

Parasitology Glossary

Term	Definition
Aberrant Host	One in which the parasite cannot complete its development or appropriate phase of its development. A dead end host form which it cannot continue its life cycle.
Abnormal Host	This term implies that the host is not the usual one. In this broad sense there are two kinds of abnormal hosts, accidental and aberrant. We prefer to use one or the other of these two terms because they carry more precise meaning.
Abopercular End	In eggs having an operculum, the opposite end is referred to as the “abopercular end.”
Accidental Host	A host in which the parasite is not commonly found, nevertheless it is one suitable for the parasite's development. In some instances (e.g. cysticercosis) the accidental host becomes a "dead end" because even though the parasite develops through its appropriate stages, it fails to find a portal of exit and is thus blocked from continuing its life cycle.
Acetabulum	A muscular organ of attachment, commonly called a "sucker", usually associated with the scolex of tapeworms.

Term	Definition
Active Transmission	This may take either of two forms: (1) When an animate vector is involved, the vector itself seeks out the host and brings to it the parasite, as in African trypanosomiasis. (2) When an active, aggressive parasite is involved, the parasite itself seeks out the host and enters it, as in schistosomiasis.
Adult Stage	The stage that is sexually mature and in which procreation occurs.
AIDS	Acquired immune deficiency disease; a condition resulting from infection with one of a particular group of viruses (see HIV) in which the immune system does not function to prevent or reduce the effects of various disease entities.
Alternate Host	One which alternates with another in the life cycle of a parasite; snails and man are alternate hosts of schistosomes.
Alternation of Generations	This describes the life cycle of a species in which two or more different forms occur in successive generations, one sexual, the other asexual.
Amitotic Division	Nuclear division by constriction without the formation of chromosomes yielding two equal nuclei.
Asexual Reproduction	Reproduction without the formation and fusion of gametes, usually male and female. Formation of new individuals by any nonsexual means, e.g. binary fission, budding, schizogony, et al.

Term	Definition
Autoinfection	Reinfection by a parasite derived from within the host and which is not exposed to the outside environment.
Axoneme (rhizoplast)	In flagellates, an internal fibril arising from a blepharoplast and passing through the cytoplasm. An axoneme may leave the body of the flagellate with a small sheath of cytoplasm to become a flagellum or run along the surface of the body lifting the periplast (cell membrane) to form an undulating membrane.
Axostyle	A rod-like structure that gives rigidity to the bodies of some flagellates, e.g. <i>Trichomonas</i> spp.
Basal Granule	In ciliates, the granule-like body from which each cilium arises. Comparable to the blepharoplast from which a flagellum arises.
Behavior	The branch of science that deals with the way a species reacts or responds to a variety of stimuli.
Binary Fission	Reproduction by division of an individual into two individuals each a duplicate of the other. Division by which two equal and similar individuals are formed e.g. amoeba (<i>Entamoeba histolytica</i>). Division may be transverse, e.g. ciliates (<i>Balantidium coli</i>) or longitudinal e.g. flagellates (<i>Trypanosoma gambiense</i>). It usually occurs in the free-living state but may occur in the encysted state where several divisions may occur within a single cyst, e.g. <i>E. histolytica</i> produces four daughter amoebae in the cyst stage. Division may be either amitotic or mitotic.

Term	Definition
Binuclear	A cell having two nuclei.
Biologic Vector	A living obligate host in which the parasite undergoes morphologic change and/or multiplication. There are three classes of biologic vectors: (1) Propagative in which the parasite multiplies but does not undergo morphologic change, (2) Cyclopropagative in which the parasite undergoes cyclic, morphologic changes and also multiplies,(3) Cyclodevelopmental in which the parasite undergoes cyclic morphologic change, but does not multiply.
Biome	Large terrestrial regions characterized by similar climate, soil, and living things
Blepharoplast	A small granule-like body, usually appearing in the cytoplasm, from which an axoneme arises. Axonemes may form rod-like structures in the cytoplasm, cilia, or flagella.
Bothrium	A sucker (organ of attachment) in the form of a groove on the scolex of tapeworms e.g. Diphyllbothrium latum.
Buccal Cavity	In nematodes, the mouth chamber that joins the mouth opening with the esophagus. This structure used for differentiating juvenile worms of Strongyloides and hookworms.

Term	Definition
Budding	Reproduction by which a new individual unlike the parent is produced. The new individual formed may grow and develop to be the same as the parent as occurs in some free-living protozoa or may develop into a different morphological form in some species, e.g. in trematodes; cercariae develop from the germinal layer within a sporocyst and emerge from the sporocyst as free-living cercariae.
Caecum (Cecum)	A sac-like extension of the intestine that is open only at one end. Similar to a diverticulum. Seen in organisms with a true intestine, e.g. nematodes and arthropods.
Cell Membrane	The superficial, resistant, outer membrane of the cell formed by the ectoplasm, the periplast.
Cephalic Gland	In trematodes, the gland in a miracidium that produces a fluid which enables the miracidium to penetrate the tissues of its snail host. A penetration gland.
Cephalic Gland Duct	The duct that carries penetration fluid from the gland to the tissue of the host.
Cercaria	The free-swimming larva of a trematode (usually possessing a tail) which escapes from a sporocyst or redia generation within the intermediate, molluscan host and constitutes the transfer stage to the next host.

