

THE COMMON HERMIT CRABS OF POINT LOMA

A companion piece to J. Haig, 1977
Preliminary Key to the Hermit Crabs of California.

Superfamily: Paguridea

- Family: Diogenidae
- maxillipeds approximated at their base (Figure 1)
 - chelae equal or subequal in size, or left chelae larger than right.
 - uropods asymmetrical

Paguristes turgidus (Stimpson 1859): C-145, (Figure 2)
See Schmitt, 1921: p. 123, Plate 18 (1); McLaughlin, 1974:
p. 28; Hart, 1982: p. 104, Fig. 36

- antennal flagella with short, widely separated setae
- rostrum subequal to lateral projections
- outer margin of chelae weakly convex: width \leq 2/3 length
- pereopod 4 simple (propodus not produced)

Paguristes bakeri Holmes 1900:
See Schmitt, 1921: p. 124, Plate 18 (2)

- antennal flagella with short, widely separated setae
- rostrum subequal to lateral projections
- outer margin of chelae strongly convex: width = \sim 4/5 length (Figure 3)
- pereopod 4 simple (propodus not produced)

* This species is virtually identical to *P. turgidus* except for the chelae.

Isocheles pilosus (Holmes 1900): C-167
(= *Holopagurus pilosus* in Schmitt, 1921)
See Schmitt, 1921: p. 127, Plate 17 (2)

- antennal flagella with long setae
- left chelae slightly larger than right; both strongly convex, as in *Paguristes bakeri*.
- pereopod 4 subchelate (propodus produced)(Figure 4)
- carapace triangular from anterior (apex) to posterior (base)

- Family: Paguridae**
- maxillipeds widely separated at their base (Figure 1)
 - chelae unequal, right chela larger than left
 - uropods symmetrical or asymmetrical

Parapagurodes laurentae McLaughlin and Haig 1972: C-144 & C-296 (Figure 5)

- rostrum exceeds lateral projections
- palm of right chela armed with 4 to 5 rows of strong spines
- dactyls of pereopods 2 and 3 from 1.5 to 2 times the length of carapace shield
- propodus of pereopod 2 without row of spines
- abdomen coiled
- uropods asymmetrical

Pagurus spilocarpus Haig 1977: C-275 (Figure 6)

- rostrum equal to or shorter than lateral projections
- palm of right chela armed with 2 rows of medium spines forming "Y"
- dactyls of pereopods 2 and 3 less than 1.5 times the length of carapace shield
- propodus of pereopod 2 with single row of spines
- abdomen coiled
- uropods asymmetrical

Orthopagurus minimus Stevens 1927: C-218 (Figure 7)

(= *Pylopagurus minimus* in Schmitt, 1921)

See Schmitt, 1921: p. 144, Plate 16 (1a, b, & c); McLaughlin, 1974: p. 363;

Hart, 1982: p. 116, Fig. 40

- rostrum exceeds lateral projections
- hand of right chela broad, concave, and with large marginal spines
- pereopod 4 rasp with several rows of scales
- abdomen straight - commonly found in scaphapod shells
- uropods symmetrical
- *Telson divided into lobes*

Pylopagurus holmesi Schmitt 1921: C-306 (Figure 8)

- rostrum exceeds lateral projections
- right chela discoid with finely serrate margin
- pereopod 4 rasp with a single row of scales
- abdomen straight - commonly found in scaphapod shells
- uropods symmetrical
- *Telson divided into lobes*

Enallopaguropsis guatemoci (Glassell 1937)

- *Rostrum exceeds lateral projections (slightly)*
- *Rt chela as in O. minimus*
- *P₄ rasp in several rows*
- *Abdomen straight or coiled*
- *Uropods asymmetrical (slightly)*
- *Telson entire, unarmed*

