

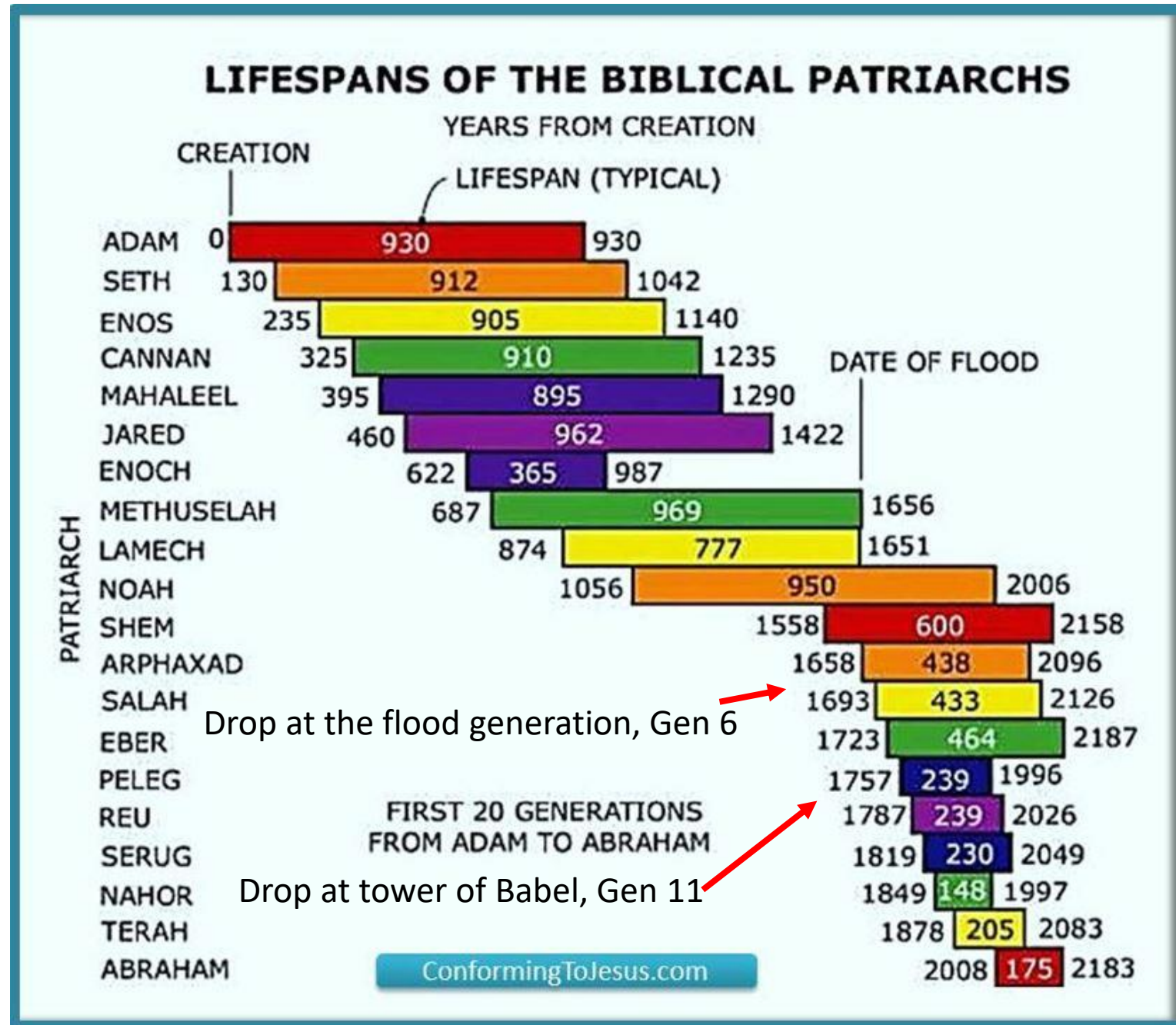
Human lifespans given in the Bible— can the Bible be trusted?

