

## Occurance of *Vibrio damsela* In Free-living Caspian Sea Fishes in Gilan Province

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**Background & Objectives:** Vibrios are important pathogenic bacteria causing a variety of intoxications mostly induced by ingestion of contaminated sea foods or water. The genus *Vibrio* is composed of many different species which naturally reside in sea and salty water environments. Some of the species are potentially pathogens and when consumed in high numbers or following exposure of open wounds to contaminated sea water can cause a variety of human diseases. In this survey, the existence of *V. damsela* was detected in free-living Caspian sea fishes of in Gilan province during autumn and winter months.

**Methods:** Swabs taken from three different parts of the fishes were initially placed and cultured in APW and TCBS media. They were then subjected to a gallery of biochemical tests such as oxidase, growth in the presence of increasing salt concentrations, growth at 4°C and 40°C, lysine decarboxylase, ornithine and arginine dehydrolase, ONPG, VP, Citrat, bile esculin, indole, and string tests. The bacteria were additionally cultured in highly specific media such as cav, KB003 Hi 25 TM and API 20E.

**Result:** From a total of 361 *Vibrio* species isolated from fishes collected in 5 different Caspian sea fisheries stations, 20 were *V. damsela*. The highest isolation rate were from the skin area of the fishes (5%). Since the bacteria can easily be transmitted to human and cause a variety of diseases such as gastrointestinal complications and skin lesions; their mere existence in fish can be considered as a health hazard for those who swim or eat raw or semi-cooked fish products.

**Keywords:** *Vibrio damsela*; Free Living Fish; Gilan Province Waters

