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macerate v. [L. *macerare*, to soften] To waste away; to soften or wear away.

machopolyp, machozoid see **dactylozoid**

macraner n. [Gr. *makros*, large; *aner*, male] (ARTHRO: Insecta) A male ant of unusually large form.

macrergate n. [Gr. *makros*, large; *ergate*, worker] (ARTHRO: Insecta) In Formicidae, an unusually large worker.

macrobiota n. [Gr. *makros*, large; *bios*, life] Larger organisms in the soil, such as insects and earthworms. see **mesobiota**.

macrocephalic female (ARTHRO: Insecta) In Hymenoptera, a large female of Halictidae, that possesses a disproportionately large head, usually the egg layers of the colony.

macrocerous cercaria (PLATY: Trematoda) Cystophorous type cercaria with a long, simple, cylindrical tail.

macrochaetae n.pl. [Gr. *makros*, large; *chaite*, hair] Large bristles. see **chaetotaxy**.

macrocilia n.pl.; sing. **-ium** [Gr. *makros*, large; L. *cilium*, eyelash] (CTENO) In Beroida, 2,500-3,500 giant ciliary shafts interconnected and bound together on the mobile lips that function in food gathering.

macrocnemes n.pl. [Gr. *makros*, large; *kneme*, lower leg] (CNID: Anthozoa) In Actinaria, complete and filamented mesenteries in the first one or two cycles of simple tentacles; maybe fertile or sterile and possess acontia and strong retractors. see **microcnemes**.

macrocyte see **plasmatoocyte**

macroesthetes see **megalaesthetes**

macroevolution n. [Gr. *makros*, large; L. *evolvere*, to unroll] Evolutionary processes that extend through geologic eras; large scale evolution of new species and genera due to mutations that result in marked changes in chromosomal

patterns and reaction systems. see **microevolution**.

macrofauna n. [Gr. *makros*, large; L. *Faunus*, diety of herds and fields] 1. Widely distributed; from a macrohabitat. 2. Animals measured in centimeters rather than microscopic units.

macrogamete n. [Gr. *makros*, large; *gamete*, wife] A large, quiescent, female anisogamete. see **microgamete**.

macrogametocyte n. [Gr. *makros*, large; *gamein*, to marry; *kytos*, container] The infected human red blood cell that contains the female form of the malarial parasite which upon transfer to the Culicidae becomes a macrogamete.

macrogamy see **hologamy**

macrogenesis n. [Gr. *makros*, large; *genesis*, origin] The sudden origin of new species by saltation.

macrogyne n. [Gr. *makros*, large; *gyne*, woman] (ARTHRO: Insecta) In Formicidae, a female or queen of unusually large stature.

macroic see **meganephridia**

macrolecithal a. [Gr. *makros*, large; *lekethos*, egg yolk] With a large amount of yolk. see **microlecithal**.

macromere n. [Gr. *makros*, large; *meros*, part] A distinctly large cell resulting from unequal cleavages during early embryology.

macromesentery n. [Gr. *makros*, large; *mesos*, middle; *enteron*, gut] (CNID: Anthozoa) One of the larger complete mesenteries.

macromitosome n. [Gr. *makros*, large; *mitos*, thread; *soma*, body] (ARTHRO: Insecta) The paranucleus as seen in Lepidoptera.

macromolecule n. [Gr. *makros*, large; L. *moles*, mass] Very large molecules such as protein, cellulose, starch, etc.

macromutation n. [Gr. *makros*, large; *mutare*, to change] Theory of instantaneous evolution of new taxa by a mutation that establishes reproductive isolation at once.

macronotal a. [Gr. *makros*, large; *notos*, back] (ARTHRO: Insecta) Having a large *thorax*, as a queen ant.

macronucleocyte see **prohemocyte**

macrophage n. [Gr. *makros*, large; *phagein*, to eat] A large phagocytic cell of the body.

macrophagous a. [Gr. *makros*, large; *phagein*, to eat] Feeding on large objects. see **microphagous**.

macrophthalmic a. [Gr. *makros*, large; *ophthalmos*, eye] Having large eyes; having eyes larger than normal.

macroplankton n. [Gr. *makros*, large; *planktos*, wandering] Large organisms such as jellyfish that drift with the currents.

macropore see **megalopore**

macropseudogyne see **pseudogyne**

macropterous a. [Gr. *makros*, large; *pteron*, wing] (ARTHRO: Insecta) Having a long or large wing. see **brachypterous**.

macroscelere see **megasclere**

macroscopic, macroscopical a. [Gr. *makros*, large; *skopein*, to view] Capable of being studied with the unaided eye; megascopic. see **microscopic**.

macroseptum n. [Gr. *makros*, large; L. *septum*, partition] 1. (CNID: Anthozoa) The variously functioning primary septum. 2. (NEMER) In asexual reproduction, a partition across the body marking the plane of subsequent fragmentation.

macrosiphon n. [Gr. *makros*, large; *siphon*, tube] (MOLL: Cephalopoda) Internal siphon of certain cuttlefishes, and all octopuses.

macrosymbiont n. [Gr. *makros*, large; *symbios*, living together] The larger of two symbiotic organisms.

macrotaxonomy n. [Gr. *makros*, large; *taxis*, arrangement] The classification of higher taxa.

macrotrichia n.pl.; sing. **-ium** [Gr. *makros*, large; *thrix*, hair] 1. The larger surface hairs. 2. (ARTHRO: Insecta) The large hairs on the wing membrane.

macrotype n. [Gr. *makros*, large; *typos*, type] (CNID: Anthozoa) Modified arrangement of mesenteries consisting mainly of macromesenteries. see **microtype**.

macrurous a. [Gr. *makros*, large; *oura*, tail] Long-tailed.

macula n.; pl. **maculae** [L. *macula*, spot] 1. A colored spot of rather large size. 2. A spot level with surrounding surface. 3. (BRYO: Stenolaemata) Prominences, and less commonly flat or depressed areas on colony surfaces regularly spaced among feeding zooids caused by clusters of a few polymorphs, and/or extrazoidal skeleton. see **monticule**. 4. (MOLL: Cephalopoda) An oval spot on the wall of a statocyst to which a calcareous statolith is attached; gives information on position relative to gravity.

maculate a. [L. *macula*, spot] Splashed or spotted; blotched.

madrepore n. [L. *mater*, mother; Gr. *poros*, friable stone] (CNID) A stony, branched, reef building coral of the order Madreporia.

madreporic plate (ECHINOD: Asteroidea) An enlarged interradial plate on the disc, that connects the water vascular system to the sea.

madreporite n. [L. *mater*, mother; *porus*, pore] (ECHINOD) An oral or aboral perforated plate of the water-vascular system connecting with the stone canal; sieve plate.

main bud (BRYO: phylactolaemata) The largest of three bud primordia which occurs on every mature zooid, and is the first to form a new polypide.

major gene Controls production of qualitative phenotypic effects in contrast to its modifiers.

major worker (ARTHRO: Insecta) The largest worker subcaste in social insects; in Formicidae, usually specialized for defense and referred to as a soldier. see **media worker, minor worker**.

mala n.; pl. **malae** [L. *mala*, cheek, jaw] 1. A lobe; ridge or grinding surface. 2. (ARTHRO) *a.* Part of the maxilla of certain insects. *b.* Mandible of some myriapods.

malacoid a. [Gr. *malakos*, soft] Soft textured.

malacology n. [Gr. *malakos*, soft; *logos*, discourse] The branch of zoology dealing with mollusks, the animal inside the shell.

malacophilous a. [Gr. *malakos*, soft; *philius*, loving] (MOLL: Gastropoda) Being pollinated by the action of gastropods.

malapophysis n.; pl. **-ses** [L. *mala*, cheek, jaw; Gr. apophysis, projection] (ARTHRO: Chelicerata) In Acari, the paired anterior region of the infracapitulum.

malar a. [L. *mala*, cheek] Of or about the cheek region.

malar cavity (ARTHRO: Chelicerata) In Acari, interior of the malapophysis that connects to the pharynx.

male n. [L. *mas*, a man] An individual that produces sperm cells but not egg cells; designated by ♂.

male-cell receptacle (ARTHRO: Crustacea) In Rhizocephala, a pocket or pair of pockets within the mantle cavity of the female where cells of male cyprid undergo spermatogenesis.

male ducts, male gonoducts see **sperm ducts**

male funnel (ANN: Oligochaeta) A funnel or rosette-shaped enlargement of the ental end of the sperm duct for passage of sperm through the central aperture into lumen of the duct on their way to the exterior.

malella n. [L. dim. *mala*, jaw] (ARTHRO: Symphyla) The distal toothed process on the outer stipes of the deutomala of some myriapods.

male tube (ECHI) A sexually maturing area in which developing males are housed for one to two week inside the female.

malleate mastax (ROTIF) Chewing apparatus; rami untoothed and unci are curved plates with prong type teeth.

malleations n.pl. [L. dim. *malleus*, hammer] A hammered appearance.

malleolus n.; pl. **-li** [L. dim. *malleus*, hammer] 1. (ARTHRO: Chelicerata) In Solpugida, 3 to 5 innervated appendages on the coxae and trochanter of the fourth leg; function uncertain; racket-organs. 2. (ARTHRO: Insecta) see **halteres**.

malleoramate mastax (ROTIF: Monogononta) Chewing apparatus, variant of the ramate type of mastax occurring in the order Flosculariaceae.

malleus n.; pl. **malli** [L. *malleus*, hammer] (ROTIF) Unci and manubria of the mastax, collectively.

Malpighian tubules (ARTHRO) Long, thin excretory tubules

extending into the body cavity from the posterior region of the gut in insects, arachnids and myriapods.

maltha see **mesogloea**

mamelon n. [F. *mamelon*, protuberance] 1. (ECHINOD: Echinoidea) Terminal knob on the boss that articulates with the spine on the test. 2. (NEMATA: Secernentea) Two or three ventral, serrated projections on the ventral surface of the male of the genus *Syphacia*; function unknown.

mammillate a. [L. *mamilla*, small breast] Having rounded protuberances or wart-like projections; mammiform; mammoses.

manca n. [L. *mancus*, imperfect] (ARTHRO: Crustacea) In Peracarida, a juvenile or postlarva that lack the last thoracopod when released from the marsupium.

manchette n. [F. *manchette*, cuff] (NEMATA) Line of demarcation between the cheilostome and esophastome; nema's collar; sleeve.

mancoïd stage (ARTHRO: Crustacea) Postlarval stage in Leptostraca, with rudimentary 4th pleopod.

mandible n. [L. *mandibula*, jaw] 1. A jaw. 2. (ANN: Polychaeta) The ventral chitinous plates or rods, maybe dentate, against which the maxilla work. 3. (ARTHRO: Crustacea) One of the third pair of cephalic appendages. 4. (ARTHRO: Diplopoda) The first pair of jaws, consisting of *cardo*, stipes and gnathal lobe. 5. (ARTHRO: Insecta) One of the variously modified anterior pair of paired mouthpart structures. 6. (BRYO) A modified orificial wall of the avicularium. see **operculum**.

mandibular fossa (ARTHRO: Insecta) The dorsal articulation of the mandible.

mandibular gland (ARTHRO: Insecta) A sac-like reservoir usually paired, and partially or completely lined by secretory cells, opening in the mesal junction of the mandible with the head; functioning as alarm pheromone, fungistatic agent, aggregation pheromone, sex pheromone, territory defending secretion, location of food and/or the 'burning' secretion of the 'fire bees'; in larval Lepidoptera, large and secrete saliva (with the normal salivary glands specialized

for silk production).

mandibular palp 1. (ARTHRO: Crustacea) In Cirripedia, distally articulated part of the mandible functioning in feeding or cleaning; in Acrothoracica associated with the mandibular gnathobase; setose lobe on labrum. 2. (ARTHRO: Insecta) see prostheca.

mandibular plates (ARTHRO: Insecta) In Hemiptera, plates between and attached to the mandibular stylets and the ventral surface of the sucking pump.

mandibular pouch (ARTHRO: Insecta) In Thysanoptera, a ventrally oriented cone formed by the labrum and labium containing maxillary stylets and a single (left) functional mandible, emerging at the apex.

mandibular ring (NEMATA: Adenophorea) In Enoplida, transverse extension of the mandibles in the buccal cavity.

mandibular scar (ARTHRO: Insecta) In certain Coleoptera pupae, round or oval areas with raised margins that serve as supports for the deciduous provisional mandibles.

mandibular sclerite (ARTHRO: Insecta) In some larval Diptera, mouth-hooks articulating basally with the intermediate (hypostomal) sclerites.

Mandibulata n. [L. *mandibula*, jaw] Formerly a subphylum of arthropods including Myriapoda, Crustacea and Insecta.

mandibulate a. [L. *mandibula*, jaw] Having jaws fitted for chewing; mandibuliform.

manducate v. [L. *manducare*, to chew] To bite; eat.

manica n. [L. *manica*, sleeve] (ARTHRO: Insecta) In Lepidoptera, the inner layer of the anellus, that fastens around the aedeagus.

maniform a. [L. *manus*, hand; *forma*, shape] Hand-shaped.

manitruncus see **prothorax**

manna n. [Gr. *manna*, morsel or honey dew] (ARTHRO: Insecta) Honeydew (90-95% sugar) produced by certain coccids, used as human food.

manometabola see **hemimetabolous metamorphosis**

mantle n. [L. *mantellum*, cloak] 1. Something that enfolds,

envelopes or covers. 2. (ARTHRO: Crustacea) In thoracic Cirripedia, membranous covering of the body, often strengthened by calcareous plates. 3. (BRACHIO) Prolongation of the body wall as fold of ectodermal epithelium. 4. (BRYO: Phylactolaemata) Ciliated fold of colony wall covering one to four small, sexually produced colony progenitor polypides. 5. (MOLL) A membranous covering that secretes the shell; the marginal glands produce the periostracum; pallium.

mantle canal (BRACHIO) One of several flattened, tube-like extensions of the body cavity into each mantle lobe.

mantle cavity Specialized cavity found in certain mollusks, brachiopods and crustaceans lined with epidermis and usually exposed to sea or fresh water, or air, due to habitat; may or may not contain part of the viscera; pallial chamber or cavity; mantle chamber.

mantle cells (ARTHRO: Insecta) Corneagenous cells of the eye enclosing the retina.

mantle fold (MOLL: Bivalvia) In oysters, one of 3 small folds at the edge of a mantle lobe.

mantle groove (BRACHIO) Site of proliferation of the periostracum and bears the setae.

mantle lobe 1. (BRACHIO) Lobe of the body wall that secretes and lines the valves; in some, caecae project into perforations (punctae) in the shell serving as food repositories of glycoproteins and mucoproteins, inhibitors of boring organisms, and accessory respiratory structures. 2. (MOLL: Bivalvia) In oysters, one of 2 thin epithelial extensions of the mantle adjoining the valve.

mantle papilla see **caecum**

mantle skirt (MOLL) Roof of the mantle cavity formed by the projection of the mantle from the edge of the visceral mass.

manubrium n. [L. *manubrium*, handle] 1. (ARTHRO: Crustacea) In fish parasitic Copepoda, the handle or distal part of the attachment organ. 2. (ARTHRO: Insecta) The basal part of the furcula of collembolan springtails; part of the sternum associated with the cavity of the prothorax of Coleoptera.

3. (CNID: Hydrozoa) The extension between the stomach cavity and the mouth of a medusae or polyp; also called gullet or esophagus. 4. (NEMATA) The proximal portion of a spicule; a capitulum. 5. (ROTIF) One of two paired trophi in the mastax.

manus n. [L. *manus*, hand] 1. The hand. 2. (ARTHRO: Crustacea) Broad proximal part of a propodal cheliped of a Decapoda. 3. (ARTHRO: Insecta) Formerly applied to the anterior tarsus. 4. (MOLL: Cephalopoda) see **tentacle**.

manuscript name An unpublished scientific name. see **nomen nudum**.

marble gall (ARTHRO: Insecta) The hard spherical gall of Cynipidae *Adleria kollari*, usually on oak that produce the agamic generation of that species.

margaritaceous a. [Gr. margarites, a pearl] Pearly in texture; nacreous.

margin n. [L. *margo*, border] 1. A border or an edge. 2. (ARTHRO: Insecta) The edge of a wing. 3. (CNID: Anthozoa) The junction of the oral disk and collum of a sea anemone. 4. (MOLL) The edge of a shell. **marginal** a.

marginal bodies (PLATY: Trematoda) In Aspidogastrea, sensory pits or short tentacles between marginal loculi of the opisthaptor.

marginal bristles (ARTHRO: Insecta) In Diptera, abdominal bristles inserted dorsally on the margins of the segment.

marginal cell (ARTHRO: Insecta) A cell in the distal part of the wing bordering the costal margin.

marginalia n. [L. *margo*, border] (PORIF) Spicules protruding upward around an oscule.

marginal nuclei (NEMATA) Nuclei of marginal cells in the nematode esophagus; believed to lay down the fibers from the apex of the lateral arm to the basement membrane of the esophagus, or to secrete the cuticular lining of the esophagus, or both.

marginal tubes (NEMATA) The distal cylindrical endings of some esophageal radia, other forms have convergent terminals.

marginal carina (MOLL: Bivalvia) A ridge running from umbo

to posteroventral angle of the shell delimiting the posterior area in Trigoniacea.

marginal veins (ARTHRO: Insecta) A vein running along the front margin of a wing that gives off a stigmal vein.

marginate a. [L. *margo*, border] Having a distinct margin in appearance or structure.

marine a. [L. *mare*, sea] Pertaining to or inhabiting the sea, ocean, or other salt waters.

marita n. [L. *maritus*, conjugal] (PLATY: Trematoda) A sexually mature fluke.

marker gene Genetic marker; gene of known position and conspicuous in its action.

marmorate a. [L. *marmor*, marble] Having color or veined like marble.

marsh n. [A.S. *mersc*, marsh] An area of wet soil.

marsupium n. [L. *marsupium*, bag] 1. Brood pouch. 2. (ARTHRO: Crustacea) The oostegite in Peracarida, or brood chamber or pouch in others. 3. (ARTHRO: Insecta) In marsupial coccids, a waxen ovisac, longer than the body, filled with eggs that hatch while the insect is still mobile. 4. (BRYO) The ovicell. 5. (CNID: Hydrozoa) In some, the internal pouch borne by the blastostyle. 6. (ECHINOD) *a*. In some, the cardiac stomach. *b*. In Viviparous Crinoidea, present on the base of the pinnules adjacent to the gonad and having an external opening; a brood chamber.

mask n. [Ar. *maskhara*, buffoon] (ARTHRO: Insecta) In dragonfly nymphs, the prehensile labium that conceals the other mouthparts. **masked** a.

masked pupa see **pupa larvata**

mass communication (ARTHRO: Insecta) In Hymenoptera, transfer of information among large groups of individuals which cannot be accounted for by one to one communication.

mass provisioning (ARTHRO: Insecta) Social behavior of solitary bees and wasps by storing cells with sufficient food to satisfy their developing offspring and closing them down before the eggs hatch. see **progressive provisioning**.

mastax n. [Gr. *mastax*, jaws] (ROTIF) A muscular rounded, trilobed, or elongate organ containing trophi; in suspension feeders adapted for grinding, in carnivores modified as forceps that can be projected from the mouth to seize prey; the pharynx.

mastication n. [L. *mastecare*, to chew] The act of chewing; to grind or crush.

masticatory process see **gnathal lobe**

masticatory stomach see **gastric mill**

masticomorphic a. [L. *mastecare*, to chew; Gr. *morphos*, form] Designed for chewing.

mastidia n.pl.; sing. **mastidion** [Gr. *mastos*, breast] (ARTHRO: Chelicerata) Small, conical, nipple-like tubercles on the front of the chelicerae of small spiders.

mastigobranch, mastigobranchia n. [Gr. *mastix*, whip; *branchos*, gill] (ARTHRO: Crustacea) A slender respiratory process at the base of the epipod.

mastigophore n. [Gr. *mastix*, whip; *pherein*, to bear] (CNID: Anthozoa) A nematocyst with a cylindrical hempe and tube extending beyond the hempe; microbasic with hempe not more than 3 times the capsule length; macrobasic with hempe 4 or more times the capsule length.

mastigopus larva (ARTHRO: Crustacea) Larva in the megalopa stage found among some Decapoda.

maternal inheritance Inheritance controlled by maternal extra chromosomal determinants.

maternal zooid (BRYO: Gymnolaemata) An autozooid that extrudes eggs.

mating plug (ARTHRO: Insecta) A plug formed from the accessory gland secretions of the male, deposited in the genital chamber of the female, thought to prevent loss of sperm in some Culicidae and Lepidoptera; also called spermatophragma. see **sphragis**.

mating spines (ARTHRO: Insecta) In female mayflies, compound conical spines covering the lower surface of the egg valve.

matricidal hatching (NEMATA) Intrauterine larval development

leading to the destruction of the female by the larvae or juveniles; eclosion intrauterine.

matrifilial a. [L. *mater*, mother; *filia*, daughter] (ARTHRO: Insecta) In Apis, having colonies made up of mothers and daughters.

matrix n.; pl. **matrices** [L. *mater*, mother] 1. That which gives form, origin or foundation to something enclosed or embedded in it. 2. (NEMATA: Secernentea) The gelatinous substance secreted by some female nematodes into which eggs are deposited to form an egg mass. 3. (PLATY) In Cestoda and Trematoda, a living interface of interacting photoplasmic layer; part of the syncytium of the tegument. 4. (PORIF) The non-cellular ground material of a sponge in which the cellular elements are dispersed.

matrix glands (NEMATA: Secernentea) An excretory cell or modified rectal glands that secrete the gelatinous matrix through the anus or excretory pore and into which eggs maybe imbedded.

matrix layer (NEMATA) Historically, a cuticular stratum of spongy material between the fibrillar layer and the boundary layer.

matrone n. [L. *mater*, mother] (ARTHRO: Insecta) Macromolecular components (proteins) contained in the seminal fluid of some male Culicidae that inhibits further insemination of the female.

maturation n. [L. *maturus*, ripe] The act or process pertaining to the developmental steps leading to reproducing adults.

maturation divisions A series of nuclear divisions in the formation of the gametes in which the chromosome number, through meiosis is reduced from diploid to haploid.

maturation feeding (ARTHRO: Insecta) Feeding required by some insects before their gonads can mature to produce eggs.

maturation zone In males of many invertebrates, that part of the genital follicle below the germarium in which each spermatocyte undergoes the two meiotic divisions to produce spermatids. see **transformation zones**.

mature region see **exozone**

maxaponta n. [L. *maxilla*, jaw; *pons*, bridge] (ARTHRO: Insecta) A bridge formed by a midline fusion of the lower maxillariae and the postgenae. **maxapontal** a.

maxilla n.; pl. **-llae** [L. *maxilla*, jaw] 1. (ANN: Polychaeta) The large, hook-shaped, dorsal chitinous jaw plate. 2. (ARTHRO) In most arthropods, one of the paired mouth-part structures posterior to the mandibles or jaws; third pair of head appendages. 3. (ARTHRO: Diplopoda) One of the paired second jaws to form the gnathochilarium.

maxillary a. [L. *maxilla*, jaw] (ARTHRO) Of or pertaining to the maxilla.

maxillary carrier (ANN: Polychaeta) A posterior support structure for the maxilla.

maxillary glands (ARTHRO) Glands belonging to the maxillary segment, possibly functioning in the lubrication of the mouthparts.

maxillary guides (ARTHRO: Insecta) In Anoplura, paired structures of wrinkled sucking lice arising from the maxillary appendages that function as guides for the dorsal stylet.

maxillary palp/palpus; pl. **-pi** (ARTHRO: Insecta) Small sensory organ arising from the *maxilla*, used to test quality of food. see **labial palp**.

maxillary segment see **maxillulae**

maxillary stylets (ARTHRO: Insecta) In Hemiptera, the inner pair of stylets of the trophic sac.

maxillary tentacle (ARTHRO: Insecta) In female Tegeticula Lepidoptera, an inner elongate lobe of the *maxilla*, adapted for holding a large mass of pollen; perhaps palpiifers.

maxilliped, maxillipede, maxillipe a. [L. *maxilla*, jaw; *pes*, foot] (ARTHRO: Crustacea) The paired appendages on thoracic somites 1-3 posterior to the maxillae, that usually function in feeding; sometimes adapted for other functions such as prehension in parasitic forms.

maxillulae n.pl.; sing. **-ula** [L. dim. *maxilla*, jaw] 1. (ARTHRO: Crustacea) The first maxillae having more than one pair of maxillae; paragnath. 2. (ARTHRO: Insecta) In primitive

forms, the non-functional appendages between mandibles and first maxillae. see **superlinguae**.

maxim n. [L. *maximus*, greatest] (ARTHRO: Insecta) In Formicidae, a major worker or one of the soldier caste.

mayrian furrow see **notautilx**

meatal cleft (ARTHRO: Insecta) A slit or line on the trumpet of some mosquito pupae extending into the meatus from the spiracular opening, facilitating enlargement of the opening at the surface of the water.

meatus n. [L. *metus*, passage] A channel or duct.

mechanical isolation Reproductive isolation due to mechanical incompatibility of male and female genitalia.

mechanoreceptor n. [Gr. *mechane*, contrivance; L. *recipere*, to receive] Specialized structures that perceive any mechanical distortion of the body, i.e., touch, vibrations, altitude and gravity.

meconida n.pl.; sing. **-ium** [Gr. *mekon*, poppy] 1. (ARTHRO: Insecta) Waste products of pupal metabolism that are discharged shortly after adult emergence. 2. (CNID: Hydrozoa) Medusoid gonophores, sessile or pedicellate, which upon emergence from the gonangium act as external brood sacs. **meconium** n.

media n. [L. *medius*, middle] 1. The middle structure. 2. (ARTHRO: Insecta) The longitudinal vein between the cubitus and the radius of the wing. **medial** a.

mediad adv. [L. *medius*, middle; *ad*, toward] Toward the median plane or line; mesad; admedial.

medial cross vein (ARTHRO: Insecta) A cross vein connecting two branches of the media of the wing.

medial-cubital cross vein (ARTHRO: Insecta) A cross vein of an insect wing between the posterior medial vein and the anterior cubital vein.

median a. [L. *medius*, middle] In the middle; along the midline of the body; middle variate when variates are arranged in order of magnitude.

median bulb see **metacarpus**

median caudal nerve (NEMATA) A nerve extending from the dorsorectal ganglion to the tail.

median cercus see **urogomphus**

median cord (ARTHRO: Insecta) An embryonic chain of cells derived from the ectoderm lining the neural groove.

median dorsal plate (ARTHRO: Crustacea) In some Peracardia, an elongate plate separating carapace valves posterodorsally.

median esophageal bulb see **metacarpus**

median eye see **nauplius eye**

median lamina see **median wall**

median latus (ARTHRO: Crustacea) In Lepadomorpha, a plate between the rostral and carinal latera in forms with paired latera in one whorl. see **lateral**.

median ligament (ARTHRO: Insecta) A common thread formed by the ovarioles of opposite sides that help maintain the ovaries in position and is attached to the body-wall, the fat-body or the pericardial diaphragm.

median oviduct see **common oviduct**

median segment (ARTHRO: Insecta) The basal segment of the abdomen when it is fused with the metathorax during the change from larva to pupa. see **propodeum**, **epinotum**.

median tubuli (BRYO: Stenolaemata) Aligned pustules or mural lacunae in a laminated skeleton.

median valve see **intermediate valve**

median wall (BRYO: Stenolaemata) Erect colony wall parallel to the growth direction from which zooids bud to form a bifoliate colony.

mediator n. [L. *medius*, middle] Association, internuncial, neuron; chemical such as a hormone that controls or modifies a metabolic process.

media worker (ARTHRO: Insecta) In Formicidae, an individual belonging to the medium-size subcaste in a polymorphic series of three or more worker subcastes. see **minor worker**, **major worker**.

medio-cubital cross vein see **medial-cubital cross vein**

mediolateral nerve cord (NEMATA) Several nerves extending from the median and posterior externolateral ganglia and the posterior internolateral ganglia to the lumbar ganglia.

mediotergite n. [L. *medius*, middle; *tergum*, back] (ARTHRO: Insecta) In Diptera, the median region of the mesopostnotum.

medioventral a. [L. *medius*, middle; *venter*, belly] In the middle ventral line.

mediproboscis see **haustellum**

medulla n. [L. *medulla*, marrow, pith] 1. Central portion of an organ. 2. (ARTHRO) Apical lobes of the brain; the central synaptic region; epipticon; medulla externa; external medullary mass.

medulla externa see **medulla**

medulla interna (ARTHRO: Insecta) The lobular complex.

medulla X-organ, medulla terminalis ganglionic X-organ, MTGX (ARTHRO: Crustacea) A group of neurosecretory cells in the medulla terminalis; the main source of eyestalk hormones.

medusa n.; pl. **-sae** [L. *Medusa*, a gorgon of mythology] (CNID) The free swimming umbrella-like forms.

megabenthos see **abysobenthos**

megacephalic a. [Gr. *megas*, large; *kephale*, head] Having an abnormally large head. see **microcephalic**, **mesocephalic**.

megaclad n. [Gr. *megas*, large; *klados*, branch] (PORIF) In megascleres, a relatively large smooth desma; megaclone.

megaclone see **megaclad**

megadrile n. [Gr. *megas*, large; *drilos*, worm] (ANN: Oligochaeta) Terrestrial forms; not used systematically, although recognized as a general term. see **microdrile**.

megalaesthetes n.pl. [Gr. *megas*, large; *aisthesis*, sensation] (MOLL: Polyplacophora) Large sensory organs terminating in the tegmentum in the forms of eyes with cornea, lens, pigment layers, iris and retina. see **micraesthetes**.

megalolecithal see **macrolecithal**

megalopa stage (ARTHRO: Crustacea) 1. Larvae of Malacostraca with functional pleopods; also referred to as glaucothoe. 2. First postlarval stage in development of Eucarida, not present in other crustaceans. 3. Originally applied to Brachyura larvae with large stalked eyes and functional pleopods.

megalopore, megapore n. [Gr. *me-gas*, large; *poros*, pore] (MOLL: Polyplacophora) Large pore in the dorsal plate; associated with aesthete.

megalops see **megalopa stage**

megamere see **macromere**

megameric a. [Gr. *me-gas*, large; *meros*, part] With relatively large parts; autosomes with large heterochromatic segments.

meganephridia n.pl.; sing. **-ium** [Gr. *me-gas*, large; dim. *nephros*, kidney] (ANN: Oligochaeta) A pair of large nephridia in each segment of the body except, for first and last segments; holonephridia; holoic; macroic. see **nephridium, micronephridia**.

megaplankton see **macroplankton**

me-gasclere n. [Gr. *me-gas*, large; *skleros*, hard] (PORIF) A large structural spicule. see **microscelere**.

me-gascolecin n. [Gr. *me-gas*, large; *skolex*, worm] (ANN: Oligochaeta) The single pair of prostates, tubular or racemose, opened to the exterior, along side of or together with the sperm ducts.

me-gascopic see **macroscopic**

me-getic a. [Gr. *me-gas*, large] Pertaining to size variations in polymorphic forms. see **epimegetic, eumegetic, hypomegetic**.

