

SOME BASIC DEFINITIONS

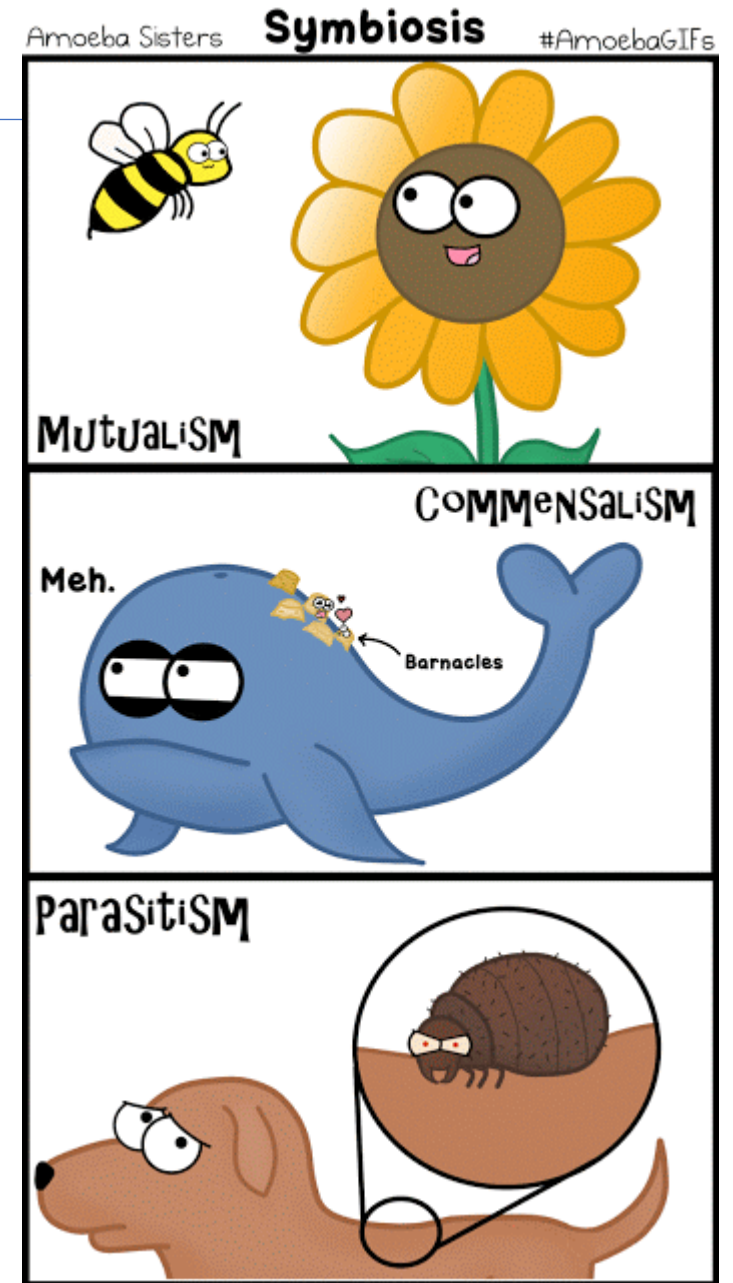
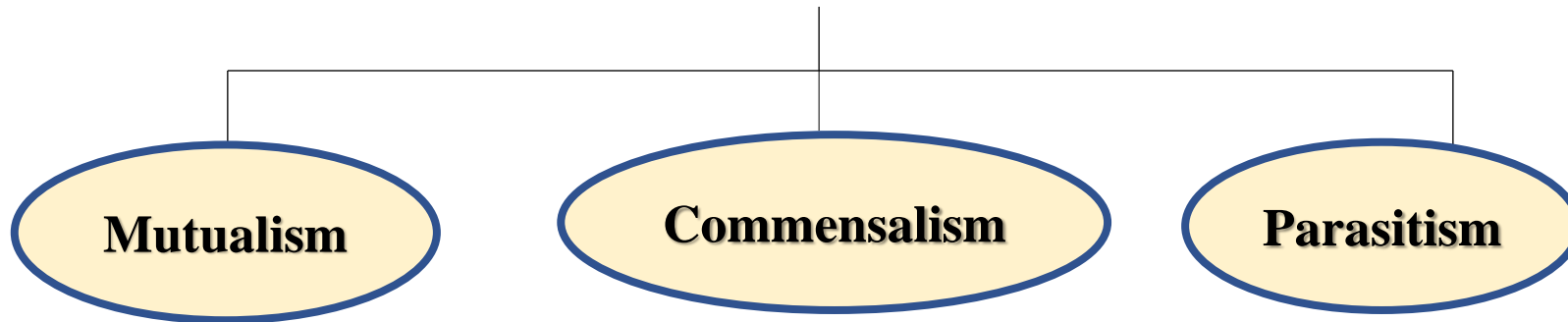


