

Mystic Aquarium – Long Island Sound Invertebrates Dichotomous Key

- 1a. Body had no obvious appendages go to 2
- 1b. Body has obvious appendages go to 10
- 2a. Body is soft with no external exoskeleton or shell go to 3
- 2b. Body is contained within a hard shell or exoskeleton; spines may be present..... go to 4
- 3a. Planktonic adult with stinging tentacles trailing from a bell **Scyphozoa**
- 3b. Sessile adult with pedestal attached to substrate by a basal disc, and short stinging tentacles surrounding an oral disc..... **Actinaria**
- 4a. Body is nearly spherical and covered with spines **Echinacea**
- 4b. Body is enclosed in one or two hard shells Go to 5
- 5a. Single shell Go to 6
- 5b. Two separate shells hinged together Go to 9
- 6a. Shell $\geq 2"$ long Go to 7
- 6b. Shell $\leq 1"$ long Go to 8
- 7a. Shell nearly round..... **Euspira heros**
- 7b. Shell pear-shaped with long siphonal channel..... **Buccinidae**
- 8a. Shell nearly round with short, pointed spire **Littorina littorea**
- 8b. Shell oval with moderate spire..... **Nassarius obsoletus**
- 9a. Shell has radial ribs, extending from the hinge to the outer edge of the shell **Pectinidae**
- 9b. Shell does not have ribs, only growth lines across the shell **Mercenaria mercenaria**
- 10a. Animal lives within a mollusk shell and has broad, robust claws **Pagurus pollicaris**
- 10b. Does not live in a mollusk shell go to 11
- 11a. Body is visibly segmented and/or has jointed appendages go to 12
- 11b. Body is not visibly segmented and has 5 arms **Asteriidae**
- 12a. Clearly defined tail go to 13
- 12b. No visible tail go to 14
- 13a. Tail is robust and segmented; large claws..... **Homarus americanus**
- 13b. Tail is thin and pointed; two compound eyes, unstalked..... **Limulus polyphemus**
- 14a. Rounded, spiky carapace with long, thin legs and chelae **Libinia emarginata**
- 14b. Flat oval carapace with short and stout chelae/claws Go to 15
- 15a. Front edge of carapace has rounded teeth, grooves **Cancer irroratus**
- 15b. Front edge of carapace has pointed teeth **Carcinus maenus**