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## Online Dictionary of Invertebrate Zoology: I J K

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# I

**I-band** That zone of the sarcomere composed of actin alone.

**I-cells** (CNID) The interstitial cells.

**ichnotaxon** n. [Gr. *ichnos*, track; *taxis*, arrangement] A taxon based on fossilized impressions, tracks, trails, and burrows made by an animal, but not part of that animal.

**ichthyophagous** a. [Gr. *ichtys*, fish; *phagein*, to eat] Eating, or subsisting on fish.

**iconotype** n. [Gr. *eikon*, image; *typos*, type] A graphic reproduction of a type.

**icotype** n. [Gr. *eikos*, to be like; *typos*, type] A representative specimen serving for purpose of identification, but has not been used in published literature.

**ICZN** The International Code of Zoological Nomenclature.

**ideotype** n. [Gr. *idios*, personal; *typos*, form] A specimen named by the author after comparison with the type species. see **type**.

**idiobiology** n. [Gr. *idios*, personal; *bios*, life; *logos*, discourse] The biology of an individual organism.

**idiochromatin** n. [Gr. *idios*, personal; *chroma*, color] Nuclear chromatin thought to function as structural support for genes.

**idiochromosome** n. [Gr. *idios*, distinct; *chroma*, color; *soma*, body] A sex chromosome.

**idiocuticular** a. [Gr. *idios*, personal; L. *cuticula*, cuticle] Of or pertaining to characteristics of a cuticle; produced in the cuticle such as the microtrichia of insect epicuticle.

**idiogamy** n. [Gr. *idios*, distinct; *gamos*, marriage] Self-fertilization.

**idiogram** n. [Gr. *idios*, distinct; *gramma*, drawing] A diagrammatic representation of chromosome morphology.

**idiomorphic** a. [Gr. *idios*, personal; *morphe*, form] (MOLL: Bi-

valvia) The normal form of valves; not distorted by crowding or attachment to the substrate; automorphic.

**idionymy** n. [Gr. *idios*, personal; *onyma*, name] State of an organ which makes it possible to receive its own distinct nomenclatorial designation, either in ontogeny, or a comparative study of a natural group. **idionymous** a.

**idioplasm** n. [Gr. *idios*, personal; *plasma*, formed or molded] All of the hereditary determinants of an organism, both nuclear and cytoplasmic; germ plasm; idio-type. see **genotype**.

**idiosoma** n. [Gr. *idios*, personal; *soma*, body] (ARTHRO: Chelicerata) In mites or ticks, the posterior of the two basic parts of the body, prosoma and opisthosoma; pseudotagma.

**idiosome** n. [Gr. *idios*, personal; *soma*, body] 1. A purported ultimate element of living matter; micelle. 2. The sphere or region of differing cytoplasm viscosity surrounding the centrosome, surrounding Golgi apparatus and mitochondria.

**idiosphaerotheca** n. [Gr. *idios*, personal; *sphaira*, globe; *theke*, sac] A vesicle containing the acrosome of sperm cells.

**idiotaxonomy** n. [Gr. *idios*, personal; *taxis*, arrangement; *nomos*, law] Taxonomic study of individuals, populations, species and higher taxa; traditional taxonomy.

**idiotaxy** n. [Gr. *idios*, personal; *taxis*, arrangement] Homonomous organs having a common relative placement, even with secondary multiplication.

**idiotrichy** n. [Gr. *idios*, personal; *trichos*, hair] Homonomous setae which share a common relative placement even in the case of secondary multiplication.

**idiotype** n. [Gr. *idios*, personal; *typos*, type] Genotype; idioplasm.

**idorgan** n. [Gr. *idios*, personal; *organon*, organ] A morphological multicellular unit composing an organ, antimere, or metamere, absent of characters of an individual or colony.

**ileocecal** a. [L. ileum, flank; *caecus*, blind] (ARTHRO: Insecta)

Pertaining to the valve at the junction of the large and small intestine.

**ileum** n. [L. *ileum*, flank] (ARTHRO: Insecta) 1. An undifferentiated tube running back to the rectum; the anterior part of the hind-gut. 2. In termites in the form of a pouch in which flagellate protozoa live.

**imaginal** a. [L. *imago*, image] (ARTHRO: Insecta) Pertaining to the adult or imago.

**imaginal disc, bud or cell** (ARTHRO: Insecta) In holometabolous forms, embryonic tissue which remains undifferentiated until they give rise to the imago (adult) structures.

**imagination** n. [L. *imago*, image] (ARTHRO: Insecta) The development of an imago or adult.

**imagine** see **imago**

**imago** n. [L. *imago*, image] (ARTHRO: Insecta) 1. The adult or reproductive stage. 2. In termites, applied only to the adult primary reproductives. **imaginal** a.

**imagochrysalis** n. [L. *imago*, image; Gr. *chrysalis*, chrysalis] (ARTHRO: Chelicerata) In the chigger mite life cycle, a quiescent stage between the nymph and adult.

**imbricate plates** (ARTHRO: Crustacea) In Cirripedia, the lower lateral, lower *latus*, and lower *latera*.

**imbrication** n. [L. *imbricare*, to cover with tiles] An overlapping at the margins as of tiles or shingles. **imbricate** a.

**immaculate** a. [L. *in*, not; *maculatus*, spotted] Without colored spots or marks.

**immarginate** a. [L. *in*, not; *marginatus*, to enclose with a border] Without a definite rim or margin; having no colored rim or margin.

**immature** a. [L. *in*, not; *maturus*, ripe] Any developmental stages preceding the adult.

**immersed** a. [L. *in*, not; *mergere*, to dip] Inserted, imbedded or hidden, as a part or organ.

**immunity** n. [L. *immunis*, free] The ability of an organism to resist a pathogen; a type of resistance to disease.

**immunogenic** a. [L. *immunis*, free; *gennaein*, to produce]

Pertaining to a type of substance that stimulates production of antibody or cell-mediated immunity.

**imperfect mesenteries** (CNID: Anthozoa) Mesenteries spanning the gastrovascular space, but not reaching the actinopharynx. see **perfect mesenteries**.

**imperforate** a. [L. *in*, not; *perforatus*, to bore through] 1. Not perforated; lacking an opening or aperture. 2. (MOLL: Gastropoda) see **anomphalous**.

**implex** n. [L. *implexus*, plaited] (ARTHRO: Insecta) Integumental infolding for muscle attachment; endoplica.

**implicate** a. [L. *implicare*, to entangle] To infold or twist together.

**impregnation** n. [L. *impraegnare*, to cause to conceive] To make pregnant; the introduction of sperm cells; fecundate.

**impressed** a. [L. *in*, on; *premere*, to press] 1. Produced by pressure; depressed areas or markings. 2. (MOLL: Gastropoda) A suture of a shell having both adjoined whorl surfaces turned inward adaxially.

**imprint** n. [L. *in*, on; *premere*, to press] (MOLL: Bivalvia) The impression on the valve of a muscle or gill.

**impunctate** a. [L. *in*, not; *punctum*, puncture] Without marks, pits, spots or holes.

**inaequipartite** a. [L. *in*, not; *aequipartus*, equal] (MOLL: Bivalvia) Pertaining to bivalves with one end longer than the other.

**inanity** n. [L. *inanis*, empty] 1. The state of being empty; inane. 2. Exhaustion from lack of nutrients; the physical condition resulting from insufficient nutrients. 3. A form of dormancy brought about by insufficient nutrients.

**inappendiculate** a. [L. *in*, not; *appendix*, appendage] Without appendages.

**inarticulate** a. [L. *in*, not; *articulatus*, jointed] Not jointed or fitted together; lacking distinct body segments.

**inarticulate hinge** (MOLL) Lacking visible teeth or equipped only with a callosity.

**inaxon** n. [Gr. *in*, not; *axon*, axis] A neuron in which the axon

branches at a distance from the neurocyte.

**inbreed** v.t. [A.S. *in*, inward; *bredan*, nourish] To mate with genetically similar individuals, particularly with close relatives; endogamy.

**inbreeding depression** A loss of fitness due to severe inbreeding.

**incased pupa** see **pupa folliculata**

**incertae sedis** Said of a taxon of uncertain taxonomic position.

**incidence** n. [L. *incidere*, to happen] The number of new cases of a particular disease in a population within a given time period. see **prevalence**.

**incidental parasite** see **accidental parasite**

**incipient** a. [L. *incipere*, to begin] The beginning or appearance, as a species of animal.

**incipient species** see **polymorphism**

**incised** a. [L. *incisus*, cut into] Notched or cut in; sculptured with sharp cut grooves.

**incisor** n. [L. *incisus*, cut into] Adapted for cutting.

**incisor lobe** (ARTHRO: Insecta) A toothed lobe used for biting.

**incisor process** (ARTHRO: Crustacea) The biting portion of the gnathal lobe of the mandible; pars incisiva.

**incisura** n.; pl. **-urae** [L. *incidere*, to cut into] 1. A notch, depression or indentation. 2. (ARTHRO: Insecta) The incisions in the margin of the terminal segment of scale insects.

