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# Online Dictionary of Invertebrate Zoology: U V

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# U

**uliginose, uliginous** a. [L. *uliginosus*, swampy] Of or pertaining to mud; swampy.

**ultradextral** a. [L. *ultra*, beyond; *dexter*, right] (MOLL: Gastropoda) Having a shell appearing to be sinistral but soft parts organized dextrally; hyperstrophic.

**ultrasinistral** a. [L. *ultra*, beyond; *sinister*, left] (MOLL: Gastropoda) Having a shell appearing to be dextral but soft parts organized sinistrally; hyperstrophic.

**ultrasonic** a. [L. *ultra*, beyond; *sonus*, sound] High frequency sounds inaudible to the human ear.

**ultrastructure** n. [L. *ultra*, beyond; *struere*, to construct] The fine structure of cells seen with an ultramicroscope or an electron microscope.

**umbel** n. [L. *umbella*, a sunshade] 1. An arrangement in which a number of processes, nearly equal in length, spread from a common center. 2. (CNID: Anthozoa) In Umbellulidae, polyps coming from a common center, forming a cluster, as in the anthocodia of Umbellula . 3. (PORIF) Processes extending from the clavules.

**umbilical suture** (MOLL: Gastropoda) In phaneromphalous type shells, a continuous line separating successive whorls.

**umbilicus** n.; pl. **-lici** [L. *umbilicus*, navel] 1. A navel, or navel-like depression 2. (MOLL: Gastropoda) A cavity formed around the shell axis between the faces of the adaxial wall of the whorls where these do not coalesce to form a solid columella. *a.* In conispiral shells opening at the base of the shell, excepting hyperstrophic type. *b.* Involute shells may have two umbilici, an upper or adapical and lower or abapical in asymmetrical types, and left and right in isostrophic types. **umbilicate** a.

**umbo** n.; pl. **umbones, umbos** [L. *umbo*, knob or boss] 1. (ARTHRO: Crustacea) *a.* In Cirripedia, a portion of the plate from which successive growth increments extend. *b.* In bi-

valves, apical portion of either valve. see **beak**. 2. (ARTHRO: Insecta) In Coleoptera, an elevated knob on the humeral angle of the elytra. 3. (BRACHIO) Apical portion of either valve containing the beak. 4. (BRYO: Gymnolaemata) In Cheilostomates, a blunt knob on the front wall of the ovicell. 5. (MOLL: Bivalvia) That region of the valve surrounding the point of maximum curvature of the longitudinal dorsal profile; when not coinciding with the beak, extending to its base. **umbonal** a.

**umbonal angle** (MOLL: Bivalvia) In pectinoid shells, the angle of divergence of the umbonal folds; in other shells the divergence of the posterodorsal and anterodorsal parts of the longitudinal profile.

**umbonal cavity** (MOLL: Bivalvia) 1. Part of the valve interior which lies within the umbo and under the hinge plate. 2. In oysters, that part of the left valve interior lying in the umbonal region beneath the ligamental area.

**umbonal depression** (MOLL: Bivalvia) A depression at the umbo tip.

**umbonal fold** (MOLL: Bivalvia) In pectinoid shells, a ridge originating at the umbo and setting the auricle off from the shell body.

**umbonal pole** (MOLL: Bivalvia) The point of maximum curvature of the longitudinal profile of the dorsal valve.

**umbonal reflection** (MOLL: Bivalvia) The reflection of the dorsal margin of the valves anterior to and usually over the umbos.

**umbonal region** (MOLL: Bivalvia) The region of the umbo.

**umbonal spine** (ARTHRO: Crustacea) In Conchostraca, a hollow, curved, looped or nodular spinose projection of variable size, sometimes covering the entire umbo.

**umbone** see **umbo**

**umboniform** a. [L. *umbo*, knob or boss; *forma*, shape] 1. Like or shaped like an umbo. 2. (MOLL: Gastropoda) Having a low blunt or rounded spire, nearly lenticular in shape. see **rotelliform**.

**umbonuloid** a. [L. *umbo*, knob or boss; Gr. *eidōs*, like] (BRYO:

Gymnolaemata) In cheilostomates, autozooids having frontal shields formed by calcification of the basal side of the epifrontal fold.

**umbo-veliger** (MOLL:Bivalvia) In oysters, the last larval stage.

**umbraculate, umbraculiferous** a. [L. *umbraculum*, sun-shade] Bearing an umbrella-like structure or organ.

**umbrella** n. [L. dim. *umbra*, shade] 1. Any umbrella-shaped structure. 2. The ectodermal cells located anterior to the preoral band of cilia in the development of a trochophore larva. 3. (CNID: Scyphozoa) The deep to shallow bowl like body of a medusa or jellyfish; the bell. see **exumbrella**, **subumbrella**. 4. (MOLL: Cephalopoda) The velum or inter-brachial web interconnecting the head and arms of the finned octopods.

**umbrella organ** see **sensillum campaniformium**

**unarmed** a. [A.S. *un-*, not; L. *arma*, arms] Without armature of any kind, i.e., shield, spurs, spines, plates, teeth, etc.

**unarticulate** a. [A.S. *un-*, not; L. *articulare*, to divide] Not jointed or segmented.

**uncate** a. [L. *uncus*, hook] Hooked; hamate.

**unci** pl. **uncus**

**unciform** a. [L. *uncus*, hook; *forma*, shape] Hook-shaped.

**uncinal plate** see **radula**

**uncinal seta** (ANN: Polychaeta) Setae modified into hooks, functioning in feeding or gripping.

**uncinate** a. [L. *uncinus*, hook] 1. Hooked or barbed at the end; unciniiform. 2. (PORIF) Pertaining to megascleres, a fusiform oxea with thornlike spines.

**uncinate mastax** (ROTIF) A mastax with fulcrum and manubria greatly reduced, stout rami, and large subunci; specialized for food laceration.

**uncini** n.pl; sing. **uncinus** [L. *uncinus*, hook] 1. (ANN: Polychaeta) Deeply embedded seta with only its multidentate head showing above the cuticle. 2. (MOLL: Gastropoda) Numerous small teeth- or hook-like structures on the

radula of plant-eating gastropods.

