

UTAH FRIENDS OF PALEONTOLOGY  
GREAT BASIN CHAPTER  
NEWSLETTER

1594 West North Temple, Suite 3410, Box 146100, Salt Lake City, UT 84114-6110  
March 1997

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UGS Home Page: <http://utstdpwww.state.ut.us/~ugs/>

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**MARCH REGULAR MEETING**

**THURSDAY, MARCH 13, 1997**

**7:00 PM**

**1594 West North Temple**

**Our Speaker will be**

**PAUL BYBEE**

**Faculty Member**

**Geology Department**

**Utah Valley State University**

**SPEAKING ON**

**ANATOMY OF ALLOSAURUS**

**UFOP Monthly Meeting Minutes**  
**Carole Jones**

Great Basin Chapter of Utah Friends of Paleontology met February 13 at the Utah Museum of Natural History on the University of Utah campus.

**Old Business:**

Karen Elkington gave the treasurer's report. We have a balance of \$1,823.70 on hand. Half of the membership dues will be sent to the state organization.

Chapter Advisor Dave Gillette announced the prep lab is on hold. If one is built it will be the latter part of Fall, 1997. He also reported that 3 field trips will be announced very soon for the annual Friends of Paleontology to be held in Price, April 15-18. One of the trips will definitely be to the Ferron site. The other two are in the planning stages.

Castle Valley Club has asked for a poster session from our chapter. Brad Wolverline volunteered for this task and Lewis Pierce will assist him.

**New Business:**

March 8<sup>th</sup> will be our day at the Price Museum lab to do prep work. We will begin at 9:00 am. This really will be a good time. We encourage all who can to participate in this day.

President Ray Jones announced the nominating committee for next month's election. Joe Gentry will chair the committee.

The guest speaker for the next meeting will be arranged by Lewis Pierce.

There will be level one and level two certification programs this year. Watch for details.

Following the business meeting Janet Gillette gave the members a real treat traveling through time by going through the University of Utah Dinosaur lab. We saw bones from the dinosaur era, including turtles and mammoths. It was a good trip and we all thank Janet for such a lovely and exciting tour.

**Great Basin Chapter UFOP Treasurer's Report**  
**1/1/97 - 2/12/97**  
**Karen Elkington**

Balance 1/1/97			\$1333.42
Receipts:			
	Membership Dues	\$ 500.00	
	Sale T-Shirts	\$ 28.00	
		<b>TOTAL:</b>	<b>\$ 528.00</b>
Expenses:			
	Refreshments	5.72	
	Postage	\$ 32.00	
Balance 2/12/97			\$1823.70

Note: one half of membership fees due State organization.