Mehlis' glands (PLATY: Trematoda) Unicellular mucous and serous glands surrounding the ootype in the reproductive system.

meiocyte n. [Gr. *me-ion*, smaller; *kytos*, container] Primary oocytes and spermatocytes.

meiofauna n. [Gr. *me-ion*, smaller; L. *Faunus*, diety of herds and fields] Microscopic and small macroscopic fauna on the

sea bottom.

meiolecithal a. [Gr. *me-ion*, smaller; *lekithos*, egg yolk] Having little yolk.

meiomery n. [Gr. *me-ion*, smaller; *meros*, part] The condition of possessing fewer than the normal number of parts.

meiosis n.; pl. **meiotes** [Gr. *meiosis*, to make smaller] Two successive cell divisions in the developing germ cells characterized by the pairing and segregation of homologous chromosomes, resulting in reduction from a diploid number to a haploid one. **meiotic** a.

meiotic drive A meiotic mechanism of cell division resulting in two kinds of gametes produced by a heterozygote with unequal recovery.

meiotrichy n. [Gr. *me-ion*, smaller; *thrix*, hair] Loss of setae in ontogenetic development or of homologous setae in natural groups.

melania n. [Gr. *melas*, black] Blackness.

melanin n. [Gr. *melas*, black] A term for a group of chemically ill-defined pigments, often found associated with protein, produced by insects and marine animals responsible for colors from brown to black. **melanoid** a.

melanism n. [Gr. *melas*, black; *ismos*, denoting condition] 1. An excessive darkening of color owing to increased amounts of black pigment. 2. A certain percentage of individuals in a population that give rise to polymorphism. see **industrial melanism, albinism**.

melanoid a. [Gr. *melas*, black; *eidōs*, like] Looking black or dark.

meliphagous a. [Gr. *meli*, honey; *phagein*, to eat] Honey-eating; melivorous.

melittology n. [Gr. *melitta*, honeybee; *logos*, discourse] The study of bees.

melittophily n. [Gr. *melitta*, honeybee; *philos*, love] (ARTHRO: Insecta) 1. A symbiont of social bees. 2. Any organism that must spend a portion of its life cycle in a bee colony.

melivorous see **meliphagous**

- mellifera** n. [L. *mel*, honey; *ferre*, to bear] (ARTHRO: Insecta) Honey-makers; bees as a whole.
- melliferous** a. [L. *mel*, honey; *ferre*, to bear] Honey producing.
- mellisugent** a. [L. *mel*, honey; *sugere*, to suck] Honey-sucking.
- member** n. [L. *membrum*, part] A limb or organ.
- membrane** n. [L. *membrana*, skin] A thin film of tissue.
- membranization** n. [L. *membrana*, skin] Changed into a membrane.
- membranous** a. [L. *membrana*, skin] Consisting of membranes; soft and pliable; membranaceous.
- membranous sac** (BRYO: Stenolaemata) Membrane surrounding digestive and reproductive systems of zooid; the entosaccal and exosaccal cavity.
- membranule, membranula** n. [L. dim. *membrana*, skin] (ARTHRO: Insecta) A small semi-opaque membrane on the base of the hind wing of certain Odonata.
- Mendelian character** Character formed under the control of chromosomal genes.
- Mendelian inheritance** Mode of inheritance from chromosomal genes.
- Mendelian mutation** True gene mutation and recombination.
- Mendelian population** A population with unrestricted interbreeding of organisms sharing a common gene pool.
- Mendelism** n. [Gregor Mendel] Particulate inheritance of chromosomal genes.
- Mendel's laws of inheritance** Genetic principles proposed by Mendel; law of segregation and law of independent assortment.
- meniscoidal** a. [Gr. *meniskos*, a crescent] 1. Crescent-shaped lens; concavo-convex lens; one side convex and the other concave. 2. With one side concave, crescent shape of water in a tube, or convex, crescent-shaped as with mercury in a tube.
- menognath** n. [Gr. *menein*, to remain; *gnathos*, jaw] (AR-

THRO: Insecta) Having biting mandibles in both larval and adult stages. menognathous a. see **Menorhyncha, metagnath**.

Menorhyncha n.pl. [Gr. *menein*, to remain; *rhynchos*, snout] (ARTHRO: Insecta) A former division of insects composed of those who ingest by suction in both larval and adult stages. see **menognath and metagnath**.

menotaxis n. [Gr. *menein*, to remain; *taxis*, arrangement] Orientation in a fixed direction with respect to the stimulus.

mental a. [L. *mentum*, chin] Of or pertaining to the mentum.

mental plate (ARTHRO: Insecta) In Lepidoptera, representing the basal sclerites of the labium. see **labial plate**.

mental setae (ARTHRO: Insecta) Setae located on the mentum.

mental suture (ARTHRO: Insecta) A distinct sclerite defined by a suture intervening between the mentum and the gula.

mentasuture see **mental suture**

mentigerous a. [L. *mentum*, chin; *gerere*, to bear] (ARTHRO: Insecta) Having a mentum.

mentum n. [L. *mentum*, chin] 1. (ARTHRO: Diplopoda) A median, slightly triangular sclerite in the gnathochilarium. 2. (ARTHRO: Insecta) *a*. The distal sclerite of a typical insect *labium*, bearing the palps and the ligula. *b*. In bees, the second joint bearing the palps, paraglossa and ligula.

meraspis larva (ARTHRO: Trilobita) The second larval stage with the pygidium located behind the cephalon; the thoracic region will appear during succeeding molts. see **holaspis larva**.

merdivorous see **scatophagous**

mereopodite see **merus**

meridional canal (CTENO) One of the eight canals extending in an oral-aboral direction under the external surface; part of the gastrovascular system; in Pleurobranchia it emits a greenish-blue luminescence.

meristal annuli (ARTHRO: Insecta) In Orthoptera and Odonata, annuli derived from, and adjacent to, the meriston that di-

vides.

meriston n. [L. *merizein*, to divide] (ARTHRO: Insecta) The most basal annulus of the antennal flagellum.

meritrichy a. [Gr. *meros*, part; *trichos*, hair] (ARTHRO: Chelicerata) In Acari, chaetotaxy characterized by a reduction in number and size of setae from the holotrichous form.

mermithaner n. [Gr. *mermis*, cord; *aner*, male] (ARTHRO: Insecta) Male Formicidae parasitized by the nematode *Mermis*; a mermithophore.

mermithergate n. [Gr. *mermis*, cord; *ergates*, worker] (ARTHRO: Insecta) In Formicidae, a worker parasitized by the nematode *Mermis*; a mermithophore.

mermithized a. [Gr. *mermis*, cord] (NEMATA) Pertaining to parasitism by nematodes of the genus *Mermis*.

mermithodinergate see **mermithostratiote**

mermithogyne n. [Gr. *mermis*, cord; *gyne*, woman] (ARTHRO: Insecta) A female Formicidae parasitized by the nematode *Mermis*; a mermithophore.

mermithophore n. [Gr. *mermis*, cord; *pherein*, to carry] (NEMATA) An anomalous form resulting from parasitism by the nematode *Mermis*; a mermithaner, mermithergate, mermithogyne, mermithostratiote.

mermithostratiote n. [Gr. *mermis*, cord; *stratiotes*, soldier] (ARTHRO: Insecta) Soldier Formicidae parasitized by the nematode *Mermis*; a mermithophore.

mermitoid esophagus see **stichosome**

meroandry n. [Gr. *meros*, part; *aner*, male] The condition of possessing less than the normal number of testes.

meroandric a. see **holandry**.

meroblastic cleavage Cleavage of a heavily yolked egg in which only the egg cell divides, leaving the yolk undivided.

merocerite n. [Gr. *meros*, part; *keras*, horn] (ARTHRO: Crustacea) The 4th segment of an antenna.

merocrine a. [Gr. *meros*, part; *krinein*, to separate] The passing of a secretion by a gland in which the nucleus remains intact and thereby can recover. see **holocrine**.

merognathite see **merus**

meroic a. [Gr. *meros*, part] (ANN: Oligochaeta) Pertaining to the excretory system with nephridial tubules formed by longitudinal or transverse fragmentation of the original single pair of embryonic rudiments of each segment.

meroistic ovariole (ARTHRO: Insecta) An ovariole in which nurse cells, or trophocytes are present; telotrophic (acrotrophic) and polytrophic types; panoistic; meroistic egg tube.

meromyarian a. [Gr. *meros*, part; *mys*, muscle] (NEMATA) Muscle arrangement with only a few, frequently only two, flat muscle cells seen in each quadrant of a cross section of the animal.

meron n. [Gr. *meros*, upper thigh] (ARTHRO: Insecta) The posterior part of the basicoxite; in higher Diptera, separated from the coxa and forms part of the thoracic wall (mesomeron, metameron).

meronephridium see **micronephridia**

meropleuron n.; pl. **-ura** [Gr. *meros*, part; *pleuron*, side] (ARTHRO: Insecta) A sclerite composed of the meron of the coxa and the lower region of the epimeron.

meropodite n. [Gr. *meros*, part; *pous* foot] (ARTHRO) 1. The fourth segment of a generalized limb. 2. The femur in Chelicerata and Insecta. 3. For Crustacea see **merus**.

merosome n. [Gr. *meros*, part; *soma*, body] A body segment; a somite or metamere.

merospermy n. [Gr. *meros*, part; *sperma*, seed] Fusion of an egg cell with a sperm that has lost its nucleus; therefore, it cannot take part in karyogamy with the egg nucleus.

merus n. [Gr. *meros*, part] (ARTHRO: Crustacea) The fourth segment of the mouth part, articulating with the ischium anteriorly and carpus posteriorly; a meropodite.

mesad, mesiad adv. [Gr. *mesos*, middle; *ad*, toward] Toward the midline of the body.

mesadenia n.pl.; sing. **mesadene** [Gr. *mesos*, middle; *aden*, gland] (ARTHRO: Insecta) 1. Mesodermal accessory glands of male genitalia. 2. In some male Heteroptera, paired,

highly coiled tubules that run side by side to enter anteriorly the bulbus ejaculatorius or closely associated with the short vasa deferentia.

mesal, mesial a. [Gr. *mesos*, middle] At or near the midline of the body.

mesal penellipse (ARTHRO: Insecta) In larvae, a series of crochets covering at least the mesal half of the proleg, incomplete laterally. see **penellipse**.

mesanapleural suture (ARTHRO: Insecta) In Diptera, a suture between the mesanepisternum and the meskatepisternum.

mesanepisternum n. [Gr. *mesos*, middle; *ana*, up; *epi*, on; *sternon*, chest] (ARTHRO: Insecta) 1. In Diptera, the upper area of the mesepisternum separated from the meskatepisternum by the mesanapleural suture; sometimes divided into anterior and posterior by anepisternal cleft; the anepisternum. 2. In Odonata, the anepisternum.

mesaxon n. [Gr. *mesos*, middle; *axon*, axel] (ARTHRO: Insecta) The spiral arrangement of a Schwann cell around an axon; suspensory fold.

mesenchymatous cell see **hemocyte**

mesenchyme, mesenchyma n. [Gr. *mesos*, middle; *enchyma*, infusion] Embryonic connective tissue derived primarily from mesoderm and consisting of a diffuse network of loosely connected or scattered cells not segregated into layers or blocks.

mesenteron n. [Gr. *mesos*, middle; *enteron*, gut] The midgut or midportion of the alimentary tract, endodermal in origin; ventriculus; midintestine.

mesenteron rudiments (ARTHRO: Insecta) Groups of embryologic endodermal cells that regenerate the midgut (stomach) including the anterior and posterior; becomes the epithelium of the adult mesenteron.

mesentery n. [Gr. *mesos*, middle; *enteron*, gut] A supporting membrane or one that forms a partition.

mesepimeral scale or seta (ARTHRO: Insecta) Any scale or seta borne on the mesepimeron.

mesepimeral suture see **mesopleural suture**

mesepimeron n.; pl. **-mera** [Gr. *mesos*, middle; *epi*, on; *meros*, part] (ARTHRO: Insecta) 1. The area of the mesopleuron posterior to the mesopleural suture; the epimeron of the mesothorax. 2. In Odonata, the area between the humeral and first lateral suture.

mesepisternum n.; pl. **-sterna** [Gr. *meros*, middle; *epi*, on; *sternum*, chest] (ARTHRO: Insecta) 1. The area of the mesopleuron anterior to the mesopleural suture; sometimes divided into an upper mesanepisternum and a lower meskatepisternum; the episternum of the mesothorax. 2. In Diptera, horizontally divided into a large mesanepimeron but with a minute meskatepimeron below. 3. In Hymenoptera Ichneumonidae, usually termed mesopleurum.

mesiad see **mesad**

mesial see **mesal**

mesial sclerite see **labellar mesial sclerite**

mesic a. [Gr. *mesos*, middle] Climate characterized by a moderate amount of water.

mesinfraepisternum n. [Gr. *mesos*, middle; L. *infra*, below; Gr. *epi*, on; *sternon*, chest] (ARTHRO: Insecta) A ventral subdivision of the mesepisternum.

meskatepimeron n. [Gr. *mesos*, middle; *kata*, inferior; *epi*, on; *meros*, part] (ARTHRO: Insecta) The lower division of the mesepimeron.

meskatepisternum n. [Gr. *mesos*, middle; *kata*, inferior; *epi*, on; *sternon*, chest] (ARTHRO: Insecta) In Diptera, the lower area of the mesepisternum.

mesobasisternum n. [Gr. *mesos*, middle; *basis*, bottom; *sternon*, chest] (ARTHRO: Insecta) 1. The basisternum of the mesothorax. 2. In Diptera, maybe separated from the mesofurcasternum by a secondary line of inflection. see **furcasternum**.

mesobiota n. [Gr. *mesos*, middle; *bios*, life] Organisms in the soil ranging in size from nematodes to microannelids, microarthropods and mites; mesofauna.

mesoblast n. [Gr. *mesos*, middle; *blastos*, bud] Embryonic mesoderm; the middle germ layer. **mesoblastic** a.

- mesoblastic somites** Segmental divisions of embryonic mesoderm.
- mesobranchial lobe or area** (ARTHRO: Crustacea) In Decapoda, an intermediate part of the branchial region of the carapace.
- mesocardiac ossicle** (ARTHRO: Crustacea) In Decapoda, a triangular or oblong plate, the apex pointing forward maybe more or less truncated; forming the keystone of the anterior arch of the gastric mill.
- mesocephalic** a. [Gr. *mesos*, middle; *kephale*, head] Having a medium size head.
- mesocephalic pillars** (ARTHRO: Insecta) In bees, two oblique chitinous bars forming a brace between the anterior and posterior walls of the head.
- mesocercaria** n. [Gr. *mesos*, middle; *kerkos*, tail] (PLATY: Trematoda) A juvenile stage occurring in digenetic trematodes, an unencysted stage between the cercaria and the metacercaria.
- mesocerebrum** n. [Gr. *mesos*, middle; L. *cerebrum*, brain] (ARTHRO: Crustacea) Ganglion of antennular somite; deutocerebrum.
- mesocoel** n. [Gr. *mesos*, middle; *koiolos*, hollow] 1. The body cavity of the second division of the deuterostome body. 2. (BRYO) Assumed to be the cavity within and at the base of the tentacles. 3. (MOLL) Second or middle division of the coelom.
- mesocole** a. [Gr. *mesos*, middle; L. *colere*, to inhabit] Living conditions with neither too much nor too little water.
- mesoconch** n. [Gr. *mesos*, middle; *konche*, shell] (MOLL: Bivalvia) An intermediate stage in formation of the dissoconch; separated from other stages by pronounced discontinuities.
- mesocuticle** n. [Gr. *mesos*, middle; L. *cutis*, skin] A layer with distinctive staining properties between the exocuticle and endocuticle.
- mesoderm** n. [Gr. *mesos*, middle; *derma*, skin] The cell layer between ectoderm and endoderm in the embryonic cells of

- all animals above the Cnidaria.
- mesodermal tube** The dorsal blood vessel; heart.
- mesodont** a. [Gr. *mesos*, middle; *odous*, tooth] (ARTHRO: Insecta) Pertaining to male Lucanidae bearing mandibles intermediate in size; amphiodont. see **teleodont**, **priodont**.
- meso-epinotal suture** (ARTHRO: Insecta) In Formicidae, the transverse seam separating the mesonotum from the epinotum.
- mesoepisternum** see **mesepisternum**
- mesofacial plate** see **face**
- mesofauna** see **mesobiota**
- mesofurca** see **furca**
- mesogastric lobe/area** (ARTHRO: Crustacea) In Decapoda, the medial division of the gastric region of the carapace; usually five-sided in outline with a long narrow forward projection.
- mesogloea** n. [Gr. *mesos*, middle; *gloios*, glutinous] A thin to very thick, acellular to rather cellular, gelatinous connective tissue between the inner and the outer layers of a two-layered animal.
- mesohyl** n. [Gr. *mesos*, middle; *hyle*, matter] (PORIF) The space lying between the pinacoderm and the choanoderm.
- mesolamella** n. [Gr. *mesos*, middle; L. dim. *lamina*, layer] A thin mesogloea layer between epidermis and gastrodermis in Cnidaria and Porifera.
- mesolecithal egg** Eggs with moderate yolk content. see **centrolecithal egg**.
- mesology** see **ecology**
- mesomere** n. [Gr. *mesos*, middle; *meros*, part] 1. A blastomere of medium size. 2. A mesoblastic somite. 3. Central zone of coelomic pouches in an embryo. 4. (ARTHRO: Insecta) The inner divisions of the phallic lobes that unite to form the aedeagus (the intromittent organ).
- mesomerites** n.pl. [Gr. *mesos*, middle; *meros*, part; *-ites*, having nature of] (ARTHRO: Diplopoda) Modified 9 pair of limbs; together with 8 pair (promerites) of limbs function-

ing as pincers to pull out female vulvae.

mesomeron n. [Gr. *mesos*, middle; *meros*, thigh] (ARTHRO: Insecta) In Diptera, the meron of the mesothorax behind the midcoxa below the mesepimeron. see **metameron**, **meron**.

meson n. [Gr. *mesos*, middle] The central plane; the midline of the body; an imaginary plane dividing the body into right and left halves; the saggital plane.

mesonephridium n. [Gr. *mesos*, middle; *nephros*, kidney] Nephridium of mesodermal origin.

mesonotum n. [Gr. *mesos*, middle; *notos*, back] (ARTHRO: Insecta) The back or upper side of the mesothorax.

mesopelagic a. [Gr. *mesos*, middle; *pelagos*, sea] Pertaining to the pelagic zone of intermediate depth of 200-1000 m; between the epipelagic and bathypelagic zones.

mesopeltidium see **schizopeltid**

mesophragma n. [Gr. *mesos*, middle; *phragma*, fence] (ARTHRO: Insecta) A chitinous piece that descends into the interior of an insect body with the postscutellum as the base.

mesoplankton n. [Gr. *mesos*, middle; *plankton*, wandering] Floating life below euphotic zone; plankton organisms retained by a plankton net.

mesoplax n. [Gr. *mesos*, middle; *plax*, plate] (MOLL: Bivalvia) A calcareous transverse plate straddling the two valves on their dorsal margins. see **protoplax**, **metaplax**.

mesopleural bristles (ARTHRO: Insecta) In Diptera, a row of bristles on the posterior margin of the mesopleura.

mesopleural fovea (ARTHRO: Insecta) In Hymenoptera Ichneumonidae, a pit or short horizontal groove on the mesopleurum, anterior to the mesopleural suture and below the speculum.

mesopleural ridge (ARTHRO: Insecta) In Diptera, the pleural ridge marked externally by the mesopleural suture, between pleural apophyseal pit above the midcoxal articulation to the base of the wing.

mesopleural sulcus (ARTHRO: Insecta) In Diptera, passing downwards from the wing base to the middle coxa.

mesopleural suture (ARTHRO: Insecta) The external groove of the mesopleural ridge, between the base of the wing to the midcoxal articulation.

mesopleuron n.; pl. **-ra** [Gr. *mesos*, middle; *pleuron*, side] (ARTHRO: Insecta) 1. The pleuron of the mesothorax; in winged insects, composed of basalare, subalare, mesepisternum, mesepimeron and mesotrochantin. 2. In Diptera, the dorsal part of the mesepisternum; area in front of the root of the wing between the noto- and sternopleural sutures.

mesopleurosternal ridge (ARTHRO: Insecta) In Diptera, a large, posteriorly curved invagination of the mesopleurosternal suture.

mesopleurosternal suture (ARTHRO: Insecta) In Diptera, the external groove between the meskatepisternum and the mesobasisternum, or mesosternum when the mesobasisternum is not distinguishable; the pleurosternal suture.

mesopleurum n. [Gr. *mesos*, middle; *pleuron*, side] (ARTHRO: Insecta) In Hymenoptera Ichneumonidae, the mesepisternum.

mesopostnotum n. [Gr. *mesos*, middle; L. *post*, after; Gr. *notos*, back] (ARTHRO: Insecta) The postnotum of the mesothorax. see **metapostnotum**.

mesopostscutellum n. [Gr. *mesos*, middle; L. *post*, after; *scutellum*, small shield] (ARTHRO: Insecta) The postscutellum of an insect's mesothorax.

mesopraescutum n. [Gr. *mesos*, middle; L. *prae*, before; *scutum*, shield] (ARTHRO: Insecta) The praescutum of the mesothorax. see **prescutum**.

mesopsammic a. [Gr. *mesos*, middle; *psammos*, sand] Pertaining to organisms living interstitially in sand or a material in the form of rounded grains; psammous. **mesopsammon** n. see **sabulous**.

mesopseudogyne see **pseudogyne**

mesorhabdions n.pl. [Gr. *mesos*, middle; dim. *rhabdos*, rod] (NEMATA) The walls of the mesostome. see **rhabdion**.

mesoscutellum n. [Gr. *mesos*, middle; L. *scutellum*, little

shield] (ARTHRO: Insecta) The scutellum of the mesothorax, usually referred to as scutellum.

mesoscutum n. [Gr. *mesos*, middle; L. *scutum*, shield] (ARTHRO: Insecta) The scutum of the mesothorax.

mesoserries n. [Gr. *mesos*, middle; L. *series*, row] (ARTHRO: Insecta) In *larva*, a band of crochets or hooks extending longitudinally on the mesal side of a proleg; when curved, varying from a quadrant to slightly more than a semicircle in extent, seldom exceeding two-thirds of a circle.

mesosoma n. [Gr. *mesos*, middle; *soma*, body] 1. The middle part of an invertebrate's body. 2. (ARTHRO: Chelicerata) In Arachnida, the anterior portion of the abdomen, often clearly set off from the metasoma. 3. (ARTHRO: Insecta) For Hymenoptera, see **alitrunk**. 4. (POGON) The short frenular region of the body.

mesosome n. [Gr. *mesos*, middle; *soma*, body] (ARTHRO: Crustacea) A collective term for all free thoracic somites behind the head.

mesospermalege n. [Gr. *mesos*, middle; *sperma*, seed; L. *legere*, to gather] (ARTHRO: Insecta) A special pouch in certain females for reception of sperm; Ribaga's or Berlese's organ.

mesosternal cavity (ARTHRO: Insecta) In Elateridae, the opening into which the prosternal process catches.

mesosternellum n. [Gr. *mesos*, middle; L. dim. *sternum*, breast bone] (ARTHRO: Insecta) A small rod-like plate that articulates posteriorly with the mesosternum.

mesosternum n. [Gr. *mesos*, middle; *sternon*, breast] 1. (ARTHRO: Crustacea) In some Decapoda Brachyura, the median plate of the sternum. 2. (ARTHRO: Insecta) In Hymenoptera, the ventral part of the mesothorax; between the fore and mid-coxae.

mesostome, **mesostom** n. [Gr. *mesos*, middle; *stoma*, mouth] (NEMATA) A division of the protostome preceded anteriorly by the prostome and posteriorly by the metasome. see **prostome**.

mesostracum n. [Gr. *mesos*, middle; *ostrakon*, shell] (MOLL: Polyplacophora) A calcareous shell layer between the teg-

mentum and the articulamentum in certain more highly developed living species.

mesotarsal ring see **basitarsal ring**

mesotarsus n. [Gr. *mesos*, middle; *tarsos*, sole of foot] (ARTHRO: Insecta) The tarsus of the middle leg.

mesotergum see **mesonotum**

mesothoracotheca n. [Gr. *mesos*, middle; *thorax*, chest; *theke*, case] (ARTHRO: Insecta) In pupal forms, the covering of the mesothorax.

mesothorax n. [Gr. *mesos*, middle; *thorax*, chest] (ARTHRO: Insecta) The middle of the thoracic divisions.

mesothyridid n. [Gr. *mesos*, middle; *thyridos*, a window] (BRACHIO) Pedicle opening partly in the ventral umbo and partly in the delthyrium, with beak ridges appearing to bisect the opening.

mesotriaene n. [Gr. *mesos*, middle; *triaina*, trident] (PORIF) A megasclere triaene with a rhabd projecting on both sides of a cladome.

mesotroch n. [Gr. *mesos*, middle; *trochos*, wheel] (ANN: Polychaeta) A ciliated band around the midbody of a marine annelid.

Mesozoa, **mesozoans** n.; n.pl. [Gr. *mesos*, middle; *zoon*, animal] Ciliated, multicellular organisms, endoparasitic in a variety of marine invertebrates; two layered, having no skeletal, muscular, nervous, digestive, respiratory, or excretory elements.

mesozona n. [Gr. *mesos*, middle; *zone*, belt] (ARTHRO: Insecta) The middle portion of the pronotum. see **prozona**.

metabiosis n. [Gr. *meta*, between; *bios*, life] A condition of life where an organism precedes and prepares the environment for another organism, inducing an exchange of growth factors beneficial among species.

metablastic see **ectoderm**

metabola n. [Gr. *metabole*, change] (ARTHRO: Insecta) Species having distinct external changes during the stages of their life history. see **paurometabola**, **hemimetabola**, **holometabola**.

