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# Online Dictionary of Invertebrate Zoology: S

Mary Ann Basinger Maggenti  
*University of California-Davis*

Armand R. Maggenti  
*University of California, Davis*

Scott Gardner  
*University of Nebraska-Lincoln, slg@unl.edu*

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# S

**sabulous, sabulose** a. [L. *sabulum*, sand] Sandy, gritty.

**sac** n. [L. *saccus*, bag] A bladder, pouch or bag-like structure.

**saccate** a. [L. *saccus*, bag] Sac-shaped; gibbous or inflated at one end.

**saccharobiose** n. [Gr. *sakchar*, sugar; *bios*, life] Sucrose.

**sacciform** a. [L. *saccus*, bag] Having the shape of a sac or pouch; saccular.

**saccule** n. [L. dim. *saccus*, bag] 1. A small sac or pouch. 2. Sometimes applied to a small invagination of the cuticle.

**sacculus** n. [L. dim. *saccus*, bag] (ARTHRO: Insecta) In Lepidoptera, the inner basal process of the coxite of male external genitalia.

**saccus** n. [L. *saccus*, bag] (ARTHRO: Insecta) In Lepidoptera, an internal, midventral, cephalad invagination of the vinculum.

**sacoglossa** n. [Gr. *sakos*, shield; *glossa*, tongue] (MOLL: Gastropoda) In Opisthobranchia, having a single toothed radula.

**saddle** n. [A.S. *sadol*] 1. (ANN: Oligochaeta) In Lumbricidae, the clitellum incomplete ventrally, extending from the back to below the lateral setae. 2. (ARTHRO: Insecta) In Diptera, a large sclerite on the dorsal and lateral surfaces of the 10th abdominal segment of larval Culicidae and some other nematoceros insects. see **annular**.

**Saeftigen's pouch** (ACANTHO) An elongate genital pouch of males inside the genital sheath, continuous with the spaces of the bursal cap, that functions to inject fluid for eversion of the bursa.

**sagittae** see **penis valves**

**sagittal** a. [L. *sagitta*, arrow] Of or pertaining to the vertical median anteroposterior plane in a bilaterally symmetrical animal. see **parasagittal**.

**sagittal triact** (PORIF) A three-rayed megasclere spicule having one ray very unlike others, generally T-shaped.

**sagittal triradiates** (PORIF) Tetraxon spicules with two equal angles and one dissimilar angle. see **triradiate(s)**.

**sagittate** a. [L. *sagitta*, arrow] Having the shape of an arrowhead; sagittiform.

**sagittocysts** n. [L. *sagitta*, arrow; Gr. *kystis*, bladder] (PLATY: Turbellaria) Pointed vesicles with a protrusible rod or needle.

**salient** a. [L. *saliens*, leaping] Projecting outward; prominent.

**saliva** n. [L. *saliva*, spit] The secretion of the salivary glands that moisten the mouth parts, the food, and begins digestion; in many invertebrates it also contains active constituents.

**salivarium** n. [L. *saliva*, spit] 1. (ARTHRO: Chelicerata) In Acarina, the chamber in the buccal cone into which the salivary ducts open. 2. (ARTHRO: Insecta) The small cavity behind the hypopharynx and between it and the labium into which the salivary duct opens.

**salivary canal** (ARTHRO: Insecta) 1. In Hemiptera, the mouth apparatus having separate food and salivary canals; the posterior of the two situated between the opposed styloform maxillae, through which salivary fluids are secreted by a salivary pump. 2. In Diptera, a canal extending the length of the hypopharynx for passage of saliva from the salivary pump; the salivary outlet canal.

**salivary chromosomes** (ARTHRO: Insecta) In Diptera, polytene chromosomes found in the interphase nuclei of the salivary glands of the larvae.

**salivary ducts** (ARTHRO: Insecta) In Diptera, tubes through which saliva passes from the salivary glands; anteriorly fused forming the common salivary duct opening into the salivary pump.

**salivary gland** 1. (ARTHRO: Insecta) Glands that open into the mouth, esophagus or at the beginning of the alimentary canal, that secrete a digestive substance. see **labial gland**, **esophageal glands**, **peptonephridia**. 2. (MOLL: Cephalopoda) In Sepia and Octopus the second salivary glands se-

crete proteolytic enzymes.

**salivary pump** (ARTHRO: Insecta) A modified salivarium into which the common salivary duct opens at the base of the hypopharynx.

**salivary syringe** see **salivary pump**

**saltation** n. [L. *saltare*, to leap] An evolutionary process that proceeds by leaps and bounds through the production of mutants that differ greatly from the progenitor(s). see **anamorphosis**.

**Saltatoria** n. [L. *saltare*, to leap] A name commonly misapplied to grasshoppers, crickets and their allies.

**saltatory** a. [L. *saltare*, to leap] Adapted for leaping. see **furcula**.

**saltigrade** a. [L. *saltare*, to leap; *gradus*, step] Leaping movement as in insects and spiders.

**sanguine** a. [L. *sanguis*, blood] Having the color of blood.

**sanguivorous** a. [L. *sanguis*, blood; *vorare*, to devour] Feeding on blood.

**sanidasters** n.pl. [Gr. *sanidion*, small board; *aster*, star] (PORIF) Rod shaped streptasters; a small rod-like spicule with spines at intervals.

**sapphirine** a. [Gr. *sappheiros*, sapphire] Sapphire blue.

**saprobe** see **saprobiont**

**saprobic** a. [Gr. *sapros*, rotten] Living on decaying organic matter.

**saprobiont** n. [Gr. *sapros*, rotten; *bios*, life] Living in an environment rich in decaying organic matter and low in oxygen.  
**saprobiotic** a.

**saprophagous** a. [Gr. *sapros*, rotten; *phagein*, to eat] Feeding on dead or decaying animal or plant materials.

**saprophyte** n. [Gr. *sapros*, rotten; *phyton*, plant] A plant that lives on dead and decaying organic matter; sometimes incorrectly extended to include animals as well as plants.  
**saprophytic** a. see **saprozite**.

**saprozoic nutrition** 1. Feeding on decaying organic matter. 2. Deriving sustenance by absorption of dissolved salts and

simple organic nutrients from surrounding medium.

**saprozite** n. [Gr. *sapros*, rotten; *zoon*, animal] An animal that lives on dead or decaying organic matter. see **saprophyte**.

**sarcobelum** n. [Gr. *sarx*, flesh; *belos*, sting] (MOLL: Gastropoda) In Pulmonata, a glandular node projecting into the prepuce from the junction of the penis sheath and propuce.

**sarcode** n. [Gr. *sarx*, flesh] Protoplasm.

**sarcolemma** n. [Gr. *sarx*, flesh; *lemma*, covering] An outer membrane enclosing the nucleated sarcoplasm in which the muscle fibers are embedded.

**sarcolysis** n. [Gr. *sarx*, flesh; *lyein*, to loosen] Phagocytosis of muscles.

**sarcolyte** n. [Gr. *sarx*, flesh; *lytos*, broken] (ARTHRO: Insecta) In Diptera, spherical bodies filled with muscle fragments in the blood of the pupae during metamorphosis.

**sarcomere** n. [Gr. *sarx*, flesh; *meros*, part] Any one of a series of units occurring at regular intervals along a muscle fiber, each unit encompasses the actin and myosin filaments; in most invertebrates each sarcomere is set-off by Z discs.  
**sarcomeric** a. see **I-bands**, **T-tubule**.

**sarcophagous** a. [Gr. *sarx*, flesh; *phagein*, to eat] Feeding on flesh.

**sarcoplasm** n. [Gr. *sarx*, flesh; *plasma*, formed or molded] The undifferentiated protoplasm of a muscle cell; between the myofibrils.

**sarcoplasmic reticulum** Endoplasmic reticulum in striated muscle fibers; surrounding the myofibrils.

**sarcosomes** n. [Gr. *sarx*, flesh; *soma*, body] Former name for mitochondria in muscle cells.

**sarcostyle** n. [Gr. *sarx*, flesh; *stylos*, pillar] (CNID: Hydrozoa) The dactylozoid on a column; nematophore.

**sarcotheca** n. [Gr. *sarx*, flesh; *theke*, case] (CNID: Hydrozoa) The sheath of a sarcostyle; nematotheca.

**sarothrum** see **scopa**

**saw** n. [A.S. *sagu*, saw] (ARTHRO: Insecta) *a.* In Symphyta,

transverse ridges provided on the fused 2nd valvulae. *b.* In Diptera, the anterior serrated plate of the spiracular apparatus of *Mansoniini* larvae.

**saw bristles** (ARTHRO: Crustacea) A heavy row of setae between the molar and incisor process on the gnathal lobe of the mandible.

**saxicavous** a. [L. *saxum*, rock; *cavus*, hollow] Said of rock-boring mollusks.

**saxicolous** a. [L. *saxum*, rock; *colere*, to inhabit] Living among rocky or stony areas.

**scabellum** n. [L. *scabellum*, footstool] (ARTHRO: Insecta) In Diptera, the distal basal portion of the halteres.

**scabrous** a. [L. *scaber*, rough] Rough; rugged; with little rigid points or minute irregularities.

**scalariform, scalaroid** a. [L. *scalaris*, ladder; *forma*, shape] Ladder-like; having transverse bars and spaces like a ladder.

**scales** n.pl. [OF. *escale*, husk] 1. A small, more or less flattened, plate-like exterior covering. 2. (ARTHRO) *a.* In Chelicerata, flattened, modified setae of Arachnida. *b.* In Crustacea, small calcareous plate on the peduncle of lepadomorph barnacles. see **scaphocerite**. *c.* In Insecta, flat unicellular outgrowths of the body-wall; highly modified clothing hairs of all Lepidoptera, many Collembola, in some Thysanura, Coleoptera, Diptera and Hymenoptera. 3. (MOLL) *a.* In Bivalvia, localized projections of the outer shell; usually on a rib. *b.* In Polyplacophora, small calcareous bodies decorating the dorsal side of the girdle, sometimes closely set, overlapping and of various shapes, being smooth or with minute striations. 4. (NEMATA: Sacernentea) Thickened, retrorse modifications of the body annuli.

**scalids** n.pl. [Gr. *skalidon*, hoe] 1. (KINOR) Circlets and longitudinal rows of spines on the protrusible cone-shaped head and neck. 2. (LORI) In *Nanalaricus mysticus*, many recurved spines on the cone-shaped anterior end (introvert) on its lateral surface. 3. (PRIAP) Longitudinal riblike, conical projections arranged in circles and longitudinal rows on the barrel-shaped anterior proboscis region (introvert).

**scalloped** a. [OF. *escalope*, shell] Indented, cut at the edges into rounded hollows or segments of circles; crenate.

**scalp** n. [Dan. *skalp*, shell] (MOLL) A bed of shellfish, especially of mussels or oysters.

**scalpellum** see **lancet**

**scalpriform** a. [L. *scalprum*, chisel; *forma*, shape] Chisel-shaped.

**scanning electron microscope** (SEM) A microscope with an electron beam that scans the specimen producing an image of the surface on a florescent screen.

**scansorial** a. [L. *scandere*, to climb] Adapted for climbing or clinging.

**scape, scapus** n. [L. *scapus*, shaft] 1. A stem or shaft. 2. (ARTHRO: Chelicerata) A structure associated with the epigynum of some female Arachnida, partially covering the vulva. 3. (ARTHRO: Insecta) The first or basal segment of an antenna; in Diptera, the two basal segments of the antenna. 4. (CNID: Anthozoa) *a.* In Alcyonaria, the main stem of Pennatulacea. *b.* In Actinaria, the lower thick-walled region of the column.

**scaphe** n. [Gr. *skaphe*, boat] (ANN: Polychaeta) In Amphicteniidae, a flattened caudal appendage bearing the anus.

**scaphiform, scaphoid** a. [Gr. *skaphe*, boat] Boat-shaped.

**scaphium** n. [Gr. *skaphe*, boat] 1. A boat-shaped structure. 2. (ARTHRO: Insecta) In male Lepidoptera, a dorsal sclerotization of the genitalia, below the *uncus*, and above the anus. see **subscaphium**.

**scaphocerite** n. [Gr. *skaphe*, boat; *keras*, horn] (ARTHRO: Crustacea) The flattened exopod of the antenna; a scale; a squama.

**scaphognathite** n. [Gr. *skaphe*, boat; *ganthos*, jaw] (ARTHRO: Crustacea) In Decapoda, the exopod of the *maxilla*, often used to produce the respiratory current in the gill chamber; bailer or gill bailer.

**Scaphopoda** n. [Gr. *skaphe*, boat; *pous*, foot] A class of Mollusca containing the tusk or tooth shell that are bilaterally symmetrical with an elongate, gently curved, tubular shell

open at both ends; an exclusively marine dweller.

**scapula** see **parapsis**

**scapulus** n.; pl. **-li** [L. dim. *scapus*, stem] 1. (CNID: Anthozoa) In Actinaria, the short upper part of the scape/scapus. 2. (NEMATA) The enlarged sensory portion of a metaneme.

**scapus** see **scape**

**scarabaeiform larva** (ARTHRO: Insecta) A grublike larva with a well sclerotized head, and poorly sclerotized body, but well developed thoracic legs and abdomen, without prolegs, and is usually short-legged and inactive.

**scarabaeoid** a. [L. *scarabaeus*, beetle; Gr. *eidōs*, like] 1. Scarab-like. 2. (ARTHRO: Insecta) In Coleoptera, a member of the Scarabaeoidea; third and fourth instar larva of the Meloidae, the blister beetles.

**scarified** a. [L. *scarifico*, to scratch] To scratch or cut.

**scariose** a. [F. *scarieux*, membranous] Thin, dry and scaly.

**scatophagous** a. [Gr. *skatos*, dung; *phagein*, to eat] Eating dung or excrement; merdivorous; coprophagous.

**scavenger** n. [ME. *skavawer*, collector of a toll] Any organism that feeds on dead plants or animals and decaying matter or animal wastes.

**scent brush/tuft** Hairs or scales that function in diffusion of odorous secretions.

**scent glands** (ARTHRO: Insecta) Glands that manufacture and store for subsequent release, volatile, usually highly odoriferous substances. see **brush organs**, **pheromone**.

**scent pore** see **ostiole**

**scent scales** (ARTHRO: Insecta) Scales distinguished from clothing scales by their extreme length, sometimes called hairs. see **androconia**.

**sceptrules** n. [Gr. dim. *skeptron*, royal staff] (PORIF: Sclerospongiae) Microscleric monactinal triaxonic spicules that include clavules with terminal umbels or smooth heads.

**schemochrome** n. [Gr. *schema*, shape; *chroma*, color] (ARTHRO: Insecta) Colors produced by physical or structural surfaces, devoid of pigment, as the iridescent colors of a

butterfly wing. see **biochrome**.

**schistosomula** n.; pl. **-lae** [Gr. *schizein*, split; dim. *soma*, body] (PLATY: Trematoda) In Schistostomatidae, the post-penetration stage in the vertebrate definitive host; the juvenile stage between a cercaria and an adult.

**schizeckenosy** n. [Gr. *schizien*, to split; *eckenos*, empty out] (ARTHRO: Chelicerata) In Acari, a system of waste elimination with blindly ending midgut by a lobe from the ventriculus breaking free and being expelled through a split in the posterodorsal cuticle.

**schizochroal** n. [Gr. *schizien*, to split; *chroa*, superficial appearance] (ARTHRO: Trilobita) Bound isolated lenses that form around semicircular facets. see **holochroal**.

**schizocoel**, **schizocoele** n. [Gr. *schizein*, to split; *koiolos*, hollow] A coelomic cavity formed from the splitting of the mesodermal band or plate.

**schizodont** a. [Gr. *schizein*, to split; *odous*, tooth] (MOLL: Bivalvia) With a two cusped-tooth.

**schizogamy** n. [Gr. *schizein*, to split; *gamos*, marriage] (ANN: Polychaeta) Fission into a sexual and an asexual individual.

**schizogenesis** see **fission**

**schizolophe** n. [Gr. *schizein*, to split; *lophos*, crest] (BRACHIO) A lophophore indented to form a pair of branchia bearing a row of paired filamentous appendages. **schizolophous** a.

**schizopeltid** n. [Gr. *schizein*, to split; *pelte*, shield] (ARTHRO: Chelicerata) The prodorsal shield (peltidium) subdivided by one or more transverse scissures, composed of propeltidium, mesopeltidium and metapeltidium, or propeltidium and postpeltidium.

**schizopod larva** see **mysis stage**

**schizorhyses** n.pl. [Gr. *schizein*, to split; *rhyssos*, delivering] (PORIF) Canals in the dictyonal framework that runs longitudinally or obliquely from gastroderm to the dermis and are lined by flagellated chambers.

**Schmidt's layer** (ARTHRO: Insecta) The zone of deposition of new cuticle during molting; the exact nature of this zone is not known.

**Schwann cell** (ARTHRO: Insecta) An elongate cell into which motor axons sink and become suspended by a suspensory fold; lemnoblast; neurilemma cell.

**scientific name** The formal nomenclatural designation of a taxon.

**scissorial area** (ARTHRO: Insecta) In Coleoptera, the cutting area on the mandible of a Scarabaeoidea larva; between the dentes and molar area.

**scissure** n. [L. *scindere*, to cut] 1. A cleft or split in a body or surface. 2. (ARTHRO: Chelicerata) In Acari, a relatively narrow band of soft skin that cuts the sclerotized cuticle into plates.

**sclerification** see **sclerotization**

**sclerite** n. [Gr. *skleros*, hard] 1. (ARTHRO) Any sclerotized area of cuticle limited by suture lines or flexible, membranous portions of cuticle. 2. (BRYO) A thickened line in the *operculum*, mandible or frontal membrane. 3. (CNID) A calcareous skeletal member of the mesogloea.

**scleritization** n. [Gr. *skleros*, hard; *facere*, to make] (ARTHRO: Insecta) The formation of sclerites.

**scleroblasts** n.pl. [Gr. *skleros*, hard; *blastos*, bud] (PORIF) Special amoebocytes in sponges responsible for secreting the skeleton; consisting either of spicules, fibers of spongin or both.

**sclerocyte** n. [Gr. *skleros*, hard; *kytos*, container] (PORIF) Cells that secrete spicules.

**sclerophagous** see **duraphagous**

**sclerosepta** n.pl.; sing. **-um** [Gr. *skleros*, hard; *septum*, partition] (CNID: Hydrozoa) Calcareous rods of corals projecting from the basal plate in a fan-like shape between the mesenteries of the polyp.

**sclerotin** n. [Gr. *skleros*, hard] (ARTHRO) A colorless or quinone tanned amber or brown material occurring in the cuticle that accounts for much of the stiffening of the surface structures. **sclerotic** a.

**sclerotization** n. [Gr. *skleros*, hard] Hardening by deposition of sclerotin or other substances in the cuticle. **sclerotic**,

**sclerotized** a.

**scolecus** pl. of **scolex**

**scolecoid**, **scoleciform**, **scolecoid** a. [Gr. *skolex*, worm] Scolex-like.

**scolex** n. [Gr. *skolex*, worm] (PLATY: Cestoda) The head or holdfast organ.

**scolopale** n.; pl. **-ia** [Gr. *skolos*, pointed object; L. *palus*, stake] (ARTHRO: Insecta) A variously shaped cup or cone with longitudinal ridges and a central filament connecting with the process of a central nerve cell; may have a terminal button; sensory cell of the scolopidium; scolops; cuticular sheath; corpus scolopale.

**scoloparium** see **proprioceptor**

**scolopidium** n.; pl. **-ia** [Gr. dim. *skolos*, pointed object] A mechanoreceptor (part of a chordotonal organ) consisting essentially, of three cells: sensory neuron (scolopale), enveloping cell, and an attachment, or cap cell; scolopophore; sensillum scolopophorum. see **myochordotonal organ**.

**scolopoid sheath** see **scolopale**

**scolopophore**, **scolophore** n. [Gr. *skolos*, pointed object; *phoreus*, bearer] (ARTHRO: Insecta) 1. Complex sensilla consisting of a bundle of sensory cells whose endings are separated from the body by one or more accessory cells, that are receptive to mechanical stimuli; scolopidium. 2. A sense organ perceiving continuous vibration. see **tangoreceptor**.

**scolopophorus organ** see **chordotonal organ**

**scolops** see **scolopale**

**scolus** n.; pl. **scoli** [Gr. *skolos*, pointed object] 1. Thorny processes of the body-wall. 2. (ARTHRO: Insecta) *a.* In Coleoptera, long branched projection of coccinellid beetles. *b.* In Lepidoptera, characteristic of nymphalid and saturniid larvae; sphingid larvae also have a similar process in the anal horn.

**scolytoid larva** (ARTHRO: Insecta) A fleshy larva resembling the larva of scolytid beetles.

**scopa** n.; pl. **-ae** [L. *scopa*, broom] (ARTHRO: Insecta) In Hymenoptera, special hairs (pollen brush) or modified to form a corbicula (pollen basket). **scopate** a.

**scopiform** a. [L. *scopa*, broom; *forma*, shape] Formed like a brush.

**scopula** n.; pl. **-ae** [L. dim. *scopa*, broom] A small, dense tuft of hair; *scopa*.

**scopules** n.pl. [L. dim. *scopa*, broom] (PORIF) Scepterules with few spines arranged in a regular cluster.

**scopuliferous**, **scopuliform** a. [L. dim. *scopa*, broom] Brush-like.

**scopulipedes** a. [L. dim. *scopa*, broom; *pes*, foot] (ARTHRO: Insecta) In Hymenoptera, bees with pollen gathering structures on the feet.