Term	Definition
Cercomer	In a tapeworm embryo, the caudal vestige of the onchosphere, containing six hooklets.
Chaparral	Characterized by thicket type vegetation in East and South Africa, West Australia, Chile, small part of California and Mediterranean area. Mainly drought resistant shrubs.
Charcot-Leyden crystals	A slender crystal, pointed at both ends, formed from the breakdown products of eosinophils usually following some type of immune response.
Chitinous Shell	The hard shell of nematode eggs lined with the vitelline membrane which encases the embryo.
Chromatin	The darkly-staining portion of the nucleus forming a network of nuclear material within the achromatin of the nucleus, sometimes adhering to the inner surface of the nuclear membrane (see Peripheral chromatin). The portion of the nucleus containing the DNA.
Chromatoid Bar or Body	A bar, rod, or splinter- shaped body in the cytoplasm of an ameba that stains darkly and resembles chromatin.
Chromatoid Basal Rod	The rod-like structure that forms the base of the undulating membrane of flagellates.

Term	Definition
Cilia	Minute, axial fibrils that arise from granules in the ectoplasm of Mastigophora (ciliates) and function in locomotion.
Cirrus	The retractile muscular organ at the outer end of the male reproductive system of species of Platyhelminthes.
Coenurus	A larval cystic stage of a tapeworm containing an inner germinal layer producing multiple scolices within a single cavity (e.g. in <i>Multiceps multiceps</i>).
Commensal	An association, usually an obligate one, in which an organism lives on or in another, usually larger organism (the host) and derives its nourishment from the host organism without causing damage to the latter.
Commensalism	A symbiotic relationship between organisms of different species in which one, the commensal, is obligated to derive its nourishment from the other, its host, but in no way does it deprive or damage its host.
Community	A group of animals and plants living together within an ecosystem.

Term	Definition
Concentration (method)	A procedure for increasing the strength of or numbers in a medium e.g. 10% acid is more concentrated than 5% acid. A method or procedure that increases the intensity or numbers within a medium usually by reducing the volume of the medium or some component of it. A procedure carried out on a fecal specimen that increases the number of organisms found in a given unit over examination of a similar size unit before concentration.
Contaminated Source	Something, soil, water, an object, or anything that is in contact with feces and may be the source of an infective agent or organism. An organism may or may not cause disease.
Contamination	The general meaning of this term is clear in that it refers to feces in the context of parasitic disease, however, it should be remembered that a contaminated object is not necessarily infective in as much as the parasite may not be in its infective stage.
Contractile Vacuole	In <i>Balantidium coli</i> and many free-living protozoa, especially ciliates, a vacuole that is associated with removing liquid wastes from the body of the organism. In living ciliates, the contractile vacuole near the surface of the protozoa can be seen to fill with clear fluid, then by sudden contraction, discharge the fluid through the surface of the body then to disappear, only to reappear in the same place as a small vacuole that begins to fill again.
Coprozoic or Coprophagous	Literally this means living in or found in feces. Often it is applied to a spurious parasite, one that has been ingested and passed through the intestinal tract without infecting man.

Term	Definition
Coracidium	In pseudophyllidian tapeworms, the onchosphere enclosed in its ciliated embryophore after hatching from the egg shell. It is free-swimming, and is the precursor of the first stage larva (proceroid) of pseudophyllidian tapeworms.
Cortex	An outside layer e.g. cortex of the kidney. In helminths, the outer, mammillated coating of an egg of <i>Ascaris lumbricoides</i> .
Costa	In flagellates, a rib-like body; the chromatoid basal rod supporting the base of an undulating membrane.
Crustacea	A class of arthropods (phylum Arthropoda) composed of crustaceans. Any of a group of aquatic animals having hard shells, jointed bodies and appendages, and gills for breathing (e.g. crabs, shrimp, copepods).
Crustacean	Any of a group of aquatic arthropods having a hard exoskeleton, jointed bodies and appendages, and gills e.g. lobsters, shrimps, crabs, copepods, etc.
Cuticle	The outer skin of vertebrates, the epidermis. In helminths, the outer covering layer secreted from the hypodermis or subcuticular layer.
Cyclodevelopmental	A relationship in which the parasite undergoes cyclic morphologic change, but does not multiply. The term usually relates to the development of a parasite in its intermediate host.

