## 29. Natural selection

One of the canons of evolution is that it progresses in small steps via natural selection. What does this mean? When an organism is changed by mutations, this improvement can be fixed in the population if the mutated organism has a higher reproductive rate than the non-mutated organisms of the same species. Therefore the improvement must be translated into a larger number of offspring.

Progress in small steps faces several problems. The rate of reproduction depends on many environmental parameters such as the amount of available food. However, food supply depends on many factors beyond the control of animals such as climate fluctuations, diseases, competition, etc. These factors could have a much stronger effect on the number of offspring than some small genetic improvements. Effectively dominant environmental factors will hide the effect of any genetic improvements resulting from small beneficial mutations.

The environmental effect is even more applicable to plants whose reproductive rates depend on the available supply of energy and materials. In the case where plants produce many thousands of seeds, the reproductive rate is dominated by the environment. Being in the right place at the right time is more important for the seed to succeed than any small genetic improvement of the adult plant.

As mutations are accidental, each part of an organism's body has an equal chance of being affected. It is possible that the performance of several parts could be changed simultaneously. So, where population numbers are small, one mutation could improve fitness and procreative results and another mutation could be detrimental cancelling the improvement.

The question is whether small improvements are possible at a molecular level? It is difficult to envisage how a small improvement of one molecule could affect the reproductive rate of the cell. These molecules are part of a long chain of chemical reactions and changing only one reaction would not affect the efficiency of the cell's metabolism.

Evolutionists also omit one key factor from their time argument - the environment. During slow evolutionary changes lasting many millions of years, environmental conditions also change. We know from the climatic history of Earth that environmental conditions have changed drastically over the last million years. Earth glaciations occurred every 100,000 years causing huge temperature fluctuations. Such drastic climatic changes must have had a dominant effect on the reproduction rate of living organisms, as opposed to any slow evolutionary changes.

Another confusing issue is the operation of natural selection. Organisms which are subject to some mutations are tested by the environment and unsuitable versions are removed by natural selection. Therefore natural selection takes place, but on a much more limited scale. It cannot

be responsible for making new molecular complexes or new body designs.

There is no proof that small changes in the reproduction rates of organisms will be noticed by the natural selection process. However we know that natural selection can operate very swiftly by killing off unfit animals. This was observed in the case of the Galapagos finches where 85 percent of the population died as a result of drought.