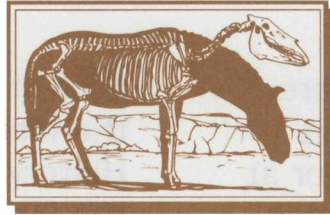


The
FOSSIL



RECORD

MAY, 1994

VOLUME 3, NUMBER 2

THE BARE BONES
OF THIS ISSUE:

- Visitor Center Opening
- Fossil Day, 1994
- Volunteers Needed
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- Tours for June and July
- Public Input on
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Landslides

Ancient Log

Critter Corner

VISITOR
INFORMATION

BECOMING
INDEPENDENT
AND
OPERATIONAL! -

This spring marks a milestone for Hagerman Fossil Beds National Monument!

We are becoming operational, offering a variety of visitor services and minimal facilities to accommodate the visiting public. The newly renovated facilities will function as a temporary Visitor Center, with fossil exhibits, information and

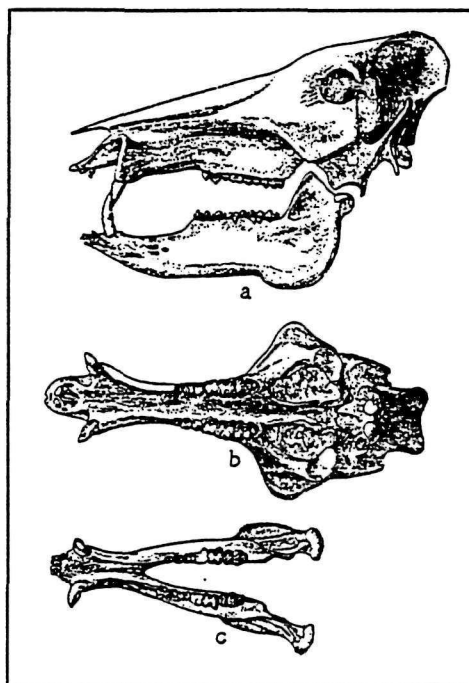


orientation services, an auditorium for audio visual programs, a fossil preparation and museum collections storage laboratory, and additional office space to support the full range of administrative and management activities. An Interpretive Overlook located on the high bluffs at the south end of the Monument provides a spectacular view of the Hagerman Valley. With Wayside Exhibits, it will be completed this month. All facilities are barrier free for wheelchair accessibility.

The Monument will operate as a fully independent unit of the National Park System, no longer administered by the Twin Falls NPS office. Neil King has been named as the Superintendent, who will continue to guide the planning, development and long-term management of the Monument.

The Visitor Center will be open seven days a week, 8:30 a.m. to 5:00 p.m. from June through September. During the remainder of the year, there will be reduced hours of operation depending on available staff.

The grand opening and dedication of the Visitor Center is scheduled for Fossil Day, 9:00 a.m., May 28, 1994!



Peccary Skull

FOSSIL DAY, MAY 28, 1994.

Start making your plans to enjoy Fossil Day in Hagerman on May 28. Expanded activities are planned by the Chamber of Commerce and the National Park Service has selected this day to showcase its temporary Visitor Center all day starting at 9:00 a.m. The parade down State Street (Highway 30) is scheduled for 11:00 a.m. Activities will be on-going in the community park. Speakers will make presentations in the park about 12:30. An interpretive program of the Monument by boat is available from the 1000 Springs Tours for a fee of \$5.00 per person departing from the Bell Rapids Boat dock. The tours start at 1:30 p.m. and every half hour with the last trips at 4:00 p.m. The National Park Service will

be providing two free bus tours to the Monument at 1:30 p.m. and 4:00 p.m., first come-first served. Contact the NPS at (208) 837-4793 for more information.

VOLUNTEERS NEEDED TO HELP OPERATE VISITOR CENTER -

Volunteers in Parks (VIPs) are needed to help staff the new temporary visitor center. The VIPs need to go through a training session and commit to a minimum of twenty hours per month with a schedule of hours they are available and willing to help. The NPS will provide a VIP uniform shirt with a shoulder patch and ball cap with emblem. The volunteer must provide green pants.

