



Recreation Research Update



Pacific Southwest Research Station
Wildland Recreation and Urban Cultures

January 2006 No. 55
Caring for the Land and Serving People

The Recreation Research Update will be available in *Electronic Format Only* beginning with the April 2006 issue

This issue will be the last printed issue; all future issues will only be available electronically on our website and by e-mail if requested. If you would like to receive future issues by e-mail send an e-mail message to: **RecreationResearchUpdate@fs.fed.us** and, in the Subject of your message, put the words SUBSCRIBE UPDATE. You will receive a confirmation note. As always, please rest assured that the Unit will never sell or share your e-mail address or any of your personal information with any outside source.

Geocaching: Attitudes and Behaviors of Organization Members in Michigan

Geocaching, “geo” for geography and “caching” for the process of hiding a cache (*examples of caches are pictured*), involves individuals setting up caches all over the world and sharing the location coordinates on the Internet so that others may search for the cache with a GPS (global positioning system). Initiated spring 2000 outside Portland, Oregon, today people in 213 countries participate in this sport. In just four years more than 138,000 caches have been hidden to engage more than 100,000 participants worldwide. The behavioral aspects of the sport are the focus of this work.

An electronic message contacted 480 geocachers in Michigan and invited them to participate in a questionnaire regarding geocaching. The survey instrument



focused on a variety of areas, including environmentally responsible attitudes and behaviors. The sample consisted

of Michigan Geocaching Organization members. Responses were received from 250 geocachers (52% response rate). Survey respondents were mainly white (97%), men (72%), 43.5 years old, with some college

education. Most respondents were employed fulltime (74%).

Respondents were relatively new to the activity, in that most respondents (46%) had 1 – 2 years of geocaching experience. Many respondents (41%) engaged in finding rather than hiding caches, though 55% of the respondents had hidden at least one cache within a 10-month period. At least 80 percent of respondents agreed important or very important experience components were to experience



nature, get away from the usual demands of life, get physical exercise, and test their skills. Geocaching has increased the number of visits to parks and recreation areas for more than 80% of the respondents. These areas include city parks, county parks, State parks, and federal parks and outdoor areas. About half of the respondents were willing to travel 50 miles or less (one way) to find a cache, although another third were willing to travel 100 miles or more.

About one-quarter of the respondents said they always ‘cache in – trash out’, a behavior encouraged by their national organization. More than half of the respondents strongly agreed that “it is mostly up to me whether I cache in – trash out” and “most people who are important to me would approve of my caching in – trashing out”. Nine in ten respondents said it was very important to pack out everything you bring into an area. Thus, strongly environmentally responsible attitudes and behaviors appear to exist within this group.

This empirical examination of participants in this emerging activity indicates an increased use of public lands by geocachers, but strong environmentally responsible attitudes and intended behaviors. The data also indicate a strong belief in not contributing to littering, and moderate interest in cleaning up after other people. This desire to keep public lands clean and natural looking for future visitors is an area that managers can emphasize in partnership with geocaching organizations. *For more information about this study contact Debbie Chavez at 951-680-1558 or dchavez@fs.fed.us.*

Recreationists' Preferences for T & E Species Management

Recreationists' preferences for threatened and endangered (T & E) species management were presented in a report completed in 2005. Respondents (n=298) were recreating at day use areas and campgrounds on three southern California National forests (Angeles, Cleveland, and San Bernardino) when they were contacted for this onsite survey.

When presented with three attitudinal statements regarding T & E species, most (64.5%) agreed that "We probably have to let some species go, we cannot save them all." More than one-fourth (30.1%) indicated that "We must preserve all species regardless of cost" best represented their opinion. Only a few (5.3%) selected "Economic growth and human concerns must come first."

Respondents expressed a fairly high level of trust in the Forest Service's efforts to address T & E species problems on the forest (average of 5.9 on the 1 to 7 scale, 1=do not trust at all, 7=trust completely). They also indicated that the agency's actions are typically consistent with their own values. Respondents seemed unsure as to whether or not agency decisions or actions inconsistent with those values might be justified.

Ratings representing the average of approval and effectiveness of various management interventions to protect T & E species were gathered. Four of the five interventions were rated favorably (signs in recreation settings, banning mechanically-dependent uses, partial closures of areas, and closures of whole picnic areas or campgrounds for a year or longer). However, banning of some recreation uses and not others was rated less favorably. Similar preferences have been found before in other inquiries, indicating that selective exclusion of some recreational uses, other than OHVs/ATVs, was not viewed favorably.

Two versions of the survey were developed with the difference being the type of species that respondents were to consider when rating the management interventions. Half of the respondents considered the Arroyo southwestern toad (*pictured above*) and the California red-legged frog (Riparian species version). The remaining half of the respondents were asked to consider the thread-leaved Brodiaea



(*pictured below*) and Munz's onion (Plant species version). Color pictures of these species were included in the surveys and the versions were randomly assigned. No statistically significant differences were found by survey version.



Between 37 and 54 percent of the variance in the ratings of interventions was accounted for by perceived personal impact of the intervention (the most influential of our predictors), concern about T & E species, trust and similar salient values, future orientation, and education.

Responses were most likely influenced by the types of recreational uses respondents typically engaged in, particularly regarding the ratings on bans of mechanically dependent uses. Based on our findings we suggest that managers direct communication, education, and participation efforts towards illuminating the perceived and actual impacts of management interventions on the recreating public. *For more information about this study contact Pat Winter at 951-680-1557 or pwinter@fs.fed.us.*

Change in Leadership

To streamline accountability and enhance effectiveness, the Project Leadership for the Wildland Recreation and Urban Cultures Research Work Unit of the Pacific Southwest Research Station has been reassigned to Debbie Chavez. This is a change from co-leadership in the past eight years.

Unit Publications

Tracey, M.D. **Crafting persuasive pro-environment messages.** *Monitor on Psychology* 36, 10, 9, 44-46.

Winter, P.L. 2005. **What is the Best Wording to Use on Signs? The Impact of Normative Message Types on Off-Trail Hiking.** Unpublished report. Riverside, CA: Pacific Southwest Research Station, Forest Service, U. S. Department of Agriculture.

Winter, P.L.; Chavez, D.J.; Absher, J. 2005. **No Time for Recreation.** *Wildfire Magazine*. September/October; 16-19.