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# The Buffalo Chip

Resource Management Newsletter  
Yellowstone National Park  
January-February 2001



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## LOVE THE PAST, DESIGN FOR THE FUTURE

By Alice K. Wondrak

Historical architect Andy Beck visited Mammoth from the Denver Service Center on January 17 to talk about how the Park Service can both “love the past but build and design for the future.” NPS employees from offices as diverse as landscape architecture, law enforcement, cultural resources, interpretation, planning, maintenance, and natural resources gathered to hear Beck emphasize that “there is no limit to imagination” when it comes to creating good designs.

At least, there shouldn't be. According to Beck, the NPS often has “a myopic view of rustic architecture,” which causes it to get bogged down in the notion that “rusticity” is just another word for “log cabin.” Filling the parks with an architectural monoculture of log cabin-like buildings is, in his view, tantamount to taking a Disneyland approach to the task of constructing our ideas about who and what we think the NPS is all about. Beck cited several examples in which strict adherence to log cabin dogma has resulted in

buildings which proved unequal to the functions which they were erected to perform, including entrance stations whose roofs drained rainwater onto the transactions between visitors and entrance station employees and an information center which started to rot after only two years of exposure to heavy snow which fell from its roof and squeezed in on its walls.

Instead, Beck says we must encourage builders, maintenance workers, and designers to work together to create buildings which not only mitigate, but take advantage of their unique weather, light, and environmental conditions—hardly a new idea almost a century after Frank Lloyd Wright popularized organic architecture, but a lesson which has been frequently forgotten just the same. Beck reminded the audience that although it, too, was designed to be “rustic,” the Old Faithful Inn was no throwback at the time of its construction in 1903. Rather, in its design and functionality, it was one of the most modern, forward-looking buildings of its day, replete with

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*The model modern visitor center as it appeared on the cover of the 1957 NPS brochure, "Mission 66 in Action."*

electricity, indoor plumbing, and a hundred other modern conveniences, and all in a building which is only *partially* made of logs. Asked what counsel he would offer for Yellowstone, Beck advised that we "find designers with imagination and creativity. And don't put handcuffs on them. Don't tell them, 'we want a new house at Mammoth and it has to be built of logs. Or stucco.'" Reamer didn't have the burden of such restrictions, and if he had, we wouldn't have architecture as diverse as the Inn, the Lake Hotel and the Child Residence all in the same park, each befitting its own setting and purpose.

When asked to share his thoughts about the architectural legacy of the Mission 66 initiative, Beck reiterated what others have recently pointed out; that the NPS "has a deplorable record of caring for its institutional memory," lest we forget that at *that* time, people were just as intent on tearing down anything which smacked of Victorianism as many people today are to rid the parks of the Mission 66 style. He explained that in architecture and architectural eras, there *is* taste, there is fashion, and there is design, and just because a certain sort of taste goes out of fashion doesn't make for a bad design. In other words,

Mission 66 had its design successes and failures just like any other architectural movement, and just because we have decided we don't like them today doesn't mean that they should all be reduced to rubble. In spite of what may be our distaste for the visual impacts of the buildings themselves, they are representative of a unique era in the history of the NPS and the nation at large, when the service, rightly or wrongly, was doing what it thought best to deal with a postwar visitation boom and architects were told to design employee

houses for around \$15,000. No history of the NPS is complete without the story of Mission 66, and Beck's perspective urges us to ask, should we really keep the Mission in our memories but erase it from our landscapes?

Of course, a lot of people who live and work in Mission 66 buildings will tell you that not ALL of those buildings should be saved. Not by a longshot. Beck called the biggest failure of Mission 66 its mania with designing one thing and then putting it everywhere, which he described as the inevitable result of a project of such a grand scale. Places are different, needs change, and not everything is architecturally significant. According to Beck, the solution is not in demolishing the Mission 66 legacy as quickly as possible, but in replacing its failures with creative alternatives and holding onto its successes, even if it means assigning them different uses than those for which they were originally intended. Otherwise, we risk creating an architectural caricature of ourselves—a structural homogeneity which would ill-befit the diversity of national park landscapes and ecosystems which our buildings serve. As Beck indicates, there's more to life than Park Service brown.