**scopic** see **superposition eye**

**scraper** n. [A.S. *scrapian*, scraper] 1. Any structure or specialized part of a structure adapted for rasping or scraping. 2. (ARTHRO: Insecta) In Orthoptera, the sharpened anal angle of the front wing that functions as a stridulating mechanism. see **file**.

**screening** a. [OF. *escren*, barrier] Selective procedures to isolate animals or chemicals from populations, complex mixtures, or background material.

**screw dislocation** (BRYO) Spiral growth resulting from lattice defects in calcite crystals making up their skeletal units.

**scrobe** n. [LL. *scrobis*, ditch] A groove or furrow for the reception of an appendage.

**scrobicula** n. [LL. dim. *scrobis*, ditch] (ECHINOD: Echinoidea) A bare area surrounding a boss (base of a spine) on the test; areola.

**scrobicular tubercles** (ECHINOD: Echinoidea) Secondary tubercles with spines encircling the base of a spine on the test.

**scrobiculate** a. [LL. dim. *scrobis*, ditch] Marked with pits or hollows.

**scrobicules** n. [LL. dim. *scrobis*, ditch] (ECHINOD: Echinoidea)

Small secondary spines on the scrobicular tubercles of the test.

**scrobiculus** n. [LL. dim. *scrobis*, ditch] A pit or depression.

**scrobis** n.; pl. **-es** [LL. *scrobis*, ditch] (ARTHRO: Insecta) In Scarabaeoidea larvae, a sunken lateral mandibular region defined by two apically converging lateral carinae.

**scrotal membrane** (ARTHRO: Insecta) The peritoneal envelope covering the testes; sometimes pigmented.

**scrotiform** a. [L. *scrotum*, pouch; *forma*, shape] Purse- or pouch-shaped.

**scrotum** see **scrotal membrane**

**sculpture** n. [L. *sculptura*, carving] The pattern or marking of impressions or elevations on the surface of an animal. **sculptured** a.

**scutal angle** (ARTHRO: Insecta) In Diptera, an angular projection of the scutal margin anterior to the prescutal suture, or in front of the prespiracular area.

**scutal margin** (ARTHRO: Crustacea) In thoracic barnacles, the edge of the *tergum*, articulating with the scutum or the edge of any other plate adjacent to the scutum.

**scutate** a. [L. *scutum*, shield] In the shape of a shield; escutcheon; clypeate; peltate.

**scute** n. [L. *scutum*, shield] (ARTHRO: Insecta) An external scale.

**scutel** see **scutellum**

**scutellar angle** (ARTHRO: Insecta) The expanded wing angle of the elytra adjacent to the scutellum.

**scutellar bridge** (ARTHRO: Insecta) In Diptera, a ridge on both sides of the scutellum connecting with the scutum.

**scutellar bristles** (ARTHRO: Insecta) In Diptera, bristles along the posterior margin of the scutellum.

**scutellate** a. [L. dim. *scutum*, shield] Divided into small plate-like areas.

**scutellum** n.; pl. **scutella** [L. dim. *scutum*, shield] 1. (ARTHRO: Insecta) *a.* A sclerotic subdivision of the thoracic notum. *b.* In Coleoptera, Hemiptera, and Homoptera, the scutellum

(mesoscutellum); large and usually triangular or subtriangular. *c.* In Diptera, a posterior rounded or triangular lobe. 2. (NEMATA: Secernentea) One of a pair of large caudal chemosensory organs opening in the lateral fields in some species of the Hoplolaiminae.

**scutiform** a. [L. *scutum*, shield; *forma*, shape] In the shape of a shield; peltate.

**scutigerous** a. [L. *scutum*, shield; *gerere*, to bear] Having a shield-like structure.

**scutoscutellar suture** (ARTHRO: Insecta) The sulcus dividing the mesonotum into the scutum and scutellum; V of V-shaped sulcus with arms diverging posteriorly.

**scutulis** see **scutellum**

**scutum** n.; pl. **scuta** [L. *scutum*, shield] 1. Any long, horny or chitinous plate. 2. (ARTHRO: Chelicerata) In Acari, the large, anteriodorsal sclerite. 3. (ARTHRO: Crustacea) In thoracic barnacles, a paired plate or valve. *a.* In Lepodomorpha, one on each side of the occludent margin of the capitulum. *b.* In Verrucomorpha, a fixed *scutum*, one of 4 principal plates, and a movable *scutum*, 1 of 2 opercular plates. *c.* In Balanomorpha, one of 4 opercular plates. 4. (ARTHRO: Insecta) The middle division of the thoracic notum, anterior to the scutellum. *a.* In Hymenoptera, the major part of the dorsum of the mesothorax in winged Formicidae. *b.* In Diptera, sometimes referred to as the eunotum. 5. (BRYO: Gymnolaemata) In anascan Cheilostomata, a broad, flat, lateral, marginal spine overhanging the frontal area.

**scyphistoma** n. [Gr. *scyphos*, cup; *stoma*, mouth] (CNID) A jellyfish polypoid larval stage attached to the bottom that gives rise to free-swimming medusae; a strobila. see **hydra-tuba**.

**scyphomedusae** see **Scyphozoa**

**Scyphozoa, scyphozoans** n.; n.pl. [Gr. *scyphos*, cup; *zoon*, animal] An exclusively marine class in the Phylum Cnidaria, in which the medusoid stage predominates having 8 notches in the margin of the bell; jellyfishes.

**sealing bar** (ARTHRO: Insecta) In eggs, a structure formed

from a thin layer of resistant endochorion and a thick amber layer that joins the cap to the rest of the chorion.

**seam** n. [A.S. *seam*] A visible line of juncture between parts; a suture.

**seam cells** (NEMATA) The central cell row in the lateral chords that have no membranous extension beneath the cuticle.

**sebaceous** a. [L. *sebaceus*, tallow] Pertaining to secretion, or composed of oily or fatty substances.

**sebific duct/gland** Tubes of the collateral glands.

**Secernentea, secereneteans** n.; n.pl. [L. *secernere*, to separate] One of the two major classes of the Phylum Nemata, including most of the plant- and animal-parasitic nematodes; formerly Phasmidia. see **Adenophorea**.

**second antennae** (ARTHRO: Crustacea) 1. Antennae of the second cephalic segment. 2. Antennae of some males are uniramous; two-jointed structures used to clasp females during mating.

**secondary fiber** (PORIF) A fiber that connects primary fibers and is not oriented to the surface.

**secondary host** see **intermediate host**

**secondary intergradation** The intergradation or hybridization of two distinct and previously isolated populations that have reestablished contact. see **primary intergradation**.

**secondary iris cells** see **accessory pigment cells**

**secondary ocelli** (ARTHRO: Insecta) Ocelli of the larvae of holometabolous insects; lateral ocelli.

**secondary pigment cells** see **accessory pigment cells**

**secondary pleometrosis** (ARTHRO: Insecta) In Hymenoptera, a process in a colony in which a founding queen is later joined by others to form a pleometrotic association. see **pleometrosis**.

**secondary reproductive** see **nymphoid reproductive**

**secondary riblet** (MOLL: Bivalvia) A riblet appearing later in development, however, weaker than primary riblets.

**secondary segmentation** Any form of body segmentation not conforming with the embryonic metamerism.



**secondary setae** (ARTHRO: Insecta) In some caterpillars, setae of indefinite locations and numbers; usually not present on first instar.

**secondary sexual characters** Characters that distinguish the sexes, though not functioning directly in reproduction.

**secondary shell layer** (BRACHIO) Shell deposited by outer epithelium median of outer mantle lobes. *a.* In Articulata, secreted intracellularly as fibers. *b.* In Inarticulata, if present, never fibrous.

**secondary sockets** (BRACHIO) A pair of small depressions behind the cardinal process lobes that receive the secondary teeth.

**secondary somatic hermaphrodite** see **gynandromorph**

**secondary spicules** (PORIF) Microscleres distributed throughout the mesenchyme.

**secondary teeth** (BRACHIO) In Stropheodontidae, two projections from the ventral process that fit into sockets of the brachial valve.

**second axillary** (ARTHRO: Insecta) 1. A sclerite articulating partly with the preceding sclerite and partly with the base of the radius; submedia. 2. An articulation sclerite of an insect wing along the first axillary that touches the base of the radial vein anteriorly, with a ventral portion of the sclerite set below the wing surface; intra-alare.

**second-form reproductive** see **nymphoid reproductive**

**second longitudinal vein** see **second vein**

**second maxillae** 1. (ARTHRO: Chilopoda) The fourth pair of head appendages. 2. (ARTHRO: Crustacea) The fifth and last pair of head appendages. 3. (ARTHRO: Insecta) The third pair of gnathal appendages; united in the labium.

**second trochanter** (ARTHRO) The second segment of the leg; prefemur; ischiopodite.

**second valvifers** (ARTHRO: Insecta) In the ovipositor, a basal pair of lobes or oblong plates supporting the base of the second valvulae.

**second valvulae** (ARTHRO: Insecta) In the ovipositor, a dorsal elongate pair of processes, uniting to form the sting sheath

enclosing the 1st valvulae.

**second vein** (ARTHRO: Insecta) In Diptera, when present, lying immediately behind the subcostal vein, always united with the radial sector vein.

**secretion** n. [L. *secretio*, separation] A substance or fluid produced in the body by a cell or gland; the passage of this substance to the outside of the cell or gland. **secretory** a.

**secretory granules** (NEMATA) Proteinaceous granules produced in the salivary (esophageal) glands, then transported anteriorly to the gland ampullae where breakdown occurs; thought to release digestive enzymes to be injected into the food cell during feeding.

**section** n. [L. *sectare*, to cut] 1. Pertaining to a subdivision of a taxon or a series of related elements in one portion of a higher taxon. 2. A thin slice of an organism or part of one used for microscopic study.

**sectorial cross vein** (ARTHRO: Insecta) A cross vein between the two branches of the radial sector.

**secund** a. [L. *secundus*, following] Having parts or organs on one side only; pointed one way; unilateral.

**secundibracts** n. [L. *secundus*, following; *brachium*, arm] (ECHINOD: Crinoidea) Brachials between the first and 2nd axillaries; dicostalia.

**securiform** a. [L. *securis*, ax; *forma*, shape] Hatchet-shaped.

**sedentary** a. [L. *sedere*, to sit] Remaining in one place; stationary.

**seductor gubernaculi** see **gubernaculum**

**seed** n. [A.S. *saed*, seed] (MOLL: Bivalvia) A young oyster; not designated by a specific size range.

**seed galls** (NEMATA) Seedheads converted to galls containing cryptobiotic nematode larvae or adults.

**segment** n. [L. *segmentum*, piece] 1. A part or subdivision of a body or appendage that is marked off or separate between joints or articulations. 2. (ANN) A portion of the body, along the anteroposterior axis, between two consecutive intersegmental furrows and the associated septa. 3. (ARTHRO: Crustacea) A podomere. see **article**.

**segmental blood vessel** (ANN) A blood vessel in the body wall, connecting anteriorly from dorsal to ventral arteries, and posteriorly by plexes around the gut.

**segmental spines** (ARTHRO: Insecta) In Diptera, 12 major bristles occurring in transverse rows on each segment of syrphid fly larvae.

**segmentation** n. [L. *segmentum*, piece] 1. The division of a jointed appendage or limb. 2. Cleavage.

**segmentation cavity** see **blastocoel**

**segmentation nucleus** Nucleus formed by union of male and female pronuclei during fertilization.

**segregate** n. [L. *segregare*, to separate] An individual that differs in some genetic characters from the parental stock due to segregation of genes.

**segregation** n. [L. *segregare*, to separate] 1. The act of placing apart; separation. 2. The separation of the two genes of an allelomorphic pair during meiosis.

**seizing jaws** see **grasping spines**

**sejugal** a. [L. *se*, apart; *jugare*, to join] Indicating the furrow or interval separating divisions or segments of an invertebrate body.

**selection** see **natural selection**

**selection pressure** The effect of the environment in selecting individuals best suited for survival and reproduction. see **natural selection**.

**selenaster** n. [Gr. *selene*, moon; *aster*, star] (PORIF) A microscleere similar to a stellaster, but based on a spiraster.

**seleniform** a. [Gr. *selene*, moon; L. *forma*, shape] In the shape of a full moon.

**seleniform cell** see **plasmotocytes**

**selenizone** n. [Gr. *selene*, moon; *zone*, girdle] (MOLL: Gastropoda) In dibranchiates, a spiral band of crescentric growth lines or threads (lunulae) on the shell surface due to the semicircular end of a notch or slit on the outer lip; a slit band; corresponds to the anal fasciole of some other groups.

**self-cleansing** (MOLL: Bivalvia) Removal and ejection of pseudofeces.

**self-fertilization** The union of gametes derived from the same individual; autogamy; automixis. see **cross-fertilization**.

**selfing** see **self-fertilization**

**self-sedimentation** (MOLL: Bivalvia) In oysters, pseudofeces and feces that are ejected.

**sellate** a. [L. *sella*, saddle] Saddle-shaped.

**seller groove** (ARTHRO: Crustacea) In Decapoda, a short transverse groove on the carapace, dorsally anterior to the cervical groove of Nephropidae.

**selva** n. [L. *silva*, wood] A tropical rain forest.

**selvage** n. [A.S. *self*; edge, its own proper edge] (ARTHRO: Crustacea) In Ostracoda, the principal ridge of the contact margin sealing the valves closed.

**sematic** a. [Gr. *sema*, sign] Functioning as a warning of danger, as signalling colors of insects, or disagreeable odors of certain poisonous or dangerous animals. see **allosematic**, **antiaposematic**, **aposematic**, **parasematic**, **pseudosematic**, **episematic**, **pseudepisematic**, **pseudaposematic**.

**sematophore** see **spermatophore**

**semelparity** n. [L. *semel*, once; *parere*, to bear] Producing young only once in a lifetime. **semelparous** a.

**semiaquatic** a. [L. *semis*, half; *aqua*, water] Living in wet places, or partially in water.

**semidominant** see **codominant**

**semifenestra** a. [L. *semis*, half; *fenestra*, window] (NEMATA: Secernentea) In Heterodera one of a pair of openings in the vulval cone separating the vulval bridge. see **circumfenestrate**.

**semigeographic speciation** see **parapatric speciation**

**semilunar** a. [L. *semi*, half; *luna*, moon] A half-moon shaped marking with sharp ends.

**seminal** a. [L. *semen*, seed] Pertaining to structures in which sperm are involved.

**seminal bursa** (PLATY: Turbellaria) A term used to describe the sac for receiving sperm during copulation that will be stored for a period of time; bursa seminalis. see **bursa copulatrix**.

**seminal canal** (ARTHRO: Insecta) In female Coleoptera, a duct or canal that connects the spermatheca with the vagina, functioning in sperm transport.

**seminal ducts** see **vas deferens**

**seminal funnel** (ANN: Oligochaeta) The internal opening of the vas deferens.

**seminal furrows/grooves** (ANN) Referring to distinct markings in the epidermis associated with male, or prostatic pores, through which sperm and/or prostatic secretions move at the time of copulation.

**seminal receptacle** Diverticulum of oviduct or pouch external to the oviduct for storing spermatozoa delivered by the male; receptaculum seminalis. see **spermatheca**, **bursa copulatrix**, **copulatory pouch**, **copulatory sac**, **seminal bursa**, **spermatheca**.

**seminal vesicle** 1. A male sac-, tube- or pouch-like structure in which spermatozoa is stored before being discharged; seminal reservoir; vesicula seminalis. 2. (ANN) A pouch usually formed in a posterior septum of a testicular segment where the latter stages of spermatogenesis occur.

**semination** n. [L. *semen*, seed] Discharge of sperm. see **insemination**.

**semiochemical** n. [Gr. *semeion*, mark or signal; *chemeia*, transmutation] Chemicals involved in the chemical interactions between individual organisms, subdivided into two major groups, pheromones and allelochemicals.

**semipupa** n. [L. *semis*, half; *pupa*, puppet] (ARTHRO: Insecta) In hypermetamorphosis, the interpolated stage between the active larva and the true pupa; the stage preceding pupate; prepupa.

**semisocial** a. [L. *semis*, half; *scocius*, ally] (ARTHRO: Insecta) In Hymenoptera, female bees of the same generation living in a colony with some individuals being primarily egg layers and some primarily workers (auxiliaries).

**Semper's cells** see **cells of Semper**

**Semper's larva** (CNID: Anthozoa) In Zoantharia, pelagic larva with long cilia.

**Semper's rib** (ARTHRO: Insecta) In Lepidoptera, a degenerate trachea present in the wing, alongside a functioning trachea within the vein cavity.

**senescence** n. [L. *senescere*, to grow old] The gradual deterioration of function in an organism leading to an increased probability of death; the ageing process.

**senility** n. [L. *senex*, old] Old age.

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

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

**sense club** see **rhopalium**

**sense cone/peg** (ARTHRO: Insecta) 1. A minute cone or peg, sensory in function. 2. Sense cone of Hayes, see **nesium**.

**sense organ** A simple or multicellular receptor organ, comprised of at least one sensory cell and accessory structures.

**sensilla** n.; pl. **-ae** [L. *sensus*, sense] see **sensillum**.

**sensilla candelari** (ARTHRO: Insecta) In the fulgorid *Pyrops* folded sensory plaque organs having numerous bipolar neurons arranged in groups; may have evolved from a cluster of basiconic sensilla.

**sensilla circumfila** (ARTHRO: Insecta) Thin-walled chemoreceptors with pores on fine surface ridges of elaborately looped sensilla on the antennae of cecidomyids.

**sensilla pouch** (NEMATA) An expansion of the amphidial tube, containing the sensory elements of the sensilla situated posterior to the amphidial pouch; *fusus amphidialis*.

**sensillum** see **sensillum**.

**sensillum** n.; pl. **-la** [L. *sensus*, sense] 1. A receptor complex composed of a sense cell or units of sense cells plus associated structures: innervated hair, flat sensory plate, or sen-

sory pit. 2. A small epithelial sense organ or nerve ending; a simple receptor complex.

**sensillum ampullaceum** A sense organ in which the sense cone is a flask- or pouch-shaped cavity with no external structure evident; ampullaceous sensillum; sensory flasks.

**sensillum auriforme** (ARTHRO: Chelicerata) In Acari, a sense organ with flattened disks, similar to sensillum campaniformium.

**sensillum basiconicum** A sense organ with an external process in the form of a minute cone or peg; basiconic sensillum.

**sensillum campaniformium** A thin, flexible, dome-shaped sense organ that has no pore or opening, sometimes occurring in groups, that respond to strains on the cuticle, as opposed to individual muscle movement; sensory cupulum.

**sensillum chaeticum** A sense organ with an external process in the form of a spine- or bristle-like *seta*, tactile in function.

**sensillum coeloconicum** A sense organ with an external process in the form of a thin-walled conical or peg-like projection in a shallow pit below the surface of the body wall; coeloconic sensillum; sensory pit-peg.

**sensillum coelosphaericum** (ARTHRO: Insecta) Olfactory receptor, lacking pore tubules, found on the last antennal segment of *Nicrophorus*, composed of a complicated network of filaments.

**sensillum coleum** A sense organ that is completely covered with a sheath except for the internal canal.

**sensillum insiticum** A sense organ that shows no evidence of an external structure or pore, but the ciliary process or modified cilia are embedded in the cuticle.

**sensillum opticum** A light perceiving sense organ; an ommatidium of a compound eye.

**sensillum placodeum** A sense organ in the form of a flat, plate-like external membranous cover over an enlarged pore tubule, with the outer surface continuous with the general surface; maybe olfactory in function; sensory

plates.

**sensillum rhinarium** see **rhinarium**

**sensillum scolopophorum** see **scolopidium**

**sensillum styloconicum** A sense organ having a terminal sensory cone, usually in a pit in the cuticle, innervated by nerve fibers running to its tip; thought to be olfactory in function; sensilla styloconica; terminal sensory cone.

**sensillum squamiformium** (ARTHRO: Insecta) A sense organ with a scale-like external appearance with nerve fiber endings at its base; usually occurring on the wing veins and abdomen; sensory scales.

**sensillum trichodeum** A sense organ bearing an elongate *seta*, articulated with the body wall by a membranous socket so that it is free to move; a mechanoreceptor or less often as a chemoreceptor; trichoid sensillum; a tactile sensillum.

**sensitization** n. [L. *sensus*, sense] The process or state of sensitiveness or hypersusceptibility to specific substances in contact with the body tissues.

**sensorium** n.; pl. **-riums, -ria** [L. *sensus*, sense] The sensory apparatus, comprising sense organs and their nerve centers.

**sensory** a. [L. *sensus*, sense] Having communication with the sensorium.

**sensory cell** A unicellular receptor

**sensory cell, type I** Bipolar nerve cells in or beneath the epidermis of the body wall, or the epithelium of the ectodermal parts of the alimentary canal and their distal processes are usually connected with specific ectodermal sense organs.

**sensory cell, type II** Bipolar or multipolar sense cell in the inner surface of the body and on the wall of the alimentary canal, their distal processes go to the epidermis, connective tissue, somatic muscles, splanchnic muscles or alimentary epithelium.

**sensory neuron** A neuron that acts as a receptor or receives excitation directly from a receptor that is not a neuron; an

axonic connection usually to the central nervous system.

**sensu lato** L. In a broad sense; S.L.

**sensu proprio** L. In the original sense; S.Pr.

**sensu stricto** L. In the strict sense; a limited sense; S.S.

**sentī** n.pl.; sing. **sentus** [L. *sentire*, to feel] (ARTHRO: Insecta) In Hemiptera, unbranched, cone-like projections of the body wall with a few short, stout setae on the trunk of larvae of coccinellids.

