# Economical Importance's of bryophytes

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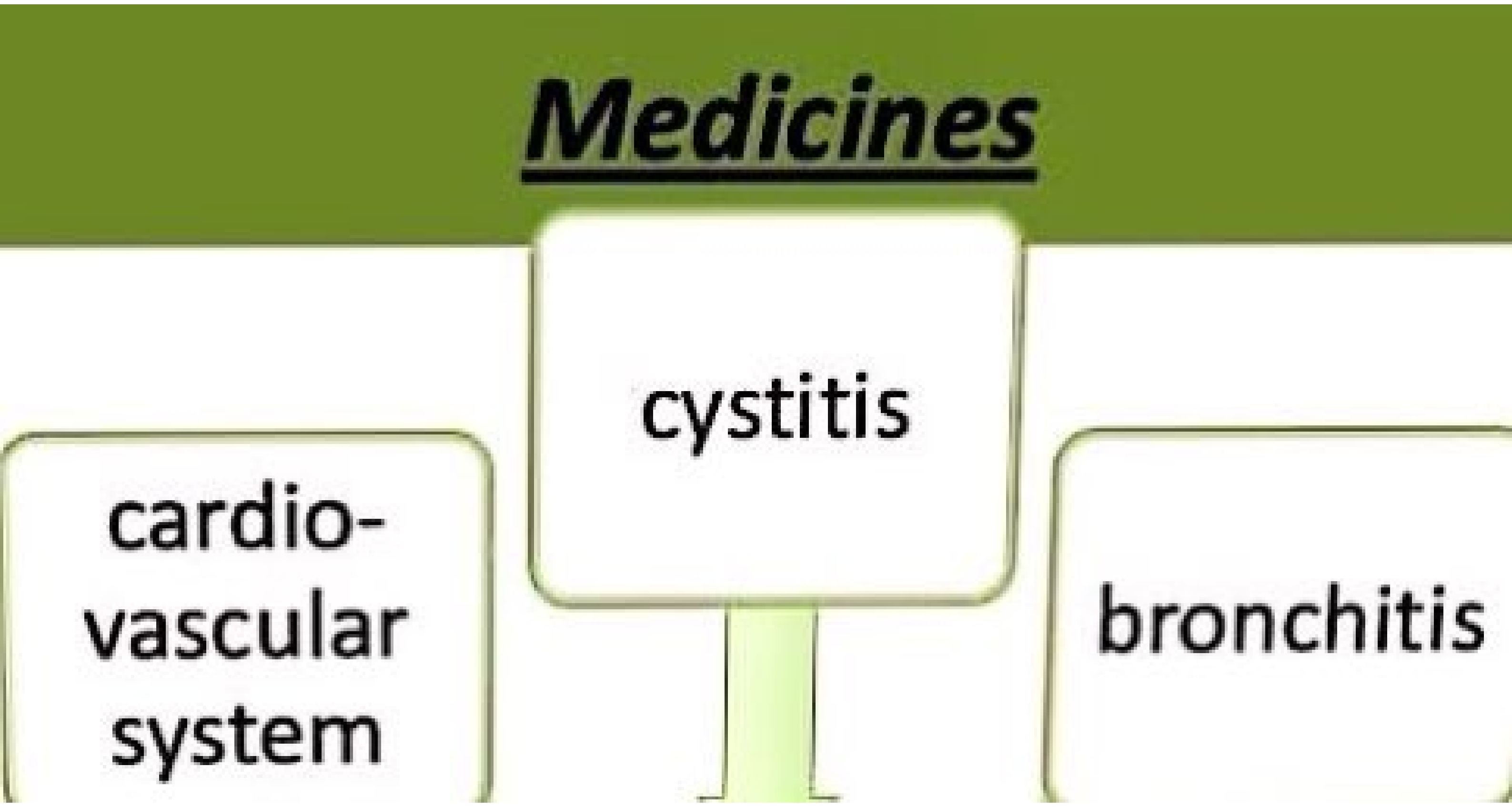
|---|---|---|
| Source of fuel | ***Horticulture,*** | Preservative agent |
| Household Uses | House Construction | ***pharmaceutical industry*** |

# House Construction

•These tiny plants are used in the construction of houses and their furnishings.

•At Kapkot in the Himalayas, villagers use moss mats with shrubs, grasses, and bamboo to make a pharki, a kind of door placed at the openings of their temporary huts.