# EARTHQUAKES IN YELLOWSTONE AND BEYOND

By Paul K. Doss

Earthquakes are in the news again! At least two different earthquake events occurred in Yellowstone during January 2001, when a swarm, or a concentration of many earthquakes in time and space, occurred near West Yellowstone, Montana. It produced approximately 280 recorded quakes during January alone. The swarm appeared to begin north of West Yellowstone and then move south; prior to January 8, nearly all of the earthquakes were centered between five and 14 miles north of town. Between January 8 and 19, the majority of quakes were centered 3-11 miles north of town. As the swarm "evolved," the remainder of the earthquakes (through January 26) were located generally 2-4 miles south-southeast of West Yellowstone. All quakes were approximately 5-10 km in depth, and the greatest magnitude measured was 2.6. Nobody reported feeling any of these earthquakes. This area of the park tends to have the greatest occurrence of earthquake swarms, and is in the same general vicinity as the record swarm that occurred during 1985 and 1986.

Elsewhere, an area generally 5-7 miles southeast of West Thumb recorded approximately 34 quakes during January 2001. Earthquake depth ranged from near the surface to 10 km, with the greatest reported magnitude being 2.8. There were two reports of separate felt quakes during the evening of January 15. These quakes, felt by Pat Perotti (Snake River District Resource Management Coordinator) and others, corresponded to magnitude 2.5 and 2.4. Smaller magnitude earthquakes are more easily felt by humans in the West Thumb/Grant Village region than in other areas because of the underlying geologic materials there; seismic energy transmitted through lake silts

and sands can generate greater ground motion than the same energy transmitted through more competent or solid geologic materials. The lake-deposited sands and silts that underlie Grant Village are preserved from former high levels of Yellowstone Lake.

Earthquakes and earthquake swarms are relatively common in

Yellowstone. An

earthquake swarm

north of Norris

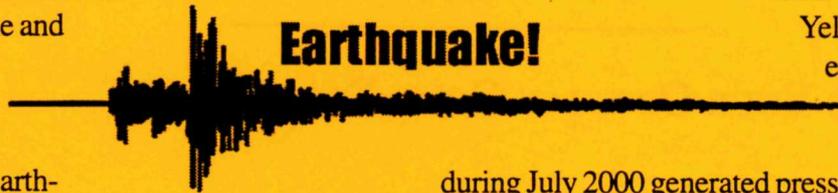
which occurred

during July 2000 generated press inquiries, in part because of its correspondence (not necessarily its correlation!) to observed changes in the Norris hydrothermal system, particularly in the area sometimes referred to as "the Gap."

Those interested in keeping abreast of earthquake activity in the park can get real-time seismic information from [www.seis.utah.edu](http://www.seis.utah.edu). This web site, hosted by the University of Utah, posts earthquake data from seismic monitoring networks in the Yellowstone and Utah regions.

The typically quiescent continental interior of the United States was also rattled by felt quakes last month. On January 25, a magnitude 4.2 quake occurred just northeast of Cleveland, Ohio. And in December 2000, a quake with a magnitude of 3.9 shook this geologist's old office in Evansville, Indiana. In fact, the New Madrid seismic zone (IN, IL, MO, TN, KY) recorded at least eight earthquakes between December and January.

Tragic earthquakes have struck recently in India and in El Salvador. As of February 1, the quake in India (magnitude 7.7) had 14,240 confirmed dead, 61,638 injured and 200,000 homeless. Damage estimates are \$1.3 billion U.S. dollars. As of January 21, the death toll from the quake in El Salvador (magnitude 7.6) was 704, with 4,055 people injured. While we may be



tempted to relate the various seismic events happening globally, their closeness in time is purely coincidental.

Unfortunately, there are greater human casualties associated with earthquakes now than in years past. This is in part because more people are living in hazardous areas, often in rapidly developing countries where building codes and their enforcement can be lax (though any structure not specifically built to withstand an earthquake

can be dangerous when one strikes). And of course, advances in communications permit us to hear about events now that we might not have years ago.

If you feel an earthquake in or around Yellowstone, please contact the YCR ([Paul\\_Doss@nps.gov](mailto:Paul_Doss@nps.gov), 344-2441), as your reports can form an important observation and data point in seismic monitoring efforts.



## WHERE DOES YOUR OBSIDIAN COME FROM?

By Ann Johnson

Along the shores of Yellowstone Lake, archeologists this past summer identified what is the oldest-known archeological site in Yellowstone. Dr. Ken Pierce of the USGS and Dr. Paul Doss of the YCR visited Osprey Beach during last August's archeological testing. These geologists recovered a piece of charcoal from the surface of the campsite and interpreted the stratigraphic profile to indicate that people long ago camped on what at the time was the lakeshore. Radiocarbon dating revealed that the charcoal dates to 9300 BP. This falls within the range of Cody Complex dates (~9950-9250 BP) and makes Osprey Beach the earliest site thus far recorded in the park.

