

Question 30 (7 marks)

Geological and biological history of New Zealand

<i>Event</i>	<i>Time</i>
Australia and New Zealand separated	85–65 million years ago
New Zealand drifted east and subsided, its land mostly under seawater (most fossils are marine)	85–22 million years ago
Mammals became abundant worldwide	60 million years ago
Earliest migratory bird fossils	55 million years ago
New land created by volcanoes in New Zealand	22 million years ago to present
Many new, unique species of birds appear in the fossil record	20 million years ago to present
Islands completely devoid of mammals. Birds occupied niches that were usually occupied by mammals	700 years ago

Use this information and other relevant knowledge to demonstrate how the practice of biology has led to the validation of current theories of evolution.

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...current theories of evolution can be taken from paleontology and this table to indicate the separation of the continents. As New Zealand evolved, it is evident that in 85-22 million years ago, that fossils became marine. This can show that evolution from one particular kind of species to today 700 years ago are different all because of evolution. From 85-65 million years ago to 700 years ago on the table of "geological and biological history of New Zealand" that in the beginning

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Most of New Zealand was under water which clearly indicates, that most of the animals were marine. Although by 60 million years ago it is evident that mammals developed, as the land was full of life and then volcanoes were created which then, many new species were found of birds in the fossil record. By 700 years ago only mammals and birds occupied the area ~~giving rise~~ this is from the ice age, that completely wiped out species. Evolution from change in environment is evident as Darwin's theory states that, any species will evolve in a particular environment because of favourable characteristics, therefore it is evident that mammals are the species that, were the most favorable, and survived, these changing conditions in New Zealand. Changing from a water environment ~~to~~ with marine animals and species, to a terrestrial environment with birds and mammals. It is evident that evolution has taken place with favourable characteristics, through their fossil record.

End of Question 30