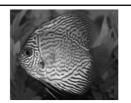


### **Animal Variation:**

**Does It Prove Evolution?** 

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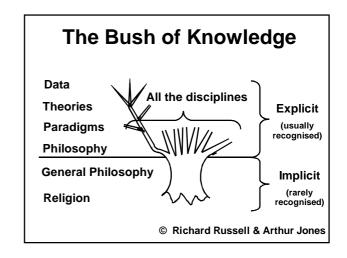




With Special Reference to the Cichlid Fish

#### 2. Science and Faith

# 2.1 Evolution is also Religion



The religion (aka 'faith' or 'worldview') behind the 'evolution' of secular science is:

#### Atheism

Remember that someone's religion is not what they might claim it is, or even what they might think it is!!

Someone's religion is *Atheism* if they live and act:

- as if there is no God
- as if faith is irrelevant to everyday life

 as if Godless and faithless life is really normal!

What feels normal to you?

Naturalism or Biblical Theism?

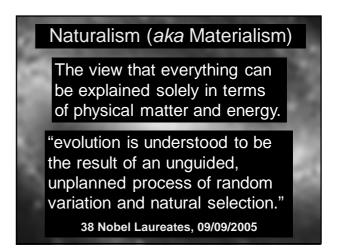
### 2.2. The General Philosophy of Evolution

Two philosophical views are crucial to the secular understanding of 'evolution':

- Naturalism
- Evolutionism

#### **Naturalism**

The most common *philosophical* view of thinking atheists



#### 2.3. Evolutionism

The religious root of evolution





Everything that has ever existed is part of a great *continuity* in space and time

This is said to account for the rational unity and order that the universe displays.

Amoeba to Man
hydrogen to humans
dust to stars
particles to people
goo to you via the zoo

## 2.4. Faith is Foundational

#### **Richard Lewontin**

(evolutionary geneticist, Harvard)



"It is not that the methods and institutions of science somehow compel us to accept a material explanation for the phenomenal world ...

#### **Richard Lewontin**

... but, on the contrary, that we are forced by our *a priori* adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations ...

#### **Richard Lewontin**

... no matter how counterintuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we cannot allow a divine foot in the door."

(New York Review of Books, 9 January 1997, page 31)

# Life in 2.5. Doctoral Research



- 3. Two Foundational Laws of Biology
- The Law of Biogenesis
- The Law of Heredity

#### 1. The Law of Biogenesis:



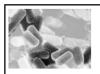


Living things arise only from other living things

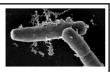
#### 2. The Law of Heredity:



Living things arise only from other living things of the same kind



#### **Bacteria**

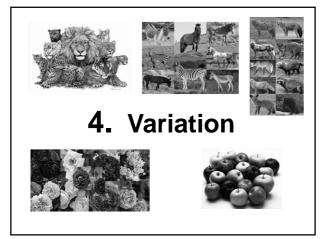


"Throughout 150 years of the science of bacteriology, there is no evidence that one species of bacteria has changed into another"

Prof Alan Linton, Bacteriologist, Bristol (*THES*, 20 April 2001, page 29)

These two laws are the most rigorously tested and confirmed in the whole of biology

No exceptions have ever been found



### **4.1.** Evolution is More than Variation

Evolution is the Theory that there are No Limits to Variation

Amoeba to Man
hydrogen to humans
dust to stars
particles to people
goo to you via the zoo

# **4.2.** Variation and the Law of Heredity



#### **Variation**



 All living organisms belong to distinct natural kinds



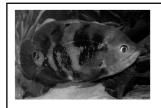
 Variation and hybridisation occur only within these kinds

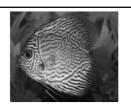


#### **Variation**



- Existing evidence shows that variation is limited and relatively trivial
- Every experimental attempt to push past the Kind limits has failed





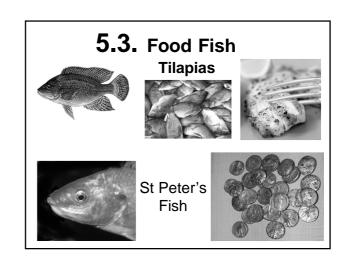


5. The Cichlid Fishes

### **5.1.** Studying a Created Kind

#### **5.2** How Many Species?

- Some 32,000 living fish species.
- Cichlids >2000 species, 200 genera (3<sup>rd</sup> largest vertebrate family after cyprinids & gobies).
- are perch-like, ray-finned fish.
- claimed to show 'evolution in action.'