**incisura clavicularis** (ARTHRO: Crustacea) In Nephropidae, an incision in the anterolateral margin of the carapace forming two lobes partly overlapping that fit around a tubercle or ridge of the epistome.

**incisure** n. [L. *incidere*, to cut into] A cut, gash, impression line, striation or notch.

**incline** a. [L. *inclinare*, to bend] Bent toward the midline of the body.

**inclivous** a. [L. *inclivus*, sloping] (ARTHRO: Insecta) Term applied to a transverse wing vein; having the front end nearer the wing base than the rear. see **verticle**, **reclivous**.

**inclusion bodies** Intracellular bodies, as mitochondria, microsomes, at times viruses, etc.

**incomplete metamorphosis** (ARTHRO: Insecta) In hemimetabolous exopterygotes, the immatures differing from the adult mainly by incomplete development in the wings and genitalia and develop without quiescent state; direct metamorphosis. see **complete metamorphosis**.

**incrassate** a. [L. *incrassare*, to thicken] Thickened; making or becoming thick or thicker.

**incremental line** see **growth line**

**incrustation** n. [L. *incrustus*, covered with mud] 1. Encased with a crust or hard coat. 2. A deposit of calcareous matter upon a shell. 3. (MOLL: Bivalvia) In oysters, tight attachment to the substrate.

**incubation groove** (ARTHRO: Insecta) In bumblebees, a broad depression across the top of the brood comb cell or on top of a group of larvae, into which a lone gyne lies to facilitate warming of the larvae.

**incubatory** a. [L. *in*, in; *cubare*, to lie down] Pertaining to animals that brood their young.

**incudate** a. [L. *incus*, anvil] (ROTIF) Type of mastax with stout forceps-like shape with reduced mallei.

**incumbent** a. [L. *incumbere*, to lie down upon] Bent downwards; to touch or rest upon.

**incunabulum** n.; pl. **-ula** [L. *incunabulum*, cradle] (ARTHRO: Insecta) A cocoon.

**incurrent** a. [L. *in*, in; *currere*, to run] 1. A current which flows inward; afferent. 2. (ARTHRO: Insecta) The ostium of the heart. 3. (MOLL) Inhalant siphons. 4. (PORIF) Canals which admit water.

**incurved** a. [L. *incurvus*, bent] 1. The state of being bowed or curved inwards. 2. Bent over as the apex in some shells.

**incus** n.; pl. **incudes** [L. *incus*, anvil] (ROTIF) Curved plates of the mastax, bearing on their medial sides several prong-like teeth; the fulcrum and rami collectively. **incudal** a. see **uncus**.

**indented** a. [L. *in*, in; *dens*, tooth] Notched or dented;

abruptly pressed inward; a cut or notch in a margin.

**indeterminate** a. [L. *in*, not; *determinare*, to limit] Not well defined; vague; indefinite.

**index** n.; pl. **indexes** [L. *indicare*, to point out] A number expressing the relationship of one quantity to another by expressing them as ratios of a third quantity.

**indigenous** a. [L. *indigena*, native] Being native to or originating in a specified place or country.

**indigoid biochrome** Various blues and purples derived by the metabolism of tryptophan found in plants and mollusks.

**indirect life cycle** see **heterogonic life cycle**

**indirect nuclear division** 1. Typical = mitosis. 2. Atypical = meiosis.

**inducer** n. [L. *in*, in; *ducere*, to lead] A small molecule which causes an increase in the rate of enzyme synthesis when present.

**induction** n. [L. *in*, in; *ducere*, to lead] Increase of the rate of production of an enzyme caused by an inducer molecule.

**inductor** see **organizer**

**inductura** n. [L. *inductura*, a coating] (MOLL: Gastropoda) Smooth shelly layer of the shell secreted by the mantle, extending from the inner side of the aperture over the parietal region, columellar lip, and part or all of the shell exterior.

**indumentum** n. [L. *indumentum*, garment] Covered by hairs, scales or tufts.

**indurate** a. [L. *indurare*, to make hard] Hardened.

**indusium** n.; pl. **-sia** [L. *indusium*, tunic] (ARTHRO: Insecta) 1. A larva casing. 2. The third covering of embryonic membrane formed from a thickening of the serosa in front of the head.

**industrial melanism** The evolution of a darkened population owing to melanistic individuals that blend with their substrate in the sooty surroundings of an industrial area.

**inequal** a. [L. *in*, not; *aequus*, equal] Having irregular elevations or depressions.

**inequilateral** a. [L. *in*, not; *aequus*, equal; *latus*, side] (MOLL: Bivalvia) Shells with unequal sides. see **inequivalve**.

**inequilobate** a. [L. *in*, not; *aequus*, equal; *lobus*, lobe] Having lobes of unequal size.

**inequivalve** a. [L. *in*, not; *aequus*, equal; *valva*, leaf of a door] (MOLL: Bivalvia) Having one valve larger, or of a different form from the other.

**inerm, inermous** a. [L. *inermis*, unarmed] Lacking striae, spines or other sharp processes. see **mutic**.

**inert** n. [L. *iners*, idle] Inactive; said of heterochromatin of chromosomes due to absence of gene mutations or effects on genetic balance; physiologically inactive.

**infauna** n. [L. *in*, into; *Faunus*, diety of herds and fields] Bottom burrowing animals of the sea. see **epifauna**.

**inferior** a. [L. *inferior*, lower] Situated below, near the base; underneath; behind.

**inferior anal appendage** (ARTHRO: Insecta) In Odonata, the lower one or two terminal abdominal appendages used in grasping the female at the time of copulation.

**inferior groove** (ARTHRO: Insecta) In Decapoda, a carapace groove, beginning at the junction of the hepatic and cervical grooves toward the lateral margin.

**inferobranchiate** a. [L. *inferus*, low; Gr. *branchia*, gills] (MOLL) Pertaining to gills under the mantle margin.

**inferolateral** a. [L. *inferus*, low; *latus*, side] Being below and at or towards the side.

**infero-marginal plates** (ECHINOD: Asteroidea) The lower marginal plates that form the outline of the arm. see **supero-marginal plates**.

**inferomedian** a. [L. *inferus*, low; *medius*, middle] Being below and about the middle.

**inferoposterior** a. [L. *inferus*, low; *posterior*, hinder] Below and behind.

**infertility** n. [F. *infertilite*] Infertile state or quality; inability to reproduce.

**infestation** n. [L. *infestus*, disturbed] The living in or on a host

by metazoan parasites.

**infiltration** n. [L. *in*, in; *filtrum*, felt] Act or process of infiltrating or permeating.

**inflated** a. [L. *inflatus*, inflated] 1. Expanded; distended. 2. (MOLL: Gastropoda) Applied to shells swollen, increased unduly, distended; ventricose.

**inflation** n. [L. *in*, in; *flare*, to blow] (MOLL: Bivalvia) The distance between the outermost points of the two valves.

**inflected** a. [L. *in*, in; *flectere*, to bend] Turned or bent inward or downward; inflexed.

**inflexed** a. [L. *in*, in; *fectere*, to bend] Curved, bent or directed inward or downward or toward the body axis; inflected.

**influent** a. [L. *in*, in; *fluere*, to flow] An animal or plant having an influence on other living forms.

**informosome** n. [L. *in*, in; *formare*, to form; Gr. *soma*, body] Messenger RNA combined with protein for protection as it moves from nucleus to cytoplasm.

**infra-anal flaps** see **paraproct**

**infrabasal** a. [L. *infra*, underneath; *basis*, base] 1. Below a basal structure. 2. (ECHINOD: Crinoidea) Plates aboral to the basal plates.

**infrabranchial** a. [L. *infra*, underneath; *branchiae*, gills] Being below the gills.

**infrabuccal cavity/chamber** (ARTHRO: Insecta) A spheroidal sac beneath the floor of the mouth cavity that opens into the mouth by means of a short narrow canal, functioning in food storage.

**infrabuccal slit** (ARTHRO: Chelicerata) In Acari, the slit between the two lateral lips seen on the ventral surface of the infracapitulum.

**infracalyptral setulae** (ARTHRO: Insecta) In tachinid Diptera, fine, bristly hairs below the point of attachment of the calypter (squamae).

**infracapitular glands** (ARTHRO: Chelicerata) In Acari, paired glands lying in the prosoma and emptying into the cervix.

**infracapitulum** n.; pl. **-la** [L. *infra*, underneath; *capitulum*,

small head] (ARTHRO: Chelicerata) In Acari, part of the gnathosoma of mites, bearing lips and palpi and containing mouth and pharynx.

