

## Toward the revival of Miyakejima after the latest volcanic eruption

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Miyakejima suffered a large volcanic eruption in 2000. The volcano has erupted repeatedly, on a 20-year cycle, and its inhabitants have adapted to 'coexistence with the volcano'. Nevertheless, the eruption in 2000 was the largest in 2,500 years, and came as a shock to the islanders, as well as to researchers on the island. It prompted us to begin a major project, that is, to see what we could do to help with the revival of Miyakejima.

Miyakejima is a volcanic island in the middle of the Izu Islands; it is surrounded by open sea. The scars of past volcanic activity are visible here and there, but the residents have endured the hardships and the island has remained inhabited. Nevertheless, the eruption in 2000 forced the inhabitants to leave the island, and they have not been allowed to return as of 2004.

It is difficult to think about restoring the natural environment when restoration work on infrastructure and dwellings should have top priority. However, the rich marine ecosystem, especially the coral community, is an important resource for Miyakejima. Corals are found, mostly, in the southwestern part of the island, which is exposed to the northward flowing Kuroshio Current. Divers observed that the area around Tomigahama suffered little damage from the deposition of volcanic ash and crustal movement, while Igaya in the west and Chotaro-ike to the south underwent enormous change. Restoration of the ecosystem can proceed in two ways: by means of artificial methods, in the main, or by conservation and allowing nature to take its course. Either way, a practical discussion of the recovery program is necessary. Those of us who use the ocean at Miyakejima (researchers, divers, etc.) have just started to explore ways to contribute to the recovery by drawing upon our combined knowledge, experience, and expertise.

Miyakejima lost a valuable member of its community in the spring of 2004, when Dr. Jack T. Moyer

passed away. Dr. Moyer came to Japan during the Korean War while serving in the U.S. Air Force. He was assigned to a medical research institute and studied the role of birds as vectors of Japanese encephalitis virus. One day, he noticed a Japanese Murrelet (*Synthliboramphus wumizusume*), a rare species, building a nest on Sanbondake, southwest of Miyakejima, a spot the U.S. Air Force used for target practice. He started an initiative to get the upper echelons of government to protect the nesting ground. This triggered the long relationship between Dr. Moyer and Miyakejima. He studied birds in Japan continuously while serving in the military, and emigrated to Miyakejima in 1957. He is remembered with great affection for his deep compassion toward the people and environment of Miyakejima, which he called his home. When he came to the island, few people believed that it was worth immigrating to the island, as the population was declining. Gradually, with Dr. Moyer's involvement and research, people started to realize the value of their natural treasure and became proud of it.

Recently, environmental education has received considerable attention and Miyakejima is surely a model, in this respect, for Japan. Dr. Moyer organized a summer school for children on Miyakejima. He hoped that children would come to realize the 'joy of living with nature'. He used to say, "our responsibility is to seek a good relationship that allows human beings and nature to live together; we have to pass on the message that we humans are a part of nature to the next generation". Dr. Moyer's program did not simply mediate important ideas, it was also full of fun. The children who participated were thoroughly delighted to be out in the field, playing with marine organisms on the shore.

Dr. Moyer spread the word about Miyakejima's beautiful environment to many people at large, as well as to the academic community through his many research publications. This work may well contribute to Miyakejima's revival.