Obsidian dominates the chipped tool assemblage found at Osprey Beach, and we submitted 28 specimens for source analysis. The goal was to determine where these people were obtaining the raw materials for their tools and through these sources, to track their movements. Chipped stone in tool kits, made of raw materials that are known to occur only at specific locations (like Obsidian Cliff, for instance), is interpreted as indicating people were near those sources collecting the raw materials. We take as a given that early people were familiar with the resources in their local environment and traveled seasonally within this

area. By mapping the location of the point sources for the stone tools, a home territory can be identified.

As part of the ongoing obsidian sourcing project for the park, we also chemically fingerprinted 27 obsidian samples from 48YE252, a site in the southeast arm of Yellowstone Lake. Unlike Osprey Beach, 48YE252 is multi-component, that is, many people from different cultures ~10,450-550 BP camped in this area. However, artifacts from the Pelican Lake culture (1950-1750 BP) are most common, as they are throughout the park. Since both sites are on the south lakeshore, it is interesting to compare the different obsidian usage.

The results of the obsidian sourcing from these two sites is shown in Figure 1 (next page). Obsidian Cliff was present in 15 samples from each site. This is in keeping with Obsidian Cliff being the dominant obsidian source in the park and the Greater Yellowstone Ecosystem. The sample from Osprey Beach contains more Bear Gulch obsidian (from the Interstate 15 area near the Idaho/Montana border). There were similar amounts of Teton Pass (in western Grand Teton NP) and Packsaddle Creek (near Idaho Falls) obsidians. Obsidian from Park Point (on the east shore of Yellowstone Lake) was found only at

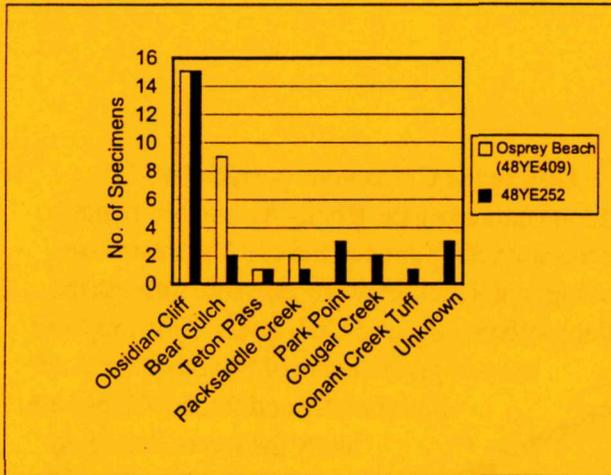


Figure 1. Obsidian sources at two sites in Yellowstone National Park.

48YE252. The three unknown obsidians may be identified as coming from the Park Point source when the range of variation of that obsidian is better understood, or they may also represent a new obsidian source. Cougar Creek obsidian comes from northwest of Madison Junction. Found south of Grassy Lake Reservoir near the Idaho border, Conant Creek tuff (an obsidian-like material) was discovered for the first time in Yellowstone. Site 48YE252 contained twice as many (eight) different obsidians as Osprey Beach. More work will have to be done to determine if this increased variation can be explained by the different peoples camping at this site.

Obsidian was not the only raw material used for stone tools at Osprey Beach. Two Cody knives (Figure 2) were manufactured out of dark green chert identified as coming from the Absaroka volcanic rocks that form Yellowstone's eastern border. When the locations of these different obsidians are combined with the green chert, we see that the Cody Complex people were living throughout the Greater Yellowstone Ecosystem. Their "territory" went from the eastern side of Yellowstone National Park, down into Jackson Hole, over into eastern Idaho, and up the Madison River back into the park.

The Thorofare region and other areas east and south of Yellowstone Lake are basically

unknown archeologically and have been a priority for new inventory. In the summer of 2000, a trails rehabilitation project gave us the opportunity to have a look around Heart Lake. Several sites were identified, and from one of them, we have the first identification of the Crescent H obsidian. Crescent H comes from gravels along the Wilson-Fall Creek road, south of Wilson in southern Jackson Hole. The archeological source composition of obsidian tools in archeological sites varies significantly in different parts of the park and can be explained by people entering Yellowstone from different areas and directions. In southern Yellowstone, the identification of different obsidians by culture and time period will also help us study prehistoric movements between Grand Teton and Yellowstone national parks.

