SYNONOMY: *Photis californica* Barnard 1962 (in part)

LITERATURE:

Cadien, DB. 2015. Amphipoda of the Northeast Pacific (Equator to Aleutians, intertidal to abyss): IX. Photoidea – a review. LACSD 22 July 2004 (revised 21 May 2015)

Conlan, Kathleen E. 1983. The amphipod superfamily Corophioidea in the northeastern Pacific region. 3. Family Isaeidae: systematics and distributional ecology. National Museums of Canada Publications in Natural Sciences, no. 4: 1-75.

Barnard, J. Laurens. 1962. Benthic Marine Amphipoda of Southern California: 1. Families Aoridae, Photidae, Ischyroceridae, Corophiidae, Podoceridae. Pacific Naturalist 3, no. 1: 3-72.

Shoemaker, Clarence R. 1942. Amphipod crustaceans collected on the Presidential Cruise of 1938. Smithsonian Miscellaneous Collections 101, no. 11: 1-52.

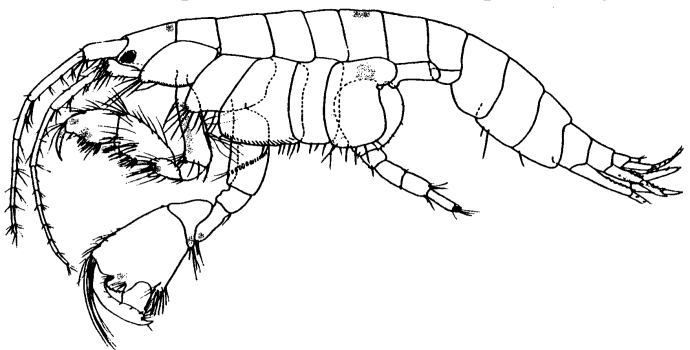
DIAGNOSTIC CHARACTERS (See Figures following page)

- Males and females with spotty pigmentation, especially in the head and gnathopods 1 and 2; antenna 2 weakly geniculate; coxae 1–4 moderately setose; epimeron 3 subquadrate (not produced).
- Male Gn1 palm excavate (or slightly concave). carpus subequal to propodus; hind margin of carpus broad (about one-half anterior margin); often with dark spot distally on propodus
- Male Gn2 transverse, defined by tooth; dactyl simple, without tooth along inner margin; palmar tooth present, square (or blunt); coxa 2 setose, but not dense (~15-20 setae along ventral margin); often with dark spot distally on propodus
- Female Gn1 palm concave to slightly excavate; dactyl not serrate;
- Female Gn2 basis without disto-lateral crests; palm oblique, palm sinuous, distally acute

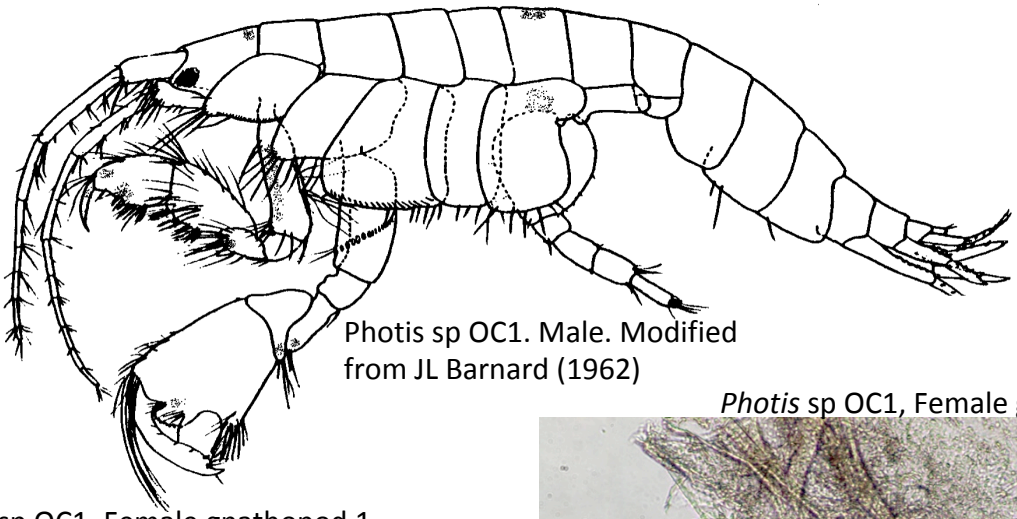
Similarities:

- Males differ from *Photis brevipes* in the smaller overall size, absence of a tooth at mid-point of dactyl, less setose coxae, less geniculate antenna 2, and distinctive body pigmentation.
- Females are quite similar to *Photis brevipes* but also differ in the much smaller overall size, more excavate palm of gnathopod 1, the less serrate dactyl of Gn1, less setose coxae, and distinctively spotty body pigmentation.
- Males are similar to *Photis californica* in size, but differ in the blunt palmar tooth of Gn2 and distinctively spotty body pigmentation.
- Females differ from *Photis californica* in the sinuous and distinctly acute Gn2 palm (vs. rounded palm in *P. californica*), absence of a disto-lateral crests on the Gn2 basis, and the distinctively speckled body pigmentation.

Notes: *Photis* sp OC1 was recognized by SCAMIT in March 1995 (SCAMIT NL Vol. 13, No. 11) after review of coloration patterns in the genus, specifically *Photis californica*. There proved to be several differences in morphology found during this re-examination, which prompted erection of *Photis* sp OC1 as a provisional taxon for the variant specimens. Though the structure of the male gnathopods was originally illustrated in Barnard 1962 (see Figure 12A) as representative of *P. californica* Stout 1913, it more closely resembles *Photis* sp OC1. That latter has been widely recognized in SCB monitoring programs for decades, and while it can co-occur with *P. brevipes* and *P. californica,* it is more commonly found in shallow samples, where the other two species range from shallow to deep water (60 – 100m).



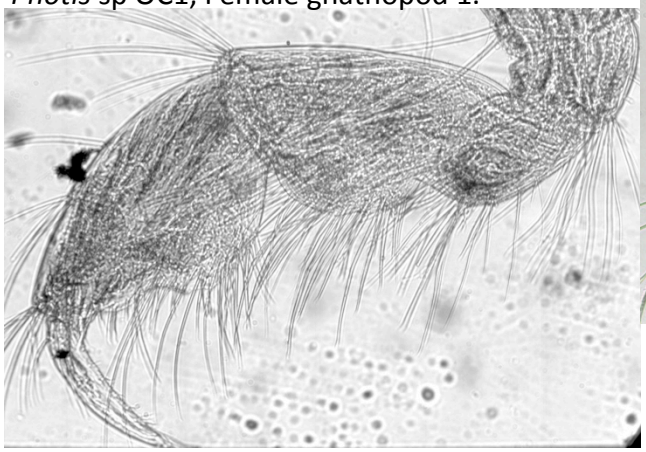
Photis sp OC1. Male. Modified from JL Barnard (1962)



Photis sp OC1. Male. Modified from JL Barnard (1962)

Photis sp OC1, Female gnathopod 2.

Photis sp OC1, Female gnathopod 1.



Photis sp OC1. Male. Photo by D. Pasko

Photis californica. Male Gn2 (F); Female Gn2 (I). From JL Barnard (1962)