

Key to the Caprellidae of the West Coast of North America

1. Body elongate, slender cylindrical; thorasic segments long and narrow; eyes lateral; antennae and mouthparts formed normally; free living..... -2

Body short, torso-ventrally flattened; thorasic segments short and wide; eyes dorsal; antenna and mouthparts often reduced; parasitic.....Gyamidae (not treated here)
2. Gills on pereonites 2 to 4; mandible lacking molar..... -3

Gills on pereonites 3 and 4 only; mandible with molar..... -4
3. Abdomen 5 segmented, short; mandible lacking accessory plates, inner plate of maxilliped smaller than outer.....Paracercopidae (Key A)

Abdomen unsegmented, rudimentary; mandible with accessory plates, inner and outer plates of maxilliped subequal.....Phtisicidae (Key B)
4. Pereonites 3 and 4 with rudimentary appendages (or of a different form than pereopods 5-7); mandibular palp present.....
.....Aeginellidae (Key C)

Pereonites 3 and 4 lacking appendages; mandibular palp absent....
.....Caprellidae (Key D)

Key A

The only representative of the Paracercopidae in North America is
Cercops compactus.

Key B - Phtisicidae

Pereopods 3 and 4 six segmented, markedly elongate; pereopods 5-7
normal?.....Hemiproto sp. A, new species

Pereopods 3 and 5 three segmented, pereopod 4 one-segmented.....
.....Perotripus brevis

Key C - Aeginellidae

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| 1. | Pereopods 3 and 4 one segmented..... | -2 |
| | Pereopods 3 and 4 two segmented..... | -7 |
| 2. | Pereopod 5 normal (same as pereopods 6 and 7)..... | <u>Tritella</u> -3 |
| | Pereopod 5 rudimentary..... | -5 |
| 3. | Pereopod 5 inserted at midlength of pereonite 5; body thin
elongate, palmar margin adult male straight with medial tooth
(benthic-deep water)..... | <u>Tritella tenuissima</u> ¹ |
| | Pereopod 5 inserted posteriorly on pereonite 5; body not thin;
lateral spines present on anterior pereonites; palmar margin
adult male concave lacking medial tooth..... | -4 |
| 4. | Lateral spines on pereonites 2-4 directed laterally; flagellum of
antenna 2 slender with long setae..... | <u>Tritella pilimana</u> |
| | Lateral spines on pereonites 2-4 directed anteriorly; flagellum
of antenna 2 stout, with short setae..... | <u>Tritella laevis</u> |
| 5. | Pereopod 5 two segmented..... | -6 |
| | Pereopods one segmented, body fragile small..... | <u>Tritelopsis</u> sp. A; new genus, new species |
| | | <u>Aeginellidae</u> |

¹ I believe this species should be erected to new genus.

6. Molar apparently absent; female abdomen with a pair of one segmented appendages and pair of setose lobes; Gnathopod 2 with pair proximal grasping spines.....Pseudoliropus vanus²
- Molar present; female abdomen with a pair of flattened setose lobes only; Gnathopod 2 with single proximal grasping spines.....
.....Urilops sp. B³, new genus, new species
7. Pereopod 5 normal (not rudimentary, six segmented); cephalon with single distinct sharp spine.....Deutella -8
- Pereopod 5 rudimentary, or if six segmented, different than pereopods 6 and 7; cephalon smooth or multispined..... -9
8. Dorsum of pereonites with numerous large tubercles (offshore benthic and Channel Islands).....Deutella venunosa
- Dorsum of pereonites lacking large tubercles⁴.....Deutella californica
9. Pereopod 5 rudimentary, 2-3 segmented.....Mayerella -10
- Pereopod 5 with 5 or 6 segments, modified..... -11
10. Male abdominal appendages with few setae, round apically mid ventral abdominal hump with small teeth.....Mayerella banksia
- Male abdominal appendages with cap of minute setules, mid-ventral abdominal hump smooth.....Mayerella sp. A, new species
11. Pereopod 5, six ? segmented, rudimentary, body smooth; male abdominal appendages two segmented, medial border of terminal segment with sharp serrations.....Absysicaprella sp. B, new species
- Pereopod 5, six segmented, elongate, setose; body with many dorsal and lateral spines.....Aciconula sp. A, new species

² Known from single immature female specimen.

