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SPRING, 1999

## John Day Fossil Beds National Monument Newsletter National Park Service. U.S. Department of the Interior

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### Performance Results Are In ...

For the first time last summer, nationwide, the National Park Service conducted a visitor survey rating park performance. Survey cards and return envelopes were given to over 500 visitors at John Day Fossil Beds National Monument, asking that they evaluate the services and facilities. The monument staff primarily conducted the survey at the Sheep Rock Unit where the visitor center is located. Final tallies arrived this winter, and the monument received high marks.

Five ratings were possible – very good, good, average, poor, and very poor. Acceptable levels of performance were either good or very good. There were four rating categories – facilities, services, recreational opportunities, and understanding the park significance.

For the monument's "facilities" (such as the visitor center, exhibits, restrooms, trails, picnic areas, etc.), 68% of visitors rated us very good, 22% good, 8% average, and 2% poor. For "services" (such as ranger programs, assistance, maps & brochures, and commercial services), 73% of visitors rated us very good, 20% good, 4% average, and 3% poor. "Recreational opportunities" had ratings of; 70% very good, 18% good, 10% average, and 2% poor.

Regarding visitor understanding of the monuments significance, 89% of our visitors grasp all or parts of the meanings inherent in the fossil resources protected at the monument. Five specific meanings were identified before the survey, then compared to the comments provided by visitors. The goal for the National Park Service nationwide was set at 65%.

For the next few years all national parks across the nation will continue the surveys. This summer the monument will conduct our survey with visitors at the Painted Hills unit. Though we had high marks, such future surveys will allow us to continue, and strive to improve, the services and facilities the park offers its visitors.

### Paleo News Update 1998-99...

The University of California, Berkeley, and Stanford made arrangements with us to conduct a paleontology field school for advanced students this spring. This is a remarkable chance to have a 100<sup>th</sup> anniversary celebration of the first University of California expedition to the John Day, back in 1899!

The Logan Butte project is coming along nicely. This year, a variety of remarkable specimens were discovered and retrieved from this *Area of Critical Environmental Concern*, including the first postcrania from a bizarre cat-like carnivore known only from a skull. In addition, we discovered the Picture Gorge Ignimbrite in the Maury Mountains, and for the first time were able to firmly lock in the stratigraphy of the area to those beds located elsewhere. A new, thick sequence of beds complete with fantastic burrow-like structures was discovered on top of the ignimbrite.

Findings from the Twickenham leaf locality may well represent the first locality to truly pin down and establish a detailed time chronology for all of the "Bridge Creek Floras". These floras were largely orphaned in space-time.

The Lone Rock is a fantastic opportunity to put together a whole new fauna and fill in a huge "gap" in the strata that exists within the Sheep Rock unit. We were even given a free house to use as a field station.

We ran student groups through a field exercise to test the quality of experience students could have doing prospecting in a vertebrate locality on public lands. At one of the two sites we tested, the process was very successful for advanced students. How it will work with younger groups remains to be seen.

Matt Smith did a great job in the lab towards the end of the summer, preparing several good skulls and making progress on the Nimravid from Logan Butte.

Blue Basin yielded several fine skulls and good postcrania of different animals this year, much of it captured on film by the HFC crew producing our long-awaited John Day film.

Many thanks go out to the maintenance crew for putting a new roof on our "shop" it looks great and will keep some of the world's most intriguing fossils dry!

#### **Fossil Conference Held ...**

Several presentations were made by John Day Fossil Beds staff and partners at the 5<sup>th</sup> Conference on Fossil Resources which was held in Rapid City, South Dakota, October 13-16, 1998. Participants included staff from various government agencies, academic institutions, museums and non-profit organizations. Monument presentations follow.

*"Paleontological Research Planning in the National Park Service,"* by Ted Fremd, encouraged sites to establish PRP's (Paleontological Research Plan) as a framework for evaluating the significance of fossil localities within a site's scope of collection and identifying research questions and priorities. Ted emphasized that paleo programs in the National Park Service have traditionally had to operate within the frameworks of existing planning structures used for managing cultural and natural resources which in some cases are not appropriate to paleo concerns.