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SOME BASIC DEFINITIONS

SYMBIOSIS

Type of a close and long-term biological interaction between two different biological organisms. The organisms, each termed a symbiont, may be of the same or of different species



PHORESIS

- Derived from the Greek word meaning “to carry”
- Symbiotic relationship in which phoront, usually the smaller organism, is mechanically carried by the other, usually larger, organism, the host
- Unlike commensalism, there is no dependency in the procurement of food by either partner
- Examples are the numerous sedentary protozoans, algae, and fungi that attach to the bodies of aquatic arthropods, turtles, and so on

MUTUALISM

- A relationship in which both species benefit
- At this very moment, you are in a mutualistic relationship with a population of bacteria in your large intestine. *Escherichia coli* lives in most mammals to break down food that mammals cannot digest. Bacteria gets food and a place to live and we benefit as well!



COMMENSALISM

- A relationship in which one species benefits and the other species is neither harmed or helped
- Example: Elf owl creating small hole for nest in the cactus



COMMENSALISM



Facultative

↓
Commensal may
not requires to
participate in an
association to
survive

obligate

↓
Commensals
require in an
association to
survive

PARASITISM

Relationship between two species of plants or animals in which one benefits at the expense of the other, sometimes without killing the host organism



TYPES OF PARASITES

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graph TD; A[TYPES OF PARASITES] --> B(Ectoparasites); A --> C(Protelean); A --> D(Endoparasites); B --> B1[Lives on the surface of its host]; C --> C1[Are insects in which only the immature stages are parasitic]; D --> D1[Lives inside the body of its host];
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Ectoparasites

Lives on the surface of its host

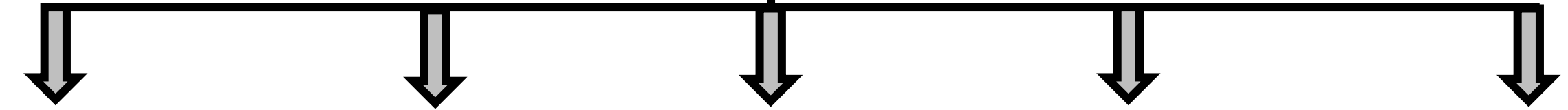
Protelean

Are insects in which only the immature stages are parasitic

Endoparasites

Lives inside the body of its host

TYPES OF PARASITES



Facultative

Obligate

Accidental

Permanent

Temporary

Not normally parasitic but can become when accidentally eaten or enter the body orifice

Cannot complete their life cycle without spending at least part of time in a parasitic relationship