Sphagnumpeat, peatcrete and peatwood are the new material use for making houses ,they are low cost and easy to transport.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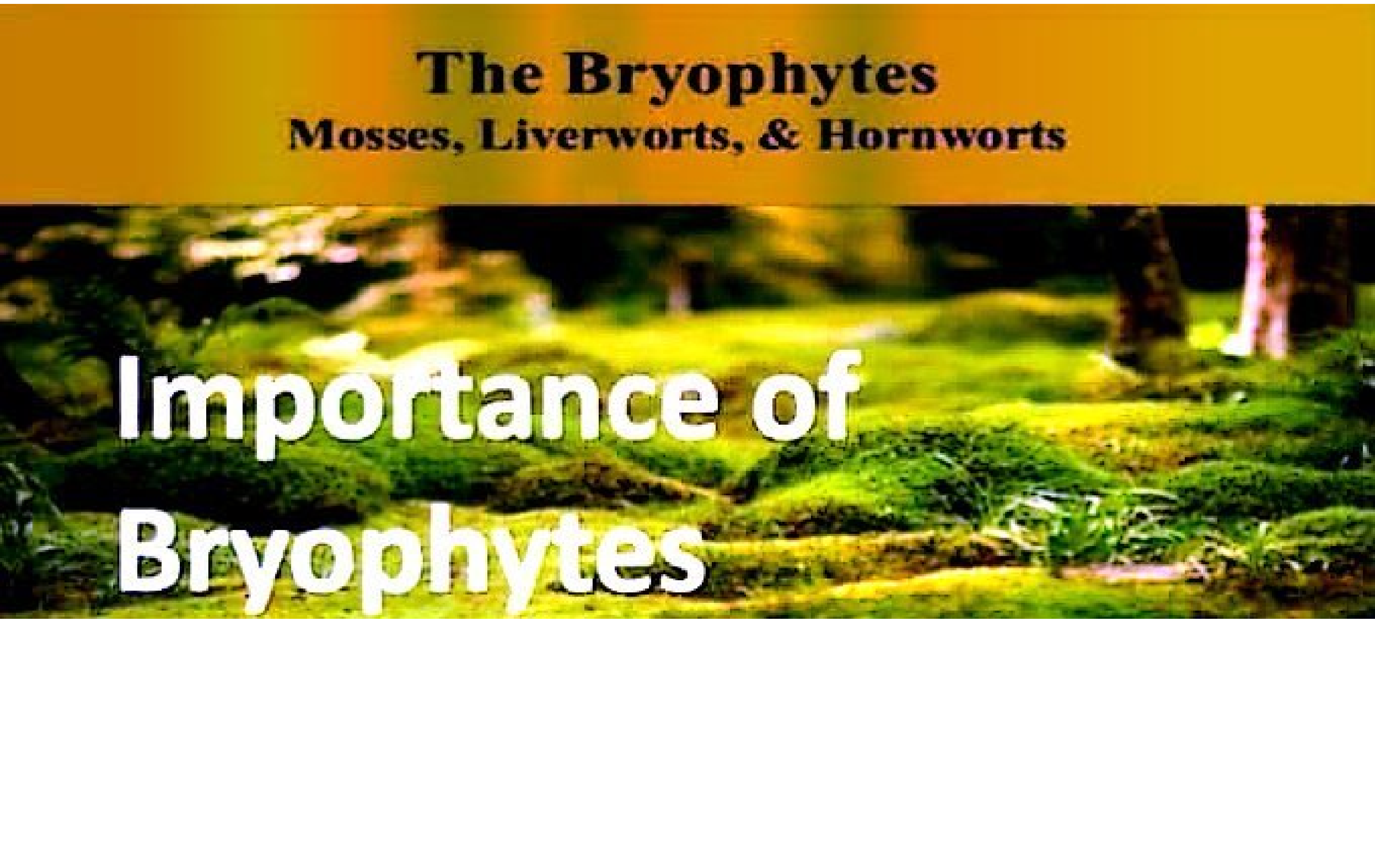

The Bryophytes
Mosses, Liverworts, & Hornworts
Importance of
Bryophytes

# Indicator of soil ph

- Liverworts and mosses are good indicators of soil ph.
- Some bryophytes can grow in narrow and specific range of ph so therefore their presence can be used as an indicator of soil ph.
- For example campylopus paradxus indicates acidic soil.

- Peat is a brown dark colour spongy matter produce due to compression and carbonization by deposits and water.
- Sphagnum and other mosses form peat.
- used in horticulture, making ethyl alcohol and illuminating gas.

# Seed Beds

- Bryophyte mats may provide ideal sites for the germination of vascular plant seeds.
- Bryophyte mat can provide a fairly stable micro-habitat, protected against the drying effects of sun and wind and the extremes of temperature.
- Therefore a seed that falls into such a carpet could find itself in a relatively sheltered micro-habitat that is conducive to successful germination.