- metabolic activities** Any forms of activity that have to do with metabolism.
- metabolic water** Water produced in the cells as a by-product of metabolism.
- metabolism** n. [Gr. *metabole*, change; *ismos*, denoting condition] The sum total of chemical reactions occurring in living matter. **metabolic** a. see **catabolism**, **anabolism**.
- metabolite** n. [Gr. *metabole*, change; *ites*, like] Any by-product of a living organism; a metabolized substance.
- metabranial lobe or area** (ARTHRO: Crustacean) In Decapoda, the posterior branchial region of the carapace.
- metacentric** a. [Gr. *meta*, after; *kentron*, center of circle] Having the centromere situated along the chromosome, except at or near the tip, e.g., J- or V-shaped in metaphase. see **telocentric**, **acrocentric**.
- metacephalon** n. [Gr. *meta*, after; *kephale*, head] (ARTHRO: Insecta) In Diptera, the area behind the mouth extending up toward the neck.
- metacercaria** n. [Gr. *meta*, after; *keros*, tail] (PLATY: Trematoda) The stage succeeding the cercarial, following loss of tail; it may invade the definitive host (blood flukes) or may become encysted and await passive transfer to that host.
- metacerebrum** n. [Gr. *meta*, after; L. *cerebrum*, brain] (ARTHRO: Crustacea) Ganglion of antennal somite; tritocerebrum.
- metacestode** n. [Gr. *meta*, after; *kestos*, girdle; *eidos*, form] (PLATY: Cestoda) The developmental stage of the plerocystoid where proglottids are evident but generative organs are not fully mature.
- metachemogenesis** n. [Gr. *meta*, change of; *chemeia*, infusion; *genesis*, beginning] (ARTHRO: Insecta) In holometabolous forms, post-emergence biochemical maturation; does not include sexual maturation.
- metachromasia, metachromasis, metachromasy** n. [Gr. *meta*, change of; *chroma*, color] Staining of tissue components in different colors by a single dye.
- metacnemes** n.pl. [Gr. *meta*, after; *kneme*, leg] (CNID: Antho-

- zoa) Secondary mesenteries between the primary cycle.
- metacoel** n. [Gr. *meta*, after; *koilos*, hollow] 1. The body cavity of the third division of the deuterostome body. 2. (BRYO) Believed to be the main body cavity.
- metacorporal valve** (NEMATA) An expanded, strongly cuticularized portion of the triradiate lumen at the center of the metacarpus that functions as a pump during feeding.
- metacarpus** n. [Gr. *meta*, after; L. *corpus*, body] (NEMATA) The median esophageal bulb; the middle bulb; the median bulb.
- metacoxal plate** (ARTHRO: Insecta) In Coccinellidae, a portion of the first ventral segment included above the ventral lines, visible on the metathorax.
- metacyclic** a. [Gr. *meta*, after; *kyklos*, circle] Pertaining to a stage in the life cycle of a parasite that is infective to its definitive host.
- metacyst** n. [Gr. *meta*, after; *kystis*, bladder] A cystic stage of a parasite in a host.
- metaepisternum** see **metepisternum**
- metaerucism** n. [Gr. *meta*, after; L. *eruca*, caterpillar] (ARTHRO: Insecta) Poisoning by larval setae on cocoons, etc. see **lepidopterism**.
- metafemale** n. [Gr. *meta*, after; L. *femella*, little woman] (ARTHRO: Insecta) In Diptera, an individual with 3 X-chromosomes and 2 sets of autosomes; found in *Drosophila*.
- metagastric lobe or area** (ARTHRO: Crustacea) In Decapoda, the posterior division of the gastric region of the carapace; sometimes ill-defined.
- metagenesis** n. [Gr. *meta*, after; *genesis*, beginning] Alternation of sexual and asexual reproduction in the life cycle of certain animals; alternation of generations. see **heterogenesis**.
- metagnath** n. [Gr. *meta*, change of; *gnathos*, jaw] (ARTHRO: Insecta) Those insects with biting mandibles when young and sucking mouth parts as adults. see **menognath**, **Menorhyncha**.
- metagonia** n. [Gr. *meta*, after; *gonia*, angle] (ARTHRO: In-

secta) The anal angle of a wing.

metagynous a. [Gr. *meta*, after; *gyne*, female] (ANN: Oligochaeta) Having the ovaries only in segment xiii or a homoeotic segment.

metagyny see **protandry**

metakinesis n. [Gr. *meta*, after; *kinesis*, movement] Separation of chromatids during anaphase.

metamale n. [Gr. *meta*, change of; L. *mas*, male] (ARTHRO: Insecta) A male *Drosophila* with three (3) sets of autosomes and one X-chromosome.

metamere n. [Gr. *meta*, after; *meros*, part] One or more of a series of homologous parts of many animals; a merosome; a somite. **metameric** a.

metameric sac see **osmeterium**

metamerism n. [Gr. *meta*, after; *meros*, part] Segmental repetition of homologous body parts; metameres; metasomes.

metameron n. [Gr. *meta*, after; *meros*, upper thigh] (ARTHRO: Insecta) In Diptera, the meron of the metathorax; a vertical sclerite above the hindcoxa. see **mesameron**, **meron**.

metameros n. [Gr. *meta*, after; *meros*, part] (ARTHRO: Insecta) In Lepidoptera, the combined sixth to eighth abdominal segments.

metamorphosis n.; pl. **-ses** [Gr. *meta*, change of; *morphe*, form] A marked change in form or structure an animal undergoes from one growth stage to another; also applies to the actual process of changing from larval to adult form. see **anamorphosis**, **epimorphosis**, **hypermetamorphosis**.

metanauplius n. [Gr. *meta*, after; *nauplios*, shellfish] (ARTHRO: Crustacea) One to several larval stages subsequent to the first (nauplius) larva; characterized by increasing size and the appearance of additional appendages.

metandry n. [Gr. *meta*, after; *aner*, male] (ANN) Possessing only the posterior pair of testes; in earthworms, testes restricted to segment xi. **metandric** a. see **proandry**, **holandry**.

metaneme n. [Gr. *meta*, after; *nema*, thread] (NEMATA) Filamentous organs in or near the lateral epidermal cords that usually have anterior and sometimes posterior filaments and a central scapulus; thought to be stretch receptors. see **orthometaneme**, **proprioceptor**.

metanephridium n.; pl. **-ia** [Gr. *meta*, after; *nephros*, kidney] Paired osmoregulatory or excretory tubules in some phyla; tubules that open into the body cavity and are found in coelomate animals.

metanephromixium n. [Gr. *meta*, after; *nephros*, kidney; *mixis*, mingling] (ANN: Polychaeta) Nephromixium in which the coelomostome and nephrostome are combined into a genital and/or excretory duct. see **mixonephridium**.

metanotal gland (ARTHRO: Insecta) In male *Oecanthus* (Orthoptera) and some blattids, special glands on the dorsum of the thorax that produces a secretion attractive to females.

metanotal slopes (ARTHRO: Insecta) In Diptera, the pleurotergites.

metanotum n.; pl. **-nota** [Gr. *meta*, after; *notos*, back] (ARTHRO: Insecta) The dorsal sclerite of the metathorax. **metanotal** a.

metaparapteron n. [Gr. *meta*, after; *para*, beside; *pteron*, wing] (ARTHRO: Insecta) In Formicidae, the postscutellum.

metapeltidium see **schizopeltid**

metaphase n. [Gr. *meta*, after; *phasis*, to appear] The stage of mitosis when the chromosomes line up in the equatorial plane of the spindle.

metaplasia n. [Gr. *meta*, after; *plasis*, molding] The mature period in an individual's life.

metaplasm n. [Gr. *meta*, after; *plasma*, formed or molded] Non-living protoplasmic inclusions. **metaplastic** a.

metaplastax n. [Gr. *meta*, after; *plax*, plate] (MOLL: Bivalvia) A long narrow posteriorly pointed, rounded or forked accessory plate covering the gape between the two valves on the dorsal margins posterior to the umbo. see **protoplastax**, **mesoplastax**.

metapleural bristles (ARTHRO: Insecta) In Diptera, a bristle or bristles on the metapleura.

metapleural gland (ARTHRO: Insecta) In most Formicidae, a gland with an external bulla and a small orifice, opening on each side of the metathorax at its lower posterior corners; thought to function as a protection against microorganisms in the nest chamber due to fungistatic and bacteriostatic activity.

metapleuron n.; pl. **-ura** [Gr. *meta*, after; *pleuron*, side] (ARTHRO: Insecta) 1. The lateral sclerites of the metathorax. 2. In Diptera, the pleuron of the metathorax. **metapleural** a.

metapleurum n. [Gr. *meta*, after; *pleuron*, side] (ARTHRO: Insecta) In Hymenoptera Ichneumonidae, ordinarily divided into two parts, the lower is largest and generally referred to; the lower part an oval or subtriangular area on the side of the *thorax*, between middle and hind coxae to the propodeum; the upper area lies behind the upper half of the mesepimeron and below and behind the base of the hind wing, separated from the propodeum by a suture.

metapneustic a. [Gr. *meta*, after; *pneustikos*, of breathing] (ARTHRO: Insecta) Said of aquatic insect larvae having only the posterior pair of spiracles open and functioning. see **oligopneustic**.

metapodeon n. [Gr. *meta*, after; *podeon*, neck] (ARTHRO: Insecta) That part of an abdomen behind the podeon or petiole.

metapodium n. [Gr. *meta*, after; *pous*, foot] (MOLL) The posterior portion of the foot.

metapodosoma n. [Gr. *meta*, after; *pous*, foot; *soma*, body] (ARTHRO: Chelicerata) In ticks or mites, that portion of the podosoma that bears the third and fourth pair of legs.

metapolar cells (MESO) The posterior tier of cells in the calotte.

metapon n. [Gr. *metopon*, forehead] (ARTHRO: Crustacea) In Decapoda, the entire preoral area, including part of the mandibular somite.

metapostnotum n. [Gr. *meta*, after; L. *post*, after; Gr. *notos*, back] (ARTHRO: Insecta) The postnotum of the metathorax.

see **mesopostnotum**.

metapostscutellum see **postscutellum**

metapraescutum, metaprescutum n. [Gr. *meta*, after; L. *prae*, before; *scutum*, shield] The prescutum of the metathorax.

metapygidium n. [Gr. *meta*, after; *pyge*, rump] (ARTHRO: Insecta) 1. In Dermaptera, the posterior ventral segment of the supra-anal plate. 2. In Coleoptera, the penultimate tergite when the elytra are shorter than the abdomen.

metarhabdions n.pl. [Gr. *meta*, after; *rhabdos*, rod] (NEMATA) The cuticularized walls of the metastome. see **rhabdion**.

metascolex n. [Gr. *meta*, after; *scolex*, worm] (PLATY: Cestoda) The posterior portion of a transversely divided scolex.

metascutellum n. [Gr. *meta*, after; L. *scutellum*, dim. *scutum*, shield] (ARTHRO: Insecta) The scutellum of the metathorax.

metasoma n. [Gr. *meta*, after; *soma*, body] 1. The posterior region of many invertebrates. 2. (ACANTHO) The posterior part of the body or trunk. 3. (ARTHRO) The abdomen or urosome. 4. (ARTHRO: Chelicerata) In Arachnida, the abdominal body segments and telson; posterior part of opisthosoma. 5. (ARTHRO: Crustacea) see **metasome**. 6. (PHORON) The long gonadal region following the mesosoma, and bearing external papillae and chitinous attachment structures. see **opisthosoma**.

metasome n. [Gr. *meta*, after; *soma*, body] (ARTHRO: Crustacea) In Copepoda, a portion of the prosome, consisting of free thoracic somites anterior to the major point of body flexion; or first three abdominal somites; metasoma.

metastasis n.; pl. **-ses** [Gr. *meta*, after; *stasis*, standing] The transfer of pathogenic microorganisms to parts of the body remote from the origin of infection.

metasternal glands (ARTHRO: Insecta) In Formicidae, paired organs in the posterior area of the *thorax*, opening to the outside near the pleural-sternal margins of the metathorax.

metasternal orifice (ARTHRO: Insecta) In Formicidae, the opening of the metasternal gland.

metasternum n. [Gr. *meta*, after; *sternon*, chest] (ARTHRO: Insecta) 1. The sternum or ventral sclerite of the metathorax. 2. For Diptera, see **mesepimeron**.

metastigmata n.pl. [Gr. *meta*, after; *stigma*, point] (ARTHRO: Insecta) The posterior spiracles of the synthorax.

metastome, metastom n. [Gr. *meta*, after; *stoma*, mouth] (NEMATA) The posterior subdivision of a prostome.

metastoma n.; pl. **-mata** [Gr. *meta*, after; *stoma*, mouth] 1. (ARTHRO: Crustacea) The lower lip posterior to the mandibles, usually cleft into paragnaths; hypostoma; hypostome; hypopharynx; labium. 2. (ARTHRO: Insecta) In Orthoptera, the hypopharynx.

metasyndesis see **acrosyndesis**

metatarsus n.; pl. **-si** [Gr. *meta*, after; *tarsos*, flat of the foot] (ARTHRO) The basal segment of a tarsus; next to the tibia; the basitarsis.

metatentorium n.; pl. **-ia** [Gr. *meta*, after; L. *tentorium*, tent] (ARTHRO: Insecta) A posterior arm of the tentorium.

metatergum see **metanotum**

metathetely n. [Gr. *meta*, after; *theein*, to run; *telos*, end] (ARTHRO) 1. A neotenous adult arthropod after undergoing normal or more than normal numbers of molts. 2. In Insecta, often resulting in failure to develop wings, or forming brachypterous adults.

metathoracotheca n. [Gr. *meta*, after; *thorax*, chest; *theke*, case] (ARTHRO: Insecta) The pupal covering of the metathorax.

metathorax n. [Gr. *meta*, after; *thorax*, chest] (ARTHRO: Insecta) The third or posterior segment of the *thorax*, bearing the hind legs and the hind wings.

metatroch n. [Gr. *meta*, after; *trochos*, wheel] (ANN) In Polychaeta, trochophore larvae, as well as some other groups, the postoral girdle of cilia. see **prototroch**, **telotroch**.

metatrochophore n. [Gr. *meta*, after; *trochos*, wheel; *phorein*, to bear] (ANN: Polychaeta) A ciliated trochophore larva developing trunk segments.

metaxyphus n. [Gr. *meta*, after; *xiphos*, sword] (ARTHRO: In-

secta) In Hemiptera, spinose or triangular process of the metasternum.

Metazoa, metazoans n.; n.pl. [Gr. *meta*, after; *zoon*, animal] 1. A small phylum of endoparasitic, ciliated, multicellular organisms composed of two layers, lacking skeletal, muscular, nervous, digestive, respiratory or excretory elements. 2. Often regarded as degenerate flatworms appended to phylum Platyhelminthes. **metazoic** a.

metazoea n. [Gr. *meta*, after; *zoe*, life] (ARTHRO: Crustacea) A late zoeal stage in Anomura and Brachyura with simple uniramous limbs on posterior thoracomeres, budding pleopods 1-5 at the same time, and having stalked eyes.

metazona n. [Gr. *meta*, after; *zone*, belt] (ARTHRO: Insecta) The posterior part of the pronotum. see **prozona**.

metazonite n. [Gr. *meta*, after; *zone*, belt] (ARTHRO: Diplopoda) The posterior portion of a diplosomite, divided by a transverse groove. see **prozonite**.

metecdysis n. [Gr. *meta*, after; *ekdysis*, molt] (ARTHRO) The period following a molt before the new cuticle hardens, especially in Decapoda (Crustacea).

metelattosis n. [Gr. *meta*, after; *elattos*, smaller] (ARTHRO: Chelicerata) Regression of postembryonic development, initiated after the beginning stasis.

metenchium n. [L. *meta*, conical column; Gr. *enchos*, spear] (NEMATA: Secernentea) Conus of the stylet in plant parasites in the order Tylenchida. see **telenchium**.

metenteron n. [Gr. *meta*, after; *enteron*, intestine] (CNID) The radial digestive chamber. see **mesenteron**.

metepimeron n.; pl. **-mera** [Gr. *meta*, after; *epi*, on; *meros*, part] (ARTHRO: Insecta) The epimeron of the metathorax.

metepisternum n.; pl. **-sterna** [Gr. *meta*, after; *epi*, on; *sternon*, breast] (ARTHRO: Insecta) 1. The episternum of the metathorax. 2. In Culicidae, behind and below the metathoracic spiracle.

meter n. [Gr. *metron*, a measure] A measure of length in the metric system; 39.37 inches. see **centimeter**, **millimeter**.

metinfraepisternum n. [Gr. *meta*, after; L. *infra*, underneath;

Gr. *epi*, on; *sternon*, breast] (ARTHRO: Insecta) In Odonata, a ventral subdivision of the metepisternum.

metochy see **symphily**, **synechthry**

metoecious parasite A parasite that is not host-specific. see **heteroecious**.

metope n. [Gr. *metopon*, forehead] The middle frontal portion of a head. see **metapon**.

metopic suture see **coronal suture or branch**

metopidium n. [Gr. *metopidios*, of the forehead] (ARTHRO: Insecta) In Membracidae, the anterior downward sloping surface of the prothorax.

metraterm n. [Gr. *metra*, womb; *terma*, end] (PLATY: Trematoda) In Digenea, the muscular, terminal portion of the uterus.

metric system A decimal system of measures and weights.

metrocyte n. [Gr. *metros*, mother; *kytos*, container] A cell having given rise to other cells by division; mother cell; precursory cell.

micelle n.; pl. **-ae** [L. *micarius*, crumbs] A supermolecular colloid particle, often an orderly packet of chain molecules in parallel arrangement.

micraesthetes n.pl. [Gr. *mikros*, small; *aisthetes*, one who perceives] (MOLL: Polyplacophora) One or more small sensory organs, in the form of eyes, sometimes accompanying the megaesthetes. see **aesthete**.

micraner n. [Gr. *mikros*, small; *aner*, male] (ARTHRO: Insecta) In Formicidae, a dwarf male. see **microgyne**.

micrergate n. [Gr. *mikros*, small; *ergate*, worker] (ARTHRO: Insecta) In Formicidae, a dwarf worker, a microergate.

microbe n. [Gr. *mikros*, small; *bios*, life] A microscopic organism.

microbiota n. [Gr. *mikros*, small; *bios*, life] 1. The combined or singularly considered microflora and microfauna of an organism. 2. Microscopic soil organisms.

microbivorous a. [Gr. *mikros*, small; *bios*, life; L. *vorare*, to devour] Microbe eating; microbiotrophic.

microbody n. [Gr. *mikros*, small; Eng. body] Spherical or ovoid bodies that are rich in enzymes of peroxide metabolism.

microbotroph n. [Gr. *mikros*, small; *bios*, life; *trophein*, to feed] Microscopic faunal forms that obtain nourishment from digesting living microorganisms; microbivorous.

microcalthrop, **microcaltrop** n. [Gr. *mikros*, small; ML. *calci-trapa*, a four-pointed weapon] (PORIF) A microsclere tetraxon spicule with four rays, one elongated and three short; a euaster with 4 persistent rays.

microcentrum see **centrosome**

microcephalic a. [Gr. *mikros*, small; *kephale*, head] Having an abnormally small head. see **megacephalic**, **mesocephalic**.

microcercous cercaria (PLATY: Trematoda) Small cercaria with a very short tail and a stylet in the oral sucker. see **xiphidiocercaria**.

microchaetae n.pl. [Gr. *mikros*, small; *chaeta*, mane] Small bristles. see **chaeta**, **macrochaetae**.

microclimate n. [Gr. *mikros*, small; *klima*, slope] The climate of the habitat in which the individual lives.

microcnemes n.pl. [Gr. *mikros*, small; *knemis*, leg] (CNID: Anthozoa) In Actinaria, younger, narrow mesenteries lacking filaments. see **macrocnemes**.

microcotylate cercaria (PLATY: Trematoda) A group of small xiphidiocercariae with a postequatorial ventral sucker, and finless tail equal to the body length.

microdrile n. [Gr. *mikros*, small; *drilos*, worm] (ANN: Oligochaeta) A general term for the aquatic forms. see **megadrile**.

microelectrode n. [Gr. *mikros*, small; *elektron*, amber] Small electrode for sensing electrical activity in a neuron.

microergate see **micrergate**

microevolution n. [Gr. *mikros*, small; L. *evolutus*, unrolling] All processes of species formation and differentiation brought about by the combined action of various evolutionary factors. see **macroevolution**.

- microfauna** n. [Gr. *mikros*, small; L. *Faunus*, diety of herds and fields] Very small animals; animals less than 200 μ m.
- microfibril** n. [Gr. *mikros*, small; L. dim. *fibra*, fiber] Microscopic or submicroscopic fiber.
- microfilaria** n. [Gr. *mikros*, small; L. *filum*, thread] (NEMATA) The uncoiled mobile embryo of a filaria, that either escapes from the egg shell (unsheathed) or causes stretching of the shell into an elongated sac accommodated to the uncoiled embryo (sheathed).
- microgamete** n. [Gr. *micros*, small; *gametes*, husband] 1. A slender, active, male anisogamete. 2. Derived from the microgametocyte of the malarial protozoan. see **macrogamete**.
- microgametocyte** n. [Gr. *mikros*, small; *gamete*, husband; *kytos*, container] The male gametocyte that gives rise to microgametes.
- microgeographic race** A local race, restricted to a small area.
- microgram** n. [Gr. *mikros*, small; *gramma*, small weight] One thousandth of a gram.
- microgranular cells** (PORIF) Cells with cytoplasm charged with small dense granules.
- microgyne** n. [Gr. *mikros*, small; *gyne*, woman] (ARTHRO: Insecta) In Formicidae, a dwarf female. see **micraner**.
- microhabitat** n. [Gr. *mikros*; small; L. *habitare*, to dwell] A small or restricted habitat. see **niche**.
- microhexactine** n. [Gr. *mikros*, small; *hex*, six; *aktis*, ray] (PORIF) A small hexactine spicule.
- microic** a. [Gr. *mikros*, small; *eidōs*, like] (ANN: Oligochaeta) Smaller than macroic, a substitute for micronephridial, often applied to nephridia as large as or larger than meganephridia.
- microlecithal** a. [Gr. *mikros*, small; *lekithos*, egg yolk] Containing little yolk.
- microleucocyte** n. [Gr. *mikros*, small; leukos, white; *kytos*, container] A small amoebocyte.
- micromere** n. [Gr. *mikros*, small; *meros*, part] Small cells of

- the animal pole in eggs with abundant yolk.
- micromesentary** n. [Gr. *mikros*, small; *mesos*, middle; *enteron*, gut] (CNID: Anthozoa) In Zoantharia, an incomplete secondary mesentary.
- micrometer** n. [Gr. *mikros*, small; *metron*, a measure] A unit of microscopic measure, designated by the Greek letters μ ; one-thousandth of a millimeter.
- micromillimeter** see **nanometer**
- micromutation** see **point mutation**
- micron** see **micrometer**
- micronekton** n. [Gr. *mikron*, small; *nektos*, swimming] Small, swimming organisms in the ocean.
- micronephridia** see **microic**, **nephridium**
- microniscus**, **micronicus** see **epicaridum**
- micronucleocytes** see **plasmatocytes**
- microorganism** n. [Gr. *mikros*, small; *organon*, instrument] A microscopic organism such as most nematodes, rotifers, etc.
- micropaleontology** n. [Gr. *mikros*, small; *palaios*, ancient; *logos*, discourse] The study of microscopic fossils.
- microphagous** a. [Gr. *mikros*, small; *phagein*, to eat] Feeding on small objects. see **macrophagous**.
- microphthalmmy** n. [Gr. *mikros*, small; *ophthalmos*, eye] An abnormally small antenna. **microphthalmic** a.
- microplankton** n. [Gr. *mikros*, small; *plankton*, wandering] Small organisms floating in water.
- microplasmatoocyte** n. [Gr. *mikros*, small; *plasmatos*, image; *kytos*, container] (ARTHRO: Insecta) A small plasmatoocyte having a small amount of vacuolar cytoplasm. see **eo-plasmatoocyte**.
- micropore** n. [Gr. *mikros*, small; *poros*, pore] (MOLL: Polyplacophora) A small pore in the dorsal plates; associated with an aesthete.
- micropredator** n. [Gr. *mikros*, small; L. *praedator*, plunderer] A temporary parasite.

micropseudogyne see **pseudogyne**

micropterism, microptery n. [Gr. *mikros*, small; *pteron*, wing] Small wings.

micropterogyne n. [Gr. *mikros*, small; *pteron*, wing; *gyne*, woman] (ARTHRO: Insecta) A female with small wings.

micropterous a. [Gr. *mikros*, small; *pteron*, wing] Having small or vestigial wings.

micropyle n. [Gr. *mikros*, small; *pyle*, entrance] A pore in the investing membrane of an egg through which a spermatozoan enters for fertilization. **micropylar** a.

micropyle apparatus (ARTHRO: Insecta) Raised structures around the micropyle of an egg.

micropyrenic a. [Gr. *mikros*, small; *pyren*, kernel] Having nuclei smaller than average for a particular cell type of an individual or species.

microsclere n. [Gr. *mikros*, small; *skleros*, hard] (PORIF) A packing or reinforcing spicule, usually of a size, and ornate shape that occur strewn throughout the mesenchyme. see **me gasclere**.

microsolecin, microscolecine n. [Gr. *mikros*, small; *skolex*, worm] (ANN: Oligochaeta) Provided with a pair of tubular prostates opening to the exterior in segment xvii along side of, or together with, the sperm ducts.

microscopic a. [Gr. *mikros*, small; *skopein*, to view] Being invisible with the naked eye, usually requiring the aid of a microscope for elucidation of structure or recognition of whatever characters are involved. see **macroscopic**.

microsensillum n. [Gr. *mikros*, small; L. *sensillus*, sensitive] Small sensillum or sensory puncture.

microseptum n. [Gr. *mikros*, small; L. *septum*, partition] (CNID: Anthozoa) A Zoantharia with incomplete or imperfect mesentary.

microsomes n. [Gr. *mikros*, small; *soma*, body] Formerly any small granules in the cytoplasm; fragments of endoplasmic reticulum.

microsomia n. [Gr. *mikros*, small; *soma*, body] Dwarfishness; nanism.

microsomites n.pl. [Gr. *mikros*, small; *soma*, body] (ARTHRO: Insecta) In embryology, small secondary rings or somites of the macrosomites later to become body segments.

microspecies n.pl. [Gr. *mikros*, small; L. *species*, a kind] A small local species population that shows little variability; jordanon.

microspines n.pl. [Gr. *mikros*, small; L. *spina*, thorn] (ARTHRO: Insecta) In some larvae, minute spines on the exterior body wall.

microstome n. [Gr. *mikros*, small; *stoma*, mouth] A small opening or orifice.

microsymbiote n. [Gr. *mikros*, small; *symbiosis*, life together] A term designating the smaller organism, or microorganism, of a symbiotic association.

microthorax n. [Gr. *mikros*, small; *thorax*, chest] (ARTHRO: Insecta) The neck or cervix, when the cervix is a reduced body segment.

microthrix n.; pl. **microtrices** [Gr. *mikros*, small; *thrix*, hair] (PLATY: Cestoda) One of the minute folds of the tegument that aid in absorption of nutrients.

microtome n. [Gr. *mikros*, small; *temnein*, to cut] Instrument for cutting thin sections of tissues for microscopic examination.

microtomy n. [Gr. *mikros*, small; *temnein*, to cut] The science of cutting and staining of thin sections of tissues for microscopic examination.

microtrichia n.pl.; sing. **-ium** [Gr. *mikros*, small; *thrix*, hair] 1. (ARTHRO: Insecta) Minute, abundant, non-articulate hairs found on the wings (aculeae). see **macrotrichia**. 2. (PLATY: Cestoda) see **microthrix**.

microtubules n.pl. [Gr. *mikros*, small; L. *tubulus*, small water pipe] Minute tubules in cells that are often cross-linked; found in cilia, spindle fibers, and in the cytoplasm where they form the cytoskeleton.

microtype n. [Gr. *mikros*, small; *typos*, type] (CNID: Anthozoa) A normal mesentery arrangement. see **macrotype**.

microvillus n.; pl. **-villi** [Gr. *mikros*, small; L. *villus*, shaggy

hair] Minute processes on the inner surface of epithelial cells. see **brush border**.

microxea n. [Gr. *mikros*, small; *oxys*, sharp] (PORIF) A microscleere similar to an oxea, but very small.

microzoon n. [Gr. *mikros*, small; *zoon*, animal] A microscopic animal.

mictic egg Eggs that have undergone meiosis and are therefore haploid; when unfertilized they produce haploid males. see **amictic egg**.

micton n. [Gr. *mictos*, mixed] Widely distributed species produced by interspecific hybridization which are fully fertile with parent species.

mid-axis n. (MOLL: Bivalvia) Straight line in commissural plane at a right angle to the hinge axis and beginning at the midpoint of the ventral margin of the resilifer.

midbody n. [A.S. *middel*, middle; *bodig*, body] The equatorial region of the body.

middle bulb see **metacarpus**

middle cuticular layer (NEMATA) Formerly used for the matrix layer of the cuticle.

middle field see **discoidal area**

middle plate (ARTHRO: Insecta) In embryology, that area between the mesodermal rudiment and the lateral ectodermal plates.

middorsal a. [A.S. *middel*, middle; L. *dorsum*, back] Pertaining to the true dorsal line of an individual; dorsomedian.

midgut n. [A.S. *middel*, middle; gut] The mesenteron; the middle portion of the alimentary tract.

midgut gland (MOLL) A lobed or unlobed gland, of a compound tubular or acinous nature, opening into the gut in one or more places; sometimes called liver.

midintestine see **midgut**

midventral a. [A.S. *middel*, middle; L. *venter*, belly] Pertaining to the true ventral line; ventromedian.

