

# The Buffalo Chip

Resource Management Newsletter  
Yellowstone National Park  
January/February 2005



## *What's inside*

Christmas Bird Count.....	6
Bison update.....	8
Winter elk count .....	9
Wayne Brewster retires.....	10
Upper Geyser Basin .....	12
News briefs .....	13

## RECENT EXCAVATIONS AT THE MALIN FISHING HOLE SITE

by Ann Johnson

In August 2004, archeologists returned to site 24YE353 to undertake a data recovery program believed to have the potential to reveal much about early human occupations in this area of the park. Site 24YE353 is situated on a five- to seven-meter-high terrace on the north side of the Yellowstone River, upstream from Gardiner, Montana. The site is unusual in that it contains intact stratigraphy, well-preserved features, and floral and faunal remains. These are rare in Yellowstone, where freeze/thaw cycles, rodents and other burrowing animals, and tree tip-ups homogenize the soil profile, and acidic soil conditions (derived from the rhyolite bedrock and coniferous tree cover) result in deterioration of uncharred organic remains. Stone tools, fire-cracked rock features, and flake debris are also plentiful at site 24YE353.

The site was first recorded in 1987, when Tom Jerde completed a site form. Jerde observed flakes of obsidian, quartzite, agate, petrified wood, chert, and basalt; an assortment of stone tools; and several hearth features eroding out of the cutbank. Based on the observed depth of eroding materials, he figured the occupation level to be 50 cm below the present surface. In 1989, an archeological crew from the Midwest Archeological Center revisited the site and salvaged the contents of several eroding features. Radiocarbon dates obtained on charcoal from these features ranged in calibrated age from A.D. 675 to 962. Analysis of faunal and macrofloral remains from the site's fill indicated that a wide range of locally available plant and animal resources were being processed, including prickly pear, bighorn sheep, and fish. Indeed, these

were the first fish bones documented in an archeological context in Yellowstone National Park.

In more recent years, archeologists have continued to revisit and monitor the site under the auspices of an archeological inventory of sites along the Yellowstone River. A visit in the fall of 2000 verified that the 100-year and 500-year floods of 1996 and 1997 had removed a large portion of the bank, cutting into the site. An exposed hearth not included in the earlier salvage excavations was completely gone, and collector piles of flakes were noted at the site. Addressing these concerns, a crew of archeologists from Montana State University's Museum of the Rockies, led by Mack Shortt, returned in 2002 to carry out fieldwork for data recovery. A very large, notched stone was identified as a fishnet weight used to fish in the river's current. Radiocarbon dates of fire-cracked rock features excavated from a block within the upper 30-40 cm averaged to 3,500 B.C., but diagnostic projectile points indicated these levels were mixed with cultural materials from the later cultural horizons.

At the same time, a single, 1x4-m trench was excavated to a depth of 150 cm (about five feet) below the surface. These excavations exposed a complex stratigraphy that provided the first indication that there were much older cultural occupations present. Four occupations were identified between 60 and 150 cm below the surface. Although diagnostic artifacts were not found in association with the bottom three occupations, the base of a Paleoindian projectile point associated with a radiocarbon date of 8,800 years before present (B.P.), found at about

65 cm below the surface, indicated the lower levels to be of considerable antiquity.

These promising results led park archeologists to recognize the value in this location, which is one of the earliest and best stratified sites identified in Yellowstone National Park. Site 24YE353 is characterized by a complex stratigraphic geological and archeological history; rarely have such locations been found in combination with such a well-dated context in direct association with human occupations in the Greater Yellowstone. Data collected from site 24YE353 present a truly unique opportunity to elucidate the nature of early Precontact period adaptations in the park,

