem Services		
Provisioning	Regulating	Cultural
Food	Climate regulation	Aesthetic
Fresh water	Flood regulation	Spiritual
Wood and fiber	Disease regulation	Educational
Fuel	Water purification	Recreational
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	Supporting	
	Nutrient cycling	
	Soil formation	
	Primary production	

Figure 13-1—Ecosystem services components.

Methods

A self-administered survey was provided to recreation visitors at day use sites on the San Antonio and San Gabriel Canyons on the Angeles National Forest in southern California in summer 2005. Both canyons are within an hour’s drive of more than 10 million people. Survey instruments were available in English and Spanish. Respondents (n = 509) filled out the surveys onsite and returned them to data collection team members. Response rate was 56 percent. Data were entered, coded, and analyzed using SPSS. From these data, we separated Latinos (n = 301) from other respondents in order to assess the opinions of Latinos.

Particular items in the instrument measured two components of ecosystem services. Most items measured the “cultural” component given their focus on recreational opportunities (such as camping) (see table 13-1 for list of items). Five items measured “regulating” services (such as improved air quality). This list of items was used in two sets of questions. The first set of questions asked how important it is to manage natural areas for each item (5-point Likert-type scale; a score of 1 meant that respondents strongly disagreed with importance whereas 5 meant they strongly agreed with importance), and the other asked if there are enough natural areas available within this urban landscape for each purpose (3-point Likert-type scale; a score of -1 meant fewer areas were needed and a score of 1 meant more areas were needed).

Results

Demographic Measures

The majority of Latino respondents were male (62 percent). The Latino respondents averaged 33 years of age (n = 286; SD = 9.9). Most of the Latinos spoke Spanish as

their primary language (48 percent). Others spoke English (23 percent) or both English and Spanish (24 percent). Nearly half of the Latinos read Spanish (48 percent). Others read English (29 percent) or both English and Spanish (18 percent).

Group Characteristics, Use Levels, and Activities

Most Latino respondents were recreating with family (74 percent) and/or friends (44 percent). Less than 5 percent were recreating alone or were with an organized group. Most groups stayed 4 or more hours (34 percent planned to stay 4 to 6 hours, and 33 percent planned to stay more than 6 hours) at the day use sites. More than two-thirds were repeat visitors to the sites (68 percent), and more than three-quarters planned to return to the day use sites within the next year (82 percent). More than one-third visited other natural area sites within the past year (36 percent). The most frequently mentioned activities participated in while on the visit included picnicking (56 percent), swimming/wading (36 percent), hiking (27 percent), camping (27 percent), spending time in camp (27 percent), photography (19 percent), fishing (15 percent), nature study (13 percent), and rock climbing (13 percent). About half spent a lot of time in natural settings (46 percent), and half (51 percent) said they think of themselves as part of nature, not separate from it.

Ecosystem Services

Respondents were told that the Forest Service manages public lands, including natural areas that are set aside for various purposes. For each item on a list (some were cultural services and others were regulating services) they were asked how much they agreed or disagreed that it is important to manage natural areas for that particular item. They were also asked to think about each item and indicate if more areas are needed for that purpose, if there is the right amount set aside now, or if there are too many areas set aside for that purpose.

Cultural services—

For this survey the MEA (2005) component focused mostly on recreational opportunities (see table 13-1 for full list of items). The items the Latinos considered most important (ranked from 1 = strongly disagreed with importance to 5 = strongly agreed with importance) to manage natural areas for are these: swimming (4.6), visitor safety (4.6), camping (4.5), day hiking (4.5), picnicking at developed sites (4.5), scenic value (4.5), stream play (4.5), and watching wildlife (4.5) (see table 13-1). Similarly, respondents reported more areas need to be set aside for visitor safety (0.8), watching wildlife (0.8), swimming (0.7), camping (0.7), picnicking at developed sites (0.7), scenic value (0.7), stream play (0.7), but also educational purposes (0.7) (ranked on scale of -1 = fewer areas needed and 1 = more areas needed).

