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# Online Dictionary of Invertebrate Zoology: W X Y Z

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# W

**Wagener's larva** (MESO: Rhombozoa) In Mycrocymea , a free swimming larval stage that attaches to the host kidney tissue and transforms into a nematogen.

**waggle dance** (ARTHRO: Insecta) A dance performed by honeybees indicating source and location of a good source.

**walking leg** see **pereopod**

**wall** n. [L. *vallus*, a palisade] The encumbering sides of an organ or structure.

**warm-blooded** see **homoiothermal**

**warning coloration** Conspicuous colors of invertebrates causing predators to ignore them as food, either because they are poisonous or distasteful or because they are mimicking organisms possessing disagreeable qualities. see **sematic**, **aposematic**, **pseudaposematic**.

**wart** see **verruca**, **tubercle**

**water pore** see **hydropore**

**Waterston's organ** (ARTHRO: Insecta) In Hymenoptera Ceraphronidae, a medial patch of reticulum on the 5th gastric tergite; function unknown.

**water vascular system** (ECHINOD) A unique system comprised of tube-like body wall appendages (tube-feet), and a system of canals derived from the coelom.

**wax** n. [A.S. *weax*, wax] (ARTHRO: Insecta) A substance secreted by various insects consisting of a complex mixture of lipids, varying from species to species.

**wax gland** Any gland in various parts of the body that secrete a waxy product in the form of a scale, string or powder.

**wax layer** (ARTHRO: Insecta) Wax secreted by oenocytes at or near the surface or incorporated into the inner layers of the cuticle; responsible for waterproofing the cuticle.

**wax-plate** (ARTHRO: Insecta) A plate where the secretions of the wax glands are deposited.

**wax scale** (ARTHRO: Insecta) In Apis, thin plates of wax secreted from the intersternal pockets of younger worker bees.

**web** n. [A.S. *webb*] (ARTHRO) A network of threads spun by spiders, mites and some insects.

**weighting** n. [A.S. *gewiht*, weight] An evaluation of phyletic content of a character and the evaluation of its probable contribution to a sound classification.

**Weismann's ring** see **ring gland**

**wheel organ** (ROTIF: Bdelloidea) Ciliated trochal discs, raised on pedestals, functioning in locomotion and in the production of food currents; corona.

**white body** see **Hensen's gland**

**white cuticle** (ARTHRO: Insecta) The inner thick, tough, laminated endocuticle of an egg membrane secreted by the serosa, and containing chitin. see **yellow cuticle**.

**wholemount** An intact specimen prepared for examination.

**whorl** n. [A.S. *hweorfan*, to turn] (MOLL: Gastropoda) 1. Any complete coil of a helicocone. 2. The exposed surface of any complete coil of a helicocone.

**width** n. [A.S. *wid*, broad] (MOLL) The maximum dimension measured at right angles to the length or height of a shell.

**wild type** A strain, organism, or gene of the type predominating in nature; natural.

**wing** n. [ME. *winge*, wing] 1. (ARTHRO) One of paired, thin, membranous reticulated organs of flight. 2. (MOLL) A projection, flattened, expansion, or earlike extension of a hinge line; auricle. see **ala**.

**winter egg** Resting egg; where applicable, a type of egg with a thick shell that protects the egg over winter; opsiblastic. see **summer egg**.

**With's organs** (ARTHRO: Chelicerata) In Acari, paralabial hypertrophied setae mediad from the rutella.

**workers** n.pl. [A.S. *worc*, work] (ARTHRO) 1. An individual of

the semisocial and eusocial Hymenoptera, nonreproductive, laboring caste. 2. In Isoptera, individuals which lack wings and possess reduced pterothorax, eyes and genital apparatus. 3. In Formicidae, the ordinary sterile female, bearing reduced ovarioles and simplified thorax; includes both minor workers and soldiers in species with two subcastes.

**worker jelly** (ARTHRO: Insecta) In Apis, food given to larvae that causes them to become workers; bee milk.

# X

**xanthic** a. [Gr. *xanthos,* yellow] Yellowish in color.

**xanthophyll** n. [Gr. *xanthos,* yellow; *phyllon,* leaf] An oxidised derivative of carotene found in the blood of some plant eating insects.

**xanthopterin**, **xanthopterine** (ARTHRO: Insecta) A yellow pteridine pigment of some insects.

**X-chromosomes** In most dioecious diploid organisms, sex chromosomes of which there are a pair in the female, but only one in the male.