**infraclypeus** see **anteclypeus**

**infracoxal** a. [L. *infra*, underneath; *coxa*, hip] (ARTHRO) Situated below the coxa.

**infracted** a. [L. *infractus*, break] Bent inward; bent inward abruptly as if broken.

**infraepimeron** n. [L. *infra*, underneath; Gr. *epi*, upon; *meros*, part] (ARTHRO: Insecta) The lower sclerite of the epimeron; katepimeron.

**infraepisternum** n. [L. *infra*, underneath; Gr. *epi*, upon; *sternon*, chest] (ARTHRO: Insecta) A ventral subdivision of an episternum.

**infra-ergatoid form** see **phthisergate**

**infraesophageal** a. [L. *infra*, underneath; Gr. *oisophagos*, gullet] Subesophageal.

**infragenital** a. [L. *infra*, underneath; *genitalis*, belonging to birth] Below the genital opening.

**inframarginal** a. [L. *infra*, underneath; *margo*, edge] Behind or below any margin.

**inframedian** a. [L. *infra*, underneath; *medius*, middle] Pertaining to a belt or zone along the sea bottom between 50 and 100 fathoms in depth.

**inframedian latus** (ARTHRO: Crustacea) In Lepadomorpha Cirripedia, a plate below the upper latus.

**infraneuston** n. [L. *infra*, underneath; Gr. *neustos*, floating] Animals that live on the underside of the surface film of water.

**infraocular** n. [L. *infra*, underneath; *oculus*, eye] Below and between the eyes.

**infraorbital spine** (ARTHRO: Crustacea) A spine on the lower angle of the orbit of a decapod carapace.

**infraorder** n. [L. *infra*, underneath; *ordo*, order] An optional category below the suborder.

**infrasocial** a. [L. *infra*, underneath; *socius*, companionship]

Leading a solitary life; below social. see **society**.

**infraspecific** n. [L. *infra*, underneath; *species*, kind] Within the species; usually applied to subspecies.

**infrastigmatal** a. [L. *infra*, underneath; Gr. *stigmata*, marks] (ARTHRO) Below the stigmata or spiracles.

**infrasutural** a. [L. *infra*, underneath; *sutura*, seam] (ARTHRO) Below the seam or suture.

**infumated** a. [L. *in*, in; *fumus*, smoke] Clouded with a blackish color; smoke colored.

**infundibulum** n.; pl. **-ula** [L. *infundibulum*, funnel] 1. A funnel-shaped organ or part. 2. (CNID: Hydrozoa) The hydroecium. 3. (MOLL: Cephalopoda) An exhalant siphon leading out of the mantle cavity. **infundibuliform** a.

**infusate** a. [L. *in*, into; *fuscus*, dark] Darkened with a brownish tinge; smoky gray-brown.

**infusoriform larva** (MESO: Rhombozoa) In Dicyemida, ciliated larva produced by the infusorigen.

**infusorigen** n. [L. *infusus*, poured into; *genos*, offspring] (MESO: Rhombozoa) A mass of reproductive cells interpreted as being a hermaphroditic gonad within a rhombogen.

**ingest** v. [L. *ingestus*, taken in] To convey food into a place of digestion.

**ingesta** n.pl. [L. *ingestus*, taken in] The total amount of substances and fluids taken into the body. see **egesta**.

**ingestion** n. [L. *ingestus*, taken in] The act or process of swallowing or taking in food material into a cell or into the enteron.

**ingluvial** a. [L. *ingluvies*, crop] (ARTHRO: Insecta) Pertaining to the ingluvies or crop of insects.

**ingluvial ganglion** (ARTHRO: Insecta) 1. Paired ganglion of the stomodeal nervous system at the posterior end of the foregut. 2. In *Schistocerca*, autonomously exerting influence on movements of the proventriculus.

**ingluvies** see **crop**

**inhalant** a. [L. *in*, into; *halere*, to breathe] Taking into the

body, i.e., water or air. see **incurrent**.

**inhalant siphon** In various invertebrate groups, a tube-like organ along which water is drawn into the mantle cavity.

**inheritance** n. [OF. *enheritance*] The sum of all characters or qualities transmitted by the germ cells from generation to generation.

**inherited disease** Abnormal characters or qualities predetermined from parent to offspring; an inborn disease.

**inhibitor** n. [L. *inhibere*, to restrain] Any substance which checks or prevents an action or process.

**injector** n. [L. *in*, in; *jacere*, to throw] (CNID) A nematocyst that injects venom through a discharged open-ended tube; stomocnide.

**injury** n.; pl. **-ries** [L. *in*, not; *juris*, right] Damage; wound; trauma.

**ink sac** (MOLL: Cephalopoda) A pear-shaped body in the wall of the mantle situated near the anus, containing the ink glands which eject a black substance as a defense mechanism.

**innate** a. [L. *innatus*, inborn] Instinctive behavior; not learned.

**inner dorsocentral bristles** see **acrostichal bristles**

**inner epithelium** (BRYO: Stenolaemata) In free-walled forms, an epithelium that secretes the skeleton, including both zooidal skeletal walls and hypostegal extrazoidal skeleton.

**inner lamina** (ARTHRO: Crustacea) In Balanomorpha, the inner shell layer of compartmental plates separated by longitudinal tubes from the outer lamina.

**inner ligament/inner layer of ligament** see **resilium**

**inbner line** (MOLL: Gastropoda) That part of the peristome against the pillar.

**inner lip** (MOLL: Gastropoda) The inner edge of the aperture of a univalve shell extending from the foot of the columella to the suture; columellar and parietal lips collectively. see **outer lip**.

**innervate** v. [L. *in*, in; *nervus*, tendon] To supply nerves to an organ or part.

**inner vesicle** see **ooecial vesicle**

**inocular antennae** (ARTHRO: Insecta) Antennae with base partly or wholly surrounded by the eye. see **eye-bridge**.

**inoculation** n. [L. *in*, in; *oculare*, to furnish with eyes] 1. Active or passive introduction of parasites into the body of a host. 2. Introduction of an inoculum into a culture medium.

**inoperculate** a. [L. *in*, not; *operculum*, a cover, lid] Without an *operculum*, as a garden snail.

**inosculate** v. [L. *in*, in; *osculum*, little mouth] To anastomose.

**inquiline** n. [L. *inquilinus*, tenant] 1. A commensal organism that lives habitually on or within the body of another, or in its nest or abode without benefit or damage to either; a guest. see **inquilinism**. 2. An animal that lives in the home of another species and derives a share of its food. see **inquilinism**. 3. An insect developing inside a gall produced by another species. **inquilinous** a.

**inquilinism** n. [L. *inquilinus*, tenant; *-ismus*, condition] 1. The relationship between two organisms sharing an abode without benefit or damage to either. 2. (ARTHRO: Insecta) The relationship of a socially parasitic species that spends its entire life cycle in the nest of a host species; workers are either lacking or scarce and degenerate in behavior; permanent parasitism.

**inquirende** n.pl.; sing. **-da** [L. *in*, in; *quaerere*, to seek] Under inquiry or investigation; needs study.

**Insecta, insects** n.; n.pl. [L. *insectum*, cut into] A class of Arthropoda generally having a tracheate respiratory system, a single pair of antennae, and the body somites grouped into three functional tagmata: the head, thorax (bearing three pairs of legs) and abdomen.

**insectarium** n.; pl. **-ia** [L. *insectum*, cut into] A building where insects are propagated or the collection contained therein.

**insectean, insectan** a. [L. *insectum*, cut into] (ARTHRO: Insecta) Referring to or characteristic of insects in general.

**insectivorous** a. [L. *insectum*, cut into; *vorare*, to devour] Feeding on insects.

**insectorubins** n.pl. [L. *insectum*, cut into; *ruber*, red] Red or

red-brown eye pigments of insects, produced by the oxidation of tryptophane.

**insect ovary types** (ARTHRO: Insecta) There are three types of ovaries: 1. Panoistic. 2. Polytrophic meroistic. 3. Telotrophic meroistic. see separate entries.

**insectoverdin** n. [L. *insectum*, cut into; *viridis*, green] (ARTHRO: Insecta) A blue pigment (usually mesobiliverdin) in combination with carotenoids which produce the green coloring of insects. see **green pigments**.

**insect society** (ARTHRO: Insecta) Strictly a colony of eusocial insects.

**insect sociology (sociobiology)** The study of population characteristics related to social behavior in insects.

**insemination** n. [L. *inseminare*, to sow] The introduction of spermatozoa into the female reproductive tract. see **semination**.

**inserted** a. [L. *in*, in; *serere*, to join] Joined by natural growth; a muscle attached to a movable part.

**insertion** n. [L. *in*, in; *serere*, to join] 1. Movable end of a muscular attachment. 2. Translocation in genetics.

**insertion plate** (MOLL: Polyplacophora) A narrow marginal extension of the articulamentum layer in the head and tail valves and sides of the intermediate valves, projecting into the girdle; lamina of insertion.