**uncus** n.; pl. **unci** [L. *uncus* hook] 1. (ARTHRO: Insecta) a. In some larvae, a hooked process on the distal inner margin of the maxillary *mala*, possibly a remnant of the lacinia. b. In Lepidoptera, a process of the 10th abdominal tergum overhanging the anus. 2. (ROTIF) One of a pair of the seven main pieces of the mastax.

**undate** a. [L. *unda*, wave] Wavy, undulating.

**underbridge** n. [A.S. *under*, below; *bricg*, bridge] (NEMATA: Secernentea) In Heterodera cysts, a structure extending across the vulval cone below and parallel to the vulval bridge.

**undifferentiated** a. [A.S. *un-*, not; L. *differens*, dissimilar] 1. Immature or embryonic form; unspecialized; capable of differentiation into more specialized form. 2. With cells, meaning an embryonic cell that can develop into other types of cells.

**undose** a. [L. *unda*, wave] Undulating; nearly parallel depressions blending more or less into each other.

**undulate** a. [L. *unda*, wave] Having a wavy surface or margin.

**ungual** a. [L. *unguis*, claw] Pertaining to the ungues or claws.

**unguiculus** n.; pl. **unguiculi** [L. dim. *unguis*, claw] 1. A small terminal claw or nail-like process. 2. (ARTHRO: Insecta) The smaller of the toothed tarsal claws of Collembola. **unguiculate** a. see **unguis**.

**unguifer** n. [L. *unguis*, claw; *ferre*, to bear] (ARTHRO: Insecta) A median process of the last tarsomere, articulating with the pretarsal claws.

**unguiferate** a. [L. *unguis*, claw; *ferre*, to bear] (PORIF) Pertaining to a type of chelate microsclere with short and discrete teeth, often more than three at each end of the shaft.

**unguiflexor** n. [L. *unguis*, claw; *flectere*, to bend] (ARTHRO: Insecta) Muscles responsible for moving or extending the ungues.

**unguiform** a. [L. *unguis*, claw; *forma*, shape] Shaped like a claw.

**unguis** n.; pl. **ungues** [L. *unguis*, claw] (ARTHRO) 1. The lat-

eral claw of the pretarsus of several groups. 2. The larger of the toothed tarsal claws of Collembola. **ungual** a. see **uguiculus**, **homodactyl**.

**unguitractor** n. [L. *unguis*, claw; *tract*, to pull] (ARTHRO: Insecta) A ventral sclerotized plate of the pretarsus from which arises the retractor muscles of the unguis or claws; also called unguitractor plate.

**unguitractor tendon** (ARTHRO: Insecta) The tendon serving for attachment of the unguitractor to the pretarsal depressor muscle; apodeme.

**ungula** see **unguis**

**uniauriculate** a. [L. *unus*, one; *auricula*, outer ear] Having a single ear-like process.

**unibranchiate** a. [L. *unus*, one; *branchia*, gill] Having one gill.

**unicameral** a. [L. *unus*, one; *camera*, chamber] Having one chamber.

**unicapsular** a. [L. *unus*, one; *capsula*, little box] Having only a single capsule.

**unicarinate** a. [L. *unus*, one; *carina*, keel] Having a single ridge or keel.

**unicellular** a. [L. *unus*, one; *cellula*, small chamber] Consisting of only one cell.

**uniciliate** a. [L. *unus*, one; *cilium*, eyelash] Having a single cilium or flagellum.

**unicolonial** a. [L. *unus*, one; *colere*, to dwell] (ARTHRO: Insecta) A population of social insects not recognizing nest boundaries; multicolonial.

**unicolorate** a. [L. *unus*, one; *color*, tint] Having one color throughout.

**unicornous** a. [L. *unus*, one; *cornu*, horn] Having only one horn.

**unicuspid** a. [L. *unus*, one; *cuspis*, point of spear] Having a single tapering point; one tooth.

**unidentate** a. [L. *unus*, one; *dens*, tooth] Having only one tooth.

**unidiverticulate** a. [L. *unus*, one; *diverticulum*, bypath] Hav-

ing one diverticulum.

**uniflagellate** a. [L. *unus*, one; *flagellum*, whip] With one flagellum; monociliated.

**unifollicular** a. [L. *unus*, one; *folliculus*, small bag] Having one follicle.

**unigeminal** a. [L. *unus*, one; *geminus*, twin-born] 1. With one pair. 2. (ECHINOD: Echinoidea) Pertaining to one row of pore pairs.

**unilabiate** a. [L. *unus*, one; *labium*, lip] Having one lip.

**unilaminate colony** (BRYO) A colony consisting of a single layer of zooids opening in approximately the same direction.

**unilateral** a. [L. *unus*, one; *latus*, side] On one side only.

**unilocular** a. [L. *unus*, one; *loculus*, small place] Having one cell or cavity.

**uniloculate** a. [L. *unus*, one; *loculus*, small place] (ANN) Having only one seminal chamber, such as the spermathecal diverticulum.

**unimucronate** a. [L. *unus*, one; *mucro*, sharp point] Having a single sharp tip.

**uninominal** a. [L. *unus*, one; *nomen*, name] Having only one name; monominal.

**uninominal nomenclature** The designation of a taxon above species rank by a scientific name consisting of a single word.

**uniordinal crochets** (ARTHRO: Insecta) In larvae, crochets arranged in a single row of uniform length or somewhat shorter towards the ends of the row. see **ordinal**.

