



“Greatest Good for 21st Century America”



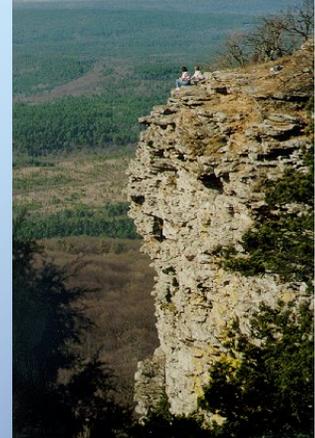
Pioneering Recreation Trends Research, RWU-4953

Athens, Georgia

On the University of Georgia Campus

Renewable Resources Planning Act Assessment

<http://warnell.forestry.uga.edu/nrrt/nsre/>



Research on outdoor recreation became a significant component of Forest Service research as research staffs were established in SE, NE, NC, INT, RM, and PNW in the late 1960s and 1970s.



RECREATION SYMPOSIUM PROCEEDINGS

Planned and Presented by:
U.S. Department of Agriculture,
Forest Service and
State University of New York
College of Forestry
in Conjunction with
The Pinchot Institute for
Environmental Forestry Research:
Consortium for Environmental
Forestry Studies



NORTHEASTERN FOREST EXPERIMENT STATION
FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE
UPPER DARBY, PA. 1971
WARREN T. DOOLITTLE, DIRECTOR

Our Research Mission (April 2008)



Provide up-to-date, science-based information on national trends in public demands, perceptions, and benefits of nature-based outdoor recreation and describe how broad-scale demographic and other social shifts will affect these demands.....

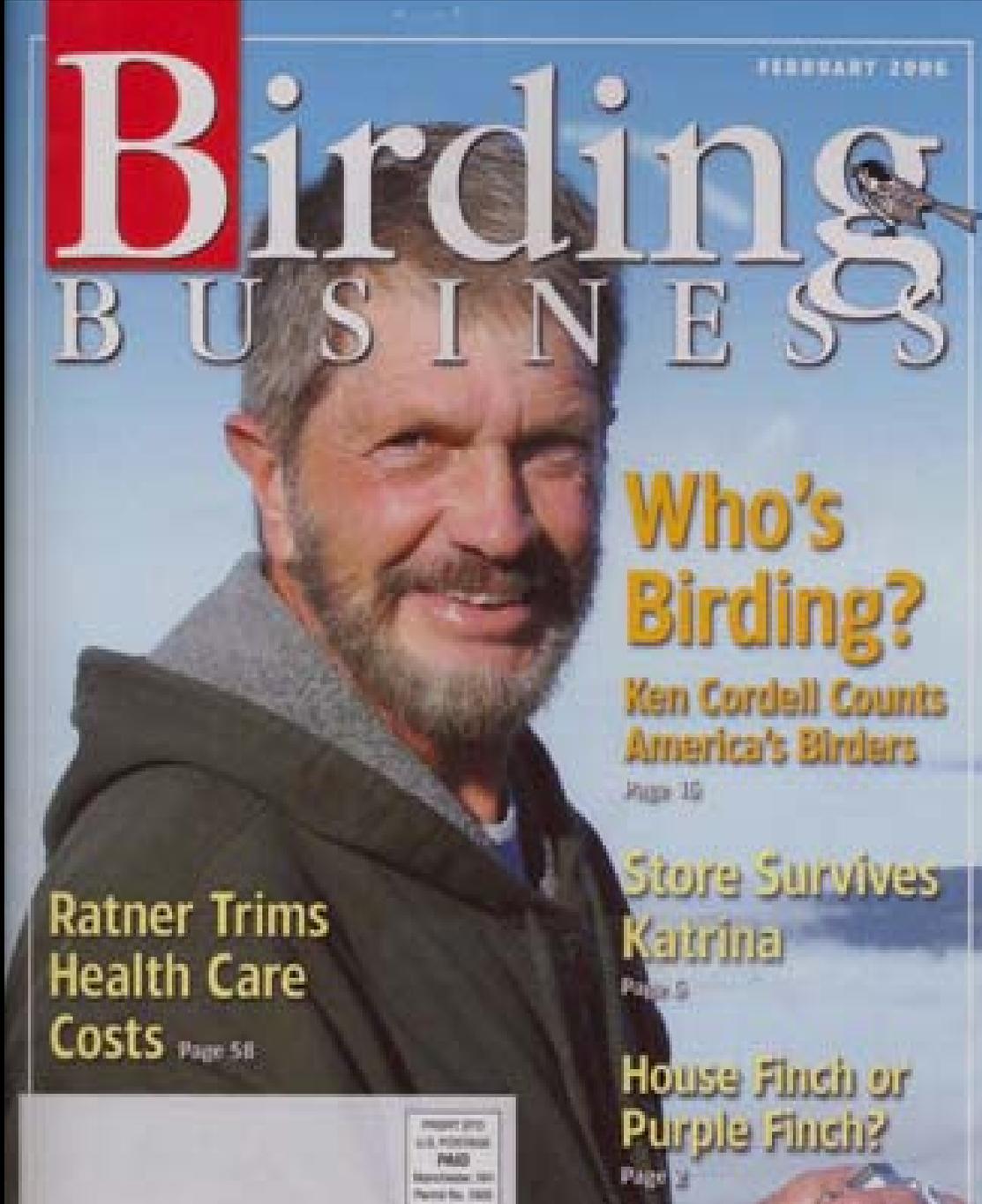
Primary Methods of Research

- National and regional **surveys of households** and of on-site visitors, especially studies of recreation that occurs on **public lands**
- **Broad-scale** (region-wide and country-wide) assessments of societal and natural resources trends
- Looking across a broad **array of data sources** and information, including the popular press and political discussions

Birding

FEBRUARY 2006

BUSINESS



**Ratner Trims
Health Care
Costs** Page 51

**Who's
Birding?**

**Ken Cordell Counts
America's Birders**

Page 16

**Store Survives
Katrina**

Page 9

**House Finch or
Purple Finch?**

Page 2

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Trends in Nature-Based Outdoor Recreation

- Review of a recent paper that concluded **Americans' interests in nature-based recreation** is declining. **(Is it?)**
- **IS IT DECLINING?** Let's take a closer look at trends in nature-based outdoor recreation
 - State park, national park, and wildlife refuge visitation
 - Results from the Fishing, Hunting and Wildlife-Associated Survey (FHWAR)
 - **NEW** results from the National KIDS Outdoors Survey
 - Results from the current National Survey on Recreation and the Environment (NSRE)
- An update on NSRE and RPA---if time allows



Sharp Top Mountain, VA, USA

Web Site

<http://warnell.forestry.uga.edu/nrrt/nsre/>

Topic 1.--“Evidence for a fundamental shift away from Nature-based recreation” a paper published in the Proceedings of the National Academy of Sciences