**insolation** n. [L. *in*, into; *sol*, sun] Exposure to the rays of the sun.

**inspissate** v. [L. *in*, into; *spissus*, thick, dense] To bring greater consistency; to thicken.

**instar** n. [L. *instar*, form] 1. An insect or nematode at a particular larval period or stage between molts. 2. (ARTHRO: Insecta) Numbered to designate the various periods, i.e., first instar, second instar, etc.; can be abbreviated 1°, 2°, 3°. see **stadium**.

**instinct** n. [L. *instinctus*, impulse] A usually invariable complex response natural to a species, independent of any previous experience of the individual.

**intectate** a. [L. *in*, not; *tectum*, roof] Lacking a tectum.



**integration** n. [L. *integer*, whole] (BRYO) Changes in individual zooid morphology brought about by colonial living.

**integripalliate** a. [L. *integer*, whole; *pallium*, mantle] (MOLL: Bivalvia) Having a pallial line entire; lacking a sinus, as clams or oysters.

**integument** n. [L. *integumentum*, covering] The outer covering of the body.

**integumental scolophore** see **scolopale**

**integumental vesture or setae** (ARTHRO: Insecta) Numerous spines or hairs on the epidermis of syrphid larvae, excluding the segmental spines.

**intensity** n.; pl. **-ties** [L. *intentus*, intent] The total number of parasites in an individual. see **burden**.

**interambulacral areas** (ECHINOD: Echinoidea) The radially arranged arms (typically 5) that do not bear tube feet or podia. see **ambulacral areas**.

**interambulacral plates** (ECHINOD: Crinoidea) Additional calyx plates between the arm bases in stalked crinoids.

**interantennal setae** (ARTHRO: Insecta) In coccids, a group or transverse row of setae on the ventral aspect of the head between the articulation of the antennae.

**interantennal suture** (ARTHRO: Insecta) In Siphonaptera, a suture extending between the bases of the antennae.

**interantennular septum** (ARTHRO: Crustacea) In some Malacostraca, a plate separating antennular cavities; proepistome.

**interbasal muscle** (ECHI) A strong, narrow muscular band of tissue connecting the sheaths of the two ventral setae.

**interbrachial** a. [L. *inter*, between; *brachium*, arm] Between adjoining arm tips, rays or brachial plates.

**interbreed** n. [L. *inter*, between; A.S. *brod*, broad] Individuals capable of actual or potential gene exchange by hybridization.

**intercalary** a. [L. *intercalaris*, that which is inserted] Inserted or introduced between others; interpolated.

**intercalary appendages** (ARTHRO: Insecta) The rudimentary

post antennal or premandibular appendages.

**intercalary segment** (ARTHRO: Insecta) The premandibular, tritocerebral segments.

**intercalary stage** (ARTHRO: Diplopoda) A non-reproductive stage between two reproductive stages in which the male gonopods and other secondary sexual structures regress.

**intercalary vein** (ARTHRO: Insecta) 1. An extra longitudinal wing vein of Ephemeroptera. 2. Convex wing vein which follows the crest of a ridge. 3. Concave wing vein on the bottom of a furrow. 4. In Diptera, sometimes applied to the posterior branch of the fourth vein.

**intercalary walls** (BRYO: Gymnolaemata) The outer walls of zooids attached to each other in a linear series.

**intercellular** a. [L. *inter*, between; dim. *cellula*, little cell] Lying between cells.

**intercervical groove** (ARTHRO: Crustacea) In Nephropidae, an oblique groove on the carapace that connects the postcervical and cervical grooves.

**interchange** n. [L. *inter*, between; *combiare*, to exchange] Reciprocal translocations between nonhomologous chromosomes.

**intercheliceral gland** (ARTHRO: Chelicerata) In Acari, unpaired prosomatic gland emptying between the chelicerae; function unknown.

**interchordal areas** (NEMATA) The nonthickened regions of the hypodermis devoid of nuclei.

**interchromomeres** n. [L. *inter*, between; Gr. *chroma*, color; *meros*, part] 1. Regions connecting adjacent chromomeres. 2. (ARTHRO: Insecta) Lighter staining areas of the giant chromosomes in Diptera.

**interchromosomal** a. [L. *inter*, between; Gr. *chroma*, color; *soma*, body] Reactions between chromosomes.

**intercostal** a. [L. *inter*, between; *costa*, a rib] (MOLL) Placed between the ribs of a shell.

**intercostal vein** (ARTHRO: Insecta) The subcosta.

**intercostate** n. [L. *inter*, between; *costa*, rib or side] (MOLL)

Between ribs or ridges.

**intercoxal process** (ARTHRO: Insecta) In Coleoptera, a prosternal process, occasionally enlarged, partly concealing the coxae.

**interdentum** n. [L. *inter*, between; *dens*, tooth] (MOLL: Bivalvia) A shelly plate between the pseudocardinal and lateral teeth.

**interface** n. [L. *inter*, between; *facies*, countenance] The common surfaces of two bodies.

**interfrontal bristles** (ARTHRO: Insecta) In Diptera, bristles or hairs on the frontal vitta.

**interfrontalia** see **frontal vitta**

**interganglionic** a. [L. *inter*, between; Gr. *ganglion*, swelling] Between and uniting nerve ganglia.

**intergenic** a. [L. *inter*, between; Gr. *genos*, race] Changes involving more than one gene.

**interior skeletal wall** (BRYO: Gymnolaemata) In Cheilostomata, walls growing off the skeletal wall interiorly which partition the original coelomic volume of the colony.

**interior wall** (BRYO) Any body wall that partitions the body cavity into zooids, parts of zooids or extrazoidal parts.

**interkinesis** n. [L. *inter*, between; Gr. *kinesis*, movement] The abbreviated interphase between the first and second meiotic divisions with no chromosomal reproduction.

**interlabial** a. [L. *inter*, between; *labium*, lip] (NEMATA) Situated between the lips.

**interlamellar** a. [L. *inter*, between; *lamella*, thin plate] Between lamellae.

**interlamine figure** (ARTHRO: Crustacea) In some Balanomorpha, a line or lines extending between epicuticle of outer lamina through longitudinal septa into the inner lamina in sections parallel to base.

**interlobular incisions** see **incisura**

**intermaxilla** n. [L. *inter*, between; *maxilla*, jaw] (ARTHRO: Insecta) The maxillary lobe.

**intermedia** n. [L. *inter*, between; *medius*, middle] (PORIF) Spi-

cules between elements of principalia or dictyonalia.

**intermediate band (disc)** see **Z-band**

**intermediate cell** see **chromophile**

**intermediate denticles** (ARTHRO: Crustacea) In Stomatopoda, a row of small projections between the intermediate and submedian teeth on the lateroterminal margin of the telson.

**intermediate host** One which alternates with the definitive host in which the parasite passes through partial development, but not to sexual maturity. see **definitive host**.

**intermediate neurons** Neurons joining sensory and motor neurons; association neurons.

**intermediate sclerite** (ARTHRO: Insecta) In Diptera, hypostomal sclerites shaped like an "H", joined together by a transverse bar, receiving the opening of the salivary duct.

**intermediate tooth** (ARTHRO: Crustacea) A strong spinelike or blunt projection at the margin of the telson, between submedian and lateral teeth of mantis shrimp.

**intermediate valve** (MOLL: Polyplacophora) Any valve between head and tail valves; median valve; body valve.

**intermitotic** a. [L. *inter*, between; Gr. *mitos*, thread] Interphase of mitotic cell cycle.

**internal** a. [L. *internus*, within] 1. Located within the limits of the surface of something; situated on the side toward the median plane of the body. 2. (MOLL) Pertaining to shells when enclosed within the organism or mantle.

**internal ligament** (MOLL: Bivalvia) The ligament placed within the hinge and not visible when the valves are closed.

**internal parameres** (ARTHRO: Insecta) In male genitalia, the paired sclerotized appendages inside the external parameres.

**internal respiration** The biochemical processes of metabolism that occur in all living cells that result in energy release.

**internal rhythm** Endogenous rhythm. see **circadian**.

**internal ridges** (ANN: Hirudinoidea) Fleishy structures of the pharynx; pharynx folds or pods.

**internal secretion** Substance absorbed directly by body fluids.

**internal triangle** see **triangle**

**International Code of Zoological Nomenclature (ICZN)**

The official set of regulations and recommendations dealing with zoological nomenclature.

**interneuron** n. [L. *inter*, between; Gr. *neuron*, nerve] Inter-nuncial neuron or association neuron.

**internode** n. [L. *inter*, between; *nodus*, swelling] 1. The interval or part between two nodes or joints. 2. (BRYO) That segment of a jointed colony between surfaces of articulation. 3. (CNID: Hydrozoa) A small repeated section of the stem or hydrocladium separated by a constriction of the perisarc.