**News and Reminders**

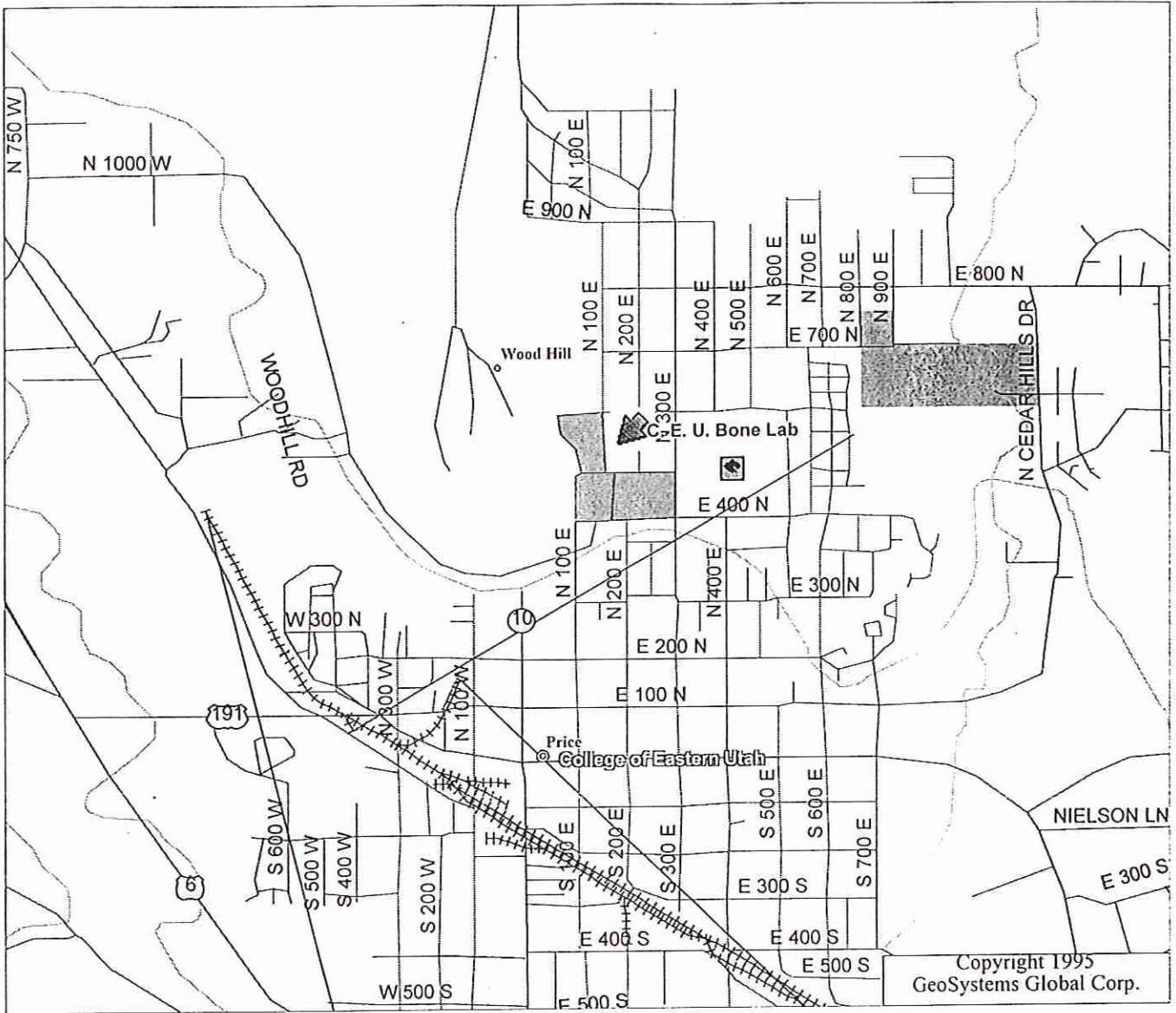
As reported in the February meeting minutes, members of the Great Basin Friends of Paleontology will do prep work March 8<sup>th</sup> at the Price Museum lab. A map to the lab is attached to this newsletter. If you arrive early we will be meeting anytime between 7:00 and 8:00 am at the Days Inn restaurant for breakfast prior to going to the lab. We will begin work at the lab at 9:00 am. Some members will be spending Saturday night at Price and returning Sunday morning. If you would like to make reservations, the phone number for the Days Inn Motel is written on the map attached.

March						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
						1
2	3	4	5	6	7	9:00 am Price Lab 8
9	10	11	12	7:00 pm UFOP MEETING 13	14	15
16	17	18	19	20	21	22
23	24	25	26	Ferron Site 27	Ferron Site 28	Ferron Site 29
Easter Ferron Site 30	31					

April						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
Daylight Saving Time 6	7	8	9	7:00 pm UFOP MEETING 10	Ferron Site 11	Ferron Site 12
Ferron Site 13	14	15	16	17	18	19
20	21	22	23	24	1997 UFOP Convention 25	1997 UFOP Convention 26
1997 UFOP Convention 27	28	29	30			

May						
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2	10:00-3:00 Open House At Rio Grande Depot 3
Utah Prehistory Week 4	Utah Prehistory Week 5	Utah Prehistory Week 6	Utah Prehistory Week 7	7:00 pm UFOP MEETING 8	Utah Prehistory Week 9	Utah Prehistory Week 10
11	12	13	14	15	16	17
18	19	20	21	22	Ferron Site 23	Ferron Site 24
Ferron Site 25	Memorial Day Ferron Site 26	27	28	29	30	31