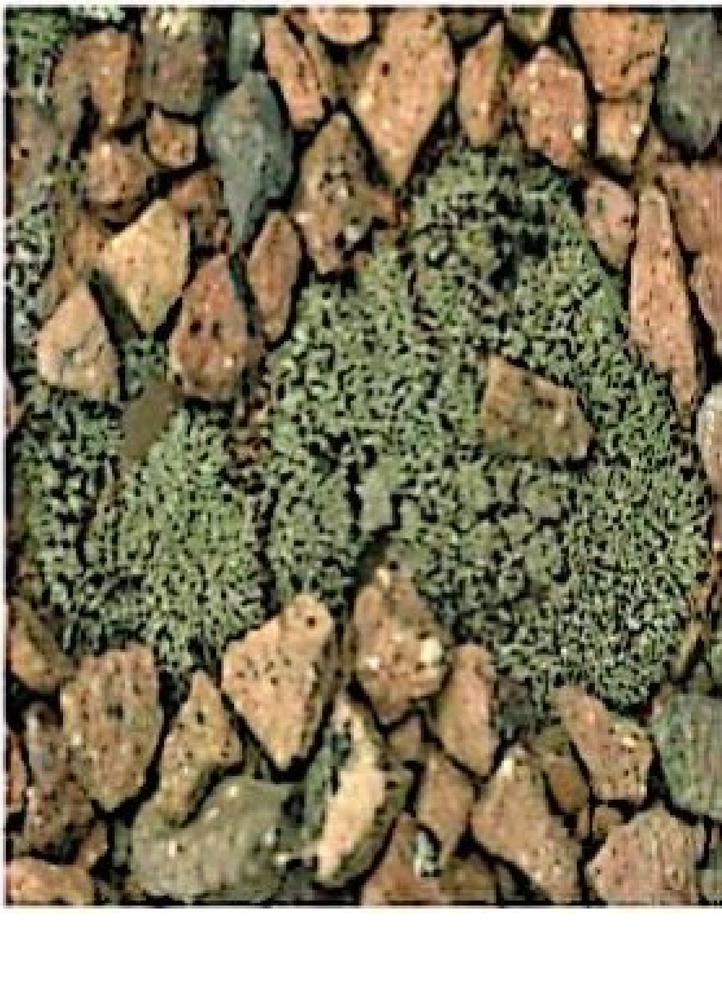
# Indicator of acid rain

- Mosses are good indicators of acid rain because they lack a protective epidermis and cuticle  hence are most suspectible than vascular plants.
- For example neckera crispa indicates high ph as like of acid rain.

- Moss industries in France manufacture moss carpets in various sizes.
- They are easy to fix along the
- roads, lawns, play grounds, etc.
- In Sri Lanka,a wide range of eco-friendly products such as coir pots, coir fiber pith (coco - peat), moss sticks, hanging wire baskets and basket liners are made using bryophytes.

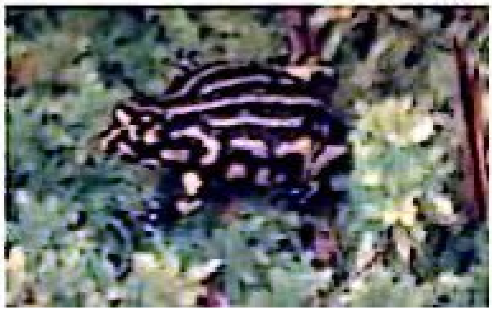
# POLLUTION

- Pollutants come in many forms from both urban and rural areas. Sulfur dioxide has been a significant industrial pollutant for many years, being a by-product of the use of high sulfur fuels.
- Sulfur dioxide is very damaging but some bryophytes are highly tolerant of sulfur dioxide pollution and examples of these are the mosses *Funaria hygrometrica* and *Bryum argenteum*



- Many animals make use of bryophytes. Numerous invertebrates eat bryophytes, lay their eggs on them or shelter in them. They form a vital part of the construction material of the nest of some birds

- In Vertebrates the range of associations is much less.
- Northern Corroboree Frog are found near *Sphagnum* bogs . These endangered frogs breed in *Sphagnum* bogs in the alpine and sub-alpine areas but move away from boggy areas outside of the breeding season.



Bryophytes have excellent power to absorb moisture and can act as a good preservative agent . They not only help to prevent food but also help to preserve death bodies.

# SOIL CONSERVATION

- Bryophytes form a mat and prevent soil erosion.
- The intertwined moss stems and rhizoids bind soil particles firmly.
- Hold large amount of water and reduce run off.

**WATER EROSION and nutrient recycling:**

- Bryophytes on tree trunks absorb rainwater that's flowing down the trunk and those hanging like curtains absorb water, both from rain and help maintain a humid atmosphere and so greatly influence the micro-climate.
- Bryophytes will also trap any nutrients that are dissolved in the rain or mist droplets, in many cases trapping nutrients that would otherwise be washed away. Living bryophytes make use of the nutrients they trap and dead, decaying bryophytes release nutrients to the surrounding plants.

## Diagram