

A Computerized Dictionary of Entomology

A Computer Database

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SAMPLE ENTRIES

Note: Numbers in brackets are code numbers for computerized cross-references (precursors of modern-day hyperlinks).

A1) A

Ay

Symbol

In a wing, any of typically 3 anal veins [a133], labeled (from front to back): "1A," "2A," and "3A". Unlike other major longitudinal veins [l103], the anal veins are typically unbranched.

In a wing, a corresponding anal cell [a117], located just behind and named for one of these anal veins: "1A," "2A," or "3A".

A2) A-

Ay-

Prefix

Indicating not or without; as in acephalous [a12], alecithal [a80], ametabolous [a102], apneustic [a224], apterous [a242], asexual [a276], or asymmetrical [a285]. See also in- [i13] and pseud- [p443], and compare eu- [e167].

A3) ABDOMEN

AB-duh- (ab-DOH-) (ub-DOH-) -mun

Noun, plural: ABDOMENS or ABDOMINA ["ab-DOM-uh-nuh"]

In general, the posterior (rearmost) tagma [t9] (body region). See the conceptual index to The Abdomen for terms describing specific topics relating to this tagma in insects and the comparable tagmata in other arthropods, each of which is composed of the ancestral pygidium [p496]—the periproct [p74], bearing the anus (Compare prostomium [p416])—fused with several of the true segments [s80] of the ancestral trunk (generated one-by-one ahead of the pygidium).

In an insect, the posterior of the 3 major divisions of the body; the division behind the head [h29] and the thorax [t91], containing most of the major internal organs [o76] and consisting of 11 or fewer segments (the 10th and 11th typically much reduced or modified). The first 7 segments of the abdomen bear paired appendages only in the immature stages of various orders (gills [g56], filaments [f30], or prolegs [p388]) or in the adult stages of apterygotes [a245] (styli [s349], collophores [c206], etc.) or Odonata (genitalia [g36]). The 8th and 9th segments bear the genitalia in most orders of insects. The 10th segment may bear an epiproct [e132], cerci [c85], or paraprocts [p26] (all remnants of the degenerate 11th

segment). The generalized abdomen of an insect is presumably derived from the 8th through 18th segments behind the head plus the pygidium of an ancestral arthropod (See segment [s80]); however, this number of segments is often much reduced in modern forms (By contrast, in some embryonic insects as well as in adult proturans, so-called half-insects [h11], the abdomen contains 12 segments [s80], the last actually the periproct). The abdomen is occasionally called the metasoma [m126] (Compare mesosoma [m109]) or the gaster [g13], although this latter term is better reserved for that portion of the abdomen of an ant behind the pedicel [p53] (the "wasp-waist").

In a chelicerate, the posterior of the 2 major divisions of the body (behind the cephalothorax [c82], or prosoma [p414]), often appearing unsegmented (as in spiders) and typically with few or no paired appendages; also called the opisthosoma [o62]; presumably derived from the 7th through 18th segments behind the head plus the periproct of an ancestral arthropod.

In a typical crustacean, the posterior of the 2 major divisions of the body (behind the cephalothorax [c82], or prosoma [p414]), segmented (as in the "tail" of a lobster) and sometimes (in amphipods, isopods, and especially decapods) bearing such paired, typically unleglike appendages as gonopods [g84], swimmerets [s440], and uropods [u22] as well as a single telson [t42]; also called opisthosoma [o62]; presumably derived from the 13th through 18th segments behind the head plus the periproct of an ancestral arthropod.

A4) ABDUCTOR

ab-DUK-tur (-Tor)

Noun, plural: ABDUCTORS or ABDUCTORES ["Ab-Duk-TOR-eez"]

Any muscle whose contraction pulls a movable body part away from the midline of the body or from the centerline of an appendage [a235]. See also extensor [e200], protractor [p436], and promotor [p394] as well as levator [l75]; and compare adductor [a36], flexor [f54], and retractor [r95] as well as depressor [d36].

A5) ABSORPTION

ub- (ab-) -SORP- (-ZORP-) -shun

Noun, plural: ABSORPTIONS

Penetration of a substance into an object, as said of digested foodstuffs being absorbed in the midgut [m155] of an insect, pesticides [p88] being absorbed through the exoskeleton [e196] (protected by the waxy epicuticle [e108]) of a pest, or gases being absorbed through the body wall [b111] of an aquatic insect (See gill [g56]). Compare adsorption [a49] as well as holocrine secretion [h87] and merocrine secretion [m77].

A6) ACARICIDE

uh-KARE-uh-Side

Noun, plural: ACARICIDES

A pesticide [p88] that kills (or otherwise controls) mites and/or ticks; typically synonymous with miticide [m173].

