

**Length-weight relationship and relative condition factor of pearl oyster, *Pinctada fucata martensii*, cultured in the Tieshangang Bay of the Beibu Gulf, Guangxi Province, China**

**ABSTRACT**

Tieshangang Bay in the Beibu Gulf, Guangxi of China, is a strategic location for pearl farming. Although water pollution has been reported in this bay but the general health of the pearl oyster, *Pinctada fucata martensii*, farmed there has never been assessed. The present study examined the condition of *P. fucata martensii* farmed in the Tieshangang Bay by analyzing its length-weight relationship (LWR) and relative condition factor (RCF). A total of 111 specimens were sampled for measuring their shell height and total weight for determining the LWR and RCF. The coefficient of correlation of the LWR was high ( $R^2 = 0.93$ ), significant at 0.01 level. Negative allometric growth ( $b = 2.7048$ ) was observed. However, *P. fucata martensii* achieved the expected growth in terms of weight, as determined through the RCF (mean 1.13). Negative allometric growth is commonly reported on the wild *Pinctada* spp. collected from different regions. Apparently, the water pollution in the Tieshangang Bay did not compromise the general health of the pearl oyster cultured there. Nevertheless, further study on the farm's surrounding water quality and plankton availability is necessary to investigate the interaction between the growth of the oyster and its culture environment. In conclusion, the *P. fucata martensii* farmed in the Tieshangang Bay was considered healthy and the bay is still suitable for pearl oyster farming.