Minutes of the 04/19/05 Combined Board Meeting

Vice-President Mike Messenger called the meeting to order in Edmonds, WA at 7:30pm on April 19, 2005.

Treasurer Kathleen Earnst gave the treasurer's report and it was approved.

Old business:

- Glenn Morita has researched the Golden Age Passport issue as well as a concerned member, Bud D'Veck who called the Klondike Gold Rush National Historic Park and spoke to David Wymore about the Golden Age Passport status. The Golden Age Passport is currently used for "lifetime" access to some government sites for citizens 62 and over. There are some changes in the works regarding the pass but nothing definite as of yet. In any case, pre-existing cards will still be honored as long as the number on the card is legible.
- Ed Lehman went up to Walker Valley on Tuesday, March 29, 2005 and installed/welded the chain and lock. He said the lock is a little tricky and if anyone is planning on going up there, Ed recommends they call him first for instructions on how to work the lock and gate.
- Gael Guerard will contact Steve Townsend to see if he has any feedback on the Red Top out house.

New business:

- There was discussion about the Newsletter and possibly sending out more copies via email.
- There are some good leads from the Department of Natural Resources about recreational use of land including the Split Rock gated road. Bob Pattie from the Boeing Club is looking into it.
- There was more discussion on getting more access to government land for recreational use for rock-hounders. Bob O'Brien is still trying to get the DNR to give us recreational use of the DNR land in Skagit County. Members can contact Bob O'Brien through email: bobrock10@yahoo.com. Mike Messenger has been research the WAC on the legal aspects of rock hounding on Washington state. There was also discussion on how we can get members to actively participate through letter writing and petitions.
- There was some discussion about someone being the "keeper" of the key to First Creek and keeping US Timberlands apprised of it's use.
- Also, Ed Lehman brought up the fact that Marker #5/6 is on Forest Service land, not US Timberland property.

Wagonmaster's:

- Ed Lehman said in spite of the pouring rain, the Race Horse Creek Trip on April 16, 2005 was a big success. Over 60 people showed up and fossils (semi-tropical and palm leaves) and mushrooms were collected. He said a reporter and photographer from the Seattle PI were there and hopefully there will be some good PR.
- As a rule members should always call to confirm a trip is on.
- The Kalama trip coming up May 14 & 15th is limited in numbers. Pre-registration is required. Be sure to contact Bruce Himko (425) 957-1284 or bellevuerockclub@comcast.net confirm. Ed Lehman has offered to take any overflow of people to Salmon Creek on those days for more jasper and agate.
- If members are planning on going on the First Creek Field Trip June 11 & 12, 2005, they need to contact Ed Lehman (425) 334-6282 or wsmced@hotmail.com and confirm the trip is on.

The meeting was adjourned about 8:45pm.

Submitted by Gael Guerard – Gael.Guerard@gmail.com

Earth's Solid Center Confirmed

The Earth's inner core is solid, not liquid. This long-standing presumption has finally been confirmed by studying seismic waves traveling through the core.

Previously, seismologists had inferred that the inner core was solid by looking at how the Earth resonates after a major earthquake. But the proof scientists were looking for to confirm their suspicions has come from the detection of seismic shear waves in the core. Pressure waves such as sound waves can pass through both solids and liquids, but shear waves, which are side-to-side oscillations like those generated by wiggling one end of a rope, can only exist in solids.

Shear waves move more slowly than pressure waves. So, seismic waves will travel through a solid inner core in the form of shear waves and arrive on the other side of the Earth a little later than they would if the inner core was made of liquid.

Aimin Cao of the University of California, Berkeley, and colleagues analyzed nearly 20 years of data from the extremely sensitive Gräfenberg Seismic Array in Germany. They calculated the speed at which seismic waves generated by large earthquakes in the south Pacific Ocean traveled through the Earth and found it agreed with theoretical predictions that assume a solid inner core (Science, DOI: 10.1126/science.1109134).

