

# **Is Evolution Finished?**

by

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## **Introduction**

Few scientists question the reality of evolution. I assume, with the majority, that it has occurred. What else can be said concerning this most mysterious of all biological processes? There is little more of which one can be certain. No one knows how, or how many times, life has originated. The more we learn about the complexity of even the simplest living systems, the less likely becomes the probability that life originated by chance. You may notice that the last three sentences are presented in the past tense. As evolutionists we can be certain that life did originate in the distant past. We can also be certain that evolution occurred in the past. But what can we say about the present? Can we be certain that evolution is in progress today? In this essay I will present evidence that evolution is no longer in progress. Before I do, I will define what I mean by evolution so there will be no ambiguity with respect to my claims. I will use the term evolution to indicate macroevolution, by which I mean the appearance of new diploid species of plants or animals. I accept the physiological definition of species. Two forms that can produce a viable hybrid will be considered separate species if that hybrid proves to be sterile. This is the hard definition proposed by Dobzhansky and will suffice for my purposes.

## **Historical**

The independently conceived scenarios proposed by Charles Darwin and Alfred Russel Wallace were based strictly upon what they saw going on around them. That is not surprising since both were influenced by Charles Lyell's doctrine of Uniformitarianism. They saw sexually reproducing organisms producing more offspring than could possibly survive. Further, those progeny were variable. They then invoked Nature to make the decision as to which were to survive. The best adapted survive, the less well adapted perish. This concept came to be known as "the survival of the fittest" and the mechanism of "natural selection" has dominated evolutionary thought right up to the present. Darwinism grants to Nature the sole responsibility in determining evolutionary destiny. Since Nature includes all that has been produced, one is left with the following enigma. Nature (that which has been created) has become the Creator. Notice that it was unnecessary to postulate any further considerations since everything was evident at the onset. As someone so aptly put it – "Hypotheses have to be reasonable – facts don't." There is no doubt that Darwinism has survived in part because it is so reasonable. But is it supported by the facts and, most importantly, by experiment? .

## Can sexual forms evolve?

For centuries man has practiced intensive selection on those life forms he has domesticated, yet he has never produced new species as a result. Luther Burbank, the great horticulturist, had some pertinent comments on the limits of selection. From his autobiography:

“I know from my experience that I can develop a plum half an inch long or one two and a half inches long, with every possible length in between, but I am willing to admit that it is hopeless to try to get a plum the size of a pea, or one as big as a grapefruit (Burbank, 1939).

The ratio of five to one in the lengths of his plums corresponds to a mass ratio of 125 to 1 (five cubed), which agrees favorably with what man has been able to achieve with dogs (Great Danes versus some of the miniature breeds) or, for example, with the size of the fruits of tomato varieties. Burbank admits the futility of exceeding the limits he indicates and the prospect of speciation apparently never crosses his mind. As Gertrude Stein so quaintly put it “A rose is a rose is a rose.” Thus, while selection can produce substantial changes in the expression of the genetic potential, it apparently cannot produce changes that conform to the definition of species. Similarly, in nature, sexual reproduction seems incapable of proceeding beyond the subspecies. I am unaware of a single instance of the production of a new species through the known agency of sexual reproduction. The standard Darwinian response is that evolution takes too long to be observable, an assumption which renders that proposal untestable.

This raises the question – has evolution really been gradual? I confess that the answer to this question depends on what one might accept as an intermediate state. As an example, the horse series shows an increase in size coupled with a decrease in digits. However, this series is not linear so the intermediate organisms cannot be arranged in any certain fashion. Furthermore, they differ from one another in so many independent factors that they must be relegated to separate genera. What we actually observe is the appearance of discrete phenotypes with no evidence of what might be described as missing links. This is exactly what one sees when one observes extant related organisms. For an amateur bird watcher, like myself, a simple key or even a picture is usually all that is needed to identify any species with certainty. Schindewolf suggested that we might as well stop looking for missing links as they never existed! If they are not present in contemporary species, why should they have been present during their evolution? Any hypothesis for evolution must recognize and offer an explanation for these morphological gaps. The semi-meiotic hypothesis, which I first proposed in 1984, does exactly that (Davison, 1984, 1998). Based as it is on the reorganization of the chromosomes, such events cannot be considered gradual since they are all-or-none events for which intermediate states are inconceivable. In short, they indicate instant evolution. There is also no compelling evidence that new information is required for the expression of such reorganizations (position effects), indicating that the necessary information was already present and only needed to be derepressed (Davison, 2000).

Since we do not observe discretely new kinds (species) of organisms appearing at present, one is compelled to conclude that macroevolution is no longer in progress. I am certainly not the first to suggest that macroevolution is finished. The anti-Darwinian Robert Broom (1933) claimed that a new genus had not appeared in the last two million years. Julian Huxley, the author of "Evolution: the modern synthesis" (1942), said the same thing. He understandably neglected to indicate the source of that view which had resulted from correspondence he had carried on with Broom. See Broom (1933). Pierre Grasse (1977) correctly observed that nearly all that we see today is the substitution of alleles. It should be obvious that one cannot understand the mechanism for evolution if that mechanism is no longer in operation. One is forced to attempt a reconstruction based on what we know at present (Davison, 1984, 1993, 1998). The neo-Darwinian literature conspicuously neglects all of this which, of course, cannot be reconciled with the sexually mediated mutation / selection model for evolutionary change.

### **Conclusion**

Why might some insist that evolution is still in progress? I propose it is in large part due to the acceptance of authority. For centuries, Aristotelian physics was accepted because it made intuitive sense that the heavier an object was, the faster it would fall. Galileo exposed the myth with a simple experiment. Darwin and Wallace unhesitatingly accepted the authority of Lyell and his doctrine of Uniformitarianism.

Shortly after the publication of the Origin, Gregor Mendel published his papers documenting the laws that now bear his name. Carl Naegeli, at that time the czar of European botany, in a letter to Mendel, described Mendel's findings as "You should regard the numerical expressions as being only empirical, because they can not be proved rational." (Stern and Sherwood, 1966) Of course that which is empirical doesn't have to be rational! Wisely, Mendel had elected to publish his work in the Proceedings of the Natural History Society of Brunn, a journal for which he was an editor. It is questionable if his work would have survived a review had Mendel sent it to one of the major botanical journals of the day. It was not until 32 years later when it became clear that chromosomes, like Mendel's factors occurred in pairs, that Mendelism became established as an experimental science. When that did occur, the Darwinians immediately embraced the new science of Genetics and have attempted to explain evolution with Mendelian principles ever since. Thus two authorities have profoundly influenced evolutionary thought, Lyell with his influence on Darwin and his followers and later Mendel who presented the mechanism for the transmission of genetic factors. However, Mendelism is the genetics associated with sexual reproduction, the very means that apparently is incapable of supporting macroevolutionary change. So it would seem that the influence of these two authorities has been largely inhibitory to the progress of our understanding of phylogeny. Unfortunately, even today, papers which challenge the mutation / selection position are not welcome in certain journals.

I will end with what I regard as one of the most significant and prophetic comments in all of the evolutionary literature. In 1924, shortly before his death, William Bateson, the

father of modern genetics, confided to his son Gregory, “that it was a mistake to have committed his life to Mendelism, that it was a blind alley which would not throw any light on the differentiation of species, nor on evolution in general.” (Davison, 1998). I wholeheartedly agree.

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