- “After 50 years of steady increase, **per capita** visits to National Parks have declined since 1987.” 
- The authors tested 16 “similar” time-series participation variables—visitation to public lands, U.S. fish and game license sales, time spent camping, time spent backpacking/hiking—all expressed as **per capita**
- It was noted that the greatest visitation **per capita** was to state parks, National Parks and National Forests, in that order 
- It was also noted that all three of these indicators show nature-based recreation downturns estimated to be **-1% to -3% per year**
- The authors note the longest time series suggests the decline began between 1981 and 1991, with total decline to date of -18% to -25%
- **They surmised an overall downtrend in nature recreation, and a fundamental shift away from nature-based recreation**

The argument for decline

- It was postulated that NP visitation is a good proxy for all nature-based recreation
- “If we are also seeing declines in **the majority of other nature-related activities**, it becomes quite likely that we are seeing a fundamental shift away from people’s interest in nature.”
- “...as today’s adult role models spend less time in nature, this generation of children is also likely to follow suit.
- It is argued that less nature experience will likely be associated with **less support for conservation**
- The research question was: “**Is there a general and fundamental shift away from people’s participation in nature-based recreation?**”

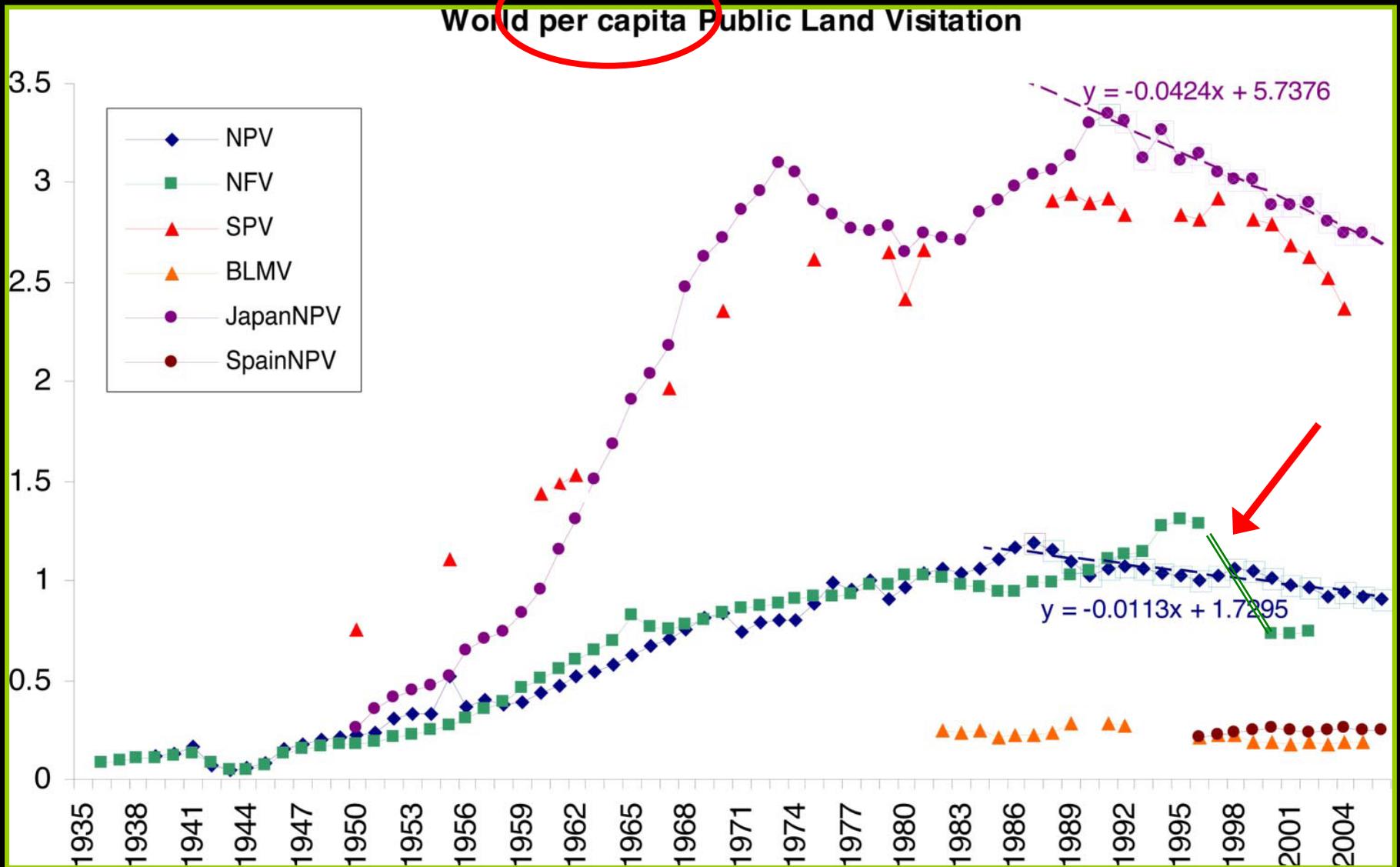
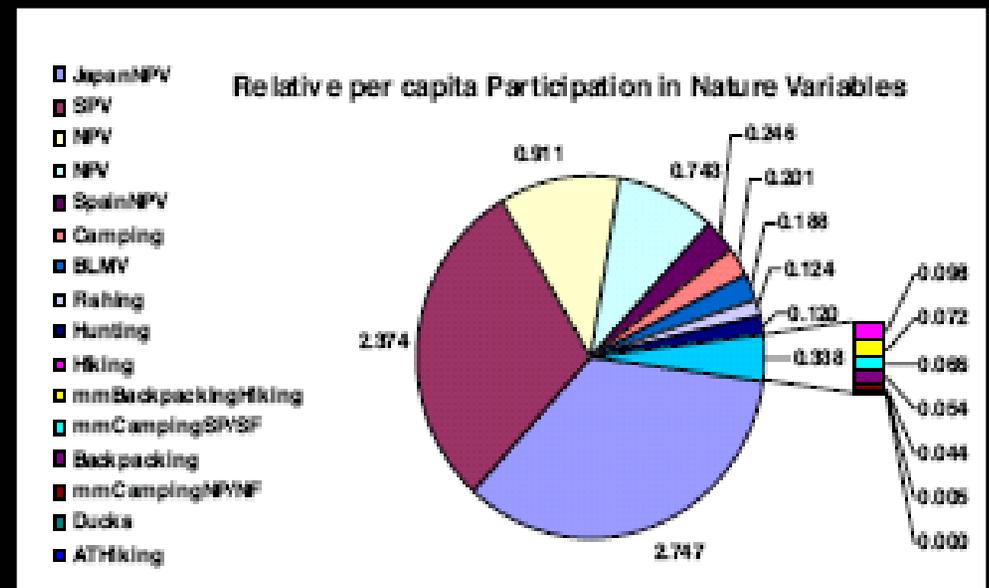


Fig. 1. Annual *per capita* visitation to the various U.S. and international public lands. Included were U.S. National Parks (1939–2006, $n=68$), U.S. State Parks (1950–2003, $n=24$), U.S. National Forests (1939–2002, $n=61$), Bureau of Land Management (1982–2005, $n=20$), Japanese National Parks (1950–2005, $n=56$), and Spanish National Parks (1996–2006, $n=11$).

