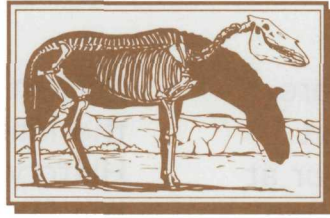


HAGERMAN FOSSIL BEDS NATIONAL MONUMENT

The FOSSIL



RECORD

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THE BARE BONES OF THIS ISSUE:

Purchase of River Site

Trail Development

Waterfowl Festival

Stay on Trails

Riparian Forest

Critter Corner

VISITOR SERVICES

With the completion of the **Site Plan** in 1995 and the **General Management Plan** in 1996, Congress provided funding this year to purchase 54 acres of land just north of the Bell Rapids Sportsman Access on the Snake River. The site will be the home of the proposed *Research Center and Museum*. Additional planning to determine the

best way to provide water and sewage service for the site are ongoing. The staff is working on plans to manage the area and the existing building for the immediate future. Congress will also have to approve funds for the design and construction of the permanent facility.

Trail Development - This Spring a one and one-half mile long segment of the Rim Trail will be constructed from a new parking lot along the 5600N road at the western boundary of the Monument. It will connect to the existing Rim to River Trail. Also, rehabilitation of the River Trail will continue this spring. When all of this work is completed, four miles of trail will be available for hiking, mountain biking, or horseback riding. Hopefully it will be completed in time for a National Trails Day event in early June.

Waterfowl Festival - The National Park Service participated in the fourth Hagerman Valley Chamber of



Commerce Waterfowl Festival in February. This year's Keynote Speaker, Kent Clegg, has drawn national attention to whooping crane conservation. He "guided" several of these endangered birds from his ranch in Grace, Idaho to the Bosque del Apache National Wildlife Refuge in New Mexico in his ultra light



plane.

RANGER PATROL

Stay on Trails - Access for most of the Monument is limited to designated trails or accompaniment by a Park Ranger. The only exception is the Hunting and Fishing Zone along the Snake River up to an elevation 50 feet above the water which is marked with yellow fiberglass stakes. With the warmer weather close at hand, and more people out enjoying the area, patrols of trails and monument boundaries will increase to prevent

encroachments.

NATURAL RESOURCE MANAGEMENT

Riparian Forest - The mild winter was more kind to the planted native cottonwoods than the previous winter. Survival appears the best in the large grove near the Bell Rapids Pump Station with less success further south. More trees will be interplanted this spring to replace those that died.

MONUMENTAL SCIENCE

Critter Corner

By Dr. Greg McDonald
Monument Paleontologist

“Shrewd-observation on Hagerman Fossils”

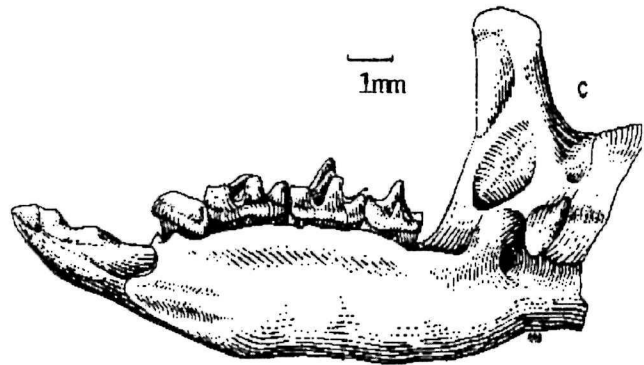
Big fossils like dinosaurs, mammoths, camels and horses get more than their fair share of attention. Most museum displays are centered around an impressively large skeleton, preferably in a dramatic pose. Certainly we are no exception at the fossil beds - just walk into our visitor center and what is the first thing you'll see? A skeleton of the Hagerman Horse!

From an ecological standpoint, big animals are over-rated. In any modern ecosystem there are more small animals than large. Think about it, if you have an acre of land, how many bison can you raise compared to the number of mice or other small mammals? Obviously the number of small animals will greatly outnumber the number of large ones for any parcel of land. This was also true in ancient ecosystems and because of the large number of individuals there is actually a greater chance for small animals to be preserved as fossils than larger ones.

At Hagerman Fossil Beds we are fortunate to have preserved a diversity of fossil animals that includes the small as well as the large. Among the smallest of living mammals today are the shrews. Five species of fossil shrews have been found at Hagerman, four are in the genus Sorex and one in Paracryptotis. Today there are six species of shrew in the modern fauna of Idaho all in the genus Sorex.

All of the shrew species at Hagerman are extinct and it is difficult to determine how closely related any of them are to the living species in the state. In fact four of the species are

known only from Hagerman and have not yet been identified at any other fossil localities in the country. This may reflect a limited geographic distribution of these species, possibly confined to the Snake River Plain, or simply that their small size has kept



them from being recovered at other fossil localities.

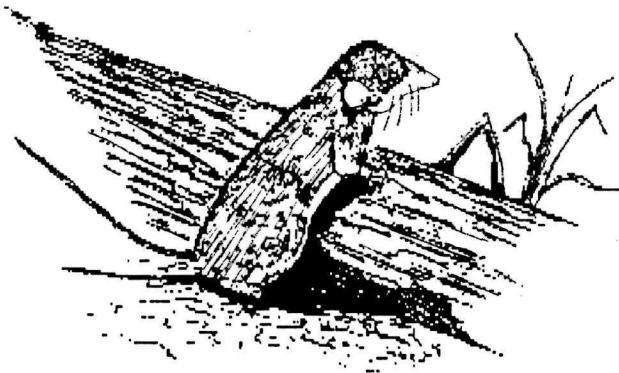
Finding the fossil can be a challenge. Given their small size (a shrew jaw for example is only 11 mm long or less than 1/2 inch) it is often hard to see them on the ground unless you are crawling on your hands and knees with your nose just a few inches above ground level, so unless you are really paying attention they are easy to miss. If you are used to looking for big bones which are easy to spot, looking for small animals like shrews takes some adjustment of your "search image". Paleontologists often improve their chances of

finding small animals like shrews by collecting large samples of sediments and running them through a fine mesh screen. The finer sediments pass through leaving behind the larger (relatively) pieces like shrew jaws. While this may improve your chances of getting small animals, if the site is not very rich with bone it sometimes requires running tons of sand through the screen to get a decent sample.

Although there may be lots of small animals in an area to become fossils, their small bones can be easily broken and not preserved, especially when predators eat them. While skulls are easily destroyed the palate often remains intact and jaws often survive as well. It is fortunate that

to decide which species they have. In fact all five of the species of shrew found at Hagerman were first described in the scientific literature based on jaws.

As research continues at Hagerman we hope to increase our sample and knowledge about each of these species. Perhaps eventually some of these species will be found in other fossil faunas and improve our knowledge of their geographical distribution. In any case just as in modern ecosystems where small animals play a big role we are sure such was the case in the ancient Hagerman ecosystem. Each species of tiny shrew has a story to tell that is just as exciting as that of the big critters.



teeth in palates and jaws are preserved since they are the most distinctive part of the animal. It is these parts of the animal that paleontologists look at most closely