**septa** pl. **septum**

**septal** a. [L. *septum*, partition] Pertaining to a septum.

**septal filaments** (CNID: Anthozoa) Thread-like processes arranged along the free edges of the septa that contain gland cells and nematocysts.

**septalial plates** (BRACHIO) Crural plates forming the floor of the septalium and joining with the earlier-formed part of the median septum.

**septalium** n. [L. *septum*, partition] (BRACHIO) Troughlike structure of the brachial valve between hinge plates, consisting of septal plates enveloping and supported by the median septum.

**septal plate** (BRACHIO) When present, one of two plates that fuse forming the duplex median septa in the brachial valve and bearing the outer plate on their ventral surface.

**septasternum** see **pleurosternum**

**septate** a. [L. *septum*, partition] Partitioned off into septa.

**septiform** a. [L. *septum*, partition; *forma*, shape] Having the shape of an enclosure or septum.

**septula** pl. **septulum**

**septula** n.; pl. **-ae** [L. dim. *septum*, partition] (ARTHRO: Insecta) In Scarabaeoidea larvae, a narrow bare region of the raster: between a transverse palidium and base of the lower anal lip, or between a pair of oblique palidia diverging backward to the end of the anal slit, or between a pair of backward diverging, or parallel, or curved palidia to the inside ends of the anal slit.

**septulum** n.; pl. **-tula** [L. dim. *septum*, partition] 1. A small

septum. 2. (BRYO) An internal membrane of a communication organ. see **dietella**.

**septum** n.; pl. **-ta** [L. *septum*, partition] 1. Any dividing wall, membrane or partition separating cavities or masses of tissue; a dissepiment. 2. (ANN) Two layers of peritoneal cells enclosing muscle fibers, and blood vessels that separate adjacent segments. 3. (ARTHRO: Crustacea) For barnacles, see **transverse septum**. 4. (BRACHIO) Long, narrow, elevation of the secondary (shell) layer, usually bladeliike. *a.* In Articulata, within underlying floor of valve with high, narrow deflections of fibrous calcite starting near the primary layer. *b.* In Inarticulata, comparable deflections of the shell lamellae. 5. (MOLL: Cephalopoda) A calcareous tube that supports the siphuncle. 6. (MOLL: Gastropoda) A transverse plate secreted with early formed whorls of shell.

**sere** n. [L. *serere*, to join] A chain of communities that follow one another in sequence, prisere (primary sere) to a climax typical of a particular climate and geographical area. see **hydrosere**, **xerosere**, **lithosere**.

**serial** a. [L. *series*, a row of things] Pertaining to or consisting of or arranged in a series or row.

**serial crochets** (ARTHRO: Insecta) Crochets of larvae, the distribution of the bases or points of attachment. see **uniserial circle**, **biserial crochets**, **multiserial crochets**.

**sericate** a. [L. *sericus*, silken] Having short, thick, silky down; sericeous.

**sericin** n. [L. *sericus*, silken] (ARTHRO: Insecta) In Lepidoptera, a protein containing a high content of the amino acid serine, that hardens in air to form the glue surrounding the threads emitted from the spinneret of the silkworm.

**sericose** n. [L. *sericus*, silken; *os*, mouth] (ARTHRO: Insecta) In Hymenoptera, the opening for the duct of the silk glands.

**serictory**, **sericterium** n.; pl. **-teria**, **-teries** [L. *sericus*, silken] (ARTHRO: Insecta) The spinning gland or glands. *a.* In ant larvae, used as shuttles in weaving nests. *b.* The silk-producing glands of a caterpillar. see **silk gland**.

**series** n. [L. *series*, succession] In taxonomy, the sample taken in the field by the collector, or the sample available

for taxonomic study. see **hypodigm**.

**serific glands** (ARTHRO: Insecta) Glands of silk production that secrete a viscous fluid that solidifies passing through the orifice of the spinneret, emerging as two semi-crystalline threads.

**serology** n. [L. *serum*, whey; Gr. *logos*, discourse] The study of sera and the nature, and interactions of antigens and antibodies.

**serosa** n. [L. *serum*, whey] (ARTHRO: Insecta) The outer embryonic envelope.

**serosal cuticle** (ARTHRO: Insecta) An embryonic covering incorporating the vitelline membrane on the outside, and consisting of a chitinous endocuticle (white cuticle), with an epicuticle (yellow cuticle) having a second wax layer.

**serotinal** a. [L. *serus*, late] Appearing later in the season than is customary with related species.

**serous** a. [L. *serum*, whey] Secreting a watery, colorless serum.

**serpentinous** a. [OF. *serpentine*, greenish mineral] A dirty, dark green.

**serra** n. [L. *serra*, saw] A saw-like structure.

**serrate** a. [L. *serra*, saw] Marginal teeth or notches like a saw.

**serration** n. [L. *serra*, saw] A saw-like formation.

**serratulate** a. [L. *serrula*, small saw] Having little teeth or serrations.

**serriform** a. [L. *serra*, saw; *forma*, shape] Saw-toothed; having the form of a series of notches.

**serrula** n. [L. dim. *serra*, saw] (ARTHRO: Chelicerata) In spiders, a serration on the lateral margin of each maxillary lobe for cutting into prey.

**serrulate** a. [L. dim. *serra*, saw] Finely serrate; having small fine teeth or minute notches.

**serum** ; pl. **-a** n. [L. *serum*, whey] The liquid part of the blood; the secretion of a serous membrane.

**sesquicellus** n. [L. *sesqui-*, one and one half; dim. *oculus*, eye] A large ocellate spot including a smaller one.

**sessile** n. [L. *sedere*, to sit] Incapable of movement from place to place; attached directly, without a stem or petiole; permanently attached.

**sessoblast** n. [L. *sedere*, to sit; Gr. *blastos*, bud] (BRYO: Phylactolaemata) A statoblast cemented to the substrate.

**seston** n. [Gr. *sisis*, sifting] Microplankton; all organisms living or dead, swimming or floating in aquatic habitats. see **nekton**, **neuston**, **plankton**.

**seta** n.; pl. **setae** [L. *seta*, bristle] 1. A bristle, hair or filament process of the cuticle with which it articulates or through which it protrudes. see **poison seta**, **penial seta**. 2. (ANN) Chaeta. 3. (ARTHRO: Insecta) Hollow structures formed as extensions of the epidermal layer; macrotrichia or scales. 4. (ARTHRO: Crustacea) In Cirripedia, a bristle or spine on trophi and cirri. **setal**, **setate** a.

**setaceous** a. [L. *seta*, bristle] Bristlelike, slender.

**setal membrane** The membranous floor of a hair socket.

**setal sac** (ANN: Polychaeta) A pocket of the parapodial rami containing a single cell at the base, that continually produce new setae as the old are lost.

**setate** a. [L. *seta*, bristle] Provided with bristles.

**setiferous** a. [L. *seta*, bristle; *ferre*, to carry] Bearing setae or bristles; setigerous; chaetiferous.

**setiform** a. [L. *seta*, bristle; *forma*, shape] Having the shape of a bristle or seta.

**setigenous** a. [L. *seta*, bristle; Gr. *genitus*, to produce] Giving rise to setae.

**setiger** n. [L. *seta*, bristle; *gerere*, to bear] (ANN: Polychaeta) A segment carrying setae.

**setigeris** n. [L. *seta*, bristle; *gerere*, to bear] (ARTHRO: Insecta) A structure on the protibia similar in form and use as the strigil or scraper; the tibial comb.

**setigerous** a. [L. *seta*, bristle; *gerere*, to bear] Bearing setae; setiferous.

**setigerous lobe** (ANN: Polychaeta) The lobe of the parapodium that bears the setae.

**setigerous tubercles** (ARTHRO: Insecta) In Diptera, bumps occurring on the scutellum or legs, each bearing a spine or bristle at the apex.

**setireme** n. [L. *seta*, bristle; *remus*, oar] (ARTHRO: Insecta) In aquatic forms, the hairy, oar-like leg.

**setula** n.; pl. **-lae**; **setule** n.; pl. **setules** [L. dim. *seta*, bristle] (ARTHRO) Slender hair- or bristle- or thread-like, fragile setae.

**setulose** a. [L. dim. *seta*, bristle; *-osus*, full of] Set with short, blunt bristles.

**sex** n. [L. *sexus*, sex] The physical characteristics by which an animal is classed as male or female.

**sex cell** see **gametes**

**sexual congress** The association of males and females for sexually reproductive purposes.

**sex chromosome** A special chromosome, not occurring in identical number or structure in the two sexes, usually determines sex; the X and Y chromosomes. see **chromosome**, **autosome**.

**sex hormone** A hormone that influences primary and secondary sexual characters and sexual behavior.

**sex-limited character** A character occurring in only one sex. see **secondary sexual characters**, **sex-linked character**.

**sex-linked character** A character controlled by a gene located in a sex chromosome. see **sex chromosome**.

**sex-linked genes** Genes in the sex chromosomes, linked in heredity to the genes determining sex.

**sex mosaic** Intersex; gynandromorph.

**sexprostatic** a. [L. *sex*, six; Gr. *pro-*, before; *stare*, stand] (ANN) Having 6 prostates in 3 consecutive segments.

**sexradiate** a. [L. *sex*, six; *radius*, ray] Having 6 radii; hexactinal.

**sex ratio** The percentage of males and females of a specified age distribution in a population.

**sex reversal** To change from one sex to the other, either by

natural phenomena, pathology, or artificial means.

**sexthecal** a. [L. *sex*, six; Gr. *theke*, case] (ANN) Having 3 pairs of spermathecae.

**sexual cell** see **gametes**

**sexual dimorphism** The notable phenotypic difference between sexes of the same species. see **polymorphism**.

**sexuales** n.pl. [L. *sexus*, sex] (ARTHRO: Insecta) In the life-cycle of aphids and adelgids, apterous forms produced on the primary host; the eggs the females lay hatch in the autumn, giving rise to nymphs of the apterous fundatrices.

**sexual hybrid** A hybrid in which the DNA is recombined by the fusion of haploid nuclei of different mating types.

**sexual pore** see **gonopore**

**sexual reproduction** Reproduction involving the fusion of two cells (gamete nuclei), resulting from meiosis.

**sexual zooid** (BRYO) *a.* In Gymnolaemata, autozooid in which sex cells develop, may or may not show skeletal modification. *b.* In Cheilostomata, it may lose the feeding ability.

**sexupara** n.; pl. **-ae** [L. *sexus*, sex; *parere*, to bear] 1. Production of male and female offspring by parthenogenesis then available for sexual reproduction. 2. (ARTHRO: Insecta) The later generation of parthenogenetic viviparous Aphididae females originating from alienicola.

**shaft** n. [A.S. *sceaft*, shaft] The cylindrical part of a limb or structure.

**shagreened** a. [Turk. *saghri*, crupper] Having numerous tooth-like projections.

**sheath** n. [A.S. *sceth*, shell or pod] A covering enclosing an organism, part or organ.

**sheath laminae** (BRYO: Stenolaemata) A concentrically enclosed stylet core, continuous with zoarial sheaths, but normally at right angles to them.

**sheath of penis** see **ligula**

**shell** n. [A.S. *scell*, shell] A hard, rigid, calcareous or chitinous structure covering an animal or part of an animal.

**shell fold** 1. (ARTHRO: Crustacea) The part of the carapace be-

hind the cephalon. 2. (MOLL: Bivalvia) The outer fold of the mantle edge that houses the periostracal glands at its base.

**shell gland** 1. (ARTHRO: Crustacea) see **maxillary gland**. 2. (MOLL) Specialized epithelium that secretes the shell mantle. 3. (PLATY: Trematoda) Mehlis' gland.

**shield** n. [A.S. *scyld*, shield] 1. A dorsal cover; carapace; scutellum; scutum; clypeus. 2. (ARTHRO: Crustacea) In Decapoda, the anterior part of the cephalothorax of Paguridae. 3. (ARTHRO: Diplopoda) The second tergite. 4. (NEMATA) The interlabium.

**shoulder** a. [A.S. *sculdor*, shoulder] 1. Any obtuse angulation. 2. (MOLL: Gastropoda) The angulation of the shell whorls, forming the abaxial edge of the sutural ramp or shelf; shoulder angle.

**shovel** n. [A.S. *scofl*, shovel] (ARTHRO: Insecta) In Ephemeroptera, the expanded, flattened leg joints.

**sibling species** True species populations that are reproductively isolated, but morphologically identical or nearly so; cryptic species.

**side** n. [A.S. *side*, side] (MOLL: Gastropoda) The surface of a shell, when present, between the shoulder and abapical suture or margin of the base.

**Siebold's organ** see **crista acoustica**

**sieve area** (PORIF) The area containing inhalant apertures.

**sieve plate** 1. (ECHINOD) see **madreporite**. 2. (PORIF) A plate-like porous structure below the osculum.

**sieve tracheae** (ARTHRO: Chelicerata) In Ricinulei, bundles of tracheae that arise from a tubule of an ectodermal invagination on the 8th somite. see **tube tracheae**.

**sigillum** n.; pl. **sigilla** (ARTHRO: Chelicerata) 1. In some spiders, the impressed, suboval, clear areas on the sternum. 2. In Acari, the external mark of a muscle insertion.

**sigma** n. [Gr. the 16th letter, *sigma*] 1. (ARTHRO: Insecta) See **furca**. 2. (PORIF) A C-shaped diactinal microsclere.

**sigmaspires** n.pl. [Gr. the 16th letter, *sigma*; *speira*, twist] (PORIF) Diactinal microsclere sigmas that are spirally

twisted.

**sigmoid** a. [Gr. the 16th letter, *sigma*; *eidos*, form] Shaped like the letter S; sigmoidal.

**sigmoid curve** see **logistic curve**

**signa** n.pl.; sing. **signum** [L. *signum*, sign] (ARTHRO: Insecta) In female Lepidoptera, spines or dentate or roughened patches on the inner wall of the corpus bursae, thought to function in holding or breaking up spermatophores.

**silicalemma** n. [L. *silex*, flint; Gr. *lemma*, peel] (PORIF) A unit membrane enclosing the axial filament of a siliceous spicule.

**siliceous, silicious** a. [L. *silex*, flint] Of or pertaining to silica.

**silicoblasts** n.pl. [L. *silex*, flint; Gr. *blastos*, bud] (PORIF) A cell that secretes all or part of a siliceous spicule.

**siliquiform** a. [L. *siliqua*, a pod; *forma*, shape] Having the shape of a silique; long, tubular and narrow like a pod.

**silk** n. [Gr. *serikos*, silk] 1. A secretion that hardens so rapidly on extrusion that it may be produced as a long continuous thread. 2. (ARTHRO: Chelicerata) Secreted by specialized salivary glands in Acari; anterior of the abdomen in Araneae; the galea of Pseudoscorpionida. 3. (ARTHRO: Insecta) Secreted from dermal openings on the abdomen in some Coleoptera; foretarsi in Embioptera and some empidid Diptera; malpighian tubes discharging at the anus in Neuroptera, some Coleoptera and Hymenoptera; mouth cavity (usually modified salivary glands) in Psocoptera, Siphonaptera, some Diptera, Trichoptera, Lepidoptera and Hymenoptera.

**silk glands** Glands that secrete the liquids that produce silk on exposure to the air.

**silk press** (ARTHRO: Insecta) In Lepidoptera larvae, a structure similar to a typical salivary pump in which the silk is molded to a thread; silk regulator; thread press.

**silvicolous** a. [L. *silva*, forest; *colere*, to dwell] Inhabiting or growing in forests or woodlands.

**simple** a. [L. *simplex*, simple] Without embellishment; not modified, forked, toothed, branched or divided.



**simple eyes** (ARTHRO: Insecta) The ocelli.

**simple seta** see **unjointed seta**

**simple skeletal wall** (BRYO: Stenolaemata) Having the wall calcified only on edges and one side.

**simple velum** (ARTHRO: Crustacea) In Ostracoda, a velate structure of flange- or ridgelike form.

**simple-walled colony** see **fixed-walled colony**

**sinciput** n. [L. *semi-*, half; *caput*, head] 1. Upper or forepart of the head. 2. (ARTHRO: Insecta) The head area between the vertex and *clypeus*, especially in Coleoptera.

**single band of crochets** see **mesoserries**

**single-walled colony** see **fixed-walled colony**

**sinistral** a. [L. *sinistra*, left] Pertaining to the left; to the left of the median line.

**sinistral gastropods** (MOLL) Having the genitalia on the left side of the head-foot mass or pallial cavity, and commonly the shell, when viewed with the apex uppermost, with the aperture on the left. see **dextral gastropods**.

**sinistron** n. [L. *sinistra*, left] The left side of the body.

**sinistrorse** a. [L. *sinistra*, left; *vertere*, to turn] An organism spirally twisting to the left. see **dextrorse**.

**sinuate** a. [L. *sinus*, curve] Wavy; tortuous; curving in and out.

**sinuatolobate** a. [L. *sinus*, curve; Gr. *lobos*, lobe] Sinuate and lobed.

**sinuosity** a. [L. *sinus*, curve] Series of curves or bends.

**sinupalliate** a. [L. *sinus*, curve; *pallium*, mantle] (MOLL: Bivalvia) Having a pallial sinus or recess in the posterior part of the pallial impression due to the retraction of the siphons.

**sinus** n. [L. *sinus*, curve] A depression; bend; embayment.

**sinus gland** (ARTHRO: Crustacea) Storage release site for neurosecretory material synthesized within the cell bodies containing hormones produced by x-organ and other sites of the central nervous system.

**siphon** n. [Gr. *siphon*, tube] Any tubular or siphon-like struc-

ture. **siphonal** a.

**siphonal area** (MOLL: Bivalvia) The posterior sector of the shell surface, usually demarcated anteriorly by the umbonal ridge; secreted at the openings in the mantle edge or elevated to form siphons.

**siphonal canal** (MOLL: Gastropoda) A tubular or troughlike extension of the aperture for the enclosure of the siphon.

**siphonal fasciole** (MOLL: Gastropoda) The curved growth lines near the foot of the columella marking successive positions of the siphonal notch.

**siphonal fold** (MOLL: Gastropoda) A ridge corresponding to the siphonal notch that winds spirally around the columella.

**siphonal notch** (MOLL: Gastropoda) A narrow sinus of the apertural margin near the base of the columella functioning for protrusion of the inhalant siphon.

**siphonal retractor muscles** (MOLL: Bivalvia) Muscles that retract siphons into the shell.

**siphonal tube** (MOLL: Bivalvia) A tube composed of agglutinated particles derived from boring and fused to the siphonoplax. see **chimney**.

**siphonoglyph** n. [Gr. *siphon*, tube; *glyphein*, to engrave] (CNID: Anthozoa) A special groove or canal from the mouth to the actinopharynx, functioning to circulate fluid through the coelenteron.

**siphonoplax** n. [Gr. *siphon*, tube; *plax*, plate] (MOLL: Bivalvia) A chitinous or calcareous structure secreted by the mantle diverging or fused to form a tube on the posterior margin of the valves; probably for protection of the siphons.

**siphonostomatous** a. [Gr. *siphon*, tube; *stoma*, mouth] (MOLL: Gastropoda) Having the apertural margin notched or formed with a canal for the protrusion of the siphon.

**siphonozooid** n. [Gr. *siphon*, tube; *zoon*, animal; *eidos*, form] (CNID: Anthozoa) A small, modified polyp with reduced or lacking tentacles, having a well developed siphonoglyph to propel water through the canal system of the colony.

**siphons** see **gastrozoid**

**siphuncle** n. [Gr. dim. *siphon*, tube] 1. (ARTHRO: Insecta) see

**cornicle.** 2. (MOLL: Cephalopoda) A tubular vascular extension borne at the apex of the visceral hump, that runs through the outer chambers of the nautiloid shell and secretes gas into them for buoyancy. **siphunculate** a.

**Siphuncula, sipunculans, sipunculids** n.; n.pls. [Gr. dim. *siphon*, tube] A phylum of bilaterally, unsegmented, cylindrical, deposit-feeding, benthic marine worms, with tentacles and mouth located at the anterior extremity of the introvert.

**sistentes** n. [L. *sistere*, to stop] (ARTHRO: Insecta) The first generation of apterous exules on the secondary host that give rise to the alate sexuparae and apterous progredientes in the genus *Adelges*.

**sitopore** n. [Gr. *sitos*, food; *poros*, pore] (ARTHRO: Insecta) The basal part of the cibarial floor of the hypopharynx of generalized chewing insects.

**sitophore sclerite** see **esophageal sclerite**

**situs** n. [L. *situs*, place] The locality; site; situation; relative position.

**skeletal duplicature** (ARTHRO: Crustacea) In some Cephalocarida, the outer chitinous body covering that is shed during ecdysis.

**skeleton** n. [Gr. *skeletos*, dried, body] A hardened frame work of an organism functioning for support and protection of softer parts; may be external or internal and solid or jointed. **skeletal** a.

**skin** n. [ON. *skinn*, skin] The cuticle; the covering.

**skin bodies** (SIPUN) A group of glandular cells often present on the surface of the trunk.

**skin gill** see **papula**

**skin rings** see **annular**

**skototaxis** n. [Gr. *skotos*, darkness; *taxis*, arrangement] The orientation of an organism towards darkness.

**slavery** see **dulosis**

**slime tubes** see **Cuvierian organs**

**slit** n. [A.S. *slutan*, to tear] 1. A long cut or incision. 2. (MOLL)

*a.* In Polyplacophora, an abrupt indentation in the insertion plate. *b.* In Gastropoda, a shallow incision to deep fissure in the outer margin of the aperture.

**slit band** see **selenizone**

**slit ray** (MOLL: Polyplacophora) A shallow groove or row of pores or pits beginning at a slit and extending to the apex of the valve on the ventral side.