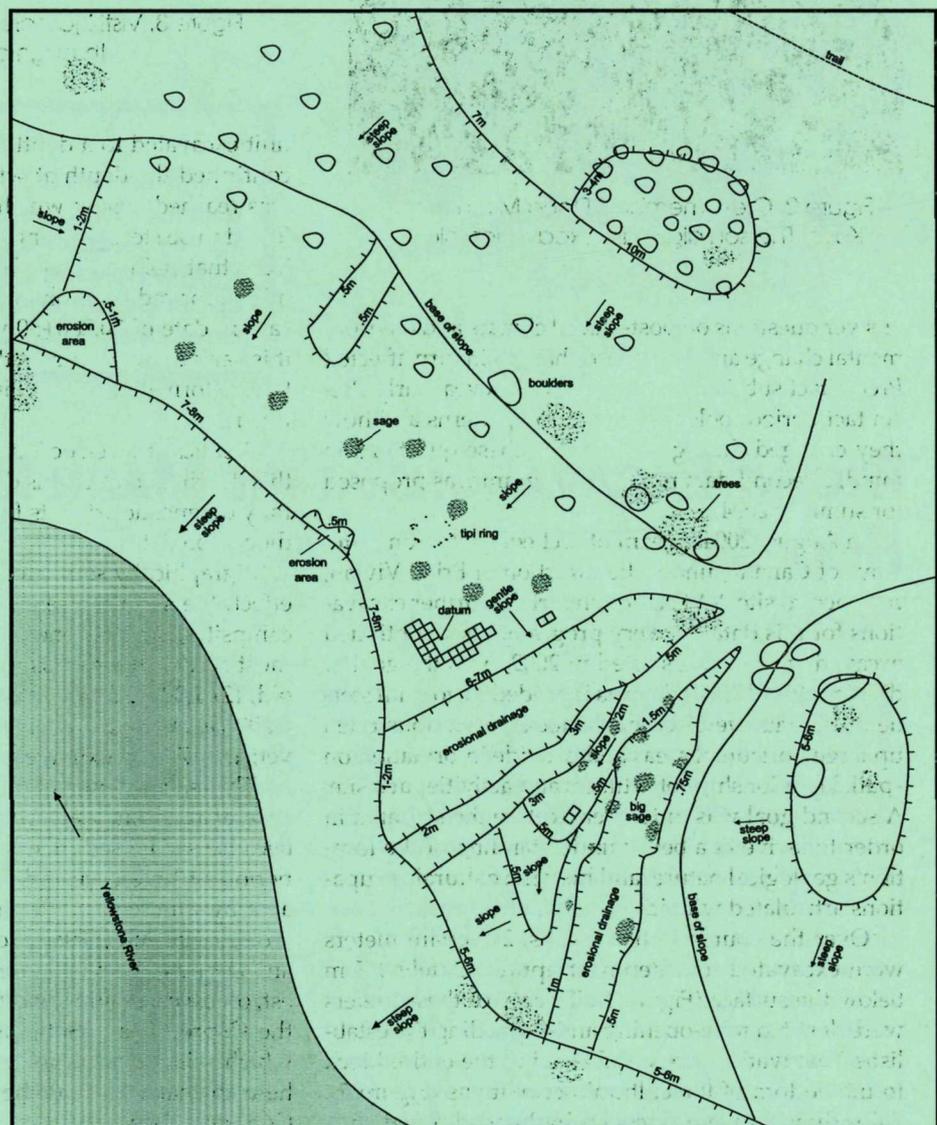


Figure 1. Plan view of site and excavations.

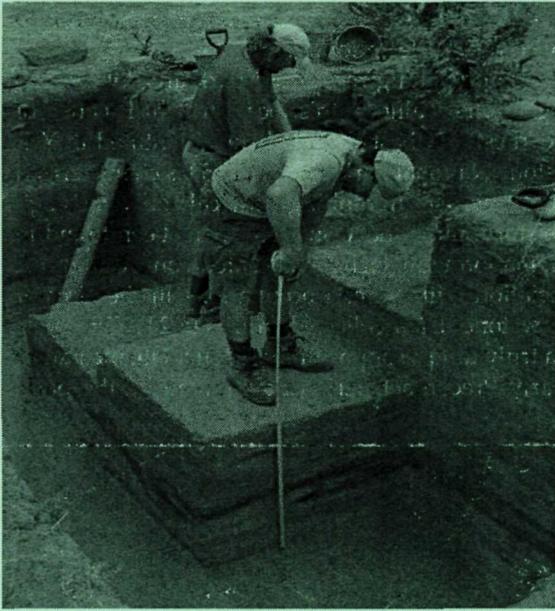


Figure 2. Crew members Doug Mitchell and Kevin Thorson dig main excavation block.

answer questions on post-glacial climate and environmental change and how these changes in turn affected Precontact subsistence patterns, and reveal early Precontact period toolstone utilization patterns and how they changed through time. With these questions in mind, a second data recovery program was proposed for summer 2004.

In August 2004, a team of archeologists from Lifeways of Canada, under the direction of Brian Vivian, returned to site 24YE353 to undertake further excavations for this data recovery program. They continued excavating the block started in 2002, with the goal of digging this block as deep as it needed to go until sterile sediments were reached. Block excavations open up large horizontal areas and provide information on spatial relationships of artifacts and activities at a site. A second goal was to further explore the site area in order to arrive at a better understanding of the location's geological nature, and how the cultural occupations articulated with it.

Over the course of five weeks, 24 square meters were excavated to a depth of approximately 1.7 m below the surface (Figure 1). Twenty of these meters were devoted to re-opening and expanding the established excavation block and digging the entire block to the bottom of the cultural occupations (Figure 2). All sediments were screened by hand through fine, 1/8" mesh, which facilitated the recovery of even the smallest stone waste flakes (Figure 3). A single, 1x1-m



Figure 3. Visti Kjar screens sediments by hand through a fine mesh.

unit excavated to a depth of 2.7 m below the surface confirmed the depth at which the lowest occupation was reached, below which all of the sediments were found to be sterile. A single charcoal sample collected from that point, 240 cm below the surface, was submitted for radiocarbon dating. A conventional radiocarbon date of 10,280±50 years ago was reported for this sample, which dates the post-glacial initiation of terrace formation along this stretch of the Yellowstone River.

A series of seven occupations were identified above this depth (and after this date). Culturally and temporally diagnostic artifacts found in association with radiocarbon dates have allowed us to better define these stratigraphically separated occupations (Figure 4). In effect, the site represents seven different prehistoric campsites, stacked one on top of another. From the most recent, the campsites are (1) 1,100–1,400 years old; (2) 1,300–2,500 years old; (3) 5,500 years old; (4) 8,800 years old; the fifth and sixth are not dated as of yet; and (7) approximately 9,550 years old.

This site is unusual not only because there were several campsites at different times here, but also because sterile sediments separate the campsites. A period of time occurred between each re-use of the area by different people. This allows us to compare tools, stone materials, and activities by each group and contrast them to those of other groups. The lowest, oldest occupation was found to be associated with the Osprey Beach Subphase of the Cody Complex, which will allow us to compare information found here to that found at the recently excavated Cody Complex Osprey Beach site on Yellowstone Lake, and to get a better picture of these early people. Two complete Cody knives and a tip of a third knife were

