

The environmental adapted genes in terrestrial cyanobacterium *Nostoc* sp. HK-01 (NIES-2109) using comparative genome analysis

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Cyanobacteria are living various environments on the earth. We are trying to search gene for environmental adaptation and have been presented relation between environment stress and genes at JpGU meeting. Terrestrial cyanobacterium, *Nostoc* sp. HK-01(NIES-2109) is used as material for space experiment. We are surprised that HK-01 genome sequence is closely similar to *Anabaenopsis circularis* NIES-21 genome sequence. In this presentation, we show genetic differences between HK-01 and NIES-21 and will also discuss potential application of the cyanobacterium in closed ecosystem.

Keywords: cyanobacteria, genome, gene, closed ecosystem