

Distribution and diversity of bacteriophages specific to the human pathogenic nonhallophylic Vibrios

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More than 70 species of Vibrios are known nowadays. They are divided into two groups: halophilic and nonhalophilic Vibrios. This last one includes species that are pathogenic to humans: *V.cholerae* and *V.mimicus*. *V.cholerae* is a natural habitat of aquatic environments (sea and freshwater). O1 and O139 are of clinical and epidemic importance cause Cholera- epidemic diarrheal disease. *V.cholerae* is generally transmitted via contaminated water, seafood and other products. According to USA CDC classification *V.chloerae* belongs to second category of especially dangerous pathogens and has a high risk of development of pandemy

In recent years, there has been a renewed interest in the ecology and biodiversity of *Vibrio cholerae* in relation with climate change. The warm, subtropical climate of Georgia may provide a favorable environment for these organisms.

Nonhalophilic vibrios and corresponding bacteriophages were isolated from aquatic environments in Georgia during the 2006-2009 years. Water samples were collected at four sites in the Black sea coastal zone : Boulevard, Chorokhi estuary, Supsa ,Green Cape and also in freshwater reservoirs in Tbilisi surroundings: Tbilisi sea, Lisi and Kumisi lakes. Investigation of vibrio strains and corresponding bacteiphages using microbiological molecular and immunological methods were conducted.