



# The Pleistocene Post

## QUARTERLY NEWSLETTER OF THE ICE AGE FLOODS INSTITUTE

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See our website for more information  
<http://www.iafi.org>

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## A Mind Blowing Adventure

There is something comforting about being in a group with whom you share an interest, a common bond. Last month I got in on the Ice Age Floods Institute Annual Field Trip. What a wonderful day spent touring and learning how this strange but beautiful landscape was formed some 15,000 years ago. "It was the biggest flood in the world for which there is geological evidence," writes Norman Maclean in "A River Runs Through It." I find the subject fascinating but what I want to share with you is what I saw in the faces of 116 adults ranging in age from somewhere in their 30s to their 90s.

We heard stories about flood formed features and how they had been created with words like tore, scarped, scoured and catastrophic. Mental pictures were drawn for us of ice-laden waters, hundreds of feet deep, carrying giant boulders and rushing over the land at speeds up to 80 miles an hour. What I saw in the faces: all seemed intent; learning, thinking, contemplating and thoroughly enjoying the topic at hand. It was truly visible by their expressions that they appreciated the willingness of these instructors to donate their time, energy and knowledge to provide a rewarding experience for all involved. It was visible; that childlike hunger for knowledge. When conversations were overheard it was understood many knew more than others about the geology but it was a matter of a chance to share. There were many experts in the group but I didn't pick up on competition for theory belief among them as in the day of J Harlen Bretz and Joseph Pardee. I believe all of us will benefit from this willingness to exchange ideas and theories in order to get to the truth. It was a matter of working together, of sharing knowledge with anxious, willing students.

People came from all over Washington, some from Oregon, Idaho, and Montana and a few as far away as North Carolina and Georgia. I thought maybe they were here visiting relatives in Wenatchee, but no, they had actually changed their vacation plans in order to get in on this tour, to fit in learning about something in our back yard. Pretty cool, right? We live in such a beautiful and unique place and it's even more interesting when we start learning about it.

I believe life is an adventure and if we continue to open doors and learn new things, age may have a hard time catching up with us. This was evident on September 8th in the middle of the Channeled Scablands pondering my existence. Thank you Bruce Bjornstad, Brent Cunderla, Ralph Dawes, Marv McCamey, Bonnie Orr and the many other volunteers who made this experience possible.

-- Karen Atkerson

# Chapter News

## Lake Lewis Chapter (LL) (Tri-Cities, WA)

**Chapter President: George Last**  
george.last@pnl.gov; (509) 946-8050

The Lake Lewis Chapter had a fairly mellow summer. We cancelled our July meeting to have a twilight hike up Badger Mountain, south of Richland, but it was sooooo hot that we only had three participants. Our September meeting featured Dr. Patrick Lubinski, Central Washington State University, who presented the results from three years of studying the Wenas Creek Mammoth site. Our members made a number of presentations to local community groups, including Kiwanis clubs, a retirement home, and a local Retired Public Employees Group. We also continued to work on some of our special projects, meeting with the Pasco-Kennewick Rotary Club concerning the design and location of an Ice Age Floods sign, and the development of three information display panels for the Badger Mountain kiosk. Our November meeting is tentatively scheduled to feature Dr. Patrick Spencer from Whitman College.

-- George Last

## Lower Columbia Floods Chapter (LC) (West Linn, OR)

**Chapter President: Mark Buser**  
mbuser@dadco.com; (503) 313-4442

We have several activities to report from the latest quarter. 45 of our members met up with the Columbia Gorge chapter in Hood River for a field trip through the Gorge. Our field trip leaders were Jim O'Connor and Richard Waitt. The trip was a huge success! We heard from many of our members afterward that they learned many new things about the Missoula Floods. We closed out our 2007 lecture series with a much anticipated appearance by Portland State Geology professor Scott Burns. Scott is rewriting Cataclysms on the Columbia. Total attendance for our three lectures was approximately 400 people. This number confirms the popularity of the Ice Age Floods content. We would like to thank the Museum of the Oregon Territory in Oregon City for donating the use of their beautiful 3rd floor gallery overlooking the spectacular industrial section of the Willamette River and Willamette Falls. Stay tuned for next year's activities.

-- Mark Buser

## Columbia River Gorge Chapter (CRG) (The Dalles, OR)

**Chapter President: Terry Hurd**  
iceagefloods@yahoo.com; (509) 493-4288

On August 25th we had our first ever field trip! Our trip leaders were USGS geologists Jim O'Connor and Richard Waitt. We were joined by the Lower Columbia Floods chapter. Our tour took us from Hood River, Oregon to Heritage Landing, Deschutes River on the Oregon side and back to Hood River on the Washington side. Jim and Richard showed us many interesting flood features, some which many of us see every day and may or not have understood the significance of, and several little known locations on private property they had secured permission to visit. Most of our members had never been on a guided field trip and were very thrilled to do so. One member remarked, "I have seen videos, listened to speakers give Power Point presentations and read many books. None of these comes near to standing in a flood deposited gravel pit at an elevation of 840 feet and turning around to see the Columbia River at 160 feet in demonstrating the immense power of the floods!"