Cichla - Game Fish



Pike Cichlid

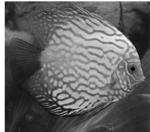
**5.4.** Popular Fish

**Angelfish** 



**Discus** 



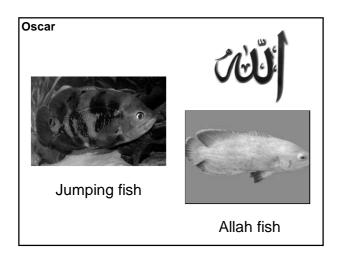


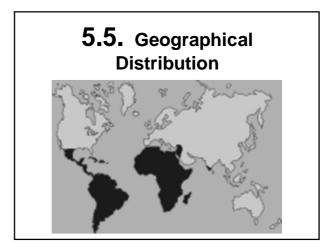
**Convict** 

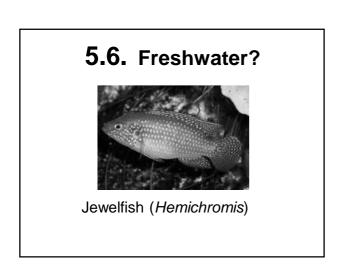


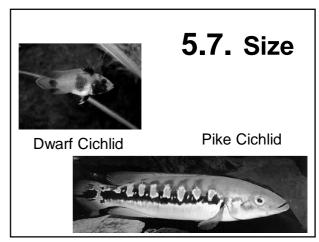
Oscar

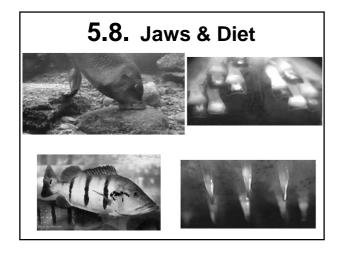


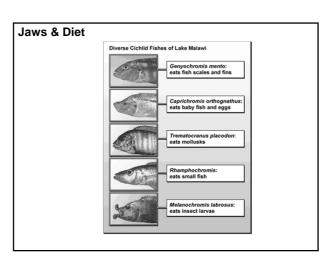






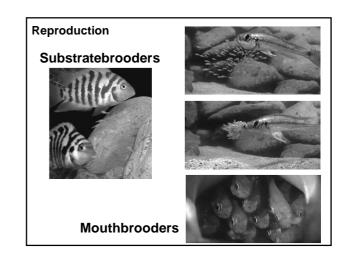


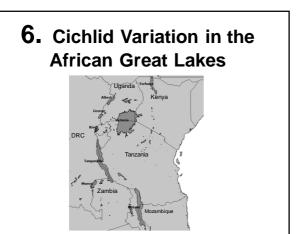


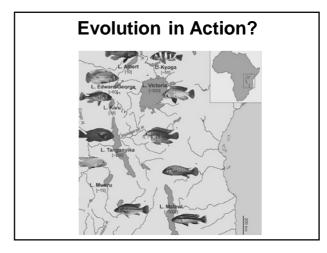


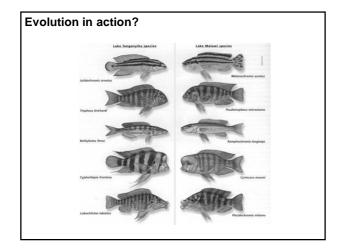
#### 5.9. Reproduction

- Substratebrooding
- Mouthbrooding
- Substratebrooding of eggs + mouthbrooding of young









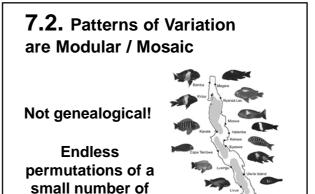
7. Are Cichlids a Natural, Created Kind?

### 7.1. There is No Blurring of Boundaries

Increasing experience confirms cichlid distinctiveness.





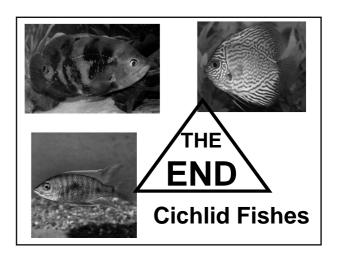


character states.

#### **8.** How Old are the Cichlids?

Speciation has been rapid in the African Great Lakes:

- Lake Victoria
  - Lake Nabugabo
- Lake Malawi



#### **Animal Variation**

**Does It Prove Evolution?** 



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