



Die oorsprong van lewe en die ontplooiing van biodiversiteit

Hoe lyk die histories-geologiese konteks waarbinne lewe ontstaan en ontwikkel het? (Die geologiese tydskaal suggereer dat die aarde ongeveer 4,5 biljoen jaar oud is. Mikrofosiele word aangetref in gesteentes van 2,5 biljoen jaar en ouer, wat daarop dui dat die eerste lewende organismes relatief laat hulle verskyning op die aarde gemaak het.)

Watter toestande en komponente word benodig vir die ontstaan, lewe en voortbestaan van 'n sel? Hoe het dit gebeur dat die vereiste en noodsaaklike toestande saamgeval het om lewe te laat begin?

Vanuit relatief eenvoudige lewensvorme (organismes) wat die begin van lewe op aarde ingelui het, het die ontwikkelingsgeskiedenis van die diereryk progressief kompleksier geword. Kan alle lewensvorme wat vandag bestaan, se stamgeskiedenis teruggevoer word na 'n enkele eerste "tipe", omdat daar een enkele genetiese kode bestaan het?

Verskeie bekende prosesse veroorsaak dat spesiëring (evolusie) plaasvind en nuwe spesies word erken, omdat nuwe kenmerke (patrone) waargeneem en aangetoon kan word. Hoe en waarom gebeur dit dat nuwe spesies gevorm word?

Fossilbewyse van die afgelope 4,5 biljoen jaar toon aan dat die menslike liggaam, soos ons dit ken, ontstaan het uit lewende protomense wat uiteindelik aan *Homo Sapiens* sy oorsprong gegee het. Op watter stadium in die ontwikkelingsgeskiedenis het God die geestelike siel van hierdie protomense geskep?

Indien die Christelike kerk en Christene die ewolusieteorie as 'n werkhipotese kan aanvaar sonder om daarmee hul Christenskap of kerklidmaatskap in gedrang te bring, sal die gesprek oor skepping en evolusie nie in 'n veel meer ontspanne atmosfeer kan plaasvind nie?

Bogenoemde vrae was by 'n reeks gespreksgeleenthede, bekend as die PUK-Forum, aan die orde gestel. Daar is besluit om onder leiding van twee gasredakteurs, proff. Pieter Potgieter en Willie van Aardt, die sprekers en deelnemers te vra om artikels aan *Koers* vir

keuring voor te lê. Hierdie uitnodiging is uitgebrei en 'n ope uitnodiging vir artikels is in *Koers* 96(2) 2004 geplaas. Drie artikels – artikels deur H.J.J.M. van Deventer, H.P. Lötter en M. Coetzee en F. Waanders – was die eerste resultate van hierdie uitnodiging en is in *Koers* 70(4) 2005 geplaas. In hierdie uitgawe word die artikels van W.J. van Aardt en Henk Bouwman geplaas.

Die uitnodiging vir verdere reaksie op hierdie vrae staan nog, en verdere artikels wat oor hierdie onderwerp ontvang word, kan in verdere nommers geplaas word.



The origin of life and the development of biodiversity

What is the historic-geological context within which life originated and developed? (The geological time scale suggests that the earth is approximately 4,5 billion years old. Microfossils are found in rock formations of 2,5 billion years and older which indicate that the first living organisms appeared relatively late on earth.)

Which conditions and components are regarded as necessary for the beginning, existence and sustainability of a cell? How did it happen that the required and necessary conditions coincided to start the process of life?

Relatively simple forms of life (organisms) ushered in the beginning of life on earth. The development of animal life, however, turned out to be progressively becoming more complex. Is it possible to trace all existing forms of life today to one single “type”, because only one genetic code originally existed?

Various processes cause the forming of new species (evolution) and new species are acknowledged when new characteristics (patterns) can be perceived and indicated. How and why does it happen that new species develop?

Fossils of the past 4,5 million years prove that the human body, as we know it, developed from living proto human beings who eventually became the origin of *Homo Sapiens*. At what stage in this process of development did God create the spiritual soul of this proto human being?

Should the Christian church and Christians in general accept the evolution theory as a working hypothesis, without it jeopardising their membership of a denomination or their view of Christianity as such, would it not be possible to continue the debate on creation and evolution in a much more relaxed atmosphere?

The above mentioned questions were voiced at several discussion forums, more commonly known as the PUK-forum. The decision was made to ask participants as well as speakers to submit articles to *Koers* for refereeing. This was done by two guest editors, Proff. Pieter Potgieter and Willie van Aardt. This invitation was subsequently extended and an open invitation for articles were published in *Koers* 96(2)2004. Three articles by H.J.J.M. van Deventer, H.P. Lötter as well as M. Coetzee and F. Waanders were the first in response to this invitation and are published in *Koers* 70(4) 2005. In this issue the articles of W.J. van Aardt and Henk Bouwman are published.

The invitation for articles in which these questions are sufficiently calculated, is still open to prospecting authors and in publications to follow, more of these articles can be published.