**slit sense organs** see **lyriform organs**

**slit sensilla** (ARTHRO: Crustacea) In Decapoda, small pits lying just distal to the walking leg joints; insertions of the dendrites of the joint proprioceptors of *Homarus*.

**slope-faced** (MOLL: Bivalvia) Referring to the face of the shell, i.e., central, anterior or posterior slope.

**snout** n. [ME. *snoute*, snout] (MOLL: Gastropoda) In Prosobranchia, a non-retractable, short, mobile eminence at the anterior end on which the mouth is formed.

**social facilitation** (ARTHRO: Insecta) An increase of activity from seeing or hearing others engaged in the same activity.

**social hierarchy** see **hierarchy**

**social homeostasis** (ARTHRO: Insecta) The steady state maintenance either by control of microclimate in the nest, or the control of population density, behavior and physiology of the society members.

**social hormones** see **pheromones**

**social insects** (ARTHRO: Insecta) 1. The ants, termites and some bees and wasps in which individuals of the same species cooperate in caring for the young, a reproductive division of labor is present, and an overlap of at least two generations in life stages contributing to the colony; eusocial insects. 2. A social insect that belongs to either a presocial or eusocial species.

**social interaction** (ARTHRO: Insecta) Relationships among individuals of a colony in which the behavior of one or a few individuals influences others in the colony; social facilitation and social homeostasis are two interactions.

**social parasite** (ARTHRO: Insecta) A symbiont found in the

nests of social insects, that feeds upon the food stores of the colony.

**social parasitic castration** (ARTHRO: Insecta) Pertaining to a Formicidae colony becoming parasitic on another colony of a different species and eliminating the reproductives of its host colony.

**social parasitism** (ARTHRO: Insecta) The coexistence of two species of social insects in the same nest, in which one is parasitically dependent on the other. see **symphile**.

**society** n. [L. *socius*, companion] An organized cooperative group of individuals of the same species; communication between members is implied.

**socii** n.pl.; sing. **-us** [L. *socius*, companion] (ARTHRO: Insecta) In male Lepidoptera, lightly sclerotized, paired, hairy pads on the caudal margin of the tegumen near the base of the uncus in the genitalia. For Odonata, see **superior appendages**.

**sociobiology** n. [L. *socius*, companion; *bios*, life; *logos*, discourse] The study of all aspects of communication and social organization.

**sociotomy** see **colony fission**

**socket** n. [OF. *soket*, plowshare] (MOLL: Bivalvia) A cavity in the hinge to receive the tooth of the opposite valve.

**sodium pump** A mechanism of neurones to move sodium ions out of the cell during the recovery phase.

**soft-part polymorph** (BRYO: Gymnolaemata) In Cheilostomata, a zooid with sexual features, brood chamber, or elongate tentacles to produce exhalant currents with no increased skeletal covering.

**soldiers** n. [L. *solidus*, a coin soldier's pay] (ARTHRO: Insecta) In Isoptera, members of a worker subcaste specialized for colony defense.

**solenia** n.pl.; sing. **-ium** [Gr. *solen*, pipe] (CNID: Anthozoa) Endodermal tubes connecting polyps in some colonies.

**solenidion** n.; pl. **-ia** [Gr. dim. *solen*, pipe] (ARTHRO: Chelicerata) In Acari, a hollow, microcephalic, pili-, baculi- or claviform, seta-like formation of the tegument with thin

walls, and large open roots, on the palp or legs; sense function unknown.

**soleniform** a. [Gr. *solen*, pipe; L. *forma*, form] Shaped like a razor handle.

**solenocyte** n. [Gr. *solen*, pipe; *kytos*, container] Specially modified tubular, ciliated or flagellated cells occurring in protonephridia and nephridia of some invertebrates and lower chordates. *a.* In protonephridial systems called flame cells or flame bulb; collectively all the flame bulbs, their collecting tubes, 'bladder' when present, and external orifices; present in such invertebrates as: platyhelminths, nemertines, priapulids, rotifers, kinorhynchs, gastrotrichs and some annelids; function uncertain, may be excretory, osmotic pressure regulator or both. *b.* In nephridial systems of some invertebrates and lower chordates its function is attributed to excretion; structure similar to flame bulb system, but supplied with blood vessels, to help filtration and absorption from blood; archinephridium.

**solenomerite** n. [Gr. *solen*, pipe; *meros*, part] (ARTHRO: Diplopoda) In Julida, the tubular part of the opisthomerite with the sperm channel and flagellum channel or groove.

**solenophage** n. [Gr. *solen*, pipe; *phagein*, to feed] (ARTHRO) A blood-feeder whose mouthparts pierce directly into a blood vessel to feed.

**solid ramose colony** see **dendroid**

**solitaria** n. [L. *solus*, alone] (ARTHRO: Insecta) The low density phase of locusts and some caterpillars. see **gregaria**, **kentromorphism**.

**solitary** n. [L. *solus*, alone] Living alone or in pairs, not in colonies or groups.

**solute** n. [L. *solvere*, to loosen] 1. In a solution; a substance dissolved in another. 2. Wholly separate; free. see **adnate**.

**soma** n. [Gr. *soma*, body] The body of an animal, with the exception of the germ cells. **somatic** a.

**somatic cells** Any cells of the body of an individual, except the germ cells.

**somatic chaetae** see **somatic setae**

- somatic crossing-over** Reciprocal chromatin exchange between homologous chromosomes during somatic mitosis.
- somatic hybrid** Non-sexual or vegetative hybrid.
- somatic layer** The external layer of the mesoderm.
- somatic musculature** 1. Muscles of the body. 2. (NEMATA) Longitudinally oriented muscle cells, usually spindle-shaped, containing a noncontractile portion and a contractile portion that control body movement.
- somatic mutation** Mutation in any cell other than a germ cell or its precursor.
- somatic setae** 1. Any setae on the body. 2. (ANN) Setae of the somatic segments that function in locomotion.
- somatoblast** n. [Gr. *soma*, body; *blastos*, bud] A cell that gives rise to somatic cells.
- somatocoel** n. [Gr. *soma*, body; *koilos*, hollow] (ECHINOD) The posterior of the three regions of coelomic sacs of the embryonic coelom, anterior (axocoel), and middle (hydrocoel).
- somatocyst** n. [Gr. *soma*, body; *kystis*, bladder] (CNID: Hydrozoa) In Siphonophora, the beginning of the stem gastrovascular canal that may contain an oil droplet.
- somatoderm** n. [Gr. *soma*, body; *derma*, skin] (MESO) The outer rings of cells around the body; jacket cells.
- somato-esophageal muscles** Muscles common to the esophageal region.
- somato-intestinal muscles** Muscles found in the region of the intestine, extending from the body wall.
- somatome** n. [Gr. *soma*, body; *tome*, cutting] A somite.
- somatoplasm** n. [Gr. *soma*, body; *plasma*, formed or molded] The body-tissues.
- somatopleure** n. [Gr. *soma*, body; *pleura*, side] The somatic layer.
- somatotheca** n. [Gr. *soma*, body; *theke*, case] (ARTHRO: Insecta) Area of pupa covering the abdominal rings. see **gasterotheca**.
- somite** n. [Gr. *soma*, body] A division of the body; a body segment of a metamericly segmented animal; a soma-

tome.

- sonication** n. [L. *sonus*, sound] The disruption of cells by sound waves.
- sonifaction** n. [L. *sonus*, sound; *facere*, to make] The production of sound; sonorific.
- sordid** a. [L. *sorditus*, dirty] Of a dirty or muddy color; dull.
- sorotrochous** a. [Gr. *soros*, heap; *trochos*, wheel] (ROTIF) Bearing a compound wheel organ or trochal disc.
- spadix** n. [L. *spadix*, palm frond] 1. (CNID: Hydrozoa) A central core on which the sex cells ripen on the blastostyle. 2. (MOLL: Cephalopoda) In male Nautilus sp., tentacles that form a specialized reproductive structure.
- spado** n. [Gr. *spadon*, a eunuch] (ARTHRO: Insecta) In hymenopteran bees and ants, a worker or neuter individual.
- spanandry** n. [Gr. *spanios*, rare; *andros*, male] Progressive decrease in number of males.
- spanogamy** n. [Gr. *spanios*, rare; *gamos*, wife] Progressive decrease in females.
- spanogyny** n. [Gr. *spanios*, rare; *gyne*, female] (ARTHRO: Insecta) The disappearance of mosquito colonies requiring blood meals when maintained on a plant food source.
- sparganum** n. [Gr. *sparganon*, swaddling band] (PLATY: Cestoda) A second stage larva of Pseudophyllidea, with an elongated shape and lack of cystic cavity; a plerocercoid.
- spat** n. [A.S. *spaetan*, to spit] (MOLL: Bivalvia) A microscopic larval stage.
- spatfall** n. [A.S. *spaetan*, to spit; A.S. *feallan*, fall] (MOLL: Bivalvia) The *en masse* settlement of larva.
- spatha** n. [Gr. *spathe*, blade] (ARTHRO: Insecta) In Hymenoptera, a dorsal lobe of the aedeagus.
- spathulate** see **spatulate**
- spatulate** a. [L. *spatula*, spoon] Spatula-like in form; flattened, while broad apically and narrowed basally.
- spear** see **stylet**
- specialization** n. [L. *specialis*, special] An animal or structure

that has adapted to a habitat or condition during the course of evolution.

**speciation** n. [L. *species*, kind] The division of a phyletic line; the process of species multiplication; the origin of discontinuities between populations resulting from the development of reproductive isolating mechanisms. see **allopatry**, **sympatric speciation**.

**species** n.; sing. & pl. [L. *species*, kind] A group of interbreeding (or potentially interbreeding) natural populations that are reproductively isolated from other such groups. see **subspecies**, **isolate**.

**species group** A group of closely related species, usually with partially overlapping ranges.

**species inquirenda** A species of doubtful status due to inadequate description and lack of preserved specimens.

**species name** 1. A scientific name of a taxon at the rank of species. 2. A binomen, the combination of a generic name and a specific name.

**species nova** New species; sp. nov.; sp. n.

**specific character** A common feature or structure in all individuals of a species.

**specific density** see **economic density**

**specific epithet** see **specific name**

**specificity** n. [L. *species*, kind] Condition of an individual or group of organisms being specific to a host, locale, etc. see **host specificity**.

**specific name** The second name in a binomen and in a trinomen.

**specophile** see **sphecophile**

**spectrum** n.; pl. **spectra** [L. *spectrum*, appearance] A statistical survey of species distribution.

**specular membrane** see **mirror**

**speculum** n.; pl. **-ula**, **ums** [L. dim. *specere*, to look at] 1. An ocellus. see **eyespot** 2. (ARTHRO: Insecta) *a.* In Lepidoptera, the brilliant metallic markings, or transparent spots on the wing. *b.* The thin, delicate membrane of the tym-

panal organ. *c.* The shiny areas of some caterpillars. *d.* In ichneumonid Hymenoptera, a slight, polished or sculptured prominence on the upper hind part of the mesepisternum.

**sperm** n.; pl. & sing. [Gr. *sperma*, seed] Any male gamete; spermatozoid; spermatozoa.

**spermaduct** n. [Gr. *sperma*, seed; L. *ducere*, to lead] Any duct for carrying sperm; spermiduct; sperm duct; vas deferens.

**spermagonium** n.; pl. **-ia** [Gr. *sperma*, seed; *gonos*, offspring] (NEMATA) The sperm-producing structure of a digonic female.

**spermalege** see **ectospermalege**, **mesospermalege**, **Ribaga's organ**

**spermary**, **spermarium** n. [Gr. *sperma*, seed] The male gonad, in which the sperm cells are produced.

**spermatangium** n. [Gr. *sperma*, seed; *angon*, jar] (MOLL: Cephalopoda) Evaginated spermatophores ready to release sperm; sperm sacs; sperm bladders; sperm bulbs.

**spermateleosis** n. [Gr. *sperma*, seed; *teleiosis*, completion] Spermiogenesis.

**spermatheca** n.; pl. **-ae** [Gr. *sperma*, seed; *theke*, case] A saccate genital structure in female invertebrates in which sperm from the male is received and may or may not be stored; seminal receptacle; copulatory sac; copulatory pouch; seminal bursa; seminal receptical; ectospermalege.

**spermathecal chaeta** (ANN: Oligochaeta) In tubificids, chaeta (seta) usually in ventral fascicles on segment x; shape is usually different from somatic chaeta.

**spermathecal gland** (ARTHRO: Insecta) A special gland opening into the duct of the spermatheca, or near the junction of the latter with the vagina.

**spermatid** n. [Gr. *sperma*, seed] One of four haploid cells of the male after the meiotic divisions; an immature spermatozoon.

**spermatocyst** n. [Gr. *sperma*, seed; *kystis*, bladder] (MOLL: Gastropoda) In some Opisthobranchiates, a sperm storage sac proximal to the bursa copulatrix.

**spermatocyte** n. [Gr. *sperma*, seed; *kytos*, container] An

auxocyte of males that give rise to the spermatids.

**spermatodactyl** n. [Gr. *sperma*, seed; *dactylos*, finger] (ARTHRO: Chelicerata) In Acari, modification of the chelicera in order for sperm transfer from the male's gonopore to the female copulatory receptacles.

**spermatogenesis** n. [Gr. *sperma*, seed; *genesis*, beginning] The formation and development of spermatozoa.

**spermatogonial cyst** see **sperm cyst**

**spermatogonium** n.; pl. **-ia** [Gr. *sperma*, seed; *gonos*, offspring] The gonads of male animals that give rise to the spermatocytes.

**spermatolophis** n. [Gr. *sperma*, seed; *lophos*, crest] (ARTHRO: Insecta) In certain Thysanura, sperm packets thought to be formed in the nongranular portion of the vas deferens.

**spermatophore** n. [Gr. *sperma*, seed; *pherein*, to bear] A packet or capsule of spermatozoa for transfer from male to female.

**spermatophore cup** (ARTHRO: Insecta) In some Orthoptera and Neuroptera, a cup-like cavity at the anterior end of the ejaculatory duct; in recent literature called a mold.

**spermatophore sac** 1. (ARTHRO: Insecta) *a.* In male Caelifera, the sac into which the gonopore opens. *b.* For Ensifera see **endophallic cavity**. 2. (MOLL: Gastropoda) In Prosobranchia, Neritidae and Phenacolepadidae, a large spermatophoric sac associated with the vagina. 3. (MOLL: Cephalopoda) A large diverticulum of the male reproductive system functioning in storage for spermatophores.

**spermatophoric sac** see **Needam's sac/organ**

**spermatophory** n. [Gr. *sperma*, seed; *pherein*, to carry] A type of fertilization in which stalked spermatophores are placed on the substrate for the females to take up into her genital tract. see **gonopody**.

**spermatophragma** see **sphragis**

**spermatopositor** n. [Gr. *sperma*, seed; *ponere*, to place] (ARTHRO: Chelicerata) In Acari, a small evaginable male organ for depositing spermatophores; penis.

**spermatotheca** see **spermatheca**

**spermatozeugma** n. [Gr. *sperma*, seed; *zeugma*, join] United by fusion of two or more spermatozoa.

**spermatozoon** n.; pl. **-zoa** [Gr. *sperma*, seed; *zoon*, animal] The matured and functional male sperm cell.

**sperm bladders/bulbs** see **spermatangium**

**sperm cell** A small, usually motile gamete.

**sperm conceptacles** (ARTHRO: Insecta) In Hemiptera, paired enlargements of the wall of the common oviduct of female Cimicidae.

**sperm cyst** (ARTHRO: Insecta) A cellular capsule within the testis containing the spermatocytes.

**sperm duct** (ANN) Ducts or tubes conveying sperm from the male funnels towards the exterior. see **spermaduct**, **vas deferens**.

**spermiducal glands** 1. Glands associated with the sperm ducts of many invertebrates. 2. (ANN) see **prostate glands**.

**spermiducts** n.pl [Gr. *sperma*, seed; L. *ducere*, to lead] The male gonoducts; spermaducts; spermoducts; vas deferens; sperm ducts.

**sperm induction** (ARTHRO: Chelicerata) In Arachnida, the passage of spermatozoa from the genital orifice beneath the base of the abdomen into the receptacle in the male palpus.

**spermiogenesis** n. [Gr. *sperma*, seed; *genesis*, beginning] The formation of spermatozoa from the spermatids produced during the meiotic divisions of spermatocytes; spermateleosis.

**spermoduct** see **sperm duct**

**spermora** n. [Gr. *sperma*, seed; L. *os*, mouth] (ARTHRO: Insecta) In Isoptera, the external opening of the spermathecal duct.

**sperm sacs** 1. (ANN) Seminal vesicles or testis sacs or spermathecae. 2. (MOLL: Cephalopoda) see **spermatangium**.

**sperm web** (ARTHRO: Chelicerata) In Arachnida, a web on which male spiders deposit the semen before taking it into

the palpus.

**sphaeridium** n.; pl. **-idia** [Gr. dim. *sphaira*, ball] (ECHINOD) Minute, spherical bodies covered by ciliated epidermis, usually lodged in pits in the test or almost completely enclosed; confined to the ambulacral areas around the mouth or scattered along the entire ambulacra; believed to be gravity receptors.

**sphaeroclone** n. [Gr. dim. *sphaira*, ball; *klon*, twig] (PORIF) A megasclere spicule with a subglobular desma produced by swelling of the centrum.

**sphecology** n. [Gr. *sphex*, wasp; *logos*, discourse] The study of wasps.

**sphecophile** n. [Gr. *sphex*, wasp; *philos*, love] (ARTHRO: Insecta) A symbiont of wasps; any organism that must spend at least a portion of its life cycle in a wasp colony.

**sphenoid** a. [Gr. *sphen*, wedge; *eidos*, like] Wedge shaped; cuneate; cuneiform.

**spherasters** n. [Gr. *sphaira*, ball; *aster*, star] (PORIF) A large-centered spicule with many definite rays.

**spheres** n.pl. [Gr. *sphaira*, ball] 1. Any globular body. 2. (PORIF) Rounded bodies in which growth is concentric around a center.

**spherocyte** see **spherule** cell

**spheroidocyte** n. [Gr. *sphaira*, ball; *eidos*, form; *kytos*, container] (ARTHRO: Insecta) Round hemocytes with fat-like droplets, granular and other inclusions and occasionally crystals.

**spherula** n. [Gr. dim. *sphaira*, ball] A small sphere.

**spherular cell** see **spherule** cell

**spherulate** a. [Gr. dim. *sphaira*, ball] Having one or more rows of minute tubercles.

**spherule** cell (ARTHRO: Insecta) Hemocytes, varying in shape, that possess few to many, acidophilic inclusions, that may fill the whole cell. see **spherulocyte**.

**spherulocyte** n. [Gr. dim. *sphaira*, ball; *kytos*, hollow] (ARTHRO: Insecta) Ovoid or round hemocytes, variable in size,

containing spherules reported to contain neutral or acid mucopolysaccharide, glyco-mucroproteins, lipochrome, trosinase and sulfated sialomucin. see **spherule** cell.

**spherulous cell** (PORIF) Cells with multiple, large vesicles containing coarse granular material.

**sphincter** n. [Gr. sphinkter, binder] Any ring-like muscle that contracts, constricts, or closes an orifice.

**sphingiform larva** (ARTHRO: Insecta) A larva with a cylindrical body with short or no setae, and a mediodorsal horn or button on the 8th abdominal segment.

**sphragis** n. [Gr. *spragis*, seal] (ARTHRO: Insecta) In some Lepidoptera, a structure formed by male glandular secretions or actual male genital parts remaining in the female after insemination that inhibits subsequent copulations of the female; spermatophragma; mating plug.

**spicate** a. [L. *spica*, spike] Spike-shaped; possessing spikes.

**spiciform** a. [L. *spica*, spike; *forma*, form] Spike-shaped, as some setae.

**spicula** pl. of **spiculum**

**spicular sheath** (NEMATA) A conical or tubular extension of the cuticle distally sheathing the spicules beyond the body profile.

**spicular muscles** (NEMATA) Muscles for the protraction and retraction of the spicules.

**spicular pouch** (NEMATA) A cuticular lined pouch that contains the spicules and is formed from the spicular primordia.

**spicule** n. [L. *spicula*, small spike] 1. Any minute pointed spine or process. 2. (MOLL: Polyplacophora) The dorsal girdle decorations of various size, shape and frequency. 3. (NEMATA) Blade-like, sclerotized male copulatory organs, usually paired, located immediately dorsad to the cloaca. 4. (PORIF) An element of the sponge skeleton, composed mainly of silica or calcium carbonate, and rarely spongin.

**spicule hair** (ARTHRO: Insecta) In Lepidoptera, irritative hair usually formed by one or more trichogen cells; size, shape, internal cell components, and body arrangement are variable. see **spine hairs**.

