

Diatom 25: 73-78 (英文)

阿部信一郎・小林尚・北野聡・南雲保：アジメドジョウの採食に対する付着藻類の抵抗性の違い

Shin-ichiro Abe, Sho Kobayashi, Satoshi Kitano and Tamotsu Nagumo: Differential vulnerability of benthic algae to grazing by the loach, *Niwaella delicata* (Niwa)

#### Abstract

Algal vulnerability to the grazing loach, *Niwaella delicata*, was investigated in the Ogawa stream, a tributary of the Kiso River flowing through Nagano Prefecture, Japan. To evaluate the vulnerability, Chesson's electivity index was calculated using the relative abundance of ten dominant algal taxa in the gut contents of the loach and benthic algal assemblage. The index values differed significantly among the algal taxa and the index values of diatoms increased with their size. The results showed that vulnerability to the loach differed among algal taxa. Prostrate filamentous cyanobacteria and the large diatom, *Ulnaria ulna*, were susceptible to loach grazing, while upright filamentous cyanobacteria and small diatoms such as *Achnanthydium convergens*, *Fragilaria perminuta*, *Gomphonema parvulum*, *Cymbella turgidula* var. *nipponica* and *Encyonema* sp. were less susceptible to loach grazing.

Key index words: diatoms, filamentous cyanobacteria, gut contents, loach, *Niwaella delicata*, vulnerability