

Fossils in the Japanese archipelago and Japanese Geoparks

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The "fossil" is any preserved remains, impression, or trace of the prehistoric creatures in the strata. The Japanese archipelago consists of the Cambrian–Quaternary, which yields the various kinds of fossils such as vertebrate, invertebrate, plant, and microfossils abundantly. Paleontological researches of these fossils can reveal the paleoecology, ecological system, evolutionary history, mass extinction and so on. The fossils are indispensable for discussing of the Japanese archipelago and its fauna and flora developments. In some Japanese Geoparks, the fossils are important to explain the local geology, history, and industry. For example, ammonoid fossils are discovered under the exploitation of a first coal mine in the Mikasa City in late 18th century. The discovery of ammonoid fossils near the coal measures is inevitable, because the tectonics of Hokkaido Island and the geological structure seen in this area cause the discovery. On the other hand, the fossils are also not irrelevant to agriculture. A firm stratum including the microfossil "diatom" shapes a sunny slope, and various strata including shell fossils distributed under a grape field bring the delicate taste of wine.

In this talk, the fossils in the Japanese archipelago and paleontological researches are reviewed, and the relationships between the fossils and Japanese Geoparks are introduced with exemplary cases.

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