An overview of the analysis of trends continues----

- The indicators deemed most reliable were reported as **peaking between 1981 and 1991**
- On average (across indicators) **per capita visits** were seen as declining at a 1.2% rate per year, with total to date of between -18% to -25%

• “...a general longitudinal decline in visitation to natural areas, rather than an isolated decline in U.S. National Park visits.”



Final Conclusion

- “In conclusion, all major lines of evidence point to a **general and fundamental shift away from people’s participation in nature-based recreation.**”
- “The root cause may be videophilia, as our previous work suggests”
- “Regardless of the root cause, the evidence for a **pervasive and fundamental shift** away from nature-based recreation seems clear.”

SCIENTIFIC AMERICAN

February 2008

Are Americans Afraid of the Outdoors?

The electronic world is replacing the natural world for leisure time in rich nations

By David Biello

NATURAL VERSUS VIRTUAL: Records show that Americans are spending less and less time in the great outdoors.

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Americans have been visiting national parks and other natural reserves less and less since 1987, new research confirms. Outdoor pursuits, ranging from camping to hunting, have entered a persistent and growing decline.

"Folks are going out into nature much less and decreasingly every year," says conservation ecologist Patricia Zaradic of the Environmental Leadership Program and co-author of the report published in *Proceedings of the National Academy of Sciences USA*. "It would take 80 million more visits this year to get the per capita number back up to the level it was in 1987."

Zaradic and her colleague conservation biologist Oliver Pergams of the University of Illinois at Chicago analyzed trends in visits to national parks and forests, state parks, surveys on camping and the number of licenses for activities such as hunting or fishing. All peaked between 1981 and 1991 after 50 years of steady increase and have been declining at roughly 1 percent per year since for an overall drop of as much as 25 percent.



A couple of observations about the PNAS paper and its conclusions

- **First, and most importantly, the authors used a very narrow set of indicators from which to conclude that **ALL** of nature-based recreation is on the decline.**
- **Second, solely choosing a **per-capita measure** pretty much assures observing a downward trend (cost of transportation has been rising, choices of places to recreate are getting slimmer,)** **Total recreation visits** typically will tell a different story.
- **Third, if we look at **total national and state park visitation** for the last few years, what might we see (in addition to looking at per capita visitation)?**
- **Fourth, **THE more authoritative U. S. nationwide surveys** of nature-based recreation are the Fish and Wildlife Service and the Forest Service surveys, FHWAR and NSRE. These were not cited and perhaps not known to the authors**

Topic 2. Trends in TOTAL visitation to public lands State Parks (**total** day + overnight)

Total, not per capita

- 1975 471 mm
- 1985 660 mm
- **1995** **746 mm**
- 2000 767 mm
- 2001 735 mm
- 2003 735 mm
- 2005 715 mm
- 2006 711 mm
- **2007** **740 mm**

Pre-2000 stats from *Outdoor Recreation in American Life*,
Cordell et al, 1999

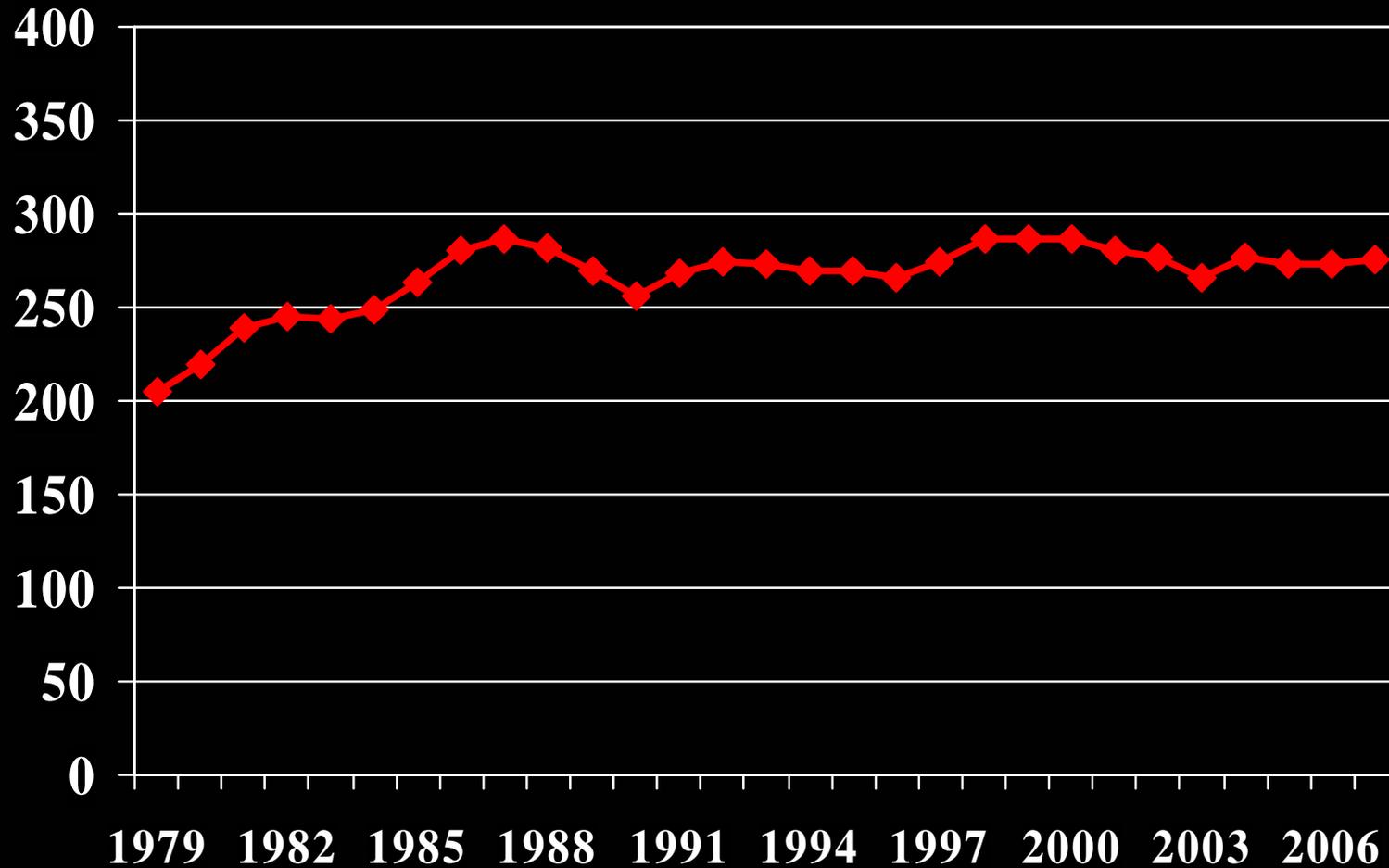
- Total visitation last year was back up, above its 2001 level
- State park visitation statistics are not generated consistently and are not typically based on statistical sampling, as is NVUM
- Source is National Association of State Park Directors
- From 2001-07 there was a **0.7% increase** in SP visits

