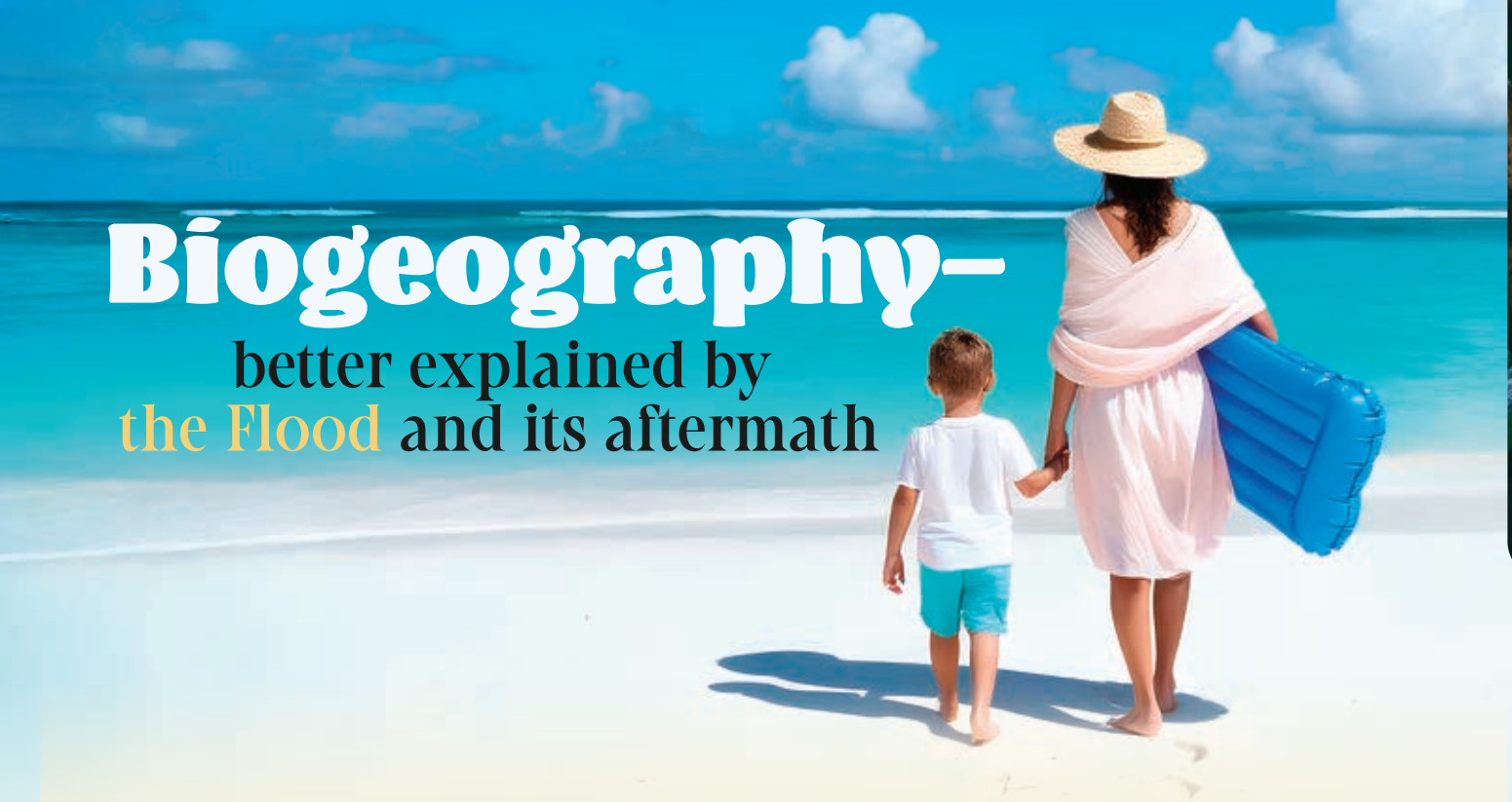
Biogeography—
better explained by the Flood and its aftermath



Michael Oard

When carefully examined, long-age geological challenges to biblical creation can prove to be an even greater challenge for the long-agers themselves. Usually, the evidence can be better explained by the Flood and the post-Flood rapid Ice Age. This is the case for biogeography, indicating once again that the earth history derived from the Bible can be trusted from beginning to end.

What is biogeography?

Biogeography is the study of plant and animal distribution across the earth. This not only includes their present distributions, but also fossil distributions. Explaining the spread of plants and animals *during* the Flood is not a challenge for creationists, since floodwater currents could spread them far and wide before burial.