midventral glands see **supplementary organs**

migrante n. [L. *migrator*, wanderer] (ARTHRO: Insecta) In aphids, the winged, parthenogenetic, viviparous females that develop on the primary host, then fly to the secondary host. see **alienicola**, **fundatrix**.

migration n. [L. *migratus*, change habitat] The act or instance of any form of invertebrate that moves from the place of birth for food or other purposes. **migrational** a.

milk gland (ARTHRO: Insecta) Specialized accessory gland of Glossina and the Pupipara that produces a milk containing lipids, proteins and amino acids.

millepunctatus a. [L. *mille*, a thousand; punctum, prick] Covered or studded with many dots, points, or minute depressions.

millimeter n. [L. *mille*, a thousand; Gr. *metron*, a measure] One-thousandth of a meter, or 0.03937 of an inch; mm.

millimicron see **nanometer**

mimesis see **mimicry**

mimetic a. [Gr. *mimikos*, imitative] Characterized by mimicry.

mimetic polymorphism Polymorphism in which the various morphs resemble other species distasteful or dangerous to a predator; often restricted to females.

mimic n. [Gr. *mimos*, actor] 1. An organism that resembles another in color, habit or structure for the purpose of protection. 2. Nonallelic genes with similar phenotypic effects.

mimicry n. [Gr. *mimikos*, imitative] The resemblance in color or structure to other species that are distasteful or poisonous to a predator. see **Batesian** and **Mullerian mimicry**.

mines n. [Celtic origin] (ARTHRO: Insecta) Larval galleries or burrows on the inside of leaf tissue.

minim n. [L. *minimus*, least] 1. A very small object. 2. 1/60 of a fluid dram or 0.06 ml. 3. (ARTHRO: Insecta) In Formicidae, a minor worker.

minor worker (ARTHRO: Insecta) An individual belonging to the smallest worker subcaste, esp. in Formicidae; a minim. see **media worker**, **major worker**.

minute a. [L. *minutus*, small] 1. Very small. 2. (ARTHRO: In-

secta) A few millimeters in length or less.

miolecithal a. [Gr. *meion*, less; *lekithos*, egg yolk] Referring to eggs containing little yolk.

miracidium n.; pl. **-dia** [Gr. dim. *meirakion*, young girl] (PLATY: Trematoda) In Digenea, the first larval stage; a ciliated, free-swimming form.

mirror n. [L. *miror*, to look at] (ARTHRO: Insecta) In Hemiptera Cicadidae, clear cuticular membrane located near the stridulatory apparatus; specular membrane.

missense mutation Gene mutation in which one amino acid is changed; the altered proteins may show some activity.

mitochondria n.pl.; sing. **mitochondrion** [Gr. *mitos*, thread; *chondros*, grain] Sausage-shaped structures in the cytoplasm of animal and plant cells.

mitogen n. [Gr. *mitos*, thread; *genos*, birth] An agent that stimulates a cell to undergo mitosis.

mitosis n.; pl. **-ses** [Gr. *mitos*, thread] The division and separation of chromosomes during cell division, involving the longitudinal splitting of each chromosome resulting in two equal sets of daughter chromosomes. **mitotic** a.

mitosome n. [Gr. *mitos*, thread; *soma*, body] A body arising from the spindle fibers of the preceding mitosis; spindle remnant.

mitraria larva (ANN: Polychaeta) Post-trochophore larva of *Owenia* with three hypertrophied setae for defense or flotation.

mixed nerve A nerve with both motor and sensory fibers.

mixed nest (ARTHRO: Insecta) A nest inhabited by two or more species of social insects with intermingling between adults and broods. see **compound nest**.

mixocoel n. [Gr. *mixis*, mingling; *koilos*, hollow] (ARTHRO) The adult body cavity (not a true coelom) derived from a blastocoel and secondary body cavities that functions as a hemocoel.

mixonephridium n. [Gr. *mixis*, mingling; *nephros*, kidney] (ANN: Polychaeta) A type of nephromixium in which the nephridium and coelomoduct are combined into a single

organ having both excretory and genital functions.

mixoploidy n. [Gr. *mixis*, mingling; *aploos*, onefold; *eidōs*, like] Having cells with different chromosome numbers in cell populations.

mnemotaxis n. [Gr. *mneme*, memory; *taxis*, arrangement] Movements in which memory plays a part.

mode n. [L. *modus*, measure] The most frequent value of any measurable characteristic in a population.

modifer genes Genes that affect the phenotypic expression of genes at other loci.

modification n. [L. *modus*, measure; *facere*, to make] Any variation caused by non-genetic factors.

modioliform a. [L. *modiolus*, a small measure or drinking vessel; *forma*, form] 1. In the form of a nave or hub of a wheel; more or less globular with truncated ends. 2. (MOLL: Bivalvia) Beaks are not terminal and anteroventral region forms a slight bulge; shell shaped like the genus *modiolus*.

modulation n. [L. *modulare*, to measure] 1. Alteration in cells by environment without change in their basic character. 2. Interactive modification of cells during development.

moiety n.; pl. **-ties** [L. *medius*, the middle] 1. One of two equal parts. 2. An indefinite portion.

mola n. [L. *mola*, mill] (ARTHRO: Insecta) In Coleoptera, the thickened and enlarged basal part of the internal ridge of the mandible used for grinding. see **molar lobe**.

molar a. [L. *mola*, mill] 1. Adapted for grinding. 2. (ARTHRO: Crustacea) Pertaining to the grinding surface on the inner edge of the mandibles or jaws.

molar lobe (ARTHRO: Insecta) The proximal lobe of the mandibles used for chewing or grinding. see **mola**.

molar process (ARTHRO: Crustacea) The grinding portion of the gnathal lobe of the mandible; pars molaris.

molecular biology The study of biological phenomena in terms of the physiochemical properties of molecules in a cell.

molecular genetics The study of genetics at the level of mole-

cules.

molecules n.pl. [L. dim. *moles*, mass] The small particles into which any substance can be divided without chemical change.

Mollusca n.; pl. **mollusks, molluscs** [L. *molluscus*, soft] A phylum of invertebrates with a soft unsegmented body and usually covered with a double or single shell, or having an internal shell; includes snails, chitons, tusk shells, bivalves, limpets, squids, octopi, etc.

molluscicide n. [L. *molluscus*, soft; *caedere*, to kill] An agent that kills snails.

molt, moult n. [L. *mutare*, to change] The periodic process of loosening and discarding the cuticle, accompanied by the formation of a new cuticle in the process of growth; may be divided into two distinct processes: apolysis and ecdysis. see **pharate**.

molting fluid 1. Often undetermined fluid that causes the loosening of the old cuticle. 2. (ARTHRO: Insecta) A fluid containing chitinase and proteinase that digests the unsclerotised cuticle (except the ecdysial membrane).

molting hormone see **ecdysone**

moltinism n. [L. *mutare*, to change] Polymorphs of differing strains or biotypes that undergo a different number of larval molts.

molula n. [L. dim. *mola*, mill] (ARTHRO) The dicondylic joint by which the tibia articulates with the femur.

monacanthid a. [Gr. *monos*, one; *acantha*, thorn] (ECHINOD: Asteroidea) Having one row of ambulacral spines.

monactinal a. [Gr. *monos*, one; *aktis*, ray] (PORIF) Spicule development originating from a fixed point in one direction only.

monaene a. [Gr. *monos*, one; *triaina*, trident] (PORIF) A modified tetraxon with only one clad.

monarsenous a. [Gr. *monos*, one; *arsen*, masculine] Polygamous; having one male to numerous females.

monaster n. [Gr. *monos*, one; *aster*, star] A unipolar spindle that results in a nucleus with an unreduced chromosome

number instead of two nuclei.

monaulic a. [Gr. *monos*, one; *aulos*, pipe] (MOLL: Gastropoda) Male and female portions with a common gonopore. see **diaulic, triaulic**.

monaxon n. [Gr. *monos*, one; *axon*, axis] (PORIF) Spicules formed by growth in one or both directions along a single axis. **monaxonid** a.

monecious see **monoecious**

monila n. [L. *monile*, necklace] (BRYO) Concentric thickening of the zooecial wall causing a beadlike appearance.

monilicorn see **moniliform**

moniliform a. [L. *monile*, necklace; *forma*, shape] Beadlike; resembling a string of beads; contracted or jointed at regular intervals.

moniliform glands (NEMATA) Beadlike cells around the uvette of the demanian system, usually forming a rosette.

monoallelic a. [Gr. *monos*, one; *allelon*, one another] Referring to a polyploid in which all alleles at a locus are identical.

monobasic a. [Gr. *monos*, one; *basis*, step] Describing genera originally based on one species only.

monocentric a. [Gr. *monos*, one; *kenatron*, point] Pertaining to a chromosome with one centromere.

monochromatic a. [Gr. *monos*, one; *chromos*, color] Of one color only; unicolored.

monocondylar see **monocondylic**

monocondylic a. [Gr. *monos*, one; *kondylos*, knuckle] Having one condyle.

monocondylic joint A joint with a single point of articulation between segments.

monocrepid a. [Gr. *monos*, one; *krepis*, base] (PORIF) Pertaining to a desma formed on a monaxon.

monocule n. [Gr. *monos*, single; L. *oculus*, eye] (ARTHRO) A one-eyed animal, as certain crustaceans and insects.

monocyclic a. [Gr. *monos*, one; *kyklos*, circle] (ECHINOD: Cri-

noidea) Refers to calyx plates of primitive stalked crinoids having an aboral cycle of 5 plates (basal) and 5 plates (radial) oral to the basal plates.

monodactyl, monodactyle, monodactylous a. [Gr. *monos*, one; *dactylos*, finger] (ARTHRO) Pertaining to an appendage, ambulacrum or claw with only one unguis. see **bidactyl**.

monodelphic a. [Gr. *monos*, one; *delphys*, womb] (NEMATA) Having one uterus.

monodesmatic a. [Gr. *monos*, one; *desmos*, tendon] (ARTHRO: Chelicerata) Pertaining to an articulation between two segments of an appendage with one tendon inserted at the base of the distal segment.

monodisk, monodisc n. [Gr. *monos*, one; *diskos*, disc] (CNID: Scyphozoa) One ephyra developed and released at a time before another forms by transverse fission. see **polydisk, strobilization**.

monodomous a. [Gr. *monos*, one; *doma*, house] (ARTHRO: Insecta) Having one nest per colony. see **polydomous**.

monoecious a. [Gr. *monos*, one; *oikos*, house] Having two kinds of gametes produced by the same individual; hermaphrodite; ambisexual. **monoecism** n. see **dioecious**.

monoembryony n. [Gr. *monos*, one; *embryon*, fetus] The production of only one embryo from a fertilized ovum or egg.

monogamy n. [Gr. *monos*, one; *gamos*, marriage] The condition of having only one mate. **monogamous** a. see **polygamy**.

monogenesis n. [Gr. *monos*, one; *genesis*, beginning] 1. The development of life from a single entity or cell. 2. Asexual reproduction. 3. Direct development without metamorphosis.

monogenetic a. [Gr. *monos*, one; *genesis*, beginning] 1. Pertaining to monogenesis. 2. Designates parasites with a simple direct life cycle that is completed in one host. 3. Producing offspring of one sex by arrhenogenesis or thelygenesis.

monogenic a. [Gr. *monos*, one; *genesis*, beginning] 1. Monogenetic. 2. Reproducing in only one way. 3. Determined by the alleles of a single gene. see **polygenic**. 4. Monomeric.

monogeny n. [Gr. *monos*, one; *genos*, offspring] The production of offspring of one sex by arrhenogenesis or thelygenesis.

monogonoporus a. [Gr. *monos*, single; *gonos*, offspring; *poros*, channel] Having both male and female gonads opening through a common orifice.

monogony n. [Gr. *monos*, one; *gonos*, offspring] Asexual reproduction.

monograph n. [Gr. *monos*, one; *graphos*, a writing] An account or description of one subject or class of subjects; a treatise discussing a single subject in detail.

monogyny n. [Gr. *monos*, one; *gyne*, woman] (ARTHRO: Insecta) The existence of only one functional queen in a nest. see **polygyny**.

monohybrid n. [Gr. *monos*, one; L. *hybrida*, mongrel] The offspring of parents differing in one character.

monolayer n. [Gr. *monos*, one; Eng. layer] A single layer of cells growing on a substrate.

monomers n.pl. [Gr. *monos*, one; *meros*, part] Simple compounds from which polymers are synthesized.

monomeri n.pl., sing. **-us** [Gr. *monos*, one; *meros*, part] (ARTHRO: Insecta) Insects with one-jointed tarsi.

monomeric a. [Gr. *monos*, one; *meros*, part] 1. Pertaining to a single segment. 2. Derived from one part. 3. Monogenic.

monomerosomatous a. [Gr. *monos*, one; *meros*, part; *soma*, body] Having all body segments fused.

monomerosous a. [Gr. *monos*, one; *meros*, part] Having only one joint or part.

monometrosis see **haplometrosis**

monomial a. [Gr. *monos*, one; L. *nomen*, name] Having one name or designation consisting of one term only; uninoomial. see **binomial**.

monomorphic colony (BRYO) A colony in which only one kind

of zooid occurs in the zone of asexual reproduction.

monomorphic polypides (BRYO: Phylactolaemata) One morphologic type of organ system in an asexual budding zone.

monomorphic zooids (BRYO: Gymnolaemata) Zooids of one morphologic type in the zone of asexual reproduction.

monomorphism n. [Gr. *monos*, one; *morphe*, form] 1. A population that exhibits a single form. see **polymorphism**. 2. Species that contain only the female sex. see **dimorphism**. 3. (ARTHRO: Insecta) In social insects, having within a species or colony only a single worker subcaste. **monomorphic** a.

monomyarian a. [Gr. *monos*, one; *mys*, muscle] 1. Having only one muscle. 2. (MOLL: Bivalvia) In oysters and scallops, pertaining to the anterior adductor muscle that has completely disappeared, and the posterior adductor shifted to a more central location between the valves; monomyarian condition. see **anisomyarian**.

mononchoid a. [*Mononchus*; Gr. *eidos*, like] (NEMATA: Adenophorea) Having the characteristics of the predacious nematode genus *Mononchus*.

mononychous a. [Gr. *monos*, single; *onyx*, claw] Pertains to organisms having a single or uncleft claw.

monoparental a. [Gr. *monos*, one; L. *parens*, progenitor] With females only.

monophagous a. [Gr. *monos*, one; *phagein*, to eat] Adapted to subsist on a single kind of food; specialized on a single host species; monotrophic. see **polyphagous**, **oligophagous**.

monophyletic a. [Gr. *monos*, single; *phyle*, tribe] 1. With a single common ancestry. 2. Any group whose most recent common ancestor is cladistically a member of that group. see **polyphyletic**, **oligophyletic**.

monophyly see **monophyletic**

monoplacid a. [Gr. *monos*, one; *plax*, flat plate] Having only one plate.

Monoplacophora, **monoplacophorans** n., n.pl. [Gr. *monos*, one; *plax*, flat plate; *pherein*, to carry] A class of Mollusca

mostly extinct, with a limpet-like, cap-shaped, cone-shaped or spoon-shaped shell with serially paired muscle scars.

monoploid a. [Gr. *monoploos*, onefold] 1. Any somatic cell or individual with one set of chromosomes. 2. Having the basic number of chromosomes in a polyploid series. see **euploid**, **aneuploid**.

monoplont see **haplont**

monorchic a. [Gr. *monos*, one; *orchis*, testicle] Having one testis. see **diorchic**.

monosiphonous a. [Gr. *monos*, one; *siphon*, tube] (CNID: Hydrozoa) Having a single central tube as in the hydrocaulus.

monosome n. [Gr. *monos*, one; *soma*, body] 1. A chromosome lacking an allele. see **polysome**. 2. A single ribosome bound to messenger RNA.

monosomic a. [Gr. *monos*, one; *soma*, body] Lacking one chromosome of a normal complement (somatic number is 2N-1).

monospermy n. [Gr. *monos*, one; *sperma*, seed] One sperm fertilizing an ovum; normal fertilization of an ovum.

monostich n. [Gr. *monos*, one; *stichos*, row] 1. Cells arranged in a row along one side of an axis. 2. (NEMATA: Adenophorea) Esophagi in Stichosomida (=Trichocephalida; Mermithida) in which the cells are external to the esophagus and along one side. **monostichous** a. see **distich**.

monostigmatous a. [Gr. *monos*, single; *stigma*, mark] Having one stigma only.

monostome n. [Gr. *monos*, one; *stoma*, mouth] (PLATY: Trematoda) A fluke lacking a ventral sucker.

monostome cercaria (PLATY: Trematoda) A cercaria with a muscular oral sucker anteriorly and no ventral sucker; encysts on objects in water.

monothalamous a. [Gr. *monos*, one; *thalamos*, chamber] Unilocular; single chambered. see **monothecal**.

monothecal a. [Gr. *monos*, one; *theke*, case] 1. Having one chamber or loculus. see **monothalamous**. 2. (ANN: Polychaeta) Having only one spermatheca. see **polythecal**.

monothely n. [Gr. *monos*, one; *thelys*, woman] Polyandry, with one female being fertilized by many males. **monothelious** a.

monothetic a. [Gr. *monos*, one; *tithenai*, to place] Pertaining to taxa based on only one or a few characters. see **polythetic**.

monotrochous a. [Gr. *monos*, one; *trochous*, wheel] (ARTHRO) Having the trochanter composed of a single piece.

monotrophic see **monophagous**

monotropic a. [Gr. *monos*, one; *tropikos*, a turning] 1. Turning in one direction. 2. (ARTHRO: Insecta) Visiting only one kind of flower for nectar. see **polytropic**.

monotype n. [Gr. *monos*, one; *typos*, type] A holotype of a species based on a single specimen.

monotypic a. [Gr. *monos*, one; *typos*, type] Pertains to a taxon containing only one immediate subordinate taxon, as a genus containing only one species, or a species containing only one subspecies.

monovalent articulation Articulation permitting movement in one mode only; forward and backward, but not up and down, etc.

monovarial a. [Gr. *monos*, one; L. *ovum*, egg; *arium*, producing organ] Having one ovary.

monovoltine see **univoltine**

monoxenic a. [Gr. *monos*, one; *xenos*, guest] Pertaining to the rearing of an organism with only one known species as a food source. see **axenic**.

monoxenous a. [Gr. *monos*, one; *xenos*, guest] Living within a single host during a parasite's life cycle. see **dixenous**.

monozoic a. [Gr. *monos*, one; *zoon*, animal] (PLATY: Cestoda) Non-strobilated cestodes.

monozonian a. [Gr. *monos*, one; *zone*, girdle] (ARTHRO: Diplopoda) Having a cylindrical sclerite composed of fused tergites, pleurites and sternites.

montane a. [L. *mons*, mountain] Pertaining to mountains and coniferous forests of mountains.

monticolous a. [L. *mons*, mountain; *colare*, to inhabit] Living in mountains.

monticule n. [L. dim. *mons*, mountain] (BRYO: Stenolaemata) A prominence on the colony surface made by a cluster of polymorphs. see **macula**.

morgan n. [named for T. H. Morgan] A chromosome map unit; expresses the relative distance between genes on a chromosome, as determined by crossing-over phenomena.

moribund a. [L. *mors*, death] Dying; near death.

morph n. [Gr. *morphe*, form] Any of the individual variants of a polymorphic population.

morpha n. [Gr. *morphe*, form] (ARTHRO: Insecta) A word ending recently incorporated in Hemiptera indicating major groups; Nepomorpha (=Hydrocorisae).

morphallaxis n. [Gr. *morphe*, form; *allaxis*, exchange] A regenerative process in which the new parts are reorganized from the old, instead of being formed anterior or posterior to the level of amputation.

morphism see **polymorphism**

morphogenesis n. [Gr. *morphe*, form; *genesis*, beginning] The development of the characteristic form and structure of a cell or an organism.

morphology n. [Gr. *morphe*, form; *logos*, discourse] The science of structural characteristics, particularly those on the surface of the body. **morphological** a.

morphometrics n. [Gr. *morphe*, form; *metron*, measurement] Body measurements.

morphometry n. [Gr. *morphe*, form; *metron*, measurement] Measurement of external form.

morphopathology n. [Gr. *morphe*, form; *pathos*, suffering; *logos*, discourse] The branch of pathology dealing with the morbid changes occurring in the structure of tissues, cells and organs.

morphosis n. [Gr. *morphosis*, a shaping] Nonadaptive and unstable variation in an individual's morphogenesis associated with environmental changes.

morphospecies n.pl. [Gr. *morphe*, form; L. *species*, kind] A typological species based on morphological differences. see **phenon**.

morphotype n. [Gr. *morphe*, form; L. *typos*, type] The type specimen of one of the forms of a dimorphic species.

morula n. [L. dim. *morus*, mulberry] In embryology, consisting of a cluster of cleaving blastomeres; stage preceding blastula.

morular cell (BRYO) A cell filled with refringent spheres in the peritoneal membrane and funicular strand.

morular organ see **columella**

morulation n. [L. dim. *morus*, mulberry] Formation of the morula during holoblastic egg cleavage.

morulit see **nucleolus**

mosaic n. [Gr. *Mousaios*, of the Muses] 1. An organism composed of two or more cell lines of different genetic or chromosomal constitution, both cell lines being derived from the same zygote; genetic mosaic. see **chimera**. 2. An individual displaying characteristics of more than one sex or polymorphic form; phenotypic mosaic.

mosaic evolution Evolution that involves differential rates for different structures, organs, or other components of the phenotype.

mosaic theory (ARTHRO) The theory explaining the function of the compound eye, with the numerous ommatidia receiving a portion of the image and then combining them into a total image in the brain.

moschate a. [L. *moschus*, musk] Having an odor similar to musk.

mother cell A precursory cell or metrocyte.

mother genus An original genus from which others have derived by nomenclatorial division.

motile a. [L. *movere*, to move] Capable of spontaneous movement.

motor nerve see **motor neuron**

motor nervous system A part of the nervous system lying

entirely within the body that transmits stimuli from the central nervous system to the motor elements of the body.

motor neurocyte The neurocyte of a motor neuron.

motor neuron A neuron that transmits excitation directly to an effector; motor nerve.

mottled a. [F. *mattele*, curdled] Spotted with different colors; maculated; blotched.

moult see **molt**

mound nest (ARTHRO) Nest or part of one built above ground of soil or carton material.

mouse unit (MOLL: Bivalvia) A unit of measurement employed as a gradient of shellfish poisoning.

mouth n. [A.S. *muth*, mouth] The oral aperture.

mouth-anus axis (MOLL: Bivalvia) In oysters, a line through the mouth and anus.

mouth capsule see **buccal cavity**

mouth cirri (ARTHRO: Crustacea) In Cirripedia, the first pair of modified cirri.

mouth cone (ARTHRO: Insecta) The rostrum; proboscis, prostomium.

mouth fork see **lacinia**

mouth hooks (ARTHRO: Insecta) In Cyclorrhapha 2nd instars, cuticular claw-like structures, one on each side of the atrial opening, thought to articulate with a small ventral sclerite that may represent the maxillary cardo; mandibular sclerites.

mouth spear see **stomatostyle, odontostyle**

movable finger (ARTHRO: Crustacea) The dactyl of the chela.

movable hook (ARTHRO: Insecta) In Odonata, a small tooth on the inner border of the lateral lobe slightly external to the end-hook.

mucid a. [L. *mucidus*, mucus-like] Mouldy; slimy.

mucific a. [L. *mucus*, mucus; *facere*, to make] Pertains to mucus-secreting.

mucigen n. [L. *mucus*, mucus; *genos*, to produce] A substance

from which mucin is derived in mucin secreting cells.

mucilaginous a. [L. *mucus*, mucus] Pertaining to gum-like or mucilage.

mucin n. [L. *mucus*, mucus] A glycoprotein secreted by various cells or glands.

mucivorous a. [L. *mucus*, mucus; *vorare*, to devour] Feeding on the juices of plants. **mucivore** n.

mucoid a. [L. *mucus*, mucus; Gr. *eidos*, like] Glycoproteins that are found in cartilage, cuticle, etc.

mucolytic a. [L. *mucus*, mucus; *lysis*, loosen] The breaking down or dissolving of mucus.

mucopolysaccharides n.pl. [L. *mucus*, mucus; Gr. *polys*, many; *sakcharon*, sugar] Polysaccharides with aminosugar and uronic acid; a constituent of glycoproteins.

mucoprotein a. [L. *mucus*, mucus; Gr. *protos*, first; *eidos*, form] A glucoprotein containing more than 4% hexosamine. see **glucoprotein**, **glycoprotein**.

mucoreous a. [L. *mucor*, mould] Pertaining to or appearing mouldy; surface covered with small fringe-like processes.

mucosa n. [L. *mucus*, mucus] Mucus membrane; lining of internal passageways.

mucous a. [L. *mucus*, mucus] Secreting mucus or a similar sticky substance by various cells, glands, or membranes.

mucous membrane see **mucosa**

mucro n.; pl. **mucrones** [L. *mucro*, sharp point] A small pointed projection, or spine-like ending on a terminus. **mucronate** a.

mucron see **mucro**

mucronate valve see **beak**

mucus n. [L. *mucus*, mucus] A slimy fluid secreted by gland cells present in many epithelia known as mucous membranes.

mulberry corpuscle see **spherule cell**

Mullerian association A group of species showing Mullerian mimicry.

Mullerian mimicry Similarity (usually consisting of coloration) of several species that are distasteful, poisonous, or otherwise harmful to a predator. see **Batesian mimicry**.

Muller's larva (PLATY: Turbellaria) In Polycladida, larva possessing eight posteriorly directed postoral lobes. see **cephalotrocha larva**.

Muller's organ (ARTHRO: Insecta) A group of numerous scolopophores forming a swelling; in Acridoidea, applied to the inner surface of each tympanum and connected by the auditory nerve to the metathoracic ganglion.

