

## Total crustal shortening of the Hidaka Collision Zone, Hokkaido, Japan

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The Kuril arc has been colliding against the Northeast Japan arc since Miocene forming the Hidaka Collision Zone (HCZ). Recent deep seismic reflection studies across the HCZ and the exploration works for oil and gas have revealed the whole crustal structure in the HCZ and its foreland and hinterland regions as follows. (1) The upper part of the Kuril (>23km deep) thrusts up westward over the Northeast Japan arc, whereas the lower part is delaminated from the upper part and descending down forming a delamination-wedge structure there. (2) The foreland and hinterland fold-and-thrust belts have developed on both sides of the HCZ. This revelation makes it possible to evaluate the total shortening length at about 70 to 80 km between the two arcs through the collision.