Term	Definition
Cyclophyllidiea (Cyclophyllidian)	An order of tapeworms. Tapeworms having four sucker discs encircling the scolex as in <i>Taenia saginata</i> and sometimes also a rostellum with hooks as in <i>Taenia solium</i> .
Cyclopropagative	A relationship in which the parasite undergoes cyclic, morphologic changes and also multiplies.
Cyst	An organism together with the enveloping membrane or wall secreted by that organism; the stage of a protozoan in which the organism is encased in a "cyst wall " ; an encysted organism; a protected or more resistant stage that may be involved in transmission to a new host.
Cyst Wall	The outermost part of the protective coating protecting an encysted protozoan.
Cysticercoid	A larva of tapeworms in which the scolex is invaginated into a greatly reduced cystic cavity almost devoid of fluid.
Cysticercus	A larva of tapeworms in which the scolex is invaginated into a bladder filled with fluid (<i>Taenia</i> spp.).
Cytopharynx	The chamber behind the mouth (cytostome) in protozoa into which food may be taken then passed into the cytoplasm via food vacuoles formed at its base. Cytostome and cytopharynx are often considered synonymous.

Term	Definition
Cytoplasm	The protoplasm of a cell surrounded by the cell membrane exclusive of the nucleus.
Cytoplasmic Granules	Granular-appearing materials within the cytoplasm, especially in amoebae.
Cytopyge	In <i>Balantidium</i> and some other ciliates, the permanent opening in the ectoplasm through which the residue of digestion of food materials is discharged (anal opening). In other organisms, the wastes may be discharged through a number of points in the body surface.
Cytostomal Flagellum	In <i>Chilomastix</i> , a flagellum that lies in a groove behind the cytostome (usually within the cytopharynx) and directs solid food particles to the posterior end where food vacuoles are formed.
Cytostome	In some protozoa, especially flagellates and ciliates, the cavity that opens by way of the peristome (the lips) to allow solid food particles to enter (the mouth). In some species, a food vacuole may form directly behind the cytostome or it may open into a cytopharynx (esophagus-like structure) and the food vacuole is formed at the base of the cytopharynx.
Dead-End Host	One in which the parasite reaches an end point and is unable to continue its life cycle (see aberrant host).

Term	Definition
Definitive Host	A host in which the parasite undergoes sexual reproduction. Fertilization occurs within the definitive host.
Density Gradient	Refers to the varying sequence of densities of materials suspended in a liquid column with the most dense material at the bottom and the least dense material at the top. A phenomenon that results from gravity sedimentation.
Deserts	Arid, low precipitation areas with sparse vegetation and limited fauna.
Diecious	The sexes are distinctly separate. Male reproductive organs are present in one individual, the female organs in another.
Digenetic	Three or more generations (literally "two", adult and larval) required for completion of one life cycle (or generation), as in digenetic trematodes. In parasitology, application of this term is virtually limited to those trematodes requiring one or more intermediate hosts.
Diverticulum	A sac-like structure extending out from a tubular organ such as a blood vessel or intestine.
Ecology	The science of environmental interrelationships, studying all factors that affect the ability of organisms to live within their environment and the effects of the organisms on their environment.

Term	Definition
Ecosystem	The system of ecologic relationships upon which the life of any particular living organism is based which includes weather, food supply, natural enemies, etc. A number of different populations and communities may exist within a particular ecosystem and several ecosystems may exist within a biome.
Ectoparasite	One that lives on the host's body surface. (See Infestation and Endoparasite).
Ectopic	Literally, this means displaced. In the context of parasitology it refers to a parasite that is in an atypical location within its host.
Ectoplasm	The more hyaline, outer peripheral cytoplasm of a protozoan. The portion of the cytoplasm from which cilia usually originate. The surface of the ectoplasm apparently gives rise to the cell membrane, the periplast.
Egg	The female reproductive cell or ovum before fertilization, or the complex sex product following fertilization (if this occurs) with the addition of yoke and other nutritive materials and the addition of the embryonic membrane and other shell layers (see Ovum; The terms egg and ovum are not synonymous).
Embryo	The stage in development following cleavage of the egg up to, but not including, the first larval or first juvenile stage.

Term	Definition
Embryophore	In tapeworms, the envelope immediately surrounding the onchosphere and derived from it.
Endoparasite	One that lives within the body or internal body passages of its host.
Endoplasm	That portion on the cytoplasm in which vacuoles form and in which internal organelles and inclusions are suspended.
Evolution	The science of how living things evolve over time.
Facultative Parasite	One that can complete its life cycle in a free-living environment or, alternatively, that lives during part (or all) of its cycle within a host.
Feces	The excrement (waste matter) evacuated from the intestinal tract which includes unabsorbed food materials, sloughed cells, mucus, bacteria, etc.
Filariform (juvenile)	A post-feeding-stage, of a nematode characterized by its delicate, elongate structure and its slim, capillary esophagus. Also, the infective stage of hookworm, filarial worms, and some other nematodes.