Muller's thread see **ovarial ligament**

multiangular, multiangulate a. [L. *multus*, many; *angulus*, angle] Having many angles.

multiarticulate a. [L. *multus*, many; *articulus*, joint] Many-jointed; polyarthric.

multicamerate a. [L. *multus*, many; *camera*, chamber] Having multiple chambers. see **multilocular**.

multicarinate a. [L. *multus*, many; *carina*, keel] Having many ridges or carinae.

multicellular a. [L. *multus*, many; *cella*, cell] Comprised of two or more cells; many-celled.

multicolonial n. [L. *multus*, many; *colonia*, colony] (ARTHRO: Insecta) Population of social insects divided into independent colonies or nests.

multifactorial a. [L. *multus*, many; *facere*, to do] Controlled by several gene loci.

multifarious a. [L. *multifarius*, manifold] Arranged in several rows. see **polystichous**.

multifid a. [L. *multus*, many; *findere*, to cleave] Having many divisions or clefts.

multiforous a. [L. *multus*, many; *foris*, gate] (ARTHRO: Insecta) A spiracle with three or more secondary openings in or near the peritreme.

multilocular a. [L. *multus*, many; *loculus*, little place] Many celled or chambered; having many divisions or compartments; plurilocular. see **multicamerate**.

multilocular hydatid cyst see **alveolar hydatid cyst**

multinucleate a. [L. *multus*, many; *nucleus*, kernel] Pertaining to cells with many nuclei; a coenocyte; polykaric.

multiordinal crochets (ARTHRO: Insecta) Crochets of larvae when they arise from a single row, but with many alternating lengths. see **ordinal**.

multiovulate a. [L. *multus*, many; dim. *ovum*, egg] With many ovules.

multiparasitism n. [L. *multus*, many; Gr. *para*, near; *sitos*, food] The coincident parasitism of an organism by two or more parasites of different species.

multiparous a. [L. *multus*, many; *parere*, to beget] Bearing many offspring.

multipartite a. [L. *multus*, many; *partitis*, divided] Divided into many parts.

multiple allele A series of three or more alternative forms of a gene at a single locus in a chromosome.

multiplicate a. [L. *multus*, many; *plicare*, to fold] Having many folds or plicae.

multipolar cell Cells with more than two nerves preceding from it.

multi-porous septulum (BRYO: Gymnolaemata) A membrane or plate with many holes; a rosette-plate.

multiramous a. [L. *multus*, many; *ramus*, branch] Many branched.

multiramous plasmatocyte A plasmatocyte with three spindle ends.

multiramous vermiform cell A vermiform cell with three spindle ends.

multiserial a. [L. *multus*, many; *series*, a row] Having many series or rows.

multiserial bands (ARTHRO: Insecta) In Lepidoptera, caterpillars with crochets absent from the mesial and lateral parts of the circle.

multiserial circle (ARTHRO: Insecta) In Lepidoptera, caterpillar crochets arranged in three or more concentric circles.

multiserial crochets (ARTHRO: Insecta) In Lepidoptera, crochets arranged in several rows.

multisetiferous a. [L. *multus*, many; *seta*, bristle; *ferre*, to bear] With many setae.

multispinose a. [L. *multus*, many; *spina*, spine] With many spines.

multispiral a. [L. *multus*, many; *spira*, a coil] With numerous whorls.

multistriate a. [L. *multus*, many; *stria*, furrow] With many striations; numerous thread-like lines, grooves or scratches.

multivalent a. [L. *multus*, many; *valens*, strong] Pertaining to several chromosomes being attached together.

multivalved a. [L. *multus*, many; *valva*, leaf of a folding door] (MOLL: Polyplacophora) Having more than two sections.

multivincular a. [L. *multus*, many; *vinculum*, to bind] (MOLL: Bivalvia) Having a ligament with many bonds of union.

multivoltine a. [L. *multus*, many; It. *volta*, time] Having two or more generations or broods in a year or season. see **bivoltine**.

multizoidal bud see **giant bud**

mumia n. [ML. *mumia*, mummy] (ARTHRO: Insecta) A pupa.

mumia pseudonympha (ARTHRO: Insecta) A pupa with some degree of locomotion.

munite a. [L. *munitus*, fortify] Provided with armature.

mural lacuna see **pustula**

mural plate see **compartmental plate**

mural spine (BRYO: Stenolaemata) A small skeletal spine extending into the zooidal chamber.

mural tooth (NEMATA) A tooth attached to, or derived from the stomatal wall.

muricate a. [L. *murex*, a pointed stone] Formed with sharp elevated points; covered with sharp points.

muscidiform larva (ARTHRO: Insecta) Like a Diptera larva; sub-cylindrical larva with the cephalic-end pointed and the

caudal-end broad.

muscle n. [L. *musculus*, muscle] Tissue made up of specialized cells for the production of motion by contraction; a sheet, bundle, or mass of such tissue.

muscle fibers see **fibroplasm**

muscle layer(s) 1. One or more layers of muscle below the epithelium. 2. (BRYO: Phylactolaemata) Both longitudinal and circular muscles between epithelial and peritoneal layers of the colony wall.

muscle scar A mark on the interior of valve or carapace in Crustacea, Mollusca and Brachiopoda representing the position of muscle attachment, recognizable by surface texture, elevation, depression or a delimiting narrow groove; a muscle imprint.

muscle segment A myomere.

muscularis n. [L. *musculus*, muscle] (ARTHRO: Insecta) A muscular sheath surrounding the alimentary canal.

muscular pad (ECHI) A muscular tissue pad or pads associated with the ventral setae.

muscular sheath (ARTHRO: Insecta) In Culicidae, a sheath enclosing a coelomic section of each of the ventral setae.

musculature n. [L. *musculus*, muscle] The system or arrangement of muscular structure of an organism.

musculus bursae basalis (NEMATA: Secernentea) Bursal muscle that arises from the ventral side of the bursa and extends dorsally to the root of the dorsal ray.

musculus costae dorsalis (NEMATA: Secernentea) A many branched bursal muscle that arises mediodorsally in the dorsal ray, and extending anteriorly to become trifurcate, then the median arm splits into four parts.

musculus costae lateralis externus anterior (NEMATA: Secernentea) Bursal muscles that arise anterior to the musculus costae lateralis externus posterior, extending posteriorly to the base of the ventral rays; possibly functioning to extend the bursa.

musculus costae lateralis externus posterior (NEMATA: Secernentea) A bursal muscle that arises anteriorly dorsad of

the lateral cords, extending posteriorly and becoming trifurcate at the base of the lateral rays; possibly functioning to extend the bursa.

musculus costerum lateraliu internis (NEMATA: Secernentea) Bursa muscle that arises as paired submedian muscles at the body wall anterior to the intestino-rectal valve; each laterally extended branch entering the root of the lateral ray; possibly functioning to bend the bursa inwards.

mushroom bodies (ARTHRO: Insecta) The two stalked nerve structures of the protocerebrum, that are connected with the optic lobes. see **corpora pedunculata**.

mushroom gland (ARTHRO: Insecta) Large mushroom-shaped seminal vesicles.

mutafacient n. [L. *mutatus*, change; *facere*, to make] Gene or genetic element that causes or increases the chance of mutation at another site.

mutagen n. [L. *mutare*, to change; Gr. *gennaein*, to produce] Any physical or chemical agent that increases mutational events.

mutant n. [L. *mutare*, to change] An organism that undergoes mutation.

mutation n. [L. *mutare*, to change] A structural change in a gene, consisting of a replacement, duplication, or deletion of one or several pairs in the DNA.

mutation frequency The frequency of mutants in a population.

mutationism see **De Vriesianism**

mutation rate Frequency with which a mutation occurs per site per generation.

mutation theory A theory of the origin of new characteristics in organisms as a result of changes in the genes. see **sal-tation**.

mutator genes Any gene that causes an increase in mutation rates in other genes. see **mutafacient**.

mutein n. [L. *mutatus*, change; Eng. protein] A mutationally altered protein analogous to the normal type.

- mutic, mutilous** a. [L. *muticus*; shortened] Unarmed; lacking defensive processes that usually occur.
- mutilate** v.t. [L. *mutilus*, cut-off] To deprive of one or more essential part(s); to amputate.
- muton** n. [L. *mutare*, to change] The smallest element in the array of mutation sites, that when altered, may give rise to a mutant.
- mutualism** n. [L. *mutuus*, reciprocal] A type of symbiosis in which both host and symbiont benefit from the association.
- muzzle** n. [OF. *musel*, snout] Snout.
- myarian** a. [Gr. *mys*, muscle] 1. Referring to muscle, as in meromyarian. 2. (MOLL: Bivalvia) Used in classification as to number and position of the adductor muscles.
- mycelium** n. [Gr. *mykes*, fungus] In fungi, the network of filaments that form the vegetative part.
- mycetangium** n. [Gr. *mykes*, fungus; *angeion*, vessel] (ARTHRO: Insecta) The fungus-storing organs of Platypodinae, a sac-like invagination of the epidermis at the posterior part of the prothorax.
- mycetocyte** n. [Gr. *mykes*, fungus; *kytos*, container] A large, polyploid cell containing intracellular mutualistic and commensalistic microsymbiotes; one of many cells that make up the mycetome. see **symbiosis**.
- mycetome** n. [Gr. *mykes*, fungus; *-oma*, mass] A specialized structure or organ that houses symbiotes.
- mycetometochy** n. [Gr. *mykes*, fungus; *metochos*, sharing] (ARTHRO: Insecta) Symbiosis between fungi and the dwellers of compound nests.
- mycetophagous** a. [Gr. *mykes*, fungus; *phagein*, to eat] Feeding on fungi; mycophagous; fungivorous.
- mycohelminths** n.pl. [Gr. *mykes*, fungus; *helmins*, worm] Fungivorous nematodes.
- mycophagous** a. [Gr. *mykes*, fungus; *phagein*, to eat] Feeding on fungi; mycetophagous; fungivorous.
- mycosis** n. [Gr. *mykes*, fungus; *-sis*, process of] Any disease caused by the invasion of fungi.

- mycotoxin** n. [Gr. *mykes*, fungus; *toxikon*, poison] A low molecular weight metabolite of fungi which is poisonous to animals.
- myelin sheath** A fatty material surrounding a nerve fiber.
- myiasis** n. [Gr. *myia*, fly; *-iasis*, morbid condition] A condition deriving from invasion by dipterous larvae.
- myoblast** n. [Gr. *mys*, muscle; *blastos*, bud] A cell that produces muscular fiber.
- myochordotonal organ** (ARTHRO: Crustacea) In Decapoda, a proprioceptor at the proximal end of the meropodite, a flat membrane lying between the skeleton and sheath of the accessory flexor muscle of the carpus, with distal bipolar sensory cells passing through the membrane and attached to the skeleton; having scolopidia similar to the insect chordotonal organs.
- myocytes** n.pl. [Gr. *mys*, muscle; *kytos*, container] (PORIF) Cells that cause contraction.
- myoepithelial** n. [Gr. *mys*, muscle; *epi*, upon; *thele*, nipple] 1. (BRYO) A contractile ectodermal cell with intracellular striated muscles. 2. (CNID) Epithelium with a longitudinal contractile fiber at the base; epitheliomuscular.
- myofibrillae, myofibrils** n.pl; sing. **-a** [Gr. *mys*, muscle; dim. *fibra*, fiber] Longitudinal fibrils of muscle cells.
- myogenic** a. [Gr. *mys*, muscle; *gennaen*, to produce] Pertains to a muscle contraction initiated by nerve impulse. see **neurogenic**.
- myoglobin** n. [Gr. *mys*, muscle; L. *globus*, ball] A type of hemoglobin occurring in muscle cells concerned with oxygen transport and storage; also called myohemoglobin.
- myohematin, myohaematin** n. [Gr. *mys*, muscle; *haima*, blood] An iron pigment said to occur in muscles; thought to be a cytochrome.
- myoid** a. [Gr. *mys*, muscle; *eidos*, like] Composed of muscle fibers.
- myology** n. [Gr. *mys*, muscle; *logos*, discourse] That branch of anatomy dealing with the arrangement of muscles.
- myomere** n. [Gr. *mys*, muscle; *meros*, part] A muscular seg-

ment.

myoneural junction Point of junction between a motor nerve and the muscle which it activates.

myoneure n. [Gr. *mys*, muscle; *neuron*, nerve] A motor neuron.

myonicity n. [Gr. *mys*, muscle] The contracting power of muscle tissue.

myophore n. [Gr. *mys*, muscle; *pherein*, to bear] (MOLL: Bivalvia) A spoon- or sickle-shaped structure beneath the beak on the interior of the shell; functioning as a place of attachment for certain muscles.

myoplasm n. [Gr. *mys*, muscle; *plasma*, formed or molded] The contractile portion of a muscle cell.

myosin n. [Gr. *mys*, muscle] Muscle protein that combines with actin to form actomyosin in muscle contraction.

myostracum n. [Gr. *mys*, muscle; *ostrakon*, shell] (MOLL: Bivalvia) That part of the shell wall secreted at the attachment of the adductor muscles.

myotaxis n. [Gr. *mys*, muscle; *taxis*, tension] Muscular tonicity or tension.

myotome n. [Gr. *mys*, muscle; *tome*, to cut] A muscle segment, somite or myomere.

myrmecobiosis n. [Gr. *myrmex*, ant; *biosis*, life] A symbiotic relationship between ants; consociation.

myrmecochory n. [Gr. *myrmex*, ant; *chorein*, to spread] Active dispersion of seeds by ants.

myrmecoclepty n. [Gr. *myrmex*, ant; *kleptes*, thief] (ARTHRO: Insecta) A form of symbiosis in which the guest ant steals food from the host ant.

myrmecodomatium n.; pl. **-ia** [Gr. *myrmex*, ant; *domos*, house] A plant tissue cavity inhabited by ants.

myrmecole n. [Gr. *myrmex*, ant; L. *colere*, to inhabit] An organism that lives in ants' nests, but does not otherwise interact with them. see **myrmecophilous**.

myrmecology n. [Gr. *myrmex*, ant; *logos*, discourse] The division of entomology that studies ants.

myrmecophagous a. [Gr. *myrmex*, ant; *phagein*, to eat] Feeding on ants.

myrmecophile n. [Gr. *myrmex*, ant; *philos*, love] A symbiont of ants.

myrmecophilous a. [Gr. *myrmex*, ant; *philos*, love] Fondness of, or benefited by an association with ants. see **myrmecole**.

myrmecophily n. [Gr. *myrmex*, ant; *philos*, love] (ARTHRO: Insecta) The utilization by other insects, mainly beetles, of ant colonies as domiciles and sources of food; ant symbiosis. **myrmecophilous** a.

myrmecophobic a. [Gr. *myrmex*, ant; *phobeisthai*, to flee] Having the ability to repel ants.

myrmecophyte n. [Gr. *myrmex*, ant; *phyton*, plant] A myrmecophilous plant that has an obligatory, mutualistic relationship with ants.

myrmecoxenes n.pl. [Gr. *myrmex*, ant; *xenos*, guest] True guests of ants. see **symphile**.

mysis stage (ARTHRO: Crustacea) In Decapoda, a larval stage in which only the thoracopods are used in swimming and the compound eye is stalked; schizopod larva. see **zoea**.

mystacine a. [Gr. *mystax*, moustache] Bearded; having tactile hairs or vibrissae.

mystax n. [Gr. *mystax*, moustache] (ARTHRO: Insecta) A cluster of hairs or bristles above the mouth; beard.

mytiliform a. [L. *mytilus*, sea mussel; *forma*, shape] 1. (ARTHRO: Insecta) In aquatic Hemiptera, the shell-shaped swimming feet. 2. (MOLL: Bivalvia) Having the form of a mussel shell; mytiloid; shell shaped like the genus *Mytilus*.

myzesis n. [Gr. *myzein*, to suck] Suction or sucking.

myzorhynchus n. [Gr. *myzein*, to suck; *rhynchos*, snout] (PLATY: Cestoda) In some Tetracystida, an apical stalked, sucker-like organ on the scolex.

N

- nacre** n. [F. *nacre*, mother-of-pearl] (MOLL) The pearly or iridescent substance that lines the interior of shells, especially gastropods and pelecypods; mother-of-pearl; **nacreous** a.
- naiad** n. [Gr. *Naias*, water nymph] (ARTHRO: Insecta) In Hemimetabola, the aquatic, gill-breathing nymph.
- nail** n. [A.S. *naegel*, nail] (ARTHRO) A tarsal claw; unguis.
- naked** a. [A.S. *nacod*, nude] Lacking the usual covering.
- nanism** n. [Gr. *nanos*, dwarf] Dwarfishness. **nanoid** a.
- nanitic worker** (ARTHRO: Insecta) In Formicidae, dwarf workers produced in first broods or later starved broods.
- nanometer** n. [Gr. *nanos*, dwarf; *metron*, a measure] Unit of measurement equal to one billionth of a meter; also called millimicron, micromillimeter and bicron.
- nanoplankton** n. [Gr. *nanos*, dwarf; *plankton*, wandering] Microscopic floating animal and plant organisms.
- nanozoid** n. [Gr. *nanos*, dwarf; *zoon*, animal; *eidōs*, like] (BRYO: Stenolaemata) In Tubuliporidae, a polymorph with a single tentacle and reduced alimentary sac.
- narcosis** n. [Gr. *narke*, numbness, torpor] Stupor or unconsciousness caused by a drug or carbon dioxide build up in the blood.
- nasale** n. [L. *nasus*, nose] (ARTHRO: Insecta) Anterio-median projection from the frons formed by fusion of *frons*, clypeus and *labrum*, or by frons and clypeus alone, especially some Coleoptera larvae.
- nascent** a. [L. *nascens*, arising, beginning] Beginning to exist, grow, or develop; the act of being born.
- naso** n. [L. *nasus*, nose] (ARTHRO: Chelicerata) In Acari, an acronal protuberance at the anterior of the body overhanging the chelicerae.

Nassanoff's gland see **Nassanov's gland**

- Nassanov's gland** (ARTHRO: Insecta) In *Apis*, a gland opening to the exterior beneath abdominal tergites six and seven, that function in pheromone production; well developed in workers, but absent in drones and maybe queens.
- nasus** n. [L. *nasus*, nose] (ARTHRO: Insecta) 1. The clypeal region; the drawn-out forward part of the face. 2. In Isoptera, the snout-like frontal projection that functions to eject poisonous or sticky fluids at intruders.
- nasute** n. [L. *nasus*, nose] (ARTHRO: Insecta) A type of soldier termite that bears a frontal snout-like projection or horn through which it ejects a defensive toxin; some possess large hooked mandibles, while in others the mandibles are greatly reduced.
- natal** a. [L. *natalis*, of birth] Of or pertaining to birth.
- natality rate** Birth rate; the number of births per population unit during a given period of time.
- natant** a. [L. *natāre*, to swim] Adapted for swimming; floating; swimming at the surface of the water.
- natatory** a. [L. *natāre*, to swim] Characterized by swimming; adapted for swimming.
- natatory lamellae** (ARTHRO: Insecta) In Orthoptera Gryllotalpidae, long slender plates of the hind tibiae.
- nates** n.pl. [L. *natis*, rump] The umbones of bivalves.
- naticid** a. [LL. *naticae*, buttocks] (MOLL: Gastropoda) Pertaining to *Natica*, a genus of carnivorous sea snail.
- naticiform** a. [LL. *naticae*, buttocks; *forma*, shape] (MOLL: Gastropoda) Having globose last whorl and small spire, like the shell of *Natica*.
- native** a. [L. *nativus*, inherent, conferred by birth] Animals and plants originating and living in a particular area; not imported.
- natural classification** In biology, a classification of groups of organisms or objects to show their characteristics and evolutionary relationships with each other. see **artificial classification**.

natural decrease The rate of population decrease measured by subtracting the natality rate from the mortality rate. see **natural increase**.

natural group A group of organisms having a common ancestor.

natural increase The rate of population increase measured by subtracting mortality rate from natality rate.

natural requeening see **supersedure**

natural selection The process of elimination of the least fitted individuals, and hence species, by the natural conditions of their habitat.

naupliar eye see **nauplius eye**

naupliiform a. [L. *nauplis*, shellfish; *forma*, shape] (ARTHRO: Crustacea) Pertaining to the nauplius larva.

nauplius eye (ARTHRO: Crustacea) In nauplii and many adults, an unpaired median eye consisting of 1 to few light-sensitive cells; median eye; naupliar eye.

nauplius larva (ARTHRO: Crustacea) The earliest larval stage(s), usually with one central eye, and characterized by having only three pairs of appendages: antennules, antennae, and mandibles, all primarily of locomotive function.

nautilicone a. [Gr. *nautilus*, nautilus shell; L. *conus*, cone] (MOLL: Cephalopoda) Spirally coiled in a single plane.

nautiliform see **nautiloid**

nautiloid a. [Gr. *nautilus*, nautilus shell; *eidos*, form] (MOLL: Cephalopoda) Any nautilid shell coiled in a symmetrical involute spiral; nautiliform.

navicular a. [L. dim. *navis*, ship] Boatshaped; cymbiform; scaphoid.

neala n. [L. *ne*, not; *ala*, wing] (ARTHRO: Insecta) 1. The jugum or jugal region of a wing. 2. Vannus

neallotype n. [Gr. *neos*, new; *allos*, other; *typos*, type] An allotype of the opposite sex from that described in the publication of a neotype.

neanic a. [Gr. *neanikos*, fresh] 1. Being youthful or immature; a stage of development between the brephic and mature.

2. (ARTHRO: Insecta) The pupal stage. 3. (BRACHIO) A youthful stage when generic characters are beginning to become apparent. 4. (BRYO) Zooids laid down in the phase of astogenic change.

neap a. [ME. *neep*, neap] A series of tides exhibiting a small tidal range; occurring midway between spring tides.

Nearctic a. [Gr. *neos*, new; *arktikos*, bear] Pertaining to or belonging to a terrestrial division comprised of Greenland and North America, and including northern Mexico.

neascus larva (PLATY: Trematoda) In Strigeidae and Diplostomatidae, a type of metacercaria with a cup-shaped forebody and a well developed hindbody.

nebulous a. [L. *nebula*, cloud] Clouded; marked with many scattered dilated colors or spots; indistinct.

neck n. [A.S. *hnecca*, neck] 1. (ARTHRO: Insecta) The slender connecting structure between head and thorax where the head is free. 2. (MOLL) Distal part of the base of a siphonostomatous shell, starting where outline of left side changes from convex to concave. 4. (PLATY: Cestoda) The unsegmented area between the scolex and strobilae. 3. (NEMATA) The slender, anterior portion of the body containing the esophagus.

neck organ see **nuchal organ**

necrobiosis n. [Gr. *nekros*, corpse; *bios*, life] A series of tissue changes occurring after the death of an individual cell.

necrocytosis n. [Gr. *nekros*, corpse; *kytos*, container] Death of a cell.

necrophagous a. [Gr. *nekros*, corpse; *phagein*, to eat] Feeding upon decaying flesh.

necrophoresis, necrophoric behavior (ARTHRO: Insecta) Carrying dead colony members away from the nest.

necrosis n. [Gr. *nekros*, corpse; *izein*, cause to be] The death of cells or tissues.

necrotize v.t. [Gr. *nekros*, corpse] To kill cells and tissues in a living organism.

nectar n. [Gr. *nektar*, drink of the gods] A sweet substance secreted by flowers and certain leaves; the food of many

insects.

nectobenthic a. [Gr. *nektes*, swimmer; *benthos*, depths of the sea] Organisms swimming freely on or near the bottom of the sea.

nectocalyx see **nectophore**

nectochaeta larva (ANN: Polychaeta) A free swimming planktogenic larva of some aquatic forms that bear rings of cilia and 3 pairs of parapodia.

necton see **nekton**

nectophore n. [Gr. *nektos*, swimming; *phorein*, to carry] (CNID: Hydrozoa) In Siphonophora, the muscular swimming bell that propels the colony; nectocalyx; nectozoid. see **pneumatophore**.

nectopod n. [Gr. *nektos*, swimming; *pous*, foot] An appendage adapted for swimming.

nectosome n. [Gr. *nektos*, swimming; *soma*, body] (CNID: Hydrozoa) In Siphonophora, the part that bears the swimming bells.

nectozoid see **nectophore**

Needham's sac/organ (MOLL: Cephalopoda) In males, a specialization of the sperm duct for formation and storage of spermatophores; spermatophoric sac.

negative geotropism Movement directed away from the earth's gravitational force.

negative phototropism The tendency to retreat from light.

negative tropism The tendency to retreat from stimuli.

nekton n. [Gr. *nektes*, swimmer] Organisms that swim in the open water, i.e., jellyfish, squid, fishes, turtles, seals and whales; necton. see **seston**.

nema n. [Gr. *nema*, thread] (NEMATA) Any individual of the phylum Nemata; a nematode.

nema curds see **nema wool**

nemaposit v.i. [Gr. *nema*, thread; L. *ponere*, to place] (ARTHRO: Insecta) Mock oviposition by insects parasitized by nematodes; the insect deposits nematodes instead of their own eggs.

Nemata, nematodes n.; n.pl. [Gr. *nema*, thread] A phylum containing a large, diverse group of free-living, plant and animal parasitic roundworms, covered by cuticle and having well developed nervous, reproductive and digestive systems, but lack true segmentation, a true coelom and jointed appendages; formerly called Nematoda and Nematodea.

Nemathelminthes n. [Gr. *nema*, thread; *helmins*, worm] A former name for the phylum that included the phyla Nemata, Nematomorpha and Acanthocephala collectively.

nematicide see **nematocide**

nematize v.i. [Gr. *nema*, thread] (NEMATA) To populate or infest with nematodes. **nematization** n.

nematoblast n. [Gr. *nema*, thread; *blastos*, bud] (CNID) A cell that forms a nematocyst; cnidoblast.

nematocide n. [Gr. *nema*, thread; L. *caedere*, to kill] Any agent lethal to nematodes.

nematocyst, cnida n. [Gr. *nema*, thread; *kystis*, bladder] (CNID) Intracellular organelles that function in defense and capture of prey by injecting a toxin; in hydras, they function in adhesion to the bottom; also called stinging cells, nettle cells, or thread capsule or cell. see **spirocyst**.

nematocyte see **plasmatocytes, cnidocyst**

Nematoda see **Nemata**

nematode n. [Gr. *nema*, thread; *eidos*, form] A member of the phylum Nemata

nematode wool see **nema wool**

nematogen n. [Gr. *nema*, thread; *genos*, offspring] (MESO: Rhombozoa) The vermiform adult that reproduces vermiform embryos. see **rhombogen**.

nematoid a. [Gr. *nema*, thread; *eidos*, form] Thread-like.

Nematoidea see **Nemata**

nematology n. [Gr. *nema*, thread; *logos*, discourse] That branch of zoology dealing with nematodes.

Nematomorpha, nematomorphs n.; n.pl. [Gr. *nema*, thread; *morphos*, form] A phylum of worm-like animals that are

free-living as adults and parasitic in arthropods as juveniles; horsehair worms; gordian worms.

nematophagous a. [Gr. *nema*, thread; *phagein*, to eat] Feeding on nematodes.

nematophore n. [Gr. *nema*, thread; *phorein*, to carry] (CNID: Hydrozoa) A club-like or capitate ended structure in a hydroid colony containing nematocysts or adhesive cells; sarcostyle.

nematopore n. [Gr. *nema*, thread; *poros*, pore] (BRYO: Stenolaemata) A slender tubular kenozoecium that opens on the backside of the zoarium with tubules directed distally.

nematosis n. [Gr. *nema*, thread; *osis*, denotes morbid condition] (NEMATA) A morbid state due to parasitism by nematodes.

nematosphere n. [Gr. *nema*, thread; *sphaira*, ball] (CNID: Anthozoa) In Actinaria, a club-like tentacle tip.

nematostat n. [Gr. *nema*, thread; *stasis*, stand] (NEMATA) 1. Any phenomenon that holds a population in equilibrium. 2. A chemical that does not kill nematodes, but paralyzes them.

nematotheca n. [Gr. *nema*, thread; *theke*, case] (CNID: Hydrozoa) In Leptomedusae, small stemmed structures from which nematophores develop; one-chambered, single and immovable; two-chambered, shaped like a wineglass, with upper chamber capable of limited movement on its stem.

nematozoid n. [Gr. *nema*, thread; *zoon*, animal; *eidos*, form] (CNID: Hydrozoa) A defense polyp; machozoid; dactylozoid.

nema wool (NEMATA) Masses of cryptobiotic nematodes adhering to certain plant tissues (bulbs).

Nemertea, nemerteans, nemertines or rhynchocoels n.; n.pl. [Gr. *Nemertes*, a nereid, sea nymph] A phylum of unsegmented, bilaterally symmetrical acelomate worms, commonly called ribbon worms, that are predatory carnivores or scavengers that frequently use their eversible proboscis to catch prey.

Nemertini see **Nemertea**

nemic a. [Gr. *nema*, thread] Of or pertaining to nematodes.

nemin n. [Gr. *nema*, thread] (NEMATA) An unknown or unidentified endogenous substance in nematodes that causes trap formation by predacious fungi.

nemoricolous, nemoricole a. [L. *nemus*, woodland; *colere*, to dwell] Living in open woodland areas.

neobiogenesis n. [Gr. *neos*, new; *bios*, life; *genesis*, beginning] The theory that life may have been evolved several times; recurring biopoiesis. see **biogenesis**.

neoblast n. [Gr. *neos*, new; *blastos*, bud] Undifferentiated cells that migrate to wounds and participate in repair and regeneration.