Volunteers also have the opportunity to work in the Monument at a variety of

tasks. Natural resource management projects are available, and are sometimes undertaken by groups. Assistance in field work with on-going fossil salvage and high-tech surveying is needed. Work with fossils can also include or focus on indoor work with preservation treatments and cataloging. Because training is necessary, the same minimum time commitment of 20 hours per month applies.

COMMUNITY BIRD FESTIVAL A

SUCCESS - The first annual Hagerman Valley Bird Festival was held during the President's Day holiday weekend of February 18, 19, and 20th. Sponsored by the Hagerman Chamber of Commerce, an array of programs were presented. Live eagles, hawks and owls were

presented and discussed by the Birds of Prey - Peregrine Fund of Boise, as well as the Idaho Raptor Rehabilitation Center.

Organized field tours sought owls and waterfowl flyovers in the evening. A fine arts show featuring bird life, was presented for public enjoyment and the items were for sale. Chuck Trost of Idaho State University presented a program on Magpies and the National Park Service presented a program on the fossil birds of the ancestral Hagerman.

Be sure you mark your 1995 calendar for the president's weekend for the Second Annual Hagerman Valley Bird Festival.

TOURS FOR FIRST PART OF SUMMER
Monument tours scheduled for June and July, 1994, are on the last page of this

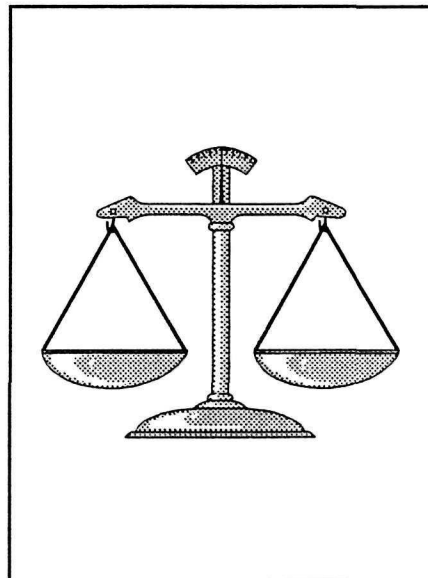
newsletter. We regret that we cannot accommodate special requests for tours at this time. We hope you'll join us at the scheduled tours.

PUBLIC INPUT OPPORTUNITY

On May 17 and 18, 1994, the National Park Service (N.P.S.) will hold two public meetings to gather input on how the Monument should be managed. The subject is the General Management Plan which will guide the Monument over the next ten to twenty years. These two meetings are part of a unique approach for developing the plan. Instead of fully developed alternatives, separate management issues will be presented to gain a general sense of the public's desires prior to developing the alternatives which will have further public review and comment. This approach is

an attempt to better meet community, regional, State, and scientific needs.

The meeting in Gooding on May 17 will be at the library at 308 5th Ave. W. starting at 7:00 p.m. The May 18 meeting in Hagerman will be at the NPS Visitor Center on Highway 30 across from the High School starting at 7:00 p.m. For those persons not able to attend, input is encouraged by mail. The document may be obtained by contacting the N.P.S. at the address on the cover page of this newsletter or phoning (208) 837-4793. We hope to hear from you.



MONUMENTAL SCIENCE

RESOURCE MANAGEMENT

LANDSLIDES - The ridge adjacent to the 1991 landslide continues to break up and move. Huge blocks have dropped 5 feet vertically and moved 10 feet horizontally since January of this year.

High-tech, laser transit surveying is being used to monitor land movement associated with landslides, and in an attempt to predict future events. National Park Service staff, with cooperative partnership by the Idaho Power Company, are evaluating three areas for land movement. Concerns remain for the Smithsonian Institution quarry where the Hagerman Horse was

excavated in the late 1920's and early 1930's.

Other partnerships have been formed with the U.S. Geologic Survey to evaluate the landslides and the ground-water characteristics. The Bureau of Reclamation is assisting with design standards for a test segment of canal lining to stop the seepage that exits on the Monument's slopes. The Bell Rapids Irrigation Project has assisted with data collection to evaluate the ground-water situation.