Term	Definition
Flagellum (-a)	A filament, arising from a granule-like body (the blepharoplast) and covered by a thin sheath of cytoplasm that usually projects from the body of an organism and functions as an organelle of locomotion or when lying in a groove in the cytostome (cytostomal flagellum) causes movement of the fluid medium in a certain direction. In sessile flageolets, the flagella create currents in the medium to bring food particles to the mouth of the organism and to move wastes away from it.
Flame Cell	A structure in a primitive excretory system in Platyhelminthes. Cilia in flame cells apparently move fluid wastes from the body into the protonephritic tubules to be excreted (see Protonephridia). Sometimes flame cells can be seen in living schistosome eggs.
Fluke	A common name for trematodes.
Free-living	Living in a free and unrestrained manner in the environment; living free of a host.
Gamete	A mature reproductive cell capable of uniting with another reproductive cell to form a fertilized cell, the zygote, that can develop into a new individual (animal or plant).
Gametogenesis	The intracellular development of gametocytes (macrogametocytes , female and microgametocytes, male) that by meiosis (reduction division) yield either female or male gametes as in malarial parasites.

Term	Definition
Genetics	The branch of science dealing with the principles of heredity and variation in animals and plants.
Genital Atrium	In Platyhelminthes, the antechamber to the genital tubules.
Genital Primordium	A group of cells in juvenile nematodes that are the precursors of a reproductive system. Seen in rabbitoid juveniles of <i>Strongyloides</i> but usually not detectable in those of hookworms.
Germ Cell	Cells in an egg from which the embryo grows.
Ghost Host	A cyst of a protozoan in which the body has shriveled to become unrecognizable. <i>Endolimax nana</i> and <i>Giardia lamblia</i> cysts may become ghost cysts when fixation is delayed or when exposed to warmer temperatures.
Glycogen Vacuole	A vacuole, usually in a cyst, in which glycogen (carbohydrate storage material) is accumulated until needed in the development process. Such vacuoles usually form early in the development of an amebic cyst and are usually present in cysts of <i>Iodamoeba butschlii</i> .
Grasslands	Variable climate with temperature extremes. Much converted to agriculture but some exist in Africa and parts of South America and western US. Grazing animals and predators predominate.

Term	Definition
Gravid	Filled with eggs, as a gravid pinworm or gravid proglottid of a tapeworm.
Helminth	From the Greek, helmis-in-thos meaning worm. Originally referred to intestinal worms. Any of the worms, Platyhelminthes, Nematodes, et al.
Helping Host	In essence this is a mechanical intermediate host/vector (usually animate). The water chestnut (<i>Eliocharis tuberosa</i>) upon which the metacercaria of <i>Fasciolopsis buski</i> are encysted, is an example.
Hemocoele	A body cavity in mollusks and arthropods through which the blood (hemocoele fluid) circulates carrying nutrients etc. to the organs.
Hermaphroditic	Containing both male and female reproductive organs (see Monecious).
Heterogonic	Development in which both females and males are present in the colony.
Hexacanth Embryo	"Six-hooked" embryo, the mature embryo within the egg of many tapeworms, including all species that parasitize man in the adult stage.

Term	Definition
HIV	Human Immunodeficiency Virus. A group of viruses that impact on the immune system and severely reduce its effectiveness in fighting disease. Infection may lead to AIDS. Infection occurs through transfer of blood, tissue fluids, and body fluids from an infected to an uninfected individual.
Hologonic	Development in which only one sex (usually the female) is present in a colony, as in <i>Strongyloides stercoralis</i> infections.
Hooklet	In tapeworms, the small hook-like organ of attachment present on the rostellum of the tapeworm scolex. A small hook.
Host	An organism that harbors and nourishes another.
Hydatid Cyst	A cystic larval stage of <i>Echinococcus</i> sp. containing an inner germinal layer produces many scolices, which, when set free into the cystic cavity, can develop into daughter cysts in which further production of scolices takes place.
Hyperinfection	Infection superimposed upon an existing infection by the same parasite in which the parasite reaches high numbers. The term usually refers to internal autoinfection e.g. strongyloidiasis, oxyuriasis (pinworm), or hymenolepiasis nana (see Autoinfection).

