



(Address Correction Requested) **SPRING, 2001**

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

www.nps.gov/joda

NEW INTEGRATED RESOURCE SPECIALIST...

In April, we were very fortunate to hire Ken Hyde as our new Integrated Resource Specialist. Ken will be in charge of all non-paleo resources, including the Cant Ranch National Historic District. Ken comes to us from Chelan, Washington, where he worked for the Natural Resource and Conservation Service (NRCS). Ken is not a newcomer to John Day country, however, having spent two years here previously working on salmon recovery and riparian management for NRCS. When school finishes in Chelan in June, Ken's wife Julie and their six children will join him if he can just find a place that will hold them all!

CLARNO UNIT TO BE FENCED...

The boundary of the Clarno Unit was surveyed and monumented this winter. This summer, it will be completely fenced by fencing contractor, Dave (Mad Dog) Asher. This fencing will exclude cattle from fossil exposures and other sensitive sites. It will also delineate the boundaries of the monument, which will help enforce the monument's regulations, particularly during hunting seasons. This project was funded through the Recreation Fee Demonstration Program. This program uses park entrance and use fees to fund visitor use and resource management projects in National Park Service Areas nation-wide.

EDUCATION NEWS

NEW HORSE KITS WELL RECEIVED....

As a welcome addition to the monument's education outreach program, ten new fossil horse kits have become available for loan to educators around the U.S. The new and improved kits contain eight new specimens (fossil horse skull replicas); new curriculum based activities, and spiffy new trunks for shipping. The new kits have been sent to many educators this spring, and so far, the responses have been extremely positive.



NEW PROGRAM OFFERED...

"Ashfall Discoveries" a new program for grades 2-4, presents a fossil discovery cycle of FINDING, COLLECTING, UNCOVERING, and SHARING fossils through the process of science. Students visit an ash deposit and learn how fossils form. Then they visit a "fossil site" and discuss how fossils are like puzzle pieces. Each layer of rock contains a different puzzle so it's important not to mix them up. The next stop is the "lab" where most of the rock is removed. Students are asked to treat the fossils the way they want a dentist to treat their teeth—very nicely! The last stop is the museum, where fossils can be shared. Sharing leads to new ideas, new pictures of the past...and new questions!

Here are some of the comments we have received about the program:

- "It is very interesting that gray ash turns green."
- "I learned that it can take up to 300 hours just to get a fossil out of the rock."
- "I learned a lot about all the patience you need to be a fossil scientist."
- "I had a lot of fun working with the groups and matching puzzle pieces with the animal."
- "I had one question I wanted to ask, and that is, who was the first person to discover fossils?"

NEW JUNIOR PARK RANGERS...

- James Hart, Lake Oswego, OR
- Anthony Hart, Lake Oswego, OR
- Connor Madigan, Aloha, OR
- Devon James Mitchell-Milton-Freewater, OR
- Holly Alynn Lefore Mitchell, Milton-Freewater, OR
- Jordon Mitchell, Milton-Freewater, OR
- Landon Perry Mitchell, Milton-Freewater, OR
- Nathan Mudd, Kimberly, OR
- Kristen Mudd, Kimberly, OR
- Matthew Mudd, Kimberly, OR
- Stephen O'Brien, Eugene, OR
- William Proudfoot, Junction City, OR
- Sky Schirmer, Cameron, MT
- Sage Schirmer, Cameron, MT
- Breanna Marie Wilson, John Day, OR

Congratulations New Junior Park Rangers!

MUSEUM/PALEO NEWS...