Total National Park Visitation

- NP visitation has indeed been reported by the NPS as declining, **a little**..... NPS, nor any agency, reports per capita visitation
- 1987 (287mm---**record high**), 1988 (286mm)
- 1990 (260mm—**near record low**), 1992 (273mm)
- 2000 (286mm—**back to 1988 level**)
- 2004 (277mm), 2006 (273mm), 2007 (276)
- From January – November, 2007, NP visitation was **0.8% above the level for the same months of 2006**---over 2 million more visits

National Park System Attendance Rises In 2007: WASHINGTON – More than 275 million visits were recorded in America's national park system in 2007, **an increase of three million visits from the previous year.**

Total Annual Visitation to U.S. National Parks



Source: <http://www.nature.nps.gov/stats/park.cfm>

Visitation to National Wildlife Refuges

- Growth for most years since the late 1990s
- 33 million in 1998 to over 40 million in 2007 (+21%)
- Most of the growth was in general use and native wildlife watching, a change from previous decades driven by hunting and fishing
 - 1951 3.5 mm
 - 1961 11 mm
 - 1976 27 mm
 - 1998 33 mm
 - 2007 40 mm

More evidence of trends--this from the FHWAR Survey

- There have been increases in reported numbers of wildlife watching visitors **to public parks and areas** near home:
 - 1996 11.0 million
 - 2006 13.3 million
 - **Trend is +21%**
- There was a dip between 1996 and 2001 of 0.03 million, a dip of 0.3 percent
- A 0.3 % dip in 5 years, but an overall upward trend of 21% in 10 years (1996-2006)

Source: National Survey of Fishing, Hunting, and Wildlife Associated Recreation

Topic 3---FHWAR Survey

National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

Purpose: Demonstrate value of wildlife-related recreation to the American People by providing information on participation and expenditures.

- Fishing
- Hunting
- Wildlife Watching (observing, feeding, and photographing)

11 Conducted since 1955

Are fishing and hunting license sales good indicators of overall nature-based recreation?

- Number of anglers generally has been declining and known to be declining over the past 10 years
- Number of hunters generally has also been declining and known to be declining over the past 10 years
- How about wildlife watchers, such as birders?
- Number of wildlife watchers has been increasing over the past 10 years and known to be increasing **(Up 13%)**

Anglers

1996 35.2mm

2001 34.1mm

2006 30.0mm

Hunters

1996 14.0mm

2001 13.0mm

2006 12.5mm

Wildlife Watchers

1996 62.9mm

2001 66.1mm

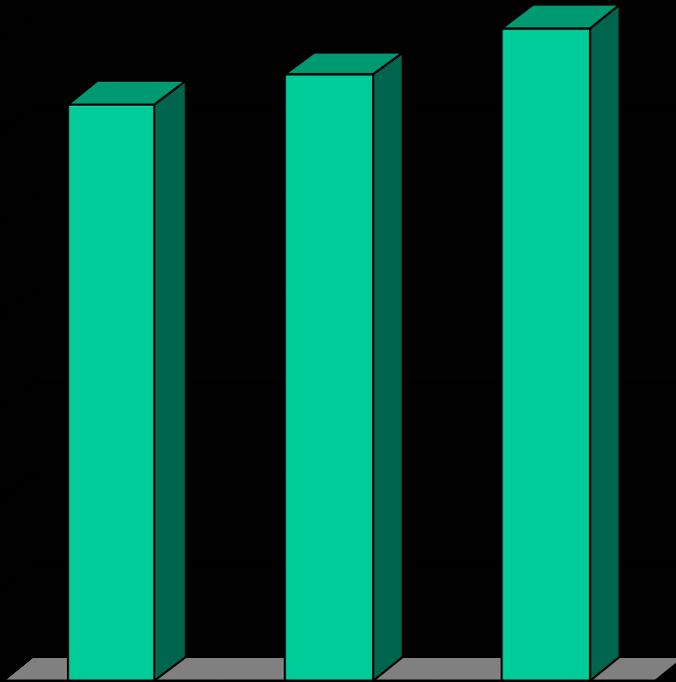
2006 71.1mm

Source: U. S. National Survey of Fishing, Hunting and Wildlife Associated Recreation

Wildlife Watchers

1996-2006

(16 years & older)

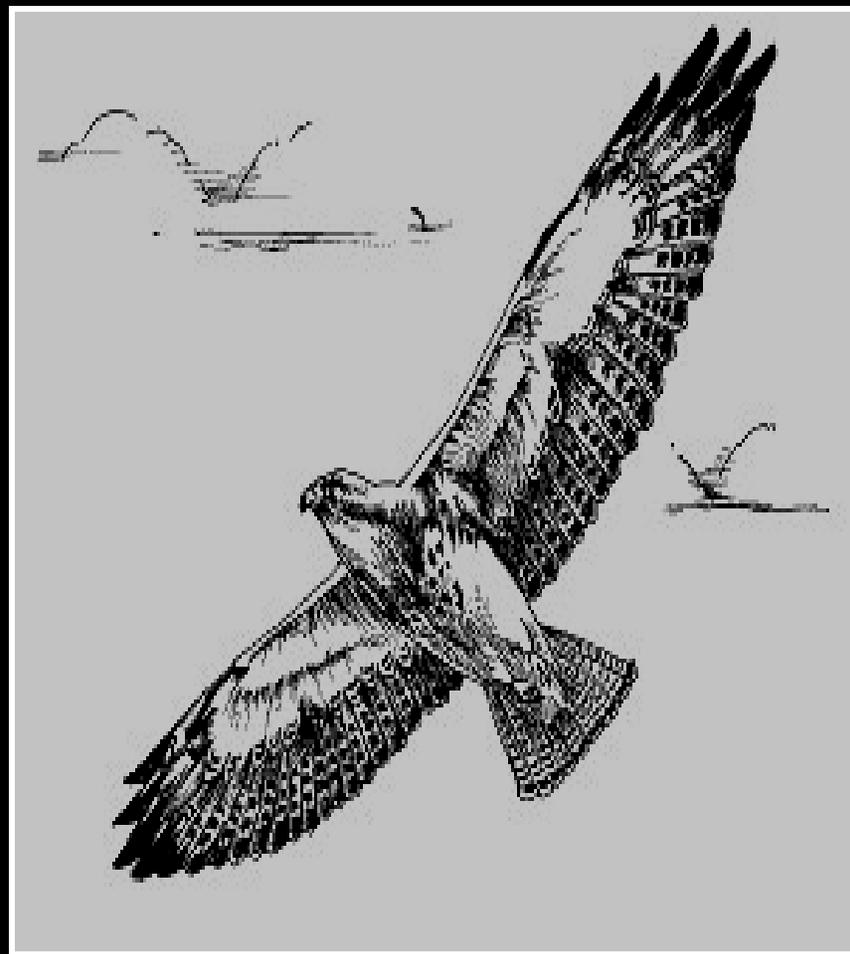


- Number **increased 13%** from 1991 to 2001.
- Wildlife Watchers, as a percent of the U.S. pop. remained steady at 31% from 1996 to 2006.
- Number of wildlife watchers increased **8%** from 2001 to 2006.