*"A Proposed Land Exchange and the Consideration of Fossil Resources in the John Day Basin,"* by John Zancanella, described a process whereby systematic scientific collection and documentation was the basis for a land exchange between the BLM and the private sector. In this way, land well suited for agriculture was transferred to private ownership, in exchange for land with significant fossil resources, which became part of the public trust and protected for scientific endeavors.

*"The Horse Fossil Study Kit: Demonstrating Concepts in Evolutionary Biology,"* by Jennifer Chapman, was a walk through the activities in the Horse Fossil Study Kit, identifying the paleontological concepts that are taught in the process of using the kit with students. The need for scientific literacy was emphasized as a goal of paleo education, as well as the idea that teaching the scientific methods behind paleontology offers an alternative to the "Indiana Jones" approach.

*"A Review of the Entelodonts (Mammalia, Artiodactyla) of the John Day Basin, Oregon,"* by Scott Foss, highlighted the known entelodont fossils from the John Day Basin and the current understanding as to the species they belong to. These ferocious, giant pig-like animals present interesting questions about the ecosystems in which they lived and the events leading to their extinction.

#### **Teacher Workshops Conducted...**

Park staff conducted a *Horse Fossil Study Kit - Teacher Workshop* was conducted in July at Eastern Oregon University, in La Grande. One was also held in November at the monument headquarters in the Sheep Rock Unit, and in February at Oregon Museum of Science and Industry, Portland. These workshops train teachers

to use this innovative study kit for teaching about evolutionary processes in grades 8-12.

*A Teaching Geology at John Day Fossil Beds*, two day workshop in October emphasized the geologic processes and geologic time concepts. These concepts can be taught during field trips to the Sheep Rock and Painted Hills Units while hiking the many trails available for outdoor education. This workshop will be offered again in fall 1999.

*Ancient Forests and Grasslands of Oregon*, a new workshop and study unit on fossil plants is currently being developed. It will emphasize how plant fossils from John Day Fossil Beds indicate a history of changing environments in Oregon and different ways plant fossils are studied. These workshop and study units should be available by this summer.

#### **Thomas Condon Center Funded?...**

As part of the proposed Fiscal Year 2000 budget, the National Park Service submitted a five-year construction plan that includes the long-awaited Thomas Condon research and visitor center. Although funds would not be appropriated until next year, the fact that this facility is on the list is very encouraging. The Thomas Condon Paleocenter will enable visitors to watch paleontologists at work in the lab, and will enable us to have a much-expanded visitor display area. Currently, the NPS is proposing that the center be funded in fiscal year 2001. Although long planned and even designed, funds have never been requested by the NPS in an official budget until now.

#### **Cold Volunteers ...**

For the second year the monument had the valued services of winter volunteers at the Painted Hills Unit. George and Sheila Wood, of Newfield, Maine, arrived in November at the Painted Hills and immediately provided life to the winter gloom. Very enthusiastic about their work, both George and Sheila eagerly contacted, enhancing their visit. Providing both visitor services and security to the unit resources, on one occasion they successfully and safely thwarted the attempts of illegal fossil hunters. When March arrived, both ended their volunteer time at the Painted Hills and moved on to a volunteer position at Joshua Tree National Monument in California. They hope to return next winter.

#### **Fire Specialist Joins Monument Staff...**

Amanda McAdams joined the park staff this past fall as a prescribed fire specialist. Originally from North Carolina, she was working for the U.S. Forest Service in southern Oregon before being hired. Amanda will be completing the fire management plan for the park and will oversee all aspects of prescribed fire on monument lands.

Studies have shown that, before Euroamerican suppression activities, range fires played a big part in shaping and maintaining the vegetation here. With the addition of Amanda's special skills and knowledge, the National Park Service should be able to reintroduce fire in the monument in a way that will be safe yet effective for maintaining productive range land.