**uniparous** a. [L. *unus*, one; *parere*, to beget] Producing one egg or young at a time.

**uniplicate** a. [L. *unus*, one; *plicare*, to fold] Having a single fold or line of folding.

**unipolar** a. [L. *unus*, one; *polus*, pole] Having one pole only.

**unipolar cell** A nerve cell with one fiber issuing from it.

**uniradiate** a. [L. *unus*, one; *radius*, wheel spoke] One-rayed.

- uniramous** a. [L. *unus*, one; *ramus*, branch] Having one branch only.
- uniramous appendage** (ARTHRO) An unbranched appendage.
- uniramous parapodium** (ANN: Polychaeta) A parapodium that has only one part.
- uniseptate** a. [L. *unus*, one; *septum*, partition] Having one partition.
- uniserial** a. [L. *unus*, one; *series*, row] Arranged in one row or serial.
- uniserial circle** (ARTHRO: Insecta) Referring to crochets of larvae arranged in a single row or series with bases in a continuous line. see **serial crochets**.
- uniserrate** a. [L. *unus*, one; *serra*, saw] One row of serrations.
- unisexual** a. [L. *unus*, one; *sexus*, male or female sex] Individuals having separate sexes (dioecious, gonochoric) and producing only one kind (male or female) of gametes, therefore, being dimorphous.
- unispire** a. [L. *unus*, one; *spira*, coil] A single turn of a spiral.
- unit character** A trait behaving as a unit in heredity, inheritable independently of other traits.
- univalent** a. [L. *unus*, one; *valens*, strong] One member of a pair of homologous chromosomes.
- univalve** a. [L. *unus*, one; *valva*, leaf of a folding door] (MOLL: Bivalvia) Having a shell composed of one piece.
- univariate analysis** A biometric analysis of one character.
- univoltine** a. [L. *unus*, one; It. *volta*, time] Having one generation a year; monovoltine.
- unjointed seta** (ANN: Polychaeta) A seta without a joint; a simple seta.
- unmyelinated** a. [A.S. *un*, not; Gr. *myelos*, marrow] Nerves not covered with a myelin sheath.
- unspecialized** a. [A.S. *un*, not; L. *species*, a particular kind] Lacking modifications for any special function or purpose.
- unsuitable host** An immune or resistant animal or plant.
- upcurved growth line** (ARTHRO: Crustacea) In Conchostraca,

an upwardly bent growth line covering a tear in the shell margin at the site of an injury.

- upper latus** (ARTHRO: Crustacea) In Lepadomorph barnacles, the plate in the upper whorl between the scutum and tergum or carina.
- upper lip** see **labrum**
- upsilon** see **furca**
- uranidin** see **pterine**
- urate** a. [Gr. *ouron*, urine] A salt of uric acid.
- urate cells** (ARTHRO: Insecta) Special cells of the fat-body or in the epidermis or elsewhere that segregate the uric acid, when not excreted through the Malpighian tubules.
- urceolus** n. [L. dim. *urceus*, pitcher] A pitcher- or urn-shaped structure.
- urea** n. [Gr. *ouron*, urine] A simple organic compound,  $\text{CO}(\text{NH}_2)_2$ , a major nitrogenous waste product.
- ureter** n. [Gr. ureter] 1. (ARTHRO: Insecta) A discharging duct of aggregate Malpighian tubules. 2. (MOLL: Gastropoda) A duct connecting the kidney with the mantle cavity.
- uric acid** A nitrogenous waste product, more complex and usually formed in smaller amounts than urea.
- uricotelic** a. [Gr. *ouron*, urine; *telos*, end] The excretion of nitrogen as uric acid.
- urinary vessels** see **Malpighian tubules**
- urine** n. [L. *urina*, urine] A solution of various waste products.
- urite** see **cirrus**
- urn bodies** 1. (MESO: Rhombozoa) An urn-like sac on the ventral surface of infusoriform larvae of a dicyemid that contains four germinal cells. 2. (SIPUN) Vase-shaped, multicellular structures in the coelom.
- urocardiac ossicle** (ARTHRO: Crustacea) In a decapodan gastric mill, a T-shaped plate running backwards and downwards, sometimes bearing a U- or V-shaped median tooth.
- urogastric groove** (ARTHRO: Crustacea) A short transverse groove in the median or submedian region of a decapod

carapace posterior to the postcervical groove, sometimes joining the upper part of the postcervical groove.

**urogastric lobe or area** (ARTHRO: Crustacea) In Decapoda, a posterior division of the gastric region of a brachyuran carapace; genital region.

**urogenital** a. [L. *urina*, urine; *gignere*, to beget] Of or pertaining to the urinary and genital system.

**urogenital opening** (MOLL: Bivalvia) Opening through which the gonadal products and excretory products are released into the cloacal passage of the exhalant mantle chamber.

**urogomphi** n.pl.; sing. **urogomphus** [Gr. *oura*, tail; *gomphos*, club] (ARTHRO: Insecta) In Coleoptera larvae, a pair of outgrowths of the tergum of segment 9 in the form of short spines or multiarticulate processes; pseudocerci; corniculi.

**uromere** n. [Gr. *oura*, tail; *meros*, part] (ARTHRO) An abdominal segment.

**uropatagium** n.; pl. **uropatagia** [Gr. *oura*, tail; *patagium*, border] (ARTHRO: Insecta) One of the paraprocts located on either side of the anus.

**uropod(ite)** n. [Gr. *oura*, tail; *pous*, foot] (ARTHRO: Crustacea) 1. In Malacostraca, an appendage of the 6th abdominal somite, fanlike or reduced or modified. 2. In Amphipoda, the last 3 pairs of abdominal appendages.

**uropolar cells** (MESO: Rhombozoa) In Dicyemida, somatoderm cells at the posterior end of the trunk.

**uropore** n. [Gr. *ouron*, urine; *poros*, passage] (ARTHRO: Chelicerata) In Prostigmata and Tarsonemida, an external opening of the excretory duct in groups that have an incomplete gut. see **anus**.

**urosome, urosoma** n. [Gr. *oura*, tail; *soma*, body] 1. (ARTHRO) The abdomen. 2. (ARTHRO: Crustacea) That part of the body posterior to the major articulation, usually including last 3 abdominal somites, bearing modified appendages.

**urosternite** n. [Gr. *oura*, tail; *sternon*, chest] (ARTHRO) The sternal or ventral part of the uromeres.

**urotergite** n. [Gr. *oura*, tail; L. *tergum*, back] (ARTHRO) An

abdominal tergite.

**urstigmata** n.pl.; sing. **urstigma** [Ger. *ur*, primitive; Gr. *stigma*, mark] (ARTHRO: Chelicerata) In Acari, sense organs between the coxae of the first and second pairs of legs; thought to be humidity receptors; Claparede organs.

**urticate** v. [L. *urtica*, nettle] To sting or burn. urtication n. see **nematocyst**.

**urticating hairs** (ARTHRO: Insecta) In some caterpillars and adults, bristles with minute lateral points producing marked irritation upon contact, whether due to mechanical action alone or presence of poisonous secretion.