Source: U. S. National Survey of Fishing, Hunting and Wildlife Associated Recreation

71 Million Primary Purpose Wildlife Watchers

- **32%, 23 Million, took trips away from home to wildlife watch.**
- **95%, 68 Million, watched wildlife around their homes and neighborhoods.**



Source: U. S. National Survey of Fishing, Hunting and Wildlife Associated Recreation

Topic 4---NSRE background

*NATIONAL SURVEY on
RECREATION and the
ENVIRONMENT*

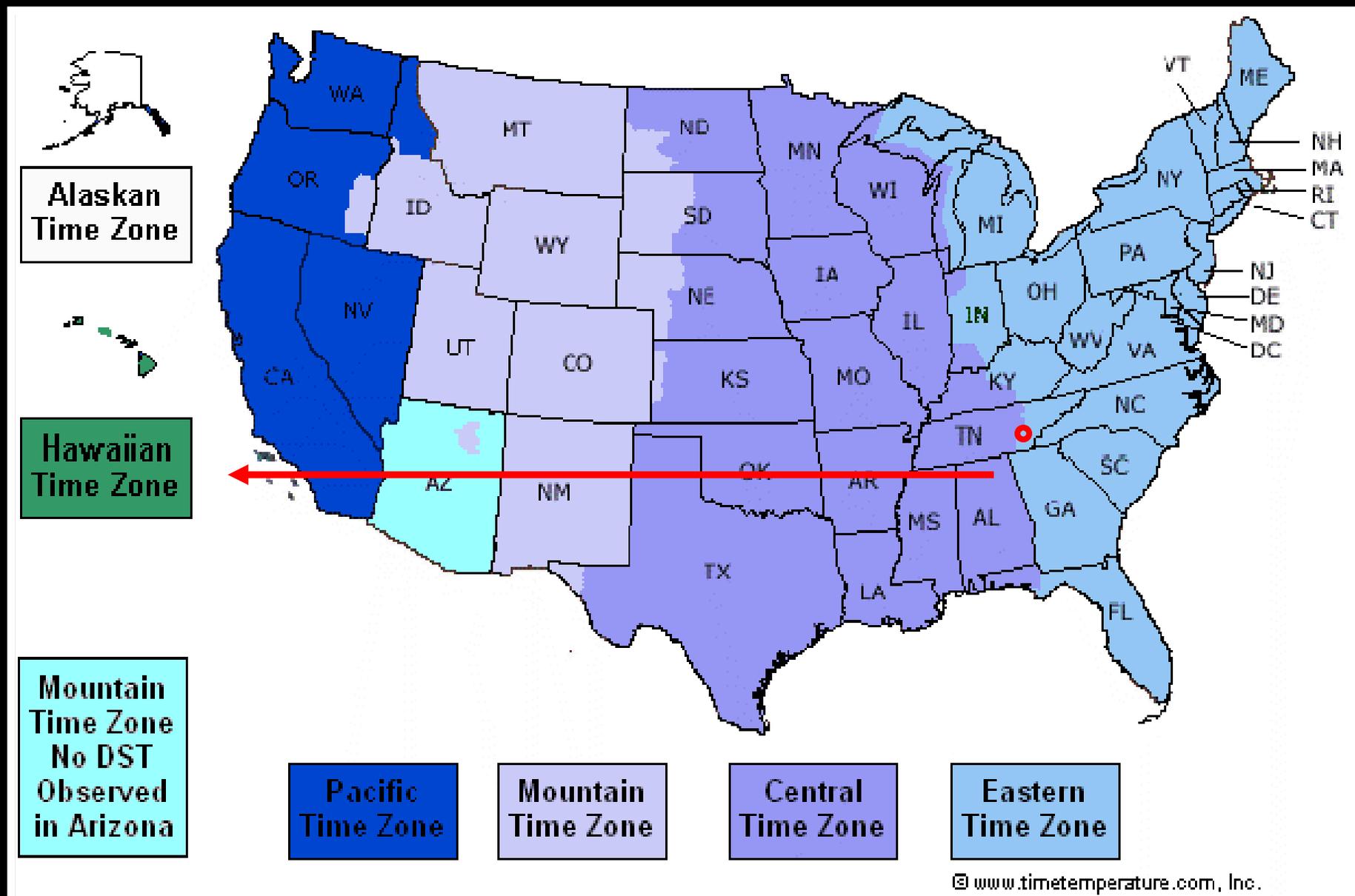
NSRE

SINCE 1960

*THE UNITED STATES' ON-GOING
NATIONAL RECREATION AND
ENVIRONMENTAL SURVEY*

NSRE - To Date

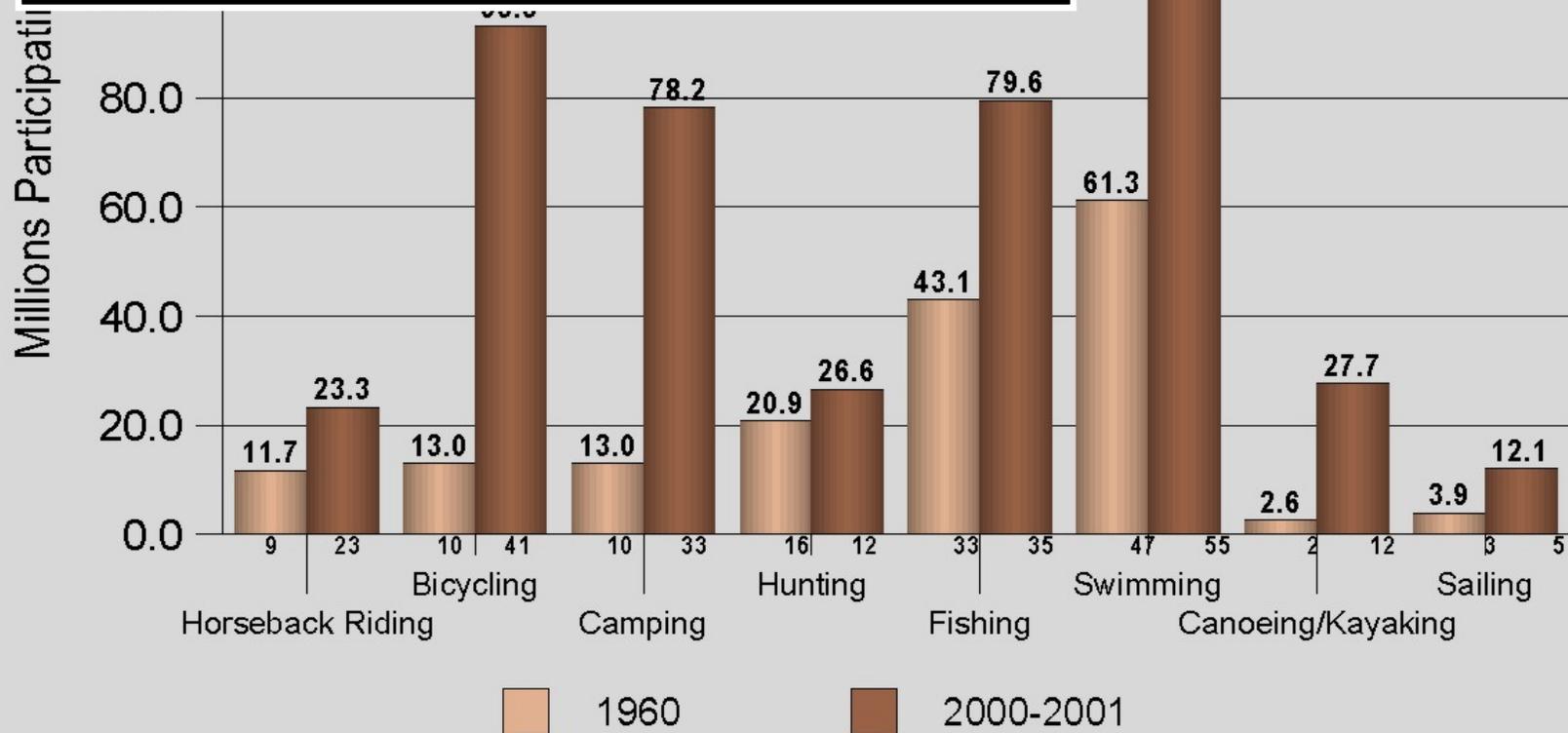
- **1999-2008, 110,000+ completed interviews**
- **22 survey versions**
- **115 modules overall**
 - **33 different modules**
- **Approx. 350,000 hours of interviewing**
- **4 books, 9 book chapters, 61 articles, 23 Technical reports, 34 Statistical Updates / website reports, 18 State SCORP reports, 251 presentations**