**xenagones** n.pl. [Gr. *xenos,* guest; *agein,* to lead] Substances produced by parasites that act upon the host.

**xenic** a. [Gr. *xenos,* guest] The rearing of individuals of one species together with an unknown number of species of other organisms. see **axenic**, **polyxenic**, **synxenic**, **trixenic**.

**xenobiosis** n. [Gr. *xenos,* guest; *bios,* life] (ARTHRO: Insecta) A form of relation in which one species lives in and among the nests of another species, obtaining food from them by regurgitation or other means, but keeping their own brood separate.

**xenoecic** a. [Gr. *xenos,* guest; *oikos,* house] Living in an abandoned shell of an unrelated species.

**xenogamy** see **cross-fertilization**

**xenogenesis** see **heterogenesis**

**xenomone** see **allelochemic**

**xenomorphism** n. [Gr. *xenos,* stranger; *morphe,* form] (MOLL: Bivalvia) Sculpture in the umbonal region of the unattached valve that resembles the substratum on which the attached valve was fixed. xenomorphic a.

**xenoparasite** n. [Gr. *xenos,* guest; *para,* beside; *sitos,* sit] An ecosite that becomes pathogenic due to a weakened resistance on the part of its host.

**xerarch succession** A series of community changes from bare land to climax.

**xeric** a. [Gr. *xeros,* dry] Arid; lacking in moisture; adaptation to dryness.

**xerophilous** a. [Gr. *xeros,* dry; *philos,* loving] Living in dry places.

**xerophobous** a. [Gr. *xeros,* dry; *phobos,* fear] Intolerant of arid conditions.

**xerosere** n. [Gr. *xeros,* dry; L. *serere*, to join] A sere arising under dry conditions. see **lithosere**, **hydrosere**.

**xerothermic fauna** Animals found in warm, dry conditions.

**xiphidiocercaria** n. [Gr. *xiphos,* sword; *kerkos,* tail] (PLATY: Trematoda) Cercaria with a long tail and a stylet in the anterior rim of the oral sucker. see **microcotylate cercaria**, **microcercous cercaria**.

**xiphiform** a. [Gr. *xiphos,* sword; L. *forma,* shape] Sword-shaped.

**x-organ** 1. (ARTHRO: Crustacea) In Decapoda, a neuro-secretory organ situated in the eye stalk, and the cephalon of sessile-eyed crustaceans; frontal organs in Anostraca. see **organ of Bellonci**, **frontal eye complex**, **frontal organ**. 2. (KINOR) In female chaetonotoids that lack an oviduct, a sac-like structure through which the eggs pass to the surface of the body.

**xylanase** n. [Gr. *xylon,* wood; *-ase*, enzyme] (ARTHRO: Insecta) In wood ingesting Cerambycidae, an enzyme that hydrolizes xylosan to xylose.

**xyloid** a. [Gr. *xylon,* wood; *eidos,* like] Like or resembling wood; ligneous.

**xylophagous** a. [Gr. *xylon,* wood; *phagein,* to eat] Wood-eating.

**xylotomous** a. [Gr. *xylotomous*, wood-cutting] The ability to cut or bore into wood.

**xyphus** n. [Gr. *xiphos,* sword] (ARTHRO: Insecta) In Heteroptera, a posteriorly directed triangular process of the mesosternum.

# Y

**Y-chromosomes** A chromosome in the male, which pairs with the X-chromsome at synapsis.

**yellow body** (ARTHRO: Insecta) An amorphous mass formed by shed larval epithelium of the midgut occurring in the lumen at pupation.

**yellow cells** see **chlorogogen cells**

**yellow cuticle** (ARTHRO: Insecta) A thin epicuticle of the egg membrane secreted by the serosa, that is highly impermeable to water and lacks chitin. see **white cuticle**.

**yolk** n. [A.S. *geoloca*, yolk] Stored food substances in the egg cell.

**yolk cells** Primary yolk cells that take no part in the blastoderm formation.

**yolk duct** see **vitelline duct**

**yolk gland** see **vitellarium**

**yolk nucleus** Intensely osmiophilic body located near the nucleus; vitelline body; Balbiani's body.

**Y-organs** (ARTHRO: Crustacea) In Decapoda, paired nonneural glands in the antennary or maxillary segments that secrete the molting hormone ecdysone.

**Y-vein** (ARTHRO: Insecta) Two adjacent veins fused distally forming a Y shape.

# Z

**Z-band, disc, line** [Ger. *zwischenscheibe*, intermediate] The zone of actin interaction between sarcomeres; the boundary between muscle sarcomeres; Krause's membrane.

