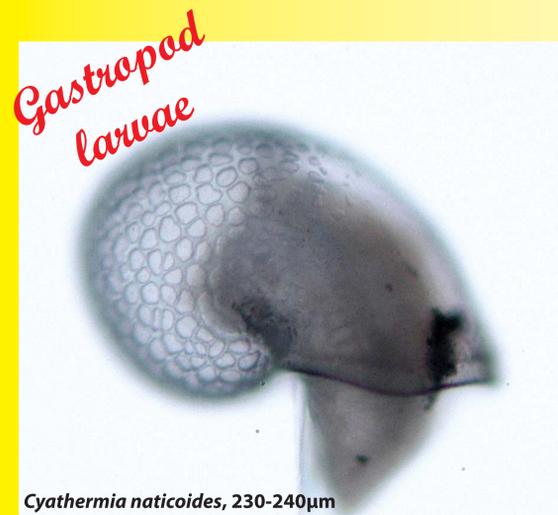


Photographic identification guide to larvae at hydrothermal vents: <http://www.whoi.edu/vent-larval-id/>

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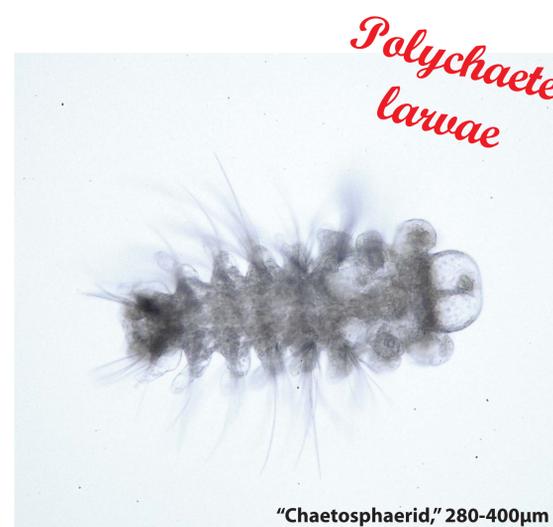
Purpose of the guide

We would like to announce our "Photographic Identification Guide to Larvae at Hydrothermal Vents," available online at: <http://www.whoi.edu/vent-larval-id/>, or by request as a CD or hard copy. The purpose of this guide is to assist researchers in the identification of larvae of benthic invertebrates at hydrothermal vents.



Contents of the guide

Our work is based mainly on plankton sampling at the East Pacific Rise (EPR) 9-10°N vent field from 1991 - present. In this first version of the guide, we have included frequency data from large-volume plankton pump samples and time-series sediment trap samples collected prior to the eruption at this site in 2005/2006. The guide includes an "Introduction and Methods" section that details the collection and processing of larvae, a section on "Terminology" for gastropod and polychaete larvae, and "Literature Cited" for descriptions of species and papers with collection and frequency data. Gastropod, bivalve, polychaete, arthropod, and other larval types are sorted alphabetically, and gastropod larvae may also be sorted by size. Each species information page also includes thumbnail images of species that are similar in appearance.



While our sampling was limited to EPR 9-10°N, the guide is useful to researchers working in other areas, since a number of the species range from 21°N to the southern EPR, and some have congeners in other chemosynthetic environments, e.g., *Lepetodrilus* (Juan de Fuca Ridge, Mid-Atlantic Ridge, wood falls), and *Bathymodiolus* (Mid-Atlantic Ridge, seeps).

We welcome contributions to the guide

We would like to expand the guide by including additional species from other areas. We welcome contributions from the ChEss and InterRidge community. Please contact Susan Mills (smills@whoi.edu) or Stace Beaulieu (stace@whoi.edu) if you have photos you would like to have included on the website.

Acknowledgements

We are indebted to the taxonomists who described these species, whose papers appear in the Literature Cited section. In the case of the gastropods, they often included SEM's of the larval shells, which greatly assisted us in assembling this guide. In particular, we would like to thank Anders Warén for assistance with identifications of larval and juvenile gastropods and for advice on mounting specimens for SEM. In addition, we thank Stacy Kim, Pat McMillan, Anne Beaudreau, Andrew Sweetman, and Diane Adams for help in learning how to distinguish larval gastropods.

This work was funded by NSF grants OCE-9619605 to L. Mullineaux, D. Manahan and C. Young, OCE-9712233 to L. Mullineaux, C. Fisher and C. Peterson, OCE-0424593 to L. Mullineaux, A. Thurnherr, J. Ledwell, D. McGillicuddy and W. Lavelle, ATM-0428122 to H. Singh, T. Shank, L. Mullineaux, M. Neubert and others, by a WHOI Deep Ocean Exploration Institute grant to L. Mullineaux and S. Beaulieu and by a grant from the ChEss project of the Census of Marine Life to L. Mullineaux, S. Beaulieu and S. Mills.



Example page

GASTROPODA
Lirapex granularis Warén & Bouchet, 1989. Family Peltospiridae.

Size: 215-220µm
 Morphology:
Lirapex has an unusual type of sculpture consisting of the linear sculpture typical of peltospirids with numerous tubercles between them, especially near the axis of coiling. Both fade out about halfway to the aperture. When viewed from the bottom under the light microscope, a thick bar running across the shell is visible just posterior to the aperture. The aperture is nearly straight, with a wide rim tapering toward the posterior. The shell is transparent and glassy-looking.

Frequency:
 The species was described from EPR 21°N and has been reported from 9°N, though adults are rarely collected there.
 Pump EPR 1999-2000: Occasional
 Pump EPR 2004: Occasional
 Trap EPR 2004-2005: Occasional

See also Fig. 3 in Mullineaux et al. (1996) and p. 115 in Desbruyères et al. (2006)

Can be confused with:

<i>Peltospira</i> spp. is similar in size to <i>Lirapex</i> . However, <i>Peltospira</i> is more streamlined in appearance and doesn't have tubercles or the bar posterior to the aperture.	<i>Eklinopelta fundulus</i> is similar in size to <i>Lirapex</i> ; however, it is about 10µm smaller, more angular in appearance, has a raised platform at the base and no tubercles.	Unknown peltospirid 240µm closely resembles <i>Lirapex</i> in general morphology, but does not have tubercles and is slightly larger.
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