

**Review: Neil Shubin, Your Inner Fish: The Amazing Discovery of Our 375-Million-Year-Old Ancestor, Penguin Books, London, UK, 2008 (2009 edn.)**

Pages: 237

**A True Believer in a False Religion**

After spending not a large amount of time on the famous *Tiktaalik*, this turns into a mixture of evolutionary philosophy and some useful basic biology and genetics.

On *Tiktaalik*, its name actually means “large freshwater fish”, so it was a fish, not some ‘transitional’ form. On its ‘wrist’, Shubin calls it a *proto-wrist* indicating his imagination; it is nothing like a human wrist of articulating digits, radius and ulna.

Shubin continually claims Evolution does amazing things like move and change reptile jaw bones into our inner ear bones, and create colour vision *at the same time* as colour was evolving in the forests!

Another hopeful appeal is to *Hox* or *Pax* genes, but these equally show how the Common Designer reused the same code to build the same kind of organ. Further, any [artificial] changes and experimentation show they are disastrous in the animals, there is no evolutionary benefit.

It is a sad thing to see someone locked into the false religion of Evolutionism, and truly believes he descended from a fish over millions of years!

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**Preface (p. 1)**

“Reptile bodies are often simpler versions of ours.”

**I) Finding Your Inner Fish (pp. 2-27)**

“How can we visualise events that happened millions and, in many cases, billions of years ago? Unfortunately, there were no eyewitnesses.” [p4]

Ellesmere Island is 80°N of latitude.

“Of course, a single column containing the entirety of earth history does not exist.” [p6]

Greenland amphibians are claimed to be 365myo, so Shubin is interpreted in those up to 385myo.

Igneous and metamorphic rocks are ruled out for paleontology.

Shubin spent six years across four expeditions to Ellesmere Island.

Arctic rocks on Melville Island were loaded with fossils; but they all seemed to be deep-water animals, not hopeful shallow-streamed that gave rise to land-living animals.

*Tiktaalik* means “large freshwater fish” in Inuit. The discovery was announced April, 2006. Its head is completely free from the shoulders.

## **II) Getting a Grip (pp. 28-43)**

“There is a fundamental design in the skeleton of all animals.” [p32]

The base of a typical fin has at least four bones.

Lungfish fins at base have a single bone attached to the shoulder; just like our humerus.

*Eusthenoptera* was found in Gaspé Peninsula, Quebec and ‘dated’ 380Ma.

Between 1929 and 1934, Save-Soderbergh found *Ichthyostega soderberghi* on the east coast of Greenland, which was a letdown since it already had fingers and toes.

In 1988, Jenny Clack visited the Soderbergh sites and found *Acanthostega*

*gunnari*, which had filly-formed digits, a real wrist and no fin webbing.

Shubin claims *Tiktaalik* has a ‘proto-wrist’.

‘Strategies to succeed’: “get big, get armor, or get out of the water”. [p41]

Unlike fish and amphibians, our knees and elbows face are in the opposing direction.

### **III) Handy Genes (pp. 44-59)**

### **IV) Teeth Everywhere (pp. 60-80)**

Ostracoderms were ancient jawless fish.

### **V) Getting Ahead (pp. 81-96)**

Each ‘gill arch’ has a different complement of *Hox* genes active on it.

*Amphioxus* is a worm with a rod in addition to its nerve cord, the *notocord*, which is filed with jelly-like substance.

“These works are telling us something about the origin of parts our bodies.” [p96]

### **VI) The Best-Laid (Body) Plans (pp. 97-115)**

Human single-cells divide four times over five days to form a blastocyst. On the sixth day, it attaches to the uterus.

*Hox genes* is the homeobox which contains eight genes.

Jellyfish, corals, and sea anemones have a mouth but no anus.

### **VII) Adventures in Bodybuilding (pp. 116-138)**

In 1947, Reginald Sprigg found rock impressions of disks, ribbons, and fronds in the Ediacara Hills of South Australia [Ab. *Ediacara*, “veinlike spring of water”).

Osteocytes are situated in a sea of hydroxyapatite and collagen.

Collagen fills up space between cartilage. Proteoglycan gives it its strength.

Sponges consist of Si or CaCO<sub>3</sub>.

Single-cell microbe choanoflagellates are goblet-shaped.

### **VIII) Making Scents (pp. 139-147)**

3% of the human genome is dedicated to smelling.

### **IX) Vision (pp. 148-157)**

Colour vision is said to have arisen 55mya, and serendipitously [!] coincided with a switch from a monochromatic forest to one with a rich palette of food colouring.

Polychaetes are the most primitive living worms known.

The Pax 6 gene can be inserted into different animals and used to create an eye for it.

### **XI) Ears (pp. 158-172)**

The ear's *pinna* flap is only found in mammals.

The middle ear bones are claimed to have come from gill arches.

In 1837, Karl Reichert proposed mammal ear parts were the same as those in reptile jaws. In 1910 and 1912, Ernst Gaupp reinterpreted this within an evolutionary framework (i.e., the stapes, incus, and malleus).

“The bones at the back of the reptilian jaw got smaller and smaller, until they ultimately lay in the middle ear of mammals.” [p162]

The inner ear is filled with a gel which bends hairs when it moves, in turn sending an electrical impulse to the brain, conveying information of sound.

The eye has eight attached muscles.

Drinking increases ethanol content in the inner ear fluid, which, being lighter wrecks havoc on the auditory system.

A drunk's twitching eyes is called nystagmus.

A *Pax 2* gene mutation will cause the inner ear not to form.

“Common genes: evidence of a common history.” [p172]

### **XI) The Meaning of it All (pp. 173-198)**

“If our lineage goes all the way back to pond scum ...we should be able to marshal evidence and make specific predictions ... all life on earth should show the same signature of descent with modification.” [p178]

Hemorrhoids are caused by rectum blood pooling.

Sleep apnea is caused by over-relaxation or collapse of throat muscles.

The hiccup reflex occurs with fast inhalation followed by brief closure of the airway.

During growth, testes descend from the gonads' primitive position high up in the body, ending up in the scrotum, a weak and vulnerable body outpocket.

### **Epilogue (pp. 199-201)**

### **Afterword (pp. 202-210)**