**urticator** n. [L. *urtica*, nettle] (CNID) Cnidocytes; a nettle or sting cell.

**urzellen** see **prohemocyte**

**U-shaped notal ridge** see **scutoscutellar suture**

**ustulate** a. [L. *ustulatus*, scorch or burn] Having the appearance of being scorched or burned; brownish.

**uterine bell** (ACANTHO) A bell-like or tubular structure of some females, that moves eggs from the pseudocoel to the uterus.

**uterine vagina** see **vagina uterina**

**uterus** n. [L. *uterus*, womb] An enlargement of the lower end of the oviduct, in which eggs are retained temporarily or in which the embryo develops. **uterine** a.

**utricle** n. [L. dim. *uter*, bag] A small bag or bladder.

**utriculus** n. [L. dim. *uter*, bag] (ARTHRO: Insecta) In Lepidoptera, the larger lobe of the spermatheca; may be fused into one organ. see **lagena**.

**uvette** n. [L. dim. *uva*, grape] (NEMATA: Adenophorea) The glandular region where the efferent tubes of the Demanian vessels meet before passing on to one or more exit pores in the body wall.

# V

**vacuole** n. [L. *vacuus*, empty] A minute cavity within a cell, usually filled with a liquid product of protoplasmic activity. **vacuolar** a.

**vagile** a. [L. *vagus*, wandering] Freely wandering; motile. **vagility** n. see **sessile**.

**vagina** n. [L. *vagina*, sheath] The terminal portion of the female reproductive tract, that opens to the outside. **vaginal** a.

**vaginate** a. [L. *vagina*, sheath] Enclosed by a sheath.

**vagina uterina** (NEMATA) An inward extension of the vagina, uniting with the distal part of the uterus, that histologically resembles the vagina, but lacks cuticular lining.

**vagina vera** (NEMATA) The outermost part of the vagina, lined with cuticle.

**vaginipennate** a. [L. *vagina*, sheath; *penna*, wing] (ARTHRO: Insecta) To ensheath a wing; having wings covered with a hard sheath.

**vaginula** n. [L. dim. *vagina*, sheath] (ARTHRO: Insecta) The covering of the terebra.

**vagus** see **stomogastric nervous system**

**valency** n. [L. *valentia*, strength] Power; important; value.

**valid name** An available name for a taxon that is not preoccupied by a valid senior synonym or homonym.

**valva** n.; pl. **valvae** [L. *valva*, leaf of a folding door] (ARTHRO: Insecta) In Lepidoptera, a valve in the external male genitalia; the coxite and the stylus. see **harpagones**.

**valvate** a. [L. *valva*, leaf of a folding door] 1. Furnished with valves. 2. Hinged only at the margin. 3. Of or pertaining to a valve.

**valve** n. [L. *valva*, leaf of a folding door] 1. Any structure that limits or closes an opening. 2. One of the discrete shells or

plates of a mollusk, brachiopod or crustacean. 3. (ARTHRO: Insecta) Certain external genitalia.

**valve coverage** (MOLL: Polyplacophora) 1. Complete coverage Two contiguous valves with the rear edge of one covering the whole front edge of the one posterior to it. 2. Partial coverage A small part of the front edge of the next valve that is overlapped. 3. Jugal coverage With only the apical part of a valve overlapping the next one.

**valvelet** n. [L. dim. *valva*, leaf of a folding door] A small valve or fold.

**valvifers** n.pl. [L. *valva*, leaf of a folding door; *ferre*, to bear] (ARTHRO: Insecta) The basal plates of the ovipositor, derived from the basal segment of the gonopods; also known as the first and second gonocoxae.

**valvula** n.; pl. **valvulae** [L. dim. *valva*, leaf of a folding door] 1. Any small valve-like process. 2. (ARTHRO: Insecta) In Hymenoptera, processes from the valvifers forming the body of the ovipositor and the ovipositor sheath.

**valvular** a. [L. dim. *valva*, leaf of a folding door] Of or pertaining to a small valve or valvula.

**valvular process** see **style**

**vannal fold** (ARTHRO: Insecta) A radial line of folding of a wing, commonly between the cubital field and the first vannal vein; sometimes variable.

**vannal lobe** (ARTHRO: Insecta) A lobe in the anal area of a wing, immediately distad of the jugal lobe (when present).

**vannal region** (ARTHRO: Insecta) That part of the wing comprising the vannal veins, or veins directly associated with the third axillary; vannus.

**vannal veins** (ARTHRO: Insecta) The veins of a wing in the vannal region, with basal association with the third axillary sclerite.

**vannus** see **vannal region**

**variance** n. [L. *variare*, to change] A sampling statistic relating to deviations from the mean.

**variate** n. [L. *variare*, to change] A variable quantity or char-

acter.

**variation** n. [L. *variare*, to change] Differences resulting from nongenetic responses of the phenotype to immediate environmental conditions; ecophenotype.

**varicellate** a. [L. *varix*, dilation] Having small or indistinct varices.

**varices** pl. of **varix**

**varicose** a. [L. *varix*, dilation] Bearing a varix or varices.

**variegated** a. [L. *variegatus*, of different sorts] Marked by different shades or colors.

**variety** n. [L. *variare*, to change] An ambiguous taxonomic term for a heterogeneous group of phenomena including nongenetic variations of the phenotype, morphs, domestic breeds, and geographic races.

**varirole** n. [F. *varirole*, smallpox] A pock-like mark; fovea; fossa. **variolate** a.

**varix** n.; pl. **varices** [L. *varix*, dilation] (MOLL: Gastropoda) Transverse elevations that occur on the outer shell surface; more prominent than the costa and generally spaced more widely; result of growth halt in which a thickened outer lip developed.

**vas** n.; pl. **vasa** [L. *vas*, vessel] A small tubular vessel, duct or canal, especially leading from the testis.

**vascula** n.pl.; sing. **-um** [L. dim. *vas*, vessel] (BRACHIO) Branches of the mantle canal system.

**vascular** a. [L. dim. *vas*, vessel] Pertaining to vessels adapted for transmission or circulation of fluids.

**vascular markings** (BRACHIO) Impressions of the mantle canals on the inside of the shell; pallial markings.

**vas deferens** sing.; pl. **vasa deferentia** 1. A sperm duct leading away from a testis. 2. (ANN: Oligochaeta) A duct carrying sperm from the male funnel to the male pore.

