

SCAMIT CODE: None

Date Examined: January 1993

Voucher By: Don Cadien

SYNONYMY: *Automate dolichognatha* of Wicksten 1984
Automate sp A CSDLAC 1991
Automate sp A SCAMIT 1993

LITERATURE: **Banner, Dora M. & Albert H. Banner. 1973.** The alpheid shrimp of Australia. Part 1: The lower genera. Records of the Australian Museum 28(15):291-382.
Chace, Fenner A. Jr. 1988. The caridean shrimp (Crustacea: Decapoda) of the Albatross Philippine Expedition, 1907-1910, Part 5: Family Alpheidae. Smithsonian Contributions to Zoology 466:1-99.
Wicksten, Mary K. 1981. The species of *Automate* (Caridea: Alpheidae) in the Eastern Pacific Ocean. Proceedings of the Biological Society of Washington 94(4): 1104-1109.
Wicksten, Mary K. 1984. New records of snapping shrimps (Family Alpheidae) from California. Proceedings of the Biological Society of Washington 97(1): 186-190.

DIAGNOSTIC CHARACTERS:

1. Rostrum small, bluntly rounded, falling far short of anterior lateral carapace margins
2. Third and fourth pereopods lacking row of spinules on the mesial margin of the propodus
3. Palmar margins of the major chela not rugose
4. Tip of stylocerite spine reaching less than 2/3 the length of the basicerite
5. 3rd maxilliped propodus/dactylus bearing only 4-5 spine groups dorsally
6. telson armed with a short terminolateral spine pair, a long terminomedial spine pair, and two robust plumose setae between the two spine pairs

RELATED SPECIES AND CHARACTER DIFFERENCES:

1. Differs from *Automate dolichognatha* in lacking propodial spinules on the third and fourth pereopods; in having the stylocerite much shorter than the basicerite; in having 4-5 rather than 12-16 spine groups dorsally on the 3rd maxilliped propodus/dactylus; and in having two plumose setae rather than a cluster of 6-10 plumose setae with a sheaf of long simple setae above them on the end of telson
2. Differs from *Automate rugosa* in having smooth margins on the major chela, and in bearing two dorsal spine pairs on the telson, and a distal spine on the antennal basicerite

DEPTH RANGE: 20 - 30m

DISTRIBUTION: off Church Rock, Catalina Island to Palos Verdes Point, Palos Verdes Peninsula

COMMENTS: This was reported from Catalina Island as *A. dolichognatha* by Wicksten 1984. Her specimen lacked legs, and most other characters fell within the bounds of variation of the pantropical *A. dolichognatha* (Banner & Banner 1973). The lack of propodial spinules on the third pereopod of the Palos Verdes specimen separated it immediately from *A. dolichognatha* (Chace 1988). Comparison with *A. dolichognatha* specimens from Mexican waters (Allan Hancock Foundation Collections, identified by Mary Wicksten) showed both Catalina Channel specimens differed in details of the stylocerite, 3rd maxilliped, and telsonic armature from southern specimens. The Catalina and Palos Verdes specimens proved conspecific despite lack of legs on one. The only other species in the genus reported from waters of Baja California which might range into our area during ENSO events (*A. rugosa*) differs considerably in ornamentation of the chelae. The Palos Verdes specimen was translucent cantalope orange throughout the body when alive. Aside from the scarlet/apricot egg mass, the only other color was in two bright scarlet eyespots on top of the carapace. These spots were in roughly the position where eyes would lie in the genus *Alpheus*.

