# CHAPTER V

# CONCLUSION AND RECOMMENDATION

## CONCLUSION

1. Tributyltin oxide (TBTO) is acutely toxic to juvenile sea bass (*L. calcalifer*) with 24-h LC50 of 1.627, 48-h LC50 of 1.193 , 72-h LC50 of 1.038 and 96-h LC50 of 0.987 μg/L, respectively.
2. Tributyltin oxide could increase oxygen consumption rate of *L. calcalifer,* during short-term (1h) and continuous exposure (8 weeks).
3. Tributyltin oxide was observed to reduce growth (length and weight) of *L. calcalifer* in all concentrations employed, but found statistically significant different from the control only at the concentration of 0.1 μg/L during the 8-week experimental period.

## RECOMMENDATION

1. A short-term and long-term toxicity studies should be undertaken at all life stages of *L. calcalifer*.
2. There should be further research on effects of TBTO on metabolism, endocrinological, and immunological effects through biochemical, histological, and physiological studies on *L. calcalifer*.
3. There is a need to investigate mechanisms of TBTO toxicity in *L. calcalifer* particularly emphasize on its fundamental chemistry, and interaction with other biological molecules.
4. Studies of the toxicity of TBTO in other aquatic organisms should be carried out.

5. Monitoring of organotin compounds especially TBT in freshwater, estuarine, and marine waters in Thailand needs to be investigated.