**internum** n. [L. *internus*, inside] Medulla of a mitochondrion.

**internuncial neuron** see **association neuron**

**internuncial process** (PLATY) The cell processes (trabecula) connecting the perikarya of cestode and trematode tegumental cells with the distal cytoplasm.

**interoceptors** n. [L. *inter*, between; (*re*)*capere*, to take] Sense organs situated internally that respond to internal conditions, as opposed to exteroceptors.

**interosculant** a. [L. *inter*, between; *osculari*, to kiss] Having characters common to 2 or more species or groups.

**interpetaloid** a. [L. *inter*, between; Gr. *petalon*, leaf] (ECHINOD: Echinoidea) Area between ambulacral areas.

**interphase** n. [L. *inter*, between; Gr. *phasis*, state] The period between succeeding mitoses. see **interkinesis**.

**interpleural suture** (ARTHRO: Insecta) In Odonata, suture between the meso- and metapleura.

**interpleurite** n. [L. *inter*, between; Gr. *pleuron*, side] (ARTHRO: Insecta) An intersegmentalia between the pleurites.

**interplical** a. [L. *inter*, between; *plicare*, to fold] Lying between folds.

**interradial plates** (ECHINOD: Crinoidea) Additional calyx plates between the radial plates in stalked crinoids.

**interradius** n.; pl. -**radii** [L. *inter*, between; *radius*, ray,

spoke] 1. Area between radii or perradii in radially symmetrical animals. 2. (CNID) The second radius.

**interramal** a. [L. *inter*, between; *ramus*, branch] Between two rami.

**interramal cirrus** (ANN: Polychaeta) Cirrus on the ventral side of the notopodium.

**interrugal** a. [L. *inter*, between; *rugae*, wrinkle] Between rugae.

**interrupted** a. [L. *inter*, between; *rumpere*, to break] Irregular; asymmetrical; broken in continuity.

**interscutal** a. [L. *inter*, between; *scutum*, shield] Between scuta.

**intersegmental** a. [L. *inter*, between; *segmentum*, part] Between segments.

**intersegmental furrow** (ANN: Oligochaeta) In pigmented species of earthworms, the boundary between two consecutive segments where epidermis is thinnest and color is lacking.

**intersegmental groove** (ANN: Oligochaeta) In earthworms, a circumferential depression of strongly contracted specimens that contains the intersegmental furrow.

**intersegmentalia** n.pl.; sing. -**lium** [L. *inter*, between; *segmentum*, part] (ARTHRO: Insecta) 1. Dorsal and ventral plates associated with narrow intersegmental sclerites which develop in the intersegmental folds. 2. Setiferous areas associated with the mesothoracic spiracles in scarab beetles.

**intersegmental membrane** (ARTHRO: Insecta) The flexible conjunctiva between two secondary segments where contraction of the longitudinal muscles produce telescoping of the segments.

**interseptal** a. [L. *inter*, between; *septum*, wall] Spaces between septa.

**intersex** n. [L. *inter*, between; *sexus*, sex] An individual possessing both male and female characteristics; sex mosaic. see **hermaphrodite**.

**intersomitic** a. [L. *inter*, between; Gr. *soma*, body] Between body segments or somites.

- interspaces** n. [L. *inter*, between; *spatium*, space] 1. Intervening time or space. 2. (MOLL) Spaces between costa of a shell.
- interspicular** a. [L. *inter*, between; *spiculum*, small point] Between spicules.
- intersterility** n. [L. *inter*, between; *sterilis*, unfruitful] Cross-sterility between groups.
- intersternite** n. [L. *inter*, between; Gr. *sternon*, chest] (ARTHRO: Insecta) An intersegmental sclerite, located on the ventral side of the thorax; the spinasternum.
- interstices** n.pl. [L. *interstitium*, space between] A narrow space between the parts of a body or things close together; a crack, crevice or chink. **interstitial** a.
- interstitial cells** (CNID) Small undifferentiated epidermal cells which may give rise to cnidoblasts or nematocysts.
- interstrial** a. [L. *inter*, between; *stria*, groove] 1. Between two striae. 2. (ARTHRO: Insecta) see **elytral intervals**.
- intertentacular organ** (BRYO: Gymnolaemata) A small ciliated tube beneath the tentacle bases of the lophophore through which fertilized eggs pass to the outside.
- intertergite** n. [L. *inter*, between; *tergum*, back] An intersegment between tergites.
- intertidal zone** The area bounded by the high and low tide lines; also known as the littoral.
- intertrochanteric** a. [L. *inter*, between; Gr. *trochanter*, runner] (ARTHRO) Between trochanters.
- interval** n. [L. *inter*, between; *vallum*, a wall] 1. The space between elevations or depressions. see **interspace**. 2. Distance between points. 3. The time between periods of development.
- interzonal** a. [L. *inter*, between; *zona*, belt] Connection between chromatids during separation at anaphase in mitosis.
- interzooidal budding** (BRYO: Stenolaemata) Budding that occurs outside of the living chambers of zooids producing a bud nonrelated to an individual parent zooid.
- interzooidal growth** (BRYO: Phylactolaemata) Growth of a

wall between new polypides and parental polypides.

- interzooidal polymorph** (BRYO: Gymnolaemata) Polymorph between zooids communicating with two or more zooids in a space smaller than that occupied by an autozooid.
- intestinal groove** (ARTHRO: Crustacea) In Decapoda, marine lobsters with a short, transverse groove of the posterior carapace.
- intestinal region** (ARTHRO: Crustacea) In a decapod carapace, a short transverse area behind the cardiac region; posterior cardiac lobe.
- intestinal siphon** (ECHI) A narrow tube associated with the midgut; an accessory intestine.
- intestine** n. [L. *intestina*, entrails] The chief digestive portion of the enteron; gut.
- intima** n. [L. *intimus*, innermost] The internal membranous lining of an organ. **intimal** a.
- intorted** n. [L. *in*, in; *torquere*, to twist] A turning or twisting in any direction from the vertical.
- in toto** In its entirety; entirely; altogether.
- intra-alar bristles** (ARTHRO: Insecta) In Diptera, a row of two or three bristles between the supra-alar and dorsocentral bristle groups.
- intracellular** a. [L. *intra*, within; *cellula*, small cell] Occurring within a cell or cells.
- intrachange** n. [L. *intra*, within; *cambiare*, to barter] Exchange of segments within a chromosome resulting in chromosomal structural changes.
- intracoelomic muscle** see **external muscle**
- intracrystal space** Space enclosed by cristae in the mitochondrion.
- intracuticular skeleton** (BRYO: Gymnolaemata) In Cheilostomata, skeletal layers between noncellular organic sheets or within organic networks of cuticles of the exterior walls.
- intrados** n. [L. *intra*, within; F. *dos*, the back] The interior curve of an arch. see **extrados**.

- intrahemocoelic** a. [L. *intra*, within; Gr. *haima*, blood; *koilos*, hollow] Within the hemocoel or perivisceral cavity of an invertebrate.
- intralecithal** cleavage Cleavage where the nuclei undergo several divisions within the yolk without concurrent cytokinesis; common in arthropods.
- intraparies** n.; pl. **intraparietes** [L. *intra*, within; *paries*, wall] (ARTHRO: Crustacea) In Lepadomorpha, the secondary lateral margin of the carina.
- intrapetalous** a. [L. *intra*, within; Gr. *petalon*, leaf] (ECHINOD) Within the area of the tube feet.
- intrapulmonary respiration** Type of respiration that does not involve movements of the outer body wall and is confined to the respiratory organs.
- intrasegmental** a. [L. *intra*, within; *segmen*, piece] Within a segment.
- intraspicular** a. [L. *intra*, within; *spicula*, little point] (PORIF) Pertains to spicules completely embedded in spongin.
- intratentacular budding** (CNID: Anthozoa) A zoantharian colony growing by asexual reproduction, through the formation of new mouths on the oral disk, resulting in branching, or in linear groups of polyps bearing tentacles mainly on the outer edges of the row.
- intrauterine** a. [L. *intra*, within; *uterus*, womb] 1. Within the uterus. 2. Applied to developing offspring hatching within the uterus of the mother. see **matricidal hatching**.
- intra vitam** Applied to certain stains having the property of tinting cells of living organisms without killing them.
- intrazooidal budding** (BRYO: Stenolaemata) Budding within the living chamber of a single zooid.
- intrazooidal polymorphism** (BRYO: Stenolaemata) Two different types of zooids developed in the same living chamber.
- intrinsic** a. [L. *intrinsecus*, inward] 1. Inherent or within. 2. Cycles of species in a population. 3. Rate of natural increase in a stabilized population. see **extrinsic**.
- intrinsic articulation** A type of articulation where sclerotic

