

**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.

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