Paleo Preservation Bill S 263

Once again a Paleontological Resources Preservation Act has been introduced into the U. S. Senate (we are watching for reintroduction in the U.S. House as well). The number of the Senate bill is S 263 and was sponsored by the same senators as the bill introduced in the 108th Session of Congress with Prime Sponsor being Daniel Akaka of Hawaii. It has been referred to the Senate Committee on Energy and Natural Resources who has already passed it out of committee without amendment for action on the floor. We have alerted our entire Congressional delegation in South Dakota about this introduction and hope to block passage by the Senate this time by a simple voice vote.

This is most certainly the planned strategy. The best defense at this time is to immediately (today) alert the Senators from your state to watch for this strategy and request their help in blocking any passage by voice vote on the floor of the Senate. If enough Senators are alerted this move can be averted and then we have an opportunity to provide some testimony in committee and possibly block Senate passage. It is certainly worth a concerted effort. So ask as many people as possible to contact your Senators at once with this request.

I have not read this through yet but looks to be nearly identical if not completely so to the bill introduced into the 108th Congress in 2003. We need to rally the troops to try to stop this in the Senate if possible.

from Quarry Quips, 3/05, via 4/05 eTumbler

Carbon-rich planets may boast diamond interiors

Jeff Hecht
02/08/05 NewScientist.com news service

Bizarre planets with internal layers of diamond many kilometers thick may form in carbon-rich areas of the galaxy, a new study suggests.

The diamond-rich planets could form from the dusty protoplanetary discs found around many stars, if they are rich in carbon and poor in oxygen, says Marc Kuchner at Princeton University, New Jersey, US.

Composed largely of heat-resistant carbides and graphite - as well as diamond - these planets could withstand much higher temperatures than terrestrial planets or gas giants, he says. This might account for giant non-gas planets found surprisingly close to other stars.

Although terrestrial life is based on carbon, the Earth is made largely of silicates. It contains only about 44 parts per million of carbon. However, the element is 1000 times more common in chondrite meteorites, which originated in the solar system, though probably in a different region of the protoplanetary disc. Curious about these compositional differences, Kuchner and Sara Seager of the Carnegie Institution of Washington, US, studied prospects for building planets from the carbon-rich material of the meteorites.

The key factor behind the difference between carbon and silicate-based planets is the chemistry of the protoplanetary disc. Changing the ratio of carbon to oxygen "makes a huge difference to what condenses out", says Kuchner.

High oxygen levels produce silicate-based planets like the Earth, Venus, and Mars. But high carbon levels cause carbon compounds to condense out of the disc and clump together, producing carbon-based planets.
High pressure

Like the Earth, a carbon-based planet would have a metallic iron core, but the surrounding layers would be different, they suggest. Above the core would be a thick layer of silicon and titanium carbides, extremely hard ceramics known for their impressive heat-resistance. Graphite would form above the carbide, with high pressure converting the bottom of the graphite layer to a shell of crystalline diamond.

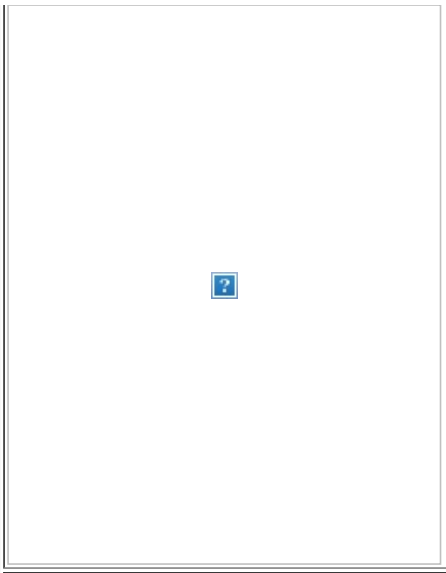
A carbon-based planet would be oxygen poor, with a tarry hydrocarbon surface and an atmosphere rich in hydrocarbons and carbon monoxide. Future planet-hunting telescopes might be able to spot one by looking for carbon monoxide's distinctive spectral signature.

As long as water could somehow be delivered to their surfaces after they formed, such planets should be able to support life forms, Kuchner told New Scientist.

