These observations in *M. pustulata* suggest that the injected ecdysone inhibits the synthesis of NSM in the NSC of brain. The absence of stainable NSM in the experimentals cannot be construed as due to release, because the result is observed after two or three days and it is shown in *Diploptera punctata* that the effect of injected ecdysone manifests only after 36 hr[2].

Based on the *in vitro* experiments, Friedel *et al*[2] have suggested that the inhibition of juvenile hormone biosynthesis by ecdysone is indirect and probably mediated through cerebral NSC. They have pointed out that only further work would reveal whether the ecdysone inhibits the release of an allatotropin or induces the release of an allatostatin. The present observation on the inhibition of neurosecretory activity by ecdysone in the blister beetle favours the former possibility. Garcia *et al*[5] believe that in *Rhodnius prolixus* the ecdysone inhibits oogenesis through its inhibitory activity on the NSC of brain.

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MASS MORTALITY OF *MODIOLUS METCALFEI* (HANLEY) (BIVALVIA: MYTILIDAE) IN CUDDALORE BACKWATERS

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MODIOLUS METCALFEI (Hanley) is a burrowing benthic form inhabiting the backwater of Cuddalore coast. The shell is trigonal-ovate; yellowish brown; smooth except for the postero-dorsal area which is covered by a fibrous periostracum. This is known as a weaving mussel as it is attached to the muddy bottoms by means of the byssus thread.

M. metcalfei occurs in the Cuddalore backwater coastal area as vast beds and can be collected almost throughout the year during low tide, except during heavy freshwater inflow. This species is *euryhaline* as any other backwater species and can withstand wide variations in salinity from 5 to 30‰. Recently during an unusual heavy downpour of 135 mm on 23 December 1983, there were flash floods in the backwaters and the organisms in the whole bed area were found dead.

Most of the animals measured from 4 to 7 cm in length. A dense population of 200 to 250 dead animals was observed in a square meter which extended to about 2.5 km^2. During flash floods the bed area had 5 to 7 feet of water.

The surface water temperature, salinity, pH and oxygen recorded before flood were 28°C, 19.1‰, 7.9 and 5.94 ml/l respectively. However, during the flood the corresponding values were 19°C, 0.1‰, 8 and 6.5 ml/l, and after flood these were 29°C, 17.8‰, 7.8 and 4.89 ml/l respectively.

M. metcalfei is *euryhaline* and it can withstand variations in salinity to a large extent (5–35‰) as shown by the laboratory investigations. Even though *M. metcalfei* is *euryhaline* it could not perhaps withstand a sudden lowering of salinity (19‰ to 0.09‰) thus leading to mass mortality.

Mass mortality of *Lingula anatina* (Lam) was reported earlier from Portonovo waters (South India) by Ramamoorthi *et al*[1] and Lazarus and Sreenivasan[2] also reported mass mortality of marine organisms at Kovalam (South West coast of India) due to sudden lowering of salinity during cyclonic storm.

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