

The Black Sea flood may evaporate completely

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In the late 1990s, two marine geologists, William Ryan and Walter Pitman, claimed to have found evidence that there was a catastrophic flooding of the Black Sea area about 7,600 years ago.¹ Their idea became well known when they alleged that their Black Sea flood was the source of ancient flood legends and in particular, the account of Noah's Flood as recorded in the Bible.² Indeed, this speculative claim has proved remarkably popular in television documentaries, books, journals and lectures,³⁻⁸ which is probably why they made the claim.

AiG examined the claims of Ryan and Pitman and concluded that, even if there was a catastrophic flooding of the Black Sea, it was definitely not the Flood of Noah.⁹⁻¹¹ If the Black Sea flood did occur, it would not have been 7,600 years ago but more likely around 1650 BC. We based our analysis on the account of Noah's Flood in the Bible, including the chronological information recorded there, and creationist models of the post-Flood Ice Age. From the limited geological evidence Ryan and Pitman presented, we felt that they had made a good case for a sudden drowning of the Black Sea and we had no reason at the time to challenge that conclusion.

Now, an international research team have reported additional geological findings from the region and conclude that there never was a catastrophic flooding of the Black Sea as Ryan and Pitman proposed.^{12,13} It seems that the whole idea of a Black Sea flood may evaporate completely.

The Black Sea Flood hypothesis

According to Ryan and Pitman's hypothesis, the Black Sea was originally a freshwater lake, some 110 m

lower than today and isolated from the Mediterranean Sea by a land ridge across Bosphorus Strait (Figure 1). Supposedly, about 7,600 years ago, rising water levels in the Mediterranean Sea breached this land barrier and flowed catastrophically into the Black Sea, rapidly raising it to its present level. The force of the watery cascade is alleged to have swept away the soil and debris and excavated the channel now called Bosphorus Strait. Forty cubic kilometres of Mediterranean water is envisaged to have poured through the channel and into the Black Sea every day (two hundred times what flows over Niagara Falls), raising the level of the Black Sea and inundating kilometres of shoreline. By linking this event and the subsequent displacement of human settlement to Noah's Flood in the Bible, Ryan and Pitman caught the popular imagination. In their view, the Biblical record of the Flood is an embellished, distorted account of their Black Sea flood.

Because of these claims, ocean

explorer, Robert Ballard probed the southern coastal waters of the Black Sea in 1999 and the following year looking for signs of human settlement. He created a sensation when, in September 2000, he announced finding carved wooden beams and other evidence of displaced human settlement deep under water off the southern shoreline.¹⁴⁻¹⁷ However, radiocarbon dates (based on carbon-14 analysis) gave ages of only about 200 years—a major set back for his claim that these artefacts represented relics of the Biblical Flood.¹⁸

Not Noah's Flood

Biblical creationists have maintained that, even if there was a dramatic bursting of the Bosphorus followed by a filling of the Black Sea as proposed by Ryan and Pitman, their speculative link with Noah's Flood fails to match any Biblical detail.⁹ For example, Ryan and Pitman's flood was not global as the Bible describes, but only local.

