

Study the biodiversity of *Vibrio spp.* and *Aeromonas spp.* from Georgian Aquatic Environment

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Representatives of the families *Vibrionaceae* and *Aeromonadaceae* are widespread in marine and freshwater environments, on the surface layer of water and in depth, in the form of free-living populations as well as with algae and dendrites associations. In 2006-2010 the monitoring mission was conducted regarding the Black Sea coast of Georgia and freshwater reservoirs: Lisi Lake, Tbilisi Sea and Lake Kumisi. The goal of the above mentioned study was to isolate and identify *Vibrio spp.* and *Aeromonas spp.* from Georgian aquatic environment, as well as the study of biodiversity. In total, 2092 isolates were isolated from Georgian aquatic environment; out of which 1869 were identified as *Vibrio spp.* and 223 – as *Aeromonas spp.* Biochemically identified 70-100% of the clinical *Vibrio spp.* were confirmed by PCR analysis. Also, the following 11 species of clinical *Vibrio spp.* were revealed from Georgian aquatic environment: *V. parahaemolyticus*, *V. cholera*, *V. vulnificus*, *V. alginolyticus*, *V. metschnikovii*, *V. cincinnatiensis*, *V. holisae*, *V. damsela*, *V. fluvialis*, *V. harveyi*, *V. mimicus*; 8 species of nonpathogenic *Vibrio spp.* – *V. orientalis*, *V. marinus*, *V. pelagius*, *V. campbellii*, *V. splendidus*, *V. nereis*, *V. nigripulchritudo*, *V. natriegens*; and 8 species of *Aeromonas spp.*: *A. salmonicida*, *A. hydrophila*, *A. caviae*, *A. media*, *A. veronii*, *A. schubertii*, *A. sobria*, *A. eucrenophila* were revealed. Biodiversity, quantitative and seasonal distributions of the above mentioned species were studied. The results showed that the best seasons for *Vibrios spp.* is autumn and summer, whereas for *Aeromonas spp.* it is autumn and spring.

keywords: *Vibrio spp.*; *Aeromonas spp.*; biodiversity; georgian aquatic environment;