**vas efferens** sing.; pl. **vasa efferentia** Tubule leading from the testis to the vas deferens.

**vasiform** a. [L. *vas*, vessel; *forma*, shape] Vessel-shaped.

**vector** n. [L. *vehere*, to carry] 1. Any carrier, particularly an animal that transmits a disease organism from one host to another. 2. In helminthic disease, an intermediate host that seeks out the definitive host; as a mosquito.

**vegetal pole** In an early embryo, a region with large cells with much yolk; portion of egg or zygote with more yolk than opposite end.

**vegetative functions** All natural functions of living organisms that maintain life.

**vegetative reproduction** The development of a new individual from a group of cells in the absence of any sexual process.

**veinlets** n.pl. [L. dim. *vena*, vein] Small veins.

**veins** n.pl. [L. *vena*, vein] 1. Vessels conducting blood toward the heart. 2. (ARTHRO: Insecta) The heavily sclerotized portion of wings that usually enclose small central tracheae.

**velarium** n. [L. *velarium*, awning] (CNID) A velum-like structure having canals lined with endoderm; flaps on the edge of the bell.

**veliconch** n. [L. *velum*, curtain; *concha*, shell] (MOLL: Bivalvia) The shell of the veliger larva; prodissoconch.

**veliger** n. [L. *velum*, curtain; *gerere*, to bear] (MOLL) A larval stage with a ciliated swimming membrane or membranes; a free-swimming young bearing a velum.

**velum** n.; pl. **vela** [L. *velum*, curtain] 1. A thin membranous covering. 2. (ANN: Hirudinoidea) A membrane separating the buccal cavity from the cavity of the oral opening. 3. (ARTHRO: Crustacea) In Ostracoda, a ventral ridge, flange, or frill that may extend around part or all of the anterior and posterior ends. 4. (ARTHRO: Insecta) The membrane forming part of the apical and marginal areas of a paramere. 5. (CNID) A shelf of tissue extending inward near the margin of the bell of medusae. 6. (MOLL) *a.* In Bivalvia, the large, ciliated swimming disc of larval oysters. *b.* In Gastropoda, the swimming membrane consisting of two large semicircular folds bearing cilia. 7. (NEMATA) The ventral membranous winglike extensions on the spicule of



some male nematodes. 8. (PLATY: Cestoda) The membranous posterior margin of a proglottid overlapping the anterior of the following one.

**velutinous** a. [NL. vellutum, velvet] Clothed with very dense, upright short hairs.

**venation** n. [L. *vena*, vein] The complete system of veins.

**venom** n. [L. *venenum*, poison] The secretion of the accessory venom, or poison gland. **venomous** a.

**venom apparatus** 1. (ARTHRO: Insecta) The sting apparatus or accessory glands. 2. (ANN: Polychaeta) The seta or venomous jaws.

**venom gland** 1. A gland secreting an irritating or lethal substance. 2. (ARTHRO: Chelicerata) In true spiders, a pair of glands situated in the cephalothorax; in others, on the chelicerae with ducts traversing each claw with an oval slit opening near the tip. 3. (ARTHRO: Insecta) In Hymenoptera, the largest sting gland situated between the rectum and vagina and ending in the aculeus. see **apid venom gland**, **braconid venom gland**, **vespid venom gland**.

**venose** a. [L. *vena*, vein] Having veins or lines that branch like veins.

**venous** a. [L. *venosus*, full of veins] Having numerous veins.

**vent** n. [L. *findere*, to split] The anus.

**venter** n. [L. *venter*, belly] The ventral side; the entire under surface of an animal.

**ventilation tracheae** (ARTHRO: Insecta) Tracheae, that are subject to collapse, that respond to varying surrounding pressure. see **diffusion tracheae**.

**ventrad** adv. [L. *venter*, belly; *-ad*, toward] Toward the *venter*, or underside of the body. see **dorsad**.

**ventral** a. [L. *venter*, belly] 1. The lower or underside of the body. 2. (MOLL: Bivalvia) The edge remote from the hinge; opposite the umbones.

**ventral brush** (ARTHRO: Insecta) In culicid larvae, a linear series of irregularly paired setae, often divided into two groups, posteroventrally on the midline of abdominal seg-

ment 10.

**ventral cardo** (ARTHRO: Crustacea) In Ostracoda, that portion of the peniferum that serves as a hinge by which it articulates with the zygon.

**ventral cirrus** see **neurocirrus**

**ventral comb** (ARTHRO: Crustacea) In Cephalocarida, a row of setae or bristles on the posteroventral margin of the last abdominal somite.

**ventral cup** (ARTHRO: Crustacea) An element of the nauplius eye.

**ventral diaphragm** (ARTHRO: Insecta) A horizontal septum above the nerve cord separating the perineural sinus from the main perivisceral sinus.

**ventral frontal organ** (ARTHRO: Crustacea) Paired sensory structures associated with the nauplius eye.

**ventral gland** see **prothoracic gland**

**ventral groove** (ARTHRO: Insecta) In Collembola, a cuticular channel down the middle ventral line of the body from the labium to the anterior part of the ventral tube; thought to function in osmoregulation.

**ventralia** n. [L. *venter*, belly] (GNATHO) Paired sensory bristles found ventrally on the head of jaw worms.

**ventral membrane** (ARTHRO: Insecta) In Diptera, skin-like tissue connecting the tergites and the sternites along the sides of the abdomen.

**ventral muscles** (ARTHRO: Insecta) Tergal and sternal longitudinal abdominal muscles running between the intersegmental folds or on the antecostae of successive sterna.

**ventral nerve cord** The primary nerve cord of all invertebrates, except those of the Hemichordata and Chordata phyla.

**ventral pharyngeal gland** see **pharyngeal gland**, **ventral**

**ventral plate** (ARTHRO: Insecta) 1. In embryology, a layer of columnar cells of the blastoderm on the ventral side of the egg. 2. In Diptera, the floor of the cibarium.

**ventral process** see **sternal coxal process**

**ventral prolegs** (ARTHRO: Insecta) Prolegs occurring ventrally on the abdominal segments of larvae, except the last segment that are called anal prolegs.