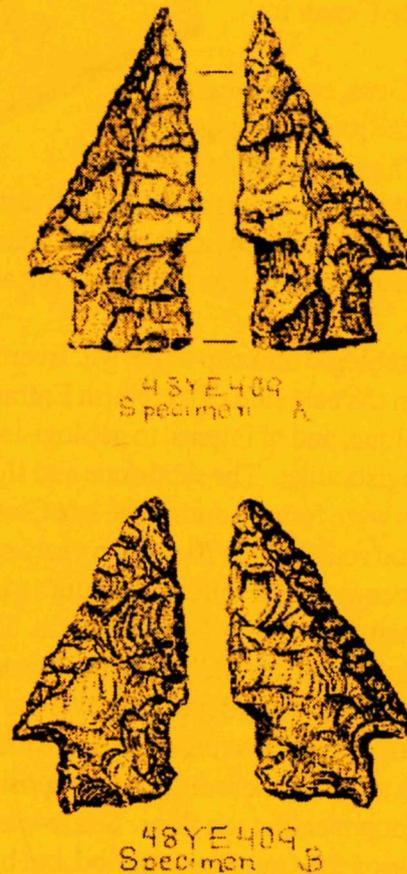


Figure 2. Cody knives. Drawings by Tah Madsen.

# CAUTION!! DEBRIS ON ROAD

By Elaine Hale

On January 15, Doug MacCartney, a craftsman working in the park, was jogging on the North Entrance Road when, right after passing a "Caution—Debris on Road" sign, what should he find but debris on the road! Being a conscientious sort of fellow, Doug picked the rocks up from the road's middle and had tossed the first one over to its edge when he realized that the rock he was still holding contained fossil leaves. So Doug retrieved the rock he had just tossed and brought them both into my office at the Yellowstone Center for Resources.

Paul Doss, our geologist, identified the rocks as sandstone. Jennifer Whipple, our plant specialist, identified the leaf imprints as broad leaf, serrated, parallel-veined, and likely, angiosperms, many species of which have been found in YNP and on Mt. Everts.

The geologic makeup of the Mt. Everts areas exposed on the east side of the North Entrance Road is unique, and of interest to geologists and paleontologists alike. The sandstone and shale formations were formed during the late Cretaceous period roughly 90-70 million years ago. The Cretaceous period followed the Jurassic period, when dinosaurs roamed the earth. During the Jurassic period, several great inland seas (also called continental seas) developed over the earth. The edge of one of these inland seas covered the Mt. Everts area. Thick sedimentary deposits were laid down on the sea floor. Sea levels were highest during the Cretaceous period, but by the end of the Cretaceous, sea levels began to fall as these inland seas subsided and eventually disappeared.

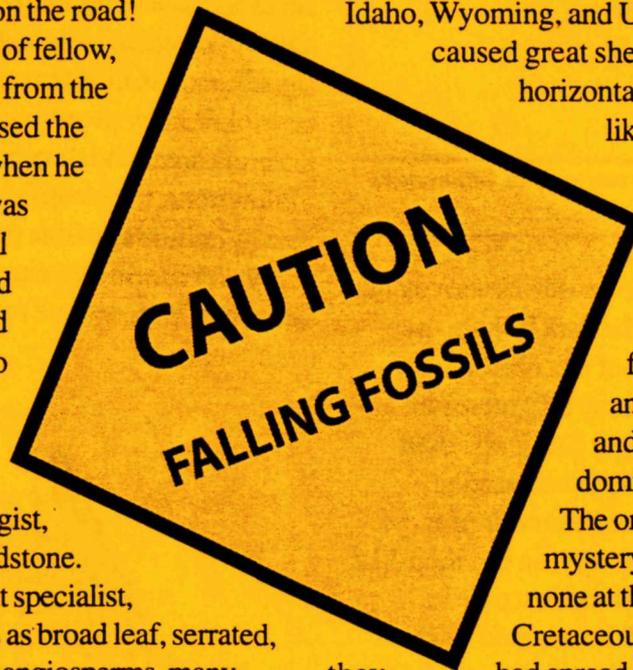
During the Cretaceous period (140-70 million years ago), the Rocky Mountains began to rise because the plates of the earth's crust were moving rapidly and exerting pressure through the Idaho, Wyoming, and Utah areas. This pressure caused great sheets of rock to be moved horizontally and folded. These are

likely the forces that lifted the layers of sediment we see on the face of Mt. Everts today.

At the same time, flowering plants called angiosperms developed, and today they are the dominant plant type on earth. The origin of angiosperms is a mystery. There were few or none at the beginning of the Cretaceous period, but by its end had spread to every continent and were both common and diverse.

they were both common and diverse. Okay, back to the dinosaurs (even Spielberg knew he couldn't make a hit movie out of angiosperms!). At the close of the Cretaceous period, a mass extinction occurred in which about half of all animal families on earth disappeared. All of the dinosaurs became extinct, along with marine lizards and pterosaurs (bird-like creatures). Land plants (such as angiosperms) and fish were relatively unaffected. Scientists often speculate that this deadly event happened after a large meteorite hit the earth and triggered volcanic reactions. The meteorite and volcanic eruptions cooled the earth, the volcanic dust caused the kinds of plants the dinosaurs liked to eat to die, leading to the disappearance of the dinosaurs themselves.