FOSSIL FINDS - PALEONTOLOGY:

Now that field crews are documenting fossil sites, and cooperative research through universities has commenced, significant scientific finds are occurring.

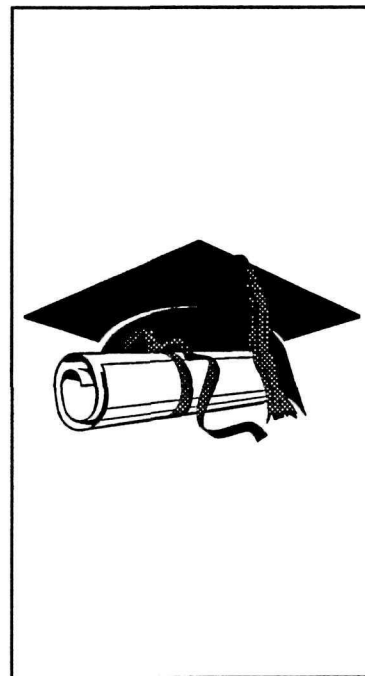
Late last Fall, geology graduate student, Dana Lee, from Idaho State University

doing field work at Hagerman, located the first major vegetation remnant ever found in the Monument.

Exposed on one of the slopes was a log which was buried by receding waters on the flood plain that scientists say existed here about 3 million years ago. The find was even more unusual in that not all of the log was fossilized. The interior still had wood fiber that was preserved because of its burial in the river sands that excluding air and bacteria necessary to decompose the log. Because the fibers had not mineralized, it is possible that they can be evaluated for D.N.A. structure to determine if the tree has descendants alive today, or if it is now extinct. This information is of great interest to scientists because it will provide valuable clues as to how the earth has

changed over the past 3 million years.

Mr. Lee further contributed to the research program at Hagerman when he found a skull of an extinct camel in sediment layers where no previous fossils have been found. The specimen is wonderfully preserved and will greatly enhance information about the environment that existed here long before the present-day landscape.

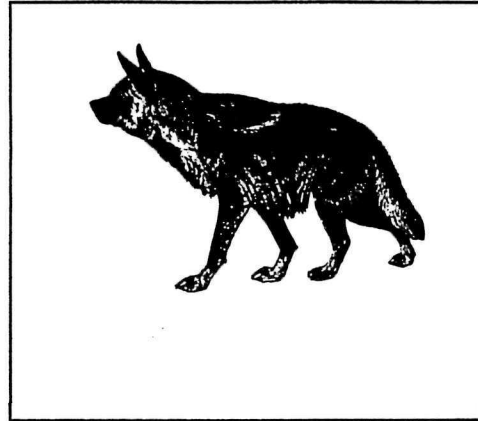


CRITTER CORNER

by Dr. Greg McDonald,
Park Paleontologist

The Plundering Dog of Hagerman

One of the truly remarkable aspects of the fossil fauna of Hagerman is the wide variety of carnivores represented. Out of the 105 different species of vertebrates recorded, 14 are carnivores and include dogs, cats, bears and members of the weasel family. Of the two dogs found at Hagerman, one fits our idea of what a dog should look like as it is the ancestor to our modern coyote. The other dog represents a lineage that has no living relatives but at one time was more widespread and diverse than the group we think of as the modern canids. This other group of dogs is known as the borophagines (boro = carrion or flesh and phagus = to eat) and at



Hagerman is represented by the species Borophagus direptor.

