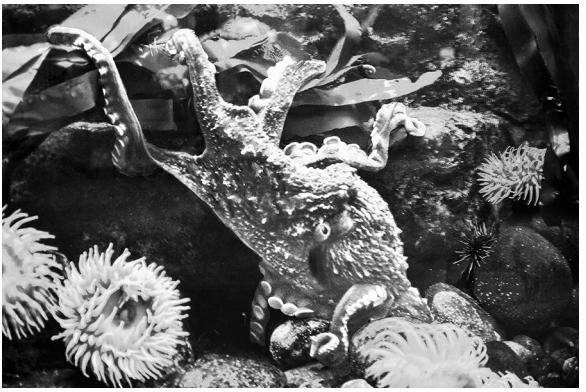

Gene Editing: The Nail in Darwin's Coffin

There are three primary divisions of natural selection (evolution).

The first is where several varieties of a species already exist and an external influence diminishes the population of one variety and leaves the other to predominate.

The second is where there is a beneficial mutation in the genetic structure and that mutation amplifies the ability of the altered organisms to survive and those altered organisms predominate. As this is repeated, the altered organism becomes a separate species. This is classic evolution or macro-evolution.

The third is where there are changes in the genetic structure within a species that adapts that sub-species to a different or altered environment. This is called micro-evolution. Evolutionists use all three of these instances as evidence of evolution.

An example of the first instance is the moths in the smoky industrialized area of England. In this instance, the gray moths predominate over white moths because they are less visible to birds. Another example is short dandelion flowers in a well kept lawn. The tall flowers get cut by the lawnmower so the short ones predominate. For the creationist, these predominations are easy to explain because short stemmed and long stemmed flowers occur naturally and so do moths with different colors. The environment or the lawnmower kills some of the moths and flowers and the others predominate. There is no evidence that the different kinds of moths and flowers do not exist in normal course, just like different kinds of humans. This is not natural selection because it is not caused by changes in the genetic structure and it is not evolution because it is not a change of species.

The beneficial mutation in genetic structure is the evolutionist's argument for natural selection and cross-species evolution (classic evolution or Darwinism). For the open mind, this theory is not difficult to discount because there is little or no actual evidence for it. The evolutionist simply looks at two species and presumes that there is no Creator other than evolution. Therefore, natural selection (evolution) must be the explanation for the difference between them. As long as the absence of the Creator is presumed, that is an easy argument to make because the theory is grossly over-broad. The theory holds that trait that helps a species survive is proof of the theory because it is evidence of beneficial mutations. But then, a trait that does not help the species survive is also seen as proof of the theory because the species with the lesser trait is the species from which the other species evolved. And if something is too complex to have been created by random mutations, then the theory still prevails because it is the only theory. And it is the only theory because all other

theories, such as creationism, are excluded because they are not acceptable. For the open mind, the absence of logic here is not terribly difficult to see.

There is, however, clear evidence for adaptation within the same species. Darwinists call this phenomenon micro-evolution or evolution within a species. Although it is true that these adaptations have not been shown to create a new species, if the cause of the adaptation is random genetic mutations, then it is easy to see how natural selection could eventually create a new species. So, the question is "Did mutations cause the adaptation or was it something else?"

Evolution responds with "Of course it was mutations. There is nothing else that could account for a genetic change."

Creation says, "Not so fast. Because if within-species adaptation is not caused by mutation, then cross-species evolution is effectively without evidential support and must bow before the massive weight of the inconceivable complexity in life. Unless one simply presumes that the Creator does not exist, accidental mutations and dying animals cannot hope to convince an intelligent mind that the wonders that are now common knowledge came from millions of theoretical accidents. See CREATIONDESIGN.ORG.

But within species adaptation is clearly demonstrable. So natural selection should be provable by simply examining the difference in the applicable genes between the un-adapted version of a particular species and the adapted version of the same species. If it can be shown that the genes have been

altered in such a way as to cause adaptation, then that adaptation could be an example of natural selection. Just a few more alterations would arguably produce a new species.

In 2012 two scientists set out to prove exactly that.[1] They were going to pinpoint a gene that had mutated and caused an adaptation to a different environment. The subject they chose was a warm-water tropical octopus that had adapted to live in the frigid waters of Antarctica.

The frigid waters of Antarctica are a problem to the warm-water octopus because the cold water drastically slows the transmission of its nerve impulses. It should not be able to survive in polar cold, but it does. Something had to be different between the warm water octopus and the polar octopus.

The study found that the difference is a particular protein that governs the speed of nerve impulses. The protein is different in each octopus and the different protein is manufactured by a different amino acid (amino acids are molecules that combine to form proteins).

The amino acid used by the warm water octopus is called isoleucine and the instructions (the chemical formula) for the manufacture of isoleucine are written in code in the octopus DNA. These instructions are called a "gene." In order to manufacture the isoleucine amino acid, the octopus cells first make a copy of the isoleucine gene from the octo-

1. (Garrett, S. and J.J. C. Rosenthal. 2012. RNA Editing Underlies Temperature Adaptation in K+ Channels from Polar Octopuses. Science, 334 (6070): 848-851)

pus DNA and then use that copy to manufacture a molecule of isoleucine. This copy is called RNA. The RNA copy is then used to manufacture isoleucine.[2]

However, the Antarctic octopus does not use isoleucine. The Antarctic octopus uses a different amino acid called valine which produces a different protein that works in frigid cold.

