CLASSIFICATION OF MYIASIS

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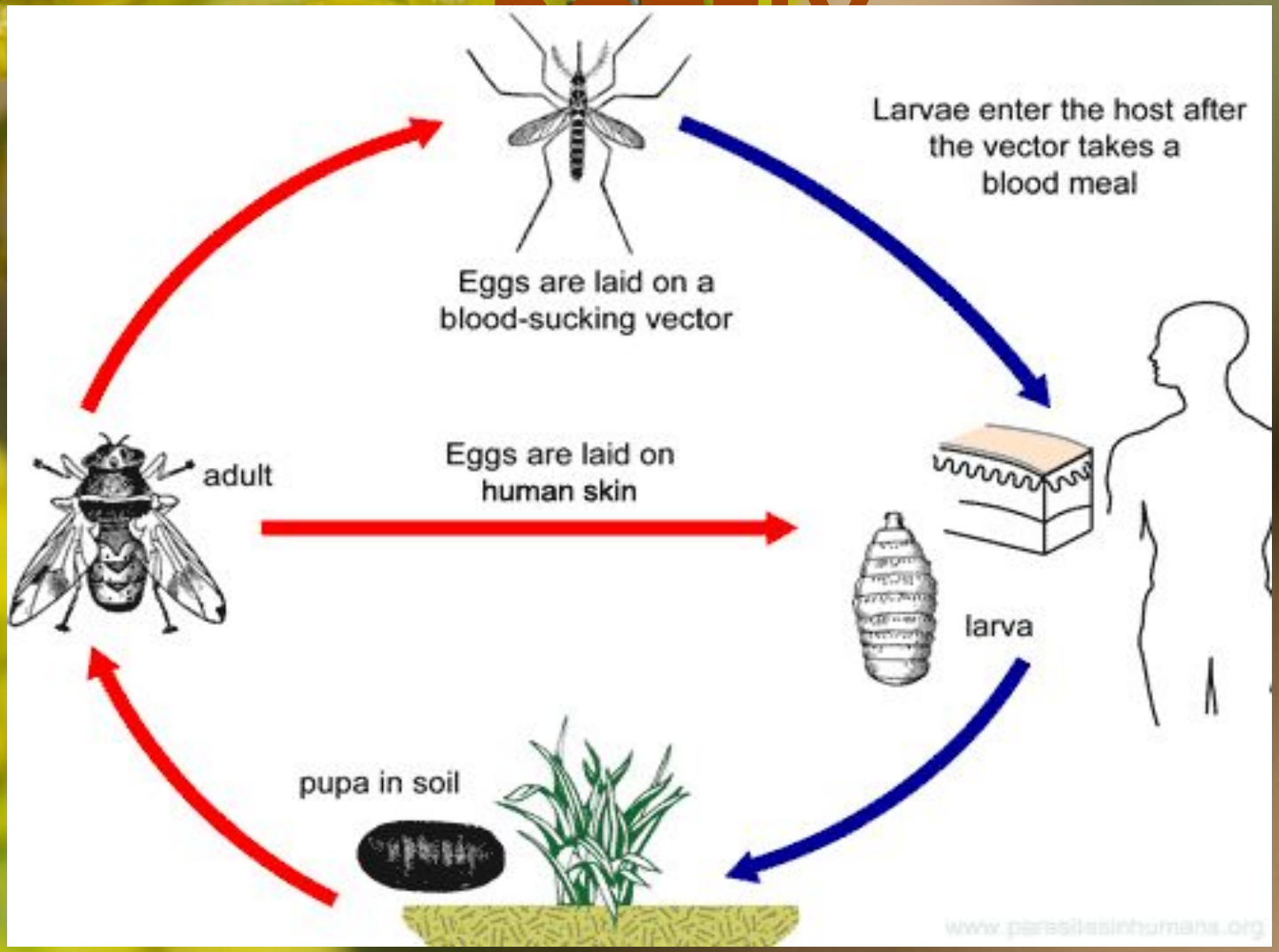
SYSTEMATIC CLASSIFICATION

Kingdom: Animalia
Phylum: Arthropoda
Class: Insecta
Order: Diptera
Section: Schizophora

