4th International Congress on Biodiversity "Man, Natural Habitats and Euro-Mediterranean Biodiversity", Malta, 17-19th November 2017

Detection of human enteric viruses in water and shellfish samples collected in Sicily

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Viral pathogens are a common cause of gastroenteritis. Enteric pathogen diseases are caused by contaminated food products as well as drinking and recreational water. Among the food products, shellfish are of great importance for human enteric viruses, since they can be eaten both raw or undercooked.

Foodborne and waterborne infections cause outbreaks affecting a large number of people. As illnesses result from the failure to control a hazard, the aim of this study was to detect the main pathogenic human enteric viruses in the environment by evaluating the presence of viral contamination in shellfish and water collected in Sicily. Hepatitis A virus, Norwalk virus, Adenovirus and Rotavirus were detected over a period of five years (2012-2016) by nucleic acid amplification by end-point and real-time PCR.

Data on shellfish viral contamination is useful since it provides information on the presence of contamination in the environment, chiefly in shellfish production areas. It also helps to monitor the distribution of the viral pathogens in local territory.

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