

## Tectonic uplifting by the Noto Hanto earthquake estimated with supralittoral distribution of intertidal and subtidal organisms

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The Noto Hanto Earthquake in 2007 ( $M_{JMA}$  6.9) struck the western coast of the Noto Peninsula on 25th, March, 2007. Monzen suffered severe damage from this earthquake and aftershocks. The fault causing this earthquake is located off the Noto Peninsula ([http://cais.gsi.go.jp/Research/crust/notohanto/fault\\_etc.pdf](http://cais.gsi.go.jp/Research/crust/notohanto/fault_etc.pdf)). The tectonic uplift accompanied with the earthquake has been analyzed and published on 3rd, April, 2007 by Active Fault Research Center, AIST (<http://unit.aist.go.jp/actfault/katsudo/jishin/notohanto>). A report about possible tectonic uplift at Sekinohana came to us on 2nd, April, and then we investigated the tectonic movement along the west coast of the Noto Peninsula on 3rd, 4th, and 7th, April.

We estimate the height of the uplift from relative height of the highest distribution of intertidal (*Ulva* sp. and *Crassostrea*) and subtidal (*Eisenia* sp. and *Sargassum* sp.) organisms from the sea level at 24 sites between Minazuki, Wajima, and Akasumi, Shika. The offsets between high/low tide and tide level at measured were subtracted from relative height to calculate absolute uplift height.

While the highest uplift of 50 cm is observed at Akakami, mid- to northern part of the investigated area, the uplift height at the southernmost site of Akasumi is -4.5 cm and that at northernmost site of Minazuki 0 cm. These data indicate that the tectonic movement was restricted between Akasumi and Minazuki. The Uplift height at Togi fishing port is 27 cm, and successive gradual uplift is found between Akasumi and Akakami. On the other hand, in the northern part of Akakami, the uplift height is suddenly decreasing at Kaiso, and turns to negative at Fukami. These lines of evidence indicate the tectonic movement of asymmetric anticlinal pattern centered at Akakami. This result show well consistency with the theoretical uplift from the fault model by GSI ([http://cais.gsi.go.jp/Research/crust/notohanto/fault\\_etc.pdf](http://cais.gsi.go.jp/Research/crust/notohanto/fault_etc.pdf)) except for a offset between observation and model at Togi fishing port and Ganmon.