But is this the *only* possible explanation for their final exit?



Now that you've had your geology and biology lessons, I'm sure you're all wondering, "WHAT HAS THIS GOT TO DO WITH THE FOSSIL LEAF IMPRINTS THAT DOUG MACARTNEY BROUGHT IN?" Well, let's just suppose that life was good and all was well back in the Cretaceous, with the dinosaurs munching away on the tree foliage and bushes. As the new flowering plants (angiosperms) came into the world, the climate was just right for them, and there were no herbicides or pesky tent caterpillars to slow their proliferation. The angiosperms took off and spread, you might say, like weeds!

Then they bloomed and spread pollen. And what happens to lots of folks each spring when the pollen flies? Their noses run, their eyes turn red, their throats get scratchy, and sometimes their throats close and they can't breathe. What

if dinosaurs had the same reaction? Without Claritin and Puffs, it could have been a pretty sorry sight. They just laid down and sniffed, and their throats swelled until finally, the end came. This theory, commonly referred to as the "Runny Nose Extinction Theory" is fairly well-known among paleontologists (most of whom agree that it has some merit but don't necessarily want their names mentioned in connection with it).

So, the innocent-looking leaf fossil spotted by Doug a few weeks ago may have had a dark and sinister prehistoric past, possibly contributing to the downfall of some of the greatest beasts on earth! Whether or not flowers wiped out the dinosaurs, it is fun to speculate, and the fact remains that even small changes in our environments and our ecosystems can greatly affect the creatures trying to survive within them.



## PARK MOVES TO PROTECT NATIVE FISH SPECIES

From a YNP news release

Beginning with the 2001 fishing season, all native sport fish species in Yellowstone will be placed under catch-and-release-only fishing rules. The native species affected by this change are the cutthroat trout and its several subspecies, Montana grayling, and mountain whitefish. Most of the park's native fishes have been included under catch-and-release-only fishing rules since the early 1970s. The changes announced recently primarily affect populations in Yellowstone Lake and its tributaries, and the upper Lamar River.

Citing evidence that invasive exotic organisms such as lake trout, whirling disease, and New Zealand mud snails are having negative effects on Yellowstone's native sport fish, Superintendent Finley stated that the 2001 changes "are the next logical step to help repair the tremendous damage being done to our native species."

Yellowstone cutthroat trout have declined throughout the West and are currently designated

as a "Species of Special Concern-Class A" by the American Fisheries Society. A formal petition to list this subspecies as "threatened" throughout its range was submitted to the U.S. Fish and Wildlife Service in 1998 but was recently denied. YNP represents approximately 91 percent of the current range of Yellowstone cutthroat trout and contains 85 percent of the historical lake habitat for this subspecies, so the park is considered crucial to the survival of the species.

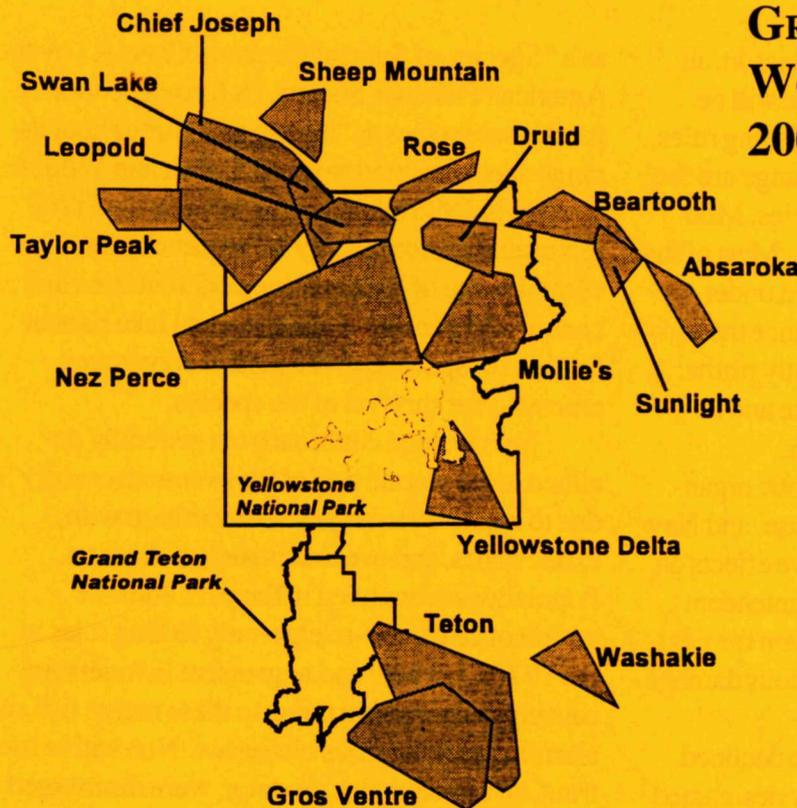
Yellowstone cutthroat trout generally declined in the second half of the twentieth century due to angler over-harvest, competition with exotic fishes, and overzealous egg collection. Populations rebounded in the park after the advent of catch-and-release-only fishing rules in the 1970s, but new and aggressive invaders are causing an increasing threat to these native fish and alarming park fisheries biologists. Non native lake trout, an effective fish predator, were discovered