"Real knowledge is knowledge of the depths of our ignorance"

- Confucius

The trip to the Owyhee region yielded a lot more than good teeth for isotopes; Lia **Vella** found an outstanding maxilla of a bearded dog... some isotope data were collected, and Matt **Kohn** and Ted are coauthoring a paper, submitted to *Science* this weekend....Hugh **Wagner** is interested in collaborating with Clara **Stefen** and us on the beavers from the John Day Basin ... Steve **Manchester** of Florida State has offered to donate many fine specimens of plants for the planned Thomas Condon Center, planning for which proceeds ... Bruce **MacFadden** will be at the park later this summer to begin the long-spoken-of project with Ted on the evolution of horses in the John Day Basin ... Scott **Foss** is off to Chicago to defend his Ph.D. dissertation. Everybody should gather together and send good-luck thoughts to him at 0930 CST, March 22. Send flowers to Room 433, Montgomery Hall... **JODA staff** are getting ready to submit about another 10 papers to the 6th **Fossil Conference**, to be held this Fall at Grand Junction, Colorado.... Ted is off to **Denver** next month to give a talk on collections and chair a paleontology session at the **George Wright Meetings** ... Picked up some good specimens from the UO, including a fine skull of a very, very odd carnivore for our collections.... No word yet on the paleomag/rock slicing component of the **NSF grant** we submitted.... We did receive funds to re-examine the stability and collected specimens from the **Hancock Mammal Quarry**, which is intended to be used for a contract.... also, received funds to work on the paleosol and isotope relationships with climate change... curatorial work continues, with Lia **Vella** and Scott **Foss** making headway on the annual inventory and reports that take far too long... Matt **Smith** continues to plug away at dozens of preparation projects and is elated that the funding materialized from trusty Jim **Hammett** to finally pay him, just in time for major visitor center work. Thanks to John **Fiedor** for helping to keep him alive in the interim on interpretive exhibits... Work continues at the **High Desert Museum** on designing the paleobiomes, slowly but surely... Work is proceeding on materials needed for the **OMS!** exhibit in Portland...the **HFC Film Crew** will be doing paleo filming next week... Abstracts are due for the **SVP** meetings this fall in **Bozeman**, MT... fieldwork has begun, so far with a huge **nimravid jaw** from Painted Hills area... ;-)



NAPC MEETINGS: JUNE, 2001...

The Paleontology division is busy getting ready to present papers at the **North American Paleontological Convention** symposium being held in Berkeley at the end of June. The meetings are a great opportunity for paleontologists from around the world to present some of their most recent research. **JODA** will be well represented.

TURTLE SKULL POSTER TO BE PRESENTED...

The following is an abstract for a poster that will be presented at the upcoming meetings. The Turtle skull in question was collected at the end last summer.

DISCOVERY OF A CRANIUM OF *STYLEMYS* (REPTILIA: CHELONIA) FROM THE TURTLE COVE MEMBER OF THE JOHN DAY FORMATION, CENTRAL OREGON

Smith, Matthew E., and **Fremd**, Theodore J., John Day Fossil Beds National Monument, Kimberly, OR, USA; and Roger C. **Wood**, Stockton State College, Pomona, NJ, USA

Although turtle remains are distributed throughout much of the 45 million year sequence represented by the deposits within the John Day Basin, almost all specimens in existing collections are represented only by shell material or limb elements. Particularly vexing is the lack of association of any diagnostic skull material with these typically low-arched carapaces. Previously, *Stylemys* from the John Day Formation has been described solely on the basis of shell morphology due to a lack of cranial elements. Here, we report the discovery of a nearly complete cranium of a tortoise referable to *Stylemys* (Leidy, 1851) *in situ* with several carapace fragments. This is the first reported occurrence of any chelonian skull material associated with postcranial elements from the John Day Formation. The stratigraphic position can be pinpointed with precision within the K1 unit of the Turtle Cove Member, approximately 8m above the Deep Creek Tuff recently dated to 27.5ma. Little has been published on fossil turtles from the Northwest since the work of Hay and Gilmore's work in the early 1900's. The presence of additional material within a definable pedofacies suggests a unique opportunity to provide additional paleoecologic information, as well as population and taphonomic data, about the occurrences of these relatively abundant but rather poorly understood tortoises.



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