**ventral scale** (ARTHRO: Insecta) In Diaspinae, the ventral part of the scale, composed of a thin layer of wax and the ventral exuviae that are interposed between the insect and the plant.

**ventral setae** (ARTHRO: Insecta) In Culicidae, four small peglike cibarial setae located at the posterior margin of the cibarium.

**ventral sinus** (ARTHRO: Insecta) The space of the body cavity below the ventral diaphragm, containing the nerve cord; the perineural sinus.

**ventral stylet** (ARTHRO: Insecta) In Siphunculata, the lower of 3 stylets (labium), toothed at the base for piercing.

**ventral sympathetic nervous system** (ARTHRO: Insecta) A pair of transverse nerves associated with the ganglia of the ventral nerve cord in each segment, passing to the spiracles of their segment; may be connected to the perisymphathetic system.

**ventral thickening** (ARTHRO: Insecta) In soft scales, two sclerotic, dorsal, internal processes that support the anal plates.

**ventral tube** (ARTHRO: Insecta) In all Collembola, a basal column containing a pair of protrusible vesicles (shallow sacs or long and tubular), on the ventral aspect of the first segment; functioning in respiration, water absorption and/or adhesive organ for mobility over smooth or steep surfaces. see **ventral groove**.

**ventral vessel** (ANN: Oligochaeta) A major blood vessel found in the mesentery ventral to the alimentary canal.

**ventricle** n. [L. dim. *venter*, belly] A cavity or chamber of an organ, especially of the heart; receives blood from the auricles. see **heart chamber**.

**ventricose** a. [L. dim. *venter*, belly] 1. Distended, inflated toward the middle. 2. (MOLL: Gastropoda) In Harpidae, hav-

ing the whorls or valves swollen or strongly convex; inflated in the middle or on one side.

**ventricular valve** 1. (ARTHRO: Insecta) see **auricular valve**. 2. (NEMATA) A valve between the esophagus and the mesenteron proper; esophagointestinal valve.

**ventriculus** n. [L. dim. *venter*, belly] (NEMATA) Anterior part of the intestine if cellularly different from the rest of the intestine; sometimes corrupted to mean glandular portion of the esophagus. **ventricular** a. see **ventricular valve**.

**ventrite** n. [L. *venter*, belly] A ventral segment; ventral aspect of annular rings.

**ventrodorsal** a. [L. *venter*, belly; *dorsum*, back] Extending from ventral to dorsal.

**ventrolateral** a. [L. *venter*, belly; *latus*, side] Of or pertaining to the area ventrally and to the side.

**ventromedially** adv. [L. *venter*, belly; *medius*, median] Of or pertaining to the median ventral line.

**venulose** a. [L. dim. *vena*, vein] Having many small veins.

**verge** n. [F. *verge*, rod] (MOLL: Gastropoda) In Prosobranchia, the penis.

**Vermes** n. [L. *vermis*, worm] An obsolete term for animals that included all worm-like phyla.

**vermian** a. [L. *vermis*, worm] Worm-like.

**vermicide** n. [L. *vermis*, worm; *caedere*, to kill] Any of various therapeutic agents producing the death of a helminth; anthelmintic. see **vermifuge**.

**vermiculate** a. [L. dim. of *vermis*, worm] Resembling a worm, or having tracery simulating the tracks of a worm. **vermiculation** n.

**vermiform** a. [L. *vermis*, worm; *forma*, shape] Worm-shaped.

**vermiform cells** see **plasmatoocyte**

**vermiform embryos** (MESO: Rhombozoa) In Dicyemida, the young produced within the axial cell of adults.

**vermiform larva** (ARTHRO: Insecta) A legless worm-like *larva*, lacking a well developed head. see **pronymph**.

**vermifuge** n. [L. *vermis*, worm; *fugare*, to drive away] A therapeutic agent causing expulsion of a helminth, that may or may not cause its death; anthelmintic. see **vermicide**.

**vernacular name** The colloquial designation of a taxon. see **scientific name**.

**vernal** a. [L. *vers*, spring] Appearing or occurring in spring.

**vernice** a. [NL. *vernicosus*, varnished] Appearing as though varnished or brilliantly polished.

**verrucule** n. [L. *verriculum*, net] A dense tuft of nearly parallel upright hairs. **verruculate** a.

**Verrill's organ** see **funnel organ**

**verruca** n.; pl. **verrucae** [L. *verruca*, wart] 1. A wart or wart-like prominence. 2. (ARTHRO: Chelicerata) In certain Acari, a genital *papilla*, sternal prominence, or the genital capsule. 3. (ARTHRO: Insecta) In Lepidoptera larvae, a tubercle bearing tufts of setae. 4. (CNID: Anthozoa) *a*. In Alcyonaria, a protuberance surrounding the base of polyps. *b*. In Actiniaria, wart-like prominences on the body wall.

**verruciform cells** (MESO) Somatic cells enlarged by lipoprotein bodies.

**verrucose** a. [L. *verruca*, wart] Covered with minute warts or tubercles. see **papillate**.

**versatile** a. [L. *versatilis*, mobile, changeable] Moving freely.

**versicolor** a. [L. *versicolor*, to change color] Having many colors; changeable in color.

**Versonian glands** see **Verson's glands**

**Verson's cells** see **apical cell**

**Verson's glands** (ARTHRO: Insecta) In Lepidoptera larvae, large paired, segmental epidermal glands that secrete a "cement layer" over the wax layer; dermal glands.

**vertebra** n.; pl. **-ae** [L. *vertebra*, turning joint] (ECHINO) 1. In Asteroidea, the fused pair of opposite ambulacra, articulating with adjacent vertebrae by ball-and-socket joints. 2. In Ophiuroidea, enclosed by a ventral arm plate and skin or a dorsal arm plate.

**vertex** n. [L. *vertex*, top] 1. The top; apex; summit; the highest or principal point. 2. (ARTHRO: Crustacea) The top point of the head or cephalon. 3. (ARTHRO: Insecta) The top of the head, between the eyes and anterior to the occipital suture; the crown of the head.