## MAIN EXCAVATION BLOCK SOUTH WALL PROFILE

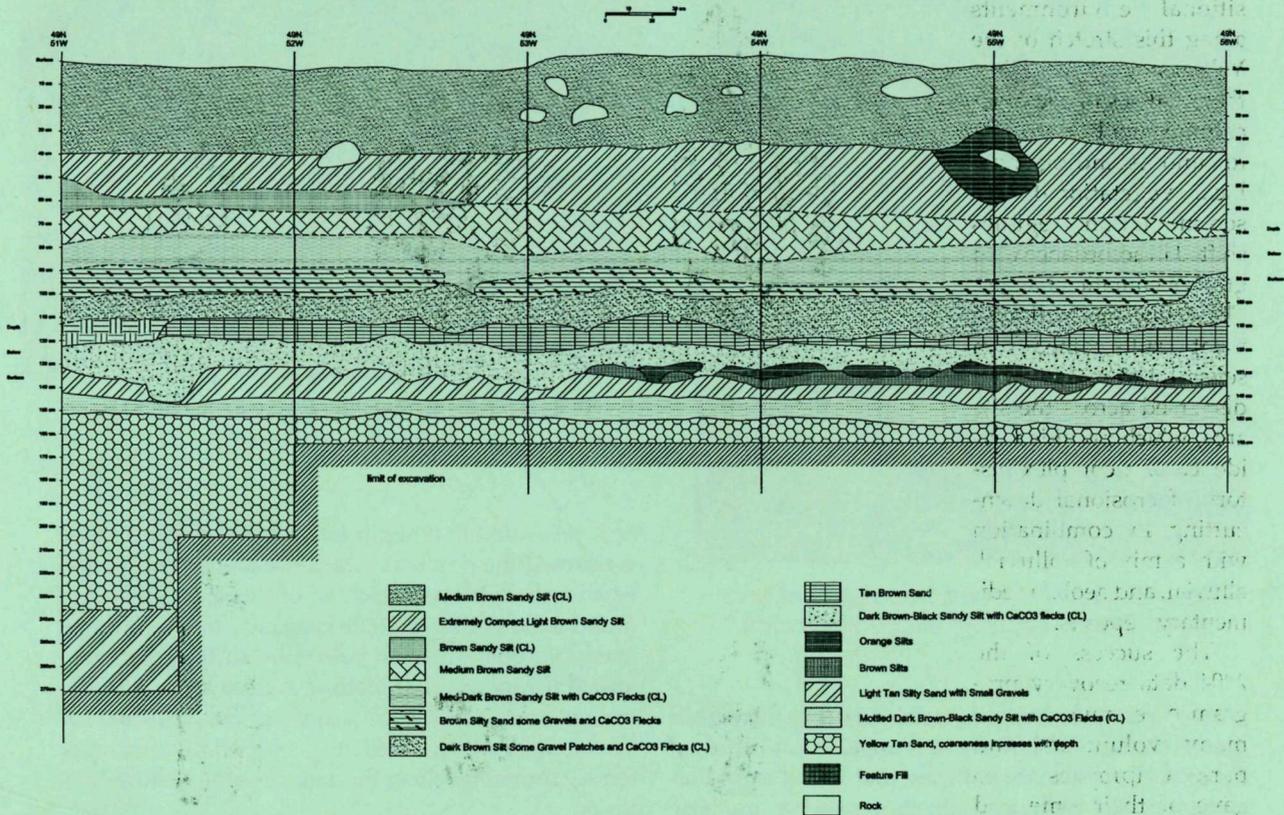


Figure 4. Stratigraphic profile of the main excavation block.

recovered at this depth, along with an assortment of lithic debitage and well-mineralized bone fragments (Figure 5). This is only the third excavated site in the park to yield Cody Complex materials, which have also been found in eroded context at a number of other locations. Three radiocarbon dates of  $9,510 \pm 50$  years ago,  $9,530 \pm 50$  years ago, and  $9,670 \pm 50$  years ago from site 24YE353 identify this as the oldest archeological site excavated in the park to date.

Above the Cody occupation, fewer diagnostic artifacts were found in Occupations Four, Five, and Six. Those found were affiliated with the terminal Paleo-Indian period, when native cultures underwent great changes in technology and subsistence patterns. A date of  $8,880 \pm 50$  years ago helped fix the minimum age of these occupations. An increase in locally available obsidians (compared to the chert materials found in the Cody level) hinted at a greater reliance on the park's resources, and the presence of a grinding stone indicated that the collection and grinding of seed-bear-

ing plants was an important activity. These shifts were prescient to the greater changes manifest in Occupations One, Two and Three, when the use of a wide range of plant and animal resources, including fish and prickly pear cactus, became common.

Analytical investigations into subsistence activities are underway. Bulk soil samples were collected from the numerous stone boiling hearths and other cooking features found in the upper levels. A water flotation device was employed to separate these soil samples and recover whatever macro-botanical and faunal remains may be present, so as to better document how changes in subsistence strategies are represented in occupations along the Yellowstone River.

Other bulk soil samples were systematically collected from three soil columns cut from select locations within the main excavation block. One of these columns was turned over to park geologist Cheryl Jaworowski for a more detailed analysis of the composition and character of the sediments, which will reveal much

of the post-glacial depositional environments along this stretch of the Yellowstone River. Further analysis of the other columns will contribute to understanding how local vegetational and sedimentation regimes shifted in accordance with greater climatic changes. These findings will augment results gained from several 1x2-m test units dispersed across the site area, which provided evidence of a complex history of erosional down-cutting in combination with a mix of colluvial, alluvial, and aeolian sedimentary deposits.

The success of the 2004 data recovery program owes much to the many volunteers and park employees who gave of their time and energy to participate in the excavations. In particular, gratitude is owed to John Reynolds, who devoted many hours to working the hand screen, and never complained on even the hottest of summer days. Over the five weeks, Lori Doss, Mitch Risinger, Tom Auchtung, Christine Smith, and Christie Hendrix helped with the excavations and contributed to the success of the project. Monty Simenson and Tim McGrady of Corral Operations deserve special mention for making multiple trips in and out of the site, to bring in equipment and supplies, and retrieve the artifacts and volumes of soil samples collected (Figure 6). The scientific value of these samples is immeasurable. 🐾



Figure 5. Artifacts recovered from the oldest (lowest) prehistoric campsite included materials associated with the early people of the Cody Complex.



Figure 6. NPS packers Monty Simenson and Tim McGrady leave excavation site with loads of soil samples.

