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Outdoor Recreation in the First Decade¹

A Research Brief in the IRIS Series²

December, 2011

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² The Internet Research Information Series (IRIS) is an internet accessible science report series covering outdoor recreation statistics (RECSTATS), natural lands research (NATLAND) and other human-dimension and demographics research (DEMOSTATS) related to natural resources. This research is a collaborative effort between the USDA Forest Service's Southern Research Station and its Forestry Sciences Laboratory in Athens, Georgia; the University of Georgia in Athens; and the University of Tennessee in Knoxville, Tennessee. <http://warnell.forestry.uga.edu/nrrt/nsre/IrisReports.html>

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The 2010 Renewable Resources Planning Act (RPA) Assessment is the U.S. Forest Service's long-range examination of natural resource trends and futures. The 2010 RPA Assessment includes separate reports for forests, rangelands, water, wildlife, and a number of other resources and their uses. One of the uses included is outdoor recreation. The outdoor recreation assessment analyzes both the demand for and supply of outdoor recreation opportunities.

This IRIS Research Brief summarizes the 2010 RPA Assessment findings on trends in outdoor recreation as measured by population-wide total days of participation in different types of outdoor activities (Cordell forthcoming). The measure used is "activity days", which is participation in specific recreation activities for any amount of time on a single calendar day. An individual may participate in more than one activity during that day and each such event is counted separately. An example is an individual participating in trail hiking, during which the individual also does some nature photography. Total annual days are calculated by summing across all who participated in the activities being studied.

Data and Types of Recreation Activity

The primary source of data for the RPA recreation demand assessment was the National Survey on Recreation and the Environment (NSRE). This is an ongoing general population telephone survey conducted by the Forest Service and University of Tennessee starting in 1999. Respondents age 16 and older were asked to identify activities in which they had participated in during the past year and the number of days on which they had participated. We grouped activities into composites based on similarities in either setting or primary focus. For example, the activities in the composite "visiting recreation and historic sites" were grouped because the setting is designated recreation sites. Seven activity composites were defined:

- Visiting recreation and historic sites—family gatherings, picnicking, visiting the beach, visiting historic or prehistoric sites, and camping.
- Viewing/photographing nature—view/photograph birds, natural scenery, other wildlife (besides birds), and wildflowers, trees, etc.
- Backcountry activities—backpacking, day hiking, horseback riding on trails, mountain climbing, and visiting a wilderness or primitive area.

- **Motorized activities**—motorboating, off-highway vehicle driving, snowmobiling, using personal watercraft, and waterskiing.
- **Hunting and fishing**—salt to fresh water migratory fishing (e.g., salmon), coldwater fishing, warmwater fishing, saltwater fishing, big game hunting, small game hunting, and migratory bird hunting.
- **Non-motor boating**—canoeing, kayaking, rafting, rowing, and sailing.
- **Snow skiing and snowboarding**—cross-country skiing, downhill skiing, and snowboarding.

For each of the above composites of similar activities, we calculated 3-year moving averages of the total annual activity days across the inclusive activities. A moving average smooths out year by year fluctuation that could be caused by factors such as unusual weather or gas prices. We indexed the moving average total number of days to highlight the increase or decrease that occurred from the base year 2000 (the index = 0 for 2000). Trend lines are shown in Figure 1.

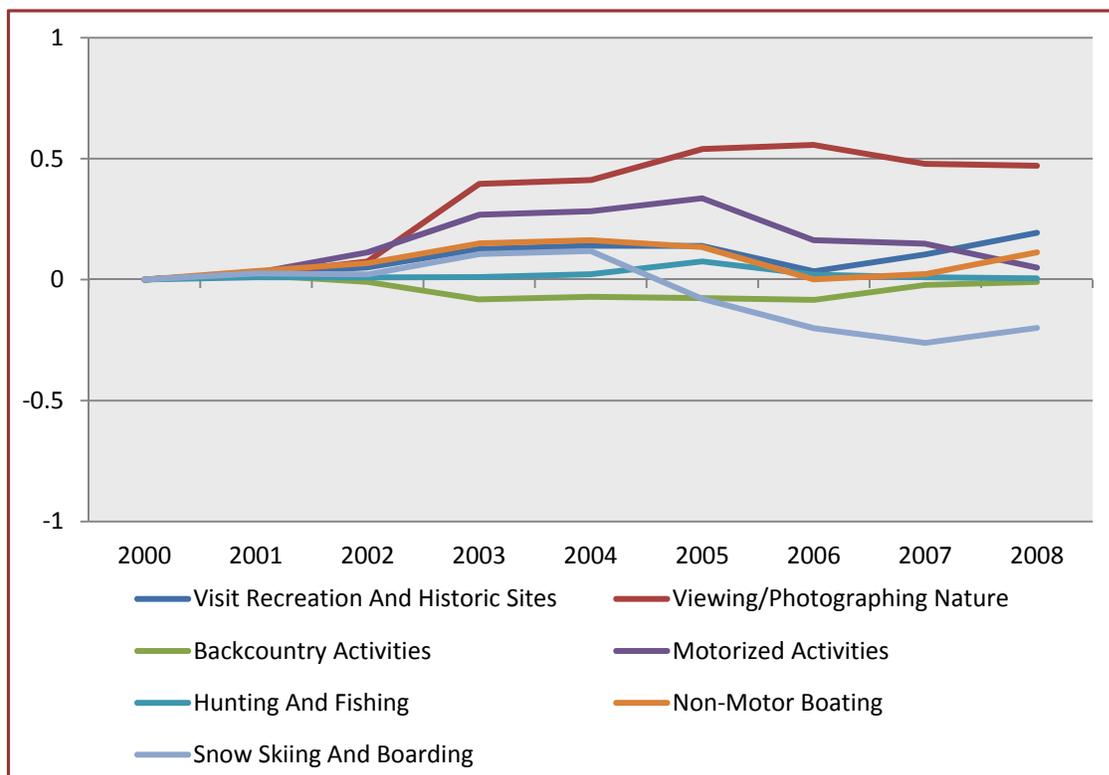


Figure 1—Trend lines for seven composites of nature-based outdoor recreation activities for year 2000 to 2008. Note: The 3-year moving average is computed as the annual average of the sum of total activity days across the span of 3 years. This average is applied to the middle of the three years averaged and shown in the line graphs relative to base year 2000. For example, for 2001, the totals for years 2000, 2001, and 2002 are summed, divided by 3, and applied to 2001.

The patterns shown in Figure 1 reflect the cumulative effects of year to year levels of participation in the individual activities that make up the activity composite identified earlier. While motorized activities showed growth up to about 2005, these activities, along with hunting and fishing, and backcountry activities, ended up toward the end of this decade at about the same level of total participation days as in 2000. Non-motor boating grew modestly, and visiting recreation and historic sites grew at a slightly higher rate. Various forms of skiing, including snowboarding, declined during this decade. The clear leader in growth of total annual days was the overall group of activities named “viewing and photographing nature.” (Moving average line graphs for the individual activities in each activity group appear in the RPA demand report.) The emergence of viewing and learning activities as a leading form of outdoor recreation was a key finding of the RPA recreation demand assessment.



Birding at Red Slough Wildlife Management Area on the Ouachita National Forest in Oklahoma. Photographs by David Arbour.

Reference

Cordell, H. Ken. (2012). Outdoor recreation trends and futures: a technical document supporting the Forest Service 2010 RPA Assessment. Gen. Tech. Rep. SRS-150. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 167 p.