**vertical** a. [L. *vertex*, top] 1. Of or pertaining to the vertex; highest point. 2. (ARTHRO: Insecta) A wing vein when both ends are equally distant from the wing base.

**vertical bristles** (ARTHRO: Insecta) In Diptera, two pair of bristles, "inner and outer" behind the upper and inner corners of the eyes; vertical cephalic bristles.

**vertical classification** Classification focusing on common descent, tending to unite ancestral and descendant groups of a phyletic line into a single higher taxon, thereby separating them from contemporaneous taxa having reached a similar grade of evolutionary change. see **horizontal classification**.

**vertical triangle** see **ocellar triangle**

**verticillate** a. [L. *verticillus*, small whorl] Whorled; provided with whorls of fine hairs; having spines arranged in nodes or whorls.

**verticillate antenna** (ARTHRO: Insecta) Antenna with whorls of hair at the joints or segments.

**vertition** n. [L. *vertere*, to turn] An idionymous organ observed unilaterally among specimens of the same species and stage that has evolutionary significance.

**vesica** see **preputial sac**

**vesicating** a. [L. *vesica*, blister, bladder] Blister-like.

**vesicle, vesicula** n. [L. dim. *vesica*, bladder, blister] 1. A sac, bladder, or cyst, frequently extensible. 2. (ANN: Oligochaeta) The anteriorly or posteriorly directed pockets of a septum in which male germ cells mature; the reproductive system. **vesiculate** a.

**vesicular** a. [L. dim. *vesica*, bladder, blister] Containing small cavities or vesicles.

**vesicular cell** (BRYO) A cell enclosing a large vesicle; found in

peritoneal network and funicular strands.

**vesicula seminalis** see **seminal vesicle**

**vesparium** n. [L. *vespa*, wasp; *-arium*, place for] (ARTHRO: Insecta) In Hymenoptera, a natural or artificial colonial nest of vespine wasps.

**vespid venom gland** (ARTHRO: Insecta) In Hymenoptera, a type of venom gland in which two tubes end in a distinct spherically formed reservoir whose wall has a strong muscular layer, but no glandular elements.

**vespoid** a. [L. *vespa*, wasp; *-oid*, like] Wasp-like.

**vessel** n. [L. dim. *vas*, vase] A tubular structure that conveys fluid.

**vestibular organs** (CHAETO) A transverse row of papillae, or papillae on a ridge, just behind the teeth.

**vestibular pit** (CHAETO) A glandular depression behind the vestibular organs.

**vestibular wall** (BRYO) The body wall surrounding the vestibule and connecting the tentacle sheath to the wall of the orifice.

**vestibule, vestibulum** n.; pl. **-bula** [L. *vestibulum*, entrance hall] 1. A cavity forming an entryway to another cavity or passageway. 2. (ANN) Containing a penis or male porophore and pore fissure. 3. (ARTHRO: Crustacea) In Ostracoda, a space between the duplicature and outer lamella. 4. (BRYO) The area through which the lophophore passes. 5. (ROTIF;CHAETO) An opening leading to the mouth. 6. (NEMATA) see **stoma, cheilostome. vestibulate** a.

**vestige** n. [L. *vestigium*, footprint] A degenerate or imperfect remaining ancestral organ.

**vestigial** a. [L. *vestigium*, footprint] Pertaining to a small, degenerate, nonfunctional organ that was ancestrally more fully developed or functional.

**vestiture** n. [L. *vestis*, garment] The body covering, as scales or hairs.

**vexillum** n.; **-illa** [L. *vexillum*, flag] (ARTHRO: Insecta) In fossorial Hymenoptera, an expansion on the tip of the tarsi.

**viable** a. [L. *vita*, life] Capable of living; the ability to grow and develop.

**vibraculum** n.; pl. **vibracula** [L. dim. *vibrare*, to vibrate] (BRYO: Gymnolaemata) A heterozoid with the operculum in the form of a long bristle or seta between pivots, supposedly used to sweep away detritus and settling larvae.

**vibrissa** n.; pl. **-sae** [L. *vibrissa*, whisker] 1. Stiff hairs or bristles. 2. (ARTHRO: Insecta) For Diptera, see **oral vibrissae**.

**vibrissal ridge** (ARTHRO: Insecta) In Diptera, a ridge arising on each side of the face, inside the arms of the frontal suture; limited distally by the epistoma and the vibrissal angles; facial ridge.

**vibrotaxis** n. [L. *vibrare*, to vibrate; Gr. *taxis*, arrangement] An organism's response to mechanical vibrations.

**vicarious** a. [L. *vicarius*, deputy] 1. Taking the place of. 2. Closely related taxa in corresponding but separate environments.

**vicarious polymorph** (BRYO: Gymnolaemata) A polymorph in a budding series that communicates with several zooids.

**vicinal** a. [L. *vicinus*, neighbor] Neighboring; nearby.

**vicinism** n. [L. *vicinus*, neighbor] The propensity to variation due to proximity of related organisms.

**villi** pl. of **villus**

**villose** a. [L. *villus*, tuft of hair] Covered with villi.

**villus** n.; pl. **villi** [L. *villus*, tuft of hair] Soft flexible hairs. see **microvillus**.

**vinculum** n.; pl. **-la** [L. *vinculum*, anything used for binding] 1. Anything used to bond structures together. 2. (ARTHRO: Insecta) In male Lepidoptera, an U-shaped genital plate, dorsally articulating with the pedunculus and midventrally forming a saccus. 3. (MOLL: Bivalvia) A shelly material between the basic dental structures of the shell.

**vinous** a. [L. *vinum*, wine] Wine-colored; vinaceous.

**violaceous** a. [L. *viola*, violet] Having a violet hue.

**virescent** a. [L. *virescere*, to grow green] Greenish or turning

green.

**virga** n. [L. *virga*, rod] (ARTHRO: Insecta) In Dermaptera, a threadlike, sclerotized extension of the ejaculatory duct that guides the passage of the spermatophore into the spermatheca of the female

**virgalium** n.; pl. **-lia** [L. *virga*, rod] (ECHINOD: Asteroidea) Ossicles lateral to and symmetrically placed on each side of the ambulacral ossicles.