What is challenging is explaining the spread of plants and animals that clearly arrived in their present location *after* the Flood. This includes not only present-day organisms but also some that are now extinct, such as the woolly mammoth. So, it is important for creationists to determine which fossils are post-Flood and which are from the Flood. This is sometimes difficult, but it is an important research goal.

Biogeographic mysteries

Many observations in biogeography are challenging to explain. One of the most perplexing is the presence of marsupials in Australia (fig. 1). A few other continents also have their unique animals and plants, such as New World monkeys in South America (fig. 2).

Another interesting question is, how did similar plants and animals arrive on different continents, separated by an ocean? For instance, some plants in Australia, New Zealand, and southern South America are similar.[1,2] Some freshwater fish are identical on many of the land masses of the southern hemisphere.[3] The flora of eastern Asia and North America, especially eastern North America, are similar, and even more so in the fossil record.[4,5]

Ocean islands often have numerous baffling distributions of plants and animals. For example, the Fiji Islands, the island of Madagascar, and the nearby Comoros Islands have numerous species found nowhere else. And why are iguanas—outside the Americas, where they are widely distributed—also only in Fiji, Madagascar, and the Comoros?[2]

The Hawaiian archipelago is among the most isolated set of islands in the world. But they have an incredible diversity of organisms, including thousands of unique species of spiders, land snails, crickets, fruit flies, molluscs, and birds.[6] In fact, just to explain the variety of land snails on the Hawaiian Islands, some scientists have proposed that snails arrived there on 29 separate occasions![7]

Uniformitarian scientists cannot explain much biogeography

In the 1960s and 1970s, uniformitarian (i.e., secular) biogeographers thought that plate tectonics (the movement of the large plates of the earth's surface) would resolve all the dilemmas associated with fossil and present-day plants and animals. They assumed that plants and animals had evolved on a supercontinent, and as the supercontinent broke up and spread, the animals and plants *rode the plates* to their present locations.

However, this idea has suffered in the face of evidence which, when interpreted within the assumptions of their evolutionary/uniformitarian framework, indicates otherwise.[8,9] Similarities, especially of DNA, suggest that many of the plants and animals did not arrive on the separated continents or oceanic

Fig. 1. The iconic koala, a marsupial

Fig. 2. A critically endangered Brown Spider Monkey, *Ateles hybridus*, with uncommon blue eyes, in captivity in its native Venezuela. Evolutionists now believe that its ancestors had to travel by raft across the Atlantic. In their model of slow continental movement over millions of years, the journey would have been only ⅔ of today's distance. But that still means crossing the open ocean for over 1,700 km (1,000 miles)! The size and ubiquity of rafts available post-Flood, as well as the greater rainfall from warmer oceans, makes the concept far more plausible in the biblical model.

islands until *well after* the break-up of the supercontinent.[2]

The idea of land bridges—areas of dry land once connecting land masses that are now separated by ocean—has explanatory potential for biogeography. It implies either that the land in question has moved vertically, or that sea levels have changed. When a lot of the earth's water was locked up on land as huge ice sheets, sea levels were lower than today, potentially exposing a dry land connection bridge. As the ice melted, sea levels rose to again submerge the bridge. However, apart from the Bering Land Bridge connecting Asia and North America, land bridges are not popular with secular scientists to explain biogeography.

Previously impossible, but now …

Since the idea of moving across land has not worked, the only option left is that the plant or animal had to cross water. In some cases, this means traversing huge oceans on vegetation rafts.[10,11] Consequently, many secular scientists feel they now have no choice but to accept oceanic rafting, thought to be impossible a few decades ago.

Amphibians, such as frogs, are found on Madagascar and other Indian Ocean islands. Because these do not tolerate saltwater,[12] it is hard to conceive of them successfully rafting even once. Yet biogeographers concluded that amphibians must have rafted *several separate times* to these islands.[13] Likewise, they think that New World monkeys were carried from Africa to South America over the ocean.[14] Their only evidence for an actual colonization by ocean rafting comes from the Caribbean islands. Here, vegetation ripped up by a hurricane was seen carrying some lizards from one island to another.[15,16]

Biogeography can be explained within biblical earth history

Within the biblical framework of earth history, all the terrestrial mammals, including Australian marsupials, began their spread from where the Ark landed, in the "mountains of Ararat". There are several ways plants and animals could disperse after the Flood. Seeds can travel long distances floating in water or carried by wind. Birds can spread seeds, fish eggs, and microorganisms across long distances. Animals can move into new territory rapidly as their populations expand. Some individual animals can travel long distances quickly. A mountain lion from the Black Hills, South Dakota, USA, was tracked to Connecticut, having travelled 3,200 km.[17] Many animals can swim amazing distances. For example, during the Ice Age, woolly mammoths swam from the California coast to the nearby Channel Islands across at least 10 km (6 miles) of deep water.