Each day at about 4 p.m. in the afternoon the interviewing begins in the Eastern Time zone and marches west.

Popularity of selected activities in 1960 and 2000-2001

NSRE has shown that demand for recreation has been growing over the years



Source: NSRE. The first NSRE was done in 1960 and has continued since as the U. S. National Recreation Survey (1960, 1965, 1972, 1977, 1982, 1994, 1999 to now)

Topic 5---National KIDS Outdoors Survey *KIDS*

National KIDS Outdoors Survey

- A national household survey of youth 6 to 19 years of age
- NSRE sampling of household includes about 1 in 3 with one or more kids between 5 and 16
- Interviews are by proxy for 5 – 16 year olds (parent, older sibling, etc.); 16 to 19 year olds are interviewed directly
- Interest is in kids activities outdoors, time spent, more or less than last year, reasons for less time, household demographics
- Adult available to take kids outside

Early Survey Results

NSRE

Hours Spent Outdoors on Weekdays and Weekends

Day of the Week and Percentages

Time Outdoors	Week day Frequency	Week day Percent	Weekend day Frequency	Weekend day Percent
None	18	4.03	31	6.92
< than 1/2 hour a day	27	6.04	13	2.90
About 1/2 hour a day	54	12.08	23	5.13
About 1 hour	100	22.37	563	12.50
2-3 hours	158	35.35	133	29.69
4 or more hours	90	20.13	192	42.86

Now we have a baseline!

KIDS

Outdoor Activities of Youth 6 to 19 Years Old---Notice different rates between males and females (of the 96 % who go outdoors)

Outdoor Activity		Male	Female	Total
Just playing outdoors or hanging out	Most Popular	86.0	78.2	82.2
Biking, jogging, walking, skate boarding, etc		75.2	78.9	77.0
Playing or practicing team sports		54.5	34.9	44.9
Reading, studying while sitting outdoors		27.9	42.5	35.0
Other sports, e.g., tennis, golf		34.2	34.3	34.3
Attending camps, field trips, outdoor classes	Nature Based	26.2	32.9	29.5
Hiking, camping, fishing, etc		29.6	26.8	28.2
Bird watching, wildlife viewing, etc		24.7	28.2	26.4
Swimming, diving, snorkeling, etc		19.3	18.8	19.0
Riding motorcycles, ATVs, other off-road vehicles		19.3	12.2	15.8
Snow skiing, snowboarding, cross-country skiing		9.9	9.9	9.9
Boating, jet skiing, water skiing, etc		5.4	7.0	6.2
Rowing, kayaking, canoeing, surfing, etc		5.8	3.8	4.8

Spending more, same or less time outdoors

Time outdoors compared to last year

This year compared with last year	Frequency	Percent	Cumulative Frequency	Cumulative Percent
More	124	+27.8	124	27.8
About the same	245	54.9	369	82.7
Less	77	17.3	446	100.0

83%

Reason for **not spending more time** in outdoor activities----”Became more interested in...” (17 % spending less)

Male Female Total

Interested in listening to music, art, reading, etc	49.3	69.3	59.0
Interested in video games, dvds and tv	56.1	40.6	48.5
Interested in Internet, text messaging, etc	38.2	48.4	43.1
More involved in indoor sports	32.7	44.7	38.6
Neighborhood does not have good access	20.0	29.2	24.5
Don't have anyone to play outdoors with	20.7	21.7	21.2
Spend time at mall, shopping, hanging out	15.8	23.7	19.6
Don't have transportation	14.5	20.7	17.5
It is not safe to play or do sports outside	10.7	11.1	10.9
Was injured or developed a health problem	7.0	4.6	5.8

KIDS

**Homework, Cold weather,
 Weather, In school, Not
 enough time, Working, Other reasons
 Lazy, Too cold**

Other information about access to outdoors	Age 6-9	Age 10-12	Age 13-15	Age 16-19	Total
Adult accompany young person for rec activities	99.2	96.4	89.4	96.4	86.6
Young person has a tv in his/her room	43.8	44.6	48.8	44.6	50.1
Young person has a computer in his/her room	11.7	19.6	30.9	19.6	23.5

Will be adding physical fitness/health indicators and knowledge/attitude toward nature (Children's Environmental Motives Scale--CEMS)

Topic 6---The Main Topic--- Trends in Nature-Based Outdoor Recreation

- **The following stuff is from the National Survey on Recreation and the Environment (NSRE)**
- **NSRE is a national household survey, almost 110,000 completed interviews**
- **Covers 82 outdoor activities from organized sports to wilderness visits**
- **Focus here is nature-based activities, in particular activities paralleling those in the PNAS paper**
- **Focus is also on people 16 or older (no kids)**
- **NSRE is state and federal sponsored**

Activities likely to have occurred on public land. Parallels the focus on visitation to public lands. Percent and days per participant are per-capita measures

Visit nature centers, etc.