in Yellowstone Lake in 1994. Throughout the West, cutthroat trout populations preyed upon by introduced lake trout have typically declined, exhibited lower growth, or have disappeared. Aggressive lake trout control efforts by the National Park Service and no harvest limits have resulted in removing 27,000 lake trout from Yellowstone Lake since 1994, including more than 12,000 in 2000. Still, the number of Yellowstone cutthroat trout monitored during the annual fall count in Yellowstone Lake was lower in recent years than at any other time in the 25-year history of the monitoring effort. Whirling disease, which has been implicated in recent years in the decline of trout populations in many western states, was discovered in Yellowstone Lake in 1998. So far, it is unclear which of these two nonnative invaders has been the greater factor in the decline of Yellowstone cutthroat trout, but there is no question they are causing it.

Other native sport fish, including westslope

cutthroat trout and Montana grayling, have been under catch-and-release-only fishing rules since 1973. This is the first time mountain whitefish have been placed under such rules in Yellowstone National Park. This new rule gives mountain whitefish equal status to the other native sport fish in the park.

Superintendent Finley announced that in addition to the new catch-and-release-only fishing rules, the opening date of the fishing season on Yellowstone Lake would return to its historical date of June 15 for the 2001 fishing season. From 1998 through 2000, Yellowstone Lake's opening date was moved forward to June 1 in an attempt to give anglers a greater chance of catching non native lake trout, but monitoring showed that during the early June period, anglers caught several thousand cutthroat trout for every lake trout caught. Because of the incidental hooking mortality of released fish, this negated the positive impact of the angler catch of lake trout.



## GREATER YELLOWSTONE WOLF PACK TERRITORIES 2000-2001

# ANNUAL COOPERATIVE BIGHORN SHEEP GROUND COUNT WINTER 2000-2001

By Dan Reinhart and Jim Caslick

On December 14, 2000, the annual bighorn sheep ground count was conducted on winter range from Mt. Everts in Yellowstone National Park to Point of Rocks in the Gallatin National Forest. This count is an effort of the Northern Yellowstone Cooperative Wildlife Working Group. Counts were made by participants from the National Park Service, U.S. Forest Service, and Montana State University. Weather conditions this year were overcast, about 25° F, with two inches of old snow on the ground and half an inch of new snow overnight, and southwest winds gusting to 25 mph.

Since 1979, ground counts have been conducted using established survey routes. Depending on the individual route, the terrain, visibility from roads, and the observer, ground count routes were either surveyed from vehicles or hiked by observers. To the extent possible, the same observers surveyed an established route that they had surveyed in previous years. All participants recorded their sheep observations on a standardized data form. Six previously-established routes were surveyed this year. These routes have been surveyed annually for at least 10 years. This is the second year that a new route was surveyed near LaDuke Springs.

The total count for the 2000-2001 ground count was 40 sheep: 12 rams, 22 ewes, and 6 lambs. Ratios were 27 lambs/100 ewes and 55 rams/100 ewes.

A two-year study of impacts of human activity on bighorn sheep in Yellowstone was completed in December 1998. At the outset of

that study in 1997, four young rams and 14 ewes were fitted with radio collars designed to break away in approximately two years. This year (2000-2001), we saw one of the four rams and two of the 14 ewes originally collared. During our cooperative winter ground counts, collared sheep have been observed, as indicated in Table 1 below.