- prolongations within the articular membrane make contact. see **extrinsic articulation**.
- intrinsic body wall muscles** (BRYO) Circular and longitudinal muscle layers in the body walls.
- intrinsic muscles** Muscles which move an organ (leg, etc.) that originate within the segment. see **extrinsic muscles**.
- introduced** a. [L. *intro*, within; *ducere*, to lead] Not native but brought into an area by man.
- introitus** n. [L. *introitus*, entered] Opening or orifice.
- intromittent** a. [L. *intro*, within; *mittere*, to send] Designed for entering or inserting.
- intromittent organ** A male organ for transfer of seminal fluid into the female.
- intorse** a. [L. *intro*, within; *versus*, turn] Facing or directed inward toward the axis. see **extorse**.
- introvert** n. [L. *intro*, within; *versus*, turn] (BRYO/SIPUN) A cavity which accepts retractable appendages, e.g., the anterior cavity that accepts the anterior tentacles.
- intumescent** n. [L. *in*, in; *tumescere*, to swell up] A swelling; being swollen or expanded.
- intussusception** n. [L. *intus*, within; *suscipere*, to take up] Deposition of new particles of formative material among those already present in a tissue or structure. see **apposition, accretion**.
- invagination** n. [L. *in*, into; *vagina*, sheath] An infolding, or ingrowth of a sheet or layer of cells forming a pouch or sac, especially in embryos. see **emboly**.
- invalid** a. [L. *invalidus*, not strong] Dismissing; without standing in zoological nomenclature.
- inverse eyes** Eyes in which the distal ends of the retinal cells face the interior of the cup or vesicle. see **converse eyes**.
- invertase** n. [L. *invertere*, to turn around; -asis, ending signifying an enzyme] An enzyme found in many plants and animal intestines that causes the hydrolysis of sucrose and converts it into a mixture of glucose and fructose.
- invertebrate** n. [L. *in*, not; *vertebrata*, with backbones] Any

animal without a backbone or vertebral column.

**investment** n. [L. *investire*, to clothe] An outer covering of a cell, part, or organism.

**in vitro** [L. *in*, in; *vitrum*, glass] In the test tube or other artificial environment.

**in vivo** [L. *in*, in; *vivere*, to live] Occurring within a living organism.

**involucrum** n. [L. *involucrum*, sheath] (ARTHRO: Insecta) A sheath of cerumen around the brood chamber of stingless bees.

**involute** a. [L. *in*, in; *volute*, spiral] 1. Rolled inwards at margins or edges. 2. (MOLL) The last whorl of a shell enveloping earlier ones and concealing, or nearly so, the axis or earlier volutions. see **convolute**, **revolute**.

**involution** n. [L. *in*, in; *volute*, spiral] 1. Act of involving or infolding. 2. Deterioration or retrograde evolution.

**ipsilateral** a. [L. *ipse*, same; *latus*, side] Pertaining to or situated on the same side. see **contralateral**.

**iridescence** n. [L. *iris*, rainbow] A rainbow-like display of interference colors that change with variations of the angle of view, due to diffraction of light reflected from ribbed or finely striated surfaces. **iridescent** a.

**iridophore** n. [L. *iris*, rainbow; Gr. *phoreus*, bearer] An iridescent chromatophore; an iridocyte.

**iris** n.; pl. **irises**, **irides** [L. *iris*, rainbow] Dark pigment surrounding the compound eyes of arthropods and the camera-type eyes of cephalopods.

**irregular** n. [L. *in*, not; *regularis*, according to rule] Unequal, curved, bent; not regular.

**irreversibility rule** see **Dollo's rule**

**irritability** n. [L. *irritare*, to provoke] Ability to receive external impressions and the power to react to them.

**irritant** n. [L. *irritare*, to provoke] Any external stimulus that can provoke a response.

**irrorate** a. [L. *in*, not; *roris*, dew] Covered with minute marks, colors, or minute grains or specks of color.

**isauxesis** n. [Gr. *isos*, equal; *auxesis*, growth] Equality in growth; isometry. see **bradyauxesis**, **heterauxesis**, **tachyauxesis**.

**ischia** pl. of **ischium**

**ischiocerite** n. [Gr. *ischion*, hip; *keras*, horn] (ARTHRO: Crustacea) Third segment of an antennal peduncle.

**ischiomere** a. [Gr. *ischion*, hip; *meros*, part] (ARTHRO: Crustacea) Refers to the third (ischium) and fourth (merus) segments of subchelate anterior appendages.

**ischiopod(ite)** n. [Gr. *ischion*, hip; *pous*, foot] (ARTHRO) The third segment of a generalized limb; the second trochanter, or second segment of the telopodite; prefemur. see **ischium**.

**ischium** n.; pl. **ischia** [Gr. *ischion*, hip] (ARTHRO: Crustacea) The third segment of a pereopod, or first segment of an endopod articulating with the basis; an ischiopodite.

**islet** n. [L. dim. *insula*, an island] A spot in a plaga differing in color.

**isoallele** n. [Gr. *isos*, equal; *allelon*, one another] An allele whose effect can only be distinguished from that of a normal allele by special techniques.

**isobilateral** a. [Gr. *isos*, equal; L. *bis*, twice; *latus*, side] Having bilateral symmetry where a structure can be divisible in two planes at right angles.

**isobrachial** a. [Gr. *isos*, equal; *brachion*, arm] A chromosome in which the centromere occupies the median position.

**isochela** n. [Gr. *isos*, equal; *chele*, claw] 1. A chela with two like parts. 2. (PORIF) A diactinal microsclere with like recurved hooks, plates, flukes or anchor shaped at each end. see **anisochela**.

**isochromosome** a. [Gr. *isos*, equal; *chromos*, color; *soma*, body] Monocentric or dicentric chromosome with equal and genetically identical arms which are mirror images.

**isocies** n.pl. [Gr. *isos*, equal; L. *socius*, companion] A group of associated organisms with differing taxonomic affinities, at times used merely in the sense of habitat groups. see **asocies**, **consocies**, **subsocies**.

- isocytous** a. [Gr. *isos*, equal; *kytos*, container] Having cells of equal size or height.
- isodactylous** a. [Gr. *isos*, equal; *daktylos*, finger] Bearing digits of equal size.
- isodiametric** a. [Gr. *isos*, equal; *dia*, through; *metron*, measure] Having equal diameters or axes.
- isodictyal** a. [Gr. *isos*, equal; *dictyon*, net] (PORIF) Pertaining to a type of skeletal construction with spicules and/or fibers interlocking in a regular triangular pattern.
- isodont** a. [Gr. *isos*, equal; *odous*, tooth] (MOLL: Bivalvia) With hinge teeth arranged symmetrically; homodont.
- isoenzyme** n. [Gr. *isos*, equal; *en*, in; *zyme*, yeast] An enzyme differing in polymorphic states and isoelectric point, but having the same function; an isozyme.
- isogametes** n. [Gr. *isos*, equal; *gamete*, spouse] Outwardly similar male and female gametes.
- isogamy** n. [Gr. *isos*, equal; *gamos*, union] The mutual fertilization process of isogametes.
- isogenes** n. [Gr. *isos*, equal; *genos*, race] Lines on a gene map that connect points of identical gene frequency.
- isogenic** a. [Gr. *isos*, equal; *genos*, race] A group of individuals that have the same genotype.
- isoglottid** a. [Gr. *isos*, equal; *glottis*, mouth of the windpipe] (NEMATA) Having metarhabdions situated at the same level. see **anisoglottid**.
- isograft** n. [Gr. *isos*, equal; *graphion*, stylus] Tissue graft between animals of the same genotype.
- isolate** n. [L. *insula*, island] A breeding population or group of populations isolated from other populations by physiological, behavioral, or geographic barriers.
- isolation** n. [L. *insula*, island] Separation from similar forms.
- isolecithal egg** An ova with yolk granules randomly distributed through the cell; a small amount of yolk; an oligolecithal egg. see **centrolecithal egg**.
- isomer** n. [Gr. *isos*, equal; *meros*, part] Compounds of the same chemical composition but with different structures.