Neo-Darwinism 1. The theory of evolution stressing the continuity of germ plasm and non-transmission of acquired characters (Weismannism). 2. Any evolutionary theory featuring natural selection.

neogallicolae-gallicolae (ARTHRO: Insecta) In Phylloxeridae, dimorph fundatrigeniae that will become gallicolae (leaf gall formers).

neogallicolae-radicolae (ARTHRO: Insecta) In Phylloxeridae, dimorph fundatrigeniae that will become radicolae (root gall formers).

neogea see **neotropical region**

neogeic a. [Gr. *neos*, new; *ge*, earth] Belonging to the Western Hemisphere or New World. see **gerontogeous**.

neonatal a. [Gr. *neos*, new; L. *natus*, born] Recently born or hatched.

neontology n. [Gr. *neos*, new; *on*, being; *logos*, discourse] The study of recent organisms.

neophorans n.pl. [Gr. *neos*, new; *pherein*, to carry] (PLATY: Turbellaria) 1. Individuals in which the yolk and oocytes are produced by a separate gland, or are produced in separate parts of an ovovitellarium; ectolecithal eggs. see **archoophorans**. 2. A former division of Turbellaria; a superorder.

neoplasm n.; pl. **neoplasia** [Gr. *neos*, new; *plasma*, formed

or molded] An abnormal mass of tissue.

neosistens n. [Gr. *neos*, new; L. *sistere*, to stop] (ARTHRO: Insecta) In Hemiptera Adelgidae, the overwintering nymph of the sistens.

neosome n. [Gr. *neos*, new; *soma*, body] The entire organism altered by neosomy.

neosomule n. [Gr. *neos*, new; dim. *soma*, body] The new structure that results from the neosomic process.

neosomy n. [Gr. *neos*, new; *soma*, body] External transformation, during the formation of new cuticle, in an active stadium of a group normally metamorphosing by molts, i.e., certain insects, acarines, crustaceans and nematodes.
neosomic a.

neostigma n. [Gr. *neos*, new; *stigma*, point] (ARTHRO: Chelicerata) In Prostigmata Acariformes, a secondary spiracle near the base or farther forward of the chelicera.

neotaxy n. [Gr. *neos*, new; *taxis*, arrangement] A secondary change of characters during phylogeny.

neoteinia see **neoteny**

neote(i)nic a. or n. [Gr. *neos*, new; *teinein*, to extend] (ARTHRO: Insecta) In Isoptera, a supplementary reproductive in a colony that may retain some juvenile characters; the word is used both as a noun and adjective (a neoteinic or neoteinic reproductive). Now spelled neotenic

neotenic see **neoteny**

neotenic plerocercoid (PLATY: Cestoda) All adult Caryophyllidea, whose adult developmental forms are thought to be extinct; exception: *Archigetes*. see **neotenic proceroid**.

neotenic proceroid (PLATY: Cestoda) In Caryophyllidea, adult *Archigetes* that reaches sexual maturity complete with cercomer.

neotenic reproduction see **neoteny**

neotenin n. [Gr. *neos*, young; *teinein*, to extend] One of the juvenile hormones.

neoteny, enoteinia, neoteiny n. [Gr. *neos*, young; *teinein*, to extend] 1. A term referring to the condition in which the

gonad completes its development prematurely before the normal differentiation of imaginal structures are completed. see **hysterotely**. 2. (ARTHRO) Further classified into two categories: prothetely and metathetely. **neotenic** a.

neotrichy n. [Gr. *neos*, new; *trichos*, hair] (ARTHRO: Chelicerata) In Acari, secondary formation of setae by multiplication of primary setae in a given area.

neotropical region A zoogeographical region extending south from the Mexican Plateau throughout Central America, the Caribbean and South America.

neotype n. [Gr. *neos*, new; *typos*, type] A single specimen selected as the type specimen from as near to the original locale as practicable in cases where the original types are known to be destroyed or are lost.

neozoology see **neontology**

nephridial papilla (ANN) The projection marking the opening of the excretory organ.

nephridioblast n. [Gr. *nephros*, kidney; *blastos*, bud] An ectodermal cell that is precursor to a nephridium.

nephridiopore n. [Gr. *nephros*, kidney; *poros*, pore] 1. The exterior opening of an excretory organ (nephridium). 2. (ARTHRO: Crustacea) see **nephropore**.

nephridiostome see **nephrostome**

nephridium n.; pl. **-ia** [Gr. dim. *nephros*, kidney; L. *ium*, nature of] 1. In various invertebrates, simple or branched, tubular structures that function in excretion, opening to the outside through a nephridiopore. see **protonephridium**, metanephridium. 2. (ANN: Oligochaeta) A segment essentially composed of excretory tubules that may discharge directly onto the body surface, or lead to a sinus discharging to the exterior through pores by the setal ring. 3. (ECHI) One to many organs used for the temporary storage of eggs and sperm.

nephroblast see **nephridioblast**

nephrocytes n.pl. [Gr. *nephros*, kidney; *kytos*, container] Cells that occur singly or in groups in various parts in an invertebrate body and function to transform original waste ma-

terial into a form with which the metabolic pathways can deal.

nephrocinic a. [Gr. *nephros*, kidney; *odis*, labor] Having a single duct serving both excretory and genital purposes.

nephrogonoduct n. [Gr. *nephros*, kidney; *gonos*, progeny; L. ductus, leading] Combined genital and excretory ducts.

nephromixium n.; pl. -ia [Gr. *nephros*, kidney; *mixis*, mingling] An organ with flame cells and coelomic funnel serving as both excretory and genital duct; a nephrogonoduct. see **protonephromixium**, **metanephromixium**, **mixonephridium**.

nephropore n. [Gr. *nephros*, kidney; *poros*, pore] (ARTHRO: Crustacea) The elevated opening of the antennal gland on the ventral surface of the coxa of the antenna.

nephrostomal lips (ECHI) The lip-like tissue surrounding the nephrostome; may be inconspicuous, expanded, or leaf-like, or extended into long threads that may be spirally coiled.

nephrostome n. [Gr. *nephros*, kidney; *stoma*, mouth] The coelomic opening of a nephridium.

nepioconch n. [Gr. *nepios*, infant; *konch*, shell] (MOLL: Bivalvia) The first part of the dissoconch, when separated by a discontinuity.

nepionic a. [Gr. *nepios*, infant] Pertaining to very young; postembryonic larva; stage of development succeeding the embryonic.

nepionic constriction (MOLL: Cephalopoda) In a nautiloid shell, a definite growth discontinuity of the shell micro-ornamentation thought to correspond to eclosion from the egg.

nepionotype n. [Gr. *nepios*, infant; *typos*, type] The type larva of a species.

NEPO virus Referring to Nematode-transmitted, POLyhedral-shaped viruses. see **NETU virus**.

neritic zone The region of shallow water over the continental shelf that is subdivided into supratidal (wave splash area), intertidal (littoral), and subtidal regions.

nerve n. [L. *nervus*, nerve] 1. A single fiber or group of fibers of the peripheral nervous system. 2. (ARTHRO: Insecta) A tubular wing vein.

nerve cell see **neuron**

nerve ending The terminal arborization of a neuron.

nerve fiber The dendrite or collateral branch of a neurocyte.

nerve net A network of nerve cells connecting sensory and muscular elements in certain cnidarians, ctenophores, bryozoans, and some other invertebrates.

nerve pentagon (ECHINOD) The nerve ring around the mouth.

nerve ring Any ring of nerve fibers, may be around the mouth, esophagus, anus, bell margin, etc. see **circumesophageal commissure**.

nerve root That part of the nerve close to its origin from a ganglion, cord or brain; may be just inside or outside of the ganglion, etc.

nervicole, nervicolous a. [L. *nervus*, nerve; *colere*, to inhabit] Living on or in leaf veins.

nervous a. [L. *nervus*, nerve] Pertaining to nerves; restless or impulsive behavior as in nervous movements.

nervous system A system of nerves with which an organism adapts to its environment.

nervulation see **venation**

nervules see **nervures**

nervures n. [L. dim. *nervus*, nerve] (ARTHRO: Insecta) 1. The tubular wing veins. 2. Branches of the tracheal system.

nesium n.; pl. **nesia** [Gr. *nesion*, an islet] (ARTHRO: Insecta) In scarab beetle larvae, one or two sclerotized projecting marks between the inner end of the dextiotorma and crepis; when two are present, termed nesium externum and nesium internum; chitinous plate of Hayes.

nest n. [A.S. *nest*] (ARTHRO: Insecta) A dwelling of social insects in which young are raised and reproductive females lay eggs; may be a burrow or hollow in soil, log, etc., or be constructed of materials brought to the site, or materials elaborated by the individuals in the colony.

nestlers n.pl. [A.S. *nestlian*, to build a nest] (MOLL: Bivalvia) Clams nestling in cavities or concealment in clay or among dead shells that occasionally produce variations in shell shape.

nest odor (ARTHRO: Insecta) In social insects, the distinctive odor of a nest that enables its inhabitants to distinguish the nest from those belonging to other colonies or the surrounding environment; hive aura/odor. see **colony odor**.

nest parasitism (ARTHRO: Insecta) In Isoptera, one species of termite that lives on the carton walls of the nest of the host species.

nest robbing see **cleptobiosis**

NETU virus Referring to NEmatode-transmitted, TUbular-shaped viruses. see **NEPO virus**.

nettle cells see **nematocysts**

neuraforamen n. [Gr. *neuron*, nerve; L. *foramen*, hole] (ARTHRO: Insecta) The foramen through which the nerve cord passes when it is separated from the occipital foramen.

neural a. [Gr. *neuron*, nerve] Pertaining to the nerves or nervous system of an organism.

neural arc Simple receptor-effector nerve circuit.

neural canal (ARTHRO: Insecta) The incomplete canal on the floor of the meso- and metathorax, formed by fusion of apodemes; functioning in the reception and protection of the ventral nerve cord and for attachment of muscles.

neural groove (ARTHRO: Insecta) The median ventral groove, extending the entire length of the embryo, between the neural ridges.

neural lamella The noncellular outer covering of the central nervous system consisting of mucopolysaccharides and mucoproteins with collagen-type fibrils in the outer part of this layer.

neural ridges (ARTHRO: Insecta) In embryology, the two longitudinal ventral ridges that contain the lateral cords of the neuroblasts.

neuration see **venation**

neurilemma see **Schwann cell**

neurite see **axon**

neurobiotaxis n. [Gr. *neuron*, nerve; *bios*, life; *taxis*, arrangement] 1. The hypothetical migration of nerve cells and ganglia toward regions of maximum stimulation during phylogeny. 2. In embryology, tendency of nerve cells to migrate toward the source of their stimuli.

neuroblast n. [Gr. *neuron*, nerve; *blastos*, bud] (ARTHRO: Insecta) In embryology, the inner layer of ectodermal cells that forms the nervous tissue. see **dermatoblasts**.

neurocirrus n.; pl. **-ri** [Gr. *neuron*, nerve; L. *cirrus*, curl] (ANN: Polychaeta) Cirrus normally on the lower edge of the neuropodium.

neurocyte n. [Gr. *neuron*, nerve; *kytos*, container] The cell body of a neuron; the nerve cell; cyton.

neurofibrils n.pl. [Gr. *neuron*, nerve; L. dim. *fibra*, thread] Fine fibers running longitudinally in axons and dendrites and through the body of the neuron.

neurogenic a. [Gr. *neuron*, nerve; *gennaen*, to produce] 1. Forming nervous tissue. 2. Stimulating nervous energy for certain muscular or glandular reactions. see **myogenic**.

neuroglia n.pl. [Gr. *neuron*, nerve; *glia*, glue] Nonnerve cells in the brain or ganglia; glia; glial cells; gliocytes.

neurohemal organs (ARTHRO: Insecta) Organs involved with the release of products of neurosecretory cells into the hemolymph; corpora cardiaca best developed though less conspicuous ones make up the perisymphathetic system associated with the ventral nerve cord.

neurohormone n. [Gr. *neuron*, nerve; *hormaein*, to excite] A hormone produced by neurosecretory cells.

neurohumor see **neurotransmitter**

neuroid transmission Arousal activity by cells other than nerve cells.

neurolemma see **Schwann cell**

neuromere n. [Gr. *neuron*, nerve; *meros*, part] (ARTHRO: In-

secta) Any of the transitory segmental elevations in the wall of a developing embryo.

neuron n. [Gr. *neuron*, nerve] A nerve cell.

neurone see **neuron**

neuropile n. [Gr. *neuron*, nerve; *pilos*, felt] The central part, or mass of different axons within a ganglion; neurospongium.

neuroplasm n. [Gr. *neuron*, nerve; *plasma*, formed or molded] Cytoplasm of neurons.

neuropodium n. [Gr. *neuron*, nerve; *pous*, foot] (ANN: Polychaeta) The ventral division of the parapodium, supported internally by one or more chitinous rods or aciculae.

neuropore see **trichopore**

Neuropteroidea see **Holometabola**

neuropterous a. [Gr. *neuron*, nerve; *pteron*, wing] (ARTHRO: Insecta) Pertaining to the order Neuroptera.

neurosecretory cells (ARTHRO: Insecta) Cells found in the ganglia of the central nervous system that secrete hormones which act directly on effector organs or on other endocrine organs.

neurospongium see **neuropile**

neurosynapse see **synapse**

neurotransmitter n. [Gr. *neuron*, nerve; L. *trans*, across; *mittere*, to send] A chemical secreted at nerve endings to transmit a nervous impulse across a synapse; neurohumor.

neurotropic a. [Gr. *neuron*, nerve; *tropos*, turn] Having an affinity for nervous tissue.

neurotubules n. [Gr. *neuron*, nerve; L. dim. *tubus*, tube] Microtubules in nervous tissue.

neuston n. [Gr. *neustos*, able to swim] Small organisms that float or swim in or on the surface film of water. see **seston**.

neuter n. [L. *ne*, not; *uter*, either] 1. Sexless. 2. A sterile organism. 3. A non-fertile mature female.

neutralism n. [L. *ne*, not; *uter*, either; *ismus*, denoting a con-

dition] Organisms living together with no mutual harm or benefit; hamabiosis.

neutral synoekete (ARTHRO: Insecta) An insect living on the refuse of a host colony but providing little in return.

new name A replacement name for an available name; nomen novum.

niche n. [L. *nidus*, nest] A position or occupation filled by an organism in the food-web of a community.

nictation see **negative geotropism**

nictitant a. [L. *nictare*, to wink] An ocellus bearing a lunate spot.

nidamental gland Any of various structures that secrete a capsule or covering material for an egg or egg masses.

nidicole a. [L. *nidus*, nest; *colere*, to dwell] Pertaining to an organism that spends much of its life in the nest of its host.

nidificant a. [L. *nidus*, nest; *facere*, to make] Building a nest.

nidifugous a. [L. *nidus*, nest; *fugere*, to flee] Departing the nest soon after birth.

nidus n.; pl. **nidi** [L. *nidus*, nest] 1. A group of regenerative cells; a cell-group. 2. A location for the natural deposit of eggs; a hatching place. 3. The specific locality of a disease, resulting from a combination of ecological factors that favor the disease organism. 4. (ARTHRO: Insecta) Regenerative cells that replace the midintestinal cells used up during holocrine secretion.

niger n. [L. *niger*, black] Black; glossy black.

nigerrima a. [L. *niger*, black; *-rimus*, superlative ending] Very black.

nigrescent a. [L. *nigrescens*, to grow black] Turning black; blackish.

nisto n. (ARTHRO: Crustacea) In Decapoda, the postlarval stage of Scyllaridae and Palinuridae; pseudibacus; puerulus.

nitid, **nitidus** a. [L. *nitidus*, shining] Glossy; shining; brilliant; lustrous.

nitrate n. [Gr. *nitron*, native soda] A salt or ester of nitric acid (HNO₃).

- nitrite** n. [Gr. *nitron*, native soda] A salt or ester of nitrous acid (HNO₂).
- nitrogen** n. [Gr. *nitron*, native soda; *gennaein*, to produce] A colorless, odorless gas that constitutes about four-fifths of the atmosphere.
- nitrogen cycle** Inorganic nitrogen incorporated into organic nitrogen in living organisms and returned to inorganic nitrogen by breakdown of the organic molecules on death of the living organisms.
- nitrogenous** a. [Gr. *nitron*, native soda; *gennaein*, to produce] Pertaining to, or containing nitrogen.
- nits** n.pl. [A.S. *hnitu*, egg of louse] (ARTHRO: Insecta) In Siphunculata, the eggs; particularly when cemented to hair.
- niveous** a. [L. *niveus*, snow] Resembling the color of snow.
- nocturnal** a. [L. *nocturnus*, of the night] Occurring or performed at night. see **diurnal**, **crepuscular**.
- nocturnal eyes** (ARTHRO: Chelicerata) The pearly white eyes of Arachnida.
- nodal furrow** (ARTHRO: Insecta) In Odonata, a transverse suture of the wing, beginning at the costal margin corresponding to the nodus and extending toward the inner margin; costal hinge.
- node** n. [L. *nodus*, knob] 1. A knob or swelling. 2. (BRYO) A place of articulation in a colony.
- nodicorn** a. [L. *nodus*, knob; *cornu*, horn] (ARTHRO: Insecta) Having antennae with joints swollen at the apex.
- nodiferous** a. [L. *nodus*, knob; *fero*, bear] Having or bearing nodes.
- nodiform** a. [L. *nodus*, knob; *forma*, shape] In the form of a knob or knot.
- nodose** a. [L. *nodus*, knob] With small knotlike protuberances.
- nodular** a. [L. dim. *nodus*, knob] Having small knobs or nodule-like projections.
- nodular sclerite** see **epaulett**
- nodule** n. [L. dim. *nodus*, knob] A swollen knob-like structure.

- nodulus** n. [L. dim. *nodus*, knob] (ANN) An enlarged region on a crotchet chaeta at about midlength.
- nodus** n. [L. *nodus*, knob] (ARTHRO: Insecta) 1. In Hymenoptera Ichneumonidae, a dorsal prominence on the tip of the ovipositor, shortly before the apex. 2. In Odonata, a strong cross vein near the middle of the costal border of the wing.
- nomadism** n. [Gr. *nomas*, roaming] (ARTHRO: Insecta) Frequent movement by a colony from one site to another.
- nomenciator** n. [L. *nomen*, name; *calare*, to call] A nomenclatural book containing a list of scientific names, not for taxonomic purposes.
- nomenclature** n. [L. *nomen*, name; *calare*, to call] In biology, a system of names for biological units.
- nomen conservandum** A name preserved by action of the International Commission on Zoological Nomenclature and placed on the appropriate official list.
- nomen dubium** The name of a nominal species that lacks available evidence so as to permit recognition of the zoological species to which it was applied.
- nomen inquirendum** The scientific name is subject to investigation.
- nomen novum** see **new name**
- nomen nudum** A published binominal without an adequate description, definition or illustration to permit its official adoption.
- nomen oblitum** No longer in effect in ICZN after 1973; a name that has not been used in the primary zoological literature for 50 years; a forgotten name.
- nomen taxon** Any named taxon, objectively defined by its type, whether valid or invalid.
- nominalism** n. [L. *nomen*, name; *ismus*, denoting a condition] Doctrine of nominalists denying the existence of universals, and emphasizing the importance of man-given names for the grouping of individuals.
- nominate** a. [L. *nomen*, name] Pertaining to a subordinate taxon that contains the type of the subdivided higher taxon and bears the same name as the original parent taxon.

noncelliferous side of colony (BRYO: Stenolaemata) The reverse or back side of the colony.

noncellular outgrowth A cuticular prominence of the body-wall.

noncoelomate see **acoelomate**

non-congression n. [L. *non*, not; *congressus*, meeting] Chromosomes not pairing on the spindle equator.

non-conjunction n. [L. *non*, not; *cum*, with; *junctus*, joined] Absence of meiotic chromosome pairing.

nondimensional species The concept of a species characterized by the noninterbreeding of two coexisting demes, uncomplicated by space and time.

nondisjunction n. [L. *non*, not; *disjunctus*, unyolked] The failure to separate of paired chromosomes during meiosis.

non-essential amino acids Amino acids that can be synthesized by animals and not required in their diet.

nonincubatory oysters (MOLL: Bivalvia) Oysters that do not incubate their larvae.

non-medullated nerve A nerve fiber lacking a myelin sheath; non-myelinated.

nonsense codon see **nonsense mutation**

nonsense mutation A mutation that changes a coding triplet into a triplet that codes for no amino acid and terminates the polypeptide chain.

normalizing selection The removal of all alleles that produce deviations from the normal (average) phenotype of a population by selection against all deviant individuals.

nosogenic a. [Gr. *nosos*, disease; *gennaein*, to produce] Causing disease; pathogenic.

nosography n. [Gr. *nosos*, disease; *graphos*, writing] A branch of pathology dealing with the description of diseases.

nota pl. of **notum**

notacoria n. [Gr. *notos*, back; L. *corium*, leather] (ARTHRO: Insecta) A membranous area separating the pleuron and notum in the thorax; sometimes reduced to a suture.

notal comb see **genal comb**

notate a. [L. *nota*, mark] Marked by spots or depressed marks.

notation n. [L. *nota*, mark] The method of identifying characters by a system of numbers, letters or ratios.

notaulix n.; pl. **-lices**, [Gr. *notos*, back; L. *aulix*, furrow] (ARTHRO: Insecta) One of a pair of grooves on the mesoscutum, from the front margin to one side of the midline and extending backward; divides the mesoscutum into 3 parts: a median lobe between the notaulices and a lateral lobe on each side (parapsides).

notch n. [ME. *nock*, a notch] (MOLL: Gastropoda) A break or irregularity in the peristome, denoting the position of the siphon.

notched a. [ME. *nock*, a notch] Nicked or indented; usually of a margin.

notocephalon n. [Gr. *notos*, back; *kephale*, head] (ARTHRO: Insecta) 1. In Notonectidae, the dorsal view of the head. 2. (ARTHRO: Chelicerata) In Arachnida, the dorsal shield of the prosoma.

notocirrus n. [Gr. *noton*, back; L. *cirrus*, curl] (ANN: Polychaeta) Cirrus of the notopodium.

notodeltidium see **chilidium**

notodont a. [Gr. *notos*, back; *odous*, tooth] (ARTHRO: Insecta) Pertaining to larval Notodontidae with a variously humped dorsal surface.

Notogaea n. [Gr. *notos*, back; *ge*, earth] The zoogeographical area including Australia, New Zealand and Pacific Ocean Islands regions.

notogaster n. [Gr. *noton*, back; *gaster*, belly] (ARTHRO: Chelicerata) The posterior dorsal opisthosomatal shield.

notonectal a. [Gr. *notos*, back; *nektos*, swimming] Swimming on the back.

notopleura n.pl.; sing. **notopleuron** [Gr. *notos*, back; *pleuron*, side] (ARTHRO: Insecta) In Diptera, a sometimes sunken, triangular area on the thoracic *dorsum*, at the lateral end of the transverse suture, behind the humerus.
notopleural a.

notopleural bristles (ARTHRO: Insecta) In Diptera, bristles located in a small triangular area, one on each corner of the notum just above the anepisternum or mesopleura; between the humeral callus and wing base.

notopleural suture (ARTHRO: Insecta) A suture between the notum and the pleural sclerites.

notopodium n. [Gr. *notos*, back; *pous*, foot] (ANN: Polychaeta) The dorsal or upper division of the parapodium, supported internally by one or more chitinous rods, or aciculae.

notopterale n. [Gr. *notos*, back; *pteron*, wing] (ARTHRO: Insecta) The first axillary sclerite of a wing.

notoseta n. [Gr. *notos*, back; L. *seta*, bristle] (ANN) Seta originating on the notopodium.

nototheca n. [Gr. *notos*, back; *theke*, case] (ARTHRO: Insecta) That region of a pupa covering the dorsal surface of the abdomen.

notothyrium n. [Gr. *notos*, back; *thyron*, door] (BRACHIO) The triangular notch in the dorsal valve, when present, open to the hinge line facilitating pedicle exit, usually closed off from the hinge plate by the chilidium. see **delthyrium**.

notum n. [Gr. *notos*, back] 1. (ARTHRO: Crustacea) The shrimplike decapod posterior part of the dorsal carapace. 2. (ARTHRO: Insecta) The dorsal surface of a body segment, particularly of the thoracic segment. **notal** a.

nucha n. [ML. *nucha*, neck] The upper surface of the neck connecting the head and thorax. **nuchal** a.

nuchal caruncle (ANN) A sensory organ on the prostomium, or extending posteriorly in the form of a ciliated ridge or groove.

nuchal cavity (MOLL: Gastropoda) In Patellacea, the enlarged portion of the pallial cavity above the head.

nuchal cirrus see **cirrus**

nuchal constriction (MOLL: Cephalopoda) In most Sepiidae and Teuthoidea and a few Octopodidae, the separation or constriction between the head and body or neck.

nuchal organ(s) 1. (ANN: Polychaeta) A pair of ciliated sensory pits or slits in the head region. 2. (ARTHRO: Crustacea) In

Branchiopoda, a sensory organ on the upper side of the cephalon. 3. (SIPUN) Ciliated epidermal cells at the mid-dorsal edge of the oral disc; believed to be sensory.

nuchal papilla (ANN: Polychaeta) Small sensory papilla at the base of the prostomium; cirrus.

nuchal tentacles (PLATY: Turbellaria) In Polycladida, tentacles well set back from the anterior part of the body.

nuclear envelope Double layered membrane separating the nucleoplasm from the cytoplasm; nuclear membrane.

nuclear plate A metaphase or equatorial plate.

nuclear sap see **nucleoplasm**

nuclear whorls (MOLL: Gastropoda) The whorls of the protoconch that emerges from the egg.

nucleate a. [L. *nucleus*, kernel] Having a nucleus.

nucleic acids Polymers of nucleotides that are active in inheritance as genes, plasmids, etc.

nuclei of Semper (ARTHRO: Insecta) The nuclei of the crystalline cone cells.

nucleolar chromosome Any chromosome with a nucleolar organizer.

nucleolar organizer Chromosome region that is active in nucleolus formation.

nucleolinus n. [L. dim. *nucleus*, kernel] A small granule within the nucleolus.

nucleolonema n. [L. dim. *nucleus*, kernel; Gr. *nema*, thread] Filamentous structures within the nucleolus of all cells.

nucleolus n. [L. dim. *nucleus*, kernel] Small, dense, more or less spherical bodies in the nucleus of cells associated with the nucleolar organizer.

nucleoplasm n. [L. dim. *nucleus*, kernel; Gr. *plasma*, formed or molded] The protoplasmic fluid contained in the nucleus.

nucleoplasmic index The ratio of nuclear volume to cytoplasmic volume; seems to trigger cell division; nucleoplasmic ratio.

nucleoprotein n. [L. dim. *nucleus*, kernel; Gr. *proteios*, pri-

mary] A compound of nucleic acid and protein.

nucleoside n. [L. dim. *nucleus*, kernel] Compounds derived by hydrolysis of nucleic acids or nucleotides consisting of a purine or pyrimidine base linked to ribose or deoxyribose.

nucleotide n. [L. dim. *nucleus*, kernel] Unit of the DNA and RNA molecules, including phosphoric acid, a purine or pyrimidine base, and a ribose.

nucleus n.; pl. **-lei** [L. *nucleus*, kernel] 1. A spheroidal structure present in a cell containing the chromatin. 2. (MOLL: Gastropoda) The earliest-formed part of the shell, or *operculum*, of a protoconch.

nudibranchiate a. [L. *nudus*, naked; *branchiae*, gills] (BRACHIO) Having the gills uncovered and not protected by a shell or membrane in the brachial chamber.

nudum n. [L. *nudus*, naked] (ARTHRO: Insecta) A small bare, sensitive portion of a butterfly antenna.

nulliplex a. [L. *nollus*, none; *plectare*, to weave] A polyploid having all genes for a particular recessive character.

numerical phenetics The hypothesis that relationship between organisms can be determined by a calculation of an overall, unweighted similarity value.

numerical taxonomy Numerical evaluation of similarity between taxonomic units and grouping of these units into higher taxa on the basis of their affinities; taxometrics. see **taxonomy**.

nuptial flight (ARTHRO: Insecta) In Hymenoptera, the mating flight of winged males and females.

nurse cells 1. Cells of developing oocytes that provide material for further growth; trophocytes. 2. (ARTHRO: Insecta) In some species, the nurse cells synthesize nucleic acids and possibly protein and supply them to the oocyte via intercytoplasmic connections. 3. (NEMATA) A specialized plant response to feeding sessile forms, characterized by special feeding cells around the nemas' head that are not subject to necrosis; giant cells. 4. (PORIF) The archaeocytes.

nutant a. [L. *nutare*, to nod] Nodding; drooping; having a tip bent horizontally.

nutritional castration, castration nutriciale (ARTHRO: Insecta) In Hymenoptera, the condition of undeveloped gonads in young adult females due to devoting itself to nursing larval forms instead of herself taking on the nutrition necessary for the reproductive form. see **alimentary castration**.

nutricism n. [L. *nutrix*, nurse] A symbiotic relationship in which one partner obtains all the benefits.

nutrition n. [L. *nutrire*, to feed] The ingestion, digestion and assimilation of food substances that includes their distribution within the organism, as well as the metabolism and elimination of waste products.

nyctipelagic a. [Gr. *nyktos*, night; *pelagos*, sea] Coming to the water surface only at night.

nymph n. [Gr. *nymphē*, bride] 1. (ARTHRO: Chelicerata) The immature stage of Acari and Ixodoidea with a full complement of legs; an instar. 2. (ARTHRO: Insecta) An immature stage that does not have a pupal stage. 3. (MOLL: Bivalvia) see nympha.

nympha n.; pl. **-phae** [Gr. *nymphē*, bride] 1. (ARTHRO: Chelicerata) In Acari, sclerites beneath the epigynium. 2. (MOLL: Bivalvia) The immersed area behind the beak that strengthens the margin to which the ligament is attached, or reinforcement for the normal hinge structure; ligament fulcrum; sometimes nymph.

nymphal phase (ARTHRO: Chelicerata) The second or third phase of postembryonic development; in Acari with six stages, the third phase comprised of proto-, deuto- and tritonymphs.

nymphipara a. [Gr. *nymphē*, bride; L. *parere*, to beget] (ARTHRO: Insecta) Bearing live young in an advanced stage of development. see **pupipara**.

nymphochrysalis n. [Gr. *nymphē*, bride; *chrysalis*, gold colored pupa] (ARTHRO: Chelicerata) In chigger mites, a non-feeding, prenymph; a calyptostasic protonymph.

nymphoid a. [Gr. *nymphē*, bride; *eidōs*, form] (ARTHRO: Chelicerata) Nymphal phase instars that cannot be homologized with nymphal instars of other species.

nymphoid reproductive (ARTHRO: Insecta) A neoteinic repro-

ductive with wing buds; a second-form reproductive; secondary reproductive; a brachypterous neoteinic.

nymphosis n. [Gr. *nymphē*, bride] The process of transforming into a nymph or a pupa.