Term	Definition
Infected Source	An animal or plant (an intermediate host) in which a parasite has established an infection and can act as the source of infection for another host. Cattle infected with the cysticerci of <i>Taenia saginata</i> function as the source of infection for the adult parasite for man. Infection occurs when the infective stage is ingested along with the intermediate host or part of it is eaten.
Infection	Containing the property of producing infection. Invasion of a host (tissues or cells) resulting in injury and reaction to that injury, i.e. disease.
Infective Stage	That stage in the life cycle of a parasite during which it is capable of producing infection.
Infestation	The term is usually applied to ectoparasites and describes a host/parasite relationship in which the parasite lives on the surface of the host. In some instances, e.g. scabies, the parasite may invade and inhabit the superficial tissues. Some workers apply the term to commensal organisms, such as <i>Entamoeba coli</i> , that do not invade tissues or cause disease but live in a part of the body (the large intestine) with direct access to the outside environment.
Infested Source	A source of the infective stage of a parasite when that stage is essentially free-living, e.g. cercariae of schistosomes that infest water (swim about freely outside of the host) are capable of initiating the infection of a suitable host. Cercariae infest water, the source from which infection is initiated.

Term	Definition
Inner Shell	Eggs of some helminths have an inner and an outer shell, e.g. <i>Hymenolepis nana</i> . <i>Ascaris</i> eggs have an outer mammillated coat (the cortex) that covers the thick hyaline shell.
Instar	The growth period between molts. (The term is usually applied to arthropods.)
Intermediate Host	One that alternates with the definitive host and harbors the larval stage (s) of the parasite. (Man is the Accidental, Intermediate host of <i>Taenia solium</i> and pigs are the typical intermediate host.)
Juvenile Stage	Any stage in the development of a helminth parasite (usually in reference to nematodes) between the egg and the mature adult stage that appears similar in shape and structure to the adult. The term implies a form less developed but similar in structure to the adult. Trematodes pass through larval stages; nematodes pass through juvenile stages. The term "larvae" for juvenile nematodes has become so entrenched that the correct term is rarely used.
Karyosome	A structure (body) within the nucleus having a relatively constant size and location in each species and made up of two components, one achromatic and another that stains similar to chromatin and appears as a granule or bundle of granules. The size and location of the karyosome, especially the staining portion, is frequently used as an aid in differentiating species of amoebae that are similar in structure.

Term	Definition
Key	A "biological Key" is a guide to the identification of individual organisms of a group of plants or animals having specific determining characteristics arranged in a systematic way; a series of questions arranged in a format designed to lead the users to an accurate identification of species within a biological group of organisms.
Larva	The post-embryonic stage in which internal organs are developing or are partially developed and are at least partially functioning. Any preadult stage (after the embryonic stage) in the life cycle of a parasite that is morphologically distinct from the adult stage (see Juvenile). The term larva should probably not be used for immature nematodes since they are not morphologically distinct from the adults but simply smaller and less developed.
Linin Fibrils	Very delicate fiber like strands that may appear in the nuclei between the karyosome and the peripheral chromatin of some protozoa after staining, especially in some trophozoites of <i>Entamoeba histolytica</i> .
Longitudinal Cords	In nematodes, four cords (lines) that extend from the anterior to the posterior end (one dorsal, one ventral, and two lateral) which enclose the longitudinal nerves and, in the lateral cords, the longitudinal excretory tubules.
Lumen	The space within a tubular organ such as the intestine.

Term	Definition
Macronucleus	In some ciliates, the large kidney-shaped nucleus. Its function is not clearly understood but it is usually in association with a "micronucleus".
Macrophage	One of a group of mononucleated, migrating, phagocytic cells that play a role in cellular immunity. Sometimes mistaken for an ameba in fecal specimens.
Mechanical Vector	An object, either animate or inanimate, which transports a parasite to its host. This differs from a biologic vector in that the biologic vector contributes actively to the growth and/or development of the parasite.
Meiosis	Reduction division; the process of division of the nuclear material of a cell that, by the final division, yields a gamete with a haploid number of chromosomes.
Mesentery	A sheet of tissue or membrane that enfolds and supports an internal organ by attaching it to the body wall or another organ. Adults of schistosomes live and female worms pass their eggs in the mesenteric venules associated with the intestine and urinary bladder.
Metacercaria (ae)	The encysted stage of a monocious, trematode succeeding the cercaria. The cercaria invades or attaches to an animal or plant (the second intermediate host) where it encysts to await transfer (usually by ingestion) to the definitive host. In blood flukes, the cercaria does not encyst but directly invades the definitive host (see Schistosomule) at which time the tail of the cercarial stage is left behind.

Term	Definition
Micrometer	An instrument for measuring units equal to a micron, 0.001 millimeter.
Micronucleus	In ciliates, a small nucleus closely associated with the macronucleus. The macronucleus and micronucleus perform differently than do the nuclei in most other protozoa during division. Refer to Wenyon ref.
Micropyle	In coccidia, a pore in the cyst wall closed by a plug of material which is more easily dissolved than the cyst wall and through which the structures formed in the cyst emerge.
Microvilli	The smaller villi of the intestine (see Villi).
Miracidium	In trematodes, the larva that emerges from the egg.
Mitotic Division	Nuclear division in which definite chromosomes and a spindle, associated with the presence of centrosomes. In some instances the nuclear membrane persists while in others the nuclear membrane is not evident as seen in higher species.
Mollusca	A phylum composed of a large group of animals having no backbone, soft unsegmented bodies, usually covered with a hard shell. The shell is secreted by a covering mantle and is formed on snails, oysters, clams, and whelks but not on slugs, octopuses, or squids.

