

Volcanoes and Volcanic Activity

The islands of Japan lie along the Pacific Ring of Fire, a belt of tectonic plate boundaries that partly encircles the Pacific Basin. Around two-thirds of the world's volcanoes are found along the Ring of Fire, and many are the result of subduction at convergent plate boundaries.

The volcanoes in Tokachi Shikaoi Geopark were formed by the convergence of the continental North American plate and the oceanic Pacific plate. Along this boundary, the oceanic plate moves beneath the less dense continental plate. As the denser plate moves downwards, the pressure and temperature surrounding it increase, and water seeps into the mantle, lowering its melting point. Melting within the mantle produces magma. The magma is less dense than the surrounding solid rock and rises to the surface through cracks in the plates, forming a volcano. The formation of the Shikaribetsu volcanoes has had a significant impact on the landscape and biodiversity of the region.