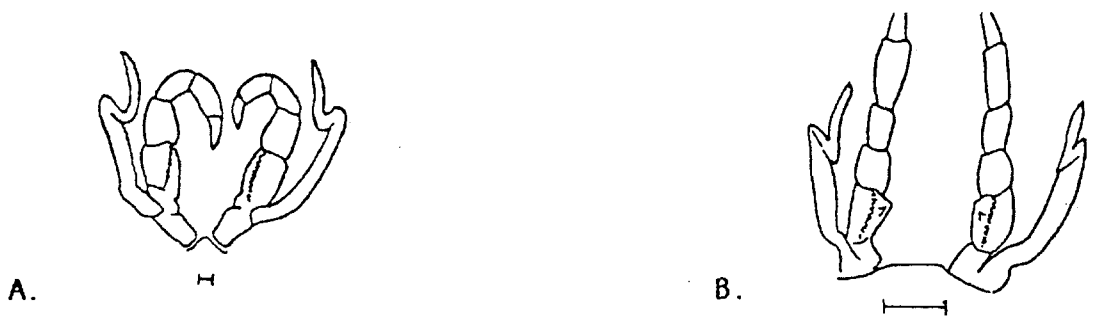


Figure 1. Diagrammatic representation of maxilliped with bases (A) approximated, as in the Diogenidae, and (B) widely separated, as in the Paguridae.

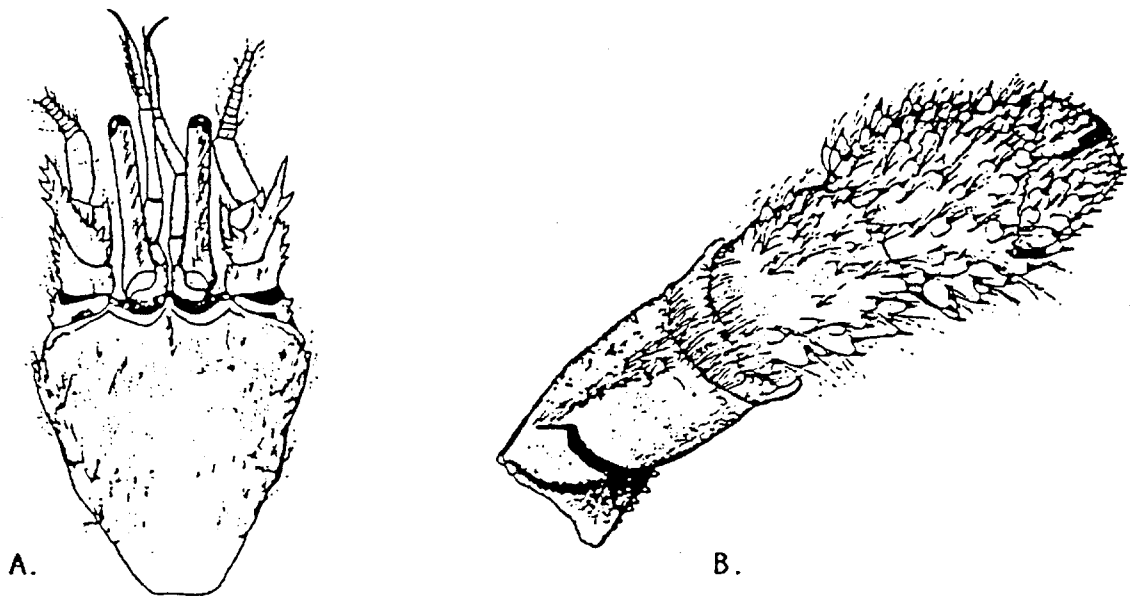


Figure 2. *Paguristes turgidus*. A. carapace shield and anterior appendages, dorsal view; B. left cheliped, dorsal view.

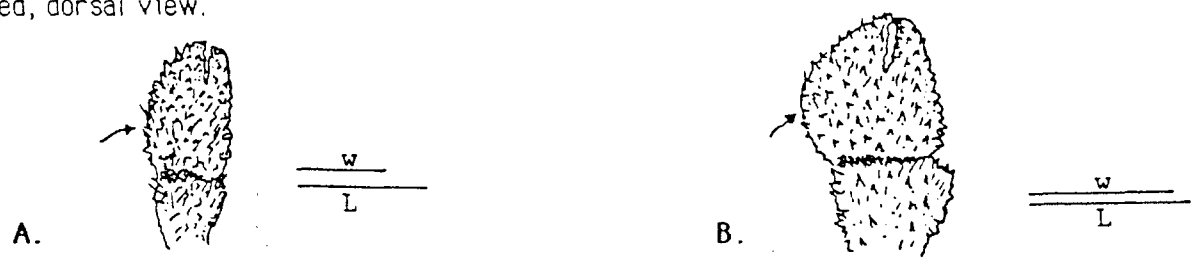


Figure 3. Diagrammatic representation of left chela from (A) *Paguristes turgidus* and (B) *P. bakeri* showing differences in chela width relative to length.



