Active tectonics and landform evolution in the central part of the back arc of the Northeast Japan arc

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The central part of back arc of Northeast Japan arc is characterized by two morphotectonically uplifted zones; the Oga Peninsula and the Dewa Hills, parallel to the direction of the arc. I clarified the pattern and amount of late Quaternary crustal movement across the back arc, based on precise tephrochronological correlation and analysis of height distribution of marine and fluvial terraces. The Oga Peninsula has the maximum uplift rate of 1.0mm/yr with northeastward downtilting, and it is about twice of Dewa Hill's uplift rate(0.6mm/yr). Late Quaternary crustal movement in Dewa Hills indicates an asymmetrical warping with uplifting. These morphotectonic structures suggests a fold propagated by movement of the Kitayuri thrust faults in the upper crust.