

KEY TO THE ALPHAEIDAE OF CALIFORNIA
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(modified from Wicksten 1984)

1. Triangular movable plate articulated at posterolateral angle of sixth abdominal somite lateral to base of uropod 2
No triangular movable plate articulated at posterolateral angle of sixth abdominal somite lateral to base of uropod 9
2. Rostrum prominent, orbital hoods armed with spines *Alphaeopsis equidactylus*
Rostrum absent, front without spines *Betaeus* 3
3. Dactyls of walking legs slender and simple 4
Dactyls of walking legs stout and bifid 6
4. Chelae of first legs with fingers longer than palm. Large male with gaping fingers of chelipeds *Betaeus longidactylus*
Chelae of first legs with fingers not longer than palm. Large male with heavier, stouter chelae, but without gaping fingers 5
5. Blade of antennal scale broad distally. Fixed finger of first cheliped decreasing in width evenly to sharp curved tip *Betaeus harrimani*
Blade of antennal scale narrow distally. Fixed finger of first cheliped truncate before sharp curved tip *Betaeus ensenadensis*
6. Front curved, not emarginate. Commensal with sea urchins (*Strongylocentrotus* spp) *Betaeus macginitieae*
Front emarginate. Commensal with abalone, or free-living 7
7. Emargination of front shallow. Telson with posterolateral spines small or missing. Commensal with abalones (*Haliotis* spp) *Betaeus harfordi*
Emargination of front deep. Telson with posterolateral spines well developed 8
8. Peduncle of first antenna less than 0.5x carapace length. Merus of cheliped with lower inner ridge with long bristles, upper ridge ending in sharp tooth; chela with fingers subequal to palm; chela 3 times as long as wide *Betaeus gracilis*
Peduncle of first antenna subequal to carapace length. Merus of cheliped with lower inner ridge usually tuberculate, upper ridge with tuft of hair, chela with fingers longer than palm; chela twice as long as wide *Betaeus setosus*
9. Eyes partially or fully exposed dorsally 10
Eyes fully covered by carapace dorsally 12
10. Eyes fully exposed dorsally, rostrum shorter than eyestalks *Automate* 11
Eyes partially exposed dorsally, rostrum much longer than eyestalks *Salmoneus* sp A

- 11. Propodus of 3rd pereopod bearing spines on the posterior margin
 *Automate dolichognatha*
 Propodus of 3rd pereopod setose, but lacking spines on posterior margin *Automate sp A*

- 12. Pereopods without epipods. Dactyls of pereopods 3-5 bifid
 *Synalpheus lockingtoni*
 Pereopods with epipods. Dactyls of pereopods 3-5 simple *Alpheus* 13

- 13. Dactyl of major chela closing horizontally. Merus of third pereopod with prominent inferior
 spine *Alpheus clamator*
 Dactyl of major chela closing vertically. Merus of third pereopod lacks prominent inferior
 spine 14

- 14. Orbital hoods with spines. Minor chela with prominent spine posterior to movable finger,
 movable finger flattened (lamellate) *Alpheus bellimanus*
 Orbital hoods without spines. Minor chela without prominent spine posterior to movable
 finger, movable finger not flattened *Alpheus californiensis*