- spiculiferous** a. [L. *spicula*, small spike; *fero*, bear] Provided with spicules.
- spiculiform** a. [L. *spicula*, small spike; *forma*, shape] Spicule-shaped.
- spiculose** a. [L. *spicula*, small spike] Bearing spicules.
- spiculum** n.; pl. **spicula** [L. *spicula*, small spike] Spicular structures, as the spines of echinoderms and dart of certain snails.
- spigots** n.pl. [L. *spica*, spike] (ARTHRO: Chelicerata) In Arachnida, conical spinning tubes on the spinnerets.
- spiked-tail stage** (NEMATA: Secernentea) In Heteroderidae, the pointed tail of the second stage larval cuticle retained during initial expansion of the vermiform body.
- spina** n.; pl. **spinae** [L. *spina*, thorn] 1. A spine. 2. (ARTHRO: Insecta) *a.* The medium apodemal process of the spinasternum. *b.* The medium apodeme.
- spinasternum** n. [L. *spina*, thorn; *sternum*, breast plate] (ARTHRO: Insecta) An intersegmental sclerite of the thoracic venter bearing a *spina*, associated with or united with the sternal sclerite immediately anterior to it; the intersternite.
- spinate** a. [L. *spina*, thorn] Bearing spines; spiniform.
- spination** n. [L. *spina*, thorn] The development or arrangement of spines.
- spindle** n. [A.S. *spinnal*, to spin] 1. Fusiform; tapering gradually at both ends. 2. (PORIF) A straight monaxial spicule.
- spindle cell** see **plasmatoctes**
- spine** n. [L. *spina*, thorn] A pointed process or outgrowth; thorn-like.
- spine base** (BRYO) A collar-like skeletal inflation at the base of a spine.
- spine hairs** (ARTHRO: Insecta) Poisonous weapons of many caterpillars, usually of multicellular origin and provided with pointed tips, that upon penetration into human skin are broken, causing irritation; primitive setalike normal hairs.
- spiniform** a. [L. *spina*, thorn] Resembling a spine in shape.
- spiniger** n. [L. *spina*, thorn; *gerere*, to carry] (ANN: Poly-

chaeta) Composite seta with terminal blades tapering to fine tips; spines.

- spinigerous** a. [L. *spina*, thorn; *gerere*, to carry] Spine-bearing.
- spinneret** n. [A.S. *spinnan*, to spin] 1. (ARTHRO: Chelicerata) In spiders, three pairs of glands at the subcaudal end of the abdomen, covered with minute tubes. see **fusula**; **sericose**. 2. (ARTHRO: Insecta) An external apparatus from which silk exudes and is spun; produced by dermal gland openings on the abdomen in Coleoptera; fore tarsi in Embioptera and some Diptera; by the Malpighian tubes discharging at the anus in Neuroptera, some Coleoptera and Hymenoptera; discharged from the mouth cavity, usually modified salivary glands in Psocoptera, Siphonaptera, some Diptera, Trichoptera, Lepidoptera and Hymenoptera; in larval bees, the salivarium. 3. (NEMATA: Adenophorea) The terminal pore of the caudal glands; the cement glands.
- spinning bristle** (ARTHRO: Insecta) In Embioptera, hollow, seta-like silk ejectors on the ventral surface of the fore tarsus.
- spinning glands** 1. (ARTHRO) Glands that secrete a silky material; silk glands. 2. (ANN: Polychaeta) Glands of the parapodia that secrete the tube forming material.
- spinose, spinous** a. [L. *spina*, thorn] Full of spines; beset with spines; armed with sharp spines.
- spinulate** a. [L. dim. *spina*, thorn] Having very small spines.
- spinule** n. [L. dim. *spina*, thorn] A minute spine.
- spinulifer** n. [L. dim. *spina*, thorn; *ferre*, to bear] (BRACHIO) A radulifer with laterally compressed crura.
- spinulose, spinulous** a. [L. dim. *spina*, thorn] Having small spines.
- spiracle** n. [L. *spirare*, to breathe] (ARTHRO) A breathing pore or orifice leading to the tracheal or respiratory system; stigma. **spiracular** a.
- spiracular area** (ARTHRO: Insecta) In Hymenoptera, the first pleural area.
- spiracular atrium** (ARTHRO: Insecta) A cavity from which the



trachea extend into the body.

**spiracular cleft** (ARTHRO: Insecta) In some larvae, spiracles found in a closed or open cleft; in closed cleft, one or two liplike structures are usually present; stigmatic cleft.

**spiracular depressions** (ARTHRO: Insecta) In Coccoidea, usually found on the margin at the base of the spiracular setae.

**spiracular disk** (ARTHRO: Insecta) In Diptera, a flat area on the caudal segment containing the spiracular openings of aquatic larvae.

**spiracular gills** (ARTHRO: Insecta) In some aquatic pupae, the long processes formed by the peritreme and atrial regions of one or more pairs of spiracles; adapted both for aquatic and aerial respiration.

**spiracular grooves** see **spiracular cleft**

**spiracular line** (ARTHRO: Insecta) The colored or pigmented line adjacent to or coinciding with the line of the spiracles of caterpillars.

**spiracular muscles** (ARTHRO: Insecta) The occlusor and dilator.

**spiracular plate** see **peritreme**

**spiracular processes** (ARTHRO: Insecta) In some Scarabaeoidea, dendriform trabeculae that form the filter apparatus.

**spiracular sclerite** (ARTHRO: Insecta) In Diptera, a sclerite of the metapleuron below the metathoracic spiracle.

**spiracular setae** (ARTHRO: Insecta) In Coccoidea, setae of various shapes and sizes terminating each spiracular pore band.

**spiracular sieve plate** (ARTHRO: Insecta) A platelike sclerite covering the spiracle that functions to exclude entry of dust or water into the tracheal system.

**spiracular spines** (ARTHRO: Insecta) In Coccoidea, large seta usually associated with each spiracular pore cluster.

**spiraculate** a. [L. *spirare*, to breathe] With spiracles.

**spiraculiform** a. [L. *spirare*, to breathe; *forma*, shape] Spira-

cle-shaped.

**spiral** n. [L. *spira*, coil] A curved line or surface extending outward with continuously increasing radius of curvature.

**spiral amphid** (NEMATA: Adenophorea) A coiled amphid tube beneath the cuticle that appears as a spiral.

**spiral cleavage** A type of early embryonic cleavage in which, after the first few divisions, the cells of the upper quartet in the eight-celled stage lie above and between the cells of the lower quartet and thus tend to form a spiral pattern.

**spiral conic** (MOLL: Gastropoda) In Trochidae, an advancing spiral, winding around an axis and forming a cone shape.

**spiralia** n.pl.; sing. **spirarium** [L. *spira*, coil] (BRACHIO) Two spirally coiled supports of the secondary shell for the plectolophe or spirolophe.

**spiral thread/filament** see **taenidium**

**spiramen** n. [L. *spiramen*, vent] (BRYO) A median pore, not connected to the ascus, in the frontal wall on the proximal side of the orifice.

**spirasters** n.pl. [L. *spira*, coil; *aster*, a star] (PORIF) Spirally twisted streptasters.

**spire** n. [L. *spira*, coil] (MOLL: Gastropoda) The complete series of whorls of a spiral shell except the last.

**spire angle** (MOLL: Gastropoda) In plane through entire shell axis, angle between two straight lines that touch all the whorls on opposite sides; these lines can only be drawn if the rate of the whorl increase is constant.

**spirignath, spiritrompe** see **galea**

**spirocyst** n. [L. *spira*, coil; Gr. *kystis*, bladder] (CNID: Anthozoa) In Zoantharia, a type of nematocyst with a thin, single-wall capsule that is acidophilic and contains a long, spirally coiled, unarmed thread of uniform diameter. see **nematocyst**.

**spirogyrate** a. [L. *spira*, coil; *gyratus*, circular] (MOLL: Bivalvia) 1. Umbones coiled outward from the saggital plane. 2. In oysters, having the beak in a distinct spiral.

**spiroid** a. [L. *spira*, coil] Spiral-shaped.

**spirolophe** n. [L. *spira*, coil; Gr. *lophos*, crest] (BRACHIO) A lophopore with brachia spirally coiled and bearing single rows of paired filamentary appendages.

**splanchnic** a. [Gr. *splanchnon*, entrail] Of or pertaining to the viscera.

**splanchnic layer** (ARTHRO: Insecta) The inner layer of the mesoderm applied to the wall of the alimentary canal; splanchnopleure.

**splanchnic nerves** (ARTHRO: Insecta) Nerves originating from the last abdominal ganglion and continuing to the hind intestine and the reproductive system.

**splanchnopleure** see **splanchnic layer**

**splendent** a. [L. *splendens*, shining] Shining; glossy; reflecting light intensely.

**splicing** a. [D. *splicsen*, to split] Methods of attaching one piece of DNA to another; gene splicing.

**split sense organs** (ARTHRO: Chelicerata) In Arachnida, cuticular sense organs of spiders responding to cuticular stress and vibrations.

**splitter** n. [MD. *splitten*, to split] In taxonomy, an individual who divides taxa expressing minute shades of difference and relationship, through the formal recognition of separate taxa and their elaborate categorical ranking.

**spoil, spoile** see **exuvia**

**spondylium** n. [Gr. *spondylos*, vertebra, joint] (BRACHIO) A U-shaped ridge formed by the fusion of the distal ends of the dental plates that accommodate the ventral muscles.

**sponge** n. [L. *spongia*, sponge] 1. The common name for the Porifera. 2. (ARTHRO: Crustacea) In Malacostraca, the usually orange egg mass brooded by female crayfish.

**spongiolous** a. [L. *spongia*, sponge; *colere*, to inhabit] Living in sponges.

**spongiform** a. [L. *spongia*, sponge; *forma*, form] Sponge-like; soft and porous.

**spongin** n. [L. *spongia*, sponge] (PORIF) Collagenous material of the skeleton formed of homogeneous fibers or plaques.

**spongioblasts** see **spongocyte**

**spongiocoel** see **spongocoel**

**spongioplasm** n. [L. *spongia*, sponge; Gr. *plasma*, formed or molded] The *a*, *H*, and *I* bands of fibrillar bundles of muscles.

**spongiouse** a. [L. *spongia*, sponge] Sponge-like.

**spongocoel(s)** n. [L. *spongia*, sponge; Gr. *koilos*, hollow] (PORIF) A canal(s) or cavity(ies) that conveys water from the flagellated chambers.

**spongocyte** n. [L. *spongia*, sponge; Gr. *kytos*, container] (PORIF) A cell that secretes spongin.

**spontaneous generation** Abiogenesis.

**spoon** see **bouton, flabellum**

**sporadic** a. [Gr. *sporas*, scattered] Occasional occurrence.

**sporoblast** n. [Gr. *spora*, seed; *blastos*, bud] A cell mass that will develop into a sporocyst within an oocyst.

**sporocyst** n. [Gr. *spora*, seed; *kystis*, bladder] 1. A stage of sporozoan development, usually within a protective envelope; the oocyst. 2. (PLATY: Trematoda) An asexual stage of development.

**sporogony** n. [Gr. *spora*, seed; *gonos*, offspring] The multiple fission of a zygote; a sporont.

**sporont** n. [Gr. *spora*, seed; *on*, a being] An undifferentiated cell mass within an oocyst.

**sporosac** n. [Gr. *spora*, seed; *sakkos*, bag] (CNID: Hydrozoa) In Siphonophora, gonophores held in place and not released into the water during larval development.

**sporozoite** n. [Gr. *spora*, seed; *zoon*, animal] The stage of development of a sporoblast which has divided and exited the oocyst into the hemocoel and migration begins; the malarial stage found in the salivary glands of insects.

**spout** n. [ME. *spouten*, to vomit] (MOLL: Gastropoda) A rudimentary siphonal canal.

**spraing** n. [Scot. of Scand. origin, *sprang*, stripe] A bright streak or stripe.

**spring tide** A series of tides with a relatively large tidal range, occurring at or soon after the new or the full moon. see **neap**.

**spur** n. [A.S. *spora*, spur] 1. A movable spine-like process. 2. (ARTHRO: Crustacea) *a*. In Cirripedia, a pendent-like projection from the basal margin of the tergum. *b*. In Ostracoda, a flattened spine-like projection in some dimorphic genera.

**spur fasciole** (ARTHRO: Crustacea) In Cirripedia, a slight depression on the outer surface of the tergum to the apex in line with the spur.

**spur furrow** (ARTHRO: Crustacea) In Cirripedia, a groove on the outer surface of the tergum to the apex in line with the spur.

**spurious** a. [L. *spurius*, false] Morphologically untrue; false.

**spurious claw** (ARTHRO) A false claw; a claw-like stout bristle.

**spurious legs** see **prolegs**

**spurious vein** (ARTHRO: Insecta) A fold or thickening of the wing membrane between two true veins.

**squama** n.; pl. **-mae** [L. *squama*, scale] 1. Any decumbent scale. 2. (ARTHRO: Crustacea) A scale-like exopod of the antenna. see **scaphocerite**. 3. (ARTHRO: Insecta) *a*. In Hymenoptera, a dorsolateral lobe of the phallobase; in ants, the first abdominal segment. *b*. In Hemiptera, the fimbriate or spine-like marginal process of coccoids; plates; scaly hairs. *c*. In Lepidoptera, the scale-like structure covering the wing base of the fore wings. see **patagium**. *d*. In Diptera, the calypters; palpiger; alar squama; antisquama; alula; in mosquitoes, the short broad scales on the wing veins; median scale; flat scale. *e*. In Odonata, the lateral expansion of the mentum. *f*. In Diaspidinae, see **gland spines**. 4. (MOLL: Bivalvia) A thin, long, concentric imbrication.

**squamate, squamiform** a. [L. *squama*, scale] Scale-like; squamoid.

**squamous, squamose** a. [L. *squama*, scale] Covered with scales.

**squamul alaris** see **alar squama**

**squamulate, squamulose** a. [L. dim. *squama*, scale] Having small scales.

**squarrose** a. [L. *squarrosus*, rough] Rough with projecting scale-like processes, divided into upright and nonparallel with the plane.

**squat** a. [OF. *esquatir*, to press down] More broad in proportion than to height.

**stabilamentum, stabilimentum** n. [L. *stabilis*, firm; *amentum*, strap] (ARTHRO: Chelicerata) In Arachnida, one of a series of obvious zigzag lines at the hub of certain orb spider webs that warn birds to avoid them.

**stadium** n.; pl. **stadia** [L. *stare*, to stand] 1. The stage or period in an animals life. 2. The interval between molts of a larva; stade. see **instar**.

**stage** see **stadium**

**stalk** n. [A.S. *stel*, stalk] A supporting structure, such as a pedicel.

**staphyla** n.; pl. **staphylae** [Gr. *staphyle*, bunch of grapes] A group of gongylidia used as food by Attine ants that grow the fungus.

**stase** n. [Gr. *stasis*, standing] (ARTHRO: Chelicerata) 1. One of the successive instars of the postembryonic development of a specific species. 2. In Acari, an instar independent of growing molts, that is distinct within a species and can be homologized with the corresponding instars of other species.

**stasis** n. [Gr. *stasis*, standing] The stopping of normal processes, i.e., growth, fluid movement, etc.

**stasoid** a. [Gr. *stasis*, standing; *eidos*, like] (ARTHRO: Chelicerata) The life cycles of some instars that cannot be homologized with corresponding instars of other species of the same group.

**statory phase** (ARTHRO: Insecta) In Hymenoptera, a period in the army ant cycle in which the colony does not move from site to site; the queen lays eggs, and the brood is mostly eggs and pupae. see **nomadism**.

**static** a. [Gr. *statikos*, to cause to stand] Pertaining to rest or equilibrium. see **dynamic**.

**statis organ** see **statocyst**

**statis sense** The sense of balance or maintenance in the air or water.

**statistical method** Special mathematical methods for the elucidation of quantitative variations affected by a multiplicity of factors.

**statoblast** n. [Gr. *statos*, fixed; *blastos*, bud] (BRYO: Phylactolaemata) A sessile or free, ovoid or discoid chitinized bud, with large yolky cells and organized germinal tissue, that give rise to polypides; resting buds; winter eggs. see **floatoblast**.

**statocone** n.; pl. **-ia** [Gr. *statos*, fixed; *koni*, dust] A minute calcareous granule in a statocyst.

**statocyst** n. [Gr. *statos*, fixed; *kystis*, bladder] An organ of balance found in many invertebrates, variable in structure from an open canal, vesicle, or closed chambers composed of one to many cells (lithocytes), that contains a concretion of granules of sand, lime, diatom shells or quartz grains (statolith), or capsules of ciliated cells enclosing a fluid with one or more statoliths suspended within; otocyst.

**statocyte** see **lithocyte**

**statolith** n. [Gr. *statos*, fixed; *lithos*, stone] A movable concretion of granules of sand, lime, diatom shells, or quartz grains contained in a statocyst, that functions in equilibrium; lithite.

**statorhabd** see **rhopalium**

**stauractine** a. [Gr. *stauros*, cross; *aktis*, ray] (PORIF) A tetractinal spicule with all four rays in a single plane.

**stegasimous** a. [Gr. *stege*, roof] (ARTHRO: Chelicerata) In Acari, having the prodorsal sclerite project over the chelicerae. see **astegasimous**.

**stellate** a. [L. *stella*, a star] Star-shaped; resembling the rays of a star.

**stellate cells** Stelliform plasmatocyte-like cells often adhering to internal tissues. see **plasmatocyte**.

**stelliform** a. [L. *stella*, a star; *forma*, form] Star-shaped.

**stelocytтарous** a. [Gr. *stete*, pillar; *kyttaros*, partition] (ARTHRO: Insecta) Pertaining to nests, especially of social wasps, in which the brood combs are attached to the support by pillars and not connected with the envelope. see **astelocytтарous**.

**stem** see **hydrocaulus**

**stemapoda, stemapod** n. [Gr. *stema*, penis; *pous*, foot] (ARTHRO: Insecta) In larval Noctuoidea, elongated anal prolegs.

**stem cell** see **prohemocyte**

**stemma** n.; pl. **stemmata, stemmatas** [Gr. *stemma*, garland] (ARTHRO: Insecta) The lateral ocelli of larval holometabolous insects that vary in number from one on each side in tenthredinid larvae to 6 on each side in lepidopterous larvae; a simple eye; an ocellus.

**stem nematogen** (MESO: Rhombozoa) A young nematogen with the same number and arrangement of cells as the *larva*, but with many agamete cells that give rise to ordinary nematogens.

**stenobathic** a. [Gr. *stenos*, narrow; *bathys*, depth] An organism restricted to a narrow vertical range of movement. see **eurybathic**.

**stenobenthic** a. [Gr. *stenos*, narrow; *benthos*, depth of the sea] An organism living within a narrow range of depth of the sea bottom. see **eurybenthic**.

**stenocephalous** a. [Gr. *stenos*, narrow; *kephalon*, head] Having a narrow, elongated head.

**stenogamous** a. [Gr. *stenos*, narrow; *gamos*, union] (ARTHRO: Insecta) Pertaining to Culicidae that require only a small enclosure when mating in captivity. see **eurygamous**.

**stenogastric** a. [Gr. *stenos*, narrow; *gaster*, stomach] With a shortened abdomen or gaster.

**stenglossate** a. [Gr. *stenos*, narrow; *glossa*, tongue] (MOLL: Gastropoda) Pertaining to the radula consisting of 1-1-1 or 0-1-0 rows of teeth.

**stenohaline** a. [Gr. *stenos*, narrow; *halinos*, saline] Any or-

ganism capable of withstanding only slight variations of salinity in its environment; stenosalinity. see **euryhaline**.

**stenohygric** a. [Gr. *stenos*, narrow; *hygros*, moist] Pertaining to an organism tolerating only a narrow atmospheric humidity range.

**Stenolaemata, stenolaemates** n.; n.pl. [Gr. *stenos*, narrow; *laimos*, throat] A class of "tubular bryozoans", exclusively marine, with circular lophophores lacking an epistome.

**stenomorphic** a. [Gr. *stenos*, narrow; *morphe*, shape] 1. Genera with limited morphological characters. 2. Dwarfed.

**stenonoty** n. [Gr. *stenos*, narrow; *notos*, back] A small thorax.

**stenophagous** a. [Gr. *stenos*, narrow; *phagein*, to eat] Existing on only a limited variety of foods. see **euryphagous**, **omnivorous**.

**stenopodium** n. [Gr. *stenos*, narrow; *pous*, foot] (ARTHRO: Crustacea) Slender, sometimes setose, elongate appendage, composed of rod-like segments.

**stenopterous** a. [Gr. *stenos*, narrow; *pteron*, wing] Having a narrow, complete wing.

**stenosaline** see **steno haline**

**stenosis** a. [Gr. *stenos*, narrow] Constriction of vessels, ducts, etc.

**stenotele** n. [Gr. *stenos*, narrow; *telos*, the end] (CNID) A stinging nematocyst; a spirally coiled thread armed with spiral rows of projections that is provided at its distal end with a lid (operculum); a penetrant.

**stenothermal** a. [Gr. *stenos*, narrow; *therme*, heat] Confined to living within a narrow range of temperatures. see **eurythermal**.

**stenotopic** a. [Gr. *stenos*, narrow; *topos*, place] Organisms having a limited geographical distribution or occurring in restricted habitats. see **eurytopic**.

**stenovalent** a. [Gr. *stenos*, narrow; L. *valens*, strong] An organism restricted to few types of environmental conditions. see **euryvalent**.

**stenoxenous** a. [Gr. *stenos*, narrow; *xenos*, host] Having a

narrow host range.

**steppe** n. [Russ. *step'*, lowland] Short grass plains, generally treeless.

**stercoral** a. [L. *stercus*, dung] 1. Pertaining to excrement. 2. Living in or feeding on dung.

**stercoral pocket** (ARTHRO: Chelicerata) A dilated portion of the proctodeum of certain spiders in which fecal matter and excreta temporarily accumulate.

**stereoblastula** n. [Gr. *stereos*, solid; *blastos*, bud] An early, solid blastula *larva*, all of whose cells reach the external surface.

**stereogastrula** n. [Gr. *stereos*, solid; *gaster*, stomach] A general term for solid metazoan larvae.

**stereoisomer** n. [Gr. *stereos*, solid; *isos*, equal; *meros*, part] Different three-dimensional configurations of organic molecules that have different light rotational properties.

**stereokinesis** n. [Gr. *stereos*, solid; *kinesis*, movement] A reflex sensitivity inhibition due to passive contact stimuli; thigmotaxis.