Biblical claims must be evaluated
Scientific claims must be evaluated

The Bible encourages you to “do the math!”

Genesis 6:3

³ Then the LORD said, “My Spirit shall not strive with man forever, because he also is flesh; nevertheless his days shall be one hundred and twenty years.”



Overlap in
4 lives:
Adam →
Lamech →
Shem →
Jacob

Texts on lifespans in the Bible

- **Gen 6: 3** Then the LORD said, “My Spirit shall not strive with man forever, because he also is flesh; nevertheless his days shall be one hundred and twenty years.” ~2500 BC
- **Gen 47: 8-9** ⁸ Pharaoh said to Jacob, “How many ^[f]years have you lived?” ⁹ So Jacob said to Pharaoh, “The ^[g]years of my sojourning are one hundred and ^[h]thirty; few and ^[i]unpleasant have been the ^[i]years of my life, nor have they ^[k]attained the ^[l]years ^[m]that my fathers lived during the days of their sojourning.” ~1600 BC
- **Psalms 90:10** As for the days of our ^[a]life, ^[b]they contain seventy years, Or if due to strength, eighty years. ~1300 BC

Most living species have at least one upper limit on the number of times the cells of a member can divide. This is called the Hayflick limit, although number of cell divisions does not strictly control lifespan.

The longest living person whose dates of birth and death were verified according to the modern norms of Guinness World Records and the Gerontology Research Group was Jeanne Calment (1875–1997), a French woman who reportedly lived to 122.

Life expectancy in the USA, 1900-98
men and women

Year	M	F
1900	46.3	48.3
1901	47.6	50.6
1902	49.8	53.4
1903	49.1	52.0
1904	46.2	49.1
1905	47.3	50.2
1906	46.9	50.8
1907	45.6	49.9
1908	49.5	52.8
1909	50.5	53.8
1910	48.4	51.8
1911	50.9	54.4
1912	51.5	55.9
1913	50.3	55.0
1914	52.0	56.8
1915	52.5	56.8
1916	49.6	54.3
1917	48.4	54.0
1918	36.6	42.2
1919	53.5	56.0
1920	53.6	54.6
1921	60.0	61.8
1922	58.4	61.0
1923	56.1	58.5
1924	58.1	61.5
1925	57.6	60.6

1926	55.5	58.0
1927	59.0	62.1
1928	55.6	58.3
1929	55.8	58.7
1930	58.1	61.6
1931	59.4	63.1
1932	61.0	63.5
1933	61.7	65.1
1934	59.3	63.3
1935	59.9	63.9
1936	56.6	60.6
1937	58.0	62.4
1938	61.9	65.3
1939	62.1	65.4
1940	60.8	65.2
1941	63.1	66.8
1942	64.7	67.9
1943	62.4	64.4
1944	63.6	66.8
1945	63.6	67.9
1946	64.4	69.4
1947	64.4	69.7
1948	64.6	69.9
1949	65.2	70.7
1950	65.6	71.1
1951	65.6	71.4
1952	65.8	71.6
1953	66.0	72.0
1954	66.7	72.8

1955	66.7	72.8
1956	66.7	72.9
1957	66.4	72.7
1958	66.6	72.9
1959	66.8	73.2
1960	66.6	73.1
1961	67.0	73.6
1962	66.8	73.4
1963	66.6	73.4
1964	66.9	73.7
1965	66.8	73.7
1966	66.7	73.8
1967	67.0	74.2
1968	66.6	74.0
1969	66.8	74.3
1970	67.1	74.7
1971	67.4	75.0
1972	67.4	75.1
1973	67.6	75.3
1974	68.2	75.9
1975	68.8	76.6
1976	69.1	76.8
1977	69.5	77.2
1978	69.6	77.3
1979	70.0	77.8
1980	70.0	77.4
1981	70.4	77.8
1982	70.8	78.1
1983	71.0	78.1
1984	71.1	78.2
1985	71.1	78.2

