Page Tools

News:

Fossil frenzy

Posted by Elie Dolgin
[Entry posted at 21st May 2009 05:13 PM GMT]
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On Tuesday, the world met "Ida" -- a 47-million-year-old primate fossil touted as a "REVOLUTIONARY SCIENTIFIC FIND THAT WILL CHANGE EVERYTHING," according to a press release. The media went berserk. *Google News* now lists more than 750 articles relating to little ol' *Darwinius masillae* -- and the search engine itself even changed the lettering on its logo yesterday. At a press conference earlier this week, the study's lead author, Jørn Hurum of the University of Oslo, variously called the fossil the holy grail of paleontology and the lost ark of archeology. Next week, a two-hour documentary will air on the History Channel -- brazenly called "The Link" -- and a book of the same name has already hit bookstores.


Matthew Nisbet
Image: American University

All this has led many to cry foul about how the finding -- published Tuesday (May 19) in *PLoS ONE* -- is being sold. *The Scientist* spoke with Matthew Nisbet, a communications specialist at American University in Washington, DC, who studies the intersections between science, media, and politics, to discuss how the promotion of this one discovery really has changed everything in the realm of science communications.

***The Scientist*:** How unusual is this amount of media attention for a single study?

***Matthew Nisbet*:** This single study may have gotten more attention across multiple media platforms than any study in recent history. You may have to go back to the announcement that Raelians had cloned a human child, or the cold fusion announcement back in the early 1990s [to find a comparable media response]. Those are in part unfair comparisons because neither one of those studies was peer reviewed. The big difference this time is that this study is peer reviewed in a major journal.

***TS*:** Have the authors of this study crossed the line into overselling and hype?

***MN*:** It's a difficult balance in order to generate wider attention. You have to use language and metaphors that are non-traditional in how science is communicated. On the other hand, whether it's a fossil find or a pharmaceutical drug, you don't want to use metaphors that oversell the impact or promise of the discovery. The risk with that is that you undermine credibility and trust with the public.

***TS*:** The paper's publication was accompanied with spots on morning talkshows, a book, TV tie-ins, and so on. Isn't that all a bit much?

***MN*:** There's an important distinction between the channel and the language and the metaphor. There's nothing wrong with communicating about the find across these various channels. In fact, scientists have to go beyond their traditional mechanisms for communicating if they're going to reach beyond a narrow slice of the public. But where you need to be careful is in how you choose to define a particular study. I think where [the authors] might have gone wrong was not in the use of the channels but actually in the choice of language.

***TS*:** In addition to toning down the rhetoric, how can scientists use these same tactics more responsibly?

***MN*:** This type of "going broad" strategy might be more appropriately applied to a scientific subject generally or to a body of research rather than a single study. No single study is the "slam dunk" or the so-called "missing link," as this particular study has been defined. The strategy is tremendously innovative, though, and it has introduced science concepts to audiences that wouldn't otherwise pay attention to them. This can now be a platform for learning how to engage wider audiences to start following scientific subjects more closely.

***TS*:** How are scientists themselves responding to this announcement?

***MN*:** Apart from how the media is discussing the story, there's a really interesting conversation online among scientists about just how significant of a finding this is. Before, when a study like this came out, our only access to what might be on the minds of the scientists was to follow their limited statements in the *New York Times* or read the news at a place like *The Scientist*. But now, with the blogosphere, within hours [of publication] we can actually eavesdrop on what

LATEST NEWS

different scientists think about the study and how they're beginning to make sense of it. Also, there's a breakdown in the hierarchy within science. Now, you have non-symmetrical interactions between graduate students and senior scientists. It's something that's completely different in the world of science.

TS: What can we learn from this episode?

MN: The take-home lesson is that this is a really innovative model for going broad and reaching audiences, and it's a model that there's a lot to learn from in terms of effectiveness and strategy. But the danger is that in activating those broader channels that you don't go beyond what can accurately and honestly be said about the significance of the paper for the promise of the underlying science. There's a lot to like about the strategy and the planning and the wider attention that this study has gotten, but there's a lot to debate about the language and metaphor that's been used to convey the significance of the study.

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Return to Top

comment:

Nothing new in the hype except the hype has been hyped

by null null

[Comment posted 2009-05-21 17:59:39]

There really is not much new in this new mutual exploitation of "science" by the media and the media by the "science." If there is anything new, it is the prepackaging and relative slickness of the image making of the specimen and the personalities and institutions involved. There is much that is competitive about dead things and their discoverers, primary or secondary discovering parties, and there is a temptation to smooth the rough edges to maximize the hype and potential dollar end. In this case, it seems that the describers really did not go out and do the field work to "discover" the fossil; it was purchased, and in part even fabricated and then another part also purchased.

