Contractile vessel attached on pharynx

Themiste > Thysanozoon may have villi (small on Thy) and lobed tubules on Themiste
vessel stops above intestine

Anus may have wing muscles or caecum

cuticle:
- find mid-ventral line
- nephridia will split on ventral line (can't see)
- retractor muscles attach
- cut to slide to flap open (not down middle)
- rinse out and pin back

Two families w/ longitudinal muscle bands:
- Phascolosomatidae
- Siphonodidae

Brown bands on introvert, papillae (Phascolosoma agassizii)
Squares on epidermis

Sipunculus nudus

Fully tentacle

Siphonosoma benign

Villi on contractile ossae generally found above attachment to intestine

tentacles on Thyasorella similar to Siphonosoma

4 sp. Themiste in Southern California

use Stephan' Edmunds

intertidally - subtidally (not below 10M)

Onchinesoma sp A

drive in gastropod tube

Single retractor may have some small bifurcation

at posterior tip

can confuse w/ Phascolion (found north)
G. minuta
- lentacles
- papilla
- introvert

G. sp. 1
- deep slope
- tail

2 retractor
4 retractor

G. (nephosoma)
G. (Gollingia)

-margaritacea californica

billed nephridia

G. misaliiana
- very tiny hook
- papillae on posterior end body
Zig-zag pattern of musculature contraction epidemis
*Thysanoecia nigra*

Long, slender

Constriction between introvert/track

*G. musculiana* hooks very small (use oil)

Long, slender, bilabed nephridia, very long intestines

*Onchitesoma* usually found in gastropod shells

Single large retractor muscle to posterior

Not large

*G. minuta* 3-4 mm (Gibbs calls diaphanes)

Clear constriction between introvert and body absent (present in *musculiana*)

Introvert shorter