

A Brief Synopsis of Protozoology

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Description

Protozoology is the study of protozoa, which are "animal-like" protists. The term is obsolete due to a better understanding of the evolutionary relationships of eukaryotes. For example, the Society of Protozoa, founded in 1947, was renamed the International Society of Protistology in 2005. However, the term may persist.

Protozoology is a branch of biology dealing with protozoa. Protozoa are eukaryotes that belong to a group characterized as unicellular, most of which are motile and heterotrophic. In the five kingdom schemes for classifying organisms, they belong to taxonomic groups within the kingdom of protists and are usually classified based on the means of transport of flagellates, amoebas, sporozoans, and ciliates. Protozoology studies these organisms in terms of taxonomy, morphological features, medical significance, and more.

People who specialize in this particular area of biology are called protozoologists. One of these prominent protozoologists is Stanislav von Prowazek. He is an Austrian protozoologist and parasitologist, known for his work and head of the Protozoenkunde (Protozoenkunde) division of the Imperial Health Department in Berlin. He first showed that *Trypanosoma lewisi* has undergone a special stage in the body of a rat host.

However, the term protozoology is less common than it used to be, and protozoology prefers the scientific study of organisms that have come to be called protozoa along with eukaryotes such as algae and other plants. Please note.

Historically, protozoa have been divided into four major groups: amoebas, flagellates, ciliates, and sporozoa. The distinguishing features between the groups were based on motility (i.e., amoeba, flagella, and cilia). Parasitic protozoa were a heterogeneous group

that produced spores at one stage of their life cycle and exhibited "sliding" motility. In addition to the form of asexual reproduction, many protozoa also exhibit sexual reproduction. This sexual reproduction may involve the production and fusion of gametes in a process similar to that of higher organisms.

In summary, protozoa are unicellular eukaryotic microorganisms. However, the diversity of protozoa in terms of morphology, size and way of life makes it difficult to develop more accurate definitions. Their long evolutionary history (see family tree) occupies most of this diversity. However, protozoa have characteristics that are common to all eukaryotes.

Protozoa breed like all other organisms. The most common form of protozoal reproduction is asexual double division. In other words, one organism divides into two equal organisms. A slight modification of this binary fission, called budding, is when one of the newly formed cells is smaller than the other. Typically the larger cell is called the mother and the smaller is the daughter. Some protozoa will form an intracellular bud and essentially give birth. Another variation of binary fission is a multiple fission or segmentation. In this situation, several rounds of nuclear replication occur without cytokinesis. These multinucleated cells form several offspring at the same time. For Plasmodium malaria infection (malaria), humans are the secondary or intermediate host and mosquitoes are the final or primary host. Tsetse flies are intermediate hosts and humans are the definitive host for trypanosomiasis. In leishmaniasis, sandflies are the intermediate host and humans are the definitive host.

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