Enters or attaches to body of specie of host different from normal one

Live their entire adult lives within or on their hosts

Usually prey on several different hosts

e.g

Naegleria fowleri

e.g

Bed bug

TYPES OF HOSTS

DEFINITIVE

In which parasite reaches sexual maturity

e.g

Mosquitoes

INTERMEDIATE

Requires for parasite development

e.g

Vertebrates

TRANSPORT

In which parasite remains alive and infective to another host

e.g

Owls

RESERVOIR

Harbors an infection that can be transmitted to humans

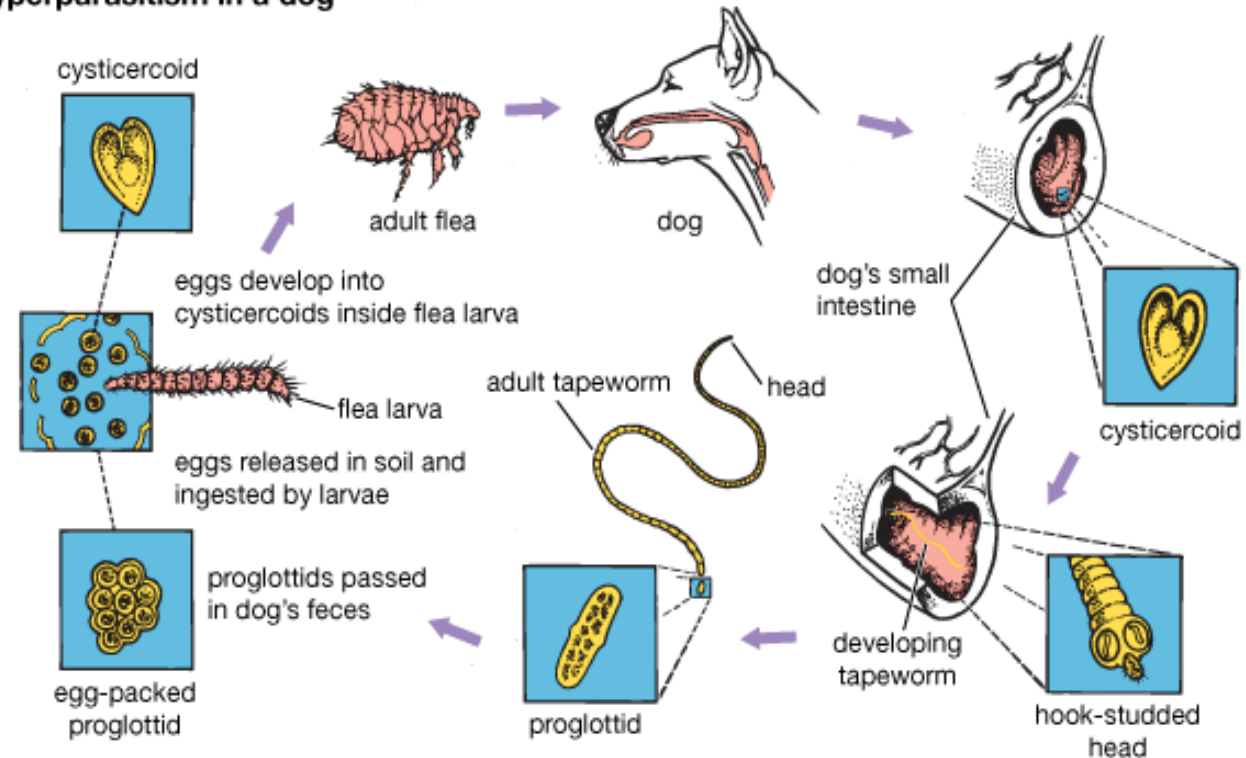
e.g

Rats

HYPERPARASITISM

A relationship between two parasites in which one develops within the other

Hyperparasitism in a dog