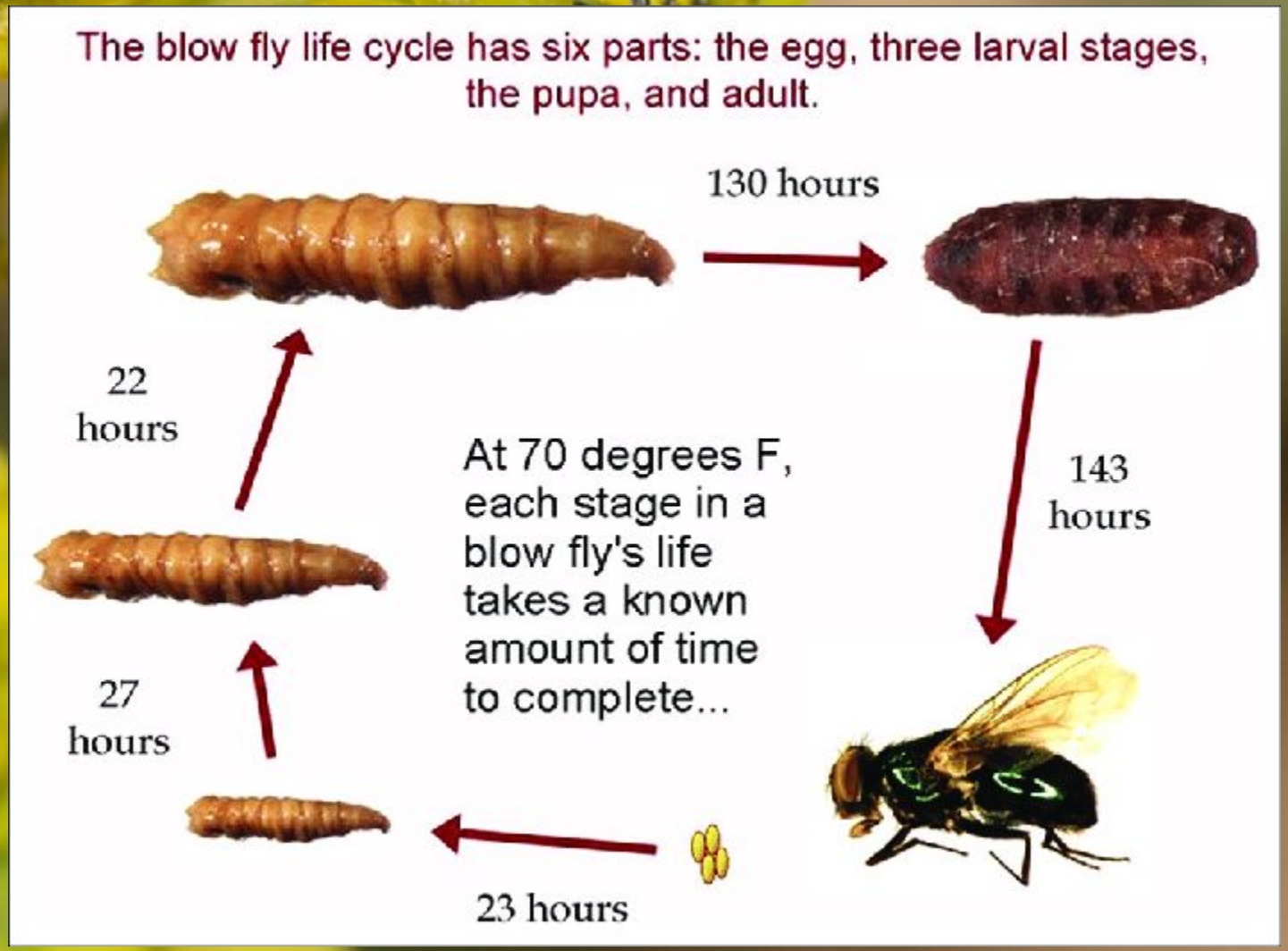
GENERAL CHARACTERISTICS OF MYIASIS

Myiasis is the parasitic infestation of the body of a live animal by fly larvae (maggots) which grow inside the host while feeding on its tissue. Although flies are most commonly attracted to open wounds and urine- or feces-soaked fur, some species (including the most common myiatic flies—the botfly, blowfly, and screwfly) can create an infestation even on unbroken skin and have been known to use moist soil and non-myiatic flies (such as the common housefly) as vector agents for their parasitic larvae.

