Tabular Key to Male Gnathiid Isopods from the North East Pacific

| Characters | Caecognathia crenulatifrons | Caecognathia Sp. A | Caecognathia SD1 | Caecognathia sanctaecrucis | Caecognathia CS1 | Gnathia MBC1 | Gnathia steveni | Gnathia tridens | Gnathia coronadoensis | Gnathia clementensis | Gnathia trilobata | Gnathia productatridens |
|---|---|---|--|----------------------------|----------------------------|--------------------------------------|-------------------------------------|------------------------------|---|---|-----------------------------|-------------------------------|
| Overall Body Size | Average (3.5 – 4.75) mm | Small (2.6 mm) | Small (2.76 – 3.36) mm | Average (4.4 – 4.6) mm | Average (4.1 – 5.0) mm | Very Small (2.2 mm) | Very Small (1.2 - 2.2) mm | Small (2.35 – 3.35) mm | Small (2.45mm) | Large (4.6 - 8.5) mm | Average (3.15 – 3.6) mm | Average (2.75 – 3.74) mm |
| Body Pigmentation | Brown Mottling | Brown Mottling | None | Tiny Black Dots | None | None | Brown Mottling | None | None | None | None | None |
| Overall body setosity | Light | Setose but not hirsuit | Hirsute | Hirsute | Hirsute | Light | Light | Setose but not hirsuit | Asetose | Hirsuit | Setose but not hirsuit | Setose but not hirsuit |
| Mandibles with distinct outer tooth | Present | Present | Absent | Absent | Absent | Present | Present | Present | Absent | Absent | Present | Absent |
| Mandibles 1 or 2 articles | One article | Two articles | One article | One article | One article | One article | One article | One article | One article | One article | One article | One article |
| Mandibular blade | Microcrenulate | Crenulate | Microcrenulate | Microcrenulate | Smooth | Dentate | Dentate | Crenulate | Crenulate | Crenulate | Crenulate | Crenulate |
| Eyes | Sessile | Sessile | Sessile | Sessile | Sessile | Sessile | Sessile | Sessile | Absent | Peduncular | Sessile | Sessile |
| Eye Color | Dark Brown | Reddish Brown | Golden or Amber | Dark Brown | No Pigment | Reddish Brown | Dark Brown | Reddish Brown | No eyes | No Pigment | Golden or Amber | Red and White Checkerboard |
| Eye Shape | Oblong and Flat | Round and Convex | Oblong and Convex | Round, Convex | Round, Convex, | Round and Convex | Round and Convex | Round and Flat | No eyes | Round and Convex | Oblong and Convex | Oval and Flat |
| Eye Lens Texture | Compound but smooth | Compound but smooth | Compound but smooth | With many tuberculations | With many tuberculations | Compound but smooth | Compound but smooth | Compound but smooth | None | Compound but smooth | Compound but smooth | Compound but smooth |
| Eye Lens Supraoccular Ornamentation | No | Yes | Yes | Yes | Yes | Yes | Slight | No | No | Yes | Slight | No |
| Dorsal Sulcus | Yes | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cephalic Pit | No | No | No | No | No | No | No | No | Yes | Yes | No | No |
| Cephalon | Tuberculate | Setose but Smooth/No Tubercles | Setose, Tuberculate with spines | Setose and Tuberculate | Setose and Tuberculate | Setose but Smooth/No Tubercles | Setose and Tuberculate | Asetose and Smooth | Asetose and Smooth | Setose and Tuberculate | Setose and Tuberculate | Setose and Tuberculate |
| Cephalic Dorsal Carina | No | No | Spine crown | No | No | Yes | Yes | No | No | No | No | No |
| Frons | 1 transverse lobe with minute crenulations | 1 extended narrow lobe with crenulations | l broad truncate lobe w/ medial carina | l large triangular lobe | 1 extended, narrow lobe | One extended box process | 3 processes medial triangular | 3 processes all subequal | 3 processes laterals longer than middle | 2 lrg laterall & 4subequal central processes | 3 processes all subequal | 3 processes all subequal |
| Pleopods (setosity) | Asetose | Setose | Asetose | Asetose | Asetose | Setose | Setose | Setose | Setose | Asetose | Asetose | Asetose |
| Pleopods (shape) | Paddle-like | Paddle-like | Paddle-like | Paddle-like | Paddle-like | Paddle-like | Paddle-like | Paddle-like | Paddle-like | Long, Narrow | Long, Narrow | Long Narrow |

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|--|--|--|--|---|---|--|---|---|--|--|--|--|
| Epimeres (condition) | Laterally projected | Laterally projected | Laterally projected | Laterally projected with spines | Laterally projected with spines | Not laterally projected | Not laterally projected | Laterally projected | Laterally projected | Laterally projected | Laterally projected | Laterally projected |
| Epimeres single or double | Single, Dorsal only | Single, Dorsal only | Single, Dorsal only | Double Ventral larger | Double Ventral larger | Single, Dorsal only | Single Dorsal only | Single, Dorsal only | Single, Dorsal only | Double Ventral larger | Double Ventral larger | Single |
| Dorsal epimeres prominent posteriorly | No, subequal Visible Tapering acutely | No, subequal Visible Tapering acutely | No, subequal Visible Tapering acutely | Yes, each epimere is bifid with two small spines on each side | Yes, each epimere is bifid with two small spines on each side | No, subequal, very small not easily seen | No, subequal very small not easily seen | Slightly, Epimeres Visible Tapering acutely | No, subequal Visible Tapering acutely | No, subequal Visible Tapering acutely | No, subequal all small not easily seen | No, subequal, Visible Tapering acutely |
| Ventral epimeres larger | N/A | N/A | N/A | Yes, each as one large spine | Yes, each as one large spine | N/A | N/A | N/A | N/A | Yes, each as one large spine | Yes, each as one large spine | N/A |
| Ventral Epimeres prominent posteriorly | N/A | N/A | N/A | Yes | Yes | N/A | N/A | N/A | N/A | Yes | Yes | N/A |
| Telson extends beyond the endopod | No | No | No | No | No | No | No | No | No | No | Yes | No |
| Telson Size | Long and wide | Medium and narrow | Long and wide | Medium and narrow | Long and narrow | Short and wide | Short and wide | Short and wide | Long and wide | Long and narrow | Long and narrow | Long and narrow |
| Telson Shape | Triangular ▼ | Triangular ▼ | Arrowhead- shaped | T-Shaped | T-Shaped | Triangular ▼ | Triangular ▼ | Triangular ▼ | Triangular ▼ | T-Shaped | Arrowhead- shaped | Arrowhead- shaped |