Figure 4. Diagrammatic representation of pereopod 4 in (A) simple form, propodial rasp not produced, and (B) subchelate form, propodial rasp extended as in *Isocheles pilosus*. (Modified from McLaughlin 1974, Figure 5.)

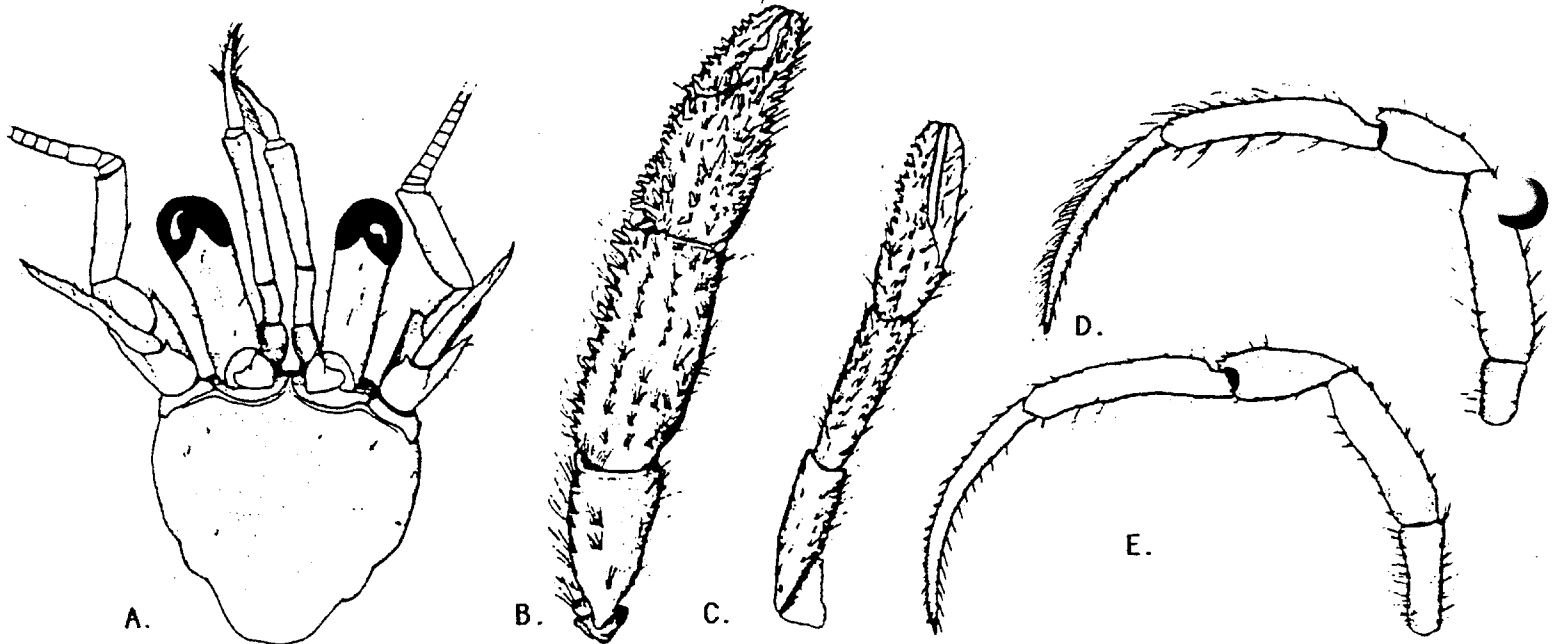


Figure 5. *Parapagurodes laurentae*: A. carapace shield and anterior appendages, dorsal view; B. right cheliped, dorsal view; C. left cheliped, dorsal view; D. pereopod 2, lateral view; E. pereopod 3, lateral view.

