

## ヤクシマカワゴロモに影響を与える付着藻類繁茂の原因解明 Growth of *Hydrobryum puncticulatum*(*Yakushimakawagoromo*) may be blocked by the increase of *Melosira varians* in Isso River

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*Hydrobryum puncticulatum* (*Yakushimakawagoromo*), the national monument and endangered species are making their habitat only in Isso river of Yakushima. For the first time in our observation, the bloom of *Melosira varians* which is periphyton of diatom was observed to be covered over the *H.puncticulatum* from 2011. This impact for the *H.puncticulatum* is a serious concern. The purpose of this study is to clarify the cause of bloom of *M.varians*. We examined the annual variability of dissolved nutrient concentration which was most accessible to *M.varians*. As a result, there was no increase in concentration of NO<sub>3</sub>-N, SiO<sub>2</sub>-Si from 2009 to 2013. In addition, PO<sub>4</sub>-P was much lower concentration(0.003±0.001 mg/ l). Therefore, we assumed that there was no relationship between the bloom of *M.varians* and dissolved nutrient concentration in Isso river. Meanwhile, the floating mud which was deposited in the bottom of the river has been continued during dry-spell. Tachibana et al (1986) reported that an algae can intake the suspended nutrient same as dissolved nutrient. It suggests that the *M.varians* and *H.puncticulatum* can take suspended nutrient.

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