

## KEYWORDS AND PHRASES WITH DEFINITIONS FOR LESSONS 9,10,AND 11

A few terms from previous lessons are included here for the convenience of the instructor

**Adult clam** – a clam that has reached maturity

**Anus** – the opening through which waste matter is expelled; in the clam, the waste travels from the anus into the excurrent siphon

**Anterior adductor muscle of clam** – the muscle located towards the front of the shell that contracts to pull the shell toward the midline of the body; in the clam, the muscle works to close the shell

**Anterior adductor muscle scar** – the small round-shaped scar located on the anterior or front end of the clamshell.

**Anterior end of clam** – the front end of the clam

**Bivalve** - a mollusk, having a shell consisting of two hinged parts. Example: A clam

**Byssus** - a tuft of fine silky strong filament that comes from a gland in mollusks that is used to attach them to a surface

**Clam larva** - an early stage in the life cycle of the clam

**Chondrophore**- a spoon like, tooth like structure on the left hinge of the clam's shell

**Crystalline style of clam** – a rod-shaped structure that is turned by cilia in a sac connected to the stomach; the turning motion helps to bring food into the stomach and sort it for digestion

**Cultured clam** – clams grown in a controlled environment such as a hatchery or farm

**Digestive gland of clam** – an organ or structure that secretes an enzyme that helps break down the food

**Digestive system**-the organs that work to break down food into a form the organism can use

**Dorsal** – referring to the top (the dorsal side or top side)

**Egg** – a female reproductive cell

**Esophagus**-the tube through which food passes from the mouth to the stomach

**Excretory pore** – a small opening in the excretory system of the clam

**Excurrent siphon** – the exhalant siphon through which waste material exits the clam's body; smaller than the incurrent siphon and located on the hinge side of the clam

**External Anatomy** – the outside structure of an organism

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**Fecundity** - the quality or power of producing abundantly

**Fertilization** – to initiate reproduction of a species; the fusion of gametes (sperm and egg) to produce a new organism

**Foot** - also called pedal of clam; a hatchet shaped muscular structure used for movement

**Gill (of clam)** – an organ that exchanges gases for respiration; an organs that traps and transports food toward the mouth using mucus and cilia; two pairs of gills in the mantle cavity area of a clam

**Growth rings** - the thickened ridges on the shells of a clam which indicate yearly growth

**Gonad of clam** – reproductive organ of the clam

**Heart** – a hollow muscular organ that pumps blood to the body of the clam

**Hinge line adductor scar** – the mark or scar inside the shell that shows where the hinge ligament connected the two shells of the bivalve together

**Hinge ligament** – tissue that joins the two shells of the bivalve (clam) together

**Incurrent siphon** – the inhalant siphon; the siphon through which water containing its food (plankton) enters the clam; larger than the excurrent siphon

**Infauna** - animals that live in the soft sea bottom

**Internal Anatomy** – the internal structure of an organism

**Intestine** - the tube like portion of the digestive system that extends from the stomach to the rectum

**Invertebrate** - having no backbone or spinal column

**Juvenile** – for our project, a clam (or other organism) that has not yet reached its adult size or sexual maturity; usually a juvenile clam measures  $\frac{1}{2}$  "-1  $\frac{1}{4}$ ".

**Labial palp of clam** – small flap that sorts and directs food to the mouth of the clam

**Left valve (of clam shell)** – The side of the clam which has the umbo

**Life cycle** – the repeating stages of life that an animal goes through from sperm and egg to mature adult

**Mantle of clam** – a thin, whitish membrane/lining that encloses the internal organs of the clam; a function of the mantle is new shell growth when the mantle secretes the limy shell

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**Mollusk** - marine invertebrates having a soft un-segmented body and a shell covering, including clams, oysters, and snails

**Mouth of clam** –the opening through which food enters the digestive system of the clam

***Mya arenaria*** - the binomial (two term) name of the soft-shell clam, a bivalve; an edible clam with a thin oval-shaped shell found in the coastal regions of the U.S. and Europe

**Muscle scar** – an area on the inner side of the valve (shell) that shows a distinctive shape

**Nephridia (excretory gland)** - a long, glandular tube and bladder that helps to remove wastes from the clam

**Organism** – any living system (plant, animal, fungus, or micro)

**Pallial line** – the line on the inner shell of the clam that shows where the mantle was attached

**Pediveliger stage** – a late larval stage in which most of the muscular characteristics of the adult exist

**Periostracum** - a substance that forms the colored layer of the bivalve shell

**Posterior adductor muscle** - the muscle located towards the rear end of the shell that contracts to pull the shell toward the midline of the body; in the clam, the muscle works to close the shell

**Posterior adductor muscle scar** – the small round-shaped scar located on the inside posterior or rear end of the clam shell

**Posterior end** – the rear or back end of the clam

**Rectum** – the final portion of the intestine

**Shell (of clam)** – the external skeleton of the clam which is formed by the secretions from the mantle of the clam in growth ridges or rings

**Siphon** - a tube shaped organ through which water is taken in and expelled; found in clams and other bivalves

**Spat** - a young clam measuring less than ½ “

**Sperm** – a male reproductive cell

**Stomach of clam** – a saclike digestive organ

**Stress ring** – a thinner shell ridge on the shell of the clam

## KEYWORDS AND PHRASES WITH DEFINITIONS FOR LESSONS 9,10,AND 11

**Style sac** – a small sac which holds the crystalline style used in the digestion process of a clam

**Trochophore** – a type of free-swimming larvae with several bands of cilia; early stage in life cycle of clam

**Umbo** - in biology, a small knoblike bulge on the surface of a bivalve shell near the hinge, which was formed when the clam was a juvenile

Veliger – the stage in development that follows the trochophore larva stage;

**Ventral** – referring to the bottom side (the ventral side)

**Visceral mass of clam - visceral cavity contains the internal organs of the clam**

**Voracious** – consuming great amounts of food