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Commentary on Hoover (2011) claim about extraterrestrial fossils, Gibson/Schild, March 30, 2011

Hydro-Gravitational-Dynamics Cosmology supports Hoyle/Wickramasinghe panspermia and an extraterrestrial origin of life at 2-8 million years

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Commentary

Richard Hoover (2011) claims that three carbonaceous meteorites he and his astrobiology team have examined at NASA Marshall Space Flight Center show strong evidence of extraterrestrial cyanobacterial life. His claim is supported by a tediously careful Journal of Cosmology peer review process and the present set of commentaries reflecting a wide range of viewpoints. It is hereby also supported by the two founders of hydro-gravitational-dynamics cosmology (Gibson 1996, Schild 1996). Hoover's claim is, however, contradicted by the standard "concordance" ΛCDMHC cosmology. Whether or not Hoover's claim is true depends on which cosmology is correct, since HGD and NASA-CDM cosmologies reach opposite conclusions about the formation of life. Timelines for life formation by HGD versus ΛCDMHC are compared in Figure 1.

Astrobiology according to Gibson/Wickramasinghe/Schild begins at 2-8 Myr.
According to NASA and ΛCDMHC cosmology, life is impossible.

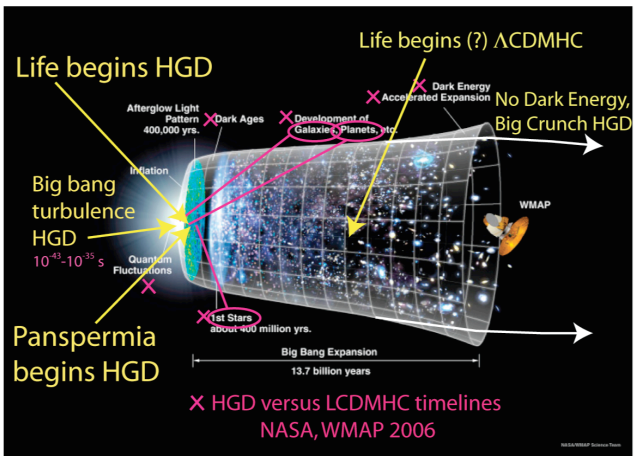

Fig. 1 NASA-CDM astrobiological and cosmological versus HGD timelines. Life according to NASA-CDM is virtually impossible because primordial hydrogen planets are not produced to make stars, chemicals, oceans and the first life at 2 Myr (the time when C,N,O-seeded oceans condense, at critical temperature 705 F), from HGD.

HGD (new) cosmology drastically modifies standard (old) cosmology in ways that make life formation statistically inevitable, early and widespread. Several fluid mechanics concepts (viscosity, turbulence, fossil turbulence, diffusivity of the non-baryonic dark matter) are recognized as critical by HGD but are neglected by NASA-CDM that relies on Jeans 1902 for its fluid mechanics. Without HGD, life anywhere or any time in the universe is statistically an isolated miracle. In old cosmology the first star cannot form until after 400 million years, when it is so cold that hydrogen freezes. A handful of planets per star appear later. Primordial H-^{4}He gas planets like the outer Jovians of the solar system are impossible to condense by the Jeans 1902 mechanism because the universe never gets cold enough; that is, < 2.7 K the present temperature. Galaxies form gradually, followed by galaxy clusters and superclusters. Whatever life might form would be too little and too late, and isolated. Life could not be communicated far beyond its star of origin and the few planets produced, with the star, by condensing gas and dust. Life must somehow appear independently on scattered planets, only a few of which have liquid oceans. Organic chemicals are widely observed in space, but cannot be explained without further miracles. In new cosmology life exists for 99.99% of the age of the universe on planets and comets that make the stars, and the chemicals that make life by exploding the stars (Gibson, Schild & Wickramasinghe 2010).

According to HGD, all of the hydrogen and ^{4}helium plasma formed by the big bang fragments into protosuperclusters, protoclusters and protogalaxies, in that order, under viscous-gravitational control starting at 30 kyr and turning to gas at 300 kyr (Gibson 1996). Planets in clumps are observed as the missing mass of galaxies (Schild 1996). The hot gas of the protogalaxies fragments into clumps of Earth-mass planets, a trillion planets per clump. The planets merge to larger planets and eventually stars that slow the merging rate by radiation pressures. Further merging causes supernovae and the production of life chemicals C, N, O etc. that seed the remaining planets in the clump. Oceans of water appear on iron-rock cores of the growing planets at 2 myr when the universe temperature cools to 705 F, the critical temperature of water. Organic chemistry begins in these communicating planets, and in their hydrogen saturated, chemically seeded oceans. The biological big bang (Gibson, Wickramasinghe, Schild 2011) proceeds in the 10^{80} or more hot water oceans under crushing hydrogen atmospheres till the oceans freeze at 32 F at 8 myr: a cosmological mass primordial soup. Intergalactic cometary panspermia is enhanced by the 10^8 increase in average spatial density of galaxies.

Evidence of planets as the source of stars is provided by the discovery of more than 400 extra-solar planets, including many “hot Jupiters” at 10^{10} m Mercury-orbit scale distances from stars. Such planets are clearly hydrogen gas planets, either in the process of accretion by the star or evaporation to expose the rocky-iron core expected from HGD.

Figure 2 compares the HGD based biological big bang with the concept of genetic gradualism discussed by Line (2010) in a Commentary on Sharov (2010).

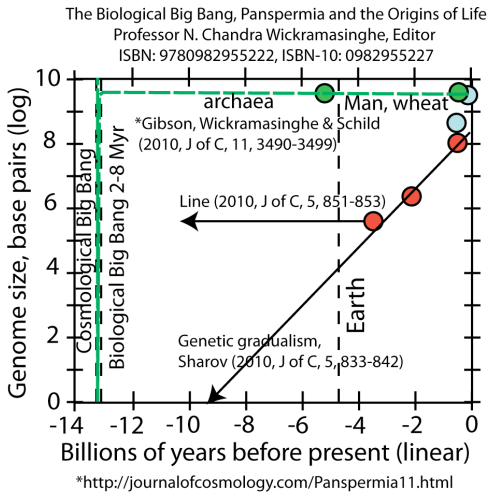

Fig. 2 Genome size in log base pairs versus billions of years before present. Both the HGD biological big bang at 2-8 myr and the genetic gradualism of Sharov (2010). In his Commentary, Line (2010) suggests life originated long before it appeared on Earth (horizontal arrow).

The difference between the biological big bang of HGD and the genetic gradualism time scales shown in Fig. 2 is attributed to the apparent need for many billions of years of evolution to produce advanced species such as man or wheat from nanometer sized extremophiles like archea that are most appropriate for cometary panspermia.

Summary

Millions of known organic chemical reactions were and are in competition for the powerful carbon bonds forming the backbone of DNA and RNA in the countless planets, moons, comets and meteors formed in the cascade of merging hydrogen planets to stellar mass, from HGD. Rather than ~10 planets per star, HGD predicts 30 million, with all stars forming in protoglobularstarclusters of a trillion planets. Hoyle/Wickramasinghe cometary panspermia is vindicated by HGD. The most efficient self replicating system to emerge, one that has apparently taken over the entire cosmos, is apparently the CHON organic chemistry of DNA and RNA. Hoover (2011) and the several others that have inferred fossilized life from the CI1 meteorites are vindicated by HGD.

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