

Comparison of protozoan communities between winter-flooded and conventional rice fields

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Under ordinary management in Japan, rice fields dry up from August to April. In non-tilled, winter-flooded rice fields, however, the rice field is flooded with water even in winter (January and February). Rice stubble slowly decomposes in the water. In the present work, we compared ciliates of protozoan communities in a non-tilled, winter-flooded rice field with those in a conventional rice field. Ciliates were observed by phase contrast microscopy and by protargol staining. In July and August, 12 species were found in the winter-flooded rice field, and 11 species in the conventional rice field. There was no significant difference in species. In May and June, 14 species were found in the winter-flooded rice field, while 9 species were found in the conventional rice field. It is probable that the ciliates ate bacteria and organic matter produced by decomposition of the stubble. More ciliates were also found in the winter-flooded rice field in January and February. In particular, genus *Halteria*, class Colpodea and subclass Stichotrichia were common.