



CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

From the present study, the effect of steroid hormones on ovarian development and moulting in *Penaeus monodon* Fabricius, which collected from Khlong Cone, Samut Sakorn, Chon Buri and Samut Prakarn Province, lead to the following results:

1. The ovarian development of *P. monodon* which collected from Khlong Cone and Samut Sakorn Province resemble with wild caught from nearly Chon Buri province. However, Khlong Cone prawn do have better gonad development than that others.
2. All doses of hormones, both progesterone and β -estradiol₁₇ do not significant effect on ovarian development of the prawn.
3. Total moulting duration cycle of subadult *Penaeus monodon* (20-40 g) is estimated 18 days.
4. The effect of 2-deoxyecdysone resembles with β -ecdysone to reduce moulting duration cycle of subadult *Penaeus monodon*. The moulting duration cycle was reduced approximately 4.9 days from whole moulting cycle.

5. The same results of moulting may obtain from injected both 2-deoxyecdysone and β -ecdysone at different doses of hormone (0.01, 0.1, 0.2, 0.4 $\mu\text{g/g}$ body weight) and at different stage (Stage B, C and D₁") of moulting.

Recommendation

1. Experimental procedure to study the effect of steroid hormones on ovarian development in *Penaeus monodon* will be adjusted. To decrease stress of the prawn, the rearing system need to be well controlled of light intensity to as low as possible. Sampling of prawn may interrupt ovarian development.

2. To understand hormonal effect on prawn maturation, more number of treated prawns need to be collected, so that a statistical analysis could predict precisely.

3. The selection of hormone progesterone and β -ecdysone is recommended to inducing ovarian development and moulting of *Penaeus monodon*.