**stereom(e)** n. [Gr. *stereos*, solid] 1. The rigid material of the invertebrate skeleton. 2. (BRYO: Stenolaemata) The extra-zooidal skeletal deposits, additions to structural skeleton, or to the vesicle roof skeleton.

**stereotaxis** n.; pl. **-taxes** [Gr. *stereos*, solid; *taxis*, arrangement] The directive response of an organism to contact with solids; thigmotaxis. *a.* Positive stereotaxis: toward the contact. *b.* Negative stereotaxis: away from the contact. **stereotactic** a.

**stereotropism** n. [Gr. *stereos*, solid; *tropos*, turn] A movement in direction determined by contact with a solid body. *a.* Positive stereotropism: toward contact. *b.* Negative stereotropism: away from contact. **stereotropic** a.

**sterile** a. [L. *sterilis*, unfruitful] Incapable of producing viable gametes.

**sterilization** n. [L. *sterilis*, unfruitful] 1. Rendering an animal incapable of reproduction. 2. Rendering a substrate free of organisms.

**sterinx** n. [Gr. *sterinx*, support] (ARTHRO: Crustacea) In Ostracoda, one of a pair of connecting pieces lateral to the tropis in the male copulatory apparatus.

**sterna** pl. of **sternum**

**sternacosta** n. [Gr. *sternon*, chest; L. *costa*, rib] (ARTHRO: Insecta) An internal transverse ridge connecting the bases of the sternal apophyses.

**sternacostal** suture (ARTHRO: Insecta) The external suture of the thoracic sternum through the apophyseal pits separating the basisternum from the sternellum.

**sternal** a. [Gr. *sternon*, chest] (ARTHRO: Insecta) Pertaining to the sternum.

**sternal apophyseal pits** (ARTHRO: Insecta) In higher insects, an external indentation marking the point of origin of the sternal apophysis.

**sternal apophysis** (ARTHRO: Insecta) One of a pair of lateral apodemal arms of the eusternum marked by pits joined by a *sulcus*, thus dividing the eusternum into a basisternum and a sternellum; in higher insects they arise in the midline and separate internally, forming the Y-shaped furca. see **pleural apophysis**.

**sternal canal** (ARTHRO: Crustacea) In Decapoda, an internal skeletal structure of some crabs formed by the meeting of the sternal apodemes from opposite sides of the body above the nerve cord; sternum canal.

**sternal coxal process** (ARTHRO: Insecta) 1. A projection of the sternum serving for the ventral point of articulation with the coxa. 2. In Culicidae, a winglike expansion of the meso- and metabasisterna; ventral process.

**sternal laterale** (ARTHRO: Insecta) A plate on each side of the sternum or presternum in some lower insects.

**sternal plastron** see **sternum**

**sternal process** (ARTHRO: Crustacea) In Mysidacea, a projection arising from the midsection of the sternite.

**sternal spatula** see **breastbone**

**sternal taenidium** (ARTHRO: Chelicerata) In Opilioacariformes, a surface canal in the sternal region of the podosoma ex-

tending from the coxal gland orifice, between coxae I and II, to the subcapitular gutter.

**sternal verrucae** (ARTHRO: Chelicerata) In Opilioacariformes, paired wart-like structures in the sternal region.

**sternannum** see **basisternum**

**sternapophysis** n. [Gr. *sternon*, chest; *apo-*, separate; *phyein*, to grow] (ARTHRO: Chelicerata) In Acari, protuberance (single, paired or three) in the sternal region of leg I.

**sternaulus** n.; pl. **-li**, **-lices** [Gr. *sternon*, chest; *aulos*, tube] (ARTHRO: Insecta) In ichneumonid Hymenoptera, a horizontal groove on the lower edge of the mesopleurum from the prepectal carina backwards, sometimes reaching the base of the middle coxa; the dividing line between the mesosternum and mesopleurum.

**sternellum** n. [Gr. dim. *sternon*, chest] (ARTHRO: Insecta) A part of the eusternum posterior to the sternacostal suture. **sternellar** a.

**sternite** n. [Gr. *sternon*, chest] (ARTHRO) The main ventral sclerite of a somite.

**sternopleural bristles** (ARTHRO: Insecta) In Diptera, bristles on the sternopleuron.

**sternopleurite** n. [Gr. *sternon*, chest; *pleuron*, side] (ARTHRO: Insecta) The ventral sclerite of the thoracic pleuron that articulates with the coxa and becomes fused with the sternum; a sternopleuron.

**sternopleuron** see **sternopleurite**

**sternum** n.; pl. **sterna** [Gr. *sternon*, chest] 1. (ARTHRO) The primary ventral portions of the somites, or the composite ventral sclerite of a segment. 2. (ARTHRO: Chelicerata) The sclerotized plate of spiders between the coxae marking the floor of the cephalothorax.

**sternum canal** see **sternal canal**

**sterols** n.pl. [Gr. *stereos*, solid] Alcohols of high molecular weight containing benzene-rings found in plants and animals.

**sterrasters** n. [Gr. *sterrhos*, solid; *aster*, star] (PORIF: Desmospongiae) Large centered, globular spicules with rays

reduced to small projections from the spherical surface.

**sterrula** n. [Gr. *sterrhos*, solid] (CNID: Anthozoa) A solid free-swimming larva of Alcyonaria; stereoblastula.

**stethidium** n. [Gr. *stethos*, breast] 1. (ARTHRO: Chelicerata) In Acari, the nonsclerotized prodorsum. 2. (ARTHRO: Insecta) The thorax and its appendages.

**stethosoma** n. [Gr. *stethos*, breast; *soma*, body] (ARTHRO: Chelicerata) In Acari, that part of the body from the circumcapitular furrow to the disjugal furrow; prosoma without the gnathosoma.

**Stewart's organs** (ECHINOD: Echinoidea) In cidaroids, coelomic pouches associated with Aristotle's lantern, functioning for interchange of gases.

**stichic** a. [Gr. *stichos*, row] Pertaining to a row parallel to the longitudinal axis.

**stichocyte** n. [Gr. *stichos*, row; *kytos*, container] (NEMATA: Adenophorea) An individual cell of a stichosome.

**stichosome** n. [Gr. *stichos*, row; *soma*, body] (NEMATA: Adenophorea) A longitudinal series of cells (stichocytes) that form the posterior esophageal glands.

**sticklac** n. [A.S. *sticca*, stick; Skr. *laksa*, lac] (ARTHRO: Insecta) Branches or twigs covered with the dried lac of scale insects. see **lac**.

**stigma** n.; pl. **stigmata** [Gr. *stigma*, mark] 1. A spiracle or breathing pore. 2. (ARTHRO: Chelicerata) In Acari, a sclerite surrounding a spiracle. 3. (ARTHRO: Insecta) *a.* A colored wing spot. see **monostigmatous**. *b.* In Odonata, a tickening of the wing membrane along the costal border near the apex. *c.* In Diptera, An apodeme at the base of the ventral surface of the postgenital lobe of female mosquitoes; basal median (longitudinal) apodeme; a sclerite surrounding a spiracle on a maggot. 4. (PLATY: Trematoda) In Schistosomatoidea, an operculum-like area of an eggshell through which the miracidium hatches.

**stigmal vein** (ARTHRO: Insecta) A short vein extending posteriorly from the costal margin of the wing; stigma.

**stigmatal field** (ARTHRO: Insecta) An area around the spiracles

of larvae; spiracular disk; respiratory disk. see **spiracular line**

**stigmatal line** see **spiracular line**

**stigmatal spine** (ARTHRO: Insecta) In larval Diptera, the extrusible structure (modified terminal spiracles) in the anal siphon.

**stigmatic cord** (ARTHRO: Insecta) In some larvae, a delicate cord running from the scar of a nonfunctional spiracle to an adjacent part of the tracheal system.

**stigmatic scar** (ARTHRO: Insecta) The mark on the surface made by the ecdysial tube after molting.

**stigmatiferous** a. [Gr. *stigma*, mark; L. *ferre*, to bear] (ARTHRO: Insecta) Bearing spiracles or stigmata.

**stigmery** n. [Gr. *stigma*, mark; *mergere*, to dive] (ARTHRO: Insecta) In social insects, the directing of work by individual colony members based on work previously accomplished as opposed to direct signals from nestmates.

**stimulus** n.; pl. **stimuli** [L. *stimulus*, a goad] Any change of external or internal conditions resulting in a change in the activities of an organism.

**sting apparatus** (ARTHRO: Insecta) In female Hymenoptera, the modified ovipositor of aculeates and many terebrantes, usually containing the venom gland and one accessory gland, the Dufour gland; others may sometimes be present: the Koshevnikov or Koshewnikow gland, the Bordas' gland, the sting sheath gland, or anal gland.

**sting autotomy** (ARTHRO: Insecta) In Hymenoptera, enlarged barbs on the sting apparatus that remain at the sting site; autothysis.

**stinging button** (CNID) A group of nematocysts on a jellyfish tentacle, especially the Portuguese man-of-war.

**sting sheath** (ARTHRO: Insecta) In Hymenoptera, the cover of the sting formed by the lateral halves of the third valvulae.

**sting sheath gland/sheath gland** (ARTHRO: Insecta) In Hymenoptera, a gland in the sting sheath valves of various bees, in the form of a high palisade gland epithelium beneath a strongly sclerotized strip on the outer sides of the

sheaths; function unknown.

**stipe** n. [L. *stipes*, a stem] 1. A stem or stalk-like appendage. 2. (ARTHRO: Crustacea) In Eucarida, a stemlike basal part of an appendage with sometimes squamate or other-shaped exopod, i.e., the second joint of the antenna-like appendage.

**stipes** n.; pl. **stipites** [L. *stipes*, a stem] 1. (ARTHRO: Chelicerata) The distal end of the embolus (copulatory organ) of spiders. 2. (ARTHRO: Diplopoda) The lateral lobes of the gnathochilarium. 3. (ARTHRO: Insecta) *a.* The second segment or division of a maxilla that bears endite lobes, the lacinia and galea on its inner apical angle and the telopodite (palpus) laterally; may be combined with basi-, disti-, etc. *b.* In Diptera, a rodlike structure located inside the head ventral to the tentorial arms. 4. (ARTHRO: Pauropoda) One of the three articles of the first *maxilla*, along with cardo and lacinia. 5. (ARTHRO: Symphylla) Two pairs of maxillae similar to those of insects, except lacking a joint separating the cardo and stipes.

**stipiform** a. [L. *stipes*, a stem; *forma*, shape] Resembling a stalk.

**stipital** a. [L. *stipes*, a stem] Pertaining to the stipe(s).

**stipple** n. [D. *stippelen*, to spot] Numerous circles or dots; shading effects produced by dots, circles or small marks.

**Stobbe's gland** (ARTHRO: Insecta) In Lepidoptera, paired multicellular aphrodisiac pheromone producing glands in the second abdominal segment of male noctuids.

**stock** n. [A.S. *stoccc*, stem, race] (ANN: Polychaeta) The sexual individuals from which other individuals arise asexually.

**stolon** n. [L. *stolo*, a branch] 1. (ANN) Individuals that are budded or fragmented asexually off of other individuals. 2. (BRYO: Stenolaemata) In Stolonifera, a tubular kenozooid or extension of an autozooid from which autozooids are budded. 3. (CNID: Anthozoa) A stem-like structure from which polyps arise. see **hydrocaulus**.

**stolonate** a. [L. *stolo*, a branch] Having stolons; stoloniferous.

**stoloniferan** n. [L. *stolo*, a branch; *ferre*, to bear] (BRYO: Stenolaemata) An autozooid budded from a single kenozo-

oid.

**stoma** n.; pl. **stomata** [Gr. *stoma*, mouth] 1. Any of various small, simple mouth openings of invertebrates. 2. (NEMATA) The mouth or buccal cavity, from the oral opening and usually includes the anterior end of the esophagus (=pharynx).

**stomach** n. [Gr. *stoma*, mouth] The digestive cavity of invertebrates.

**stomata** pl. of **stoma**

**stomatal** a. [Gr. *stoma*, mouth] Pertaining to the stoma.

**stomate** a. [Gr. *stoma*, mouth] 1. Bearing a mouth. 2. (ANN) A nephridium with a funnel; an open nephridium.

**stomatodaeum** see **stomodeum**

**stomatogastric** see **recurrent nerve, stomogastric nervous system**

**stomatostyle, stomatostylet** n. [Gr. *stoma*, mouth; *stylos*, pillar] (NEMATA: Secernentea) A stylet or protrusible hollow spear found in fungus feeding plant parasitic and insect parasitic nematodes of the suborders Tylenchina and Aphelenchina, presumed to have evolved from the walls of the stoma.

**stomatotheca** n. [Gr. *stoma*, mouth; *theke*, case] (ARTHRO: Insecta) That part of the pupal covering over the mouth structures.

**stomoblastula** n. [Gr. *stoma*, mouth; *blastos*, bud] (PORIF: Calcarea) A developmental period of the amphiblastula, when the blastula opens and ingests adjacent choanocytes.

**stomocnide** see **injector**

**stomodeal bridge** (ARTHRO: Chilopoda) A commissure that anteriorly connects the tritocerebral ganglia.

**stomodeal canal** (CTENO) Paired canals lying parallel to the stomodeum or pharynx; the pharyngeal canal.

**stomodeal feeding** (ARTHRO: Insecta) A mixture of salivary secretions and regurgitated intestinal contents received from another insect. see **proctodeal feeding**.

**stomodeal nervous system** see **stomatogastric sympha-**



**thetic nervous system****stomodeal valve** see **cardiac valve****stomodeum, stomodaeum** n. [Gr. *stoma*, mouth; *hodos*, way, road] The anterior ectodermal portion of the alimentary canal; the fore-intestine or foregut.**stomogastric nerve** see **recurrent nerve****stomogastric nervous system** (ARTHRO: Insecta) The nervous system directly connected to the brain, innervating the fore and middle intestine, heart and certain other parts; the esophageal nervous system; sympathetic system.**stone canal** (ECHINOD: Asteroidea) A vertical canal containing calcareous deposits in its wall, that descends to the oral side of the disc, joining a circular canal (the water ring) at the inner side of the ossicles that ring the mouth.**storage pots** (ARTHRO: Insecta) In Hymenoptera, containers constructed of cerumen for food storage by social bees; a honey pot.**strahl** n.; pl. **strahlen** [Ger. *strahl*, ray] A ciliary process, ray or barbule.**straight-hinge veliger** see **protostracum****strangulated** a. [L. *strangulare*, to strangle] Constricted; contracted; held in.**strata** pl. of **stratum****stratification** n. [L. *stratum*, a cover; *ficare*, to make] Act or process of being made up of layers.**stratum** n.; pl. **-ta** [L. *stratum*, a cover] 1. A layer of tissue or cells that compose an organ. 2. A group of organisms inhabiting a particular geographical area. 3. A layer of vegetation, usually at the same stage of development. 4. A layer of sedimentary rock or earth.**strepsilaematous** a. [Gr. *strepsis*, twisting; *laimos*, throat] Having a pharynx rotated along its length. see **euthylae-matous**.**streptasters** n.pl. [Gr. *strepsis*, twisting; *aster*, star] (PORIF) Short, spiny, microscleric monaxon spicules.**streptoneury** n. [Gr. *strepsis*, twisting; *neuron*, nerve] (MOLL:

Gastropoda) Equivalent to chiastoneury.

**stria** n.; pl. **striae** [L. *stria*, furrow] A groove or depressed line. striate a.**striation** n. [L. *stria*, furrow] A longitudinal ridge or furrow.**stricture** n. [L. *stringere*, to bind tight] A binding or contraction, as of a passage in a body.**stridulating organs** The impact of some part of the body against the substratum; friction method, rubbing two parts of the body together; vibrating membrane; sound produced by a pulsed air stream.**stridulation** n. [L. *stridere*, to make a creaking or grating noise] Any sound produced by a lower animal.**stridulatory** a. [L. *stridere*, to make a creaking or grating noise] Pertaining to or the nature of stridulation.**striga** n.; pl. **strigae** [L. *striga*, furrow] A narrow, transverse line or streak.**strigate** a. [L. *striga*, furrow] Marked with fine, closely set grooves.**strigil** n. [L. *strigilis*, scraper] (ARTHRO: Insecta) 1. A curved structure at the apex of the fore tibia of many insects that functions as a scraper, a tibial comb or antenna cleaner. 2. In some Hemiptera, a currycomb-like structure situated on the dorsal surface of the abdomen.**strigilation** n. [L. *strigilis*, scraper] (ARTHRO: Insecta) In Hymenoptera, licking secretions from the body of another animal.**strigilator** n. [L. *strigilis*, scraper] One who licks the surface of another to collect secretions from the body.**strigose** a. [L. *striga*, furrow] Covered with strigae; marked with fine, closely set grooves.**strigose ventral areas** (ARTHRO: Insecta) In Hemiptera, the inner side of the hind tibiae containing wart-like tubercles, each bearing a subapical tooth; rubbing against the femur produces an audible sound.**strigula** n.; pl. **-ulae** [L. *striga*, furrow] A fine, short transverse mark or line.

- strike** n. [OE. *strican*, to stroke, level out] (ARTHRO: Insecta) The deposition of Diptera eggs or larvae on a living host.
- string reef** (MOLL: Bivalvia) Oysters crowded into a long, narrow accumulation.
- striola** a. [L. dim. *stria*, furrow] Finely impressed parallel lines.
- stripe** n. [MD. *strijp*, stripe] A longitudinal color marking.
- strobila** n.; pl. **-lae** [Gr. *strobilos*, anything twisted, pine cone] 1. An organism, or stage of an organism, from which successive annular disc embryos bud off. 2. (CNID: Scyphozoa) A scyphistoma larva of a jellyfish consisting of ephyrae. 3. (PLATY: Cestoda) A tapeworm, consisting of *scolex*, 'neck', immature, mature and usually gravid proglottids.
- strobilation, strobilization** n. [Gr. *strobilos*, anything twisted, pine cone] 1. The formation of a chain of body segmentation into zooids. 2. (CNID: Scyphozoa) The ephyrae of jellyfish. see **monodisk, polydisk**. 3. (PLATY: Cestoda) The proglottids.
- strobilocercoid** n. [Gr. *strobilos*, anything twisted, pine cone; *kerkos*, tail; *eidos*, like] (PLATY: Cestoda) In Schistotaenia, a cysticeroid that undergoes some strobilation.
- strobilocercus** n. [Gr. *strobilos*, anything twisted, pine cone; *kerkos*, tail] (PLATY: Cestoda) A simple cysticeroid with evidence of strobilation.
- stroma** n.; pl. **stromata** [Gr. *stroma*, bed] Connective tissue framework of an organ.
- strombiform** a. [Gr. *strombos*, a top, a spiral shell; L. *forma*, shape] (MOLL: Gastropoda) Roughly biconical, with expanded outer lip; said of the shell of Strombus.
- stromboid notch** (MOLL: Gastropoda) In Strombus, a curve or notch in the outer lip, above the anterior notch.
- strongylaster** n. [Gr. *strongylos*, rounded; *aster*, star] (PORIF) A star-shaped spicule with small center and rays with rounded edges.
- strongyle** n. [Gr. *strongylos*, rounded] 1. (NEMATA: Secernentea) A common name for the order Strongylida. 2. (PORIF) A diactinal monaxon (spicule) rounded at both ends.

- strongyloxea** n. [Gr. *strongylos*, rounded; *oxys*, sharp] (PORIF) A monactinal megasclere with one end rounded and the other pointed.
- strophe** n. [Gr. *strophos*, twisted] (ARTHRO: Insecta) In males of higher Diptera, spiral curling of parts of the postabdomen into a protected position at rest.
- structural colors** Colors resulting from structure rather than pigment.
- structural gene** Any gene that determines the structure of a polypeptide through the production of messenger RNA.
- structure** n. [L. *structus*, build] Any organ, appendage or part of an organism.
- struma** n.; pl. **-ae** [L. *struma*, scrofulous tumor] (ARTHRO: Insecta) In most Coccinellidae larvae, distinct tubercles of the body wall bearing spines. **strumose** a.
- stupeous** a. [L. *stupa*, coarse fiber of flax or hemp, tow] Covered with fiber-like filaments.
- stupulose** a. [L. *stupa*, coarse fiber of flax or hemp, tow] Covered with coarse decumbent hairs.
- stylamblys** see **appendix interna**
- stylete** a. [Gr. *stylos*, pillar] With a style; stylelike.
- style, stylus** n.; pl. **styli** [Gr. *stylos*, pillar] 1. (ARTHRO: Chelicerata) The embolus of spiders. 2. (ARTHRO: Crustacea) see **telson**. 3. (ARTHRO: Insecta) *a.* Any slender, tubular or spinelike appendage at the end of the abdomen. *b.* In some Diptera, a bristlelike process at the terminal segment of the antenna. 4. (BRYO: Stenolaemata) A general term for a rodlike skeletal structure forming a spinose projection on the zoarial surface; canaliculus; stylet. see **acanthopore**. 5. (CNID: Hydrozoa) A calcareous projection. 6. (MOLL) see **crystalline style**. 7. (PORIF) A monactinal spicule dissimilar at the two ends. **stylete** a.
- style sac** (MOLL) The posterior conical region of the stomach, lined with cilia, but devoid of chitin.
- stylet** n. [Gr. *stylos*, pillar] 1. Any small rigid bristle or needlelike appendage or organ. 2. (ARTHRO: Crustacea) see **caudal ramus**. 3. (ARTHRO: Insecta) One of the piercing

structures in the sucking mouth parts; the shaft of the ovipositor. 4. (BRYO: Stenolaemata) A rodlike skeletal structure oriented almost perpendicular to the zoarial surface and parallel to the zooecia. 5. (CNID) The large, lowermost thorn on the hampe (butt) of a stenotele nematocyst. 6. (NEMATA) A sclerotized, usually hollow, structure used for feeding, releasing secretions and entering plants and animals (Arthropoda); a spear. see **stomatostyle**, **odontostyle**. 7. (NEMER) A nail-shaped structure on the end of the proboscis that typically reaches 50–200  $\mu$ m, used in the capture of prey.