# Price, UT



- Primary Road
- Secondary Road
- Minor Road
- Park
- Water
- Built Up Area

0.4 mile

*Days INN*  
*801-637-8880*

## EVOLUTION

### Old Bird

**A**RE BIRDS DESCENDED from dinosaurs? Most paleontologists think so. A minority, however, bump dinosaurs and their descendants completely off the bird family tree, suggesting instead that avian evolution was well under way tens of millions of years before *Archaeopteryx*—a presumed ancestral bird—and its kin appeared on the scene, and perhaps even before the age of dinosaurs.

That view—largely scoffed at by the dinosaur-descent majority—gained new credibility recently with the discovery of a fossil bird, called *Liaoningornis*, in

northeastern China. The sparrow-size bird, which was analyzed by ornithologist Alan Feduccia of the University of North Carolina at Chapel Hill and his colleagues, may be the oldest example of a modern-type, or ornithurine, bird. *Liaoningornis*, for instance, possesses a keeled sternum for the attachment of flight muscles, a feature found in all modern birds but not in dinosaurs or *Archaeopteryx*.

Yet radiometric dating of the deposits in which *Liaoningornis* was found suggests that the bird is 137 million to 142 million years old—just a tad younger than 150-million-year-old *Archaeopteryx*, and nearly 20 million years older than the oldest previously discovered ornithurines. Furthermore, the fossil was found in the same deposit as another fossil bird, called *Confuciusornis*, which shares a number of primitive characteristics with *Archaeopteryx* and other ancient birds.

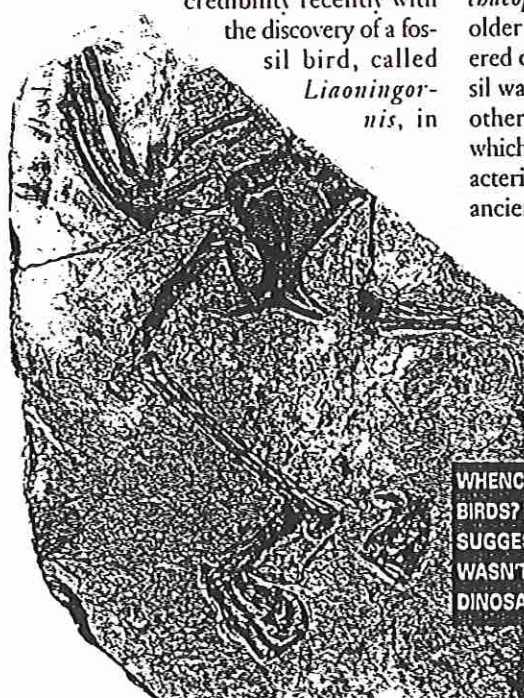
That dating, it must be said, is already being challenged by Canadian researchers, who date the fossil at just 121 million years old, young enough for *Liaoningornis* to have evolved from *Archaeopteryx*. But if the dates

hold up, says Feduccia, it would mean that two distinct lineages of birds already existed at the time of *Archaeopteryx*. “We have

an early dichotomy of birds, with one lineage producing *Ar-*

*chaeopteryx* and birds like *Confuciusornis*,” says Feduccia, “and the other lineage leading to the ornithurine birds, like *Liaoningornis*.”

The common ancestor to both branches, Feduccia says, must have lived tens of millions of years earlier—and was therefore not likely a dinosaur. “When you have fully developed forms like *Confuciusornis* and *Liaoningornis*, you can bet that the divergence goes back quite a bit further. That means there was a much earlier period of avian history that preceded *Archaeopteryx*, which we know nothing about.”



WHENCE CAME BIRDS? THIS FOSSIL SUGGESTS THAT IT WASN'T FROM DINOSAUR STOCK.

LEFT: Courtesy Alan Feduccia; RIGHT: courtesy Bates Littlehales