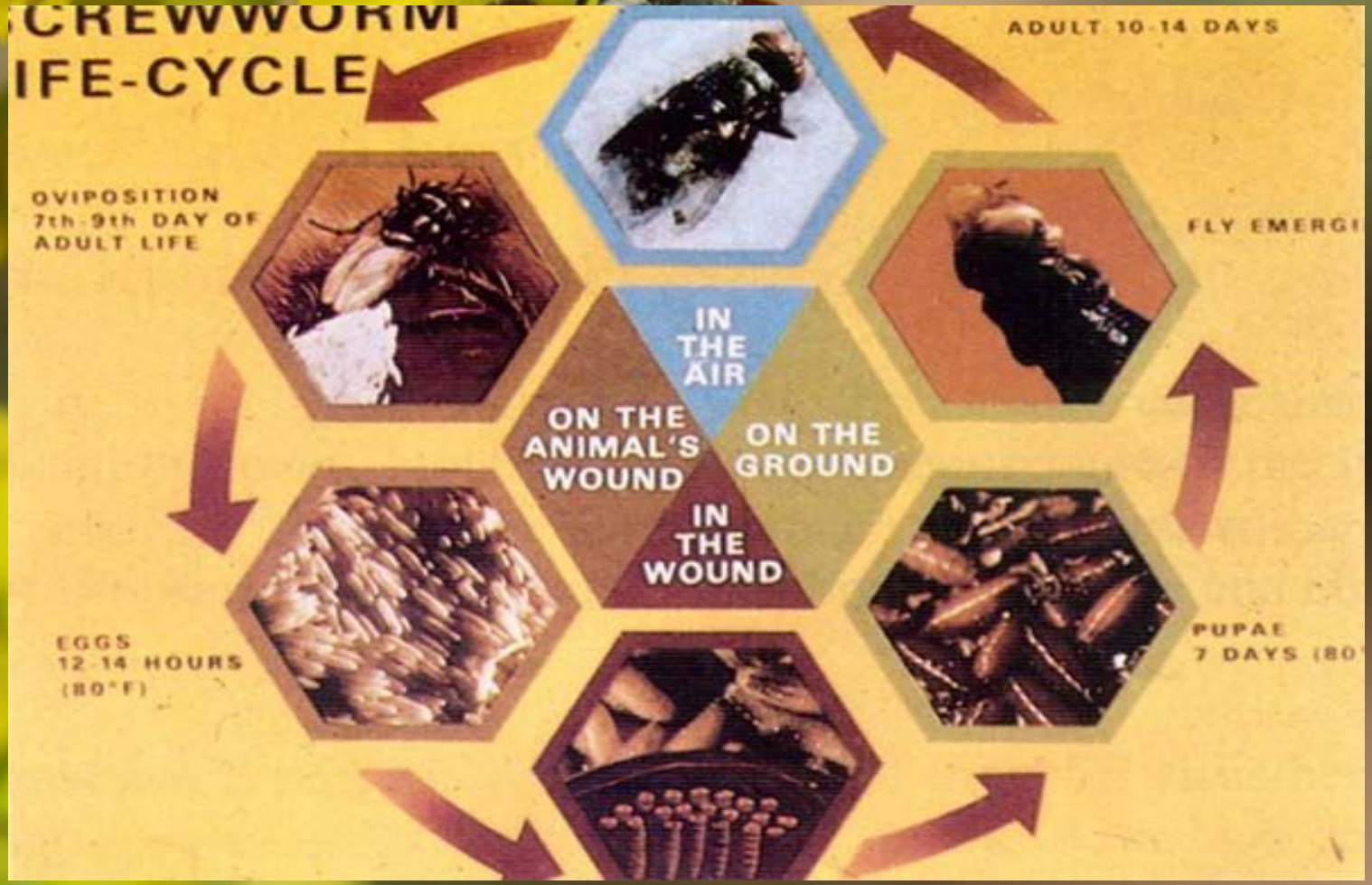
LIFE CYCLE OF



LIFE CYCLE OF BLOW FLY



LIFE CYCLE OF SCREW WORM



HYPODERMA

Warble fly is a name given to the genus Hypoderma, large flies which are parasitic on cattle and deer. Other names include "heel flies", "bomb flies" and "gadflies", while their larvae are often called "cattle grubs" or "wolves." Common species of warble fly include Hypoderma bovis (the ox warble fly) and Hypoderma lineatum (the cattle warble fly) and Hypoderma tarandi (the reindeer warble fly). Larvae of Hypoderma species also have been reported in horses, sheep, goats and humans.They have also been found on smaller mammals such as dogs, cats, squirrels, voles and rabbits.

HYPODERMA

DERMATOBIA

Dermatobia fly eggs have been shown to be vectored by over 40 species of mosquitoes and muscoid flies, as well as one species of tick;[2] the female captures the mosquito and attaches its eggs to its body, then releases it. Either the eggs hatch while the mosquito is feeding and the larvae use the mosquito bite area as the entry point, or the eggs simply drop off the muscoid fly when it lands on the skin. The larvae develop inside the subcutaneous layers, and after about 8 weeks, they drop out to pupate for at least a week, typically in the soil. The adults are large flies resembling bumblebees. They are easily recognized because they lack mouthparts (as is true of other oestrid flies).

