Escherichia coli in Tuul River, Mongolia

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Tuul River crossing over Ulan Bator, the capital of Mongolia, is important for a water source in the surrounding area. In recent years, the number of livestock has been increasing, and the river has been in dager of its water deterioration by overgrazing. *Escherichia coli* is known as an important marker representing fecal contamination in the survey of water quality. Here, in order to show the water pollution by *E.coli*, we analyzed contaminating *E.coli* in surface water samples of Tuul River, and its neighboring pools.

Water samples were collected from three points of the river at Terelji (upper), Gachort (middle), Lun (downstream). Besides these three points, we selected pond and well at Erdene near the river. These collected samples were diluted with sterilized water into 10 and 100-fold dilution. And 100 μL from each sample were plated on desoxycholate-hydrogen sulfide-lactose (DHL) media, which was selected for *E.coli*. Plates were incubated at 36.5 ℃ for 24 hrs. Colonies were formed and counted, and contaminations of *E.coli* in the surface water were calculated as colony-forming units per ml (CFU/ml).

E.coli was detected from the all samples. The number of *E.coli* CFU/mL was 93, 47, 1.3×10^2, 1.3×10^2 and 4.1×10^3 at Terelji, Gachort, Lun, pond and well, respectively. These results suggest that the water possess a potential risk for intestinal infectious disease such as gastroenteritis, which was caused by pathogenic *E.coli*.

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