

Re: Characterizing complexity

Source: <http://sci.tech-archive.net/Archive/sci.bio.evolution/2004-08/0293.html>

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Date: 08/12/04

Date: Thu, 12 Aug 2004 15:37:47 +0000 (UTC)

Michael Ragland wrote:

- > *MR:*
- > *I don't think Homo Sapiens are like sharks which have apparently adapted*
- > *so well to their environment that *any* phenotypical change would*
- > *decrease its fitness.*
- >
- > *On a hunch sharks weren't living fossils I researched the subject and*
- > *there have been phenotypic changes as a result of the environment.*
- > *However, considering sharks have been around for 400 million years and*
- > *predate the dinosaurs I'm not sure how much of a case can be made they*
- > *are highly "evolved". I would point to <http://www.dinofish.com> for an*
- > *example of apparently largely evolutionary stasis.*
- >
- > *Michael Ragland*
- >
- > *"It's uncertain whether intelligence has any long term survival value."*
- > *Stephen Hawking*
- >
- >

By coincidence, I started a thread on talk.origins called "Species duration" about a week ago. I was looking for the evolutionary factors that allow certain classes of animals to last for tens or hundreds of millions of years. I used sharks as an example, but unfortunately I called sharks a "species", intending the word to be used in a generic way as "type" or "kind". This became an issue, so the thread went off into a lot of irrelevancies correcting the misuse of the term "species".

But there was some good information in that thread as well.

Sharks do not make a good example because their skeletons have cartilage instead of bone, so sharks don't fossilize too well. Our best evidence that they existed hundreds of millions of years ago comes from their fossilized teeth.

I think a better example might be crocodiles, which certainly have left many fossilized remains, and which haven't changed much in 200 million years. If I find time, I'll start another thread on "species" duration

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using the crocodile as example.

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