**Description**

**Size:** Individuals up to 33 mm in length and 4 mm in width (Hartman 1969). The described specimen (Fig. 1) was 22 mm in length.

**Color:** Specimens collected in Coos Bay are white or pink iridescent.

**General Morphology:** Fusiform (cigar-shaped) and weakly segmented, with 33 setigers (Blake and Ruff 2007).

**Body:** Unlike in other Opheliids, the body of *Ophelia assimilis* is not clearly regionated, although anterior ten setigers are abranched (Fauchald 1977; Blake and Ruff 2007).

**Anterior:** Anterior region inflated slightly. Ventral depression present, but not a true groove (Fig. 2). Prostomium pointed and triangular (Fig. 1).

**Trunk:** A mid-ventral groove is present from setiger eight to posterior (*Ophelia*, Fauchald 1977) (Fig. 2).

**Posterior:** Last three setigers with paired prominent dorsolateral ridges (Hartman 1969) (Fig. 3). Pygidium consists of a pair of large ventral lobes and about 11 smaller subglobular lobes in two crescents above the anal pore (Hartman 1969) (Fig. 3).

**Parapodia:** Low folds, biramous. Parapodia on first setiger are small and inconspicuous while the remaining setigers are larger. Interramal pores present. Middle parapodia ventrolateral and with crenulated branchiae (Fig. 4).

**Setae (chaetae):** All capillary and simple (Ophelidae, Fauchald 1977). Noto setae longer than neurosetae (Hartman 1969) (Fig. 4).

**Eyes/Eyespots:** None.

**Branchiae:** No branchiae on first 10 setigers or four posterior-most setigers (postbranchiate) between which there are 19 branchiate setigers (Fig. 1). The branchiae often disintegrate in preservation.

**Pharynx:** Bears an eversible and sack-like proboscis (not shown) which is unarmed and probably used for digging (Dales 1967).

**Genitalia:**

**Nephridia:** Six pairs of nephri diopores present on setigers 11–16 (branchial segments 2–7) (not shown).

**Possible Misidentifications**

Among the Ophelidiidae, there are at least six genera in our area, all of which are sand or mud dwellers with limited segmentation, simple prostomia, biramous parapodia and capillary setae.

*Travisia* spp. are cigar-shaped, without a ventral groove, but with branchiae and their posterior parapodia have large lobes.

*Polyophthalmus* spp. have a ventral groove along the whole body length, no branchiae but lateral eyes. They have a short anal tube with small anal cirri (Fauchald 1977).

*Ophelia* spp. have a fusiform body morphology, inflated anterior and posterior ventral groove. They generally have branchiae on setigers 8–10.

*Armandia* spp. have a ventral groove along the whole body length, cirriform branchiae, lateral eyes and a long slender anal
1. *Ophelia assimilis* x12:
prostomium triangular, eyeless;
body cigar-like, weakly segmented;
33 setigers- 10 abranchiate, 19 with
branchiae, and 4 postbranchiate.

2. Deep groove (anterior,
ventral view) x12: from setiger 8.

3. Pygidium (lateral view) x30:
3 dorsolateral ridges; a pair of
ventral lobes; smaller lobes above.

4. Some medial parapodia x30:
biramous parapodia, long notosetae;
crenulated branchiae.
tube with paired long and internally attached ventral cirri and shorter dorsal cirri. *Armandia brevis* is the only local species in the genus *Armandia*.

*Thoracophelia* (= *Euzonus*) spp. live on clean sandy beaches and have three distinct body regions, an inflated anterior set off from the thoracic region with a marked constriction and a narrow posterior with branchiae and a ventral groove.

*Ophelina* (= *Ammotrypane*) spp. are recognizable by a ventral groove along the whole body length (Fauchald 1977), cirriform branchiae only on posterior setigers, no lateral eyes and a long narrow anal tube with two internally attached ventral cirri (ibid). Two species occur in our area: *O. assimilis* and *O. pulchella* (Blake and Ruff 2007). *Ophelia pulchella* has 38 setigers, is 19–23 mm long. This species can be recognized from *O. assimilis*; it has nine abranchiate anterior setigers, rather than 10 (Hartman 1969). It has a long conical prostomium and long flowing tufts of setae.

**Ecological Information**

**Range:** Type locality is Pacific Grove, California. Known range includes Oregon to California.

**Local Distribution:** Coos Bay, near bay mouth and Netarts Bay (Stout 1976).

**Habitat:** Clean sandy beaches. In Coos Bay, on spit near bay mouth in nearly marine conditions. Oftentimes found where current is strong (Wilson 1948).

**Salinity:** Found in full strength seawater (salinity 30).

**Temperature:**

**Tidal Level:** Intertidal, occurring at mid tide level where it is uncovered several hours each tide (England, Wilson 1948).

**Associates:** The razor clam, *Siliqua patula*, and olive snails (Olivellidae).

**Abundance:** Not common, but can be abundant locally and may have a narrowly dense distribution as in other local Opheliidae species.

**Life-History Information**

**Reproduction:** Eggs and sperm spawned into water. In similar species *O. bicornis* ripe eggs are dark green/brown.

**Larva:** Little is known about the larvae of *O. assimilis*. The larvae of *O. bicornis*, however, are trochophores with wide prototrohc and fairly short pelagic duration; metamorphosis occurs by day 19 as larvae attach to substrate by four anal papillae and parapodial lobes (Wilson 1948).

**Juvenile:**

**Longevity:**

**Growth Rate:**

**Food:**

**Predators:**

**Behavior:**

**Bibliography**