**stylet extension** see **odontophore**

**stylet knobs** (NEMATA) Various thickenings (apodemes) at the base of the stylet, usually 3 in number, that serve as attachment points for the protractor muscles. see **basal knobs**.

**styletocytes** n.pl. [Gr. *stylos*, pillar; *kytos*, container] (NEMER) Large epithelial cells in which the stylets are formed.

**stylet sac** see **trophic sac**

**stylet sheath** (ARTHRO: Insecta) In aculeate Hymenoptera, the dorsal part of the terebra.

**styli** pl. of **style** and **stylus**

**styliferous** a. [Gr. *stylos*, pillar; L. *fero*, bear] Having one or more styli.

**styliform** a. [Gr. *stylos*, pillar; L. *forma*, shape] Shaped like a style or stylet; formed of parallel-sides and a pointed apex.

**styliger plate** (ARTHRO: Insecta) In Ephemeroptera, a sclerite on the posterior portion of sternum 9, variable in shape, which on the posterior margin gives rise to a pair of slender and usually segmented appendages called forceps or claspers; a subgenital plate.

**stylocerite** n. [Gr. *stylos*, pillar; *keras*, horn] (ARTHRO: Crustacea) A rounded or spiniform process on the outer part of the proximal segment of the antennular peduncle; antennular scale.

**styloconic sensilla** see **sensillum styloconicum**

**stylode** n. [Gr. *stylos*, pillar; *eidōs*, like] (ANN: Polychaeta) A

small, longer than wide, projection on the parapodium.

**styloid** a. [Gr. *stylos*, pillar; *eidōs*, like] Long and slender; beilonoid; aciform.

**stylopization** n. [Gr. *stylos*, pillar; *ops*, eye] (ARTHRO: Insecta) The endoparasitism by the coleopterous female Strepsiptera (*Stylops*), of other insects; stylopized.

**stylose** a. [Gr. *stylos*, pillar] Bearing a style or several styli.

**stylostome** n. [Gr. *stylos*, pillar; *stoma*, mouth] (ARTHRO: Chelicerata) In acarid Trombiculidae, a hard, tube-like structure formed by the host's tissues under the influence of secretions by the feeding mites.

**stylote** a. of style

**stylus** n.; pl. **styli** [Gr. *stylos*, pillar] Style; stylet; a short slender, fingerlike process.

**subalar sclerite** (ARTHRO: Insecta) A sclerite behind the pleural process into which wing movement muscles are inserted.

**subalternate** a. [L. *sub*, under; *alternus*, alternate] Not quite opposite, yet not regularly alternate.

**subanal lobe/appendage** see **catoprocess**

**subanal scale** see **anal scale**

**subantennal groove** (ARTHRO: Insecta) In Diptera, a facial groove that facilitates the scape.

**subantennal ridge** (ARTHRO: Insecta) In Diptera, the inner supporting ridge of the subantennal suture of Culicidae.

**subantennal suture** (ARTHRO: Insecta) 1. Sutures ventral to the antennal socket. 2. In Culicidae larvae, a short line laterally below the antennal prominence, associated with the subantennal ridge.

**subapical lobe** (ARTHRO: Insecta) In the genitalia of male Culicidae, a mesal lobe found at or distal to the middle of the gonocoxite.

**subaportoma** n. [L. *sub*, under; Gr. *apo*, from; *tormos*, socket] (ARTHRO: Insecta) In Scarabaeoidea larva, a heavily sclerotized process extending forward from the subtorma on each side medially of the longitudinal row of

inwardly directed, closely set, phobae of the hypopharynx.

**subapterous** see **brachypterous**

**subassociation** n. [L. *sub*, under; *ad*, to; *socius*, companion] This term has been used by various authors as a substitute for the term association when not in agreement with the definition: a group assemblage of organisms, in a specific geographical area with one or two dominant species.

**subbasal** a. [L. *sub*, under; Gr. *basis*, base] Just distad of the base.

**subbiramous** a. [L. *sub*, under; *bis*, two; *ramus*, branch] (ANN: Polychaeta) Parapodia in which the notopods are reduced and neuropods are well developed.

**subbranchial** a. [L. *sub*, under; Gr. *branchia*, gills] Beneath the gills.

**subbranchial region** (ARTHRO: Crustacea) In Brachyura, the ventral part of the carapace beneath the gill area.

**subcapitular** a. [L. *sub*, under; *capitalis*, relating to the head] (ARTHRO: Chelicerata) In Acari, pertaining to the ventral surface of the infracapitulum.

**subcapitular apodeme** (ARTHRO: Chelicerata) In Acari, a sclerotized continuation of the mentum internally, to which several tendons are attached.

**subcapitular gutter** (ARTHRO: Chelicerata) In anactinotrichid Acari, the median taenidium on the ventral surface of the infracapitulum; the deutosternum.

**subcarina** n. [L. *sub*, under; *carina*, keel] (ARTHRO: Crustacea) In Lepadomorpha, a small, unpaired plate below the carina.

**subcarinate** a. [L. *sub*, under; *carina*, keel] Shaped like a shallow keel.

**subcastes** n.pl. [L. *sub*, under; *castus*, pure] (ARTHRO: Insecta) In Hymenoptera, the various forms of mature Formicidae of a caste. see **major worker**, **media worker**, **minor worker**.

**subcellular** a. [L. *sub*, under; *cellula*, small cell] Applies to organelles in a cell.

**subcephalic** a. [L. *sub*, under; Gr. *kephale*, head] (NEMATA)

Located posterior to the cephalic region.

**subcerebral glands** (ROTIF) Paired glands of the retrocerebral organ/sac.

**subchela** n. [L. *sub*, under; Gr. *chele*, claw] (ARTHRO: Crustacea) The distal end of a limb developed as a prehensile structure by the folding back of a dactyl against the propodus or widest part of it; may arise from propodus folded back against the carpus; gnathopod.

**subchelate** a. [L. *sub*, under; Gr. *chele*, claw] 1. (ARTHRO) Having an appendage in which the terminal podomere that can fold back like a pincer against the subterminal podomere. 2. (ARTHRO: Crustacea) Provided with subchela.

**subclass** n. [L. *sub*, under; *classis*, division] In classification, a major subdivision of a class, comprised of related orders.

**subclimax** n. [L. *sub*, under; Gr. *klimax*, ladder] 1. The stage preceding the climax in a complete sere. 2. A geographically smaller area than that of a 'climax'.

**subclypeal pump** see **cibarial pump**

**subclypeal tube** see **pseudotrachea**

**subcolony** n. [L. *sub*, under; *colonia*, farm] (BRYO: Stenolaeamata) A functional grouping within a colony, in which the skeletons may or may not be of the same structure.

**subcosta** n. [L. *sub*, under; *costa*, rib] (ARTHRO: Insecta) A longitudinal vein between the costa and the radius.

**subcoxa** n. [L. *sub*, under; *coxa*, hip] 1. (ARTHRO) A secondary proximal subdivision of the coxopodite. 2. (ARTHRO: Crustacea) see **precoxa**.

**subcoxal pleurites** 1. (ARTHRO: Insecta) Sclerites that are separated primitively or fused, that form the pleural support for the coxa. 2. (ARTHRO: Chilopoda) Small, variously shaped sclerites associated with the bases of the coxa.

**subcutical** n. [L. *sub*, under; *cutis*, skin] (ARTHRO: Insecta) Newly secreted basal cuticle whose granular ultrastructure shows microfibrils that have not undergone orientation.

**subdentate** a. [L. *sub*, under; *dens*, tooth] Small teeth or notches.

**subdiscal/subdiscoidal vein** (ARTHRO: Insecta) The wing vein forming the posterior margin of the third discoidal cell.

**subdorsal** a. [L. *sub*, under; *dorsum*, back] Pertaining to the sector between the dorsal and lateral surface. **subdorsal** n.

**subdorsal keel/plate** see **dorsal plates**

**subdorsal line** (ARTHRO: Insecta) In caterpillars, a subdorsal longitudinal line between dorsal and lateral; if addorsal line present, between it and the lateral line.

**subdorsal ridge** (ARTHRO: Insecta) In some Hymenoptera caterpillars, an elevated longitudinal line along the subdorsal row of abdominal tubercles.

**subesophageal body** (ARTHRO: Insecta) A number of large binucleate cells in the body cavity closely associated with the inner end of the stomodeum in Orthoptera, Plecoptera, Isoptera, Mallophaga, Coleoptera and Lepidoptera.

**subesophageal ganglion** The nerve plexus below the esophagus.

**subfamily** n. [L. *sub*, under; *familia*, family] A category of the family group containing related tribes or genera, and ending in -inae.

**subfossorial** a. [L. *sub*, under; *fossor*, digger] Adapted for digging.

**subgalea** n. [L. *sub*, under; *galea*, helmet] (ARTHRO: Insecta) An inner sclerite of the maxillary stipes; parastipes; sometimes fused with the lacinia or merged into the stipes.

**subgenal areas** (ARTHRO: Insecta) The narrow lateral marginal areas of the head set off by the subgenal sulcus above the mandibles and maxillae.

**subgenal ridge** (ARTHRO: Insecta) A submarginal structure on the inner surface of the head arising from the subgenal sulcus.

**subgenal sulcus** (ARTHRO: Insecta) The lateral suture below the gena, and above the base of the mandibles and maxillae.

**subgeneric name** see **subgenus**

**subgenital plate** (ARTHRO: Insecta) A platelike sternite that underlies the genitalia, usually in the 9th abdominal sternum in males, and 7th or 8th in females; in some ichneumonid Hymenoptera, the 7th sternite in males, the 6th in females; vulvar lamina.

**subgenual organ** (ARTHRO: Insecta) A cordotonal organ situated in the proximal part of the tibia; when a two-part organ, the one more proximal is known as the "true subgenual organ."

**subgenus** n.; pl. **subgenera** [L. *sub*, under; *genus*, tribe] The name of an optional category between the genus and species; capitalized and placed in parentheses following the genus name.

**subhepatic carina** (ARTHRO: Crustacea) In Decapoda, a narrow ridge extending posteriorly from the branchiostegal spine.

**subhepatic region** (ARTHRO: Crustacea) In Decapoda, that part on the ventral surface of the carapace below the hepatic region, bounded by the pterygostomial and suborbital regions.

**subimago** n. [L. *sub*, under; *imago*, image] (ARTHRO: Insecta) In Ephemeroptera, the first of two winged instars after it emerges from the water surface, or underwater. **subimaginal** a.

**subjective synonym** Two or more synonyms based on different types, but recognized as referring to the same taxon by taxonomists who hold them to be synonyms.

**subliminal** a. [L. *sub*, under; *limen*, threshold] A stimulus insufficient or inadequate to illicit a perceptible response. see **liminal**.

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

**sublittoral, sublittoral zone** 1. A lake bottom too deep for rooted plants to grow. 2. In oceans, a zone from the intertidal zone to the end of the continental shelf.

**submalleate** a. [L. *sub*, under; *malleus*, hammer] (ROTIF) A modified malleate mastax.

**submargin** n. [L. *sub*, under; *margo*, margin] (MOLL: Bivalvia)

One of the dorsal edges of the shell body which adjoins the lower border of the auricle in Pectinacea.

**submarginal** a. [L. *sub*, under; *margo*, edge] Placed within the margin.

**submarginal area** (ARTHRO: Insecta) In the hind wings, a section between the anterior (costal) margin and the first strong vein.

**submarginal cell** (ARTHRO: Insecta) In Hymenoptera, one or more cells just behind the marginal cell.

**submarginal striae** see **proplegmatium**

**submarginal tubercles** (ARTHRO: Insecta) In Coccidae, round tubercles, when present, variable in number, surrounding a central invaginated tube, occurring in the dorsal submarginal area of the body.

**submarginal vein** (ARTHRO: Insecta) In Chalcidoidea, a vein just behind and paralleling the costal margin of the wing.

**submedia** see **second axillary**

**submedian cell** (ARTHRO: Insecta) In Hymenoptera, a cell behind the median cell, in the basal posterior of the wing.

**submedian denticle** (ARTHRO: Crustacea) In Stomatopoda, the small projection(s) just laterad of the midline on the terminal margin of the telson (medial to submedian teeth).

**submedian groove** (ARTHRO: Crustacea) In Decapoda, a longitudinal groove in the submedian dorsal part of the carapace, contiguous with the postrostral carina.

**submedian lobes** (NEMATA: Secernentea) In the superfamily Criconematoidea in Tylenchina, the paired, reduced, strongly modified subdorsal and subventral lips.

**submedian tooth** (ARTHRO: Crustacea) In Stomatopoda, the strong spinelike or blunt projection just laterad of the midline on the terminal margin of the telson.

**submentum** n. [L. *sub*, under; *mentum*, chin] (ARTHRO: Insecta) 1. The basal sclerite of a labium. 2. In some Coleoptera, a distinct sclerite defined by a suture intervening between the mentum and the gula; in others, has also been applied to the undifferentiated anterior margin of the gula. **submental** a.

**submentapleural carina** (ARTHRO: Insecta) In certain Hymenoptera, the lower margin of the lower division of the mesopleurum, between the bases of the middle and hind coxae.

**subneural** a. [L. *sub*, under; Gr. *neuron*, nerve] Under the central nervous system or ventral nerve cord.

**subocular sulcus** (ARTHRO: Insecta) In smaller Ichneumoniidae, a sharp groove extending from the base of the eye to the mandibular socket.

**suboesophageal** see **subesophageal**

**suborbital region** (ARTHRO: Crustacea) In Brachyura, a narrow region bordering the lower margin or orbit.

**suborbital spine** (ARTHRO: Crustacea) In a decapod carapace, a spine slightly below and posterior to the middle of the orbit.

**subphylum** n. [L. *sub*, under; Gr. *phyle*, tribe, race] A major subdivision in classification between phylum and class.

**subquadrangle** n. [L. *sub*, under; *quadri-*, four; *angulus*, angle] (ARTHRO: Insecta) In odonatan Zygoptera, a cell just behind the quadrangle.

**subradular organs** (MOLL: Polyplacophora) Two eversible pads, probably of chemoreceptive function, at the base of the subradular sac.

**subradular sac** (MOLL: Polyplacophora) A blind sac of the posterior wall of the buccal cavity containing cushion-shaped sensory structures (subradular organs) hanging from the roof.

**subrostrum** n. [L. *sub*, under; *rostrum*, beak] (ARTHRO: Crustacea) In Lepadomorpha Cirripedia, a single plate below the rostrum.

**subscaphium** n. [L. *sub*, under; *scaphium*, hollow vessel] (ARTHRO: Insecta) In male Lepidoptera, a ventral sclerotization of the genitalia, below the anus; gnathos.

**subscutellum** n. [L. *sub*, under; dim. *scutum*, shield] (ARTHRO: Insecta) In some Diptera, especially Tachinidae, the anterior region of the mediotergite differentiated as a convex, transverse ridge or lobe; often called postscutellum.

- subsocial** n. [L. *sub*, under; *socius*, companion] (ARTHRO: Insecta) Applied to adults caring for their young for some period of time. see **presocial**.
- subsocias** n.pl. [L. *sub*, under; *socius*, companion] A term used by various authors when there is disagreement as to the definition of the word associates.
- subspecies** n. [L. *sub*, under; *species*, kind] A subdivision of a species inhabiting a geographic subdivision of the range of the species and differing taxonomically from other populations of the species.
- substitute** see **supplementary reproductive**
- substitute king** see **supplementary reproductive**
- substitute name** A name proposed to replace a preoccupied name that assumes the same type and type-locality.
- substrate** n. [L. *sub*, under; *stratum*, bed] 1. A substance on which an enzyme acts. 2. see **substratum**.
- substrate race** A local race selected by nature to have a similarity of coloration with that of the substratum.
- substratum** n.; pl. **substrata** [L. *sub*, under; *stratum*, bed] The ground or other surface in or upon which organisms live, walk, crawl or are attached.
- subsume** n. [L. *sub*, under; *sumere*, to take] To include under; to put under another as belonging to it, i.e., in zoological classification.
- subtegular ridge** (ARTHRO: Insecta) A transverse ridge near the upper edge of the mesopleurum, below the tegula and base of the front wing.
- subtegulum** n. [L. *sub*, under; *tegulum*, covering] (ARTHRO: Chelicerata) In Arachnida, one of the sclerotized plates that protect the hematodocha of the male palpal organ of some spiders.
- subtorma** n. [L. *sub*, under; Gr. *tormos*, socket] (ARTHRO: Insecta) In Coleoptera, the heavily sclerotized, transverse, curved process of certain Scarabaeoidea larvae, located near the proximal border of the hypopharynx.
- subtriangle** n. [L. *sub*, under; *tri*, three; *angulus*, angle] (ARTHRO: Insecta) In Odonata Anisoptera, A cell or group of

cells in the wing behind the triangle.

- subtribe** n. [L. *sub*, under; *tribus*, tribe] In classification, a rank below the tribe and above the genus.
- subtylostyle** n. [L. *sub*, under; Gr. *tylos*, knot; style, pillar] (PORIF) 1. A monactinal megasclere with a sub-apical expansion. 2. A tylostyle with an indistinct knob at one end and pointed at the other. see **tylostyle**.
- subulate** a. [L. *subula*, awl] Shaped like an awl; slender and tapering to a point, with sides convex.
- subumbrella** n. [L. *sub*, under; dim. *umbra*, shade] (CNID) The concave oral surface of a medusa or jellyfish. see **exumbrella**.
- subventral esophageal glands** (NEMATA) Esophageal salivary glands lying in the subventral sectors of the posterior esophagus.
- subvibrissal setae/setulae** (ARTHRO: Insecta) In Diptera, the setae/setulae along the anteroventral margin of the gena.
- succession** see **sere**
- succinct** a. [L. *sub*, under; *cingere*, to gird] Compact; contracted; reduced.
- succursal nest** (ARTHRO: Insecta) In social insects, a resting or hiding place constructed by workers, but not qualifying as a true nest due to the absence of brood rearing.
- sucker** n. [A.S. *sucan*, to suck] An organ creating a vacuum, utilized by various invertebrates for locomotion, ingesting or holding food, or adhering to the substrate.
- suctorial** a. [L. *sugere*, to suck] Having vacuum organs; adapted for sucking.
- suffused** a. [L. *suffusus*, to pour beneath] To overspread, as with fluid or color; to cover the surface. **suffusion** n.
- sugent, sugescent** a. [L. *sugere*, to suck] Suctorial.
- sulcate** a. [L. *sulcus*, furrow] Having a groove or furrow.
- sulci** n.pl. [L. *sulcus*, furrow] (ARTHRO: Insecta) Grooves of a purely functional origin, such as strengthening ridges of the head.
- sulciform** a. [L. *sulcus*, furrow; *forma*, shape] Being groove-

like or groove-shaped.

**sulculus** n. [L. dim. *sulcus*, furrow] (CNID: Anthozoa) In diglyphic Actiniaria, having the second, sometimes small, siphonoglyphs situated at the dorsal end of the pharynx. see **sulcus**.

**sulcus** n.; pl. **sulci** [L. *sulcus*, furrow] 1. A furrow, groove or fissure. 2. (ARTHRO: Insecta) A suture formed by an infolding of the body wall. see **sulci**. 3. (BRACHIO) The major depression of the valve surface, externally concave in transverse profile and radial from the umbo. 4. (CNID: Anthozoa) A groove leading into the gullet. see **siphonoglyph**. 5. (MOLL: Bivalvia) The radial depression of the shell surface.

**sulcus, radial posterior** (MOLL: Bivalvia) A groove that sets off the posterior flange from the main shell body.

**sulcation** n. [L. *sulcus*, furrow] 1. Scored by furrows or grooves. 2. Encircled by channels.

**summer egg** A thin-shelled, rapidly developing egg; tachyblastic. see **winter egg**.

**summit** n. [L. *summum*, the highest point] 1. The apex; the top. 2. (MOLL: Bivalvia) The highest dorsal point of the shell profile when the cardinal plane is horizontal.

**superclass** n. [L. *super*, over; *classis*, a division] In classification, above the class and below the phylum.

**superfamily** n. [L. *super*, over; *familia*, family] In classification, above the family and below the order.

**superfemale** see **metafemale**

**superficial epicuticular layer** see **cerotegument**

**supergenus** n. [L. *super*, over; *genus*, race] In classification, above the genus and below the family.

**superior appendages** (ARTHRO: Insecta) In Odonata, lateral movable, paired appendages on the 9th or 10th abdominal segment; well developed in the males, reduced or vestigial in females.

**superior hemiseptum** see **proximal hemiseptum**

**superlinguae** n.pl. [L. *super*, over; *lingua*, tongue] (ARTHRO: Insecta) The two lateral lobes of the hypopharynx of

adults; paragnath.

**supermale** n. [L. *super*, over; dim. *mas*, male] (ARTHRO: Insecta) Abnormal male with one x-chromosome for 3 sets of autosomes in *Drosophila*.

**supernumerary crossveins** (ARTHRO: Insecta) Crossveins added to the normal number.

**supernumerary segment** (ARTHRO: Insecta) In Cecidomyidae Diptera, a segment intercalated between the head and the prothorax.

**supero-marginal plates** (ECHINOD: Asteroidea) Upper marginal plates that form the outline of the arm of sea-stars. see **infero-marginal plates**.