Term	Definition
Molluscan Host	A member of the phylum Mollusca that acts as an intermediate host for the class Trematode.
Molt (moult)	The act of shedding the outer body covering, e.g., skin, cuticle, feathers, etc.
Monecious	Both male and female reproductive organs are present in the same individual. This term is synonymous with hermaphroditic.
Monogenetic	A single generation constituting a complete life cycle.
Morula Stage	The cleaving stage of an egg in which it forms a mulberry-like, solid mass of cells.
Multilocular Cyst	A type of cestode cyst with many cavities in which scolices develop, e.g. in <i>Echinococcus multilocularis</i> .
Mutualism	A symbiotic relationship in which both partners benefit from the association.

Term	Definition
Natural Host	This term implies that the host is the usual one and is synonymous with Typical Host.
Normal Host	This ambiguous term is often used as a synonym for Typical Host.
Nucleoplasm	The protoplasm of the nucleus not including the karyosome, plastin, and chromatin.
Nucleus	A spheroid body within the protoplasm of a cell, distinguished from the rest of the cell by its dense structure and presence of chromatin. The nucleus controls growth, cell division, and other activities of the cell; and contains DNA, the basic substance controlling the genetic characteristics of the cell or organism.
Obligate Parasite (obligative)	One that requires a specific host in order to complete its life cycle
Obligatory Parasite (obligate)	One that is obligated to live a parasitic existence.
Occult blood	Blood in such small quantities that it is not readily detectable except by chemical means.

Term	Definition
Onchosphere	The stage that escapes from the egg shell and later from the embryophore of tapeworms. In human tapeworms it is a six-hooked (hexacanth) embryo.
Oocyst	The stage of a coccidian protozoa that is evacuated with the feces. Sporocysts develop within the oocyst and, as the oocyst matures, sporozoites develop within sporocysts (except cryptosporidia where sporozoites develop free in the oocyst). Mature oocysts containing sporozoites, or rarely sporocysts freed from oocysts, become the infective stage for an intermediate host.
Operculum	Eggs of some trematode and cestode helminths have a cap-like structure at one end through which the embryo (larva) emerges. Protrusions surrounding the base of the operculum, called shoulders, are present in eggs of some species.
Opportunistic Parasite	An organism that is not typically a parasite but may become parasitic under specific conditions. Amebae of the genus <i>Neglaria</i> are usually free-living but may become opportunistic parasites.
Oviparous	Egg-laying organisms, (see Ovoviviparous).
Ovoviviparous	Refers to species in which eggs hatch in utero and the freed young are released from the female worm, e.g. in <i>Strongyloides stercoralis</i> .

Term	Definition
Ovum	The mature, naked, female reproductive cell with a haploid number of chromosomes preceding combination with the male gamete and the addition of an embryonic membrane and other shell layers. An unfertilized egg.
Parabasal (parabasal body)	In flagellates, a heavy fiber (rhizoplast) present in some flagellates. It supports the cytostome in Chilomastix and is the basal fibril of the undulating membrane in Trichomonas. The function of parabasals in Giardia is unknown.
Parasite	An organism that lives on or within and at the expense of another organism.
Parasitism	A symbiotic relationship in which one partner, the parasite, lives within or on its host, and in as much as it derives nourishment from its host, it is potentially harmful because it , may either deprive or damage the host.
Paratenci Host	An atypical (substitute) intermediate host that ingested and harbors the stage infective for the definitive host, which remains active and unchanged (a collector or storage host). If a suitable definitive host ingests the paratenic host or a part of it containing the infective stage, the parasite can grow to maturity. If man becomes infected, he becomes a substitute but aberrant intermediate host. Examples are third stage juveniles of the nematodes, Physoloptera spp. And Gnathostoma spp and the pleurocercoid (sparganum) stage of certain pseduophyllidian tapeworms. The paratenic host may make the parasite available to atypical definitive hosts that would not normally ingest the typical intermediate host.

