

# Hoax of Dodos

## ***Flock of Dodos* Filmmaker Claims Haeckel's Embryo Drawings Weren't in Modern Textbooks—But He Knows Better**

By John G. West, Ph.D. and Casey Luskin, M.S., J.D.

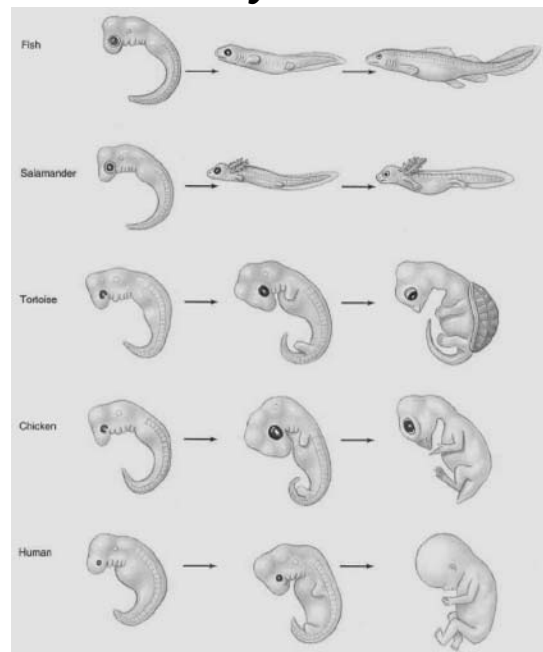
Were Ernst Haeckel's bogus embryo diagrams ever used in modern textbooks to prove evolution? Not according to filmmaker Randy Olson, who in his film *Flock of Dodos* portrays biologist Jonathan Wells as a fraud for claiming in the book *Icons of Evolution* (2000) that modern biology textbooks continued to reprint Haeckel-based drawings.

**But it turns out that Olson is the one who is promoting a fraud. The diagrams in question were unquestionably used in modern textbooks, and Olson himself knows that fact.**

In the nineteenth century, German Darwinist Ernst Haeckel produced drawings depicting human and fish embryos as almost identical in their early stages—supposedly providing evidence for their common ancestry. Olson concedes that Haeckel's drawings are bogus, but he assures viewers that they haven't been used in modern textbooks. "You don't find" Haeckel's embryo drawings in modern textbooks, Olson confidently asserts. "There's no trace of [them] other than a mention that Haeckel once upon a time came up with this... idea that ontogeny recapitulates phylogeny." Intelligent design proponent John Calvert is then shown flipping through a biology textbook in a vain effort to find the embryo diagrams, and the only textbook Olson can find with the drawings dates from 1914. The segment closes with a scientist comparing biologist Jonathan Wells' book, *Icons of Evolution*, to the *National Enquirer* and with an onscreen graphic showing Wells' book next to a tabloid. The obvious take-home message is that Wells and other ID proponents who have criticized the continued use of Haeckel's embryo drawings in textbooks are fabricating their complaint.

Olson's account would have been news to the late evolutionist **Stephen Jay Gould**, who skewered the continued use of Haeckel's drawings in the

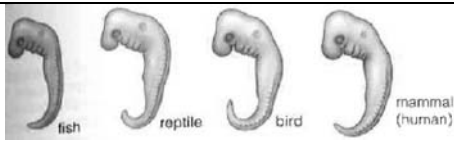
### ***The embryo drawings that don't exist according to Randy Olson:***



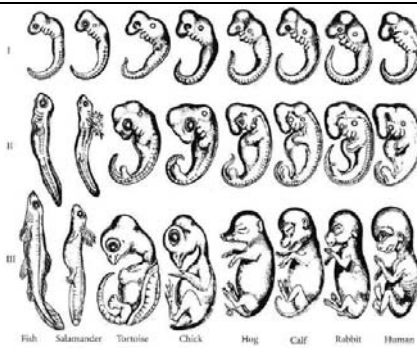
Version of Haeckel's embryo drawings from Peter Raven and George Johnson's *Biology* (2002), pg. 1229.

journal *Natural History* a few months before Wells' book was published in 2000. Gould wrote:

