# Summary sheet for vibriosis caused by Vibrio harveyi

**Pretto T.**

*in*

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# Summary sheet for vibriosis caused by *Vibrio harveyi*

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## Aetiological agent

*Vibrio harveyi*

## Epidemiology

Hosts: seabass (*Dicentrarchus labrax*), sole (*Solea senegalensis, Dicologlossa cuneata*), grouper (*Epinephelus* spp.), common dentex (*Dentex dentex*), greater amberjack (*Seriola dumerili*) and gilthead seabream (*Sparus aurata*). Seabass is sensitive especially during early grow out (40-150 g) and hatchery rearing phase.

Morbidity and mortality rates: Variable, depending on age/size, temperature and co-infections; in seabass mortality in the grow-out phase can reach 10% but may further increase if *Betanodavirus*, other bacterial infection or parasitic infestation is present.

Transmission: Horizontal

Factors (environmental, others) for disease outbreak: Outbreaks often occur at seawater temperatures between 18-27°C, although chronic mortalities are reported at lower temperature (winter season). *V. harveyi* can be frequently isolated in co-occurrence with other infections (*Betanodavirus*, *Photobacterium damselae* spp., *Vibrio* spp., ectoparasites).

## Clinical signs

Lethargy, anorexia and ataxia, cutaneous erosion or haemorrhaging at the base of the fins, ophthalmic lesions (keratitis).

## Samples to be collected for diagnostics

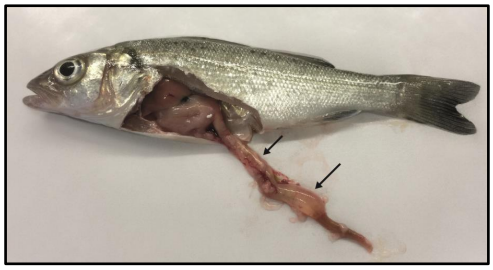
Moribund whole fish or target organs, such as the spleen, trunk kidney, brain, cutaneous or ocular lesions.

## Presumptive diagnostics analysis

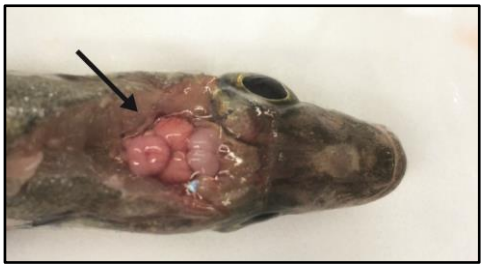
Observation of serous or serous-catarrhal enteritis with marked dilatation of the intestinal lumen, encephalic congestion, cutaneous erosion or ulceration.
Bacterial culture from target tissues on BA, TSA 2%NaCl and marine agar produce colonies after 24-36 h at 22-25°C. Isolates appear generally yellow on TCBS while on CHROMAgar Vibrio may vary between pale lilac, rose or white. Inoculation of API 20E strips with 2%NaCl inoculum produces at 25°C most frequent profiles: 4346525, 4346125, 4344125. Citrate and gelatinase should be read after 48 hours. Some isolates may present luminescence.

## Confirmatory diagnostic analysis

MALDI-TOF, end-point PCR (*toxR* gene) or amplification and phylogenetic analysis of a portion of the *pyrH* gene.



Serous-catarrhal enteritis with marked dilatation of the intestinal lumen



Encephalic congestion