Footnote

After I had finished the paper two more fossil discoveries came to light. Amphibian remains dated at 365 million years, given the name ***Hynerpeton,*** show that the gap between 365 and 370 million years is filled with amphibians. To complete this view, amphibian remains have been found which are dated at 370 million years (Strong enough, 1994, p. 17). The panderichthyids are first found at 378 million years. The further back we discover amphibian remains along side the continued lack of intermediate forms will clearly signal the end of the evolutionary theory. If we allow at least a three million year history on the evolutionary scale for the amphibian at 370 million years, then clearly a time range from 378 million years will not be enough to evolve into an amphibian. To make things worse, going beyond 380 million years likely means that the fish assigned to the time are in less of a physical condition, such as ***Osteolepiforms,*** to produce an amphibian. We have seen with the case of strong legs, that it is logically possible to show that 10 million years is not enough to evolve into such an amphibian. In like manner the same would apply to any other amphibian discoveries, thus if remains were found at 375 million years then one could cover a 10 million year period up to 385 million years. Hence, the further back we find amphibian remains along with the lack of fossil intermediates the stronger the case for the Gene-Theme model and for creation. See Table I for the dates.

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Strong enough to leg it when the going got tough. 1994. *New Scientist* 143(1937):17.

Editorial Note: After this paper had been accepted, cranial remains of a new genus- *Elginerpeton* -were reported from the Upper Devonian of Scotland (Scat Craig beds, Upper Frasnian). It is not clear whether this genus had feet or fins, but it was assigned to the Tetrapoda on the basis of cranial characters. Perhaps these finds will result in showing that amphibians existed even lower in the stratigraphic record. The references are:

Ahlberg, P. E. 1995. *Elginerpeton pancheni* and the earliest tetrapod clade. *Nature* 373:420-424.
Carroll, R. 1995. Between fish an amphibian. *Nature* 373:389-390.

THE PHANTOM BRIDGE EXPOSED: THE LATEST TURTLE ATTACK

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Abstract

Do turtles have common ancestors that evolved many turtle-like traits before they acquired shells. So claim recent papers by Michael Lee published in Science and Natural History. An artist's conception of lizard-to-turtle progression was demonstrated and published by this author; but only one photograph of a skeleton was documented. Forty-five lizard-like creatures were divided into seven groups each and similarities were delineated. Yet, Lee's technical paper stated that "evidence uniting captorhinid . . . with turtles is shown to be weak." No statistical significance is documented. In fact the author of these theories admits to a luck of objectivity and to the embarrassment of persistent gaps in the continuum of life.

Introduction

Recently, Lee published his reasons for believing that turtles evolved from a lizard-like ancestry (Lee, 1993, 1994). He produced five drawings showing a hypothetical transition. These drawings have been redrawn in Figure 1 to demonstrate the body and cranial structures.

Unfortunately, these five drawings have many problems in terms of the reality of the organisms that they represent and that is why they are phantom drawings. The abstract of Lee's technical paper states that, "Evidence uniting captorhinid . . . with turtles is shown to be weak." (Lee, 1994) A question the reader should ask is that if the relationship between ***Captorhinus*** and ***Proganochelys*** is weak, then why make it part of the proposed progression? Thus the author states that ***Captorhinus*** which he draws as a non-vertebrate (in reality it is a vertebrate-a reptile), should be excluded in hypothetical progression of the vertebrate lizards. Yet in the popular article, Lee schematically includes ***Captorhinus*** in his diagrammatical sketches.

Most creationist and evolutionist biologists would agree that the "oldest" fossil turtle, ***Proganochelys,*** is a valid and legitimate primitive turtle. Notice how similar this turtle looks to the turtles of today (Frair, 1991, Figure 2). Therefore, it is easy to see why somebody would associate the ***Proganochelys*** turtle reported to be 210 million years old to the turtles we have today. In fact, Frair states this about ***Proganochelys,*** "The first turtles, although differing in some features from extant forms, clearly were turtles." (Frair, 1991, p. 22) Also, evolutionist Jackel says that, "They are already unquestionably turtles in most features of their anatomy and show little if any affinity with other groups of reptiles." (Carroll, 1969, p. 9).