³ Known only from single mature female.

⁴ Small pointed or blunt tubercles may be present mid-dorsally on posterior pereonites.

Key D - Caprellidae

1. Female abdomen with pair uni-articulate appendages....(Metacaprella) -2
 Female abdomen lacking appendages; pair of lobes only.....(Caprella) -3
2. Flagellum of antenna 1 larger than peduncle; male anterior pereonites not greatly elongated; antenna 1 peduncle slender, not setose.....Metacaprella anomala
 Flagellum of antenna I shorter than peduncle; male anterior pereonites elongated; antenna I peduncle short, inflated, densely setose.....Metacaprella kennerlyi
3. Single ventral spine present between insertions of Gnathopod 2... -4
 Ventral spine lacking between insertions of Gnathopod 2..... -~~8~~10
4. Cephalic spine long, slender, anteriorly directed; adult male Gnathopod 2 propodus four times as long as broad, club shaped (widened distally).....Caprella californica
 Cephalon lacking distinct spine (small anterior cephalic knob may be present); male Gnathopod 2 less than four times as long as broad, ovate..... -5
5. Pereonites III and IV with laterally directed pleural spines (above insertion of gills)..... -6
 Pereonites III and IV lacking pleural spines..... -7
6. Pleural spines large (when viewed from above); body generally slender; adult male (>12 mm) anterior pereonites extremely elongate; Gnathopod 2 distal projection reduced barely extends beyond palmar margin (distal poison tooth usually absent or greatly reduced).....Caprella mendax
 Pleural spines small; body relatively stout; male anterior pereonites not extremely elongate (except in senile males); Gnathopod 2 distal projection extends well beyond palmar margin (distal poison tooth present, small).....
 Caprella equilibra (in part)
7. Pereonite V lacking obvious lateral projections anteriorly¹; Gnathopod 2 basal spines small or absent..... -8
 Pereonite V with large lateral projections anteriorly; Gnathopod 2 basal spines large, sharp.....Caprella equilibra (in part)

¹ These spines may be reduced, but distinct. A slight anterior inflation should not be interpreted as a spine. Always view from above for distinction.

8. Grasping spines located medially; antenna I peduncle elongate, thin; Gnathopod 2 distal projection prominent, dactyl with dense long setae on inner margin..... -9
- Grasping spines located proximally; antenna II peduncle elongate, inflated; Gnathopod 2 distal projection massive; dactyl with scattered short setae on inner margin.....Caprella sp. D², new species
9. Gnathopod 2 distal projection prominent, poison tooth present, palmar margin with medial setae, dactyl with dense long setae on inner margin.....Caprella pildigita
- Gnathopod 2 distal projection and poison tooth absent, entire palmar margin with long setae, dactyl without setae, but with minutely serrate along inner margin.....Caprella sp. E³, new species
10. Cephalon smooth, no distinct spines or tubercles..... -11
- Cephalon with single or paired spines or tubercles..... -19
11. Cephalon, pereonites I and II, and Gnathopod 2 not setose; lateral border of pereonites III and IV lacking spines..... -12
- Cephalon, pereonites I and II, and Gnathopod 2 heavily setose; dorsum and lateral border of pereonites III and IV (at least) spined.....Caprella mutica new record
12. Propodus of pereopods with one pair of grasping spines..... -13
- Propodus of pereopods with several pair of proximal grasping spines; propodus markedly rounded, body relatively compact.....Caprella unguina new record
13. Propodus of pereopods relatively stout, grasping spines proximal to middle of palm; basis of male Gnathopod 2 not longer than propodus, dactyl not setose..... -14
- Propodus of pereopods slender, elongate, grasping spines medial; basis of male Gnathopod 2 much longer than propodus, dactyl setose.....Caprella gracilior

² This may be C. iniquilibra of Mayer, 1903.

³ The grasping spines here are actually more proximal than medial, but not proximal to the degree of Caprella sp. D. Oviparous female Gnathopod 2 essentially identical to male, lacks distal tooth and poison tooth. No adult made on hand, only subadult - This may be C. pilipalma of Dougherty & Steinberg, 1953, but they did not mention ventral spine - C. pilipalma is also described as having dorsally directed thin cephalic spine and minute body tuberculations.