In some cases, land bridges would have aided distribution. The Bering Land Bridge connecting northeast Siberia with Alaska (fig. 3) and the land bridge across the Dover Strait connecting France with England are examples. These land bridges very likely connected land masses early in the Ice Age.[18]

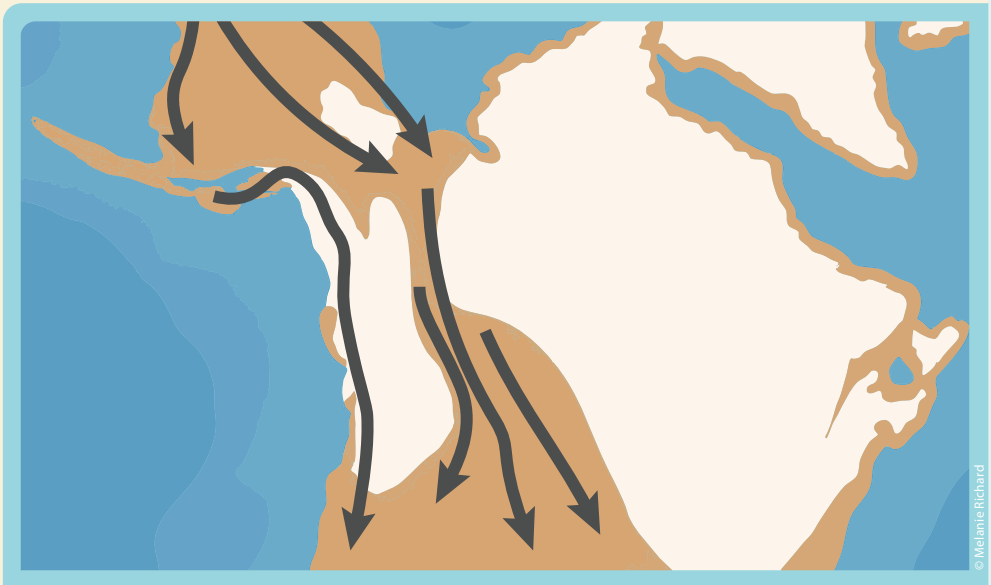


Fig. 3. The Bering Land Bridge and the ice-free corridor showing the route of animals and man into the Americas from Eurasia. It is possible man could have taken a coastal route along Southeast Alaska, western British Columbia, and into the northwest United States.

Rafting after the Flood

It is likely that many South American mammals rafted across the Atlantic Ocean. Also, the unique animals on ocean islands would have rafted from a continent. We noted how secular scientists increasingly have no option but to accept a rafting mechanism. However, successful rafting is far more plausible within a biblical framework. For one thing, there would have been a very large number of such rafts available, immediately after the Flood. Also, these *post-Flood log mats* would have

Superior rafts

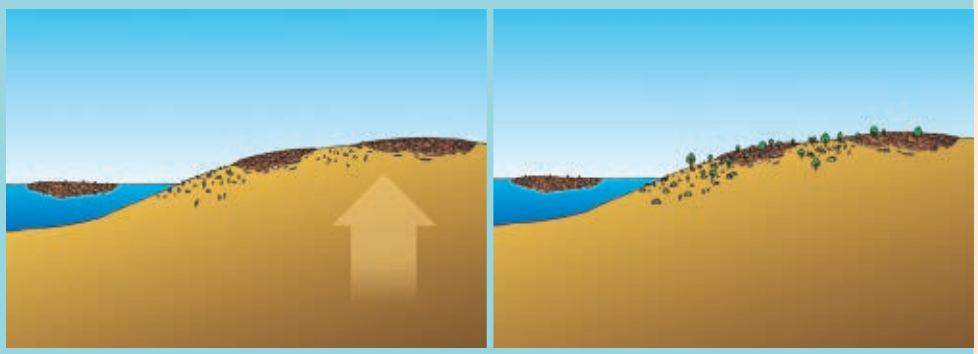


Image: Keaton Halley

Fig. 4. Grounded log mats seeding the land

As huge clumps of forest vegetation were torn from the land by the unimaginably destructive forces of the global Flood, floating log mats inevitably resulted. They would have been of varying sizes and composition, but all with uprooted and torn-off tree trunks, often bringing entire root systems and soil with them. These logs would have been entangled with other vegetation to form a jumbled, floating clump.

