



## CHAPTER V

### CONCLUSION

#### Conclusions

1. The "blue colour syndrome" of giant tiger prawns was caused by the deficiency of carotenoid pigments.
2. The efficiency of carotenoid deposition in juvenile prawns was dependent on the duration of feeding. The blue juvenile prawns when fed with 50-100 ppm astaxanthin and 100-200 ppm canthaxanthin added diet for two months could turn to normal colour.
3. The astaxanthin showed more efficacy than canthaxanthin for the pigmentation in prawns.
4. Astaxanthin added diet could significantly increase the egg production of the prawns.
5. The diameter of eggs spawned from females that received astaxanthin were significantly bigger than non-receiving group ( $P < 0.01$ ).
6. Most of the astaxanthin in hepatopancreas was in the esterificel forms.

7. The prawn hepatopancreas showed the increase in total carotenoid and astaxanthin after a period of feeding the astaxanthin added diet. The prawns ovaries also showed the increase but a lesser magnitude.

8. Most of the astaxanthin in hepatopancreas was in the esterified forms. In contrast, a higher proportion in prawn ovary was the free astaxanthin.



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