

The carbon cycle, nutrients cycle, heavy metal flux changes in Kushiro mire

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We investigate riverine acidification effects on carbon cycle, nutrients cycle, and heavy metal flux changes in Kushiro mire and Bekanbeushi marshland. Peatlands occupy approximately 5% of the Earth's land area, and the northern peatlands play the important role in global carbon cycle. The surface water in peatlands are highly colored and acid due to humic substances originated from peats. This locally acidification process influences material transportation in adjacent river. In this research, we discuss dissolved iron concentration, the chemistry form of dissolved iron, humic substance concentration and nutrient concentration in Kushiro and Akkeshi, and finally discuss the influence on marine organism production.

Keywords: Kushiro mire, pH, biogeochemical cycle