1986	71.2	78.2
1987	71.4	78.3
1988	71.4	78.3
1989	71.7	78.5
1990	71.8	78.8
1991	72.0	78.9
1992	72.3	79.1
1993	72.2	78.8
1994	72.3	79.0
1995	72.5	78.9
1996	73.1	79.1
1997	73.6	79.4
1998	73.8	79.5

But infant mortality skews this number

In animal studies, maximum span is often taken to be the mean life span of the most long-lived 10% of a given cohort. By another definition, however, maximum life span corresponds to the age at which the oldest known member of a species or experimental group has died. Calculation of the maximum life span in the latter sense depends upon initial sample size.[1]

Fortunately, there has been a study of the length of life in ancient Greece, that shows, that Socrates was not a unique case:

In a study of all men of renown, living in the 5th and 4th century in Greece, we identified 83 whose date of birth and death have been recorded with certainty. Their mean $\pm$ SD and median lengths of life were found to be 71.3 $\pm$ 13.4 and 70 years, respectively.

Of course, the lifespan of "men of renown" should be correlated with that of the general population, but with a higher mean, since men require time to achieve "renown". But, certainly the figure of 71 years does not seem too different from that of more recent men of renown, which is perhaps more surprising if one accounts for the high levels of violence in ancient Greece.

<http://dienekes.blogspot.com/2009/08/john-hawks-on-historical-trends-in.html>

How Long Do We Live?

JOHN BONGAARTS

GRIFFITH FEENEY

A mathematical treatise

“Our main finding is that the conventional calculation of period life expectancy at birth gives a misleading indication of how long we live.”

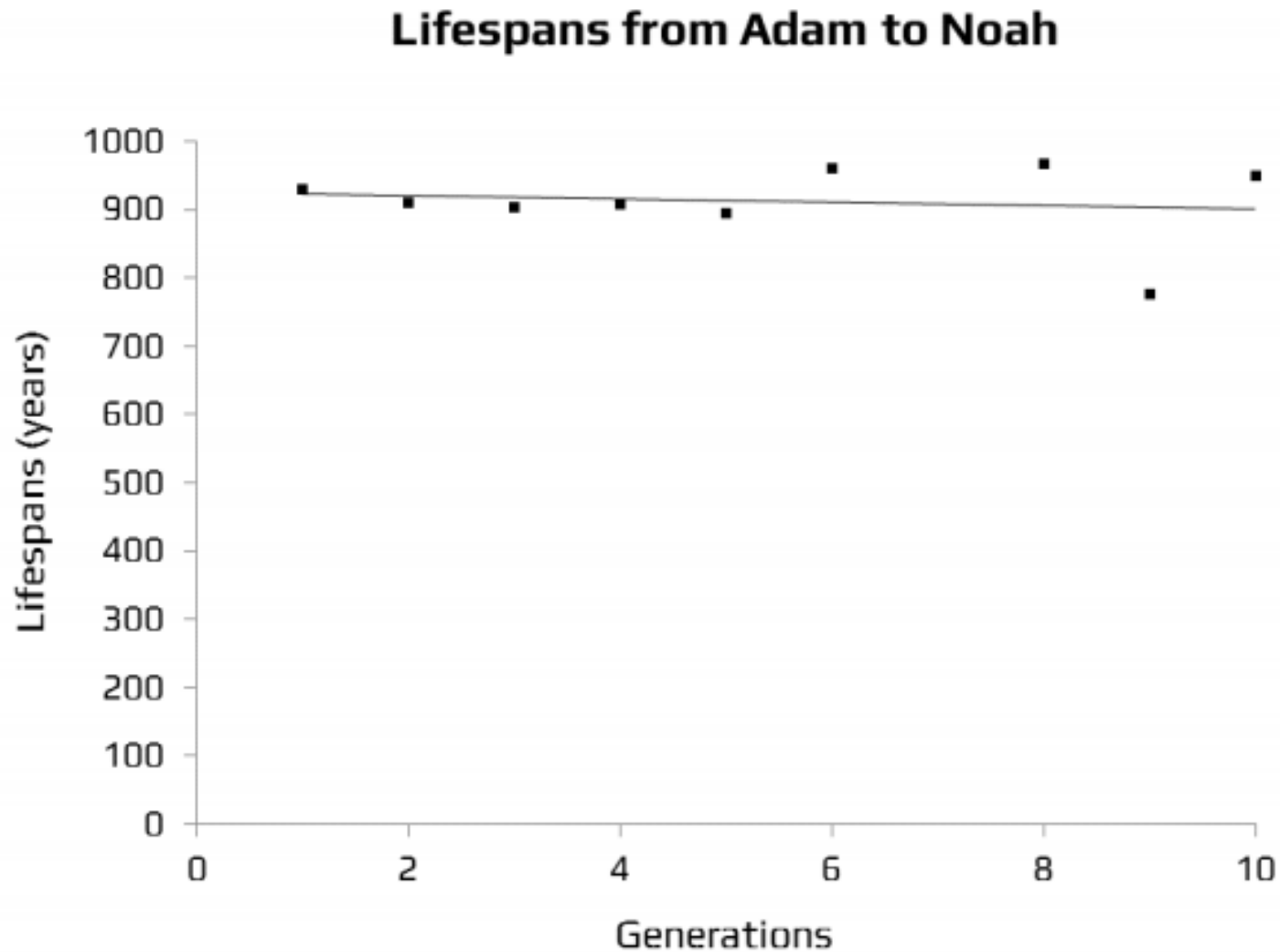
<https://www.popcouncil.org/uploads/pdfs/councilarticles/pdr/PDR281Bongaarts.pdf>