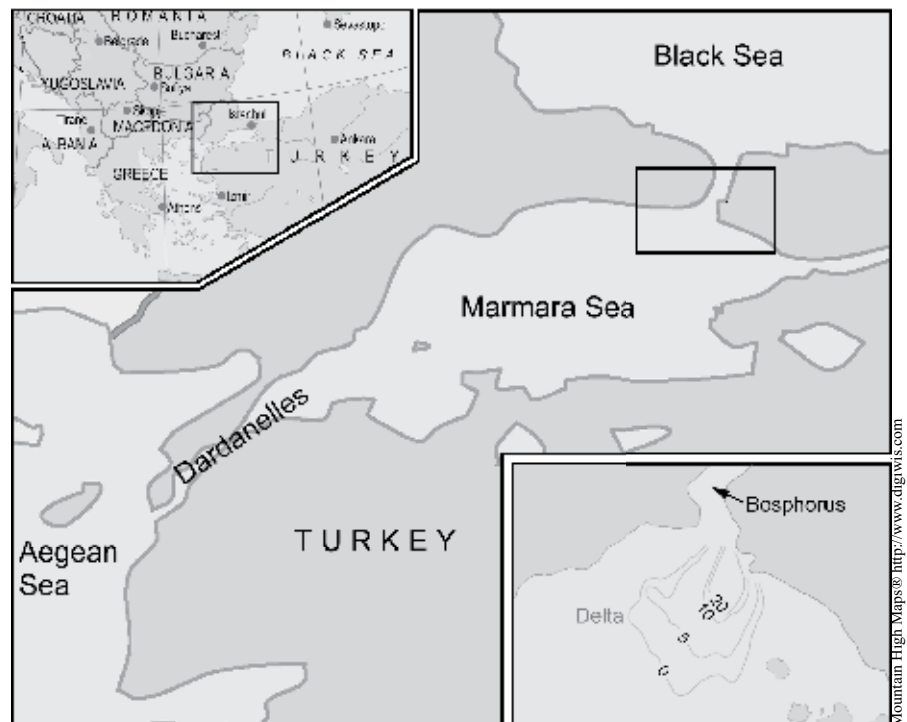


Figure 1. Ryan and Pitman proposed that a land bridge across the Bosphorus isolated the Mediterranean from the Black Sea, which contained fresh water at a level at least 110 m lower. Catastrophic breaching of the hypothetical land bridge allowed salt water from the Mediterranean to pour into the Black Sea. However, new geological investigations in the Marmara Sea, especially the exit delta (C), show that water has always flowed south from the Black Sea and not north as required by Ryan and Pitman's hypothesis.

Their flood did not cover the highest mountains but only rose some 110 m. The source of their floodwaters from a breached dam does not agree with the Bible, which describes fountains of the great deep bursting forth and 40 days of rainfall. Their flood did not drown all land-dwelling life on the planet hence there was no need for the ocean-liner-sized ark. In fact, it is hard to imagine how their Black Sea flood would have threatened any life, even in the local area. The rate of increase of the water level would have been so slow that animals, birds and people could have easily moved out of its way. Then, their floodwaters have not receded but have remained at the level to which they rose.

Ryan and Pitman justify these contradictions by rejecting the constraints of the Biblical record—by asserting that the Biblical record is unreliable. AiG rejects such a cavalier attitude toward the Word of God and does not accept their linking their alleged flood with Noah's Flood. If a catastrophic filling occurred, it would have been a local catastrophe occurring after the Flood which took place about 4,300 years ago.

New findings challenge hypothesis

In an interesting development, an international team of Earth scientists from Canada, USA, UK and Turkey has rejected entirely the idea of a sudden Black Sea flood.^{12,13} They base their conclusions on investigations of the 'Marmara Sea Gateway', which connects the Black Sea and the eastern Mediterranean (Figure 1). From extensive seismic surveys, drill cores, radiocarbon dating and fossil studies they conclude that there is no support whatsoever for a catastrophic northward flow of saline Mediterranean water into the Black Sea. Rather, from the earliest times the connection was dominated by a southward flow of water from the Black Sea into the Mediterranean, exactly the opposite flow direction to that required by Ryan and Pitman's hypothesis.

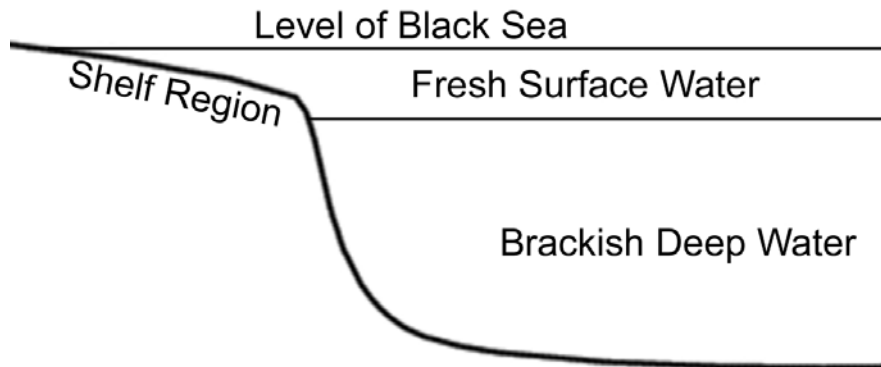


Figure 2. According to the international research team, the observed change from fresh-water mollusc to marine mollusc on the Black Sea shelf was not due to a sudden filling with Mediterranean water. Rather, the level of the Black Sea remained constant and the change was because the interface between the fresh surface water and the salty deep water rose above shelf level.