**Z-chromosome** A sex chromosome present in both sexes in female heterogametic reproduction.

**zeitgeber** see **synchronizer**

**Zenker's organs** (ARTHRO: Crustacea) In Ostracoda, an ejaculatory duct.

**zeugobranchiate** a. [Gr. zeugos, a pair; *branchia,* gills] (MOLL: Gastropoda) In Prosobranchia, pertains to paired symmetrical conditions of some structures of the pallial complex.

**zigzag** n. [F. *zigzag*, alternately changing direction by sharp angles] 1. A series of short, sharp turns or angles. 2. Zizzag evolution; anorthogenesis.

**zoaea** see **zoea**

**zoanthella** n. [Gr. *zoon,* animal; dim. *anthos,* flower] (CNID: Anthozoa) An elongate larval form of Zoanthinaria with a ventral band of very long cilia. see **zoanthina**, **Semper's larva**.

**zoanthina** n. [Gr. *zoon,* animal; dim. *anthos,* flower] (CNID: Anthozoa) An oval larval form of Zoanthinaria with a girdle of long cilia near the oral pole. see **zoanthella**, **Semper's larva**.

**zoarium** n. [Gr. *zoon,* animal; *-arium,* belonging to] (BRYO) A colony.

**zoea, zooea, zoaea** n. [Gr. *zoe,* life] A larval stage in the development of higher Crustacea. zoea I First zoeal stage with paired compound eyes that are sessile. zoea II Secondary zoeal stage with stalked compound eyes. zoea III Third zoeal stage that features the first appearance of uropods. see **mysis**, **phyllosoma**, **protozoea**, **schizopod larva**.

**zoecium** see **zooecium**

**zonate** a. [L. *zona,* a belt] Marked with zones or concentric bands of color; ringed; belted.

**zone** n. [L. *zona,* a belt] 1. An area having similar fauna and flora. 2. A region of a body. 3. Area of the earth having similar climate; temperate zone; tropical zone.

**zone of growth** see **vitellarium**

**zonite, zoonite** n. [Gr. *zoon,* animal] A body segment or somatic divison of Kinorhyncha and Diplopoda, equivalent to arthromere or somite in Insecta.

**zonociliate** a. [L. *zona,* a belt; *cilium,* eyelash] Banded with cilia.

**zooanthroponosis** n. [Gr. *zoon,* animal; *anthropos,* man; *nosos,* disease] Any disease in man acquired from a lower animal, including invertebrates; zoonosis. see **anthropozoonosis**.

**zoobiotic** a. [Gr. *zoon,* animal; *bios,* life] Pertaining to an organism that lives as a parasite on an another animal.

**zoocenose** n. [Gr. *zoon,* animal; *koinos,* common] An animal community.

**zoochlorellae** n.pl. [Gr. *zoon,* animal; dim. *chloros,* green] A symbiotic intracellular algae on Cnidaria that are usually endodermal, from which cnidarians derive nutritive benefit from the algal photosynthate.

**zoochromes** n.pl. [Gr. *zoon,* animal; *chromos,* color] (ARTHRO: Insecta) Biochromes acquired in the food that are metabolically handled and often modified.

**zooea** see **zoea**

**zooecial compartment** (BRYO) The body cavity of a zooid.

**zooecial lining** (BRYO) The inner lining of a zooidal chamber.

**zooecial wall** (BRYO) The skeletal wall of a zooid.

**zooeciules** n.pl. [Gr. *zoon,* animal; dim. *oikos,* house] (BRYO) Small to minute zooids; function unknown.

**zooecium** n.; pl. zooecia [Gr. *zoon,* animal; *oikos,* house]

(BRYO: Stenolaemata;Gymnolaemata) 1. The skeleton of a zooid, comprised of calcareous layers of zooidal walls and connected zooidal structures. 2. In Phylactolaemata, comprised of any nonliving secreted parts of the body.

**zoogamy** n. [Gr. *zoon,* animal; *gamos,* marriage] Sexual reproduction.

**zoogenic** a. [Gr. *zoon,* animal; *genesis,* origin] Pertaining to changes caused by animals or their activities; zoogenous.

**zoogeography** n. [Gr. *zoon,* animal; *ge,* earth; *graphein,* to write] 1. The science of geographical distribution of animals. 2. The environmental relationships that cause the distribution.

**zooid** n. [Gr. *zoon,* animal; *eidos,* like] 1. Any of the individual animals of a colonial or compound organism produced by asexual means. 2. (BRYO) A single member of a colony consisting of polypide and zooecium. **zooidal** a.

**zoology** n. [Gr. *zoon,* animal; *logos,* discourse] The study of animals.

**zoonite** see **zonite**

**zoonosis** n.; pl. -**ses** [Gr. *zoon,* animal; *nosos,* disease] A disease in man acquired from one of the lower animals. **zoonotic** a.