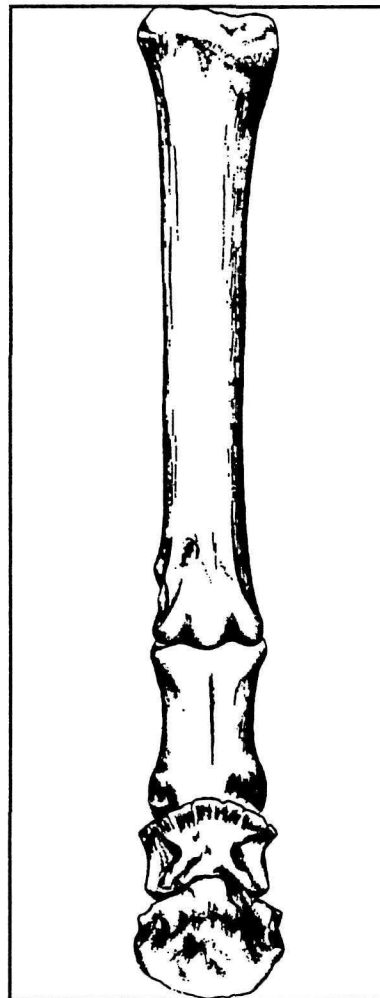
In North America some of the borophagine dogs, including Borophagus, filled the ecological niche that is represented by hyenas in Africa today. Like modern hyenas, Borophagus had a proportionately large head which was broad and strong reflecting the powerful jaw muscles that would have allowed them to crush bones. Also like modern hyenas, the muzzle and jaw were shortened to increase the leverage of the jaw for bone crushing. Borophagus was not as large as today's

hyena but was about the size of a small wolf.

Previous records of Borophagus at Hagerman have been scarce and knowledge of its presence has been based on a single upper canine and a jaw lacking teeth. During a project locating survey markers, the back portion of a left jaw of Borophagus was found with the large lower molar in place. This specimen will greatly add to our understanding of this species at Hagerman and permit more detailed comparison with specimens from other localities. We know that generally borophagine dogs increased in size through time. The Hagerman specimen is larger than its earlier ancestors but smaller than later species.

Borophagus direptor is the earliest species of Borophagus and besides Hagerman has only been

found at two other localities: Coso Mountains in California, and Sawrock Canyon, Kansas. Its larger descendent Borophagus diversidens is better known and has been found at a number of locations.



MONUMENT TOURS FOR JUNE AND JULY, 1994

PLEASE NOTE: Tours require the use of your own vehicle. Be prepared for an extreme of weather conditions which can include heat, dust, and wind with possible rain showers. The code letter(s) at the end of the description indicates the other conditions you might expect. TOURS MEET AT THE VISITOR CENTER unless otherwise noted and BEFORE the time shown. They should conclude by noon unless otherwise stated. Call (208) 837-4793 if you have questions.

Information Codes of conditions for each activity:

- (1) Vehicle should withstand dirt roads with possible muddy conditions.
- (2) Some easy hiking is involved. Wear sturdy footwear.
- (3) Steep slopes are involved and not suited for physically limited individuals.
- (4) Wheel chair accessible

June 4 Reading the Rocks. Learn about the geology of the Monument. What were the natural forces at work that created this area? 9:00 a.m. (1,2,3)

11 Ancient Americans and Flint Knapping - with Jim Woods, Herrett Museum. Learn about the people who first inhabited this area and their skill in making tools to live off the land. 10:00 a.m. (1,4)

JUNE AND JULY TOURS, Continued

- 18 Small Mammals of Hagerman Fossil Beds. What animals lived in this area when the fossil beds were forming, and what remains today. 9:00 a.m. (1,2,3)
- 25 Landslide Dynamics. Explore the dynamics of the landslides from a historical perspective, and what the NPS is doing about it. 9:00 a.m. (1,2,3)
- July 2 Horse Quarry. See the site where the Hagerman Horse was discovered and later excavated by the Smithsonian Institution where they removed 120 skulls and many skeletons around 1930. 9:00 a.m. to noon (1,2,,3)
- 9 Summer Birds. Watch the waterfowl, song birds, and raptors that occupy the Monument during the summer. The first two of three stops are wheelchair accessible. 9:00 a.m. (1,2,4)
- 16 Paleo Discoveries. Learn about the exciting new fossil discoveries in the Monument, and what's ahead. 9:00 a.m. (1,2,3)
- 23 Deciphering the Layers - Stratigraphy. See the countless layers of sediment that compose the slopes of the Monument and how they were deposited in the ancient past. 9:00 a.m. (1,2,3)

JULY TOURS, Continued.

- 30 Oregon Trail. Walk the ruts of the wagon trail, and get a glimpse through the NPS interpreter of what it might have been like for the emigrants. 9:00 a.m.
(1,2)