# YELLOWSTONE CHRISTMAS BIRD COUNT

## DECEMBER 19, 2004

Species	Wyoming-YNP	Montana-YNP	Park County, MT	Totals
Green-winged Teal	29			29
Mallard	35	27	18	26
Gadwall	6			6
Common Goldeneye	2			2
Barrow's Goldeneye			41	41
Bald Eagle	2	2	3	7
Golden Eagle	3	2	8	13
Cooper's Hawk			1	1
Northern Goshawk	1			1
Prairie Falcon		1		1
Rock Pigeon	19	25	107	151
Belted Kingfisher		1	1	2
Hairy Woodpecker			2	2
Northern Flicker	1		1	2
Clark's Nutcracker	6	1	7	14
Black-billed Magpie	54	9	54	117
Common Raven	34	10	100	144
Pinyon Jay			22	22
Black-capped Chickadee		1	27	28
Mountain Chickadee	15	5	18	38
Red-breasted Nuthatch	1		4	5
Brown Creeper			1	1
Marsh Wren	5			5
Northern Pygmy-Owl			1	1
American Dipper	20	12	5	37
Townsend's Solitaire	19	2	16	37
American Robin	1		1	2
Bohemian Waxwing			20	20
Northern Shrike	1		1	2
Song Sparrow	1		3	4
White-crowned Sparrow			2	2
Gray-crowned Rosy Finch			16	16
House Finch			19	19

NPS/TERRY MCGEE/ANNEY

Species	Wyoming-YNP	Montana-YNP	Park County, MT	Totals
Pine Siskin		40		40
House Sparrow			112	112
<b>Totals</b>	<b>255</b>	<b>138</b>	<b>611</b>	<b>948</b>

Total Species: 35.

Additional species during count week: 2.

Dark-eyed Junco (slate-colored race), December 22, Gardiner, Montana.

Great Horned Owl, December 22, Mammoth, Wyoming.

Bald Eagle classification: 1 Class III; 6 Class V; 7 total.

Golden Eagle classification: 11 adults; 2 immature; 13 total.

Gray-crowned Rosy Finch classification: Gray-crowned race = 12; Hepburn race = 4; Total = 16.

Observers: Curt Bentson, Annie Bochus, Ed Bourquist, Tina Bauer, George Bumann, Mark Donahue, Mary Heller, Catherine Hiestand, Linda Hendy, Dejan Kovac, Dave Martyn, Don MacDougall, Terry McEneaney, Neal Miller, Carl Roth, Gelaine Spoto, Melissa Scott.

Feeder Watchers: Danielle Chalfant, Emma Heller, Karen McEneaney.

Records:

Tied abundance records: Prairie Falcon (1), previous records 1988, 1997, 2000, 2002; Northern Pygmy-Owl (1), tied eight previous records.

New abundance records: Marsh Wren (5), previous record 4 in 2003; Gadwall (6), previous record 3 in 2003; White-crowned Sparrow (2), previous record 1 in 1991, 1992, 1994, 1998, 2003; Golden Eagle (13), previous records 12 in 1992, 1999.

Atypical bird: A male Northern Pintail X Mallard hybrid. Predominately a drake Mallard with a black head, buffy streak trailing the eye, small black pointed tail, silver pointed scapulars, gray bill, and gray legs. Observer: Terry McEneaney and several witnesses. Location: Mammoth Hot Springs, Wyoming.

General Observations: Below average winter conditions resulted in slightly above average numbers of species and below average individual birds observed. Temperatures 20-32°F. Snow depth 0-3", deepest at higher elevations. Edge of rivers were not frozen.

Location: MT (WY) 45 02 N 110 42 W.

Hours: 72 total.

Miles: 60 via vehicle, 12 via foot.

35 species tallied count day 2004.

97 species tallied on count day for history of count.

102 species with the YCBC and the count week combined.

This represents 32 years of data.

Above average species (35, mean 33), and below average abundance (1,004 individuals, mean 1,403) during this count.

Compiler: Terry McEneaney.

# BISON UPDATE

by Chris Geremia and Janice Stroud

The busiest time of year for the Bison Ecology and Management Office begins when the snow starts falling and bison begin to leave the park in search of forage. Under the Interagency Bison Management Plan (IBMP), population size is the most significant factor determining the types of management practices that may be available when this happens, including hazing and capture. Consequently, the Bison Ecology and Management Office staff invests a lot of time in ensuring that its bison population numbers are accurate.