**zooparasite** n. [Gr. *zoon,* animal; *para,* beside; *sitos,* food] 1. A parasite of animals. 2. Any parasitic animal.

**zoophagous** a. [Gr. *zoon,* animal; *phagein,* to eat] Feeding on animals.

**zoophilous** a. [Gr. *zoon,* animal; *philos,* loving] Animal loving.

**zoophyte** n. [Gr. *zoon,* animal; *phyton,* plant] 1. A bryozoan. 2. Any non-motile plant-like animal.

**zooplankton** n. [Gr. *zoon,* animal; *plankton,* wandering] Animal plankton.

**zoosemiotics** n.pl. [Gr. *zoon,* animal; semeion, signal] The analysis of animal communication.

**zoosuccivorous** n. [Gr. *zoon,* animal; L. *succus*, juice; *vorare,* to devour] Any animal that sucks blood or other body-fluids.



**zootomy** n. [Gr. *zoon,* animal; *temnein,* to cut] 1. The dissection of animals. 2. The anatomy of animals.

**zootoxin** n. [Gr. *zoon,* animal; *toxikon,* poison] A toxic substance produced by animals.

**zooxanthellae** n.pl. [Gr. *zoon,* animal; dim. *xanthos,* yellow] Symbiotic intracellular algae that are usually endodermal, from which cnidarians derive nutritive benefit from the algal photosynthate. see **zoochlorellae**.

**z-organ** (NEMATA: Adenophorea) In Xiphinema an undefined structure located between the oviduct and uterus.

**zwitter** n. [Ger. *zwitter*, halfbreed] (NEMATA) Nematode intersexes, sometimes mistakenly used as synonym of hermaphrodite. see **gynadromorph**.

**zygocardiac ossicles** (ARTHRO: Crustacea) In Decapoda, triangular plates projecting into the cavity of the cardiac stomach from each side usually bearing denticles; part of the gastric mill.

**zygogamy** see **isogamy**

**zygogenetic, zygogenic** a. [Gr. *zygon,* yoke; *genesis,* origin] Product of fertilization. see **parthenogenic**.

**zygolobous** a. [Gr. *zygon,* yoke; *lobos,* lobe] (ANN: Oligochaeta) A prostomium lacking demarcation from the first segment.

**zygolophous** a. [Gr. *zygon,* yoke; *lophos,* crest] (BRACHIO) A lophophore with brachium consisting of straight or crescentic side arm bearing 2 rows of paired filamentary appendages. zygolophus n.

**zygomorphic** a. [Gr. *zygon,* yoke; *morphos,* shape] Bilaterally symmetrical.

**zygonema** n. [Gr. *zygon,* yoke; *nema,* thread] The chromosome synapses of the 2nd stage of prophase I of meiosis; sometimes used as a synonym of zygotene.

**zygoneure** n. [Gr. *zygon,* yoke; neurone, nerve] A nerve cell connecting other neurons.

**zygoneury** n. [Gr. *zygon,* yoke; *neuron*, nerve] (MOLL: Gastropoda) A connection between the main mantle nerve and the intestinal ganglial nerves and pallial nerves from the

pleural ganglia, usually on the left side, but may be on the right. see **dialyneury**.

**zygophase** see **diplophase**

**zygosis** n. [Gr. *zygosis*, a joining] 1. Conjugation. 2. (ARTHRO: Insecta) In coccids, the median lobes of the pygidium that are united basally by internal sclerotization. 3. (MOLL: Gastropoda) A neural connection between the supraintestinal ganglion and the pleural ganglion on the left side or between the subintestinal ganglion and the pleural ganglion on the right side. see **orthoneury**.

**zygote** n. [Gr. *zygosis*, a joining] A fertilized egg or egg nucleus.

**zygotene** n. [Gr. *zygon,* yoke; *tainia,* ribbon] The 2nd stage in meiosis during prophase I, following the leptotene stage; homologous chromosomes (zygonema) begin to pair and coil about one another. see **zygonema**.

**zygum** n.; pl. **zyga** [Gr. *zygon,* yoke] 1. (ARTHRO: Crustacea) In Ostracoda, a chitinous process of the male copulatory apparatus suspended in the posterior shell region by a system of chitinous rods, about which the peniferum arcs. 2. (ARTHRO: Insecta) In Scarabaeoidea *larva,* a convex cross bar forming the anterior margin of the haptomerum.

**zymogen** n. [Gr. *zyme,* leaven; *genesis,* origin] Formerly a substance able to be transformed into an enzyme.