# How does weather affect the resistance to temperature change and also components of saturated/unsaturated fatty acids in the oceanic sea skaters, *Halobates*?

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Heat coma temperature (HCT) was measured for mainly adults of four *Halobates* species collected at 12° N, 135° E in western tropical Pacific Ocean. HCPs (35.03±1.80 ºC, n = 32) of individuals collected during the first half (10 days) of the sampling period at the fixed point, were significantly higher than those during the second half (34.03±2.02ºC, n = 63).

A tendency of negative correlation (r=-0.520, p=0.101) between relative amount of a saturated fatty acid (14:0) and HCP was shown, whereas there was a tendency of positive correlation (r=0.478, p=0.137) between amount of an unsaturated fatty acid (16:1) and HCP. Heat tolerance of sea skaters might be related to a structural flexibility of molecular components including fatty acids in the body. The reduction in heat tolerance shown in the second half of the 20 day period may have been caused by a decrease in air temperature due to rain fall that was due to the arrival of Typhoon No. 6 there.