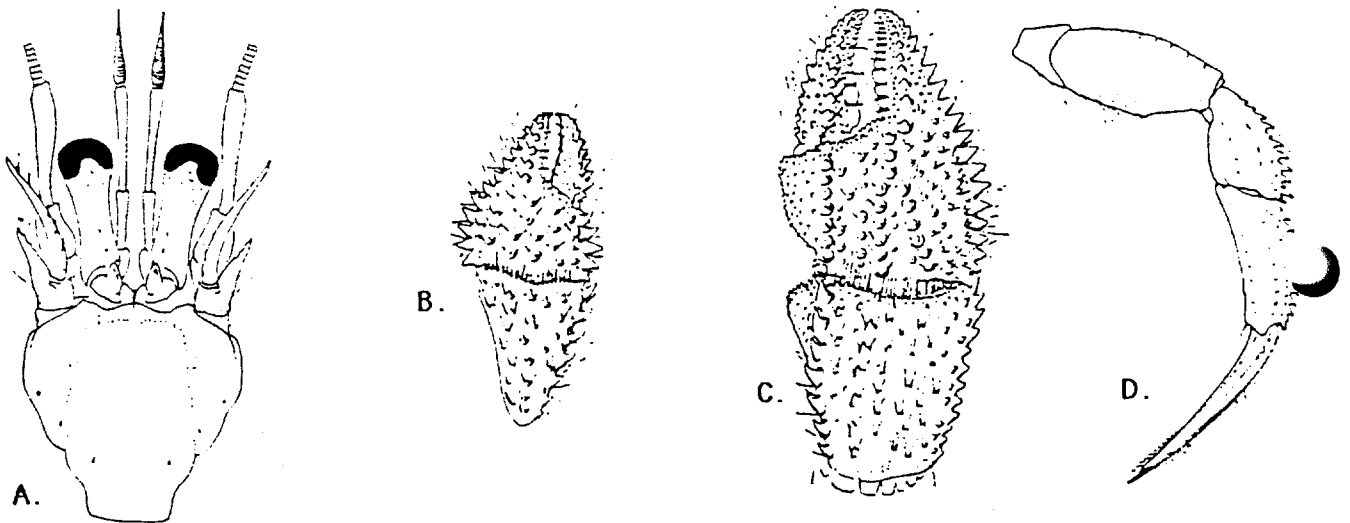


Figure 6. *Pagurus spilocarpus*: A. carapace shield and anterior appendages, dorsal view; B. left chela, dorsal view; C. right chela, dorsal view; D. pereopod 2, lateral view.

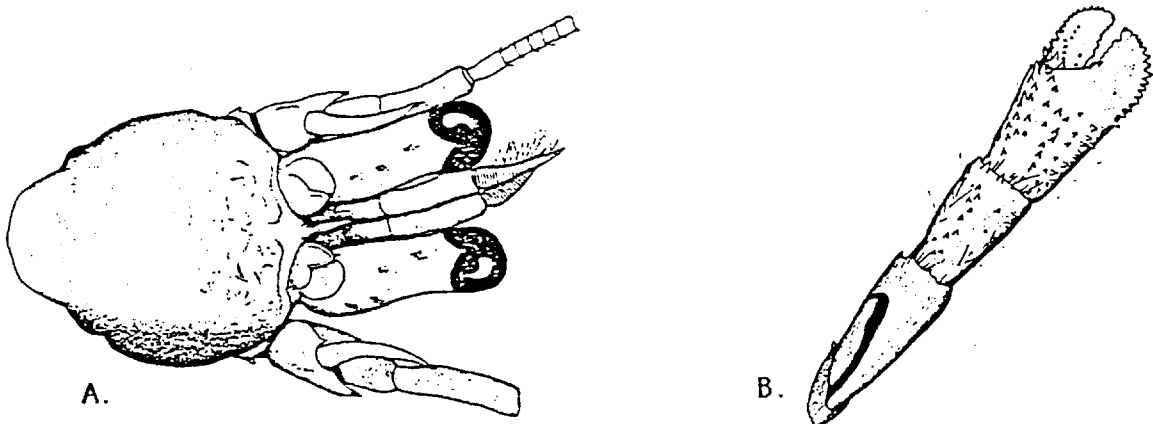


Figure 7. *Orthopagurus minimus*: A. carapace shield and anterior appendages, dorsal view; B. right cheliped, dorsal view.