Log mats would have been miniature ecosystems of plants, microorganisms, insects, and animals. Some of the mats likely supported live trees and other large plants, as well as large mammals, as seen on some floating islands in lakes today.[1] Plentiful rain from the high evaporation of the warm post-Flood oceans would have aided survival.

Based on estimated world coal reserves, the pre-Flood land surface likely had 8 to 10 times the vegetation growing on it than today's continents.[2] Many post-Flood log mats would have therefore been both thick and very large in area, especially with the massive forces available to tear up huge forests. Most would therefore have been vastly superior platforms for oceanic transport than the occasional paltry vegetation rafts observed today. This makes such things as the transport of saltwater-intolerant amphibians (see main text) much more realistic.

These mats can explain many other mysteries in the sedimentary rocks. They did not just vanish when the Flood ended. Most would have remained floating on the post-Flood oceans for many years. Logs still float on Spirit Lake in Washington State, decades after the May 1980 eruption of Mount St Helens put them there. In fact, observations of these logs indicate that the post-Flood mats could have floated on the oceans for *centuries* before they eventually became waterlogged and sank.[1]

Log mats beaching on land as the floodwaters drained would have jump started establishment of vegetation (fig. 4). They could have easily spread the same plants from one continent to another, as we see in the southern hemisphere.

Animals leaving the Ark would rapidly repopulate the land and spread to the ocean shores. There, some inadvertently embarked on a log mat, possibly while it was grounded by low tide (fig. 5). Then the log mat could detach from the land, possibly during high tide or a storm, and spread animals across seas and oceans (fig. 5). God placed the genetic potential within living things to adapt to many different environments. As these animals dispersed, they could diversify into numerous variants within the original kind.

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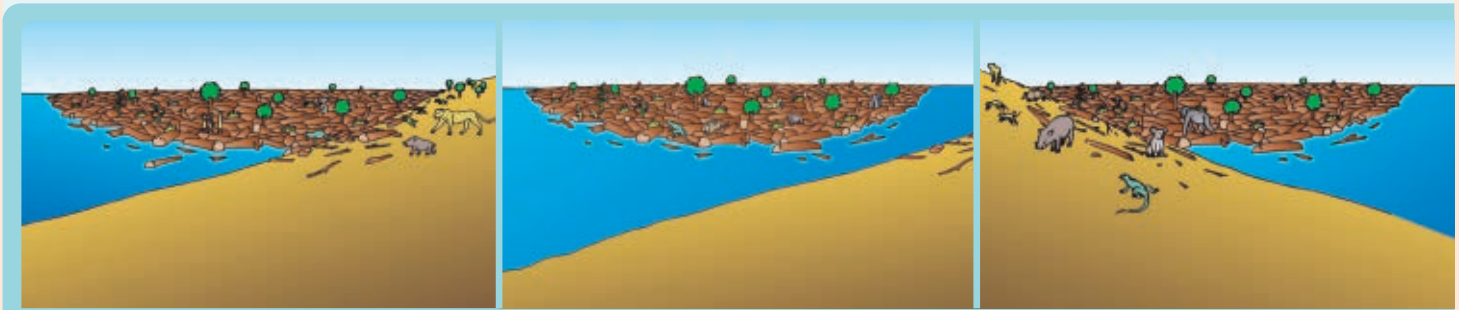

Fig. 5. Log mat grounds on shore, animals embark before floating to a new land, disembarking after it grounds again.

generally been of greatly superior size and suitability for such animal voyages. Most would have been huge, quite unlike the puny patches of vegetation torn off by a tropical storm today (see 'Superior rafts' p. 38).

Today, virtually all parties agree that migration by rafting must have occurred. Though further research remains to be done, post-Flood log mats are eminently feasible, and have the potential to explain many, if not all, biogeographical mysteries.[19]

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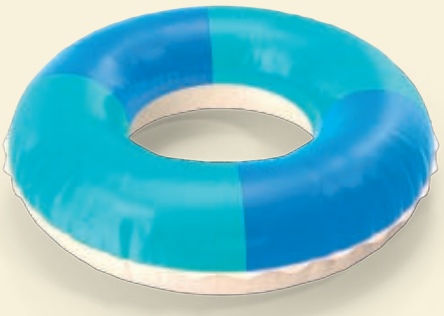

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