A7) ACCESSORY CELL

ik- (ak-) (uk-) -SES-ree (-uh-ree) Sel

Noun, plural: ACCESSORY CELLS

In many Lepidoptera, a closed cell [c173]

(typically the R₂ cell [r₁] ["2" is a subscript]) between 2 fused branches of the radius [r₁₃] (that is, just in front of the tip of the discal cell [d₈₈] in the forewing).

In general, any atypical cell [c₇₀] in a wing.

A8) ACCESSORY GLAND

ik- (ak-) (uk-) -SES-ree (-uh-ree) Gland

Noun, plural: ACCESSORY GLANDS

In the reproductive system of a male insect, each of the pair of mucous glands [m₂₂₁], derived either from the ectoderm [e₁₈] (forming an ectadenium [e₁₆]) or mesoderm [m₉₉] (forming a mesadenium [m₈₇]), that typically open into upper end of the ejaculatory duct [e₃₅] (where it meets the lower ends of the vasa deferentia [v₁₁]) and secrete the fluid that serves as semen [s₉₃] (to carry the spermatozoa) or hardens into a spermatophore [s₂₂₅] (a sperm capsule). See also conglobate gland [c₂₄₆] as well as corpus allatum [c₂₈₀].

In the reproductive system of a female insect, each of the pair of glands, derived from the ectoderm, that typically open into the posterior end of the vagina [v₁] (or on the underside of the 9th segment of the abdomen, between the bases of the second valvifers [v₄]) and secrete a substance that "glues" eggs to a substrate or to one another or that hardens into an ootheca [o₅₂] (an egg case); also called colleterial gland [c₂₀₅] (particularly if secreting a "gluey" substance). Note that some accessory glands are modified as stink glands [s₃₁₂]; others (such as the acid gland [a₁₆] of a bee sting [b₄₈]), as venom [v₂₁] glands.

A9) ACCESSORY HEART

ik- (ak-) (uk-) -SES-ree (-uh-ree) Hart

Noun, plural: ACCESSORY HEARTS

Any of various membranous, typically saclike and valved, pulsating organs found by the base of the antennae, wings, or legs or within the legs of various insects and augmenting the circulatory powers of the true heart [h₃₂], by pumping blood [b₁₀₅] into these appendages (including into the veins [v₁₄] of the wing); also called pulsatile organ [p₄₇₈] or pulsating membrane [p₄₇₉].

A10) ACCESSORY VEIN

ik- (ak-) (uk-) -SES-ree (-uh-ree) Vane

Noun, plural: ACCESSORY VEINS

In general, any secondary branch of a longitudinal vein [l₁₀₃] in a wing (Ex. Cu_{1a} [c₃₃₅] ["1a" is a subscript] or Cu_{1b} ["1b" is a subscript], each of which is an end branch of Cu₁ ["1" is a subscript], the first branch of Cu [c₃₃₅]). Compare adventitious vein [a₅₅], including supplement [s₄₁₅] and spurious vein [s₂₆₇], and intercalary vein [i₈₆]—none of which is a branch of an existing longitudinal vein.

In Symphyta (primitive Hymenoptera), the longitudinal vein running along the rear side of a lanceolate cell [l₂₈] in the fore- and hind-wings. Although this vein (also called the lanceolate vein [l₂₉] or subanal vein [s₃₅₄]) may be termed the most posterior vein in the anal area of the wing [a₁₁₆] (and designated "2A" or "3A," according to different interpretations), the

axillary vein [a313] actually lies more posteriorly.

A11) ACCIDENTAL PARASITISM

Ak-suh-DENT-ul PARE-uh-Sy- (-sih-) -Tiz-um
Noun, plural: ACCIDENTAL PARASITISMS

Incidental parasitism [i20].

A12) ACEPHALOUS

ay-SEF- (AY-sef-) (uh-SEF-) -uh-lus
Adjective

Without a (well-defined) head [h29], said of various larvae, particularly maggots [m9]. Compare eucephalous [e168] and hemicephalous [h41].

A13) ACEROUS

ay-SEER-us (AY-Seer-us)
Adjective

Without antennae [a166], said of proturans (half-insects [h11]). Compare brachycerous [b129].

A14) ACETYLCHOLINE

uh-SET-ul- (AA-suh-Teel-) -KOH- (-KAW-)
-leen
Noun, plural: ACETYLCHOLINES

Biochemical substance that carries nerve impulses [n34] across various synapses [s449] (the gaps between neurons [n60] or between neurons and effectors [e27]), in insects, other animals, and human beings; targeted for interference by many chemical pesticides [p88], acting as nerve-poisons (See

acetylcholinesterase [a15]).