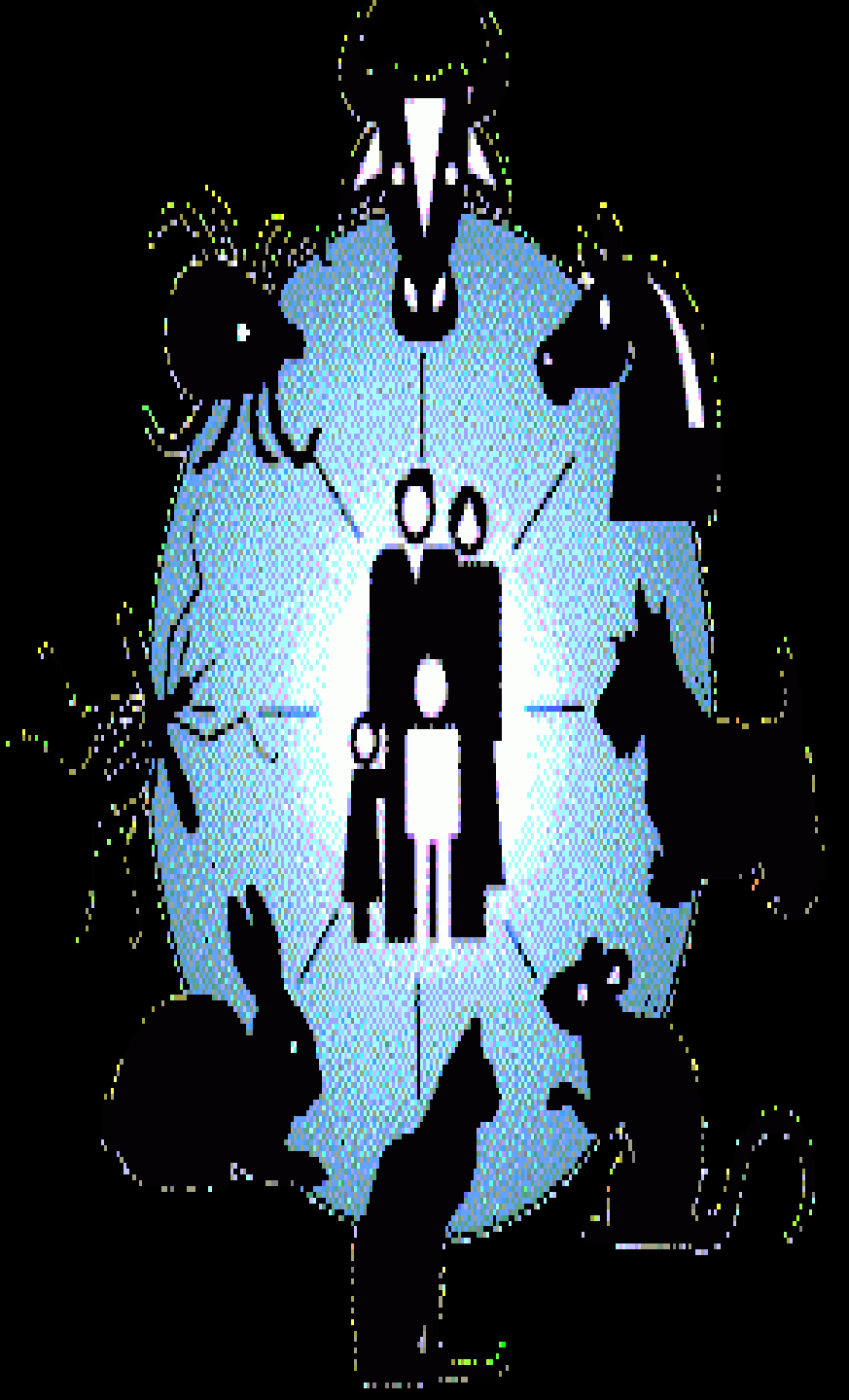
HOST SPECIFICITY

- In mature condition a given parasite is quite often found in limited number of hosts
- In extreme condition, distribution of a parasite may be restricted to a single host—mono-specific parasite
- Even when poly-specific the different hosts are phylogenetically related
- This host specificity is a function of physiological specialization and evolutionary age

ZOONOSIS

A zoonosis is an infectious disease caused by a pathogen that has jumped from a non-human animal to a human.

Typically, the first infected human transmits the infectious agent to at least one other human, who, in turn, infects others



THANK YOU