Japan Geoscience Union Meeting 2015

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BPT25-01



時間:5月24日14:15-14:30

## 茎進化と冠進化:生命進化の大統一理論 Stem and crown evolution: United grand theory of life evolution

丸山 茂徳 <sup>1</sup>\*; 戎崎 俊一 <sup>2</sup> MARUYAMA, Shigenori<sup>1</sup>\*; EBISUZAKI, Toshikazu<sup>2</sup>

<sup>1</sup> 東京工業大学地球生命研究所,<sup>2</sup> 理化学研究所 <sup>1</sup>Earth-Life Science Institute, Tokyo Institute of Technology, <sup>2</sup>RIKEN

Evolutional theories have long been discussed since 19th century. One of the most famous theory of evolution was proposed by Darwin about 150 years ago. Since then, Gould's punctuated equilibrium theory, Kimura's neutral evolution etc were proposed and recently molecular biology is rapidly developing. However, there is discrepancies in proposed phylogenic trees due to theoretical differences to analyze. So, we tried to implicate the evolution of history from synthetic paleogeographic map based on geological evidences including fossil data.

As a result, we propose there are two significant patterns of evolution through Earth history. One is stem evolution which occur at continental rift where atomic bomb magma erupt to accelerate the birth of new species by mutation. The other pattern is crown evolution that progress when continents collide after species were evolved in isolated environment such as places on fragmented continents. At the same time of those patterns of evolution, fluctuation happened in the Universe five huge impact on life history which is mass extinction. Activities such as starburst and collision between solar system and a dark nebula was the trigger to cause mass extinction and subsequent rebirth of another ecosystem on the Earth.