Reduction of infant mortality has accounted for most of the increased average life span longevity, but since the 1960s mortality rates among those over 80 years have decreased by about 1.5% per year. "The progress being made in lengthening lifespans and postponing senescence is entirely due to medical and public-health efforts, rising standards of living, better education, healthier nutrition and more salubrious lifestyles." [3] Animal studies suggest that further lengthening of median human lifespan as well as maximum lifespan could be achieved through "calorie restriction mimetic" drugs or by directly reducing food consumption. [4] Although calorie restriction has not been proven to extend the maximum human life span, as of 2014, results in ongoing primate studies have demonstrated that the assumptions derived from rodents are valid in primates as well [Reference: Nature 1 April 2014]. [5]

Genetic Entropy as seen in the Bible

By J. C. Sanford

https://docs.wixstatic.com/ugd/a704d4_f63118a62a1a4866a5b27a62ef32f4ee.pdf



Lifespans vs. Generations of Adam to Noah (pre-flood) excluding Enoch who was “taken” prematurely by God.

https://docs.wixstatic.com/ugd/a704d4_f63118a62a1a4866a5b27a62ef32f4ee.pdf

Mutation Accumulation Over Time

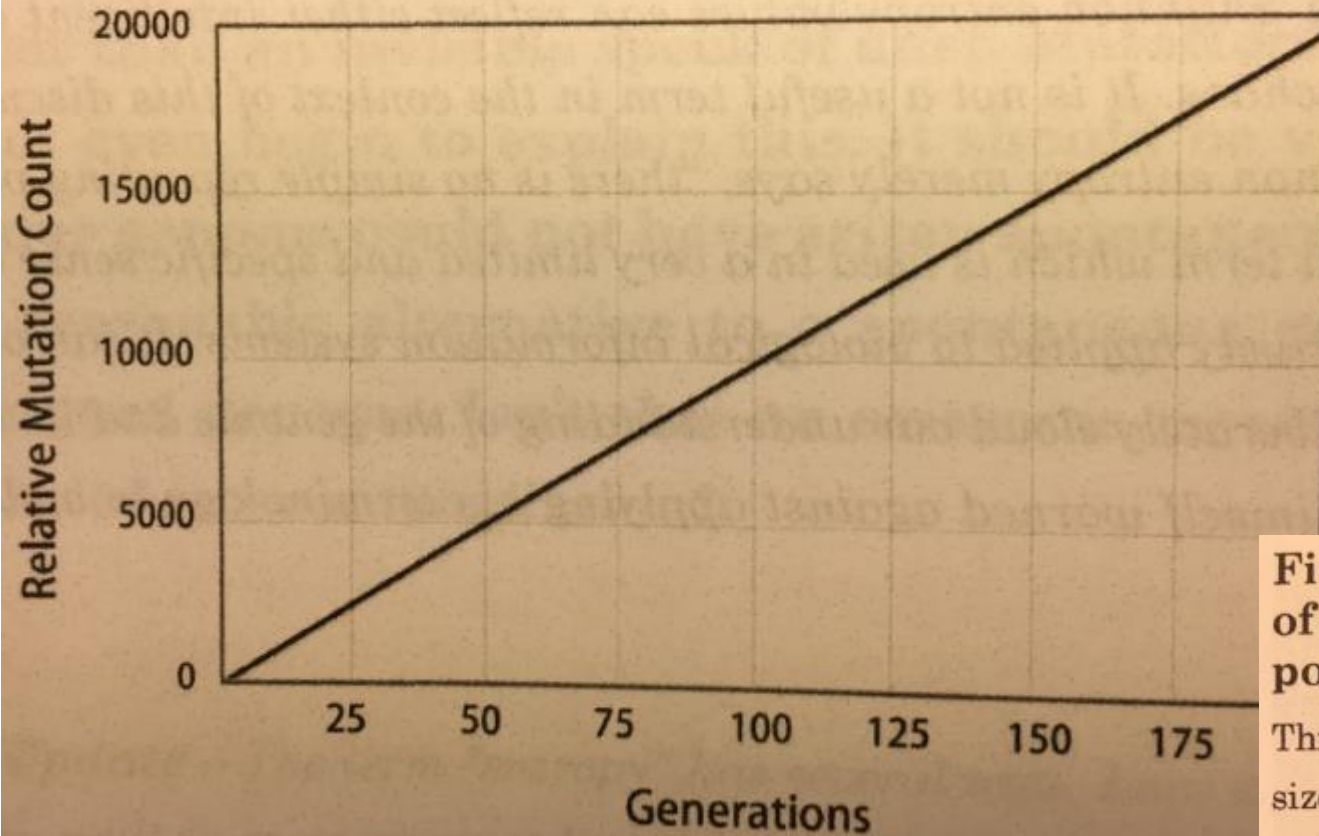


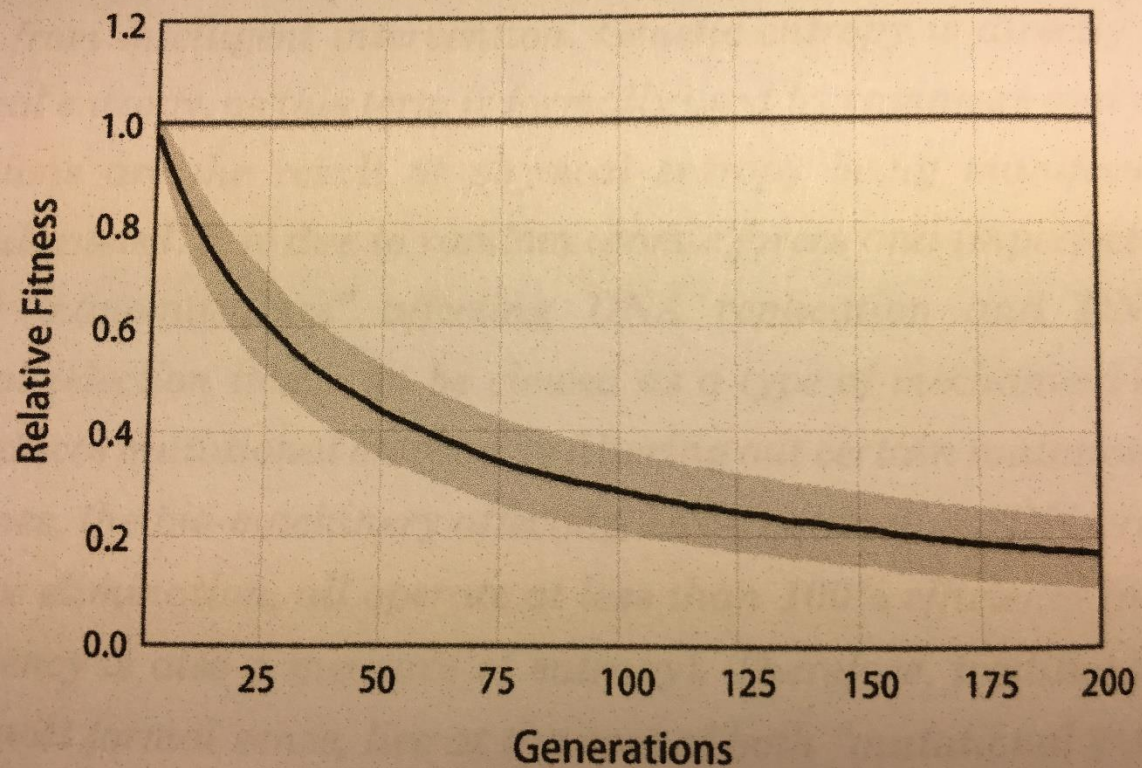
Figure 14. Biologically realistic numerical simulation of the mutation/selection process within the human population.

This numerical simulation employed a mutation rate of 100, a population size of 10,000, and assumed minimal "junk DNA". It was assumed that one mutation in 1,000 was beneficial.

Above: Deleterious mutation count per individual over time is shown (accumulating beneficial mutations were too rare to be seen in this figure). As can be seen, only a small fraction of the deleterious mutations can be eliminated even with intense selection. Genetic damage accumulates at a constant rate.

Below: Fitness decline relative to the starting population is shown. On the left axis is shown fitness, while time (generations) is plotted along the bottom axis (200 generations approximates 4,000-6,000 years). Reducing the mutation rate by half or increasing population size ten-fold did not fundamentally change the observed downward trajectory. The trajectory