Term	Definition
Paratenic Host	An atypical (substitute) intermediate host that ingested and harbors the stage infective for th
Parenchyma	The soft, undifferentiated tissue composing the general substance of the body of some invertebrates e.g. members of the phylum Platyhelminthes. Also, the essential or functional components of organs as differentiated from the connective or support components, the stroma.
Parthenogenesis	Reproduction without any male element; development of eggs of insects of certain species without fertilization by union of gametes of opposite sexes; reproduction without the fertilization by the union of male and female gametes, e.g. production of viable eggs by parasitic adult females in intestinal infections, <i>Strongyloides stercoralis</i> . Eggs produced hatch in the mucosal wall and juveniles passed develop to free-living male and female worms.
Passive Transmission	A form of transmission in which the host/ parasite contact is-more or less accidental. Ordinarily, the host comes to the parasite, and the intimate contact necessary for infection is provided by the host, e.g., amebiasis.
Pathogen	A parasite that injures or deprives its host, i.e. is capable of producing disease.
Pathogenic	Giving origin to disease or symptoms of disease.

Term	Definition
Peripheral Chromatin	That portion of the nuclear chromatin adhering to the inner surface of the nuclear membrane as in <i>Entamoeba histolytica</i> and <i>E. coli</i> .
Periplast	The limiting, outer membrane of protozoan (cell membrane) formed from the ectoplasm.
Peristalsis	Rhythmical, wave-like constrictions of the wall of the intestine that move the contents.
Peristome	Any parts or set of parts around the mouth or oral opening of invertebrates; comparable to lips in higher animals.
Phasmid	One of a pair of caudal chemo-receptors in certain nematodes (i.e. Phasmidia).
Physiology	The branch of science that deals with normal functions of living things or their organs.
Plastin	Achromatic substance within the nucleus that stains only with special stains and is probably the material from which chromosomes are formed.

Term	Definition
Plerocercoid (larva)	A tapeworm larva in which the scolex is embedded in a greatly enlarged tail (see Sparganum) as in <i>Diphyllobothrium latum</i> .
Poboscis	In tapeworms, an anterior protrusile organ, typically studded with hooks as in the dog tapeworm <i>Dipylidium caninum</i> . A protruding structure at the anterior end of some insects.
Polar Filaments	Filaments arising from the opposite poles of the onchosphere membrane of <i>Hymenolepis nana</i> .
Polar Plugs	Mucoïd plugs that are located at both ends of eggs of <i>Trichuris</i> and other members of the family <i>Trichuridae</i> .
Population	A group of mutually related organisms.
Prepatent Period	The span of time from infection until the infection is detectable. The biological incubation period, usually between infection and initial clinical manifestations.
Primitive Gut	The structure that gives rise to the gut (intestine).

Term	Definition
Proceroid (larva)	The first larval stage of pseudophyllidian tapeworms which develops from the onchosphere; it contains a body proper and a caudal vestige of the onchosphere, the Cercomer.
Proglottid	One complete unit of a tapeworm below the Scolex, commonly called a " segment " .
Propagative	A biological relationship in which the parasite multiplies in the host but does not undergo morphologic change.
Protonephridia	A primitive excretory system consisting of flame cells and tubules for the elimination of liquid wastes, in Platyhelminthes.
Pseudophyllidian	Refers to an order of tapeworms in which the scolex has a single terminal or two, opposite, lateral organs of attachment, the bothria, e. g. in Diphylobotrium latum.
Pseudopodium (ia)	A clear projection of the ectoplasm of protozoa, especially amebae, that is usually associated with movement and/or food gathering.
Reduction Division	Meiosis; division of the nuclear material to give rise to gametes having the haploid number of chromosomes.

Term	Definition
Reservior Host	One in which the parasites lives and is available for transmission to another host. In parasitology, the term usually refers to a host which harbors a stage of the parasite that is found in the typical host. The dog is the host of <i>Trichuris vulpis</i> and functions as a reservoir host for man.
Retracted Flagellum	A flagellum that at some stage in the life cycle of an organism extends beyond to body membrane but rests within the confines of the body of the organism in the cyst stage or in a resting stage.
Rhabditoid Juvenile	The first, feeding- ' stage of a juvenile nematode that emerges from the egg in which the esophagus is functional, is usually muscular, and has an enlarged, bulbous posterior end.
Rhizoplast (axoneme)	In flagellates fibril arising from a blepharoplast and running through the cytoplasm .
Rostellum	The somewhat protuberant apical portion of the scolex of certain tapeworms, frequently bearing hooklets (a circlet of hooklets in <i>Taenia solium</i> , 7 transverse rows in <i>Dipylidium caninum</i>).
Savanna	Tropical grasslands found in Africa, South America, West India, and North Australia. Areas support greatest abundance of hoofed mammals. Often used for range land for domestic animals.
Schistosomule	The immature stage of schistosomes (blood flukes) from the time of entry into the definitive host until the fluke reaches sexual maturity (see <i>Metacercaria</i>).