O

obconical a. [L. *ob*, inverse; *conic*, cone] Inversely conical; in the form of a reversed cone.

obcordate a. [L. *ob*, inverse; *cor*, heart] Inversely heart-shaped.

obese a. [L. *obesus*, fat] Distended; enlarged; corpulent.

obimbricate a. [L. *ob*, inverse; *imbres*, tile] Having regularly overlapping scales. see **obsite**.

objective synonym One of two or more names based on the same type.

oblanceolate a. [L. *ob*, inverse; *lanceolatus*, spear-like] Inversely lanceolate

oblate a. [L. *oblatus*, spread out] Flattened; pertaining to a spheroid of which the diameter is shortened at two opposite ends; flattened at the poles.

obligate a. [L. *obligare*, to be required] Pertaining to the inability to live in a different environment. see **facultative**.

obligate parasite A parasite that cannot exist without a host during all or some portion of the life cycle. see **facultative parasite**.

obligate symbiont An organism that is physiologically dependent upon a symbiotic relationship with another. see **facultative symbiont**.

oblique a. [L. *ob*, inverse; *liquis*, awry] Slanting; deviating from the perpendicular, or a particular horizontal direction, but not perpendicular to it.

oblique muscles 1. (ECHI) Innermost muscle layer of body wall; may form oblique or nearly transverse fascicles between bands of the longitudinal muscles. 2. (SIPUN) A thin layer of diagonally placed muscle between the circular and longitudinal muscles.

oblique vein (ARTHRO: Insecta) A slanting cross wing vein.

- obliterate** a. [L. *obliteratus*, erased] Indistinct.
- oblong** a. [L. *oblongus*, rather long] Elliptical; elongated; longer than broad.
- oblong plates** (ARTHRO: Insecta) In aculeate Hymenoptera, the innermost or posterior pair of plates immovably fixed on each side of the bulb and stylet of the sting.
- oblongum** n. [L. *oblongus*, rather long] (ARTHRO: Insecta) In Coleoptera wings, a special oblong cell formed when M 1 is connected with M 2 by means of one or two cross veins.
- obovate** a. [L. *ob*, inverse; *ovate*, egg-shaped] Inversely egg-shaped with narrower end downward.
- obpyriform** a. [L. *ob*, inverse; *pyrum*, pear; *forma*, shape] Inversely pear-shaped.
- obscure** a. [L. *obscurus*, covered] 1. Dark; dark of color; dim. 2. Remote; hidden. 3. Not well defined.
- obsite** a. [L. *obsitus*, barred] Refers to a surface covered with equal scales or other objects. see **obimbricate**.
- obsolescence** n. [L. *obsoletus*, to wear out] 1. The process of gradual reduction or disappearance of a taxon. 2. A gradual cessation of a physiological process.
- obsolete** a. [L. *obsoletus*, to wear out] Obscure; not distinct; atrophied; imperfectly developed.
- obtect, obtectad** a. [L. *obtectus*, covered over] Covered; enclosed within a hard covering.
- obtect pupa** (ARTHRO: Insecta) A pupa in which the appendages are glued down to the body by a secretion produced at the larval/pupal molt. see **exarate pupa**.
- obturaculum** n. [L. dim. *obturare*, to plug or close] (ARTHRO: Insecta) In Anoplura, a connective-like tissue structure that divides the hemocoel of the head from the thoracic hemocoel; continuous posteriorly with a heavy coat surrounding the thoracic ganglia; neck-plug.
- oburator** n. [L. *obturare*, to plug or close] Any structure that closes off a cavity.
- obtuse** a. [L. *obtusus*, blunt] Blunt or rounded at the extremity; not pointed. see **acute**.

- obtusilingues** n.pl. [L. *obtusus*, blunt; *lingua*, tongue] (ARTHRO: Insecta) In a former classification, those bees with short tongues having an obtuse or bifid tip. see **acutilingues**.
- obumbrate** a. [L. *obumbrare*, to over-shadow] Overhanging, or partially concealing.
- obverse** a. [L. *obvertere*, to face] 1. Looking head on. 2. Having the base narrower than apex. 3. Being a counterpart.
- obverse side of colony** (BRYO) The frontal side of the colony.
- obvolvent** a. [L. *obvolvere*, to wrap around] Bending downward and inward.
- occasional species** A species sometimes found in a particular area, but not habitually.
- occipital** a. [L. *occiput*, back of the head] Pertaining to the occiput or the back part of the head.
- occipital arch** (ARTHRO: Insecta) The area of the cranium between the occipital and postoccipital sutures.
- occipital carina** (ARTHRO: Insecta) In Ichneumonidae Hymenoptera, a subcircular carina on the hind aspect of the head, between the vertex and hind margin of the compound eyes and the foramen magnum.
- occipital cilia** see **ocular seta**
- occipital condyles** (ARTHRO: Insecta) A projection on either lateral margin of the postocciput with which the cephaliger of a cervical sclerite articulates; cervical condyle.
- occipital foramen** (ARTHRO: Insecta) The posterior opening of the head into the cervix; neck foramen. see **foramen magnum**.
- occipital ganglion** (ARTHRO: Insecta) A single or paired post-cerebral ganglion.
- occipitalia** n.pl. [L. *occiput*, back of the head] (GNATHO) An unpaired row of dorsal cilia on the head.
- occipital margin** (ARTHRO: Insecta) In Mallophaga, the posterior margin of the head.
- occipital notch** (ARTHRO: Crustacea) In Conchostraca, the angulated indentation at the ear of the cephalon.

occipital suture (ARTHRO: Insecta) A transverse suture sometimes present on the back of the head that separates the vertex from the occiput dorsally and the genae from the postgenae laterally.

occipital tentacle see **cirrus**

occiput n. [L. *occiput*, back of the head] (ARTHRO: Insecta) 1. The dorsal posterior part of the cranium, between the occipital and postoccipital sutures; in many the boundaries with the vertex and postgenae are not delimited. 2. In Formicidae, the short region between the vertex and the neck. **occipital** a.

occludent margin (ARTHRO: Crustacea) In Cirripedia, the margin of the scutum and tergum bordering the orifice.

occludent teeth (ARTHRO: Crustacea) In Cirripedia, small projections on the occludent scutal margin interdigitating with the teeth on the margin of the opposed scutum.

occlusion plate (ARTHRO: Insecta) In Heteroptera larvae, a semicircularly shaped plate located below the lateral pore in the ostiole; functioning in scent ejection in any horizontal direction.

occluser a. [L. *occludare*, to close] An organ or muscle that closes an opening.

occult a. [L. *occulere*, to hide] Hidden from sight.

oceanic zone The open sea beyond the edge of the continental shelf.

ocellara (-ae) see **ocellus**

ocellar basin (ARTHRO: Insecta) In Hymenoptera, a concave area, varying in form and size, occupying the median portion of the frontal area.

ocellar bristles (ARTHRO: Insecta) In Diptera, bristles arising close to the ocelli; in the ocellar triangle.

ocellar bulb see **tentacular bulb**

ocellar centers (ARTHRO: Insecta) The brain centers of the ocelli, found in the outer part of the ocellar pedicels.

ocellar group (ARTHRO: Insecta) In Lepidoptera larvae, six ocelli on the lateral area of the larval head, dorsal four

forming the quadrant of a circle, ventral two farther apart.

ocellar pair see **ocellar bristles**

ocellar pedicels (ARTHRO: Insecta) Long slender nerve stalks connecting the facial ocelli with the protocerebrum.

ocellar plate see **ocellar triangle**

ocellar triangle (ARTHRO: Insecta) In Diptera, the triangular region bearing the ocelli and often bounded by grooves or depressions.

ocellata see **apharyngeate cercaria**

ocellate a. [L. dim. *oculus*, eye] Eye-like; spotted; having ocelli or eye-like spots.

ocellus n.; pl. **ocelli** [L. dim. *oculus*, eye] 1. The simple eyes or eyespots, occurring singly or in small groups, found in many invertebrates. 2. (ARTHRO: Crustacea) see **nauplius eye**. 3. (ARTHRO: Insecta) see **stemma**, **ommata**. 4. (MOLL: Polyplacophora) see **aesthete**.

ochraceous a. [Gr. *ochros*, yellow brown] Pale yellow; brownish-yellow.

ochroleucous a. [Gr. *ochros*, yellow brown; *leukos*, white] Yellowish; whitish yellow; buff.

octactine a. [Gr. *okto*, eight; *aktis*, ray] (PORIF) A modified hexactine spicule with 8 rays.

octamerous a. [Gr. *okto*, eight; *meros*, part] (CNID: Anthozoa) Organs or parts of organs arranged in series of 8.

octoploid a. [Gr. *okto*, eight; *aploos*, onefold] Cells having 8 chromosome sets in the nucleus (8n).

octopod a. [Gr. *okto*, eight; *pous*, foot] Bearing 8 tentacles, feet or arms. **octopody** n.

octoprostic a. [Gr. *okto*, eight; *prostatae*, one who stands before] (ANN: Oligochaeta) Having 8 prostates.

octothecal a. [Gr. *okto*, eight; *theke*, case] (ANN: Oligochaeta) Having 8 spermathecae.

ocular a. [L. *oculus*, eye] Of or pertaining to the eyes.

ocular bulla (ARTHRO: Crustacea) A knob on the inner surface of the carapace joining the lower and upper orbital margins

with the basal segment of the antenna; functioning to protect the eye.

ocular emargination (ARTHRO: Insecta) In Mallophaga, a lateral emargination of the head in front of the eyes.

ocular fleck (ARTHRO: Insecta) In Mallophaga, a black spot in the eyes.

ocular fringe (ARTHRO: Insecta) In Mallophaga, small hairs on the posterior half of the ocular emargination, may extend on the temporal margin.

ocularium n.; pl. **-ia** [L. *oculus*, eye] (ARTHRO: Insecta) 1. The area around the simple eye or eyes of larvae. 2. In Hymenoptera sawflies, the pigmented area.

ocular lobe (ARTHRO: Insecta) On some Coleoptera, a projecting thoracic lobe.

ocular papilla (ARTHRO: Crustacea) In some Malacostraca, the anterior projection on the eyestalk.

ocular peduncle (ARTHRO: Crustacea) A movable peduncle (eyestalk) with a compound eye at the distal end, sometimes with two or three segments, sometimes retractable.

ocular plates (ECHINOD: Echinoidea) Plates at the terminal end of the ambulacral areas.

ocular sclerites (ARTHRO: Insecta) 1. In some Pseudococcidae, well developed sclerites extending completely around each side, each bearing a row of 7 simple eyes near anterior margin, plus a single lateral ocellus on each side behind the mid-lateral member of the anterior row. 2. An annular sclerite surrounding the compound eyes.

ocular seta (ARTHRO: Insecta) In Diptera, one of several setae occurring in a line near the posterior margin of each compound eye.

ocular sinus (MOLL: Cephalopoda) In the Nautilus, an opening on the lateral shell margin accommodating the normal arc of vision of the eyes.

ocular suture (ARTHRO: Insecta) An annular inflection surrounding the compound eyes.

ocular tube (SIPUN) A tubular depression in the brain containing the pigment of the eyespots or eyes.

ocular tubercles (ARTHRO: Insecta) In Hemiptera, supplementary eyes with prominent facets on the posterior area, in addition to the compound eyes.

oculiferous a. [L. *oculus*, eye; *fero*, bear] Bearing eyes.

oculomotor a. [L. *oculus*, eye; *movere*, to move] The nerve center of muscle that moves the eye.

oculus n.; pl. **oculi** [L. *oculus*, eye] The eye; a spot shaped like an eye.

odona a. [Gr. *odous*, tooth] Having teeth.

odonate a. [Gr. *odous*, tooth] (ARTHRO: Insecta) Of or pertaining to the Odonata.

odontium n. [Gr. *odous*, tooth] (NEMATA) The stomatal armature generally in the form of a tooth or teeth originating from the anterior stoma (cheilostome). see **onchium**.

odontoblast n. [Gr. *odous*, tooth; *blastos*, bud] (MOLL: Gastropoda) Cells in the radular sac that secrete the radular teeth.

odontoidea see **occipital condyles**

odontophore n. [Gr. *odous*, tooth; *phoreus*, bearer] 1. (MOLL: Gastropoda) The cartilaginous supporting organ of the radula, tongue or lingual ribbon possessing a complicated series of lingual teeth; Huxley included the radula. see **buccal mass**. 2. (NEMATA) A rigid section of the anterior alimentary tract from the base of the odontostyle to the beginning of the esophageal musculature, often with flanges or knobs for muscle attachment.

odontostyle, odontostylet n. [Gr. *odous*, tooth; *stylos*, column] (NEMATA: Adenophorea) A stylet derived from an odontium terminating with a dorsally oblique aperture, and originating in the esophageal wall.

odoriferous glands see **scent glands**

odor trail (ARTHRO: Insecta) A chemical trace laid down by one insect to be followed by other insects of the same species or nest; the substance is called trail pheromone or trail substance.

oecium, ooecium n. [Gr. *oion*, egg; *oikos*, house] (BRYO) An ovicell or brood pouch.

oeco- see **eco-**

oedaeagus, oedeagus, oedoeagus see **aedeagus**

oenocytes n.pl. [Gr. *oinos*, wine; *kytos*, container] (ARTHRO: Insecta) Large cells in a group on either side of each abdominal segment, between the bases of the epidermal cells and basement membrane, or form clusters in the body cavity or dispersed and embedded in the body fat; in immatures, associated with molting, and maybe production of lipids in cuticle or synthesis of ecdysone.

oenocytoid n. [Gr. *oinos*, wine; *kytos*, container; *eidos*, form] (ARTHRO: Insecta) Round or oval cells, with darkly staining nucleus and clear, uniform, weakly acidophil cytoplasm.

oeruginous, oeruginus see **aeruginous**

oesophagus see **esophagus**

oestrus see **estrus**

official index A list of names or works suppressed or declared invalid by the ICZN.

official list A list of names or works declared to be valid by the ICZN.

ogival a. [F. *ogive*, pointed arch] Bearing the shape of an arch.
ogive n.

oikosite n. [Gr. *oikos*, house; *sitos*, food] An attached or stationary commensal or parasite.

olfactory a. [L. *olfacere*, to smell] Pertaining to the sense of smell; among invertebrates, the organs are variously placed: antennae of insects and other arthropods, tips of the palpi and legs of spiders, pits on the heads of various worms, or osphradia of mollusks. **olfactibon** n.

olfactory cone see **sensillum basiconicum**

olfactory hair see **aesthetasc**

olfactory lobes (ARTHRO) In the midbrain or deutocerebrum.

olfactory papilla (MOLL: Cephalopoda) Papilla found on Teuthoidea, Sepiidae and Vampyromorpha on either side of the head near the neck.

olfactory pits (MOLL: Cephalopoda) In Octopodidae, olfactory pits on either side of the head near the neck.

olfactory pores see **sensillum campaniformium**

oligogene n. [Gr. *oligos*, few; *genos*, descent] A gene determining a pronounced phenotypic effect. see **polygenes**.

oligogyny n. [Gr. *oligos*, few; *gyne*, female] (ARTHRO: Insecta) Several functional queens in a colony.

oligogyral see **paucispiral**

oligolecithal egg An egg with a small amount of yolk; isolecithal. see **centrolecithal egg, telolecithal egg**.

oligolectic a. [Gr. *oligos*, few; *lektos*, chosen] (ARTHRO: Insecta) Selecting only a few, as bees collecting pollen from only a few kinds of flowers; oligotropic.

oligomerous a. [Gr. *oligos*, few; *meros*, part] Having fewer parts or organs than other related forms. oligomery n.

oligonephria a. [Gr. *oligos*, few; *nephros*, kidney] Having few excretory tubules.

oligoneura a. [Gr. *oligos*, few; *neuron*, nerve] (ARTHRO: Insecta) Having very few wing veins.

Oligoneuroptera, Oligoneoptera see **Endopterygota**

oligophagous a. [Gr. *oligos*, few; *phagein*, to eat] Feeding on only a few species of food plants. see **monophagous**.

oligophyletic a. [Gr. *oligos*, few; *phyle*, tribe] Derived from a few ancestral forms. see **monophyletic**.

oligopneustic a. [Gr. *oligos*, few; *pneustikos*, of breathing] (ARTHRO: Insecta) Having one or two functional spiracles on each side, including the amphipneustic, metapneustic and propneustic.

oligopod n. [Gr. *oligos*, few; *pous*, foot] 1. Bearing few legs. 2. Having fully developed thoracic legs. see **polypod, protopod**.

oligopod larva see **campodeiform larva**

oligopyrene a. [Gr. *oligos*, few; *pyren*, stone of a fruit] With reduced number of functional spermatozoa. see **apyrene, eupyrene**.

oligosaprobic a. [Gr. *oligos*, few; *sapros*, putrid] Describing a body of water with slow organic matter decomposition and high oxygen content.

- oligotaxy** n. [Gr. *oligos*, few; *taxis*, arrangement] Weak development of secondarily formed organs (usually not numerous).
- oligothermic** a. [Gr. *oligos*, few; *thermos*, heat] Having a tolerance for low temperatures.
- oligotokous** a. [Gr. *oligos*, few; *tokos*, offspring] Having a small number of young.
- oligotrichy** n. [Gr. *oligos*, few; *trichos*, hair] Few, weakly developed setae.
- oligotrophic** a. [Gr. *oligos*, few; *trophe*, food] Pertaining to freshwater bodies poor in plant nutrients and unproductive.
- oligotropic** a. [Gr. *oligos*, few; *tropikos*, turning] (ARTHRO: Insecta) Visiting only a few kinds of flowers for nectar; oligolectic. see **monotropic**, **polytropic**.
- oligoxenous** a. [Gr. *oligos*, few; *xenos*, host] Said of certain parasites adjusted to live in a limited number of hosts. **oligoxyeny** n.
- oligozoic** a. [Gr. *oligos*, few; *zoon*, animal] Having a few species or numbers of animals in a particular habitat.
- olivaceous** a. [L. *oliva*, olive] Resembling or having the color of olive green.
- oliviform** a. [L. *oliva*, olive; *forma*, shape] Oval; resembling an olive in shape.
- olynthus** n. [Gr. *olynthus*, unripening fig] (PORIF) In calcareous forms, a post-settlement stage; in asconoid forms, remains as adult form.
- omega-ramule** (ECHINOD: Crinoidea) A branchlet issuing from the terminal axial of the main-axil.
- ommata** see **ommatidium**
- ommateum** n. [Gr. *ommation*, little eye] (ARTHRO: Insecta) A compound eye.
- ommatidium** n.; pl. **-ia** [Gr. *ommation*, little eye; *idion*, dim.] (ARTHRO) One of the component units of a compound eye, consisting essentially of an optical (light gathering) part and a sensory part (perceiving and transforming into electrical energy); a facet.

- ommatochrome** see **ommochrome**
- ommatoid** n. [Gr. *omma*, eye; *eidos*, form] (ARTHRO: Chelicerata) In some Arachnida, a light colored spot on the posterior body segment.
- ommatophore** n. [Gr. *omma*, eye; *pherein*, to bear] (MOLL: Gastropoda) A movable process bearing an eye, as in snails; may be fused with the tentacles.
- ommochrome, ommatochrome** n. [Gr. *omma*, eye; *chroma*, color] A group of pigments, products of tryptophane metabolism, found in eyes and epidermis of certain invertebrates; it is apparently not involved in the visual process.
- omnivorous** a. [L. *omnis*, all; *vorare*, to devour] Capable of obtaining nourishment from both animal and plant tissue.
- omphalian** a. [Gr. *omphalos*, the navel] (ARTHRO: Insecta) Referring to the orifice (excluding ostiole) of the metathoracic scent gland of Heteroptera as median and unpaired.
- omphalium** n. see **diastomian**.
- omphalous** a. [Gr. *omphalos*, the navel] (MOLL: Gastropoda) Having a shell with an umbilicus.
- onchial plate** (NEMATA: Adenophorea) In Enoplida, the basal plate of the onchium.
- onchiophore** see **odontophore**
- onchiostyle** see **odontostyle**
- onchium** n.; pl. **onchia** [Gr. *onkinos*, hook] (NEMATA) Stomatal armature, generally in the form of a tooth or teeth originating from the posterior stoma (esophastome). see **odontium**, **esophastome**.
- onchomiracidium** n. [Gr. *onkinos*, hook; *merakidion*, youth] (PLATY: Trematoda) 1. A term for an embryo in the egg. 2. The ciliated larva of a monogenetic trematode.
- onchosphere, oncosphere** n. [Gr. *onkinos*, hook; *sphaira*, ball] (PLATY: Cestoda) The shelled embryo; a hexacanth; the first larval stage.
- oncogenic** a. [Gr. *onkos*, swelling; *gennaen*, to produce] Tumor causing.
- oncophysis** n. [Gr. *onkos*, swelling; *physis*, growth] (ARTHRO:

Chelicerata) Any extension of an arthrodial membrane, usually in the form of a more or less hyaline intumescence. see **Tragardh's organ**.

onisciform larva see **platyform larva**

onomatophore n. [Gr. *onoma*, name; *pherein*, to carry] A name-bearer; a type.

ontogeny n. [Gr. *on*, being; *genesis*, beginning] The development or course of development of an individual organism from zygote to maturity; as distinguished from that of a species. **ontogenetic** a. see **phylogeny**.

onychaetes n.pl. [Gr. *onyx*, claw; *chaite*, hair] (PORIF) Microscleres with long, thin oxeote spicules, roughened with spines.

onychies see tarsal **claws**

onychii see **pulvilli**

onychium n.; pl. **-ia** [Gr. *onyx*, claw] (ARTHRO: Insecta) A general term for a pad between the tarsal claws.

Onychophora, onychophorans n.; n.pl. [Gr. *onyx*, claw; *pherein*, to carry] A phylum of terrestrial animals comprised of a single class or order of the same name, frequently referred to as Peripatus; once considered to be the missing link between annelids and arthropods, but now considered to be the sister group of the arthropod complex of Crustacea, Tracheata, and Chelicerata.

ooblast n. [Gr. *oion*, egg; *blastos*, bud] A cell from which an ovum develops.

ooblastema n. [Gr. *oion*, egg; *blastos*, bud] A fertilized egg; an oosperm.

oocapt n. [Gr. *oion*, egg; L. *captus*, capture] (PLATY: Cestoda) A controlling spincter of the oviduct that allows mature oocytes to enter the proximal oviduct.

oocyst n. [Gr. *oion*, egg; *kystis*, pouch] The cystic form in the parasitic protozoans (*Apicomplexa*), resulting from sporogony; may be hard covered, with a resistant membrane (*Eimera*) or be naked (*Plasmodium*).

oocytes n.pl. [Gr. *oion*, egg; *kytos*, container] An immature female gamete that undergoes *meiosis*, giving rise to ova

or eggs.

ooecia n.pl.; sing. **-ium** [Gr. *oion*, egg; *oikos*, house] (BRYO: Gymnolaemata) In Cheilostomata, the outer protective part of an ovicell; sometimes thought to be zooid morphs; a brood pouch.

ooecial vesicle (BRYO: Gymnolaemata) In Cheilostomata, an inner membrane of an ooecium.

ooeciostome n. [Gr. *oion*, egg; *oikos*, house; *stoma*, mouth] (BRYO: Stenolaemata) The gonozooidal orifice, may or may not have peristome surrounding the aperture of ovicell.

oogamy n. [Gr. *oion*, egg; *gamos*, marriage] The union during fertilization of a nonmotile female gamete and a motile male gamete. **oogamous** a. see **anisogamy, isogamy**.

oogenesis n. [Gr. *oion*, egg; *genesis*, beginning] The development of the female egg cell or ovum that takes place in the gonad.

oogenotop n. [Gr. *oion*, egg; *genesis*, beginning; *topos*, place] (PLATY: Cestoda) A small cellular complex following the oviduct within the female reproductive system where shell membranes form, enclosing the zygote and several vitelline cells. see **columella**.

oogone see **oogonium**

oogonium n.; pl. **oogonia** [Gr. *oion*, egg; *gonos*, offspring] A germ cell that gives rise to the oocytes by mitotic division.

ookinete n. [Gr. *oion*, egg; *kinetos*, move] (ARTHRO: Insecta) A motile, elongate zygote of a Plasmodium that encysts in the stomach wall of a Culicidae.

oolemma see **vitelline membrane**

oophagy n. [Gr. *oion*, egg; *phagein*, to eat] 1. The eating of eggs; egg cannibalism. 2. (ARTHRO: Insecta) In social insects, eating its own or nestmate's eggs.

oophore n. [Gr. *oion*, egg; *phoreus*, carrier] (ANN: Oligochaeta) The egg case or capsule.

ooplasm n. [Gr. *oion*, egg; *plasma*, formed or molded] The cytoplasm of an egg.

oopod n. [Gr. *oion*, egg; *pous*, foot] (ARTHRO: Insecta) A com-

ponent part of a sting or ovipositor.

oosperm n. [Gr. *oion*, egg; *sperma*, seed] A fertilized ovum; a zygote; an ooblastema.

oosphere n. [Gr. *oion*, egg; *sphaira*, ball] An unfertilized egg.

oostegite n. [Gr. *oion*, egg; *stege*, roof] (ARTHRO: Crustacea) In female Peracarida, modified thoracic lamella arising from the coxa of the pereopod that forms a pouch (marsupium) for brooding embryos.

oostegopod n. [Gr. *oion*, egg; *stege*, roof; *pous*, foot] (ARTHRO: Crustacea) 1. Thoracic limb bearing an oostegite. 2. An appendage of the genital somite that forms a brood pouch in some Branchiopoda.

ootheca n.; pl. -cae [Gr. *oion*, egg; *theke*, case] (ARTHRO: Insecta) The covering or case over an egg or egg mass.

ootid n. [Gr. *oion*, egg; *eidos*, form] One of the four meiotic products arising in oogenesis.

ootocous a. [Gr. *oion*, egg; *tokos*, delivery] Egg laying.

ootype n. [Gr. *oion*, egg; *typos*, type] (PLATY: Trematoda) A small chamber of the female duct, surrounded by Mehlis' glands, where ducts from a seminal receptacle and vitelline reservoir join.

oozoid n. [Gr. *oion*, egg; *zoon*, animal; *eidos*, form] Any individual developed from an egg, not fragmented or budded. see **blastozoid**.

opaline a. [L. *opalus*, opal] Opalescent; bluish or milky white with iridescent luster.

opaque a. [L. *opacus*, shady] Not transparent or translucent.

open cell (ARTHRO: Insecta) A wing cell that extends to the wing margin.

open coxal cavity (ARTHRO: Insecta) In Coleoptera, when the coxal cavity is only bridged over by the membrane.

open population A population freely exposed to gene flow.

opercular membrane (ARTHRO: Crustacea) In Balanomorpha, a thin, flexible membrane attaching the opercular valves to the sheath; in Verrucomorpha, a membranous hinge.

opercular plug or spot (NEMATA) An escape zone or plug by

which a larva leaves the egg membrane.

opercular scar (BRYO: Gymnolaemata) In Cheilostomata, a trace of a cuticular operculum in the frontal closure of the autozoid.

opercular valves (ARTHRO: Crustacea) In sessile Cirripedia, movable plates (2 or 4) occluding the aperture.

operculate a. [L. *operculum*, lid] Having a lid or operculum.

operculiform a. [L. *operculum*, lid; *forma*, shape] Having the shape of a lid or cover.

operculigenous a. [L. *operculum*, lid; Gr. *gennaein*, to produce] Producing an operculum.

operculigerous a. [L. *operculum*, lid; *gero*, bear] Having an operculum.

operculum n.; pl. **opercula** [L. *operculum*, lid] 1. A lid or flap-like cover. 2. (ANN: Polychaeta) In certain sedentary forms, a modified tentacle that closes the tube; in some Spirorbidae (*Pileolaria* and *Janua*) enlarges and serves as a brood pouch. 3. (ARTHRO) *a*. In Chelicerata, a plate covering the opening of the book-lungs of spiders. *b*. In Crustacea, scuta and terga and sometimes associated membrane forming the apparatus occluding an aperture. *c*. In Diplopoda, a plate-like anterior sclerite of the vulva. *d*. In Insecta, various plates, flaps and specialized structures of the genital segments. 4. (BRYO) A generally uncalcified membrane, hinged on its posterior lip that closes the zooidal orifice. see **mandible**. 5. (CNID: Hydrozoa) A cover sealing the hydrotheca or gonotheca, may be up to four sections; the lid on the distal end of a nematocyst. 6. (MOLL) A corneous or calcareous structure borne by the foot serving for closure of the aperture. 7. (PLATY) The lid-like opening of an egg-shell.

opere citato L. Work cited; op. cit.; op. c.

operon n. [L. *opera*, work] Adjacent series of nucleotides that codes for messenger RNA molecules.

opesiule n. [Gr. dim. *ope*, hole] (BRYO: Gymnolaemata) One of the small notches or pores in a cryptocyst through which the frontal membrane depressor muscles pass.

opesium n.; pl. **-ia** [Gr. dim. *ope*, hole] (BRYO: Gymnolae-mata) In *Anasca*, a large opening below the frontal membrane bordered by the cryptocyst; functioning as a pas-sageway for the lophophore in some species.

ophiopluteus n. [Gr. *ophis*, serpent; *pluteus*, shed] (ECHINOD: Ophiuroidea) Brood larva of Phrynophiurida, with arms edged with cilia, that metamorphose into adults after es-cape from the bursa through the bursal slits or rupture of the aboral disk.

ophirhabd n. [Gr. *ophis*, serpent; *rhabdos*, rod] (PORIF) A megasclere with oxea curved in several places. see **euler-habd**.

ophiurida n. [Gr. *ophis*, serpent; *oura*, tail] (ECHINOD: Ophiu-roidea) Simple arms with usually lateral, not verticle move-ment.