**Fitness Decline Simulation Using
Realistic Human Mutation Rate**



Fitness = success of a genotype or reproductive success

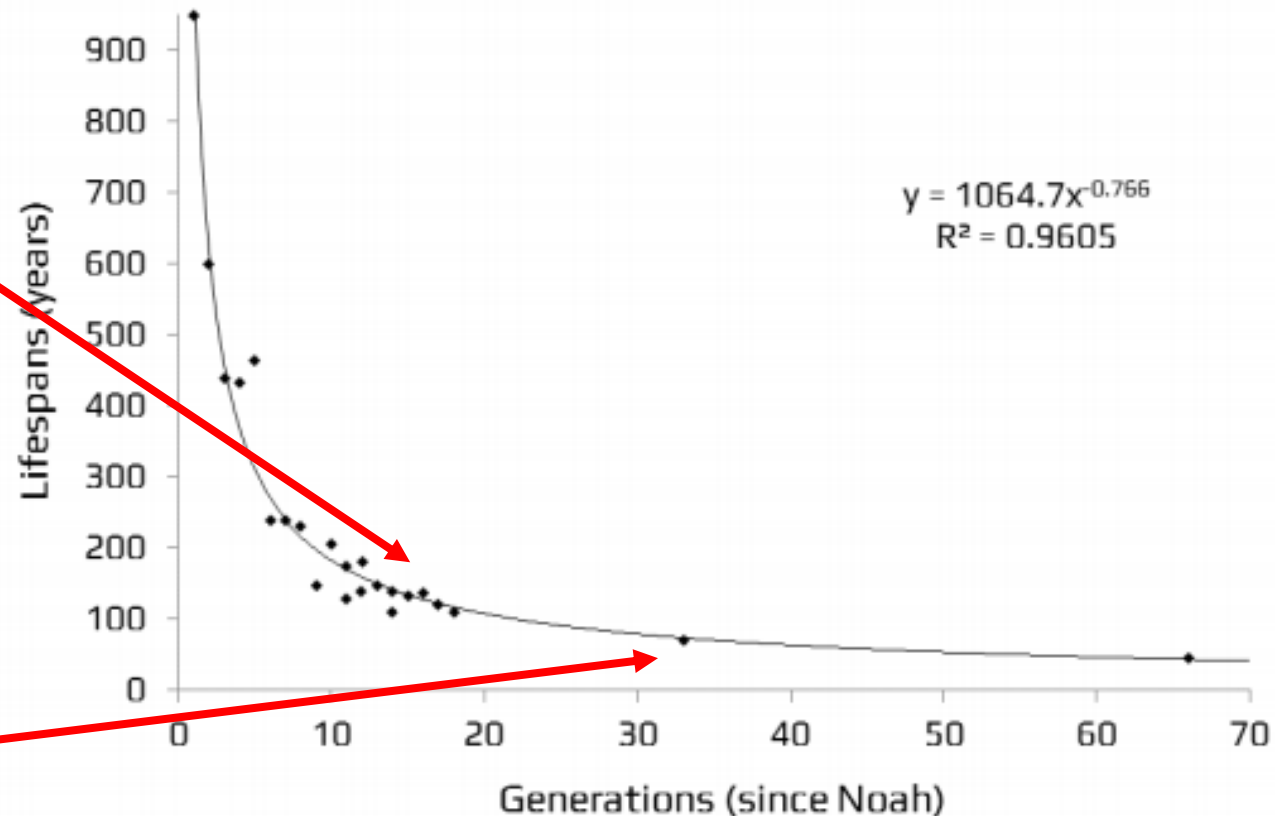
Genesis 6:3

³ Then the LORD said, “My Spirit shall not strive with man forever, because he also is flesh; nevertheless his days shall be one hundred and twenty years.”

Psalms 90:10

As for the days of our life, they contain seventy years,
Or if due to strength, eighty years,

Declining Lifespans of Noah and His Descendants



The lifespans of Noah and descendants based upon the Masoretic text. The last point is the life expectancy of 45 years [questionable] during the time of the Roman Empire.

The data strongly indicates that the emerging scientific evidences of genetic degeneration in humans are correct. Genetic entropy is the antithesis of evolution.

1. The lifespan data strongly supports the historicity and veracity of the Bible, and in particular, the book of Genesis.

2. The lifespan data indicate that the extreme longevity of the early Patriarchs was real, and that the rapid decline of longevity after the Flood was real. This supports the Biblical perspective of on-going degeneration since the Fall. In light of recent scientific findings, the documented decline in longevity is best understood in terms of mutation accumulation and genetic entropy.

3. The smooth decline in longevity indicates there are no major “gaps” in the data. So the number of generations from Adam to Jesus, as described in Luke chapter 3 is either correct or very nearly correct. There is simply no room in the curve for hundreds (or even thousands) of missing generations – as some contend.

4. The drastic decline in longevity began very specifically at the time of the Flood. This strongly supports the reality of a supernatural, cataclysmic world-changing flood, not an ordinary or local flood.

5. Since the genealogies and longevity data are tightly linked, the validation of the longevity data strongly supports the genealogy data (i.e., time from father to son, with no major gaps, etc.), so we can reasonably infer that Adam and Eve lived in the relatively recent past.

6. The declining longevities strongly indicate that evolution is going the wrong way, and that the evolutionary timeline is not viable.