The question is how does the Antarctic octopus produce valine instead of isoleucine? The Darwinist answer is that the isoleucine gene mutated so it produces valine instead of isoleucine.

Garrett and Rosenthal set out to prove exactly that by comparing the same gene in the warm-water octopus and the cold-water octopus. If they could show that the gene was different, it would show that gene had mutated and thereby enabled the octopus to survive in frigid waters. This would demonstrate an incidence of natural selection.

They mapped the warm water octopus genes and located the isoleucine gene. Then they mapped the cold water octopus genes and located the same gene and compared them to show how natural selection had changed it.

But Garrett and Rosenthal did not find what they expected to find. They did not find that the gene had mutated. They found that both genes were the same. The gene had not mutated.

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2. Evolutionists believe that millions of random mutations inscribed the formulas for 20,000 chemical formulas upon a molecule. These are the approximately 20,000 complex chemical formulas written into human DNA. Each one is a code written by the arrangement of 4 different molecules, much like the letters on this page.

> On the basis of conventional natural selection, we hypothesized that the channels' genes would have evolved mutations to help tune them to their respective environments. Surprisingly, the primary sequences encoded by the two genes were virtually identical.[3]

But if the genes were identical, how could they produce different amino acids? Did they look at the wrong gene? No, they were looking at the same gene in both octopi but in one octopus the gene produced isoleucine and in the other it produced valine. How can that be if both genes were the gene codes for isoleucine? The answer to that question is the nail in the evolution's coffin.

The Garrett and Rosenthal study discovered a mechanism inside the octopus cells that takes the RNA copy of the isoleucine gene and reprograms it to produce valine.

> [T]he transcribed messenger RNAs are extensively edited, creating functional diversity. One editing site, which recodes an isoleucine to a valine in the channel's pore, greatly accelerates gating kinetics by destabilizing the open state.[4]

The cells of the octopus can recode the RNA for isoleucine to produce valine instead. In order to do that, they have to rearrange the position of the molecules of isoleucine

3. (Garrett, S. and J.J. C. Rosenthal. 2012. RNA Editing Underlies Temperature Adaptation in K+ Channels from Polar Octopuses. Science, 334 (6070): 848-851)

4. Id.

RNA and in order to do that, they have to know which one goes where. And to know which one goes where, they have to know the code.

Whoever or whatever created this molecular engine had to:

1. Know the DNA coding language;
2. Know which gene to change;
3. Know where to locate the particular gene in the billions of instructions that are in the DNA molecule;
4. Know the formula and the coding for valine;
5. Know the formula and the coding for isoleucine;
6. Know how to alter the arrangement of the molecules to change the RNA instructions from isoleucine to valine;
7. Construct a molecular apparatus that could (without eyes and a brain) edit (add, remove or rearrange) the molecules of the isoleucine code to change it to produce valine instead;
8. Know how cold the water would have to be before the change would be necessary;
9. Create the "connection" between the coldness of the water and the switch that turns on the gene editing mechanism;

10. Know how to make this apparatus reproduce itself so that every new cell would have it;

11. Know that the "fix" for the warm-water octopus is valine. This would mean understanding how valine works *before* valine was manufactured.

All of this would be wholly useless to the survival of octopus in cold water unless it were all in place and operational at one point in time. None of this can be incremental changes over generations.

> This demonstrates that not all genome changes occur at random and that cells produce specific mechanisms to optimize their genome in response to the environment.[5]

We must remember that the molecules that compose isoleucine RNA are not the molecules of isoleucine. They are other molecules which, when properly arranged, are a code for the production of isoleucine. The code must then be translated into isoleucine or valine. The Creator has built a mechanism into every cell that rearranges molecules to reprogram the code for isolucine to the code for valine.

Evolutionists believe that all of this occurred by a series of random mutations. Evolution teaches that thousands, if not millions, of unseen accidental mutations knew the chemical formulas for 20,000 human proteins and wrote them down devising a language. The language is constructed by

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5. (Garrett, S. and J.J. C. Rosenthal. 2012. RNA Editing Underlies Temperature Adaptation in K+ Channels from Polar Octopuses. Science, 334 (6070): 848-851)

the arrangement of 4 four different molecules in 24 different ways to form "letters." They then used those letters to write the code for 20,000 human proteins and the instructions for its implementation. Their finished work was 2 billion letters long. The evolutionary accidents then inscribed all 2 billion letters upon a molecule. Sometimes even evolutionists have a difficult time believing that this was not intentionally designed.

But to believe that more accidents created another mechanism that can reprogram the molecules of RNA to code for a different amino acid borders on the absurd.

Only those minds that have unalterably foreclosed the possibility of the Creator could ever believe that, minds to which no degree of complexity could ever challenge their atheism, minds in which logic and reason dissolve as soon as they point to the Creator.

Gene modification is the core of Darwinism. Without it, evolution does not exist. Yet, with the extensive genetic tools that are available and hundreds of studies, to the knowledge of the author, we have yet to see a definitive study showing the mutation of a gene that resulted in the improvement or adaptation of a species. Evolution is a theory without a factual basis.