[JJ] Evening Poster | G (General (Education and Outreach)) | General (Education and Outreach)

[G-05]Geoscience education from elementary school to university students

convener:Masatsune Hatakeyama(Seiko Gakuin High School)
Sun. May 20, 2018 5:15 PM - 6:30 PM Poster Hall (International Exhibition Hall7, Makuhari Messe)
We will provide and discuss various educational practices (teachings and procedures) for elementary, junior high school, high school and university students. We also welcome outreach reports for all grades. In addition, especially for liberal arts level geoscience education of undergraduate, we will consider the problems and future prospects of our current situation.

[G05-P10]Meandering river experiment system for school laboratory application using high salinity water

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Keywords:water way experiment, saline water, meandering

In science curriculum of the fifth grade of elementary school in Japan, it is conducted to teach about “flowing water has ability to erode the surface of the land and to make sedimentation of mad or pebbles” in the teaching unit of “behavior of flowing water.” It is recommended to do experiment and verify them (2008 official curriculum guidelines by MEXT). Many rivers in nature represents meandering around downstream basin, however it seems to be difficult to show them through indoor experiment (Nishimori and Konishi, 2017). Lots of papers about meandering experiment have been reviewed by the author, however, the only fresh water was taken into account. There is simple question that “Are there any difference in meandering shape, if saline water was utilized?” To resolve it, I used saline water in experiment of meandering. Self made experiment stage of 0.9 x 1.5 m in size is filled with natural beach sand and water way is initially trenched by special wooden shape. Experiment conditions of inclination pitch and water salinity are about 1/200 and C.A. 20 wt%, respectively. As a result, the angle between meandering center and dip direction of slope are about 40° and about 85° in conditions of fresh water and saline water, respectively, which are evidently showing difference of the shape of water way.