Ophiuroidea, ophiuroids n.; n.pl. [Gr. *ophis*, serpent; *oura*, tail; *eidos*, form] A Class of Echinodermata, with narrow, gradually tapered arms, sharply offset from the central disk, generally 6 or 7 radiate; also called brittle stars, bas-ket stars and snake stars.

ophthalmic a. [Gr. *ophthalmos*, eye] Pertaining to the eye.

ophthalmic somite see **acron**

ophthalmocercaria n. [Gr. *ophthalmos*, eye; *kerkos*, tail] (PLATY: Trematoda) A cercaria with eyespots.

ophthalmopod n. [Gr. *ophthalmos*, eye; *pous*, foot] (ARTHRO: Crustacea) In Malacostraca, an eye-stalk; a movable pe-duncle with a terminal eye.

ophthaltheca n. [Gr. *ophthalmos*, eye; *theke*, case] (AR-THRO: Insecta) That part of the pupal case that covers the eyes.

opisthaptor n. [Gr. *opisthen*, behind; *haptain*, to fasten] (PLATY: Trematoda) In Monogenea, the posterior attach-ment organ (sucker or disc). see **Baer's disc**.

opisthocline a. [Gr. *opisthen*, behind; *clinein*, to lean] 1. Leaning backward. 2. (MOLL: Gastropoda) The growth di-rection of a helicocone shell; commonly referring to growth lines.

opisthocyrt a. [Gr. *opisthen*, behind; *kyrtos*, curved] 1. Arched backward. 2. (MOLL: Bivalvia) Referring to sloping in a direction posterior from the hinge axis; used to describe hinge teeth or the slope of the shell. 3. (MOLL: Gastropoda) The growth direction of a helicocone shell; commonly re-ferring to growth lines.

opisthodelphic a. [Gr. *opisthen*, behind; *delphys*, womb] (NEMATA) Having uteri parallel and posteriorly directed. see **amphidelphic, monodelphic, prodelfhic, didelphic**.

opisthodetic a. [Gr. *opisthen*, behind; *detos*, bind] (MOLL: Bi-valvia) Said of the ligament that extends posterior to the umbo (beak). see **amphidetic, parivincular**.

opisthogenesis n. [Gr. *opisthen*, behind; *genesis*, beginning] Development from posterior end of the body forward.

opisthognathous a. [Gr. *opisthen*, behind; *gnathos*, jaw] Having mouth parts directed posteriorly.

opisthogoneate a. [Gr. *opisthen*, behind; *gonos*, seed] Having the genital opening situated terminally, at the posterior end of the body. see **progoneate**.

opisthogonia n. [Gr. *opisthen*, behind; *gonia*, corner] (AR-THRO: Insecta) The anal angle of the hind wings.

opisthogyrate a. [Gr. *opisthen*, behind; L. *gyratus*, revolve] 1. Curving backwards. 2. (MOLL: Bivalvia) Having the beak pointing posteriorly.

opisthapter see **opisthaptor**

opisthomeres n.pl. [Gr. *opisthen*, behind; *meros*, part] (AR-THRO: Insecta) In Dermaptera, the transversely divided epiproct; the so-called pygidium, metapygidium and telson.

opisthomerite n. [Gr. *opisthen*, behind; *meros*, part] (AR-THRO: Diplopoda) The gonopods of Julida; the posterior part of the modified 9th pair of legs in the male.

opisthoparamere n. [Gr. *opisthen*, behind; *para*, beside; *meros*, part] (ARTHRO: Insecta) In Diptera (Cyclorrhaphra), especially Calyptrata, one of two parameral processes. see **proparamere**.

opisthosoma n. [Gr. *opisthen*, behind; *soma*, body] 1. (AR-THRO: Chelicerata) In Acari or Ixodida, that portion of the

body posterior to the legs. 2. (POGON) A terminal septate region. see **protosoma**, **metasoma**, **mesosoma**.

opisthosomatic appendages (ARTHRO: Chelicerata) Vestigial appendages present on the ventral regions of segments VII-XIII, such as genital papillae or valves.

opisthosomatic scissure (ARTHRO: Chelicerata) In Acari, a narrow band of skin between sclerotized plates; often transverse on the opisthosoma.

opsiblastic a. [Gr. *opsios*, late; *blastos*, bud] A delay in cleavage, and therefore a prolonged period before hatching; winter egg. see **tachyblastic**.

optic a. [Gr. *optikos*, pertaining to sight] Pertaining to the eye or sense of sight.

optical isomerism Compounds that are mirror images and differ in turning the plane of polarized light left (L-form) or right (D-form).

optic lobes Lateral extensions of the protocerebrum or nervous system for innervation of an eye.

opticon n. [Gr. *opsis*, sight] (ARTHRO: Insecta) The inner zone of the optic lobes.

optimum a. [L. *optimus*, best] The most suitable condition for the growth and development of an organism.

orad adv. [L. *os*, mouth; *ad*, toward] Toward the mouth.

oral a. [L. *os*, mouth] Pertaining to or near the mouth.

oral arms (CNID: Scyphozoa) In medusae, 4 or 8 often frilly oral arms, bearing cnidocytes and aid in the capture and ingestion of prey.

oral cavity The mouth; the buccal cavity.

oral cone (CNID: Hydrozoa) In polyps, a conical projection surrounded by tentacles with the mouth in the center.

oral disk (CNID: Anthozoa) In polyps, a flattened area from which, usually 8 or multiples of 6, tentacles arise that communicate with the coelenteron.

oral hooks see mandibular sclerites

oral lappet (MOLL) Basal expansion of labial tentacles; labial veil.

oral lobe (CTENO) A muscular lobe on either side of the mouth in Lobata.

oral plate (ARTHRO: Insecta) The hypopharyngeal floor of the cibarial pump.

oral segment A ring or segment bearing the mouth.

oral spear see **stomatostyle**, **odontostyle**

oral styles (KINOR) Spines arranged in a series around the mouth cone.

oral surface (ECHINOD: Asteroidea) The entire undersurface of the disc and arms.

oral tentacles (MOLL) Tentacle-like outgrowths of the lip.

oral valve (ECHINOD: Crinoidea) One of 5 low triangular flaps separating the ambulacral grooves.

oral vibrissae (ARTHRO: Insecta) In certain Diptera, a pair of stout bristles or hairs on each side of the face, near or above the oral margin; larger than those on the vibrissal ridge.

orb n. [L. *orbis*, circle] A circle or globe. **orbicular** a.

orbit n. [L. *orbis*, circle] 1. (ARTHRO) The part of the head surrounding an eye; orbital fossa. 2. (ARTHRO: Crustacea) In Decapoda, an opening in the anterior face of the carapace supporting the ocular peduncle.

orbital bristles see **facio-orbita**

orbital carina (ARTHRO: Crustacea) In Decapoda, the narrow region on the margin of the orbit.

orbital fossa see **orbit**

orbital hiatus (ARTHRO: Crustacea) Gap or slit in the orbital margin.

orbital plate see **genovertical plate**

orbital region (ARTHRO: Crustacea) That part posterior to the eyes bordered by the frontal and antennal regions.

orbital tooth (ARTHRO: Crustacea) A tooth on the orbital margin.

orchitic a. [Gr. *orchis*, testis] Of or pertaining to testicles.

order n. [L. *ordin*, methodical arrangement] A taxonomic

group; a subdivision of a class or subclass, containing a group of naturally related superfamilies or families.

ordinal a. [L. *ordin*, methodical arrangement] 1. Belonging or pertaining to an order. 2. (ARTHRO: Insecta) Crochets of larvae, describing the length or arrangements at the tip. see **uniordinal crochets**, **biordinal crochets**, **triordinal crochets**, **multiordinal crochets**.

ordinate a. [L. *ordin*, methodical arrangement] Arranged in rows, such as ornamentations or punctures.

oreillets n.pl. [F. dim. *oreille*, projection] (ARTHRO: Insecta) Lateral, spinose processes of male Anisoptera and some Zygoptera on the second abdominal tergite, presumed to act as copulatory aids; auricles.

organelle n.; pl. **-es**, **-ae** [Gr. dim. *organon*, instrument] Any structure having a specialized function in the cytoplasm of the cell, such as mitochondria, nucleus, plastids, etc.

orange rouge (ARTHRO: Insecta) Cells with intracellular tracheoles.

organism n. [Gr. *organon*, instrument] Any individual living thing.

organization center see **organizer**

organizer n. [Gr. *organon*, instrument] The region of an embryo seeming to control the differentiation and development of other cells; organization center; inductor; evocator.

organ of Bellonci (ARTHRO: Crustacea) Receptors innervated from the medullae terminales of the brain, consisting of ciliated sensory neurons associated with supporting cells, such as glial, bordering and perilemmal cells; has also been called frontal organ, x-organ, rod-shaped organ. see **frontal eye complex**.

organ of Berlese see **mesospermalege**

organ of Bojanus (MOLL: Bivalvia) A kidney, especially in oysters.

organ of Hicks see **sensillum campaniformium**

organ of Hoyle see **Hoyle's organ**

organ of Johnston see **Johnston's organ**

organ of Kolliker see **Kolliker's organ**

organ of Ribaga see **mesospermalege**

organogenesis n. [Gr. *organon*, instrument; *genesis*, beginning] Formation and development of organs in the embryo.
organogenetic a.

organogeny see **organogenesis**

organoid n. [Gr. *organon*, instrument; *eidōs*, kind] The body forming part of the cytoplasm.

organoleptic a. [Gr. *organon*, instrument; *lambanein*, to take hold of] Capable of receiving a sensory stimulus.

organotroph see **heterotroph**

organs of Tomosvary (ARTHRO) A pair of sensory organs present on the head at the base of the antennae in Lithobiomorpha, Scutigleromorpha and some Insecta, consisting of a disc with a central pore into which the endings of subcuticular sensory cells converge; temporal organs.

organs of Valenciennes (MOLL: Cephalopoda) Paired lamelated organs in female nautiloids.

orichalceous a. [L. *aurum*, gold; Gr. *chalkos*, copper] A color or luster between gold and brass.

Oriental Realm A zoogeographical region including Asia east of the Indus River, south of the Himalayas and the Yangtze-kiang watershed, Ceylon, Sumatra, Java and the Philippines.

orientation n. [L. *oriens*, the rising sun] Sense of direction; a change in position.

orifice n. [L. *os*, mouth; *facere*, to make] 1. An opening into a cavity; a mouth-like opening. 2. (ARTHRO: Crustacea) In sessile Cirripedia, the opening in the wall occupied by the operculum. see **aperture**. 3. (BRYO) The opening on the margin of the orificial wall through which the lophophore passes.

orificial wall (BRYO) 1. In Gymnolaemata, an exterior zooidal wall that bears or defines the orifice through which the lophophore passes. 2. In Stenolaemata, an orifice through

which the tentacles protrude.

original description A statement of characters along with the proposal of a name for a new taxon.

orismology n. [Gr. *horos*, boundary; *logos*, discourse] The science of defining technical or scientific words of a particular subject or field of study.

ornamentation n. [L. *ornare*, to adorn] Sculpturing on the body of an animal or shell.

ornate cercaria (PLATY: Trematoda) A larval form in the Xiphidiocercaria group, with a tail fin fold; cercariae ornatae.

orphan nest (ARTHRO: Insecta) In social insects, a nest containing offspring without adults.

orthocerous condition (ARTHRO: Insecta) In some adult Coleoptera, antennae showing no sign of geniculation, the scape being longer than succeeding segments, and the club loose and three-segmented. see **gonatocerous condition**.

orthochromatic a. [Gr. *orthos*, straight; *chromos*, color] With normal staining characteristics.

orthochromatin n. [Gr. *orthos*, straight; *chromos*, color] Stable chromatin.

orthocline a. [Gr. *orthos*, straight; *clinein*, to lean] (MOLL) At right angles to the growth direction of the helicocone, especially in oysters; growth lines.

orthodont hinge (MOLL: Bivalvia) A hinge in which the teeth approximate the direction of the cardinal margin.

orthodromic a. [Gr. *orthos*, straight; *dromos*, running] Moving in a normal direction. see **antidromic**.

orthogenesis n. [Gr. *orthos*, straight; *genesis*, beginning] Evolution following a predetermined rectilinear pathway, independent of natural selection.

orthognathous a. [Gr. *orthos*, straight; *gnathos*, jaw] Having straight mouth parts; not projecting.

orthogyral, orthogyrate a. [Gr. *orthos*, straight; gyrate, revolve] (MOLL: Bivalvia) Having the beak point at right angles to the hinge axis, especially oysters.

orthokinesis n. [Gr. *orthos*, straight; *kinesis*, movement] A non-directional response in which the speed or frequency of activity depends on the intensity of stimulation. see **klinokinesis**.

orthometaneme n. [Gr. *orthos*, straight; *meta*, after; *nema*, thread] (NEMATA) A metaneme parallel to the longitudinal body line; found at the dorsal or ventral border of the lateral epidermal cords.

Orthonectida, orthonectids n.; n.pl. [Gr. *orthos*, straight; *nektion*, swimming] A class of Mesozoa with an asexual parasitic plasmodial generation in many marine invertebrates and a sexual free-swimming generation.

orthoneury n. [Gr. *orthos*, straight; *neuron*, nerve] (MOLL: Gastropoda) In forms with bilateral zygoneury, the condition of the visceral loop ganglia and crossed connectives indicating earlier streptoneury are still evident though sometimes reduced. see **detorsion**.

orthoploid see **euploid**

orthoselection n. [Gr. *orthos*, straight; L. *selectus*, select] Natural selection continuously acting in one direction over a long period of time.

orthosomatic a. [Gr. *orthos*, straight; *soma*, body] Having a body in a straight line.

orthostasy n. [Gr. *orthos*, straight; *stasis*, standing] (ARTHRO: Chelicerata) Stage in acarology life-cycle evolution showing only stases and no stasoids.

orthostrophic a. [Gr. *orthos*, straight; *strophe*, to turn] (MOLL: Gastropoda) Coiled in a normal manner, as opposed to hyperstrophic.

orthotaxy n. [Gr. *orthos*, straight; *taxis*, arrangement] The arrangement of similar organs that have ancestral characters, and have preserved their normal position.

orthotriaenes a.pl. [Gr. *orthos*, straight; *triaina*, trident] (PO-RIF) In tetraxons, having clads in the angular form of about 90° with the axis of the rhabdome.

orthotrichy n. [Gr. *orthos*, straight; *trichos*, hair] (ARTHRO: Chelicerata) In acarology, all setae that have not disap-

peared have maintained their ancestral position.

os n.; pl. **ora** [L. *os, oris*, mouth] The mouth.

oscillation n. [L. *oscillare*, to swing] A single swing from one extreme limit to the other of a sine wave.

osculant a. [L. *osculare*, to kiss] 1. Adhering closely. 2. A connecting link between two groups; having intermediate characters, as in genera and species.

oscular chimney see **osculum**

osculum, oscule n.; pl. **-la** [L. dim. *os*, mouth] 1. (PORIF) A comparatively large exhalant aperture; an oscular chimney. see **apopore**. 2. (PLATY: Cestoda) A sucker.

osmeterium n.; pl. **osmeteria** [Gr. *osme*, odor] (ARTHRO: Insecta) A fleshy, tubular, eversible pouch usually V or Y-shaped, sometimes arising from cephalo-dorso-meson of the prothorax of Papilionidae caterpillars, that produce a penetrating odor; also appearing elsewhere in the bodies of other forms.

osmiophilic, osmophilic a. [Gr. *osme*, smell; *philein*, to love] Staining readily with osmic acid.

osmium see **osmosium**

osmoconformer n. [Gr. *osmos*, pushing; *cum*, with; *forma*, shape] An organism having the salt content of the blood determined by that of the surrounding sea water.

osmomorphosis n. [Gr. *osmos*, pushing; *morphos*, form] Change in shape due to osmotic (salt) changes in the environment.

osmoreceptors n.pl. [Gr. *osmos*, pushing; *recipere*, to receive] Receptors that sense changes in osmotic pressure.

osmoregulation n. [Gr. *osmos*, pushing; L. *regulatus*, regulated] Maintaining the osmotic pressure in the body by regulating the amount of water and salts, effected by the removal of salts, excretory products or water by the excretory organs.

osmosis n. [Gr. *osmos*, pushing] Passage of water through a semi-permeable membrane from a solution of lower concentration to one of higher concentration until the solutions are equal in concentration.

osmosium n. [Gr. *osmos*, pushing] (NEMATA) A structure of modified intestinal tissue that protrudes into the tissue of the Demanian organ that is of gonadal origin.

osmotaxis n. [Gr. *osmos*, pushing; *taxis*, arrangement] A response to osmotic pressure change.

osmotic see **osmosis**

osmotic pressure Pressure required to prevent the flow of solvent through a membrane that has different concentrations of salt on either side.

osphradium n.; pl. **-dia** [Gr. *osphradion*, strong smell] (MOLL) 1. In Gastropoda, a small sensory organ on the posterior margin of each afferent gill membrane that functions as a chemoreceptor and also determines the amount of sediment in the inhalant current. 2. In Bivalvia, located in the exhalant chamber, doubtfully homologous to Gastropods.

osseous a. [L. *os*, *ossis*, bone] Composed of or resembling bone.

ossicle n. [L. dim. *os*, *ossis*, bone] 1. A small nodule of chitin that resembles bone. 2. (ARTHRO: Crustacea) Teeth and tooth-like process in the gastric mill. 3. (ARTHRO: Insecta) For Diptera, see **axillary sclerites**. 4. (ECHINOD) Plates, spicules and rods that make up the structure of the endoskeleton.

ossiculum n. [L. dim. *os*, *ossis*, bone] 1. An ossicle. 2. (MOLL: Bivalvia) A small calcareous plate reinforcing an internal ligament; a lithodesma.

ostia see **ostium**

ostiole, ostiolar peritreme (ARTHRO: Insecta) The ridged, cuticular projections surrounding the ostiole, cresting and being subdivided into several smaller projections with ridges running parallel to the line from each ostiole to the corresponding evaporative cuticle.

ostiole, ostiola n. [L. *ostiolum*, little door] 1. Any small opening. 2. (ARTHRO: Insecta) In Heteroptera, one of paired dorsal abdominal scent gland openings; in adults, located near the coxa.

ostium n.; pl. **ostia** [L. *ostium*, door] 1. Any opening to a pas-

sage, usually associated with a valve or circular muscle. 2. (ARTHRO) The paired slitlike openings in the heart. 3. (ARTHRO: Insecta) In male Lepidoptera, the opening or area through which the internal pouch is everted during copulation. 4. (MOLL: Bivalvia) One of many tiny holes in the gill walls allowing currents of water through the gills. 5. (PORIF) Pore openings entering the interior cavity (the spongo-coel or atrium) of sponges; incurrent pores; inhalent pores. **ostial** a. see **ostium bursae**.

ostium bursae (ARTHRO: Insecta) The copulatory entrance of the bursa copulatrix in female Lepidoptera, corresponding to the vulva of other female insects with the genital opening on the 8th abdominal segment.

ostium oviductus (ARTHRO: Insecta) In female Lepidoptera, the primary opening of the genitalia through which the eggs are laid, situated near the 9th abdominal segment.

ostracum n. [Gr. *ostrakon*, shell] (MOLL: Bivalvia) 1. The entire calcareous part of the shell. 2. The outer part of the shell secreted at the mantle edge.

otidium see **statocyst**

otocrypt n. [Gr. *ous*, ear; *kryptos*, hidden] (MOLL) An open invagination of the integument of the foot in certain mollusks.

otocyst see **statocyst**

otolith see **statolith**

otoporpa n.pl. [Gr. *ous*, ear; *porpe*, pin] 1. (CNID: Hydrozoa) Lines of cnidoblasts on the exumbrella. 2. (CNID: Scyphozoa) Internal tissue tracts on the bell surface above the sensory organs at the margin of the jellyfish bell.

outer coelomic space (BRYO: Stenolaemata) In free-walled forms, the coelomic space between the outer skeletal wall and the exterior membranous wall.

outer face (MOLL: Gastropoda) In a shell whorl, the surface between the shoulder and the abapical suture or margin of base; same as side of whorl.

outer leaf crown see **corona radiata**

outer ligament see **lamellar ligament**

outer lip (MOLL: Gastropoda) Labrum; the outer edge of the aperture of a univalve shell extending from the suture to the foot of the columella.

outer pigment cells see **accessory pigment cells**

outer plate see **quadrate plates**

outer squama see **alula**

outer vertical bristles (ARTHRO: Insecta) In Diptera, the more laterally located of the large bristles on the *vertex*, and rather behind the upper inner corner of the eye.

ova pl. of **ovum**

oval a. [L. *ovum*, egg] Egg-shaped.

ovarial ligament (ARTHRO: Insecta) A ligamentous strand attaching the terminal filaments of an ovary to the dorsal diaphragm or body wall, or may be from the opposite side by way of a median ligament to the ventral wall of the dorsal blood vessel; functioning in suspending the developing ovaries in the hemocoel.

ovarian balls (ACANTHO) In females, a central mass found in the dorsal ligament sac or free in the pseudocoelom from which oogonia are differentiated; free floating ovaries.

ovarian tube (ARTHRO: Insecta) The tubular part of an ovariole containing the germ cells, oocytes, nurse cells, and follicle cells.

ovariole n. [L. dim. *ovum*, egg] (ARTHRO: Insecta) The tubular division of a female ovary where the oocytes develop.

ovariotestis see **ovotestis**

ovarium see **ovary**

ovary n. [L. *ovum*, egg] The female gonad of animals in which the egg cells are developed. **ovarial**, **ovarian** a.

ovate a. (L. *ovum*, egg) Egg-shaped; oval.

ovately-conic Formed like an egg with a somewhat conic apex.

ovate-oblong Between oval and oblong.

ovate-subquadrate Rounded, but somewhat four-sided.

ovejector see **ovijector**

- overdispersion** An ecological term referring to nonrandom dispersion of individuals in a habitat; as, when a minority of individual hosts bear the majority of parasites.
- ovicapt** n. [L. *ovum*, egg; *captus*, capture] (PLATY: Cestoda) A sphincter on the oviduct.
- ovicell** n. [L. *ovum*, egg; *cella*, cell] (BRYO) 1. In Gymnolae-mata, marine Cheilostomata with a modified zooecium serving as a brood pouch. 2. In Stenolaemata, a gonozooid; an ooecium.
- oviducal gland** (MOLL: Cephalopoda) A glandular complex on each oviduct involved in egg coat formation; in some octopods, a sperm storage area.
- oviduct** n. [L. *ovum*, egg; *ducere*, to lead] Ducts or passages carrying female gametes from the ovary toward the exterior; a gonoduct. **oviducal** a.
- oviferous** see **ovigerous**
- oviform** a. [L. *ovum*, egg; *forma*, shape] Egg-like in shape.
- oviger** n. [L. *ovum*, egg; *gerere*, to bear] (ARTHRO: Chelicer-ata) In some Pycnogonida, specialized egg carrying appendages, as well as functioning in cleaning the long legs and trunk surface.
- ovigerous** a. [L. *ovum*, egg; *gerere*, to bear] Carrying eggs; oviferous.
- ovigerous frena** (ARTHRO: Crustacea) In Lepadomorpha Cirripedia, a fleshy ridge or lap on the inner surface of the mantle anchoring the egg masses.
- ovigerous lamella** (ARTHRO: Crustacea) In Lepadomorpha Cirripedia, the egg masses forming one or more lamellae within the cavity. see **ovigerous frena**.
- ovijector** n. [L. *ovum*, egg; *jacere*, to throw] (NEMATA) A muscular development of the vagina uterina that aids in the passage of eggs.
- oviparous** a. [L. *ovum*, egg; *parere*, to bring forth] Egg-laying.
- oviporus** n. [L. *ovum*, egg; *porus*, passage] (ARTHRO: Insecta) In Lepidoptera, the reproductive opening on segment 9 that serves for the discharge of eggs.

- oviposit** v. [L. *ovum*, egg; *ponere*, to place] To lay or deposit eggs.
- oviposition** n. [L. *ovum*, egg; *ponere*, to place] The act of depositing eggs.
- ovipositor** n. [L. *ovum*, egg; *ponere*, to place] Structure on a female animal modified for deposition of eggs.
- ovisac** n. [L. *ovum*, egg; *saccus*, bag] 1. An egg capsule, brood pouch, or receptacle. 2. (ARTHRO: Crustacea) In female Copepoda, the external sac attached to the somite that bears the openings of the gonoducts. 3. (ARTHRO: Insecta) In coccids, the envelope in which eggs are laid; the ovarial cavity in which the eggs are stored.
- oviscapt, oviscapte** n. [L. *ovum*, egg; *captare*, to conduct] An ovipositor.
- ovivalvula** n. [L. *ovum*, egg; dim. *valva*, leaf of a folding door] (ARTHRO: Insecta) In female Heteroptera and Ephemeroptera, a subgenital plate.
- ovocyte** see **oocytes**
- ovogonium** see **oogonium**
- ovoid** a. [L. *ovum*, egg; Gr. *eidos*, form] Egg-shaped; ovate.
- ovotestis** n.; pl. **-testes** [L. *ovum*, egg; *testis*, testicle] Hermaphroditic reproductive gland; an organ that produces both spermatozoa and ova at the same or at different periods of the life cycle; a syngonic gonad.
- ovovitellarium** n. [L. *ovum*, egg; *vitellus*, yolk] (PLATY: Cestoda) A combined mass of ova and vitelline cells.
- ovoviviparous** a. [L. *ovum*, egg; *vivus*, alive; *parere*, to bring forth] Producing eggs that are incubated and hatched within the female's body. see **oviparous, viviparous**.
- ovum** n.; pl. ova [L. *ovum*, egg] The egg cell.
- oxea** n. [Gr. *oxys*, sharp] (PORIF) A smooth spicule tapering to two similarly pointed ends; amphioxea.
- oxyaster** n. [Gr. *oxys*, sharp; *aster*, star] (PORIF) A star-shaped spicule with a small center and pointed rays.
- oxydiact** a. [Gr. *oxys*, sharp; *di-*, two; *aktis*, ray] (PORIF) Having three rays with two fully developed.

oxygnathous a. [Gr. *oxys*, sharp; *gnathos*, jaw] Having sharp jaws.

oxyphil, **oxyphile** see **oxyphilic**

oxyphilic, **oxyphilous** a. [Gr. *oxys*, sharp; *philein*, to love] 1. Tolerant of acid. 2. Staining readily in an acid stain.

oxyphobe, **oxyphobic** a. [Gr. *oxys*, sharp; *phobos*, fright] Not tolerant of acid soils; acidophobic.

oxytylote n. [Gr. *oxys*, sharp; *tylos*, knob] (PORIF) A slender straight sponge spicule, sharp at one end and knobbed at the other.

ozadene n. [Gr. *ozein*, to smell; *aden*, gland] (ARTHRO: Diplopoda) A defense gland, secreting a repugnant or poisonous chemical.

ozopore n. [Gr. *ozein*, to smell; L. *porus*, pore] (ARTHRO: Diplopoda) The opening of the ozadene.

P

P 1 In Mendel's laws, the first parental generation; parents of a given individual of the F 1 generation.

pachynema n. [Gr. *pachys*, thick; *nema*, thread] Thickened, paired chromosomes of meiosis prophase I, third stage; sometimes used as a synonym of pachytene.

pachyodont a. [Gr. *pachys*, thick; *odous*, tooth] (MOLL: Bivalvia) With heavy, blunt, amorphous teeth.

pachytene n. [Gr. *pachys*, thick; *tainia*, ribbon] A prophase I stage in meiosis in which the chromosomes are thickened and paired and crossing over occurs. see **pachynema**.

pad n. [origin uncertain] (MOLL: Bivalvia) In oysters, a thin aragonite layer on which the adductor muscle is inserted.

paedogenesis n. [Gr. *pais*, child; *gennaen*, to produce] 1. (ARTHRO: Insecta) Parthenogenetic reproduction by insect larvae structurally unable to copulate. 2. Progenesis. see **neoteny**.

paedomorphosis n. [Gr. *pais*, child; *morphosis*, shaping] Evolutionary change in which ancestrally immature structures are retained.

paedoparthenogenesis see **paedogenesis**

pagina n. [L. *pagina*, leaf] (ARTHRO: Insecta) The surface of a wing; inferior= lower surface; superior= upper surface.

pagiopodous a. [Gr. *pagios*, solid; *pous*, foot] (ARTHRO: Insecta) In aquatic Hemiptera, refers to the posterior coxae having the articulation in the form of a hinge joint. see **trochalopodous**.

paired see **didymous**

pairing a. [L. *par*, equal] Chromosome pairing, highly specific association (side by side) of homologous chromosomes.

pala n.; pl. **palae** [L. *pala*, shovel] (ARTHRO: Insecta) In corixid Hemiptera, the tarsus modified as a hair-fringed scoop for particle feeding.