Lee went to the University of Illinois to search for 45 specimens which he classified into seven different groups in order to form his background data. Next, he

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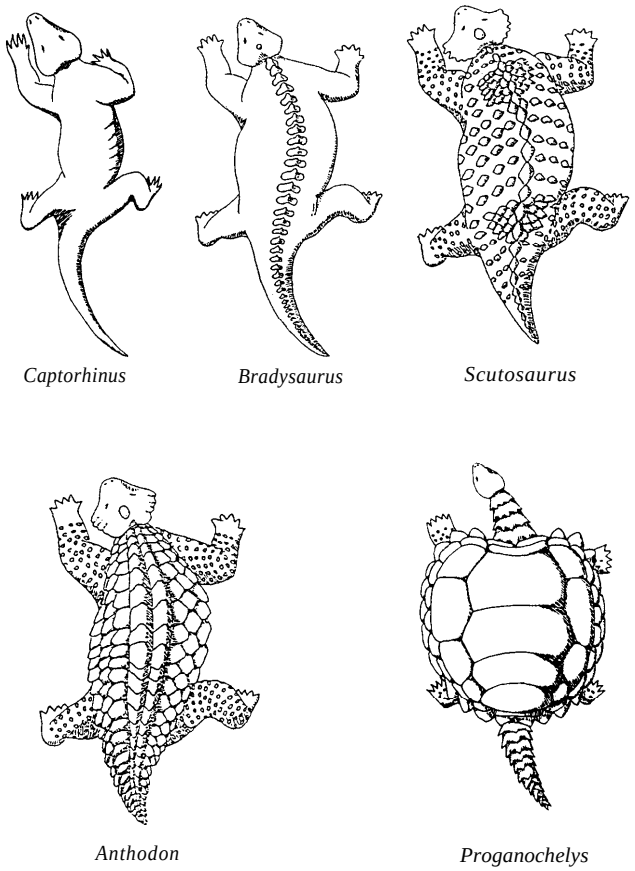

Figure 1. Artist Kevin Flanagan's conception of body and cranial features of several fossil specimens (after Lee, 1994). Some of the reptile species have bony plates, which were interpreted by Lee as a bridge leading to turtles.

organized the different groupings of lizard skeletons and then purported to document common features within his groupings stating that there are 16 common features between ***Proganochelys*** and the entire group of other drawings. Within these 16 common features, nine are cranial similarities, two are vertebral similarities, two are shoulder similarities, and three are hind limb similarities. In Lee's technical paper cranial similarities are the most common finding; yet his drawings emphasize various plate structures on the shell and how they transformed into the shell. If he is researching cranial differences and finds nine of 16 are cranial comparisons, then Lee should be drawing more about cranial similarities and using that as a basis of schematical representation as have other previous authors (Gaffney, 1990).

Next, Lee includes ***Captorhinus*** into his phantom drawings (Lee, 1994). To look at similarities between ***Proganochelys*** and the other drawings Lee finds more common features as well as the 16 original common features mentioned above. Of the nine additional common features, one is vertebral, three are shoulder, three are extremity, one is dermal armour and one is gastralgia. Again, only one vertebral finding is reported. It seems that Lee is trying to say there are more features that are common between the middle three drawings of lizards than there are of the first four. Lee is trying to show that the first lizard is less linked to the drawings than the others are. Then why include it in the drawings?

Yet the main problem with this type of analogy is that the investigators first put the different bones in different piles separating them in the first place and grouping them into groups and then, after sorting, find all these similarities between the different groups.

This is like trying to classify houses by saying one is traditional, another is colonial, and the third contemporary and then trying to find more similarities between the traditional and colonial than between the contemporary and colonial. In other words, it is not objective or fair to classify first and then find similarities after already using the similarities for classification. Is this proper objective scientific method? Perhaps some of the colonial houses would look traditional to me; yet to other people they may look a little different. Lee's work lacks a control on the observer-reporter database method.

The small plates, called scutes in some references, Lee reports are

> embedded in the skin over the backbone [of lizards]; in later forms these plates, spread out over the sides and belly, and enlarged and fused with one another to form a rigid carapace-just like a turtle shell. (Darwin, 1902; Lee, 1994, p. 63.)

When studying the diagram showing the various lizard-like transformations one is led to imagine a large uniformity and increase of the plates for each one of the various representative lizards. Yet when one reads Lee's technical paper, only one skeleton is pictured that demonstrates any type of dermal armour, and this photograph looks more like the skeleton of a dead rat without any plates that are observable to the eye. Furthermore, if you check some of the references you find that only one skeleton demonstrated dermal armour in all the skeletons examined. This was a single parieasaur thought to be young and the plates were not fused, nor did they overlap. It seems to me that the diagrammatical scheme such as these phantom drawings based on only one known fossil of a premature or adolescent lizard is a little too presumptuous to base this large leap in progressive plated lizards which Lee has drawn as factual data. There was no photographical depiction in Lee's references.