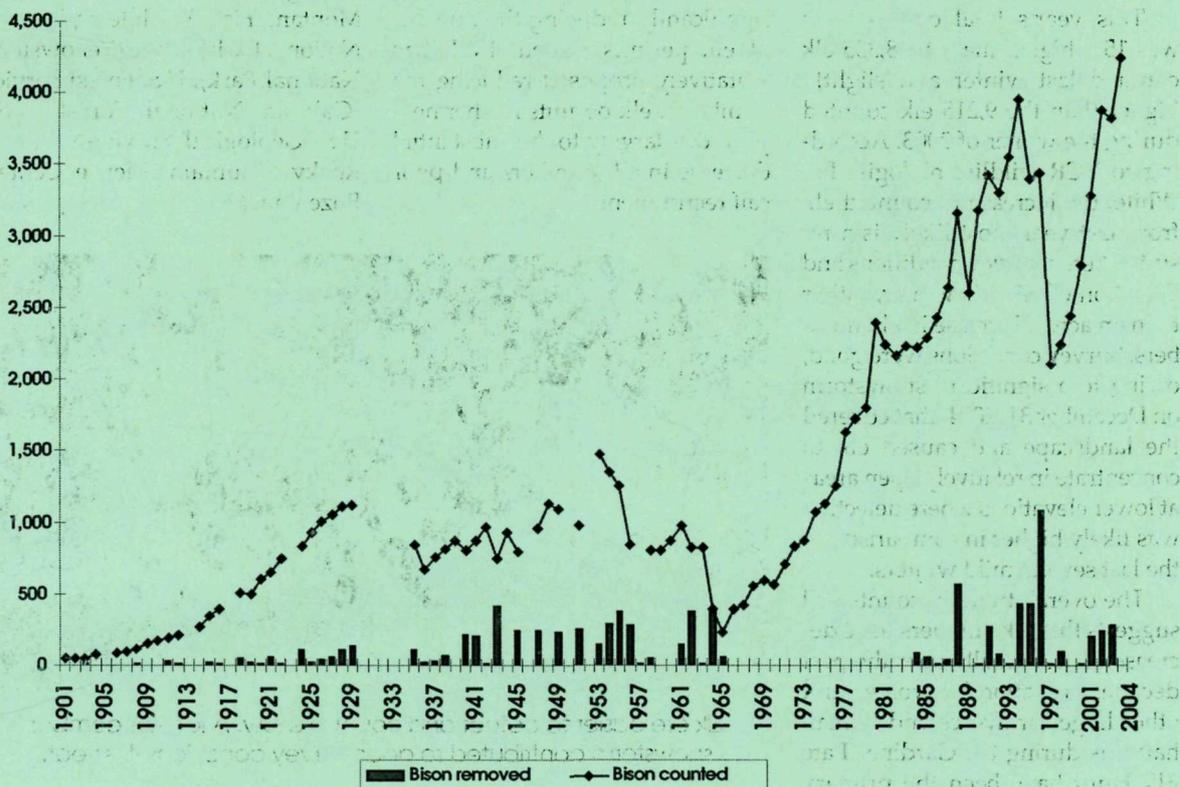
In 2004, an estimated 4,239 bison were counted in early August. Calf production was again high, with an early August parkwide ratio of 56 calves per 100 adult cows. The winter count serves as the number upon which management decisions are based, and on January 26, 2005, 4,053 bison were counted on a parkwide aerial count survey. Although some mortalities were observed through early winter, we expect that

Yellowstone is entering the winter "management season" with a near-record population size.

Hazing events were common at the west boundary during late fall and early winter, and began at the north boundary during early winter. As was true on the west side, north-boundary hazing events through January involved only adult bulls, but for a single adult cow that was lethally removed after being hazed back into the park four times.

When the population of the herd exceeds around 3,000 bison, animals that exit the park may be lethally removed from the population without being tested for brucellosis, according to the IBMP. However, the Bison Ecology and Management Office intends to encourage testing of all animals at the Stephens Creek capture facility. As was the case last year, seronegative calf and yearling bison will be vaccinated, and all seronegative bison will be held.

Bison Population Counts and Removals in the Last 100 Years



# 2004-2005 WINTER COUNT OF NORTHERN YELLOWSTONE ELK

by P.J. White, Tom Lemke, Dan Tyers, and Peter Gogan

The Northern Yellowstone Cooperative Wildlife Working Group conducted its annual winter survey of the northern Yellowstone elk population on January 5, 2005. A total of 9,545 elk were counted during good survey conditions. Approximately two-thirds of the observed elk were located within Yellowstone National Park, while one-third was located north of the park boundary. Biologists used four fixed-wing aircraft to count elk through the entire northern range during the one-day survey. The northern Yellowstone elk herd winters between the northeast entrance of Yellowstone National Park and Dome Mountain/Dailey Lake in the Paradise Valley.

This year's total of 9,545 elk was 15% higher than the 8,335 elk counted last winter and slightly higher than the 9,215 elk counted during the winter of 2003. According to YCR wildlife biologist P.J. White, the increase in counted elk from last year most likely is a result of better survey conditions and detection of elk this winter, rather than an actual increase in elk numbers. Survey conditions were good, owing to a significant snowstorm on December 31, 2004, that covered the landscape and caused elk to concentrate in relatively open areas at lower elevations where detection was likely higher in comparison to the last several mild winters.

The overall trend in counts still suggests that elk numbers have decreased substantially over the past decade. Predation by wolves and other large carnivores and human harvests during the Gardiner Late Elk Hunt have been the primary

factors contributing to decreasing numbers of northern Yellowstone elk since the mid-1990s. Other factors that have contributed to decreased elk numbers include a substantial winter-kill caused by severe snow pack during 1997 and, possibly, drought-related effects on pregnancy and calf survival.

The Gardiner Late Elk Hunt was designed to reduce elk numbers outside Yellowstone National Park so that they do not cause long-term changes in plant communities or decrease the quality of their winter range. The Montana Department of Fish, Wildlife and Parks (FWP) has reduced the hunter harvest as elk numbers and calf recruitment have declined in recent years, by significantly reducing the number of elk permits issued. FWP has tentatively proposed reducing the number of elk permits further next year, due largely to the substantial decrease in elk numbers and poor calf recruitment.

The Working Group will continue to monitor trends of the northern Yellowstone elk population and evaluate the relative contribution of various components of mortality, including predation, environmental factors, and hunting. The Working Group was formed in 1974 to cooperatively preserve and protect the long-term integrity of the northern Yellowstone winter range for wildlife species by increasing scientific knowledge of the species and their habitats, promoting prudent land management activities, and encouraging an interagency approach to answering questions and solving problems. The Working Group is comprised of resource managers and biologists from the Montana Fish, Wildlife and Parks, National Park Service (Yellowstone National Park), U.S. Forest Service (Gallatin National Forest), and U.S. Geological Survey-Northern Rocky Mountain Science Center, Bozeman.



Elk are easier to detect and count in snow. A late-December snowstorm contributed to good survey conditions this year.

# THE BREWSTER FACTOR

by John Varley

On January 3, 2005, Wayne Brewster, Deputy Director of YCR, "hung up his spurs." But wait—perhaps it was, more appropriately, "grabbed his dusty spurs down from their peg!" Wayne and his wife, Lil, have left Yellowstone with their belongings, rolling stock, and horses with great plans for a more leisurely life based out of Helena, Montana. Some of us suspect they will be trying to learn how to sleep in, and how to fill their days with things they want to do, rather than things other people want them to do.