One of the major problems with the fossil then becomes one of determinging the "where" part of its discovery. Beyond just geographical location, the stratigraphic part of fossil's identity would seem to be in doubt, and that doubt can have substantial impact on its significance. Up or down in a rock sequence can mean thousands or tens of thousands or millions of years in the age of any fossil.

Then too, buying fossils is a big negative among academic and museum paleontologists, and the Society of Vertebrate Paleontology has long admonished those who buy and those who sell. However, just as in the case of the really important fossil, "Sue," the world's most famous T. rex, the fossil "establishment" embodied in the Society of Vertebrate Paleontology dared not voice criticism of the Field Museum, McDonalds and Disney, and their complex transaction that

purchased "Sue" at auction. Yet the "commercial" paleontologists, Peter and Neal Larson, and their staff, were treated miserably by the "fossil establishment" despite their record of superb discovery and research.

The historic record of the reporting fossil discoveries is filled with "reports" and coverage of the smallest, largest, oldest, youngest,fiercest, or whatever "-est" one wishes to use. May disocveries are significant, and just as many are determined to be less significant than the original claims that announced them. It is all part of how paleontologists and other scientists do business. One only has to look at the massive coverage of the neocatastrophist theory of an extrterrestrial cause of the demise of the dinosaurs ny Walter amd Louis Alvarez and their supporters. It is with some comfort, that Gerta Keller resisted the tidal wave of media and professional hype, and is now finding a place on the stage with her very different but no less documented alternative theories.

I recently was reading of the attention Albert Einstein received in the media and the amazing authority he garnered as the embodiment of what it meant to be a scientist. He seems to have greeted all this with a modesty and grace, and amusment, that placed it in an appropriate contex in his own mind. Unfortunately, the pressures of today, and the competition for space and attention, results in the media hype that we see. In the end, it obscures the significance of the discovery.

Donald Wolberg
Socorro, NM

Return to Top

comment:

the story is not the science but the hype--

by zach dicker

[Comment posted 2009-05-21 17:20:38]
Too bad Ellie Dolgin did not ask Matthew Nisbet some questions that went beyond his excellent post on Framing Science-5/19--since this is really a hype story that incidentally is about science.

If Variety or the Hollywood Reporter were doing this story they would want to follow the money--
So far, we know the science, we know thew merchandising, all that is left to know is who organized the effort, who managed it, who put up the money, and how will the profits be divided.--

The other question is PLoS--all the other players--History Channel, ABC News, Little Brown Books, we understand--seems PLoS is using this effort as a stepping stone to becoming a consumer mag ie Scientific American or Wired? Strange-- since both seem to be challenged--

So I'm waiting for the next chapter--and hope it come from Nisbet or The Scientist and not the Hollywood Reporter--
Zach Dicker--
BiotechScienceNews.com--
zdicker@verizon.net

Return to Top

comment:

A bad strategy

by Earle HOlland

[Comment posted 2009-05-21 16:24:48]
Matt writes that "this is a really innovative model for going broad and reaching audiences, and it's a model that there's a lot to learn from in terms of effectiveness and strategy." Respectfully, I think this is flat-out wrong! What can be learned from this is an effective way of circumventing the normal checks that good science writers bring to this process. From Carl Zimmer's blog, and a conversation I had with John Noble Wilford, it's clear that those orchestrating the press conference/book/TV show were manipulating the event to their own advantage, in spite of the damage it might do to the science. Yes, it netted more than 700 stories hyping the finding but the restrictions on access to the information facilitated a less-than-accurate representation of what importance the find actually was. This kind of "press agentry" does nothing positive for science -- any interest that might be garnered by the flood of coverage is rapidly lost when readers find that they were misled in the beginning. That doesn't help either science or journalism, in my opinion.

Return to Top

comment:

Incorrect calculation

by anonymous poster

[Comment posted 2009-05-21 13:38:34]
47 million does NOT equal 4.7 billion, but rather .047 billion. The earth was present 47 million years ago.

Return to Top

comment:

Oops M. Sarkar

by Gar Hildenbrand

[Comment posted 2009-05-21 13:38:32]
This fossil is 0.47 billion years old. Your calculator needs new batteries.

Return to Top

comment:

The age of this fossil is older than the Earth

by Sabyasachi Sarkar

[Comment posted 2009-05-21 13:15:30]
This fossil is 4.7 byears old. What is the age of the Earth? The creation of The Sun and the Earth as per Bing Bang theory makes the Earth 4.5 byears old and its creation from molten Sun.Unable to comprehend the fossil data as per the age of the Earth

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