--Terry Hurd

## Wenatchee Valley Erratics Chapter (WE) (Wenatchee, WA)

**Chapter President: Brent Cunderla**  
wenvallerratics@yahoo.com; 509-665-2100

As usual, the Wenatchee Valley Erratics have been VERY busy! In June, our speaker was Justin Brooks, Graduate Student from Western Washington University, presenting "New cosmogenic-nuclide ages from the Okanogan Lobe of the Cordilleran Ice Sheet and associated outburst flood erratics." This research indicates the maximum advance of the Okanogan Lobe may be 3,000 years more recent than previously thought and questions why the new Be-10 exposure dates are so much younger than earlier analyses suggest. This was followed in August by elections and Dr. John Whitmer, President of the Northwest Geological Society, with his topic of "How J Harlan Bretz won his battle against the geological establishment". We knew a lot about J Harlan's PERSONAL life (thanks to Charlie Mason) but this gave us more insight into his professional one. Also in August was our annual picnic with about 30 members sharing a pot-luck and enjoying each other's company and the view of the West Bar. Anticipating the IAFI Annual Meeting completed our summer!

-- Susan Lacy

# Calendar of Upcoming Events

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All meetings are open to members and the public unless otherwise noted. Key to chapter identifiers below:

**GLM** Glacial Lake Missoula Chapter, Missoula, MT

**LL** Lake Lewis Chapter, Tri-cities, WA

**LC** Lower Columbia Floods Chapter, West Linn, OR

**CRG** Columbia River Gorge Chapter, The Dalles, OR

**WE** Wenatchee Valley Erratics Chapter, Wenatchee, WA

**CS** Cheney-Spokane Chapter, Spokane, WA

**CD** Coeur du Déluge Chapter, Sandpoint, ID

**LGC** Lower Grand Coulee Chapter, Soap Lake, WA

**IAFI** Ice Age Floods Institute Activities

## October

**GLM** **October 17, 2007 - Glacial Lake Missoula Chapter Lecture.** 7 p.m. in the University of Montana North Underground Lecture Hall, Missoula, MT. Larry Smith from the Montana Bureau of Mines and Geology will present a program entitled "Glacial Lake Missoula: The Montana Sedimentary Record of Multiple Drainings." Information: Norm Smyers, normmysers@aol.com.

**LC** **October 17, 2007 - Lower Columbia Floods Chapter Meeting.** 7 pm at the West Linn Public Library, 1595 Burns St. (off Hwy 43 in West Linn, OR). This meeting is provided to members of the Ice Age Floods Institute and will cover recent news on the trail legislation, future activities of the chapter as well as nominations and elections of officers and committee chairs. Information: Mark Buser, mbuser@dadco.com, (503) 313-4442.

**LC** **October 21, 2007 - Lower Columbia Floods Chapter Hiking Field Trip.** 8 am at the Cape Horn Trailhead, Columbia River Gorge, OR. Join noted Ice Age Flood expert Richard Waitt on this beautiful fall hike co-hosted by Friends of the Columbia Gorge. The sweeping views and rocky promontories will allow Richard to be able to point out key features of the Gorge's Ice Age geology. Hike behind a waterfall and along cliff-top meadows up to breathtaking views! Information: hikes@gorgefriends.org.

**IAFI** **Ongoing through October 2007 - Floods Art Exhibition, The Dalles, OR.** The Columbia Gorge Discovery Center is showing "Age's End: Art About the Missoula Ice Age Floods" by Stev H. Ominski. The exhibit combines a selection of his original paintings and drawings, along with text by the artist describing the action and floods features. A number of digital computer images, provided by geologist Bruce Bjornstad, help explain the research process for Ominski's artwork. For more information and comments by the artist, see the Discovery Center's events page, <http://www.gorgediscovery.org/events.aspx>, or call (541) 296-8600. Open daily from 9am-5pm.

**IAFI** **Through March 23, 2008 - Floods Photography Exhibition.** The University of Oregon Museum of Natural and Cultural History in Eugene, OR, presents "The Flood Zone, Landscapes Sculpted by the Glacial Lake Missoula Floods" by photographer Bill Woolston. The exhibit features photographs of Columbia Basin landscapes that were created by the massive erosive forces of some of the largest and most powerful floods ever to occur on Earth. Museum hours are 11 a.m. to 5 p.m. Wednesday through Sunday. For more information, call 541-346-3024.

## November

**CS** **November 5, 2007 - Cheney-Spokane Chapter Lecture and Meeting.** 6:30 pm, in Room 137, Science Building, on the campus of Eastern Washington University, Cheney, WA. "Wetlands Geomorphology from Eastern Washington Landscape of Ice Age Floods" will be presented by Dr. Michael M. Folsom, Professor of Geography, Eastern Washington University. Information: Melanie Bell, mbell4242@comcast.net, (509) 954-4242.