Spring helicopter surveys are considered a more reliable means of monitoring sheep populations in a large and diverse area than ground counts, and the Montana Department of Fish, Wildlife and Parks conducted several aerial surveys on Northern Range bighorn sheep during the 1990s. The smaller winter ranges included in the winter ground count (Cinnabar, Point of Rocks, Tom Miner Basin) may be more difficult to completely cover on the ground, complicating assessment of population trends and recruitment rates. Recent aerial surveys have resulted in larger numbers of sheep observed, allowing more accurate assessments of these population characteristics.

However, ground counts allow closer observations of sheep, *e.g.*, assessing physical condition, recognizing coughing (which can be a sign of lungworm infection), identifying collar color, aging rams by counting annual rings on horns, and sexing lambs. If conducted in a systematic fashion, ground counts may be considered a valuable supplement to aerial counts as well as a cost-effective and less invasive counting technique. It has been found that helicopter flights during winter caused sheep to run up to 250

Table 1.

	Collared in March 1997	Observed in December 1997	Observed in December 1998	Observed in January 2000	Observed in December 2000
Rams	4	3	2	3	1
Ewes	14	11	5	1	2

meters and abandon wind-blown slopes for up to one week.

In the Cinnabar/Sepulcher Mountain area, lambs and yearlings were smaller than usual, but apparently in good health; all sheep there had good-looking pelage (wool) and appeared to be in good condition, with no coughing observed. No coughing sheep were observed on McMinn Bench or Rattlesnake Butte.

Wolf tracks were numerous and widespread in the old snow near Rattlesnake Butte, and present, but less numerous, on Rifle Range Flats. No wolf tracks were observed on McMinn Bench.

Bighorn sheep are subject to numerous causes of mortality. During a 1997-98 study, one predation attempt on sheep by a golden eagle was observed, along with four attempts by packs of

coyotes, and one attempt by a mountain lion. He documented kills of two adult ewes by mountain lions. During fall 1999, fragmentary remains of 6-10 bighorn sheep were found in a small area on Mt. Everts, including horn sheaths of 4-5 ewes and one ram, and two radio collars. Probable cause of death was lightning. In October 2000, a visitor reported a possible wolf-killed full-curl ram on Swan Lake Flats. No other bighorn sheep mortalities in the park were reported this year. The Yellowstone Wolf Project has not yet documented a wolf kill on bighorn sheep since wolves were reintroduced in 1995.

As shown in the following summary, the ground count has shown a continuous decline from 116 in 1995 to 40 this year. This year's total count is the lowest since 1983.

### Summary of Bighorn Sheep Winter Ground Counts 1979-2000\*

<u>Year</u>	<u>Rams</u>	<u>Ewes</u>	<u>Lambs</u>	<u>Unclass</u>	<u>Total</u>	<u>L:100E</u>	<u>R:100E</u>
1979	31	36	21	0	89	59	86
1980	84	127	50	0	265	39	66
1981	42	74	33	0	156	45	57
1982	36	26	7	0	72	27	138
1983	21	15	2	0	38	13	140
1984	21	19	6	0	46	32	111
1985	25	24	10	0	59	42	104
1986	48	33	12	0	93	36	145
1987	40	45	33	0	108	73	89
1988	40	55	22	0	117	40	73
1989	47	69	5	0	121	7	68
1990	58	82	8	3	151	10	71
1991	29	28	10	2	69	36	104
1992	39	45	12	9	105	27	87
1993	33	35	11	0	79	31	94
1994	33	49	21	4	115	43	68
1995	50	46	14	6	116	31	109
1996	38	52	13	0	103	25	73
1997	38	52	7	0	97	13	73
1998	28	26	10	3	67	15	108
1999*	24	22	6	5	57*	23	109
2000*	12	22	6	0	40*	27	55

\* includes new area (LaDuke Springs).

## ...NEWS BRIEFS...

### **New publications**

Now available from the YCR are three new publications: *Yellowstone in the Afterglow: Lessons from the Fires*, *Greater Yellowstone Predators: Ecology and Conservation in a Changing Landscape*, and the *Yellowstone Center for Resources 1999 Annual Report*. To obtain copies of any of these, call Christie Hendrix at (307) 344-2203.

New in the research library: *Catastrophic Events in North American Bison Populations: An Historical Geographical Overview with Implications for Future Management*, Master's thesis by Kelly Altenhofen, South Dakota State University.

### **John Varley honored for fisheries work**

On Tuesday, October 2, at the Wild Trout VII conference at Old Faithful, the Federation of Fly Fishers presented John Varley with its Conservation Award of for his lifetime achievements in the field of fisheries management. The presentation emphasized John's many contributions to the world-wide development and popularization of special regulations as a tool for managing fishing harvest while maintaining healthy wild fish populations as part of ecological communities. John is regarded as one of the modern pioneers of special regulations management in the world of trout.

