

SIPUNCULA CHARACTER TABLE

DEFINITIONS

1. **Retractor muscle:** Muscles connected to body wall and introvert that are used to withdraw introvert into trunk region; look for number and arrangement/attachment points
2. **Microvilli:** Look for presence/absence on oesophagus, the region of the intestine between the pharynx and descending loop
3. **Nephridia:** Saclike organs in anterior portion of trunk used as gonoducts in excretion; look for number of pairs and form (lobed or simple)
4. **Introvert:** Retractable area of body used for feeding and sensory perception; look for length relative to trunk, and presence/absence of hooks or papillae.

Species	Pairs of retractors (#, attachment)	Microvilli (present/absent)	Nephridia (number, form)	Introvert (length, hooks/ papillae)	Comments
<i>F: Phascolosomatidae</i> <i>Apionsoma misakiana</i>	2 pairs; attached mid-body	Absent	2 – bilobed, orange <i>(can occasionally see from outside)</i>	Long (>10x trunk length); hooks and papillae	Sight ID usually due to nephridia; common
<i>F: Golfingiidae</i> <i>Nephasoma diaphanes</i>	1 pair	Absent	2- simple	2 sets of hooks	Inhabits foram tests; often cigar- shaped
<i>F: Golfingiidae</i> <i>Golfingia margaritacea</i>	2 pairs	Absent	2- simple	½ length of trunk; Hooks absent	Sometimes in sml gastropod shells
<i>F: Golfingiidae</i> <i>Thysanocardia nigra</i>	1 pair; attached posteriorly	Present (obvious)	2- simple	Hooks absent	Common
<i>F: Phascolionidae</i> <i>Phascolion sp A</i>	Single muscle attached at posterior end of trunk	Present	1 large sac	longer than trunk; Hooks absent	Common, sight ID, usually in gastropod shells; trunk covered w/ papillae
<i>F: Sipunculidae</i> <i>Siphonosoma ingens</i>	2 pairs	Present	2- simple or branched	Hooks absent	Spindle muscle attached at posterior*; thick, obvious longitudinal muscle bands
<i>F: Sipunculidae</i> <i>Sipunculus nudus</i>	2 pairs; short	absent	2- simple	Short, w/ triangular papillae	Spindle muscle not attached*; external beaded appearance <i>(created by intersection of circular and long. muscle)</i>

* *S. ingens* and *S. nudus* are easy to confound when juvenile

NOTES ABOUT DISSECTION:

1. Find the ventral nerve chord, you will cut starting at posterior (wider end) on dorsal side (opposite of nerve chord). This way, you avoid cutting into any of the characters you will need to identify the animal.
2. To cut, use iris scissors and tent the skin to cut a window into the trunk, from there cut anteriorly and pull up slightly on the lower scissor blade to minimize damage to internal structures
3. Cut to anterior of nephridia
4. Go slow and be patient

* Spindle muscle is delicate and easily torn/difficult to find; confusion of juvenile *S. ingens* and *S. nudus* is common