

An Exploration of Aluminum Abundance in Mount Mitchell

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### Abstract

Mount Mitchell contains vast quantities of aluminum, and this abundance of aluminum has two theories for explanation. The first theory states that the aluminum comes from the weathering and erosion of the sediments leaving aluminum rich bauxite before being metamorphosed. The second aluminum abundance theory states that warm water percolated through the sediments causing the erosion of weaker minerals and the conversion of feldspar to aluminum rich minerals. The true cause for aluminum abundance in Mount Mitchell could be a combination of the circumstances in both theories. Aluminum is a useful resource to humans, but there are researchers studying its effects on the well-being of plant life and other organisms including humans. The World Health Organization is conducting research on the effects of aluminum contaminated water on early onset Alzheimer disease. If aluminum contaminated water is a health concern, then measures will need to be taken to care for residents residing near and on Mount Mitchell.