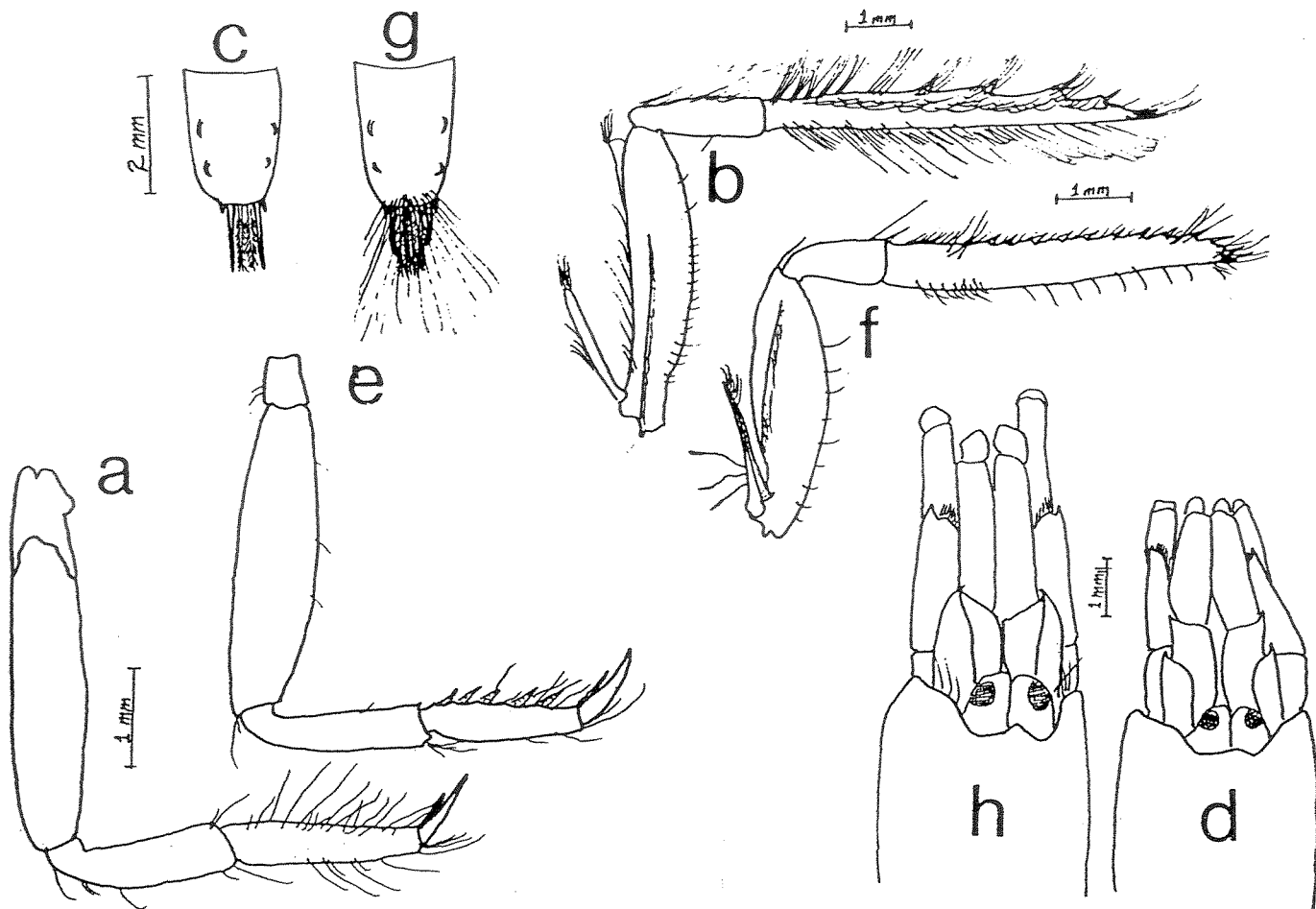


Figure 1) *Automate* sp A a. 3rd leg, b. 3rd maxilliped, c. telson, d. anterior carapace; *Automate dolichognatha* e. 3rd leg, f. 3rd maxilliped, g. telson, h. anterior carapace (a-d 7.3mm CL ♀♀ from Palos Verdes; e, g-h 7.2mm CL ♀♀ from El Bajo Seamount, Gulf of California, Mexico; f 5.2mm CL ♀♀ from Clarion Island, Mexico)