Table 13-1—Average scores on ecosystem services component measures of cultural services and regulating services by the importance of managing areas and the availability of natural areas

Service	Importance for managing area ^a		Natural areas available ^b	
	Mean	Number	Mean	Number
Cultural:				
Camping	4.5	272	0.7	267
Day hiking	4.5	269	.6	239
Educational purposes	4.4	267	.7	245
Fishing	4.1	251	.5	244
Horseback riding	4.0	255	.4	232
Mountain bike riding	4.0	261	.5	240
Picnicking at developed sites	4.5	278	.7	263
Scenic value	4.5	264	.7	256
Sightseeing	4.3	262	.6	239
Snow play	4.4	266	.6	248
Stream play	4.5	275	.7	262
Swimming	4.6	275	.7	268
Visitor safety	4.6	283	.8	265
Watching wildlife	4.5	275	.8	269
Off-highway vehicle riding	3.6	246	.3	238
Regulating:				
Improved air quality	4.5	268	.8	245
Long-term biological studies	4.2	250	.6	233
Protection of plants	4.5	285	.8	268
Protection of water quality	4.6	283	.8	271
Protection of wildlife	4.6	277	.8	269

^a Rated on a scale of 1 to 5, where 1 = strongly disagree with importance and 5 = strongly agree with importance.

^b Rated on a scale of -1, where -1 = less areas needed and 1 = more areas needed.

Regulating services—

For this survey the MEA (2005) component focused mostly on natural resource protection (see table 13-1 for full list of items). The items considered most important to manage natural areas for are protection of water quality (4.6), protection of wildlife (4.6), improved air quality (4.5), and protection of plants (4.5). Similarly, respondents reported the need for more areas set aside for protection of water quality (0.8), protection of wildlife (0.8), improved air quality (0.8), and protection of plants (0.8).

Conclusions

Experts around the world have identified ecosystem services that benefit humans (MEA 2005). These ecosystem services are provided by natural areas, such as those managed by the Forest Service. It is important to understand both public perceptions about the importance of particular ecosystem services and their perceptions

In order of importance, they felt it was most important to manage natural areas for regulating services such as protection of water quality, protection of wildlife, improved air quality, and protection of plants, as well as cultural services such as swimming, visitor safety, camping, day hiking, picnicking at developed sites, scenic values, stream play, and watching wildlife.

about the availability of natural areas to provide these ecosystem services. This study of Latino recreationists to Forest Service day use sites in two canyons in southern California examined these perceptions.

The Latino respondents were mostly repeat visitors to these sites who had also been to other recreation sites in the last year and had plans to visit these canyons again within the next year. A majority of respondents said they spent a lot of time in natural settings.

These Latino respondents strongly agreed with the importance of managing natural areas for several of the cultural services items and almost all of the regulating services items. In order of importance, they felt it was most important to manage natural areas for regulating services such as protection of water quality, protection of wildlife, improved air quality, and protection of plants, as well as cultural services such as swimming, visitor safety, camping, day hiking, picnicking at developed sites, scenic values, stream play, and watching wildlife.

The Latino respondents also felt that more areas need to be set aside for particular regulating and cultural services. In order of most needed, these included protection of water quality, protection of wildlife, improved air quality, and protection of plants, as well as visitor safety, watching wildlife, swimming, camping, picnicking in developed sites, scenic values, stream play, and educational purposes.

Although these services were not defined as “cultural” or “regulatory” to the Latino respondents, the results suggest that the ecosystem services provided in natural areas resonate with them. Therefore, managers of these natural areas in southern California might want to consider communication and educational programs focusing on describing the benefits to Latinos from natural areas, especially emphasizing regulating and cultural services. It might be an opportunity to increase knowledge levels about what natural areas do for people. Awareness can lead to an informed public and protected natural areas.

Literature Cited

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