**virgate** a. [L. *virga*, rod] Rod-shaped.

**virgate mastax** (ROTIF) With fulcrum and manubrium in the shape of elongate rods; rami are triangular plates.

**virgula organ** (PLATY: Trematoda) Two pyriform sacs fused in the median line with forward pointed ends and placed near the posterior margin of the oral sucker.

**virgulate cercaria** (PLATY: Trematoda) A Xiphidiocercaria group with a ventral sucker smaller than the oral, tail without a fin and a virgula organ near the posterior margin of the oral sucker.

**viridis** a. [L. *viridis*, green] Green; greenish; viridescent.

**virion** n. [L. *virus*, poison] The mature virus.

**virology** n. [L. *virus*, poison; Gr. *logos*, discourse] The study of viruses.

**virulence** n. [L. *virulentus*, fr. *virus*, poison] The state of being pathogenic.

**virus** n. [L. *virus*, poison] An intracellular obligate, infectious parasitic agent visible only under the electron microscope, causing many diseases in man, animals and plants. **viral** a.

**viscera** n.pl. [L. *viscera*, entrails, flesh inside the body] Internal organs. **visceral** a.

**visceral ganglion** 1. (MOLL: Bivalvia) Ganglion found near the posterior adductor muscle in the posterior viscera. 2. (MOLL: Gastropoda) Unpaired, median ganglion lying posteriorly and ventrally to the gut; may be fused with other ganglia in advanced forms.

**visceral hump or mass** (MOLL) The main metabolic region of the body; contains the body organs; the visceropallium.

**visceral nervous system** see **stomogastric nervous system** or **sympathetic system**

**visceral pouch** (MOLL: Bivalvia) A small extension of the visceral mass on the anterior side of the adductor muscle in oysters.

**visceral segments** (ARTHRO: Insecta) All abdominal segments anterior to the genital segments; only the anterior visceral segments are variously modified.

**visceral sinus** (ARTHRO: Insecta) A central cavity between the dorsal and ventral sinuses, containing the main internal organs.

**visceral trachea** (ARTHRO: Insecta) The median segmental trachea beginning at a spiracle and branching to the alimentary canal, fat tissue, and reproductive organs.

**visceral tracheal trunk** (ARTHRO: Insecta) A longitudinal trunk associated with the walls of the alimentary canal.

**visceropallium** see **visceral hump or mass**

**viscid** a. [L. *viscidus*, sticky] Having a thick or sticky consistency; adhesive.

**viscosity** n. [L. *viscidus*, sticky] The resistance of a fluid to flow due to adherence of particles of one to another. **viscous** a.

**vital staining** Staining of living cells and tissues by relatively non-toxic dyes; intravital staining. see **intra vitam**.

**vitellaria larva** (ECHINOD: Holothuroidea, Crinoidea, Ophiuroidea) A nonfeeding, barrel-shaped larva possessing ciliated bands with no arms.

**vitellarium** n.; pl. **-ia** [L. *vitellus*, yolk; *-arium*, place for] 1. A yolk gland; a zone of growth. 2. (ARTHRO: Insecta) That part of an ovariole that contains the developing eggs. 3. (PLATY) Glands which produce yolk material and possibly the eggshell.

**vitelligenous** a. [L. *vitellus*, yolk; *gignere*, to produce] Producing yolk; sometimes applied to certain cells in the ovaries.

**vitelline** a. [L. *vitellus*, yolk] Yellow like the yolk of an egg.

**vitelline body** see **yolk nucleus**

**vitelline duct** (PLATY: Turbellaria) One of paired ducts connecting the vitelline glands to the common vitelline duct.

**vitelline membrane** A membrane enclosing eggs of invertebrates located within an egg shell.

**vitellogenesis** n. [L. *vitellus*, yolk; Gr. *genesis*, beginning] The production of yolk.

**vitellophages, vitellophags** n.pl. [L. *vitellus*, yolk; Gr. *phagein*, to eat] Cells involved with the breakdown of the yolk at all stages of development. **vitellophagic** a.

**vitellus** n. [L. *vitellus*, yolk] The yolk of an egg.

**vitreous** a. [L. *vitrum*, glass] Glassy; transparent.

**vitreous body** see **crystalline cone**

**vitreous humor** (MOLL: Cephalopoda) A jelly-like substance filling the posterior chamber of the eye.

**vitta** n.; pl. **-tae** [L. *vitta*, band] A broad stripe or band. see **fascia, frontal vitta. vittate** a.

**vitta frontalis** see **frontal stripe**

**viviparous** a. [L. *vivere*, to live; *parere*, to beget] Bringing forth living young. viviparity n. see **oviparous, ovoviviparous**.

**volant** a. [L. *volare*, to fly] Capable of flying.

**volatile** a. [L. *volare*, to fly] Passing away by evaporation.

**volsella** n.; pl. **-ae** [L. *volsella*, pincers] (ARTHRO: Insecta) In Hymenoptera, the inner basal process of the gonocoxite.

**-voltine** suff. [It. *volta*, time] Used with a prefix to denote the number of broods in a year; i.e., multivoltine.

**voluntary muscle** Striated muscle capable of rapid contraction and relaxation; found in arthropods and other groups of animals.

**volute** n. [L. *volvere*, to roll] (MOLL) A whorl or turn of a spiral shell.

**volution** n. [L. *volvere*, to roll] (MOLL: Gastropoda) A complete coil of a helicocone. see **whorl**.

**volvent** see **desmoneme**

**vomer** n. [L. *vomer*, plowshare] (ARTHRO: Insecta) In the infraorder Phasmatidea or suborder Anareolatae, a movable sclerotized process that functions during copulation; vomer subanal.

**vulva** n. [L. *vulva*, womb] The external opening of the female reproductive system.

**vulva cone** (NEMATA: Secernentea) In some Heterodera cysts, the posterior protuberance on the posterior portion.

**vulva fenestra** (NEMATA: Secernentea) In some Heterodera, a thin transparent zone in the body wall of a white female and the cyst wall; encircling or at the sides of the vulva.

**vulval bridge** (NEMATA: Secernentea) In some Heterodera cysts, a narrow connection across the fenestra of the vulval cone, forming two semifenestrae.

**vulval flap/membrane** see **epiptygma**

**vulvar lamina** (ARTHRO: Insecta) In Odonata, a subgenital plate of the 8th abdominal sternite.