The purpose of this study was to investigate the effects of environmental factors: NaCl concentration and temperature to the protesse production of Vibrio anguillarum wer studied V. anguillarum were collected from seawater, fishes and molluses from the coast of Chomburi province during April-May 1990. Cultures were incubated in Py medium. The turbidities were read spectrophotometrically at wavelength of 430 nm. The protease activities were performed by using azocasein. An analysis of the effects of growth conditions on the growth of V. anguillarum showed that the optima were as follows: NaCl concentration 5% and temperature 25 C. Nevertheless the protease production was relatively low. This may be that the environmental strains is not the causative agent of vibriosis.