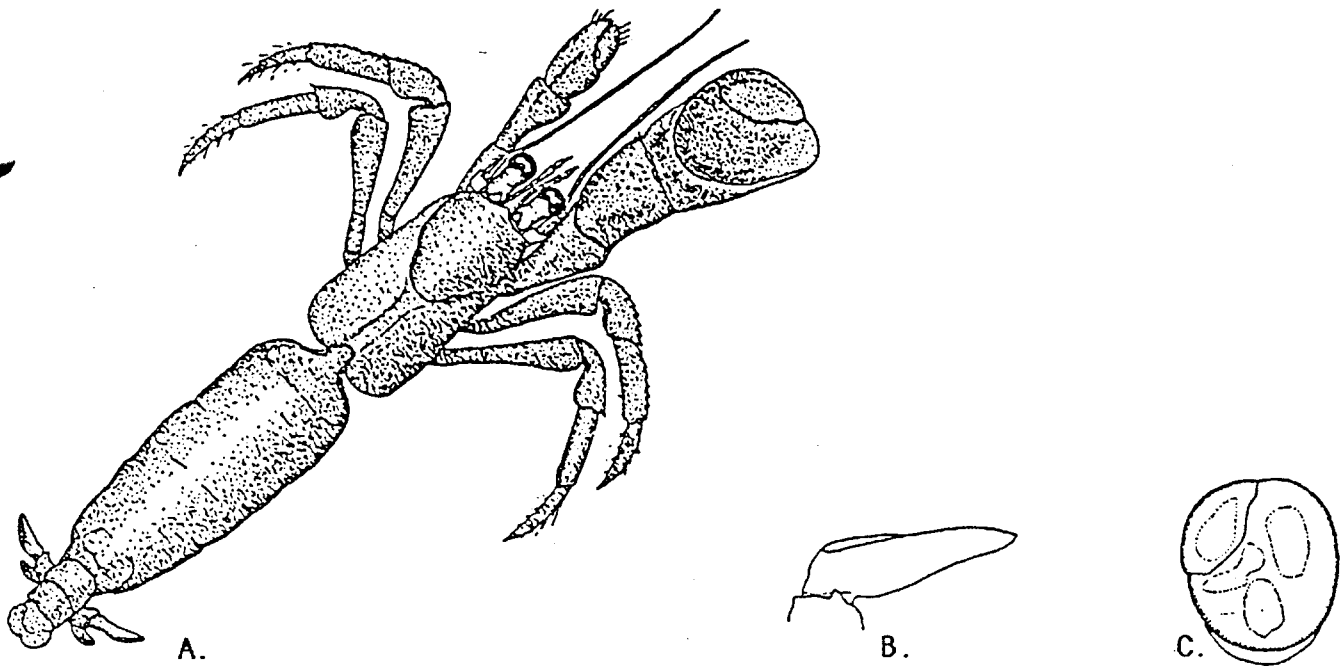


Figure 8. *Pylopagurus holmesi*: **A.** whole animal, dorsal view; **B.** male right cheliped, lateral view; **C.** right cheliped, view of flat upper face.

IN-HOUSE REFERENCES

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- Schmitt, W. L. 1921. The Marine Decapoda Crustacea of California. *U. C. Publ. in Zoology*, Vol. 23
- Stevens, B. A. 1927. *Orthopagurus*, a new genus of Paguridae from the Pacific coast. *Publ. Puget Sound Biol. Sta.*, Vol 5: 245-252

Figure 1. Diagrammatic representation of mxpd₃ with bases (A) approximated, close together, and (B) widely separated.

