

COLIFORM BACTERIA CONCENTRATION IN TWO COASTAL LAGOONS OF THE MEXICAN PACIFIC OCEAN WITH OYSTER GROWING

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In a coastal lagoon of the Mexican Pacific Ocean (Camichín), where there is a *Crassostrea cortesiensis* oyster growing and other (Santa María de la Reforma) where the *Crassostrea gigas* oyster growing is planned, coliform bacteria concentrations were analyzed, in order to know if they classify as shellfish growing Approved Areas according with: NOM-031-SSA1-1993 (Official Mexican Norm).

For each of the three samplings carried out on 2006 (February, June and September) thirty water samples were collected in The Camichin lagoon and thirty-seven in The Santa María de la Reforma lagoon. Water samples were analyzed for bacteria using dilution test series of three glass tubes, recommended by: NOM-031-SSA1-1993 (Official Mexican Norm).

In The Camichin lagoon, median and geometric mean of the bacteria concentration exceeded in two sample dates the 70 NMP/100ml (for total coliform bacteria) and 17 NMP/100ml (for fecal coliform bacteria) criteria of the official norm and concentrations lower than standard but so close to the limit were observed in February only. An inverse relation was observed between the bacterian concentration and water salinity which changed from 29 ‰ to 4 ‰.

For none of the three samples realized in the Santa María de la Reforma lagoon, coliform bacteria concentrations exceeded the approved area criteria for the oyster growing. For this lagoon, water salinity varied from 37 ‰ to 29 ‰.

The results have been showed to the lagoons users to create an Integrated Management Program which allows a suitable administration of basin residual waters and improve the growing zone quality.