In his acceptance speech, John pointed out how gratifying it has been to watch the spread of catch-and-release regulations. On his travels this year, he has seen such regulations in effect on the Kamchatka Peninsula of eastern Russia (for salmonids) and in the waters of Botswana, Africa (for tigerfish). Congratulations, John!

### **Park wins internet auction for rare Yellowstone item**

After some frenetic bidding, the curator's office recently acquired the original Yellowstone Park Transportation (YPT) Company ledger of

stagecoach operations in the park, 1892-1906. Funds allocated by the Yellowstone Foundation paid \$3,815 for this item, for which there were around 40 other bidders. Until this ledger came up for sale by a Colorado seller who worked as a waiter at Mammoth Hot Springs in about 1966, no one knew for certain whether any of the YPT Company stagecoach records existed. So far this is the only extant one, and the park now owns it.

The seller says that Art Bazata, the then-president of the Yellowstone Park (YP) Company, personally gave him the ledger in the mid-1960s after the seller helped Bazata and Mrs. William Nichols clean out the steamtunnels that run underground between the Mammoth Hotel and dining room. The ledger and lots of other historic materials were found there at that time. The YP Company was the legal descendant owner of this item, until Bazata gave it to our seller. Thanks to Mike Finley for alerting the curator's office that this item was for sale, and to Jack Davis of Bozeman, who estimated its value for bidding purposes.

### **Final snowmobile regulations published in *Federal Register***

The final rule required to implement portions of a Record of Decision for winter use in Yellowstone and Grand Teton national parks and the John D. Rockefeller, Jr., Memorial Parkway was published in the *Federal Register* on January 22, 2001. The rule provides for interim actions to be implemented to reduce the impacts of snowmobile use during the winter season of 2002-2003, and effective the end of the 2002-2003 winter season allows for oversnow motorized recreation access by NPS-managed snowcoach only, with limited exceptions for continued snowmobile access to other public and private lands adjacent to or within Grand Teton National Park. The draft regulations were published in the *Federal Register* on December 18,

2000, and were open for public comment until January 17, 2001. More than 5,200 comments were received and considered in the public process. The rule can be viewed on the web at [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2001\\_register&docid=01-1944-filed](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2001_register&docid=01-1944-filed). For a hard copy, contact Jennifer Conrad at (307) 344-2021.

### **New NPS sites**

Congress and former president Bill Clinton added five new sites to the National Park system during the past few months, bringing the total number of park units to 384.

First Ladies NHS in Canton, Ohio, was established to preserve and interpret the role and history of first ladies in American history. The site will consist of two properties: the home of First Lady Ida Saxton McKinley and the City National Bank Building. The site will be managed through a cooperative agreement with the National First Ladies Library, a nonprofit corporation.

Rosie the Riveter/World War II Home Front NHP in Richmond, California, was created to commemorate the mobilization of the workforce on the home front during World War II, while specifically recognizing the contributions of women and minorities to this effort. The park will consist of five sites in the city of Richmond where the original buildings still stand that housed employees

and provided services to those working at the shipyards.

Great Sand Dunes National Preserve is located in the San Luis Valley of Colorado. A new 42,000-acre national preserve was established that is adjacent to the existing park and consists of lands formerly administered by the U.S. Forest Service.

The U.S. Virgin Islands Coral Reef is located in the submerged lands off the island of St. John in the U.S. Virgin Islands. This designation furthers the protection of the scientific objects included in Virgin Islands National Park. The monument contains all the elements of a Caribbean tropical marine ecosystem and several threatened and endangered species. Humpback whales, pilot whales, four species of dolphins, brown pelicans, roseate terns, least terns, and the hawksbill, leatherback, and green sea turtles all use portions of the monument.

Governor's Island National Monument is located in New York between the confluence of the Hudson and East rivers. The park includes two forts, which served as outposts to protect New York City from sea attack during the early 1800s. The monument also played important roles in the War of 1812, the American Civil War, and World Wars I and II.

In addition, Cuyahoga Valley National Recreation Area, in Ohio, was converted to Cuyahoga Valley National Park.

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We welcome submissions of articles or drawings relating to natural and cultural resource management and research in the park. They can be sent to:

Yellowstone Center for Resources,  
P.O. Box 168, Yellowstone National Park, Wyoming 82190, (307) 344-2208.

*Managing Editor*  
Sue Consolo Murphy

*Editing and Design*  
Tami Blackford  
Kevin Schneider  
Alice Wondrak

