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## Accessory glands of male brachyuran crabs could assist safe sperm transport

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Some brachyuran crabs inhabiting the coastal and intertidal regions, possesses glandular structures called accessory glands which are tubular entities, positioned at the posterior part of vas deferens. The morphology and structure of the gland are found to be species specific. In *Parasesarma plicatum*, the posterior vas deferens (PVD) is fringed with small pouch-like accessory glands. In other species such as *Sarmatium punctatum* and *Ocypode* sp. the accessory glands appear as bunches of tubules placed at the distal PVD. Interestingly, in the crab Metopograpsus messor, there are seven long fasciculate tubules; in *Grapsus* sp., the accessory glands are seen as abundant number of tubes. Light microscopically and ultra-structurally, the glandular architecture and their mode of secretion appear diverse in different species. Principally, the secretory products of the accessory glands are protein and carbohydrate. Although the exact role of the accessory gland secretion in brachyuran crabs is still unclear, there are evidences to suggest that they may provide mechanical support for the safe transport of spermatophores in to the spermatheca of the female reproductive system during mating and thereby facilitates the gradual splintering of spermatophores to release free sperm. The accessory gland secretion is also suggested to assist long term sperm storage in brachyuran crabs.

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