

ACG035-01

会場:201A

時間:5月27日 10:45-11:00

瀬戸内海一級河川における栄養塩流出に与える気候変動の影響 Effect of Climate Change on Nutrient Discharge to Coastal area, Western Japan

清水 裕太^{1*}, 小野寺 真一², 齋藤 光代²
Yuta Shimizu^{1*}, Shin-ichi Onodera², Mitsuyo Saito²

¹ 広島大学大学院総合科学研究科, ² 愛媛大学沿岸環境科学研究センター
¹Grad Sch. of Integ Arts and Sciences, ²Center for Marine Environmental Studies

This study investigates the effect of climate change on nitrogen and phosphorus discharges from a watershed in western Japan. Numerical simulations for a 30 year period (1977-2007) demonstrate annual precipitation has decreased over the study period as well as loads of nitrogen and phosphorus. Nutrient fluxes were estimated using the SWAT model. The estimated phosphorus flux is more highly correlated with precipitation than nitrogen flux. The results suggest a high correlation between phosphorus and discharge but during high precipitation years phosphorus loads have decreased. A sensitivity analysis of parameters for phosphorus discharge showed the most sensitive parameter is support practice factor. Consequently, phosphorus flux would decrease from the Asahi River watershed in the future, because precipitation has decreased and as such so has the driving force for soil erosion, the primary source of the nutrients.

キーワード: 気候変動, 栄養塩, SWAT モデル, 瀬戸内海, 旭川
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