A15) ACETYLCHOLINESTERASE

uh-See-t-ul-Koh- (-Kaw-) -Leen-ES-tuh-Rase (-Raze)
Noun, plural: ACETYLCHOLINESTERASES

The enzyme in the body of insects, other animals, and human beings that breaks down acetylcholine [a14], which transmits nerve impulses [n34] across various synapses [s449] (between neurons [n60] or between neurons and effectors [e27]); also called cholinesterase [c125]. Such pesticides as carbamate insecticides [c35] and organophosphate insecticides [079], such stimulating drugs as cocaine and caffeine, or such neurotoxins [n64] as the venoms [v21] of various arthropods act as anticholinesterases [a207], nerve poisons that interfere with the action of acetylcholinesterase—the targeted (or accidentally poisoned) creature typically goes into convulsions, as its nerves continue to "fire", out of control. See also tonus [t109].

A16) ACID GLAND

AA-sid Gland
Noun, plural: ACID GLANDS

The main venom [v21] gland of a bee sting [b48], secreting apitoxin [a223]; the venom sac (which, with the alkaline gland [a90], remains attached to the barbed sting, inserted into the victim, even if a worker [w36] bee tears itself away—see altruism [a98]).

A17) ACONE EYE

AY-Koan I
Noun, plural: ACONE EYES

A compound eye [c233] without (well-developed) crystalline cones [c331], as in a crane fly. Compare eucone eye [e169], exocone eye [e189], and pseudocone eye.

A18) ACRAEIN

uh-KREE-un

Noun, plural: ACRAEINS

A defensive secretion [d16] of various butterflies (of Lepidoptera) that is distasteful to predators [p328] (probably primarily birds) or is otherwise protective. See also aposematic [a233] as well as mimicry [m165].

A19) ACRO-

Ak-roh- (-ruh-)

Prefix

Indicating highest, uppermost, outermost; as in acrosternite [a21], acrostichal bristle [a22], or acrotrophic egg tube [a24]. See also dorso- [d127], epi- [e104], hyper- [h151], not- [n82], super- [s403], supra- [s418], and -vertical [v51]; and compare -base [b22], basi- [b24], hypo- [h149], hypo- [h159], infra- [i34], pedi- [p52], -podium [p213], stern- [s290], sub- [s350], and ventr- [v25] as well as latero- [l49] and pleuro- [p190].

A20) ACRON

AA-Kron (-krun)

Noun, plural: ACRONS

Prostomium [p416].

A21) ACROSTERNITE

Ak-roh-STUR-Nite

Noun, plural: ACROSTERNITE

The narrow flange lying just behind the intersegmental membrane [i99] but just in front of the (transverse) antecostal suture [a163] in the sternum [s302] (the sclerotized underside) of a body segment in various arthropods, as in each segment in the abdomen typical of insects. Compare poststernite [p304] and acrotergite [a23] as well as presternum [p347] and spinasternum [s238], and see also secondary segmentation [s67].

A22) ACROSTICHAL BRISTLE

uh-KROS-tik-ul BRIS-ul

Noun, plural: ACROSTICHAL BRISTLES

In muscoid flies (higher Diptera), each of the many small bristles [b141] in one to several rows running along the midline of the mesonotum [m101] (and, thus, just to the inside of the dorsocentral bristles [d128]).

A23) ACROTERGITE

Ak-roh-TUR-Jite

Noun, plural: ACROTERGITES

The small to large flange lying just behind the intersegmental membrane [i99] but just in front of the (transverse) antecostal suture [a163] in the tergum [t62] (the sclerotized upperside) of a body segment in various arthropods. Compare posttergite [p305] and acrosternite [a21], and see secondary segmentation [s67] and postnotum [p296].

A24) ACROTROPHIC EGG TUBE

Ak-roh-TRAW- (-TROH-) -fik Eg (Ayg) Toob

(Tyob)

Noun, plural: ACROTROPHIC EGG TUBES

An egg tube [e34] (within an acrotrophic ovariole [a25], as in certain plant bugs, beetles, and fleas) whose trophocytes [t180] (nurse cells [n97]) lie in the (upper) end chamber [e58] (the germarium [g45]) and provide nutrition to the oocytes [o49] (eggs developing in the vitellarium [v73], or zone of growth [z3]) via "nutritive cords" (protoplasmic connections between oocytes and trophocytes produced from the division of the same oogonium [o50]); also called telotrophic egg tube [t40]. Compare polytrophic egg tube [p254]—the other type of meroistic egg tube [m78]—as well as panoistic egg tube [p12], and see also apical cell [a220] (in some male insects).

A25) ACROTROPHIC OVARIOLE

Ak-roh-TRAW- (-TROH-) -fik oh-VARE-ee-Ole

Noun, plural: ACROTROPHIC OVARIOLES

An ovariole [o91] with an acrotrophic egg tube [a24].