"Life on a carbon planet would be strange," he says. Oxygen-containing materials would be flammable in its hydrocarbon atmosphere, so metabolism might be the inverse of terrestrial life - burning oxygen as food rather than carbon compounds.

Older stars tend to spew more carbon, so as the universe ages, carbon planets may become more likely, he says. They may already be more common near the ancient galactic nucleus, says Kuchner.

The work was presented at meeting on extrasolar planets held in Aspen, Colorado on Monday.

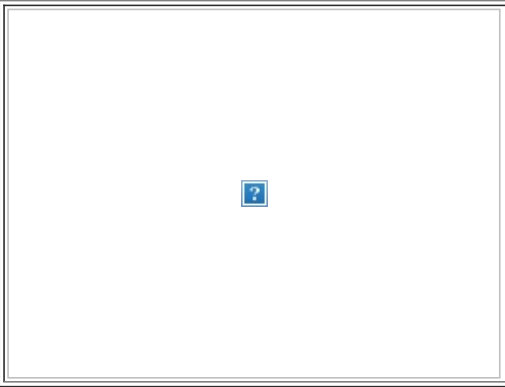


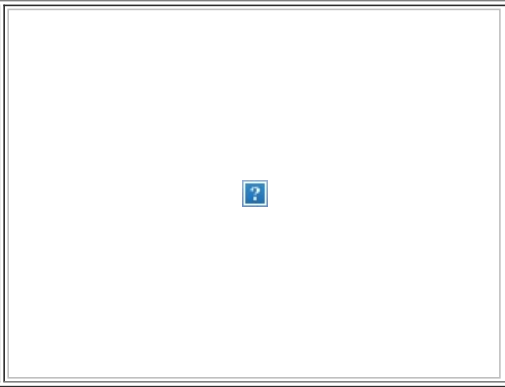
A diamond-layered planet might be dulled by a surface of tar (Image: Lynette Cook)

Racehorse Creek Field Trip Report

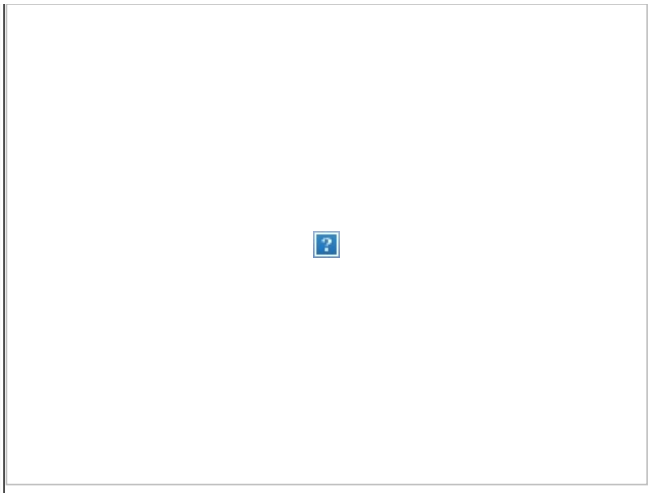
The Racehorse Creek trip was a success. The mushrooms were at their peak, and fossil collecting was great. Again we had rain, but 60+ people had a great time. There was a Seattle PI reporter and photographer along, and there will be a story in the Outdoor section Thursday, 4/28. Could you imagine how many there would have been had the sun been shining?

from NWRnews 04/05





Mt St Helens at sunrise



Mt. St. Helens continues to spew ash, while it is forming a lava dome in the crater and still having minor tremors. Here, in this sunrise shot, she appears to be blowing smoke rings (and anything so benign is welcomed, given recent history.)

What forms the "smoke rings" is the air flowing over the mountain getting pushed up higher as it goes up and over the top. The moisture content and initial temperature are just right so that the moisture condenses from a vapor to small particles at the higher altitude. When the moving air moves past the peak and comes down again, the particles evaporate back to an invisible vapor. The two "pancakes" describe that there are two layers of air for which this is happening, thus making this awesome picture possible.

from Jim Sykes