Time Period	Per-Capita Percent Participating ¹	Per-Capita Annual Days Per Participant ¹	Total Number of participants (1000s)	Total Number of Participant Days (millions)
1994-1995
1999-2001	56.7 (56.3, 57.1)	7.0 (6.4, 7.5)	121,326.1	847.2
2005-2008	55.2 (53.9, 56.4)	8.2 (7.4, 9.0)	127,406.5	1,044.0

Visit a wilderness or primitive area

Time Period	Percent Participating ¹	Annual Days Per Participant ¹	Total Number of participants (1,000s)	Total Number of Participant Days (millions)
1994-1995
1999-2001	32.0 (31.6, 32.4)	14.3 (12.7, 16.0)	68,519.5	982.7
2005-2008	30.6 (29.4, 31.7)	15.7 (13.8, 17.6)	70,591.9	1,108.6

¹ 95% confidence interval in parentheses. Most activities did not ask annual activity days in 1999-2000.

Source: NSRE 1994-1995, NSRE 2000-2004, NSRE 2005-2007. Based on the following national age 16+ populations. 1994-1995: 201.3 million (1995 Woods & Poole, Inc.). 1999-2000: 214.0 million (2000 Census). 2001-2002: 220.1 million (2002 Census estimate). 2003-2005: 228.0 million (2005 Census estimate). 2006-2008: 230.9 million (2006 Census estimate).

If hunting license sales is a good indicator, it should reflect trends in hunting

Big game hunting

Time Period	Percent Participating ¹	Annual Days Per Participant ¹	Total Number of participants (1,000s)	Total Number of Participant Days (millions)
1994-1995	7.1 (6.8, 7.4)	14.2 (13.0, 15.3)	14,289.9	202.6
1999-2001	8.4 (8.1, 8.6)	14.7 (13.6, 15.9)	17,890.5	263.7
2005-2008	8.8 (8.2, 9.3)	15.9 (14.5, 17.2)	20,209.8	320.3

Small Game hunting

Time Period	Percent Participating ¹	Annual Days Per Participant ¹	Total Number of participants (1,000s)	Total Number of Participant Days (millions)
1994-1995	6.5 (6.2, 6.8)	13.6 (12.2, 15.0)	13,039.9	177.4
1999-2001	7.0 (6.8, 7.3)	15.9 (14.1, 17.6)	15,047.4	238.5
2005-2008	6.5 (6.0, 7.0)	15.8 (13.6, 17.9)	15,006.7	236.9

¹ 95% confidence interval in parentheses. Most activities did not ask annual activity days in 1999-2000.

Source: NSRE 1994-1995, NSRE 2000-2004, NSRE 2005-2007. Based on the following national age 16+ populations. 1994-1995: 201.3 million (1995 Woods & Poole, Inc.). 1999-2000: 214.0 million (2000 Census). 2001-2002: 220.1 million (2002 Census estimate). 2003-2005: 228.0 million (2005 Census estimate). 2006-2008: 230.9 million (2006 Census estimate).

If fishing license sales is a good indicator, it should reflect fishing participation

Warmwater fishing

Time Period	Percent Participating ¹	Annual Days Per Participant ¹	Total Number of participants (1,000s)	Total Number of Participant Days (millions)
1994-1995	20.4 (19.8, 20.9)	17.6 (16.3, 18.9)	40,970.3 ↑	721.6 ↑
1999-2001	22.6 (22.2, 23.0)	17.6 (16.4, 18.8)	48,353.6	852.0
2005-2008	22.5 (21.9, 23.1)	17.3 (16.4, 18.3)	51,924.6	900.1

Saltwater fishing

Time Period	Percent Participating ¹	Annual Days Per Participant ¹	Total Number of participants (1,000s)	Total Number of Participant Days (millions)
1994-1995	9.5 (9.1, 9.9)	13.1 (11.3, 14.9)	19,061.9 ↑	249.9 ↓
1999-2001	10.4 (10.2, 10.7)	12.6 (11.8, 13.5)	22,314.3	282.2
2005-2008	10.6 (10.2, 11.1)	10.3 (9.3, 11.2)	24,543.5	251.9

¹ 95% confidence interval in parentheses. Most activities did not ask annual activity days in 1999-2000.

Source: NSRE 1994-1995, NSRE 2000-2004, NSRE 2005-2007. Based on the following national age 16+ populations. 1994-1995: 201.3 million (1995 Woods & Poole, Inc.). 1999-2000: 214.0 million (2000 Census). 2001-2002: 220.1 million (2002 Census estimate). 2003-2005: 228.0 million (2005 Census estimate). 2006-2008: 230.9 million (2006 Census estimate).

Is the MediaMark camping survey a good indicator? Looks only at NFs and NPs.

Developed camping

Time Period	Percent Participating ¹	Annual Days Per Participant ¹	Total Number of participants (1,000s)	Total Number of Participant Days (millions)
1994-1995	20.7 (20.1, 21.3)	10.6 (9.9, 11.2)	41,658.6	440.6
1999-2001	26.4 (26.0, 26.8)	8.6 (8.1, 9.2)	56,476.6	486.8
2005-2008	25.1 (23.9, 26.3)	9.2 (8.2, 10.1)	58,021.3	532.3

Primitive camping

Time Period	Percent Participating ¹	Annual Days Per Participant ¹	Total Number of participants (1,000s)	Total Number of Participant Days (millions)
1994-1995	14.0 (13.5, 14.5)	9.3 (8.6, 9.9)	28,117.3	260.5
1999-2001	15.9 (15.6, 16.2)	8.1 (7.5, 8.8)	34,027.5	277.0
2005-2008	14.4 (13.5, 15.4)	9.3 (7.7, 10.9)	33,330.2	310.4

¹ 95% confidence interval in parentheses. Most activities did not ask annual activity days in 1999-2000.

Source: NSRE 1994-1995, NSRE 2000-2004, NSRE 2005-2007. Based on the following national age 16+ populations. 1994-1995: 201.3 million (1995 Woods & Poole, Inc.). 1999-2000: 214.0 million (2000 Census). 2001-2002: 220.1 million (2002 Census estimate). 2003-2005: 228.0 million (2005 Census estimate). 2006-2008: 230.9 million (2006 Census estimate).

Are fewer people hiking and backpacking?

Day hiking

Time Period	Percent Participating ¹	Annual Days Per Participant ¹	Total Number of participants (1,000s)	Total Number of Participant Days (millions)
1994-1995	23.8 (23.2, 24.4)	16.8 (15.6, 18.0)	47,978.6 	805.4 
1999-2001	32.4 (32.0, 32.8)	36.3 (33.5, 39.2)	69,388.9	2,521.8
2005-2008	32.1 (30.9, 33.2)	26.9 (24.5, 29.4)	74,032.5	1,993.4

Backpacking

Time Period	Percent Participating ¹	Annual Days Per Participant ¹	Total Number of participants (1,000s)	Total Number of Participant Days (millions)
1994-1995	7.6 (7.2, 7.9)	8.5 (7.5, 9.4)	15,216.7	128.8 
1999-2001	10.4 (10.1, 10.7)	10.1 (8.8, 11.4)	22,261.2	224.5
2005-2008	9.6 (8.9, 10.2)	12.6 (10.7, 14.5)	22,077.0	277.7

¹ 95% confidence interval in parentheses. Most activities did not ask annual activity days in 1999-2000.

