

THE UNIVERSITY OF MICHIGAN  
ANN ARBOR, MICHIGAN, U. S. A. 48104

MUSEUM OF ZOOLOGY

March 13, 1968

Mr. Charles A. Repenning  
U. S. Geological Survey  
Branch of Paleontology and Stratigraphy  
345 Middlefield Road  
Menlo Park, California 94025

Dear Rep:

We are indeed excited about the fossil remains collected by Jim Berkland in an abandoned railroad cut south of Klamath Falls, Oregon. The largest bones are incomplete pharyngeal arches of the huge minnow genus Mylocyprinus which, so far, is known from a single species from Pliocene Pleistocene Lake Idaho (Glenns Ferry formation, etc.). This species in Lake Idaho fed largely on the mollusks. We do not have the pharyngeal teeth for the specimens sent from Oregon but presume that they were molariform, adapted for crushing mollusks.

The much smaller pharyngeal arch (broken but with a number of teeth still present) may represent the genus Mylopharodon which is represented today by a single species in the Sacramento-San Joaquin basin and in Lake Idaho by an extinct fossil species described by Uyeno in 1961.

We need more and better material of these pharyngeal bones and teeth.

The third fish represented in the Klamath Falls cut is identifiable only to family. It is a trout or salmon, Salmonidae, represented by two vertebrae, a fragment of a premaxilla with two sharp-pointed teeth and a fragment of the gill cover.

We assume from the definite record of Mylocyprinus that the age is either upper Pliocene or lower Pleistocene.

I think you have a copy of Ted Uyeno's paper in which he figures pharyngeal arches and teeth. Under separate cover I am mailing you a copy of the paper I wrote with Jerry Smith on the Lake Idaho fish fauna.

As you can judge from this letter we would be most grateful to you if you could go to the railroad cut and collect more fish remains. This is a very significant find and no doubt there are other species represented in the fauna there. For example, you certainly should uncover representatives of the family Catostomidae, for suckers were numerous in the Lake Idaho fauna and typically occur in Pliocene and Pleistocene deposits elsewhere in the West.

Mr. Charles A. Repenning

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March 13, 1968

Thanks very much for submitting the material and we look forward to receiving more and better remains!

Best wishes.

Sincerely yours,

*Bob*

Robert R. Miller  
Curator of Fishes

RRM:mw

*P.S. Were any mollusks obtained? They would  
be valuable in age determination.*

*N.B. a copy of this letter goes to Berklund.*

March 18, 1968

Charles A. Repenning  
U. S. Geological Survey  
Branch of Paleontology & Stratigraphy  
345 Middlefield Road  
Menlo Park, California 94025

Dear Rep:

I have your letter about the fossil locality south of Klamath Falls. We will be returning to that area very soon to field check some of the photogeology that we have been plotting and we will be sure to make a collection of material for you.

I would hesitate to guess whether or not this wedge of sediments should be called Yonna formation or not until we have a look. In any event we will send you the material as soon as we get it and will be appreciative for the age determinations as soon as you can give it to us. Thanks for bringing this location to our attention.

Sincerely,

NVP:amj

Norman V. Peterson

Branch of Paleontology and Stratigraphy  
345 Middlefield Road  
Menlo Park, California 94025

April 26, 1968

Dr. Robert Rush Miller  
Museum of Zoology  
University of Michigan  
Ann Arbor, Michigan 48104

Dear Bob:

Under separate cover we have sent to you several collections of fish remains from Klamath Falls, Oregon. Some of them look quite interesting to me. These were collected by Norm Peterson and party, State of Oregon, State Department of Geology and Mineral Industry, 239 Southeast H Street, P. O. Box 417, Grants Pass, Oregon. He would be most interested in anything you have to say about them. I enclose a copy of his covering letter which describes the localities.

In the collection were the fragments of a very large neck vertebrae and the pelvis of a different mammal. These are being put back together but I have little hope that they will be significant age-wise. They are well preserved, however, and it is encouraging that the beds might be dated by mammals at some later date.