7. Although all three ancient texts of the Old Testament are in general agreement regarding the genealogies, longevity data, and the shape of the exponential decay curve, there are places where the texts differ regarding exact numbers. Our analyses suggest that the Masoretic text appears to be more reliable than either the Septuagint or Samaritan texts...When we plotted longevity based upon the Masoretic versus the Septuagint text, we saw that the Coefficient of Determination was higher for the Masoretic data (0.96), than the Septuagint data (0.93). (The Samaritan text only includes the first five books of the Bible, and its missing lifespan data prevents its inclusion in this comparison).

https://docs.wixstatic.com/ugd/a704d4_f63118a62a1a4866a5b27a62ef32f4ee.pdf

Does mutation spawn human evolution or devolution?

- Only ~1 in 10,000 mutations are beneficial to an organism while ~1 in 100 are deleterious and the remainder are neutral.
- If that holds true, the only organisms that can be aided—evolving to betterment—by mutational changes must have these two features:
 - a population of $>10^{15}$ (quadrillion, off by 10^6)
 - a lifespan of <3 months (humans ~900 months, off by $>10^2$)
- This is only seen in organisms with sizes <1 -cm-long

Does the universe have a beginning?

Scientific “fact” changed in 1964

https://en.wikipedia.org/wiki/Steady_state_model

https://en.wikipedia.org/wiki/Big_Bang

- **Steady state theory:** The universe has no beginning– it has always been. This was the prevailing view of scientists into the 1950s.
- **Big Bang theory:** The universe had a definite beginning 13.8 billion years ago.
- “For most cosmologists, the definitive refutation of the steady state model came with the discovery of the cosmic microwave background radiation in 1964, which was predicted by the Big Bang theory.

Punctuated Equilibrium

Scientific “fact” changed in 1972

https://en.wikipedia.org/wiki/Punctuated_equilibrium

- **Darwinian theory** involves the slow gradual change for the development of a new species.
- **Punctuated equilibrium** suggests that evolutionary development is marked by isolated episodes of rapid speciation between long periods of little or no change.
- “Eldredge and Gould proposed that the degree of gradualism commonly attributed to Charles Darwin is virtually nonexistent in the fossil record, and that stasis [no morphological change] dominates the history of most fossil species.”

What killed off the dinosaurs?

Scientific “fact” changed in 1980

https://en.wikipedia.org/wiki/Alvarez_hypothesis

- **Climate change**, a gradual process, killed the dinosaurs 66 million years ago. That was the prevailing view of scientists until 1980.
- **Asteroid impact rapidly killed the dinosaurs.** “The Alvarez hypothesis posits that the mass extinction of the dinosaurs and many other living things [occurred] by the impact of a large [6-mile-diameter, iridium-rich] asteroid on the Earth...at the Yucatán Peninsula...This resulted in “a vast dust cloud which would block sunlight and prevent photosynthesis for a few years, an event called an impact winter. This would account for the rapid extinction of plants and phytoplankton and of all organisms dependent on them (including predatory animals as well as herbivores).” “The hypothesis is named after the father-and-son team of scientists Luis and Walter Alvarez, who first suggested it in 1980.”

How long ago did the dinosaurs die off?

Scientific “fact” is being questioned since 2007

<https://en.wikipedia.org/wiki/Dinosaur>

https://en.wikipedia.org/wiki/Mary_Higby_Schweitzer

<https://www.history.com/news/scientists-find-soft-tissue-in-75-million-year-old-dinosaur-bones>

- “The [dinosaur] extinction event, which occurred approximately 66 million years ago...caused the extinction of all dinosaur groups except for the neornithine birds.”
- In 2007, Mary Higby Schweitzer, a paleontologist at North Carolina State University, led “the groups that discovered the remains of blood cells in dinosaur fossils and later discovered soft tissue remains in the Tyrannosaurus rex specimen.”
- “In 2015, researchers reported finding structures similar to blood cells and collagen fibers, preserved in the bone fossils of six Cretaceous dinosaur specimens, which are approximately 75 million years old.” Soft tissue is often proteins like collagen.

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