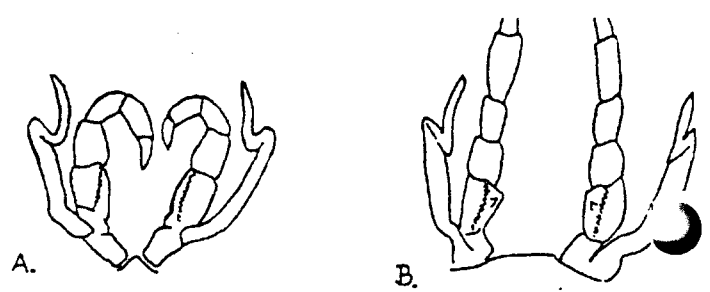


Figure 2. Left chelae from (A) Paguristes turgidus and (B) P. bakeri showing differences in chela width relative to length. (Adapted from Schmitt 1921, Plate 18, Figures 2 & 3.)

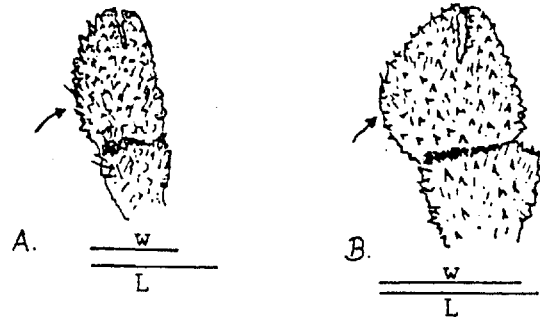


Figure 3. Diagrammatic representation of pereiopod 4 in (A) simple form, propodial rasp not produced, and (B) subchelate form, as in Isocheles pilosus. (Modified from McLaughlin 1974, Figure 5.)

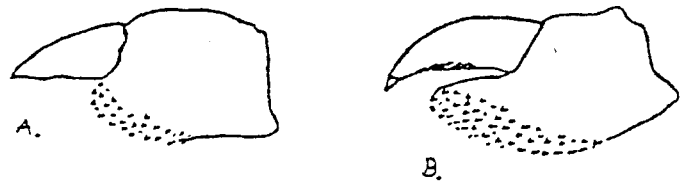


Figure 4. Lateral view of abdomen and posterior cephalothorax regions of Paguristes turgidus showing placement of free pleopod; one of a pair. Note pleopod orientation tucked away behind pereiopod 5 and attached beneath large lateral fold of abdomen.

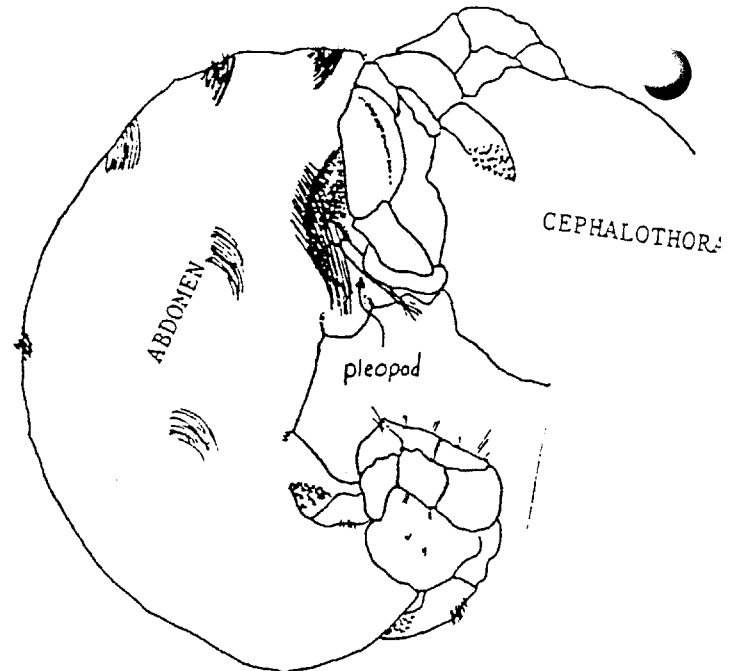


Figure 5. Diagrammatic representation of mxpd₃ crista dentata (A) without accessory tooth and (B) with accessory tooth.