Best regards,

Charles A. Repenning

cc: ✓ Norm Peterson  
Jim Berkland



**DEPARTMENT OF  
GEOLOGY AND MINERAL INDUSTRIES**

P. O. Box 417

521 N.E. "E" STREET • GRANTS PASS, OREGON • 97526 • Phone (503) 476-2496

ROBERT W. STRAUB  
GOVERNOR

March 14, 1977

To: Maggie

From: Norm

Enclosed is most of the correspondence on the fish fossils from the Klamath Basin. The localities and summarized information is also on a sheet in the pocket of Bulletin 66.

Hope this will be of some help. You may want to give the person you are writing to this general reference:

Miller, Robert Rush, 1965, Quaternary fishes of North America,  
in the Quaternary of the U. S.: Princeton Univ. Press, Princeton,  
N. J. p. 569-581, 3 figs., 1 table.

The large salmon vertebrae bone that I told you about on the phone came from the Yonna formation in the SE $\frac{1}{4}$  sec. 8, T. 38 S., R. 11 E., about 6 to 7 miles northwest of Bonanza. This locality was not mentioned in Bulletin 66.

Will you please return the letters.

Best regards.

Norm

NVP:rep

Encl: 5 pages

*Thanks, Norm -  
I sent the ref. of  
a couple of others  
Maggie*

*File*



8-  
IN REPLY REFER TO:

Answer - 3/18/68

UNITED STATES  
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY  
Branch of Paleontology & Stratigraphy  
345 Middlefield Road  
Menlo Park, California 94025

March 15, 1968

Dr. Norman V. Peterson  
Oregon State Department of Mineral Industries  
521 NE "E" Street  
Grants Pass, Oregon 97526

Dear Norm:

Recently Mr. James O. Berkland, who you may or may not have met when he was in the field with George Walker and myself north of McDermitt, Nevada, sent me a small collection of fish bones from an abandoned railroad cut, possibly in the Yonna Formation, south of Klamath Falls. The locality is 700 feet south and from 700 to 1,500 feet west of the north-eastern corner of sec. 4, T. 41 S., R. 8 E., Klamath County, Oregon. The cut is 20 feet deep in tuffaceous sandstone dipping 10 degrees to the northeast, the sediments are cut off by basaltic intrusions at the east and west edges of the cut.

I sent the fish remains to Bob Miller at Michigan who is quite interested. He would like more specimens. I don't know when I will get a chance to collect there and so have hopes that I could talk you into collecting more material in exchange for the information that Bob Miller has and will provide. Since you are mapping in the area, possibly you could also confirm the formational identity.

I enclose copies of relative correspondence. Are you interested in helping get more material for Miller? If you are, could you send the collection here first so I could check for mammal bones in it?

Sincerely yours,

Rep

Charles A. Repenning

April 19, 1968

Dr. Charles A. Repenning  
Branch of Paleontology & Stratigraphy  
345 Middlefield Road  
Menlo Park, California

Dear Rep:

We are sending you separately fossil material that we collected in the Klamath Falls area last week.

There are materials from 4 separate localities, as follows:

1. Klamath Falls quadrangle - the railroad cut near Worden in the NE  $\frac{1}{4}$  sec. 4, T. 41 S., R. 8 E., as reported by Jim Berkland. All that we seemed to find at this locality were fish remains and most were fragments. Pebbly layers in the tuffaceous sandstone indicate a near shore environment as reported by Berkland. Jim McIntyre is going to look this one over again next week to make sure that we didn't miss any mammal bones.
2. Merrill quadrangle - in a road cut in SE  $\frac{1}{4}$  sec. 32, T. 40 S., R. 11 E. about 3 miles east and north of the town of Merriäl. Fish bones and 2 mammal bones were found in poorly consolidated pebbly sandstones, tuffs, and impure diatomite. Small scale normal faults have broken these layered rocks into wedges and tilted blocks. The strike is NW with a variable dip to the NE. The fish and mammal bones are extremely friable and it was difficult to remove them in other than fragments. Here again a near shore concentration is indicated.
3. Swan Lake quadrangle - At the west edge of sec. 33, T. 37 S., R. 11  $\frac{1}{2}$  E., at the north edge of a small reservoir dam at the Parker Place in the Yonna Valley. Here we found fish remains at the surface where they had weathered out of E dipping diatomite, tuff, and tuffaceous sandstones. These sediments are typical of the Yonna formation as described by Newcomb and field relationships would put them in the upper part.
4. Swan Lake quadrangle - In SE  $\frac{1}{4}$  sec. 29, T. 36 S., R. 10 E., in a railroad cut on Switchback Hill. Here again there are abundant fish remains in the same type of volcanic sediments. The fossils are in a small wedge of downfaulted tuffs in contact with a basalt agglomerate. We did find about half of a complete fish skeleton in this location.

We had hoped to find more and better material for you and Dr. Miller and we will be on the lookout for fossil localities as we continue our field work. Anything we find that looks interesting will be mailed to you. Hopefully some of this material will be useful and we will be looking forward to any age information that is indicated. Our project deadline is August 1968 so even preliminary information will be helpful to us.

One more thing, we are interested in corresponding with Kenneth E. Lohman, do you have an address where he can be reached?

Best regards,

Norm Peterson



May 16, 1968

Mr. Charles A. Repenning  
U. S. Geological Survey  
Branch of Paleontology and Stratigraphy  
345 Middlefield Road  
Menlo Park, California 94025

Dear Rep:

The latest shipment of fossil fish material from the four separate localities in the Klamath Falls area arrived on May 2. Some of the fragments were further fragmented in transit but most of the material came through in reasonable shape.

Of particular interest are the salmonid remains from localities 1 and 4, the railroad cut near Worden, and Switchback Hill. We identify one or more species probably of the salmon genus Oncorhynchus; some of the remains look fairly close to the dog salmon, O. keta.

More exciting is what appears to be the young of an extinct genus of salmon-like fish, of which we have the adult remains from early Pliocene deposits near Gateway, Oregon.

It will be some months before we can really look this material over carefully but we are very grateful for its receipt and there is much of interest in it.

As to age, I can only say that it is probably Pliocene or perhaps early Pleistocene. I was hoping that adequate mammal remains would pin the dating down more precisely.

We are certainly most grateful to Norm Peterson and his party for looking out for our interests. A copy of this letter is being sent to him.

Sincerely,

Robert R. Miller  
Curator of Fishes

RRM:mw

cc: Norm Peterson

↑ Thanks a lot  
RRM

SOUTHERN OREGON COLLEGE

ASHLAND, OREGON 97520

July 18, 1968

Mr. Norman Peterson  
521 N. E. "E" Street  
Grants Pass, Oregon 97526

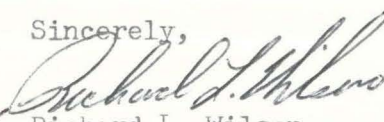
Dear Mr. Peterson:

I received a letter from Robert Miller saying you had collected from several localities in the Klamath Basin which contained fishes. I've started a study of the Upper Cenozoic fishes from Oregon and would like to know of these areas. I will be working on J.A. Shotwell's fossil fishes and have been doing the archeological material from sites along the Columbia River and lower Klamath Lake. Arnold said you were still working over in the Klamath area. I will be doing considerable work in the Klamath Basin on both the Recent and fossil fishes.

Bill Purdom said you might be able to put me on the Ore Bin mailing list. I would appreciate receiving this publication.

Thank you.

Sincerely,

  
Richard L. Wilson  
Assistant Professor of Geology

RLW:laf

3/14/77

Maggie: I think Wilson may have published something - possibly a U of Oregon - Museum publication -