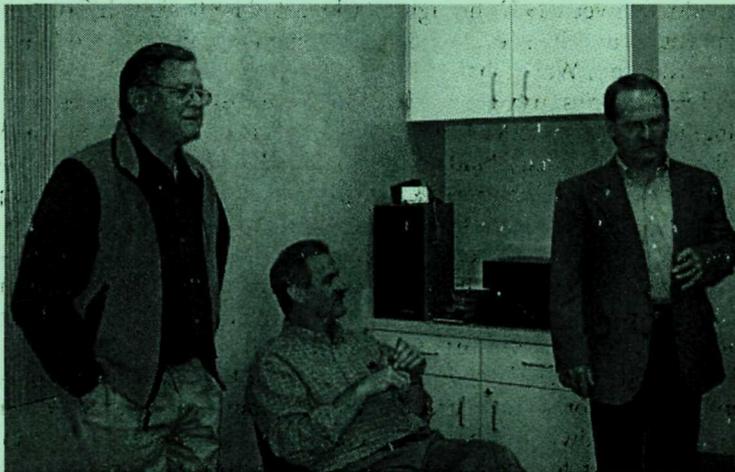
Wayne retired from federal service after 35 years with the U.S. Army, U.S. Fish and Wildlife Service (USFWS) and, for the past 17 years, the National Park Service, where he worked with the fish and wildlife resources of Glacier and Yellowstone parks.

Being a private sorta fellow, few around Yellowstone probably knew much about Wayne's remarkable life and career, but it is one that could probably support a good book (and only he could write it!). He grew up a "hardscrabble ranch-kid" in rural North Dakota, and as a small boy learned how to work hard at the family "place." Unlike most of us, he grew up without electricity and indoor plumbing until he was a teenager, and began filling the work role of his rancher father during high school because of his dad's untimely passing. But as hard as life was in those days, the remaining Brewsters still appreciated the value of education and "getting ahead in life," so when it came time, both Brewster brothers started and then finished college while Mom stayed home and ran the ranch. Wayne and his brother were the first of the Brewster clan ever to have a college education. Somewhere

in this busy period, Wayne and Lil discovered each other and married, and went forward as partners to face whatever awaited them.

After graduating from college, Wayne volunteered for the U.S. Army and served three years' active duty in the U.S., Germany, and the Republic of Viet Nam, where he was a field artillery officer. While in Viet Nam, he attained the rank of Captain and later was awarded six decorations, including the Bronze Star. Following his discharge from the Army, Wayne returned to South Dakota State University, obtained a Master's degree in Wildlife Biology, and then set out in an all-new direction, with the fresh goal of spending a career in service to fish and wildlife conservation.

And what a career jump-start it turned out to be. In 1975, Wayne began his career as a GS-7 with the USFWS in Pierre, South Dakota. He worked on the huge Oahe Dam and irrigation project, still being planned and constructed then, assessing the impacts of the proposed construction on fish and wildlife populations. In doing so, he helped make important decisions for mitigating the tremendous resource losses that resulted from the project. In one area, Wayne established that wildlife values were so high that that particular phase of the project was de-authorized. This was a very rare event in the 1960s and '70s, a period known to many of us as the "Age of Damming All Running Water." Wayne and Lil moved to Minneapolis, Minnesota in 1977, where he worked with the USFWS Division of Refuges on land acquisition analysis over a five-state area. This vital job evaluated lands being considered for purchase or lease based on their ability to sustain or increase wildlife resources.



Left to right: YCR Director John Varley, Natural Resources Branch Chief Tom Olliff, and YCR Deputy Director Wayne Brewster (retired).

By 1979, the Brewster family moved to Billings, Montana, where Wayne was selected by the USFWS as the Endangered Species Team Leader for Montana and Wyoming. Close observers think this was the move that caused Wayne to first "hit his stride." According to his boss during this period, the USFWS Area Manager, "[Brewster] has never had a[n] [Endangered Species Act] Section 7 Biological Opinion overruled." In this high compliment was a clear, early signal about Wayne's particular penchant for completing good and thorough homework before making any tough decisions! In 1982, Brewster was named Field Supervisor for all Endangered Species Act (ESA) activities in Montana and Wyoming, and relocated to Helena, Montana (thus answering the question: *Huh? Helena?*). Then, in 1987, he was named Field Supervisor for all USFWS fish and wildlife enhancement activities in Montana and Wyoming—a job that included all of his old ESA functions, plus the Divisions of Ecological Services and Environmental Contaminants.

So for the nine-year period between 1979 through 1987, when the ESA was young and its species listings were on a steep upward trend, Wayne had primary responsibility for all ESA species in two crucial states. The list at the time included an ESA "Who's Who:" grizzly bears, black-footed ferrets, bald eagles, peregrine falcons, Kendall Warm Spring dace, gray wolves, whooping cranes, piping plovers, and least terns. Wayne oversaw preparation of recovery plans, organization and disbanding of recovery teams, implementation of monitoring plans, and assurance that no federal actions in those two states further impacted listed species. Big job. And, it might be quickly added, not always a popular job. A former co-worker of Wayne has said, "They might not always agree with him, but I guarantee there wasn't a state or federal official from either Wyoming or Montana who did not know Brewster by his first name, and know where he stood on ESA issues."

To return to that all-important Who's Who list: Careful observers of the current improved state of endangered species in Montana or Wyoming will be quick to point out that most of the species on that list have been de-listed (bald eagle), are having proposals sorted out for their de-listing (peregrines, grizzlies, wolves; dace), or are clearly on the road to recovery (ferrets). All this good news has an interesting common thread: All of the in-the-trenches hard work—including snipers, artillery, and foreflushers; almost a dozen cautious recovery teams and hard-won recovery plans; putting up with and fending off political micro-management and flanking special interests; and the tooth-pulling required to get agencies to finally sign

species recovery plans—all were done under the leadership and watchful eye of Wayne G. Brewster.