- isomerases** n.pl. [Gr. *isos*, equal; *meros*, part; -asis, enzyme] Enzymes which convert one chemical compound to another; said to be isomeric compounds.
- isomeric** a. [Gr. *isos*, equal; *meros*, part] Equivalent genes which can each produce the same phenotype.
- isomerogamy** see **isogamy**
- isomerous** a. [Gr. *isos*, equal; *meros*, part] Having equal number of parts, ridges or markings; homoeomerous. see **heteromerous**.
- isometry** n. [Gr. *isos*, equal; *metron*, measure] Growth of two body parts remaining constant relative to each other as body size increases.
- isomorphic** a. [Gr. *isos*, equal; *morphe*, form] Alike or identical in appearance; isomorphous. see **anisomorphic**.
- isomorphism** n. [Gr. *isos*, equal; *morphe*, form] Similarity of organisms of different ancestry. see **heteromorphic**.
- isomyarian condition** (MOLL: Bivalvia) Having adductor muscles equal or subequal in size; homomyarian.
- isonym** n. [Gr. *isos*, equal; *onyma*, name] The new name of a species, or higher classification being based upon the older name or basonym.
- isopalpi** n.pl.; sing. -us [Gr. *isos*, equal; L. *palpus*, feeler] Palpi with the same number of joints.
- isophene, isophane** n. [Gr. *isos*, equal; *phainein*, to show] 1. A line connecting points of equal expression of a clinally varying character. 2. A line connecting areas in a region at which a phenological phenomenon occurs simultaneously. 3. Lines at right angles to a cline on a map.
- isophenon** n.; pl. **isophena** [Gr. *isos*, equal; *phainein*, to show] Maintaining the same form, except sometimes in size, after a growing- or repetition-molt.
- isophenous** a. [Gr. *isos*, equal; *phainein*, to show] Showing characteristics of a phenotype.
- isopodus** a. [Gr. *isos*, equal; *pous*, foot] Having the legs alike and equal.
- isopycnosis** n. [Gr. *isos*, equal; *pyknos*, thick] Chromosome or

chromosome regions which do not differ greatly from each other.

**isopygous** a. [Gr. *isos*, equal; *pyge*, rump] Having pygidium and cephalon equal in size.

**isorhiza** n. [Gr. *isos*, equal; *rhiza*, root] (CNID) A form of nematocyst in which the tube is open and the same diameter along the tube, responding to mechanical stimuli, and is used in anchoring the animal when it walks on its tentacles. see **atrichous isorhiza**, **holotrichous isorhiza**, **basitrichous isorhiza**.

**isostrophic** a. [Gr. *isos*, equal; *strophe*, turn] (MOLL: Gastropoda) Having two faces of the shell symmetrical with respect to a median plane perpendicular to axis.

**isotomy** a. [Gr. *isos*, equal; *temnein*, to cut] The process of regularly repeated bifurcation as in crinoid branchia.

**isotropic** a. [Gr. *isos*, equal; *tropein*, to turn] Singly refracting, as the light stripes of voluntary muscle fibers. see **anisotropic**.

**isotype** n. [Gr. *isos*, equal; *typus*, image] 1. An animal, plant or group frequently found in two or more countries or life regions. 2. A specimen collected from the type locale or habitat at the same time as the holotype.

**isotypical genus** A description from more than one congeneric species.

**isozyme** see **isoenzyme**

**isthmiate** a. [Gr. *isthmos*, neck] Connected by an isthmus-like part.

**isthmus** n. [L. fr. Gr. *isthmos*, neck, narrow place] (MOLL: Bivalvia) Part of the mantle that secretes the horny uncalcified material (conchiolin) of the ligament. 2. (NEMATA) The middle part of a muscular esophagus, often constricted; a narrow section of the esophagus.

**iteroparous** a. [L. *iterare*, to repeat; *parere*, to bear] Having the capability to reproduce two or more times during a lifetime. **iteroparity** n.

## J

**jacket cells** (MESO: Orthonectida) The ciliated somatoderm; the number of body rings and their arrangement is of taxonomic importance.

**jaculatory duct** A region of the vas deferens through which sperm is emitted. see **ejaculatory duct**.

**Johnston's organ** (ARTHRO: Insecta) A chordotonal organ located in the second segment of the antenna and functioning in sound perception, flight speed indicator or water wave perception.

**joint** n. [L. *jungere*, to join] An articulation of two successive segments or parts.

**Jonstonian organ** see **Johnston's organ**

**jordanon** see **microspecies**

**Jordan's organ** see **chaetosemata**

**jubate** a. [L. *jubatus*, crested] Fringed with long, mane-like hairs.

**juga** pl. of **jugum**

**jugal angle** (MOLL: Polyplacophora) The angle formed by the two halves of an intermediate valve.

**jugal area/tract** (MOLL: Polyplacophora) The upper surface of a valve immediately adjacent to the jugum, sometimes sculptured differently from the rest of the surface; dorsal area.

**jugal bristles** (ARTHRO: Insecta) Bristles located on the edge of the jugal lobe.

**jugal coverage** see **valve coverage**

**jugal fold** see **plica jugalis**

**jugal lobe** (ARTHRO: Insecta) A lobe at the base of the fore wing that makes contact with the hind wing to prevent the wings from moving out of phase.

**jugal muscles** (MOLL) Thick longitudinal muscles at the base of



the radular mass.

**jugal region** 1. (ARTHRO: Crustacea) In Decapoda, the anterolateral part on the ventral surface, located on opposite sides of the buccal cavity; pterygostomial region. 2. (ARTHRO: Insecta) The posterior basal lobe or area of a wing demarcated from the vannal region by the jugal fold (plica jugalis).

**jugal sinus** (MOLL: Polyplacophora) A depression between the sutural laminae of chitins.

**jugal tract** (MOLL: Polyplacophora) The tegmentum surface, adjacent to the jugum.

**jugo-frenate wing coupling** (ARTHRO: Insecta) Lepidoptera, wing coupling where the jugum is folded under the fore wings and holds the frenular bristles.

**jugular** a. [L. *jugulum*, collar bone, throat] Of or pertaining to the throat.

**jugular sclerites** see **cervical sclerite**

**jugulum** n. [L. *jugulum*, collar bone, throat] (ARTHRO: Insecta) 1. The median ventral plate of the head. see **gula**. 2. The jugum of the wing.

**jugum** n.; pl. **-ga** [L. *jugum*, yoke] 1. (BRACHIO) The medial connection of the secondary shell between 2 primary lamellae of the spiralia. 2. (ARTHRO: Insecta) a. In Lepidoptera, a lobe-like process at the base of the fore wings, overlapping the hind wings. b. Two lateral lobes on the head of certain Heteroptera, bordering the tylus. 3. (MOLL: Polyplacophora) Longitudinal ridge of some intermediate chiton valves that may be sharp or rounded.

**Julien's organ** see **corema**

**juliform** a. [ *Julus*, generic name; L. *forma*, shape] (ARTHRO: Diplopoda) Having a cylindrical trunk and fused tergites, pleurites, and sternites as in the order Julida.

**junctional complex** Specialized area of adhesive contact between cells.

**junior homonym** The more currently published of two or more identical names for the same or different taxa. see **homonym**, **senior homonym**.

**junior synonym** The more currently published of two or more available names for the same taxon. see **synonyms**, **senior synonym**.

**juvenile** a. [L. *juvenilis*, young] 1. A nonscientific colloquial term used to denote any stage of development prior to adulthood. 2. Often restricted to that stage immediately preceding the sexually mature adult stage. 3. In general, the immature stages resemble the adult in general morphology except for gonadal development.

**juvenile hormone** (ARTHRO: Insecta) A hormone of larvae produced by the corpora allata that controls the way the larval cells differentiate at each molt.

**juxta** n. [L. *juxta*, near] (ARTHRO: Insecta) 1. In Diptera, an eversible membranous distal section of the male intromittent organ. 2. In male Lepidoptera, a sclerotized plate at the base of the aedeagus; sometimes connected to the anellus by a thin median process that is often forked so as to surround the aedeagus; has been used as a synonym of the anellus of the aedeagal fulcrum.

**juxtacardo** n. [L. *juxta*, near; *cardo*, hinge] (ARTHRO: Insecta) An extension of the cardo from cardo proper toward the submentum.

**juxtacoxal carina** (ARTHRO: Insecta) In Ichneumonidae, an arched carina cutting off a lenticular area of the lower part of the metapleura; when complete, the carina arches between the bases of the hind and middle coxae.

**juxtaposition** n. [L. *juxta*, near; *positus*, place] A placing or being placed side by side.

**juxtastipes** n. [L. *juxta*, near; *stipes*, stalk] (ARTHRO: Insecta) An extension of the stipes toward the mentum.

# K

**kairomone** n. [Gr. *kairos*, fit; *hormaein*, to excite] A chemical substance, produced or acquired by an organism, that upon contact with an individual of another species evokes a behavioral or physiological reaction favorable to the receiver and not to the emitter. see **allelochemic**.

**kalymma** n. [Gr. *kalymma*, hood] Matrix material which is thought by some authors to surround the components of chromosomes.

**karyochylema** see **nucleoplasm**

**karyoclastic** a. [Gr. *karyon*, nucleus; *klastos*, broken in pieces] Agents that inhibit mitosis without killing the cell.

**karyogamy** n. [Gr. *karyon*, nucleus; *gamos*, marriage] The union of male and female nuclei during the process of syngamy.