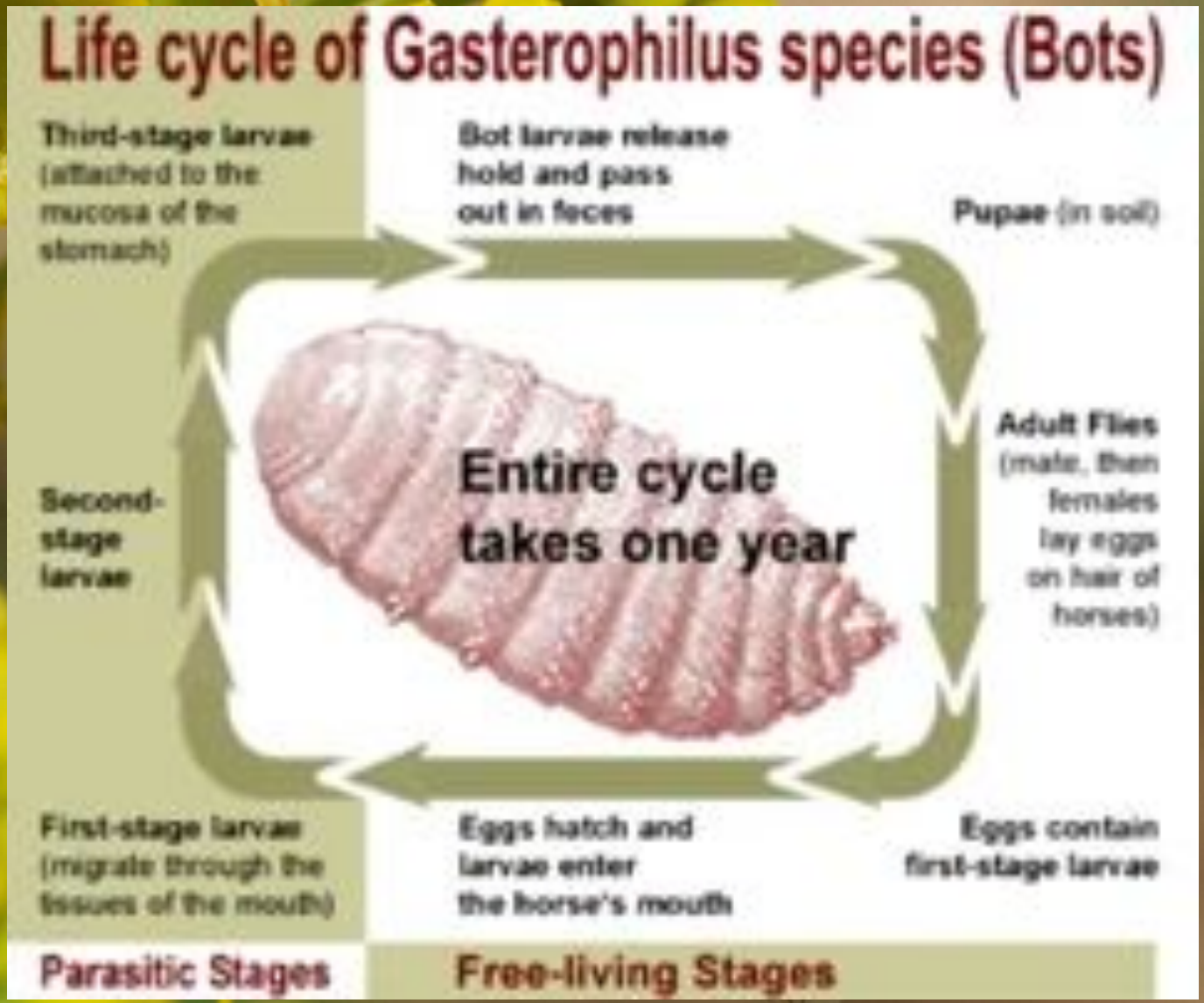
GASTEROPHITUS

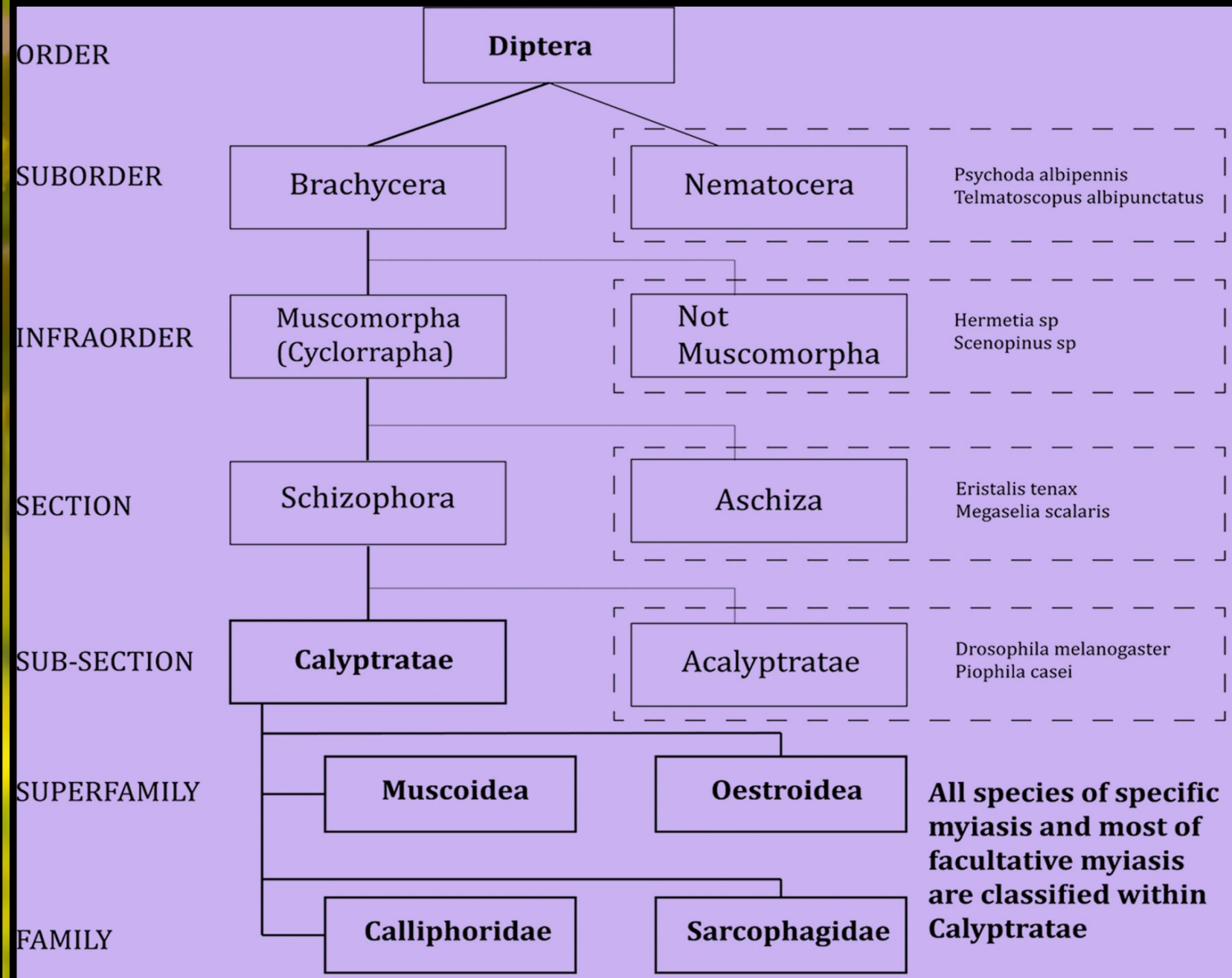
The Gasterophilus, commonly known as botfly, is a parasitic fly from the family Oestridae that affects different types of animals, especially horses, but it can also act on cows, sheep, goats and, even, it has been recorded a case in a human baby.[1]