We should... not be surprised that Haeckel's drawings entered nineteenth-century textbooks. But we do, I think, have the right to be **both astonished and ashamed by the century of mindless recycling that has led to the persistence of these drawings in a large number, if not a majority, of modern textbooks!** [Stephen Jay Gould, "Abscheulich! (Atrocious!)," *Natural History*, March, 2000. Emphasis added]



Embryo drawings adapted from Haeckel's diagrams, found in Cecie Starr and Ralph Taggart's *Biology: The Unity and Diversity of Life* (1998), pg. 317. As can be seen, the drawings blatantly re-use Haeckel's fudged diagrams and thus minimize actual differences between vertebrate embryos. According to the textbook, "comparisons in the ways their embryos develop provide compelling evidence for their evolutionary connection with one-another. ... The early embryos of vertebrates strongly resemble one another because they have inherited the same ancient plan for development."



Haeckel's embryo drawings in Douglas Futuyma's widely-used college textbook, *Evolutionary Biology* (1998), pg. 653. According to the text, "different descendants of a common ancestor are likely to share early embryonic characters with one another and, presumably, with their ancestor."



National Academy of Sciences President Bruce Alberts and his co-authors included Haeckel's drawings in the 1994 edition of *Molecular Biology of the Cell* (pg. 33). According to the book, "embryos of different species so often resemble each other in their early stages and, as they develop, seem sometimes to replay the steps of evolution."

Olson's revisionist history would also be news to *New York Times* science reporter James Glanz, who in 2001 reported that Haeckel's "drawings were reproduced in textbook after textbook for more than a century." Indeed, Glanz pointed out that one of the biology textbooks recycling Haeckel's embryo drawings was co-authored by none other than **Bruce Alberts**, then-head of the National Academy of Sciences:

In an interview, Dr. Alberts said he believed Haeckel's drawings were "overinterpreted," or highly idealized, rather than outright fakes. But he said they would be removed from the fourth edition of the textbook, to appear at the end of this year. [James Glanz, "Biology Text Illustrations More Fiction Than Fact," *New York Times*, April 8, 2001]

Even self-proclaimed "evolution evangelist" **Eugenie Scott** at the National Center for Science Education hasn't had the audacity to claim that Haeckel's embryo drawings *never* appeared in modern textbooks. In an interview for the documentary version of *Icons of Evolution*, she explained that "**the reason why the diagrams are reproduced is because they're easily available. There's no copyright on them. It's an easy way to illustrate a point.**"

It is true that *after* Jonathan Wells' book was published in 2000 a number of textbooks removed Haeckel's embryo drawings. But that is no thanks to defenders of Darwinism. As late as 2003, three textbook publishers were still trying to use Haeckel-based drawings in books submitted for review during the biology textbook adoption process in Texas. When Discovery Institute and Texans for Better Science Education brought up this fact, the

reaction of Darwinists in Texas was to insist that the textbooks had no factual errors. Only after months of pushing by critics did the publishers finally agree to withdraw the drawings.

Now that Haeckel's diagrams are on their way out because of the efforts of Darwin's critics, Olson wants to erase this embarrassing episode from the history of evolution by pretending Haeckel's drawings were never used in the first place. Has he been reading Orwell's *1984*, by chance?

Olson's botched coverage of Haeckel's embryo drawings may have been due initially to ignorance and sloppiness. Although in his film Olson claims to have read Wells' book *Icons of Evolution*, he shows little indication of having actually done so. Since Wells' book provides extensive documentation of the textbooks that have recycled Haeckel's diagrams, it would have been easy for Olson to have checked the relevant textbooks if he doubted Wells' account. But the excuse of ignorance no longer applies. At a pre-release screening of Olson's film at the Scripps Institution for Oceanography in San Diego in April, 2006, Discovery Institute's Casey Luskin confronted Olson with copies of recent textbooks that reused Haeckel's drawings. Later Jonathan Wells sent Olson an e-mail providing a list of recent textbooks that have included the diagrams. Olson has been informed of the facts, but he has chosen to keep hoaxing his audiences.

**Olson must believe his viewers are a bunch of "dodos" if he believes they are going to fall for such a complete rewriting of history!**