



Male external genitalia tracts of Côte d'Ivoire Brackishwaters crabs, *Callinectes amnicola*, (De Rochebrune, 1883; Decapoda: Portunidae).

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ABSTRACT

Objective: The crab *Callinectes amnicola* is Crustacean specie especially found in West Africa. Due to over fishing, the crab *Callinectes amnicola* that is the most exploited specie in Côte d'Ivoire, is facing extinction. In order to palliate this phenomenon, the management of the natural stock or breeding becomes indispensable. These aspects involve the mastering of structural organisation and physiology of the reproductive organs. The present study aims to clarify morphology and function of the external organs of the reproductive system.

Methodology and Results: Investigations were made by histological technique. The external reproductive tract is composed of paired penes and two pairs of pleopods (G1 and G2). Macroscopic observations indicate 7 stages in male sexual maturity. Investigations with light microscope after histological treatment, allowed following the evolution of these two organs. In the juvenile and mature males, the wall of penes is composed of a connective tissue layer, a muscular layer, an internal columnar and ciliated epithelium and relatively broad lumen. *Callinectes amnicola* possesses two types of gonopods, the tubular long first gonopods (G1) and the shorter second pleopods (G2). The first gonopod (G1) consists of coxopodite XIII, subterminal segment, and terminal segment or telopodite, which forms a tube. The tube or groove possesses basal and apical opening. A calcified wall surrounding bundles of striated muscle fibres and glandular areas bound Gonopods. The second gonopod (G2) consists of three segments, the coxopodite XIV, a medial portion and apical spine. It is inserted into the posterior foramen of the first pleopod and it forces semen and spermatophores through the first pleopod. Physiology of the external tract was carried out. Penis and first pleopods are mechanical organs of copulation.

Keys words: *Callinectes amnicola*, penes and pleopods, Morphology, histology.