

# *Alpheus djiboutensis* (De Man, 1909)

Kingdom: Animalia  
Phylum: Arthropoda  
Class: Malacostraca  
Order: Decapoda

Family: Alpheidae  
Genus: *Alpheus*  
Species: *A. Djiboutensis*



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*Alpheus djiboutensis*, a member of Snapping Shrimp (Family Alpheidae) live in burrows together with gobiid fishes. Maximum length is 8 cm in Persian Gulf (Iran, Kish Island). *A. djiboutensis* is common in sponges and corals. *A. djiboutensis* lives on surfaces Sandy depths at depths between 2 and 15 meters symbiosis between *A. djiboutensis* and *Cryptocentrus lutheri* (our observation in Iran, Persian Gulf, Kish Island). Despite being 2 completely different animals. They often live in symbiosis. The goby build a cave into the substrate which undertakes *A. djiboutensis* to clean and maintain, usually the *C. lutheri* stands so that its tail is in permanent contact with the shrimp, as the shrimp through their antennae is in contact with the goby. When the goby is in the position of observation. *A. djiboutensis* was taken its time and leaves his hole to dig. In case of danger, both hide in the same cave. A signal system, bringing about correlated behavior in *C. lutheri* and *A. djiboutensis*, consisted of antennal contact of the shrimp with the fish, tail undulations by the fish and, finally, emergence of the shrimp. *A. djiboutensis* emerged from the burrow only in the presence of the *C. lutheri*. A constant antennal contact was maintained by the partners while *A. djiboutensis* was outside the burrow, emerging from the burrow, the shrimp pushed the fish towards the entrance. Following visual stimulation, the shrimp always retreated back into the burrow with the fish. However, the further back *A. djiboutensis* was located inside the burrow, the less intense was its retreat with the fish. In the absence of the fish, visual stimulation of *A. djiboutensis* had no effect and cleaning of *C. lutheri* by shrimp was observed within the burrow.

**Distribution:** *Alpheus djiboutensis* reported from Red Sea and Australia, We reported for the first time from Iran, Persian Gulf, Kish Island .



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