**superoptimal stimuli** Sensory stimuli reponse stronger than the natural stimuli for which the response had been selected.

**superorder** n. [L. *super*, over; *ordo*, order] In classification, a group below class and above order.

**superorganism** n. [L. *super*, over; Gr. *organon*, organ] A colony of social organisms, or organisms and their environment, of interdependent relationships which may be studied as though they were a single organism.

**superposed** a. [L. *super*, over; *ponere*, to place] Placed one upon another; superimposed; placed directly over some other part.

**superposition eye** (ARTHRO) In nocturnal or crepuscular arthropods, an eye that permits the passage of light through the non-pigmented wall of one ommatidium to the iris of a neighboring one; an adaptation to protect sensitive photoreceptors from overstimulation during the day; clear-zone eye. see **apposition eye**.

**superposition image** (ARTHRO) A less distinct but brighter image due to the lens system focusing the light to the retina. see **mosaic image**.

**supersedure** n. [L. *super*, over; *sedere*, to sit] (ARTHRO: Insecta) In Hymenoptera, the replacement of an old or sick queen by a new queen in a honeybee colony.

**superspecies** n. [L. *super*, over; *species*, kind] A monophyletic



group of mainly or entirely allopatric species that are morphologically too different to be included in a single species or are reproductive isolates; an artenkreis.

**supertribe** n. [L. *super*, over; *tribus*, tribe] In classification, below the subfamily and above the tribe.

**supplement** n. [L. *supplere*, to fill up] 1. (ARTHRO: Insecta) In Odonata, an adventitious vein formed by a number of crossveins lining up to form a continuous vein behind and more or less parallel to one of the main longitudinal veins. 2. (NEMATA) Various sized, often paired, papilliform sensory nerve terminations in the male ventral caudal area; genital papillae.

**supplementary organs** (NEMATA) Secondary sexual characteristics along the body of male nematodes either sensory or glandular. see **supplement**.

**supplementary reproductive** (ARTHRO: Insecta) In Isoptera, a queen or male, in the form of adultoid, nymphoid or ergatoid, that take over as a functional reproductive after the removal of the primary reproductive of the same sex.

**supporting walls** (BRYO) Zooidal walls that support orificial walls.

**supra** adv. [L. *supra*, above] In scientific terms, a prefix, denoting above or higher; on the dorsal side; opposite to infra.

**supra-alar bristles** (ARTHRO: Insecta) In Diptera, a longitudinal row of bristles on the lateral portion of the mesonotum, above the root of the wing.

**supra-anal** see **superior appendages**

**supra-anal hook** see **uncus**

**supra-anal opening** (MOLL: Bivalvia) The opening of the excurrent canal.

**supra-anal pad** (ARTHRO: Insecta) The reduced epiproct, below the posterior of the tenth tergum.

**supra-anal plate** (ARTHRO: Crustacea) In Notostraca, usually tongue-shaped, but may be spatulate to rounded, plate situated posteriorly on the dorsal side of the telson.

**supra-apical foramen** (BRACHIO) A pedicle foramen in the

ventral umbo away from the apex of the delthyrium.

**suprabranchial** a. [L. *supra*, above; Gr. *branchia*, gills] (MOLL) Above the gills.

**supracerebral glands** see **pharyngeal glands, lateral**

**supracheliceral limbus** (ARTHRO: Chelicerata) In Acari, an extension of part of the tegulum above the chelicera of Gamasida.

**supraclypeal area** see **postclypeus**

**supraesophageal ganglion** (ARTHRO) The brain; the nerve mass above the esophagus.

**supraneural pore** see **coelomopores**

**supraneuston** n. [L. *supra*, above; Gr. *neustos*, able to swim] Small animals living on the surface film of water.

**supraorbital carina** see **gastroorbital carina**

**supraspecific** a. [L. *supra*, above; *species*, kind] Applied to a category or evolutionary phenomenon above the species level.

**suprasquamal ridge** (ARTHRO: Insecta) In Diptera, a ridge between the base of the lower calypter to the anterolateral angle of the scutellum.

**supratidal** a. [L. *supra*, above; A.S. *tid*, time] Pertaining to the ocean; above the high tide mark; a subdivision of the neritic zone.

**supratympanal organ** see **subgenual organ**

**suranal** a. [L. *supra*, above; anus] Above the anus; supra-anal.

**suranal plate** (ARTHRO: Insecta) A heavily sclerotized area on the dorsum of the last abdominal segment; a plate or lobe dorsad of the anus; epiproct; anal plate. see **ectoproct**.

**surface ornamentation** (MOLL: Bivalvia) A regular relief pattern on the surface of many shells.

**surface pheromone** A pheromone active only on or very close to the body; contact or near contact must be made.

**surface tension** Surface film on liquids caused by cohesion of the molecules of the liquid at the free surface.

**surpedal area or lobe** (ARTHRO: Insecta) In Hymenoptera, a lobe or area just above the prolegs and below and behind the spiracle on the abdomen of Symphyta larvae; suprapedal area; postepipleurite.

**surstyli** n.pl.; sing. **-lus** [L. *supra*, over; Gr. *stylos*, pillar] (ARTHRO: Insecta) In Diptera, paired appendages of the ninth abdominal tergite (epandrium); suprastyli.

**suspensor** n. [L. *sub*, under; *pendere*, hang] 1. (ARTHRO: Insecta) In Hymenoptera, a structure composed of carton or wax attaching the comb nests of bees and wasps. 2. (NEMATA: Adenophorea) Muscles associated with the spicules, enclosing the distal part of the spicules of Paratrichodorus and other males in Diphtherophorina.

**suspensorium** n.; pl. **-ria** [L. *sub*, under; *pendere*, to hang] 1. Anything that suspends a part. 2. (ARTHRO: Insecta) *a.* In Blattoidea, a pair of linear sclerites extending toward the lateral mouth angle on each side of the proximal half of the hypopharynx. *b.* In Coleoptera, extends from the adoral face upwards to end in the lateral walls of the stomodeum; fultura. *c.* Suspensory ligaments that insert into the body wall or dorsal diaphragm suspending developing ovaries in the hemocoel.

**suspensory fold of the Schwann cell** see **mesaxon**

**suspensory muscles** see **dilator**

**sustentacular cells** Supporting cells of organs as differentiated from the cells that provide the function of the organ.

**sustentor/sustentator** n. [L. *sustinere*, to sustain] (ARTHRO: Insecta) One of two hooks on the posterior part of a butterfly pupa; cremaster.

**sutural angle** see **sutural slope**

**sutural edge** (ARTHRO: Crustacea) In Cirripedia, the margin of the compartmental plate along the suture.

**sutural laminae** (MOLL: Polyplacophora) Apophyses plates; anterior plate-like projections of the articulamentum extending from either side of an intermediate or tail valve; may be separated by a sinus or partially joined by a laminar extension of the articulamentum.

**sutural plate** (MOLL: Polyplacophora) Lamina of the articulamentum across the jugal sinus of the intermediate and tail valve, extending between the sutural laminae.

**sutural shelf** (MOLL: Gastropoda) A horizontally flattened band that may contact the adapical suture of the whorls.

**sutural sinus** see **jugal sinus**

**sutural slope** (MOLL: Gastropoda) An angle between the suture and plane perpendicular to the axis; sometimes equated to the sutural angle.

**suture** n. [L. *sutura*, seam] 1. Line of junction of 2 parts generally immovably connected. 2. (ARTHRO: Crustacea) In Cirripedia, a line or seam at the juncture of two compartmental plates; weakly calcified areas of the integument for separation at ecdysis. 3. (ARTHRO: Insecta) Grooves marking the line of fusion of two former plates; a narrow membranous area between sclerites; line of juncture of elytra in Coleoptera. 4. (MOLL: Gastropoda) The continuous spiral line on the shell surface where whorls adjoin. **sutural a.**

**swarming** n. [A.S. *swearm*, swarm] (ARTHRO: Insecta) In social insects: *a.* The departure of a queen and workers from the parental nest to establish a new colony of highly eusocial bees. *b.* In ants and termites, often applied to the mass departure of reproductive forms from the nests at the beginning of the nuptial flight.

**swimmeret** n. [A.S. *swimman*, to swim] (ARTHRO: Crustacea) An abdominal appendage functioning as a swimming organ; pleopod.

**swimming bell** (CNID) Any bell or umbrella-shaped cnidarian that moves through the water by contractions, especially Siphonophora; nectocalyx; nectophore.

**swimming plate** (CTENO) A short ridge bearing large fused cilia, arranged in eight meridional rows that function in locomotion.

**switch gene** The gene influencing the epigenotype to switch to a different developmental pathway.

**sycon** n. [Gr. *sykon*, fig] (PORIF) A sponge in which the choanocyte layer shows folding accompanied by superficial thickening of the mesohyl.

- syllleibid** n. [Gr. *syllektos*, gathered together] (PORIF) An aquiferous system transitional between syconoid and leuconoid conditions, with elongate choanocyte chambers grouped around a common exhalant channel.
- sylvan, silvan** a. [L. *sylva, silva*, forest] Pertaining to or inhabiting the forests or woodland areas.
- sylvatic, silvatic** a. [L. *sylva, silva*, forest] In disease ecology, a parasite existing normally in the wild and not in the human environment. see **synanthropism**.
- symbiology** n. [Gr. *symbiosis*, life together; *logos*, discourse] The study of symbioses.
- symbion(t)** n. [Gr. *symbiosis*, life together; *on*, being] Any organism that exists in a relationship of mutual benefit with another organism; a symbiote.
- symbiosis** n. [Gr. *symbiosis*, life together] 1. The mutually beneficial living together of individuals of two different species. 2. Interrelationship of different species of organisms, ranging from beneficial, to neutral, to debilitating. **sym-biotic** a. see **mutualism, commensalism, parasitism**.
- symbiote** n. [Gr. *symbiosis*, life together] An organism living in symbiosis; symbiont.
- symmetry** n. [Gr. *symmetria*, due proportion] The mode of body organization. **symmetrical** a. see **bilateral symmetry, radial symmetry**.
- sympathetic system** 1. That portion of the autonomic nervous system directly connected with the brain and innervating the fore and middle intestine, heart and certain other parts. 2. (ARTHRO: Insecta) see **stomogastric nervous system, ventral sympathetic nervous system**.
- sympatric hybridization** The production of hybrid individuals between two sympatric species.
- sympatric speciation** Speciation with geographic isolation; the reproductive isolation occurring between segments of a single population.
- sympatry** n. [Gr. *syn*, together; *patria*, native country] The occurrence of two or more populations in the same area; usually referring to areas of overlap in species distributions.

**sympatric** a.

- symphele** n. [Gr. *syn*, together; *philein*, to love] (ARTHRO: Insecta) A symbiont that is accepted by a host colony as a member of their group and is licked, fed, protected, transported or even reared with the host's own larvae; a true guest.
- symphele** n. [Gr. *syn*, together; *philein*, to love] (ARTHRO: Insecta) In Hymenoptera, the relationship of ants and their nest guests, that abide with them, with mutual benefit or fondness; commensalism. **symphele, symphelous** a.
- symphele** a. [Gr. *symphysis*, junction, seam; *notos*, back] (MOLL: Bivalvia) Having the valves firmly fixed or soldered at the hinge.
- symphysis** n. [Gr. *symphysis*, junction, seam] A union between two parts.
- symplesiomorphy** n. [Gr. *syn*, together; *plesios*, near; *morphe*, form] Shared primitive homologous character states; normally used in cladistic taxonomy. see **plesiomorphy**.
- sympod, sympodite** see **protopod**
- symptomatology** n. [Gr. *symptoma*, anything that has befallen one; *logos*, discourse] A branch of medical science concerned with symptoms of diseases.
- synanthropism** n. [Gr. *syn*, together; *anthropos*, man] The propensity of an organism to live in or around human dwellings.
- synapomorphy** n. [Gr. *syn*, together; *apo*, separate; *morphe*, form] The sharing of derived characters by several species. see **plesiomorphy**.
- synapse, synaptic junction, neurosynapse** The central mechanism of intercommunication of nerve impulses passing from neuron to neuron. **synaptic** a.
- synapsis** n.; pl. **-ses** [Gr. *synapsis*, union] The intimate conjunction of homologous chromosomes that occurs during the prophase of the meiotic division.
- synaptene** n. [Gr. *synapsis*, union] The zygotene of meiosis.
- synaptic junction** see **synapse**

- synaptic knobs** Swellings on the axon ends where contact is made with dendrites of another nerve cell.
- synapticulum** n.; pl. **-la** [Gr. *synapsis*, union] (CNID) One of numerous conical or cylindrical calcareous processes connecting the septa. **synapticular** a.
- synaptinomal complex** Organelle present during pachytene stage of eukaryote meiosis visible in electron micrographs.
- synaptorhabdic** a. [Gr. *synapsis*, union; *rhabdos*, rod] (MOLL: Bivalvia) Pertaining to ctenidia where filaments are connected at their interlamellar edges by strands of cellular tissue; organic interfilamentary junctions. see **eleutherorhabdic**.
- synaptychus** n. [Gr. *syn*, together; *apo-*, away from; *ptychos*, fold] (MOLL: Cephalopoda) Double calcareous plates fused with other paired plates. see **anaptychus**.
- syncerebrum** n. [Gr. *syn*, together; L. *cerebrum*, brain] The supraesophageal ganglia or brain of many invertebrates.
- synchronic speciation** Speciation that occurs at the same time level. see **allochronic speciation**.
- synchronizer** n. [Gr. *syn*, together; *chronos*, time] An environmental factor that influences the phenomena of circadian rhythm to conform to a daily cycle instead of wandering.
- synclerobiosis** n. [Gr. *syn*, together; *keros*, chance; *bios*, life] (ARTHRO: Insecta) In Hymenoptera, a temporary association of two species of ants of independent colonies.
- synconoid grade** (PORIF) A grade of construction intermediate between the asconoid and the leuconoid, in which each radial canal is subdivided into elongate-flagellate chambers grouped around a common excurrent channel. see **leuconoid grade**, **asconoid grade**.
- syncyte** n. [Gr. *syn*, together; *kytos*, container] A polyploid or multinucleate cell.
- syncytium** n.; pl. **syncytia** [Gr. *syn*, together; *kytos*, container] A continuous mass of protoplasm with several or many nuclei; a multinucleate cell. **syncytial** a.
- syndesis** n. [L. *syndesis*, a binding together] 1. Binding to-

- gether. 2. Synapsis. 3. A membrane connecting two separate parts permitting movement between them.
- syndiacony** n. [Gr. *syn*, together; *diakonos*, servant] (ARTHRO: Insecta) A form of commensalism between ants and plants with both obtaining benefit.
- syndrome** n. [Gr. *syn*, together; *dramein*, to run] Signs and symptoms characteristic of a particular disease.
- synecete** see **synoekete**
- synechthran** n. [Gr. *syn*, together; *echtos*, hate] An insect guest that is persecuted by its host, and manages to stay alive by greater speed and agility or the use of defensive mechanisms; an animal engaged in synechthry. see **metochy**.
- synechthry** n. [Gr. *syn*, together; *echtos*, hate] The relationship between a symbiont, generally a scavenger, parasite or predator, that is treated in a hostile manner by the host; metochy.
- synecology** n. [Gr. *syn*, together, *oikos*, household; *logos*, discourse] The relationship of populations and communities to biotic factors in the environment. see **autecology**.
- synectic** a. [Gr. *syn*, together; *nektikos*, habitual] Pertaining to cells that retain their relative position during gastrulation.
- synergism** n. [Gr. *synergos*, associate] The cooperative action of two entities to effect a greater difference than both together, i.e., hormones, parasites, muscles. **synergistic** a.
- syngamy** n. [Gr. *syn*, together; *gamos*, marriage] 1. Union of male and female gametes following fertilization to form a zygote; gametogamy; hylogamy. see **pseudogamy**. 2. Permanent union of both female and male reproductive units; male element sometimes greatly reduced and parasitic in the female.
- syngensis** n. [Gr. *syn*, together; *genesis*, beginning] 1. Reproduction between two sexually dimorphic parents; sexual reproduction. 2. The theory that the germ of the offspring is derived from both parents, not from either alone.
- syngenic** see **isogenic**
- syngonic** a. [Gr. *syn*, together; *gone*, seed] The production of

both sperm and eggs by the same gonad; hermaphroditic reproduction. see **digonic**, **amphigonic**.

**synhaploid** n. [Gr. *syn*, together; *haploos*, single] A condition derived from the fusion of two or more haploid nuclei. see **double haploid**.

**synhemia** n. [Gr. *syn*, together; *hesmos*, swarm] A group of organisms swarming together in consequence of a reproductive drive. see **androsynhemia**, **gnosynhemia**.

**synistate** a. [Gr. *syn*, together; *histos*, tissue] (ARTHRO: Insecta) In Neuroptera, referring to the ligula being reduced to the condition of a median and sometimes slightly bilobed process, or totally atrophied.

**synizesis** n. [Gr. *syn*, together; *hizein*, to sit] The clumping of chromosomes in early prophase of the first meiotic division; may be either normal or abnormal.

**synkaryon** n. [Gr. *syn*, together; *karyon*, nucleus] A zygote nucleus formed by fusion of two gametic nuclei.

**synlophe** n. [Gr. *syn*, together; *lophos*, crest] (NEMATA: Secernentea) In numerous Trichostrongylidae, an enlarged longitudinal or oblique cuticular ridge on the body surface that serves to hold the nematodes in place on the gut wall.

**synoecius**, **synoecious** a. [Gr. *synoikos*, living in the same house] Producing both male and female gametes.

**synoecy** n. [Gr. *synoikos*, living in the same house] 1. Commensalism involving social insects where the guests are indifferently tolerated by the hosts. 2. An association between two species where one is benefited without harm to the other. see **symphily**, **synechthry**.

**synoekete** n. [Gr. *synoikos*, living in the same house] A tolerated guest of a host colony.

**synoenocytes** n. [Gr. *syn*, together; *oenos*, wine colored; *kytos*, container] (ARTHRO: Insecta) In dipteran Chironomidae, localization of oenocytes as distinctive organs.

**synomone** n. [Gr. *syn*, together; *omone*, mimics the ending of hormone] A chemical substance produced or acquired by an organism, that upon contact with an individual of another species, evokes a behavioral or physiological re-

sponse favorable to both emitter and receiver. see **allelochemic**.

**synonyms** n.pl. [Gr. *syn*, together; *onyma*, name] In nomenclature, two or more names for the same taxon. see **senior**, **junior**, **objective**, **subjective synonym**. **synonymous** a.

**synonymy** n. [Gr. *syn*, together; *onyma*, name] A chronological list of scientific names applied to a given taxon, including dates of publication and authors of the names.

**synopsis** n.; pl. **-es** [Gr. *syn*, together; *opsis*, view] In taxonomy, a general summary of current knowledge of a group.

**synoptic** a. [Gr. *syn*, together; *opsis*, view] Pertaining to structures that upon comparison, are virtually identical.

**synoptical key** The arrangement of the more essential characters in order to identify specific taxa by selecting only those that apply.

**synscleritous** a. [Gr. *syn*, together; *skleros*, hard] (ARTHRO) The joining of a tergite and a sternite to form a complete ring. see **discleritous**.

**syntagma** see **tagma**

**syntelic** a. [Gr. *syn*, together; *telos*, fulfillment] In mitosis, centromeres of the two chromatids of each chromosome if they are oriented to the same spindle pole at the first meiotic division.

**synthesis** n.; pl. **-ses** [Gr. *syn*, together; *titheni*, to place] The formation of a more complex substance from simpler ones.

**synthetic** a. [Gr. *syn*, together; *titheni*, to place] Combining the structural characters of two or more dissimilar groups or forms into one group or form.

**synthetic lethals** Lethal chromosomes derived from normally viable chromosomes by crossing over.

**synthetic theory** The evolutionary theory, with mutation and selection as the basic elements.

**synthorax** n. [Gr. *syn*, together; *thorax*, chest] (ARTHRO: Insecta) The meso- and metathorax fused as a single unit of wing-bearing insects; pterothorax.

**syntrophy** n. [Gr. *syn*, together; *trophon*, food] (ARTHRO: Insecta) In social insects, the accidental feeding of symphiles or synoeketes during normal brood care.

**syntype** n. [Gr. *syn*, together; *typos*, type] Every specimen in a type-series in which no holotype or lectotype was designated.

**syntypic** a. [Gr. *syn*, together; *typos*, type] Referring to the same type.

**synxenic** a. [Gr. *syn*, together; *xenos*, guest] The rearing of one or more individuals of a single species along with one or more known species of organisms. see **axenic**, **dixenic**, **monoxenic**, **polyxenic**, **trixenic**, **xenic**.

**synzoea** n. [Gr. *syn*, together; *zoe*, life] (ARTHRO: Crustacea) In Malacostraca, pelagic juvenile stages of Stomatopod larvae.

**syringe** see **salivary pump**

**syringium** n. [Gr. *syrix*, pipe] (ARTHRO: Insecta) 1. The salivary pump in Hemiptera. 2. An organ for ejecting disagreeable fluids in some insect larvae.

**systematics** n.pl. [Gr. *syn*, together; *histani*, to place] Taxonomy.

**systematist** n. [Gr. *syn*, together; *histani*, to place] A student of taxonomy.

**systole** n. [Gr. *systole*, contraction] The contraction of any contractile cavity, i.e., the heart. **systolic** a. see **diastole**.

**syzygy** n.; pl. **syzygies** [Gr. *syzygos*, united] 1. The combining of organs without loss of identity. 2. (ECHINOD: Crinoidea) Having each nodal columnal closely and rigidly jointed to the internodal columnal below it by short elastic fibers, and as such lacking flexibility.