**karyokinesis** n. [Gr. *karyon*, nucleus; *kinesis*, movement] Nuclear division as opposed to cytokinesis.

**karyolymph** see **nucleoplasm**

**karyolysis** n. [Gr. *karyon*, nucleus; *lysis*, a loosening] Disappearance of the interphase nucleus at the beginning of karyokinesis; dissolution of the nucleus.

**karyomere** n. [Gr. *karyon*, nucleus; *meros*, part] Any of a series of micronuclei formed in cells in which the chromosomes diverge at anaphase.

**karyon** n. [Gr. *karyon*, nucleus] The cell nucleus.

**karyoplasm** n. [Gr. *karyon*, nucleus; *plasma*, formed or molded] The protoplasm of the nucleus; nucleoplasm.

**karyorhexis** n. [Gr. *karyon*, nucleus; *rhexis*, rupture] Nuclear degeneration by nuclear fragmentation.

**karyosome** n. [Gr. *karyon*, nucleus; *soma*, body] Irregular clump of chromatin dispersed in the chromatin cell network.

**karyotheca** n. [Gr. *karyon*, nucleus; *theke*, a box] Nuclear membrane.

**karyotin** n. [Gr. *karyon*, nucleus] Chromatin.

**karyotype** n. [Gr. *karyon*, nucleus; *typos*, image] The particular chromosome complement of an individual or species, as defined by both number and morphology of the chromosomes, usually in mitotic metaphase.

**katabolism** see **catabolism**

**katagenesis** n. [Gr. *kata*, down; *genesis*, beginning] Retrogressive evolution.

**katakinesis** see **catakinesis**

**kataplexy** see **cataplexy**

**katatrepsis** n. [Gr. *kata*, down; *trepein*, to turn] 1. (ARTHRO: Insecta) In blastokinesis, the movement of the embryo inside the egg from one pole to another. 2. Refers to different activities in different groups of insects, i.e., dorsal to ventral, ventral to dorsal. 3. Decrease of movement during blastokinesis. see **anatrepsis**.

**katepimeron** see **infraepimeron**

**katepisternum** see **infraepisternum**

**katharobic** a. [Gr. *katharos*, pure; *bios*, life] Pertains to living in clean water.

**kation** see **cation**

**Keber's valve** (MOLL: Bivalvia) Pericardinal gland, connecting the pedal and visceral hemocoels.

**keel** n. [A.S. *ceol*, ship] 1. A prominent ridge or carina. 2. (BRYO) *a*. In Stenolaemata, a flat median portion of the zooidal wall between sinuses in recumbent part of endozone or as a synonym of carina. *b*. In Phylactolaemata, a median longitudinal ridge along recumbent tubular colony parts. 3. (MOLL: Gastropoda) A spiral ridge usually marking a change of slope in the outline of the shell.

**Keferstein bodies** (SIPUN) Small oval bodies on the inner or coelomic surface of the body wall.

**kenozoid** n. [Gr. *kenos*, empty; *zoon*, animal; *eidos*, like] (BRYO) 1. In Stenolaemata, a polymorph without a lopho-

phore, gut, muscles, and orifice. 2. In Gymnolaemata, a polymorph without an orificial wall or equivalent, lophophore, alimentary canal, and usually muscles.

**kentrogen** n. [Gr. *kentor*, piercer; *gone*, that which generates] (ARTHRO: Crustacea) In Rhizocephala, undifferentiated cells formed after the cyprid larval molts and its appendages and carapace are discarded, that penetrates the integument of a Decapoda host.

**kentromorphism** n. [Gr. *kentor*, piercer; *morphe*, form] (ARTHRO: Insecta) A change brought about by environmental stimuli (high or low population density) in phasmatids, locusts, the larva of Lepidoptera and a few other insects, that cause coloration and pattern differences, anatomical proportions, physiology and behavioral differences. see **gregaria**, **solitaria**.

**kentron** n. [Gr. *kentor*, piercer] (ARTHRO: Crustacea) In Rhizocephala, a hollow stylet in the anterior body of a kentrogen that invades the antennule and pierces the integument of its host.

**keratin** n. [Gr. *keras*, horn] A sulfur-containing nitrogenous compound found in animal tissues such as horn, hair and nails.

**keratinization** n. [Gr. *keras*, horn] Conversion of tissues into keratin or keratin-like tissue. see **cornification**.

**keratose** a. [Gr. *keras*, horn] Having horny fibers in the skeletal structure, as in certain Porifera.

**kermes** (Generic name) A red dye made from the dried bodies of female coccids of *kermococcus ilicis*; granum tinctorium.

**key** n. [ME. *key*] A tabulation of diagnostic characters of organisms most often in dichotomous couplets facilitating rapid identification.

**kidney shaped** Shaped like a kidney; reniform.

**kinaesthesia**, **kinesthesia** n. [Gr. *kinein*, to move; *aisthesis*, perception] Perception of movement by internal stimulation; proprioceptors.

**kinase** n. [Gr. *kinein*, to move; *-asis*, enzyme] Enzymes that catalyse the transfer of high energy groups from a donor to

an acceptor; named for acceptor; enzyme which activates a zymogen.

**kinesis** n. [Gr. *kinesis*, movement] Responses not directed to a variation in the stimulus or orientation of the body axis to the source of stimulation; movement resulting from a kinesis is random. see **taxis**, **tropism**.

**kinesodic** a. [Gr. *kinesis*, movement; *hodos*, way] Conveying motor impulses.

**kinetoblast** n. [Gr. *kinetos*, move; *blastos*, bud] Outer covering of aquatic larvae equipped with locomotory cilia.

**kinetochore** see **centromere**

**kinetogenesis** n. [Gr. *kinetos*, move; *genesis*, beginning] The theory that animal structure evolution was produced by animal movements. **kinetogenetic** a.

**kinetomere** n. [Gr. *kinetos*, move; *meros*, part] Chromomere; bead-like chromatin concentrations along a chromosome.

**kinetonema** see **centromere**

**king** n. [A.S. *cyng*] (ARTHRO: Insecta) In social Hymenoptera and Isoptera, a primary reproductive male that along with the queen loses its wings after founding the colony.

**kingdom** n. [A.S. *cyngdom*] The largest primary taxonomic division; organisms usually divided into three kingdoms, plants, animals and Protista.

**kinomere** see **centromere**

**kinoplasm** n. [Gr. *kinein*, to move; *plasma*, formed or molded] A former name for a distinct type of protoplasm which tends to form fibrillar structures and is mechanically active.

**Kinorhyncha**, **kinorhynchs** n., n.pl. [Gr. *kinein*, to move; *rhynchos*, snout] A phylum of free-living marine invertebrates, with joined segments and spines; sometimes called the Echinoderida or considered a class of Aschelminthes or Nematelminthes.

**kitchen midden** n. [Dan. *kjokkenmodding*; kitchen leavings] The kitchen refuse heap of sea shells and bones of ancient dwellings along the coast of northern Europe, eastern and western United States, and many parts of the world.

**klinokinesis** n. [Gr. *klinein*, to bend; *kinesis*, movement] A non-directional response in which the rate of turning depends on the intensity of stimulation; trial-and-error reaction. see **orthokinesis**.

**klinotaxis** n. [Gr. *klinein*, to bend; *taxis*, arrangement] Orientation and movement toward a stimulus by an organism by moving its head or whole body from side to side symmetrically. see **telotaxis**, **tropotaxis**.

**knee-segment** (ARTHRO: Chelicerata) Segment of the legs between ascending and descending part; called genu in mites and patella in other chelicerates.

**Koelliker's canal** (MOLL: Cephalopoda) In Incirrata, a small blind tube that opens into the endolymph sac of the statocyst; function unknown.

**Koelliker's tufts or organs** (MOLL: Cephalopoda) Groups of stiff bristles on the skin of most embryos and hatching octopods.

**kolytic** a. [Gr. *kolytikos*, hindering] Inhibiting or inhibitory.

**koriogamy** n. [Gr. *koreios*, youthful or maiden; *gamos*, marriage] The impregnation of a female possessing a fully developed vagina and uterus but an immature ovary; coryogamy.

**Koshevnikov or Koshewnikow gland** (ARTHRO: Insecta) A gland consisting of or corresponding to Leydig cells and the sting of numerous bees, that produce an attractant pheromone in honey bee queens.

**Krause's membrane** see **Z-band or disc**

**Krebs' cycle** Energy cycle; stepwise enzymatic oxydation of simple sugars to give high energy phosphate bonds (ATP).

**K-strategist** Any species of organism using a survival and reproductive strategy characterized by low fecundity, low mortality, longer life, and having populations approaching the carrying capacity of the environment, controlled by density-dependent factors. see **R-stratigist**.

**kyphorhabd** n. [Gr. *kyphos*, humpbacked; *rhabdo*, rod] (PO-RIF) A strongyle with a row of tubercles along one side.

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