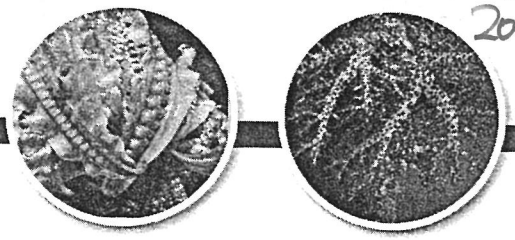

(OP2B-2)

MICROBIAL COMMUNITY OF BIOFILMS ESTABLISHED ON ARTIFICIAL SURFACES IN ANTARCTIC MARINE ENVIRONMENT

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The community structure and composition of biofilms established on acryl plates exposed on marine environments near King Sejong Station, King Jeorge Island, Antarctica in January 2007 were analyzed. Succession of microbial community was monitored by T-RFLP and 16S rDNA gene sequence analysis by pyrosequencing method for seven days. Bacteroidetes, Gammaproteobacteria and Alphaproteobacteria comprised the major microbial community. Acidobacteria, Actinobacteria, Firmucutes, Fusobacteria, Betaproteobacteria, Deltaproteobacteria and Epsilonproteobacteria made a minor community. Among the Bacteriodetes, cold-adapted bacterial species of Falvobacteriaceae were the major flora in the biofilm. Clone number and OUT diversity of Bacteroidetes increased dramatically on 6th and 7th days. Bacteria cultured on R2A and ZoBell agar plate were identified and compared with metagenome sequences.