One strong physical evidence they quote for early and strong Black Sea outflow is a delta at the southern exit of the Bosphorus (Figure 1), which, using the radiocarbon method, they date at 9 to 10,000 years ago. Thus, they conclude that the Black Sea flowed southward for thousands of years before the two seas were allegedly reconnected as proposed by Ryan and Pitman. Furthermore, the team found no evidence in the mud drape on the bottom of the Sea of Marmara, of erosion by northward flowing water.

In their paper, the team reinterpreted the geologic evidence reported by Ryan and Pitman. They say that the change in marine fauna on the shelf regions of the Black Sea from fresh-water mollusc to salt-water mollusc does not represent a sudden filling of the Black Sea with marine water from the Mediterranean. Rather, it represents the time when the density interface between the fresh surface water and the saline deep water in the Black Sea gradually rose above shelf depth, allowing open-marine fauna to live in these areas (Figure 2).

Heads we win, tails you lose

What are we to make of these latest claims? First they illustrate how conclusions can change dramatically when new geological evidence comes

to light. That is why we always put our trust in the reliable word of God. If any scientist claims to have found evidence that contradicts a plain reading of the Bible, we know immediately that we can reject such a claim.

As far as the Black Sea flood is concerned, if the new evidence holds up to scrutiny then the Black Sea flood will evaporate entirely. However, even if the new claims by the international team do not hold, we can still say with confidence that the Black Sea flood has nothing to do with the global Flood described in the Bible.

How likely are the new claims to withstand critical scrutiny? First, the new conclusions rely on radiocarbon analysis which yielded dates up to 12,000 years. Obviously, those dates cannot be correct because the global Flood only occurred around 4,300 years ago. The discrepancy is mainly because the dates have not been corrected for the increase in the atmospheric $^{14}\text{C}/^{12}\text{C}$ ratio following the Flood. If this ratio increased smoothly and if carbon dioxide was well mixed in the atmosphere, then the *relative* timing of events as determined by radiocarbon dating method may well be correct. In this case, the new claims are likely to stand. However, if the atmospheric carbon concentration has been locally disturbed, the timing of events based on carbon dating may

well be spurious. There are many factors which can disturb the carbon ratio including local volcanic eruptions.¹⁹

So there are good lessons to be learned here. We should not blindly accept any claim before it is properly assessed, including the evidence on which it is based. When we examine Ryan and Pitman's work we can say confidently that their claim about Noah's Flood is wrong. Initially their geological work looked reasonable but now even their geological interpretations are under challenge. Either way, their claim about Noah's Flood is wrong because it does not agree with the details recorded in the Bible.

The Noah's Flood Hypothesis proposed by Ryan and Pitman generated much interest in the media with headlines such as 'Proof of Noah's Flood at the Black Sea?' Now that their hypothesis has been refuted, will we see headlines such as 'Proof that Noah's Flood never happened'. Given the propensity of the media and our culture to attack the authority of the Bible, it certainly would not be surprising. But such headlines would be wrong.

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Newly discovered dinosaur megatracksites support Flood model

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Dinosaur megatracksites are huge accumulations of dinosaur tracks concentrated in one area. According to Martin Lockley and Adrian Hunt,¹ as of 1995 there were hundreds of dinosaur tracksites worldwide but only three megatracksites: 1) in southeast Utah, 2) along a linear zone from northeast New Mexico to northwest Colorado, and 3) the Glen Rose Formation of central Texas. Two more megatracksites have just been discovered in the northeastern Bighorn Basin of north central Wyoming.² Dinosaur tracks had previously been rare in Wyoming.

Two megatracksites were found in the vicinity of Shell, Wyoming, and are separated vertically by many meters of sedimentary rock, representing 3 million years within the evolutionary time scale. The higher megatracksite lies on a single horizon of the lower Sundance Formation, while the lower megatracksite is found throughout a one-meter-thick layer of the evaporite-rich Gypsum Spring Formation. The tracks are found in widely scattered outcrops in an area 100 km north-south and 25 km east-west. In a 7.5 km² area in the vicinity of Shell, the researchers estimate 150,000 tracks per km² in the Sundance Formation. These megatracksites display several unusual features that make the evolutionary/uniformitarian interpretation perplexing while supporting the Genesis Flood paradigm.

Unusual features

The first unusual feature is that the tracks were discovered in carbonate units that were believed to be *totally* marine. The dinosaur tracks have forced a sudden 'reinterpretation' of the paleoenvironment of the sedimentary rocks. The uniformitarian