This parasite affects the animal gastrointestinal tract not with the finality of feed themselves because the adults don't have functional mouthparts and are unable to eat in their whole life,[2] but to give to their offspring an alimentary source.

Although not deadly, due to the usual low larva population that infests the animal, large larva populations can cause health issues to the host. For example, a typical horse can tolerate a hundred larvae withot any effects.

Life cycle of Gasterophilus species (Bots)




ORDER
Diptera
SUBORDER
Brachycera
Nematocera
Psychoda albipennis
Telmatoscopus albipunctatus
INFRAORDER
Muscomorpha
(Cyclorrapha)
Not
Muscomorpha
Hermetia sp
Scenopinus sp
SECTION
Schizophora
Aschiza
Eristalis tenax
Megaselia scalaris
SUB-SECTION
Calyptratae
Acalyptratae
Drosophila melanogaster
Piophila casei
SUPERFAMILY
Muscoidea
Oestroidea
FAMILY
Calliphoridae
Sarcophagidae
All species of specific myiasis and most of facultative myiasis are classified within Calyptratae

Specific myiasis

Primary or specific myiasis is caused by flies whose larvae are obligate parasites of living tissues; opportunistic or secondary myiasis by saprophagous larvae that feed on decaying tissue; and accidental myiasis by coprophagous larvae that enter the gastrointestinal tract by chance, or by inhalation of the gravid female fly to cause pulmonary myiasis.

Aural, nasopharyngeal, and malignant wound myiases are potentially lethal, demanding removal of the larvae, debridement, and reconstructive surgery. Diagnosis is by discovering and expertly identifying larvae (preserved in strong ethanol) from infested patients.


A
B

Semi specific myiasis

Semispecific myiasis: also called facultative/opportunistic. They are not normally parasitic, but will do so if the opportunity arises, particularly if facilitated by wounds/sores already present. They can, however, develop without the host

These also include species that normally lay eggs in animal or vegetable matter (transmission that ingesting contaminated food)

The most notable of the semispecific is probably the green-bottle fly, Lucilia

ACCIDENTAL MYIASIS

1.Accidental myiasis occurs when egg-stage flies are ingested on contaminated food or come in contact with the genitourinary tract.

2.Flies of the families Muscidae, Calliphoridae, and Arcophagidae are involved.

SYMPTOMS OF MYIASIS

Syndrome	Symptoms
Cutaneous myiasis	Painful, slow-developing ulcers or furuncle- (boil-) like sores that can last for a prolonged period
Nasal myiasis	Obstruction of nasal passages and severe irritation. In some cases facial edema and fever can develop. Death is not uncommon.
Aural myiasis	Crawling sensations and buzzing noises. Smelly discharge is sometimes present. If located in the middle ear, larvae may get to the brain.
Ophthalmomyiasis	Fairly common, this causes severe irritation, edema, and pain


Thank
you