



Driftless Prairies: Native Ecosystems

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Animal, Mineral or Fungi?

What an interesting question to be asking. Well...I was inspired by this beautiful fungus with a horrible name...slime mold.



© Marci Hess

Stemonitis sp



Stemonitis sp slime mold

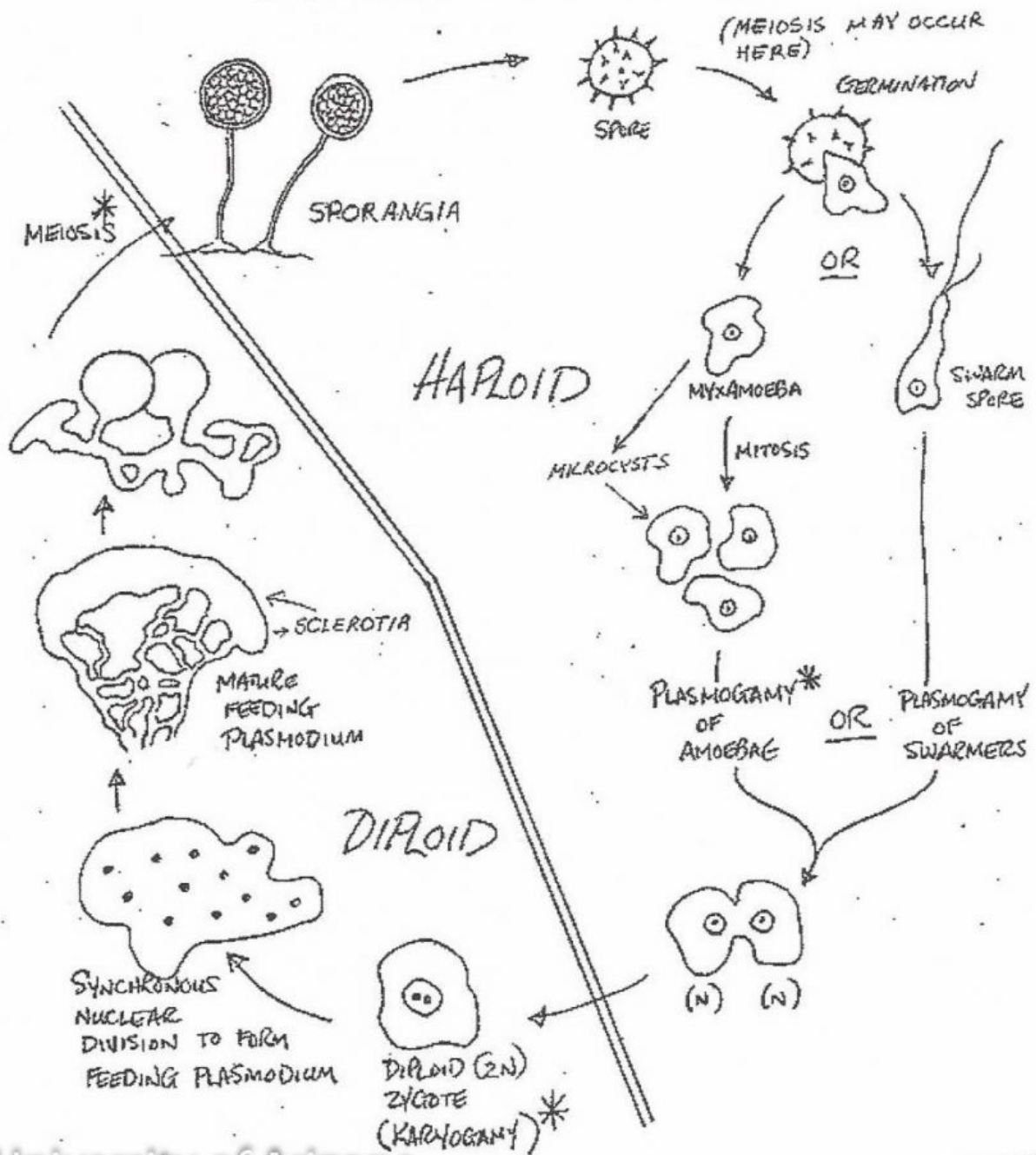
Slime molds have 2 life phases that have been described as “animal-like, creeping” and “fungus-like, fruiting” states. (Farr, vii) Doesn't knowing that one description intrigue you

about these?? Some of their fascination is because they “possess characteristics of both animal and fungi.” (Stephenson, 13) They look like fungi but can move like animals!

Another intriguing aspect to these slime molds is that they have varied forms and colors and are incredibly beautiful. Many painters and photographers have made them their favorite subjects. But don't limit your view of them to just the naked eye. They are even more gorgeous under a microscope!

