## 情報電子工学科工学科 論文発表

	題名	Some Factors influencing the drift rates of mayfly larvae in the artificial stream
<b>‡</b>	曷載雑誌	2018 International Forum – Agriculture, Biology, and Life Science
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	概要	It has been reported that many of aquatic insect larvae tend to drift in rivers at night and their adults emerged in the downstream of rivers fly back to the upstream and lay eggs. In addition, drifting experiments in the artificial stream have been carried out to clarify the cause of drifting. These experiments, however, is very harmful to aquatic insects because researchers return them to the artificial stream after collecting them and verifying their types and the number of individuals.  On top of that, the researchers have continued to collect and analyze them for a long period such as over a week. To deal with these problems, we did develop the automatic measurement system using light sensors. Drifting experiments using the automatic measurement system for counting the drifting individuals in the room were conducted. It was successful in maintaining the sensing accuracy even after one week drifting experiments. The influences of benthos density, current velocity, and height of stream on the number of the drifting individuals of Isonychiya japonica were investigated. The drifting from evening until night of mayfly larvae in the artificial stream were occurred as well as Rivers. The results of these drifting experiments in the artificial stream were to match to that of field observations. By successfully applying Engineering technology to Biology, the effect of interest in different fields of studies was confirmed.
Han:	関連画像	The artificial stream is made using the plastic pool for children with 120 cm diameter  The running water section is set to 1m²  The submersible pump makes current direction  Water temperature was controlled by the radiator  The light sensors detect the number of individuals  The fight sensors detect the number of individuals