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izu-oshima geopark plan

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Izu-Oshima is a volcanic island 110km SSW of Tokyo. It is about 15km long and 9km wide elongated in NNW-SSE direction, and 764m high (a.s.l.). The island is mostly occupied by a basaltic stratovolcano topped by a double caldera and a central cone called Mihara-yama. The stratovolcano called Izu-Oshima Volcano is one of the most active volcanoes in Japan on the volcanic front along the Izu-Ogasawara trench on the Philippine Sea Plate. The latest eruption was in 1986, when both central and lateral eruptions occurred issuing pyroclastic falls and lava flows that forced about 10,000 inhabitants to evacuate outside the island in only one night. Such sort of middle class eruptions with several ten million tons of magma occur every 35 years, however large eruptions more than 10E8 tons of magma generally occur in every 130-150 years. The latest large eruption was in 1777-1792 when the central cone Mihara-yama was formed.

Izu-Oshima volcano displays variety of young volcanic materials (variety of basaltic pyroclastic products including scoria, bomb, agglutinate and ash, and aa and pahoehoe lava flows) together with modes of emplacement of materials and volcanic landforms. They are quite accessible, the summit caldera rim is easily reached by bus and/or compact cars. Paved trail connects the caldera rim with the summit of the central cone Mihara-yama across the caldera floor. Along the trail many observation points are distributed. On the summit of the central cone, a trail goes around the crater about 800m across that has a pit crater about 300m across and 250m deep, giving spectacular scenery on both sides of the trail. On the middle slope of the volcano, there are many lateral cones that are aligned mostly on the NNW-SSE direction which corresponds with the regional stress field in this northern edge area of the Philippine Sea Plate. Middle and lower slopes are mostly covered by alternations of scoria falls and ash layers together with lava flows in low portions. A large road-cut exposure on the SW lower slope gives a beautiful alternation of air-fall scoria layers. On the low altitude area along the sea side ring road, various of hydromagmatic products and related topographies are observed. There are nice tuff rings and an explosion crater on the SE tip of the island. On the eastern sea cliff, dissected older volcanoes are exposed showing radial dikes and a central vent which is now a pinnacle in the sea.

Thus, Izu-Oshima island has much to be enjoyed and studied quite suitable for a GEOPARK. The island is easily reached from Tokyo by airplane (25 minutes) and by high-speed boat (1h45m), and from Atami (Izu Peninsula, 45 min.). A committee on the island is now making an effort to produce a nice

GEOPARK there!

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