Term	Definition
Schizogony	Multiplication in protozoa in which repeated division of the nucleus and daughter nuclei occurs within the cell as the organism grows and finally each nucleus in a single mass of cytoplasm separates to form a new individual called a merozoite e.g. the erythrocytic cycle of malarial parasites.
Scolex (ices)	The attachment end (head with organs of attachment) of a tapeworm from which the neck arises and, in turn, gives rise to the proglottids.
Source of Infection	The medium (e.g., soil), object (e.g. eating utensil), or a living entity (e.g. a snail or mammal) containing an infective stage of a parasite.
Sparganum	The second larval stage (see Plerocercoid) of pseudophyllidian tapeworms that is characterized by its elongated shape and lack of a cystic cavity.
Sporocyst	In protozoa, a cyst that develops within an oocyst of a coccidian protozoa in which sporozoites develop. In some species of coccidia, the oocyst may rupture within the intestine of the host and free sporocysts are evacuated with the feces. In such cases, the small sporocysts must be found on fecal examination e.g. <i>Scarcocystis</i> spp.
Sporocyst	In trematodes, the first larval stage in the developmental cycle in the snail, intermediate host. A sac-like " structure with a germinal lining that produces secondary larval stages that develop in the snail host.

Term	Definition
Sporozoite	The structure (infective unit) that develops within an oocyst that, when freed from the oocyst after ingestion by a suitable host, penetrates the intestinal wall initiating infection; in malaria, the infective unit produced by asexual reproduction in the oocyst developed from an ookinete imbedded in to gut wall of a mosquito host.
Spurious Infection	False infection. An organism or egg found on fecal examination that is from a source outside of the individual and is not related to an infection of the individual being examined; often derived from eating part of a host infected with a non-human parasite. Just passing through! Eggs of <i>Dicrocoelium dendriticum</i> may represent a spurious infection but an actual infection must be ruled out since man may become an accidental host of the parasite (liver fluke).
Stage	Any particular form in the life cycle of a parasite which can be distinguished from all of its other forms.
Strobila	A complete tapeworm consisting of scolex, neck, and immature, mature, and usually gravid proglottids.
Strobilization	Asexual production from the neck of a tapeworm of a series of sexual reproductive units, the Proglottids.
Superinfection	A new infection of a host superimposed on an existing one by the same species of parasite (see Hyperinfection).

Term	Definition
Symbiosis	The association or living together of different species.
Syngamy	<p>Multiplication (reproduction) by a sexual process. There are many gradations of the sexual process among parasitic species (see gametogenesis, malarial parasites; parthenogenesis, <i>Strongyloides stercoralis</i>). Note: a complete review of various forms of Syngamy (reproduction) among protozoa is given in Protozoology, C. M. Wenyon; Hafner, New York, 1926, Reprinted 1965.</p>
Taiga	Northern evergreen forests with mostly conifers and with a variety of animals.
Temperate Deciduous Forest	Dense canopy of broadleaf trees overlying saplings and shrubs. Great seasonal fluctuations in temperature and rich in fauna. Much of the areas converted to agriculture.
Temperate Rain Forest	Cold weather, dense fog, and high precipitation. In NW US, SE Australia, and southern South America. Dominate trees are conifers.
Trophozoite	The active, vegetative stage of a protozoan.

Term	Definition
Tropical Rain Forest	Characterized by high temperature and precipitation. Greatest variety of plant and animal diversity. True jungle areas with heavy canopy of broad leaf trees and vines with little vegetation at ground level.
Tundra	Far north, snow melts seasonally, growing season with long days and short nights. Dominate vegetation lichens, mosses, grasses, and sedges. Animals include migratory birds, rodents, hares, and insects especially in summer.
Typical Host	One in which the parasite is commonly found and in which it can continue the development (or the appropriate phase of its development) necessary for subsequent completion of its life cycle.
Unilocular	In tapeworms, an intermediate larval stage (cyst) having only a single cavity.
Uninuclear	Having only one nucleus.
Unnatural Host	This somewhat confusing term is often used as a synonym for Abnormal Host.
Vacuole	A space or cavity in the cytoplasm of a protozoan usually functioning in collecting and digesting food taken into the organism and eliminating wastes (see Contractile vacuole)

Term	Definition
Villi	The small intestine is lined with small thread-like folds of the mucosa that project into the intestinal lumen (the villi) greatly increasing intestinal surface. The cells that cover the villi are enterocytes. The smaller villi are called microvilli.
Vitellaria (vitelline glands)	The glands in Platyhelminthes that produce yoke material and (probably) the shell of the egg.
Vitelline Membrane	The innermost layer in the shell of fertilized eggs of helminths.
Volutin Granules	Bodies in the peripheral cytoplasm of Blastocystis that stain darkly.
Xenodiagnosis	A technique of diagnosis in which laboratory-reared (uninfected) arthropod hosts are fed on a suspected patient and subsequently examined in an effort to recover the parasite.
Zoonosis	Infection in man with a parasite that typically infects animals.
Zygote	Any cell resulting from the fusion of male and female gametes. The stage in the life cycle produced by fertilization. A fertilized egg.