

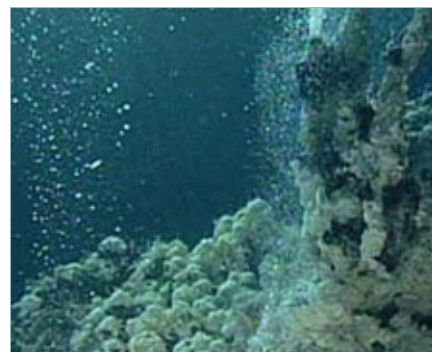
Blue Smoker Image - First Discovery in the World

2007/01/23

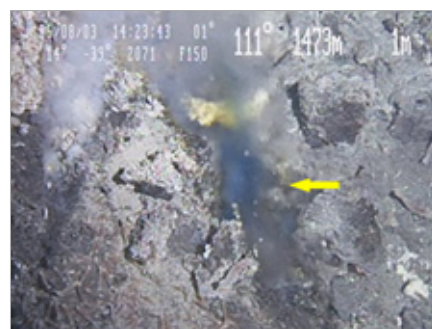
Blue smoker was discovered after the extensive review on the data taken in the area where many chimneys emit hot water were found by manned research submersible, SHINKAI 6500. The area extends in the Hatoma Knoll, Okinawa Trough located at about 50 km northwest off Ishigaki Island. Blue is the first color for the hydrothermal fluid.

White smoker (white hydrothermal emission) was also discovered in the same area. It suggests the increased magma activity at Hatoma Knoll. Several reasons can be hypothesized for the blue color of hydrothermal fluid. Some physicochemical process is assumed to be closely related to the color of the hydrothermal fluid because the color of hydrothermal fluid is closely related with the physical/chemical process of hydrothermal emission. We are going to study the reason further because the observation this time is not sufficient to identify the reason for the blue color.

[▶ press release](#)



Chimney of "Blue Smoker" at a depth of 1470 m



Blue hydrothermal emission ("Blue Smoker")