14. Flagellum of antenna I multiarticulate, flagellum of antenna II at least biarticulate; body usually not markedly compact..... -15
 Flagellum of antenna I and II uniarticulate; body very compact...
Caprella greenleyi
15. Propodus of Gnathopod 2 with two accesory spines at base of grasping spine; in male, Gnathopod 2 propodus with antero-dorsal projections; pereonite I three times longer than head.....
Caprella irregularis
- Propodus of Gnathopod 2 with less than two accessory spines at base of grasping spine; in male, gnathopod 2 propodus without antero-dorsal projections; pereonite I not more than twice as long as head..... -16
16. Dorsal spines or tubercles present, at least on posterior pereonites; antenna 1 more than half body length in female, more than two-thirds in male..... -17
 No dorsal spines or tubercles present; antella 1 less than half body length..... -18
17. Flagellum of antenna 1 longer than peduncle; in male, antenna 2 equal in length to peduncle of antenna 1.....Caprella striata
 Flagellum of antenna 1 shorter than peduncle; in male, antenna 2 shorter than peduncle segments 1 and 2 of antenna 1....Caprella alaskana
18. Gills round; in male, Gnathopod 2 setose, poison spine normal; in female, Gnathopod 2 attached near middle of pereonite II.....
Caprella drepanochir
- Gills long, oval; in male, Gnathopod 2 not setose, poison spine enormous; in female, Gnathopod 2 attached at anterior end of pereonite II.....Caprella laeviuscula
19. Cephalon with single major projection (spine, knob, or tubercule) (scattered small tubercles may be present..... -20
 Cephalon with paired major projections..... -27
20. Propodus of pereopods with at least one pair of grasping spines.. -21
 Propodus of pereopods lacking grasping spines.....Caprella brevirostris
21. Cephalic projection distinctly triangular, usually pointing anteriorly, male Gnathopod 2 with large proximal poison spine elevation..... -22

- Cephalic projection a dorsally pointing rounded knob, or spine;
male Gnathopod 2 lacking proximal poison spine elevation..... -26
22. Dorsal tuberculations on pereonites lacking or minute..... -23
Dorsal tuberculations on pereonites present and obvious..... -25
23. Propodus of pereopods 5-7 concave; grasping spines proximal; male
antenna I peduncle not enlarged..... -22
Propodus of pereopods 6 and 7 markedly convex, grasping spines
medial, male antenna I peduncular segments markedly inflated.....
.....Caprella andreae
24. Pereonite 5 shorter than or equal to pereonites 6 plus 7; male
Gnathopod II with distinctly rectangular distal palmar projec-
tion; pleura strongly developed at maturity.....Caprella pennantis
Pereonite 5 longer than 6 plus 7; male gnathopod with flattened
triangular distal palmar projection; pleural development weak at
maturity.....Caprella natalensis
25. Dorsal tuberculations on pereonites large; antenna I peduncle
scarcely setose; propodus of male Gnathopod 2 shorter than
pereonite II, basal ridge triangular (broadens distally).....
.....Caprella verrucosa
Dorsal tuberculations on pereonites small; antenna I peduncle
finely setose; propodus of male Gnathopod 2 as long as pereonite
II, basal ridge rectangular.....Caprella incisa
26. Head and body with numerous tuberculations, antenna 2 with dense
swimming setae..... -27
Body with few dorsal tuberculations; antenna 2 with few short
swimming setae; male Gnathopod 2 and body setose.....Caprella borealis
27. Propodus of Gnathopod 2 lacking distal poison tooth, palmar margin
thickly set with long setae, body tuberculations small and low...
.....Caprella pilipalma
Propodus of Gnathopod 2 with distinct distal poison tooth; male
Gnathopod 2 and much of body finely setose ("furry"); body
tuberculations large and raised.....Caprella pustulata
28. Large dorsal spines on posterior pereonites; in male, Gnathopod 2
poison spine normal; pereonite I shorter than or equal to head...
.....Caprella ferrea
Small dorsal tuberculations on posterior pereonites; in male,
Gnathopod 2 poison spine enormous; pereonite I longer than
head.....Caprella rudiuscula