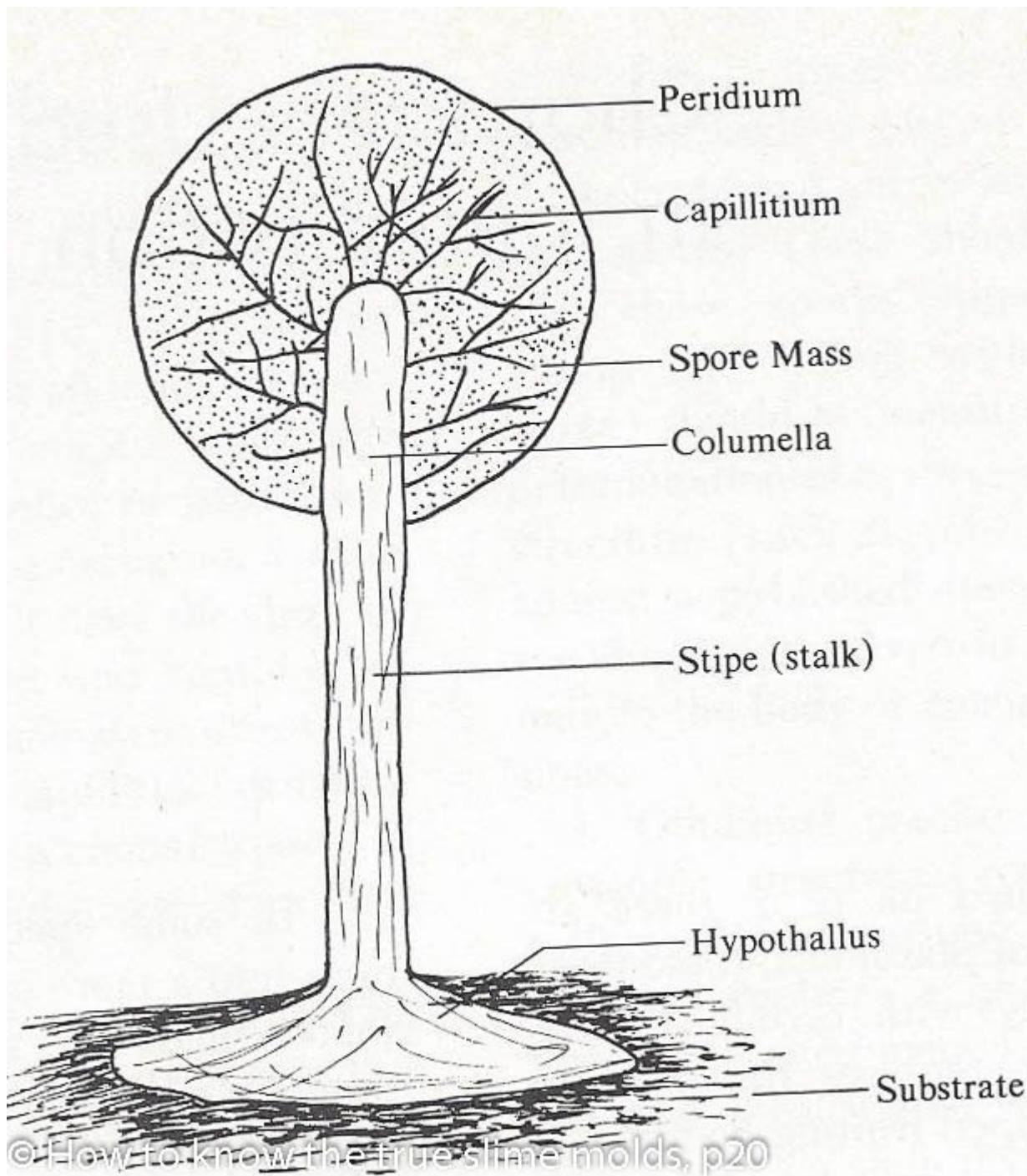
Here's a couple of diagrams that I found that describe the life cycle and explain the various parts of the Myxomycete's fruiting body.

TYPICAL MYXOMYCETE LIFE CYCLE



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Myxomycetes Life Cycle



Slime Mold fruiting body

Myxomycetes are an unpredictable group! They are found in all habitats, mostly on various substrates of decaying material. Unlike many of the other biota, their geographic range is not bound to specific hosts or habitats although very few are aquatic. Those considered rare or uncommon have been known to pop up in abundance at times then not be seen for years later. With that said, like all other biota, there are exceptions and there are those species that have their preferences. Other habitat preferences include the bark of living trees, litter

on forest floors, dung, and soil.

True slime molds can only be identified in their fruiting state of which there are 4 types: sporangia (small clustered, uniform shape and size), aethalia (cushion-like shaped), pseudoaethalia (resemble the aethalia but some maybe stalked), and plasmodiocarps (possibly net-like structures). (Farr, 19) They have been described as "goblets, globes, plumes or other shapes more difficult to characterize." (Stephenson, 13) The plasmodium state also has 4 different types but only 1 is likely to be encountered.

There are 2 types of slime molds. "True" slime molds are acellular and called myxomycetes; the other group of slime molds is cellular and known as dictyostelids. The dictyostelids are found in the soil and feed on the bacteria there. They are thought to maintain the balance between the soil bacteria and the other soil fauna.

Myxomycetes provide food, shelter, and breeding places for a various insects. Being that most slime molds are very small, under 1 or 2 millimeters, those being housed in them must be very small, too!

Some of the insect associations are known but the ecological relationships of these are poorly understood. According to Stephenson, "it is unusual not to find one or more beetles associated with large fruitings of the more common species." (64) Flies are also know to be found with true slime molds and because their puparia is located in the spore mass, they help to disperse the spores.

This very interesting fungus is worth knowing about and hopefully you'll find some the next time you're hiking in nature!

Sources:

Farr, M.L. 1981. How to Know the True Slime Molds. Dubuque, IA: Wm. C. Brown Company Publishers.

Stephenson, Steven L. and Henry Stempen. 1994. Myxomycetes: A Handbook of Slime Molds. Portland OR: Timber Press.

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