Source: NSRE 1994-1995, NSRE 2000-2004, NSRE 2005-2007. Based on the following national age 16+ populations. 1994-1995: 201.3 million (1995 Woods & Poole, Inc.). 1999-2000: 214.0 million (2000 Census). 2001-2002: 220.1 million (2002 Census estimate). 2003-2005: 228.0 million (2005 Census estimate). 2006-2008: 230.9 million (2006 Census estimate).

Nature based Outdoor Recreation Activity	1994-95		1999-2001		2005-2008	
	Millions of participants annually	Billions of participant days annually	Millions of participants annually	Billions of participant days annually	Millions of participants annually	Billions of participant days annually
Walking	134.3	14.5	176.3	17.9	193.4	20.4
Family gathering	124.3	1.1	158.0	1.2	164.8	1.3
Visiting nature centers	.	.	121.3	0.8	127.4	1.0
Viewing flowers & trees	.	.	94.1	5.8	118.4	10.2
Viewing wildlife	62.8	2.3	94.6	3.6	114.8	5.3
Swimming	78.4	1.2	88.6	1.3	92.1	1.3
Viewing birds	54.3	4.8	68.0	5.9	81.1	8.0
Gathering mushrooms & berries	.	.	61.2	0.9	71.0	0.9
Visiting watersides other than beach	.	.	54.7	0.9	55.5	1.1
Off-road driving	28.0	0.7	37.3	0.9	44.2	1.3
Horseback riding	14.3	0.3	20.6	0.4	21.7	.
Canoeing	14.2	0.08	20.5	0.1	21.0	0.1
Kayaking	2.7	0.02	7.7	0.06	12.5	0.08
Downhill skiing	16.9	0.1	18.3	0.1	15.6	0.1
Snowboarding	.	.	10.5	0.09	11.3	0.1

NSRE tracks 42 nature-based activities. All but Downhill skiing above are UP.

The PNAS article concluded:

- “In conclusion, all major lines of evidence point to a general and fundamental shift away from people’s participation in nature-based recreation.”
- “The root cause may be videophilia, as our previous work suggests”
- “Regardless of the root cause, **the evidence for a pervasive and fundamental shift away from nature-based recreation seems clear.**”

How well does the PNAS evidence and argument hold up? A couple of observations:

- First, and most importantly, a very limited set of indicators was used from which to conclude that **ALL** of nature-based recreation is on the decline
- Second, the **choice of a per-capita measure** pretty much assured observing a downward trend (travel cost is up, supply is tighter, population base is larger) Total is a better indicator
- Third, except for hunting and fishing, surveys of nature-based recreation from the Fish and Wildlife Service and the Forest Service show **growth in nature-based recreation**. This is not consistent with the conclusions drawn by in the PNAS paper
- Fourth, **state park visitation** has been cycling up and down in a normal pattern over the last few years. Since 2000, it has risen from a cyclical low?
- Fifth, **national park visitation** has decreased less than 4% in the last 20 years, and rose by 3 million visits from 2006-07

NSRE tells a different story about “Trends in Nature Based Participation” 1999-01 to 2005-08

- Number of people 16+ participating across 62 activities in 2005-08
- **217,694,000** *Percentage increase* **4.4%**
- Number of recreation activity days across 56 activities in 2005-08
- **83,914,400,000** *Increase is* **25.1%**
- 83% of kids intend to spend the **same or more** time outdoors

The NSRE Report

The next NSRE report is underway as a series

2005

Outdoor Recreation for 21st

ica

Cordell
Principal Author



VENTURE

Outdoor Recreation for 21st Century America

A Report to the Nation:
The National Survey on Recreation
and the Environment



H. Ken Cordell
Principal Author



Internet Research Report Series

*How Do Americans View Wilderness--
Part I*

A WILDERNESS Research Report in the IRIS Series¹
January, 2008

H. Ken Cordell, Carter J. Betz, Becky Stephens, Shela Mou, and Gary
T. Green²

IRIS

¹ The Internet Research Information Series (IRIS) is an Internet accessible science report series covering outdoor recreation statistics (RECSTATS), wilderness research (WILDERNESS) 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.

² The authors are H. Ken Cordell, Pioneering Scientist, Carter J. Betz, Outdoor Recreation Planner, and Shela Mou, Computer Assistant, USDA Forest Service; Becky Stephens, Research Associate, University of Tennessee at Knoxville; and Gary T. Green, Assistant Professor, University of Georgia. Iris photo courtesy of Jessica Mou.



IRIS - Internet Research Report Series

Off-Highway Vehicle Recreation in the United States and its Regions and States: An Update National Report from the National Survey on Recreation and the Environment (NSRE)

This is a RECSTATS Research Report in the IRIS Series¹

February, 2008¹

This report is provided to aid interested individuals and organizations gain access to statistics describing Off-Highway Vehicle (OHV) recreational use and users in the United States. The source of these statistics is the National Survey on Recreation and the Environment. Text has been kept to a minimum. The focus is on tabulated statistics in the numerous tables within.

¹ The Internet Research Information Series (**IRIS**) is an internet accessible science report series covering outdoor recreation statistics (**RECSTATS**), wilderness research (**WILDERNESS**) 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.

IRIS



IRIS--Internet Research Information Series

***American Birders--Part I
Their Numbers and Outdoor Activity Profiles***

**A RECREATION Research Report in the IRIS Series¹
February, 2008**

**H. Ken Cordell, Ted L. Eubanks, Carter J. Betz, Gary T. Green, Becky
Stephens, and Shela Mou²**

2/08/08

IRIS

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² The authors are H. Ken Cordell, Pioneering Scientist, USDA Forest Service; Ted L. Eubanks, President, Fernata Inc.; Carter J. Betz, Outdoor Recreation Planner, USDA Forest Service; Gary T. Green, Assistant Professor, University of Georgia; Becky Stephens, Research Associate, University of Tennessee at Knoxville; and Shela Mou, Computer Assistant, USDA Forest Service. Iris photo is courtesy of Jessica Mou.

IRIS

Fee - Introduction

- **Federal lands (including those managed by the FS, NPS, BLM, & the FWS) provide many recreation facilities & services. On some of these lands, fees are currently charged for certain recreation services.**
- **“The following section asks your opinions about fees for recreation services on Federal lands. In the last 12 months, did you pay a user fee to recreate on Federal land?”**
- **For each of the following services, please tell me whether you think the cost of the service should be provided by taxes, user fees, a combination of both taxes & user fees, or should the service not be provided.**

Results -1995/2004

- Proportions supporting fees for:
1995/2004
 - Hiking trails .575/.605
 - Picnic areas .563/.561
 - Campgrounds .833/.765
 - Restrooms .454 / .446

Results - 1995/2004

- Proportions supporting fees for:
 - Boat ramps, docks,
or put-ins .821/.775
 - Historical sites .552/.617
 - Parking areas .632/.670
 - **Fee Any (support) .967/.952**

Summary

Overall, people favor charging fees, but...

- Race/ethnicity still a factor...Blacks more anti-fee**
- Regional differences...South more anti-fee**
- Familiarity & education foster acceptance**

END

IRIS

NSRE

KIDS