Now, all that alone would be a good career-capper for almost anyone in the wildlife conservation business, but Mr. Brewster wasn't finished. In 1988, a longing for the field, a more hands-off role with paper, and a more hands-on role in endangered species recovery led him to leave the USFWS to work for the NPS on wolf and grizzly recovery at Glacier National Park. Then, in 1991, following some major changes in congressional and executive branch attitudes about wolf recovery in the northern Rocky Mountains, the NPS asked Brewster to move to Yellowstone. There, he was to be the regional lead for wolf recovery planning for all parks. He was the taskmaster for the all-important four-volume set of research findings named *Wolves for Yellowstone? A Report to the U.S. Congress*. He was NPS spokesman to the ill-fated, anti-wolf-dominated Wolf Management Committee. These activities inevitably and logically led to his being named NPS czar (and taskmaster) for the joint EIS (with the USFWS) evaluating restoration of wolves to Yellowstone and Central Idaho.

By late 1994, with wolves now on the ground and in good hands with a newly hired Wolf Project Leader, Brewster kept his hands in the business, advising the agency solicitors and Justice Department attorneys on the lawsuits brought by anti-wolf interests. In this role, he was singled out for praise by a number of people—this included an especially nice letter from Attorney General Janet Reno to Interior Secretary Bruce Babbitt.

Because top hands in Yellowstone rarely get too distant from controversy, Wayne gradually transitioned out of wolf work and into the bison dilemma—Yellowstone's equivalent to the La Brea Tar Pits. Again, he was tapped to do difficult, in-the-trenches work, including yet another laborious and frustrating bout doing a multiple-agency EIS. The result was a hard-won compromise with other agencies that, given the opportunity, would manage Yellowstone's bison very differently than the NPS. The Record of Decision (ROD) had some strengths and weaknesses from Yellowstone's perspective. For the first time in Yellowstone history, bison were recognized as a wildlife species instead of being simple "livestock," and their presence on public lands outside the park was legitimized. The ROD also put the park in the business of brucellosis risk management in a big way at the boundaries, and called for reducing the risk of disease transmission through the vaccination of eligible animals. Considering the alternatives that others were pushing, Brewster did very well on the park's behalf.

Wayne's career followed very closely the life to date of the Endangered Species Act, and I would suggest that it was with those down-trodden species that his star shined the brightest. His influence and talents have made an extraordinary difference on some of North America's most popular, but needy wildlife. In fact, there is probably no individual who has had a greater positive impact on these many species in the northern Rocky Mountains.

In the park, regional, and Washington-NPS offices, on Capitol Hill, or in the little, windowless hotel rooms where our business is often pounded out, he earned

respect. In the front office of YCR, he was known as a Master of the Art of the Bureaucracy, a superb analyst, the best confidante, a great devil's advocate when one of those was needed, and a good friend. We all will miss him.

When he made his decision to retire, I asked him what he would do with all of his free days and he said "John, I've been working hard since I was eight years old, and I never learned how to play. I'm gonna try to learn how to play." Wayne, good luck from all of us with your next objective! Based on your history so far, we have no doubt you will be successful. 🐾

## A WINTRY UPPER GEYSER BASIN

by Old Faithful Visitor Center staff

If you come geyser gazing this winter, expect foggy mornings, detours around grazing bison, and erupting geysers. Maybe rare geysers. Giant erupted December 13, offering geyser gazers hope for more rare winter eruptions. Giantess erupted in mid-afternoon on December 23, giving many early winter visitors a show. As usual, the show continued through the next afternoon. So far this winter, Fan and Mortar geysers have been erupting quite frequently, at three-to-seven-day intervals. Also, Plume Geyser is "back" after yet another dormancy, erupting regularly once again, recently at intervals of 45-50 minutes.

While you may come to watch geysers, don't forget to look for wildlife sign, too. In addition to the usual elk, bison, coyote, and raven tracks, wolf tracks have been seen, especially at Biscuit Basin. The informally named "Biscuit pack" apparently denned near Lone Star Geyser last summer, and pups were seen along Lone Star trail. This winter, wolves have been heard howling from Fern Cascade and Biscuit Basin several times. On their way to work, Yellowstone Association staff Marge and Harriette saw four wolves behind the Old Faithful Inn on December 17.

There have been recent clashes between this new pack (formed by female wolf #340, originally a Nez

## BASIN



Giant Geyser in winter (right).

Perce pack member) and the alpha female's natal pack, Nez Perce. A young dead wolf was found on December 21, east of the trail between Morning Glory Pool and Artemisia Geyser; the carcass was so consumed that little could be learned from it. Then, on December 31, three gray wolves (Nez Perce is all gray) were seen chasing a black wolf (some "Biscuit" wolves are black) near Fountain Paint Pots. The black loner may have been harassed by the full Nez Perce pack until it managed to get away.

For seeing both geysers and wildlife, winter is an exciting time to explore the Upper Geyser Basin. 🐾

## ...NEWS BRIEFS...

### OLD FAITHFUL VISITOR CENTER TO ACHIEVE HIGH "GREEN" STANDARDS

Thanks to a \$1 million donation from Toyota and guidance from Toyota's building engineers, the Old Faithful Visitor Education Center (OFVEC) is targeted to be the first visitor center in the National Park System to earn the U.S. Green Building Council's Silver LEED (Leadership in Energy and Environmental Design) Certification. Some of the "green" features of the new center will include a design that allows for a reduced heated space during winter months, the use of certified wood- and water-conserving fixtures, and public education of sustainable practices. Toyota's building engineers will consult on the construction of these features based on the experience the company gained when building its own U.S. Green Building Council Gold LEED Certified building in 2003. At the time, it was the largest environmentally friendly commercial building in the country. This donation to the Yellowstone Park Foundation (YPF) brings the total amount raised for the OFVEC to \$14.6 million, nearly reaching the \$15 million goal set by YPF. Construction on the OFVEC could begin as early as spring 2006, following the planning and design process. When complete, the OFVEC will serve nearly 25,000 visitors a day in the summer season. With the goal of helping visitors understand and appreciate the complexity of the hydrothermal features and volcanic activity that define the park, the new visitor center will also showcase the park's commitment to environmental practices and sustainability and help visitors learn how they can make a difference. This is Toyota's second donation to the Yellowstone Park Foundation. Earlier this year, Toyota donated four hybrid Priuses for interpretive rangers and park visitor services.

