

EFFECTS OF SALINITY AND DIAZINON ON THE ABALONE  
*HALIOTIS VARIA* (GASTROPODA: HALIOTIDAE)

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ABSTRACT

The effects of salinity and diazinon were tested on abalones, *Haliotis varia*, using a bioassay technique. Specifically, three kinds of test were conducted separately: salinity, diazinon, and salinity-diazinon interaction. In the salinity test, the tolerance to salinity was interpreted as survival of the abalone after instantaneous and gradual reduction of the salinity. Abalones survived 100 % in high salinities, 30-35 ‰, but died within 5 days if the salinity was gradually reduced to 15 ‰. In the diazinon test, median lethal concentrations (LC<sub>50</sub>) for 12, 24, 36, and 48 hours were 10.1, 5.2, 4.8, and 2.3 ppm, respectively. In the salinity-diazinon interaction test, the salinity and their interaction did not show any effects ( $P > 0.05$ ) on the test animals in 48 hours. In all treatments, diazinon in concentrations of 1.2, 2.3 and 3.5 ppm, caused significant mortality ( $P < 0.05$ ) in all salinities tested (34, 25, and 20 ‰). Obviously, the highest mortality occurred in the highest concentration of diazinon and the salinity tested. It was concluded that the salinity indirectly caused the high toxicity of the diazinon.