

# ENDOCRINE GLANDS AND HORMONAL IMPLICATIONS IN REGULATION OF SOME PHYSIOLOGICAL ACTIVITIES IN CRUSTACEANS

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*A variety of physiological processes are regulated by hormones. Crustaceans possess both classical epithelial type endocrine glands and also those that are of neural origin. The physiological activities regulated by hormones include: tegument color change, retinal pigment migration, molting, gonadal development and gametogenesis, hydro mineral balance, heart beats, metabolism etc. A few activities are under the control of antagonistic hormones e.g. reproduction is regulated by gonad inhibiting hormone from the eyestalk, and gonad stimulating hormone secreted by the brain and thoracic ganglion, whereas molting is controlled by inhibiting hormone secreted by the eyestalk and stimulating hormone produced by the Y-organ. Biogenic amines function mainly as neurotransmitters and neuroregulators stimulating the release of neurohormones. 5-HT stimulates the release of GSH, whereas NE, DA, E etc release pigmentotrophic hormones. Among the vertebrate steroid hormones, estrogen, progesterone and testosterone were found to be present in gonads and stimulate gametogenesis and spawning in prawns and crabs.*

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