### OLD FAITHFUL VISITOR EDUCATION CENTER EA AVAILABLE FOR PUBLIC REVIEW

The *Old Faithful Visitor Education Center Environmental Assessment, Yellowstone National Park* is available for public comment for 45 days. Comments may be submitted through March 10, 2005. The National Park Service (NPS) proposes to build a new Visitor Education Center at Old Faithful in Yellowstone National Park. More than 3 million visitors come to Yellowstone each year, and most visit the Old Faithful area. The present visitor center is too small and cannot accommodate the nearly 25,000 daily visitors in the summer, nor is there space for any exhibits. Visitors leave

the Old Faithful area without a basic understanding of or appreciation for the complexity and interconnected nature of the geysers they see or the volcanic activity that defines Yellowstone National Park.

This EA describes and analyzes the no-action and preferred alternatives for construction of a new visitor facility at Old Faithful. This planning effort was initiated in 2000, and two scoping periods to collect public comment were held (in summer 2000 and summer 2003). Construction is proposed to begin in spring of 2006. The preferred alternative would site the Visitor Education Center in the same location as the current visitor center. The new Visitor Education Center would include adequate orientation and educational exhibit spaces, an auditorium, classroom, research library, educational bookstore, and backcountry permitting office. The current visitor center, restroom building, and the two adjacent satellite theaters would be removed, and functions that currently occur in these three buildings would be consolidated into one 33,000-square-foot (approximate) structure. The new building would be designed to be compatible with the signature rustic architectural style of the Old Faithful Historic District.

Comments on, and requests for copies of the *Old Faithful Visitor Education Center Environmental Assessment, Yellowstone National Park* may be sent to: Planning Office, P.O. 168, Yellowstone National Park, Wyoming 82190. The environmental assessment may also be viewed or downloaded from the internet at: <[www.nps.gov/yell/technical/planning](http://www.nps.gov/yell/technical/planning)>.

### EXPLORE THE YELLOWSTONE HOTSPOT IN THE PARK'S NEWEST ELECTRONIC FIELD TRIP

Yellowstone National Park announces the premiere of *On the Scene of the Yellowstone Hotspot*, airing February 9-11, 2005, on the *Windows into Wonderland* electronic field trip website <[www.windowsintowonderland.org](http://www.windowsintowonderland.org)>. In this electronic adventure, enterprising news reporters examine a series of mysterious geological events to learn the real story behind the Yellowstone scenes. Their investigation leads to a closer scrutiny of the area's past volcanic activity and the effects of the Yellowstone hotspot upon the park's present landscape.

Designed for a middle school audience, the program uses local students from the Yellowstone *ParKids* program to help tell the story of Yellowstone volcanism. These students participated in programs and

field work with researchers and park staff to further their understanding of the park's volcanic history and helped develop the field trip's script. The program lasts approximately 50 minutes. Lesson plans, guided by the National Education Standards, are included to extend the online experience.

*On the Scene of the Yellowstone Hotspot*, sponsored by the National Science Foundation through a generous grant to the Yellowstone Park Foundation, is the second of four new field trips scheduled for the 2004–2005 school year. *Hot Colors—Windows into Hidden Worlds* premiered in September 2004, and highlighted the microscopic life forms found within the park's thermal features. *Yellowstone Wolves—Legacy, Legend, and Recovery* is scheduled to air in Spring 2005. A fourth eTrip, *Geyser Quest*, will premiere in May 2005, and will explore the park's most famous hydrothermal features. A wide array of previous eTrips focusing on Yellowstone's wildlife, history, and ecology remain online at <[www.windowsintowonderland.org](http://www.windowsintowonderland.org)>.

Educators are encouraged to register online at the website and preview the eTrip before it officially premieres. Subject matter experts will answer questions posted on a message board that will open at 9:00 a.m. MDT on February 9 and close at 4:00 p.m. MDT on February 11. Participation is free to all. To obtain further information concerning Yellowstone National Park's eTrips, log on to the website <[www.windowsintowonderland.org](http://www.windowsintowonderland.org)> or contact Janet Ambrose,

Yellowstone's Formal Education Program Manager, at (307) 344-2253.

#### YELLOWSTONE NATIONAL PARK INTRODUCES TIP LINE

A new service is now available to individuals wishing to report a crime or criminal activity in Yellowstone National Park. The park recently initiated the Park Tip Line that allows concerned individuals to call (307) 344-2132 any time of the day and leave information. Individuals can leave their name and a callback number, or they can remain anonymous. The phone line is checked throughout the day by park staff, and tips are followed up on promptly. In 2003, the park had more than 4,000 criminal incidents. The public provided invaluable information that aided park staff in a number of these investigations, including wildlife poachings. The tip line is one more way concerned individuals can easily provide details about illegal activity they may observe. Individuals wishing to provide information are asked to provide as much detail as possible (who, what, where, when, why, which, and how). Park investigators also need to know whether the reporting party wishes to be contacted. For questions about the Park Tip Line, contact Supervisory Special Agent Brian Smith of the National Park Service Branch of Law Enforcement Services/Criminal Investigations Unit at (307) 344-2120. 🐾

*The Buffalo Chip* is the resource management newsletter of Yellowstone National Park. It is published periodically by the Yellowstone Center for Resources. We welcome submissions of articles or drawings relating to natural and cultural resource management and research in the park. They can be sent to:

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