Furthermore, reference to Boonstra 1934 (cited in Lee, 1993) has been updated by Boonstra in 1969 to

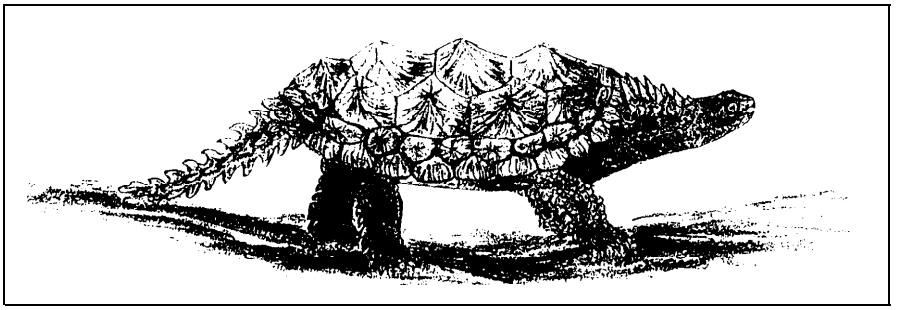

Figure 2. Artist Lisa Pizzarella's conception of *Progonochelys quenstedti.* Drawing supplied through the courtesy of Dr. Wayne Frair.

"reduce the numbers of valid genre and species from this zone considerably." (Findlay, 1970, p. 15.) If anything can be extracted from the single skeleton it is that at one point there existed a lizard that had ossified changes. Whether or not this is an animal that existed in great numbers and thrived at a period of time in our history is unknown. Functionally, it would seem almost impractical for one to confer any protectiveness by plates on the dorsum of a lizard. On the dorsum of a lizard the vertebral column and ribs already protect it from posterior attack. The lizard is fast and very mobile. It seems that the biggest threat to any lizard would be a predator which would turn it over and attack it from its vulnerable ventral side. Here one could imagine that if changes were to confer any protection, a shield much like the sternum on the anterior aspect would be the most functionally logical place to develop it. If lizards were truly evolutionary ancestors of turtles, one could make a functional argument that plates formed and were fixed together on the ventral surface of the lizard protecting the vital structures, the heart, lungs, abdominal contents from predators. Why would a lizard add another protective layer on its already protected dorsum? It would only make it more cumbersome and heavy and more difficult to get away from its predators.

Another functional problem with Lee's model is his statement that the round structure of the swimming turtle is an advantage over the long, slender lizard. Here he implies that a round structure is easier to maneuver than a slender structure. However, as a canoer I have found that paddling a canoe is much easier than paddling a row boat, especially against current. Therefore, it seems that a lizard-like body and swimming ability would confer much more protection from prey via maneuverability.

One of the most difficult parts of any scheme to detect changes in animals occurs when one has to take structures and totally transpose them across other major structures. This is the case when Lee tries to take the shoulder girdle and shoulder blade, which exists on the exterior dorsum surface of the ribs in a lizard and put them underneath a shell of the turtle carapace. His diagrams again are inadequate to show that transformation. No skeleton documentation is presented, and therefore this theory is very speculative. No skeletons are offered as examples of that transition, although he tries to show similarities between the lizards and the primitive turtle. It seems to me that there would be no functional advantage for placing the shoulder blade inside the turtle shell. In fact, it would be easier to maneuver if the shoulder blade and leg were outside the shell and there were bones that would use the shell as a fulcrum for maneuvering in a more rapid and large swinging motion.

The low points of Lee's articles are his emotional outcries against the embarrassing and persistent gaps. As he states,

> One is reminded of the crack about the atheist who couldn't prove that God didn't exist-and so took it on faith. Indeed recent paleontological finds have plugged some of the most embarrassing and persistent gaps in the continuum of life . . . (Lee, 1994, p. 63).

One would wonder why Lee is so embarrassed. Why would he throw rocks at former atheists who try to prove God does not exist and then find God does exist? Are these statements of someone who is objective or of someone who has an axe to grind? Why should one believe that he is objective and have regard for his data when emotional bias reaches his pen in this way?

Lee was somewhat truthful about his non-objective bias. He states, "Scientists are no more objective than other people; what we see is heavily constrained by what we expect to see." (Lee, 1994, p. 63.) Does this seem like an investigator who is biased toward what he wants to find? The sketches that Lee and other evolutionists make of such transitions should not be schematically constructed. Only actual fossilized transitions should be allowed as scientific proof.

Darwin stated in his book, ***The Origin of the Species,***

> **. . .** the geological record is extremely imperfect . . . these causes, taken conjointly will to a large extent explain why-though we do find many links-do not find interminable varieties, connecting together all the extinct and existing forms by the finest graduated steps. . . . He who rejects this view of the imperfection of the geological record, will rightly reject the whole theory." (Darwin, 1902, pp. 341-342.)

In summary, the turtle morphology is an excellent example of a species whose fossils appear abruptly without apparent evolutionary evidence of ancestors. Although they remain a target of evolutionists, no current model of evolution has yet explained the functional arrangement, serum protein similarities and functional aspects of this remarkable and isolated species. The turtle remains a model of the creationist view of origins.

I wish to acknowledge the helpful insights contributed by Dr. Wayne Frair.

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***For additional information on evolutionary efforts to solve the mystery of turtle origins see Lee, Michael S. 1996. Correlated progression and the origin of turtles. *Nature* 379:812-815.**