**LL** **November 13, 2007 - Lake Lewis Chapter Meeting.** 6:45 p.m. at Battelle Auditorium in Richland, WA. Dr. Patrick Spencer, Whitman College, will be the featured speaker (tentative). Information: George Last, gvlast@charter.net, (509) 946-8050.

**CRG** **November 15, 2007 - Columbia River Gorge Chapter Public Presentation.** 6-8pm at the Columbia Gorge Interpretive Center, 909 SW Rock Creek Dr, Stevenson, WA, 509-427-8211 or 800-991-2338. Driving directions: [http://www.columbiagorge.org/driving\\_directions.asp](http://www.columbiagorge.org/driving_directions.asp) Rick Thompson will present "Lake Missoula Flood and its Effects in the Greater Portland/Vancouver Area" Pre-registration required. Information: Terry Hurdiceagefloods@yahoo.com (509) 493-4288 (phone evenings only please).

## December

**WE** **December 11, 2007 - Wenatchee Erratics Chapter Meeting.** 7 pm Wenatchee Valley Museum, 127 S. Mission, Wenatchee, WA. Dr. Larry Smith, Research Geologist, Montana Bureau of Mines & Geology will present "Stratigraphic Evidence for Multiple Drainings of Glacial Lake Missoula." Information: Susan Lacy Susan Lacy lacynoe@oacnet.com; (509) 787-9755.

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## Sealand to Scabland

Geologists tell us that the rocky Mountains were once the West Coast of North America. Over millions of years, various pieces of land docked or anchored along the coast. At one time the area that is now Eastern Washington was an inland sea. Later, over millions of years, as many as 300 lava flows filled the area. In some places the basalt is two miles thick. What we now know as the Columbia River was forced out around the edge of the plateau that formed.

Toward the end of the last ice age, 18,000 to 13,000 years ago, Glacial Lake Missoula formed in western Montana. The lake was held by an ice dam near the Idaho/Montana border. Periodically this dam broke and flooded across Idaho and Eastern Washington and down the Columbia River Gorge creating the Channeled Scablands and other features.

-- Jm Pritchard

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# ICE AGE FLOODS INSTITUTE

## 2008 MEMBERSHIP AND CHAPTER SELECTION FORM

*Dues received on or after Oct. 1, 2007, will be credited for membership through Dec. 31, 2008*

I WOULD LIKE TO  JOIN THE INSTITUTE FOR 2008  RENEW MEMBERSHIP FOR 2008

Please indicate your membership choice in one of the categories below:

<p><b>INDIVIDUAL MEMBERSHIP</b> (private citizen)</p> <p><input type="checkbox"/> Basic dues      \$30</p> <p><input type="checkbox"/> Benefactor      \$60</p> <p><input type="checkbox"/> Sustainer      \$120</p>	<p><b>FAMILY MEMBERSHIP</b> (1 or 2 adults, plus children, at same address)</p> <p><input type="checkbox"/> Basic dues      \$45</p> <p><input type="checkbox"/> Benefactor      \$90</p> <p><input type="checkbox"/> Sustainer      \$180</p>
<p><b>PRIVATE ORGANIZATION OR FIRM</b> (designated representative, plus alternate*)</p> <p><input type="checkbox"/> Basic dues      \$50</p> <p><input type="checkbox"/> Benefactor      \$100</p> <p><input type="checkbox"/> Sustainer      \$200</p>	<p><b>STUDENT MEMBERSHIP</b> (enrolled in accredited program)</p> <p><input type="checkbox"/> Basic dues      \$10</p> <hr style="border-top: 1px dashed black;"/> <p><b>ASSOCIATE MEMBERSHIP</b> (govmt. agency staff member)</p> <p><input type="checkbox"/> Basic dues      \$20</p>

I would also like to make an additional contribution of \$ \_\_\_\_\_

In support of the Institute

In support of the \_\_\_\_\_ Chapter

To be shared equally between the Institute and the \_\_\_\_\_ Chapter

**CHAPTER SELECTION** Please check one of the options, as your choice for 2008. *If you select a chapter, your dues will be shared with that chapter, when organized, as full payment of your dues for Institute and chapter membership.*

- Missoula       Sandpoint       Cheney/Spokane       Lower Grand Coulee/Soap Lake  
 Wenatchee       Tri-Cities       Columbia Gorge       West Linn/Portland  
 Ellensburg (being organized)       No chapter, or "at-large"

The quarterly newsletter is published as an Adobe Reader file on the IAFI website (PDF, in color). An e-mail notice will be sent when each issue is posted. A paper edition (black-and-white) is available by US Mail, for members who cannot use the website edition. *Check here to receive the paper edition*

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**Monte Nail, 1880 Fowler, Richland, WA 99352-4810**

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