

Spore Dispersal



Spores are carried by air current; however, how will they escape from a crowded place (lack of adequate air flow)?

Hypothesis

If more spores were to be ejected at once, greater air flow would be created to carry spores further.

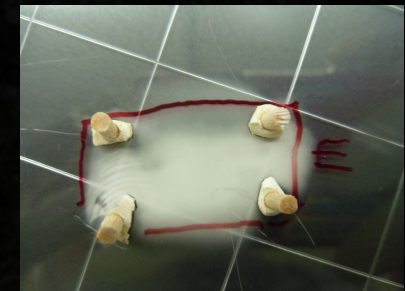
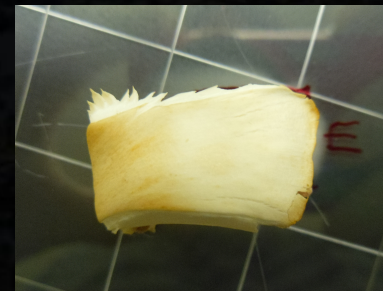
Spores are driven by gravity currents.

Ex: Pyroclastic flow

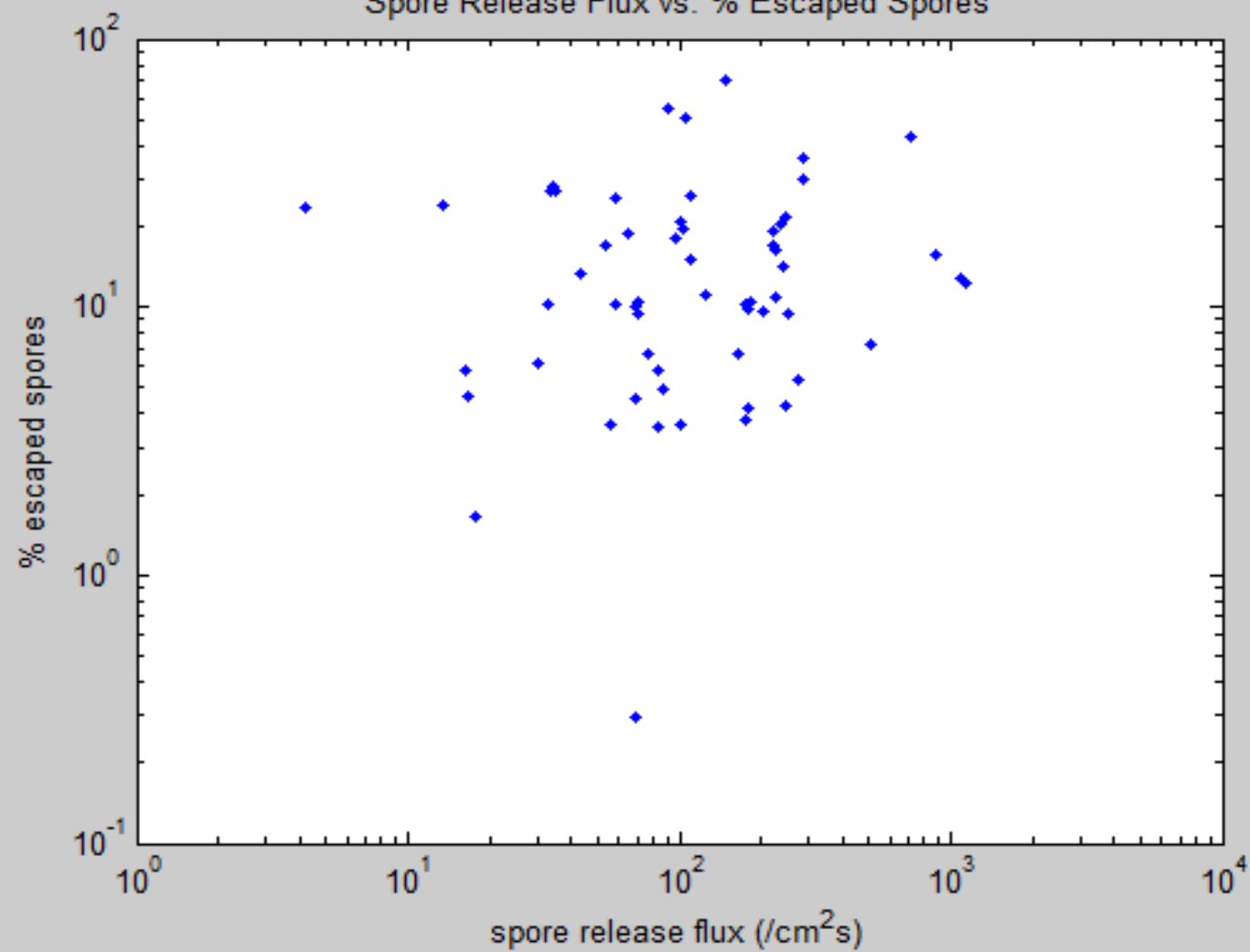


Method

- Transparencies in petri dish
- Mark boundaries
- Leave fungi for couple of hours
- Look at spore prints
- Suspend spores in 5mL of water
- Spore counting

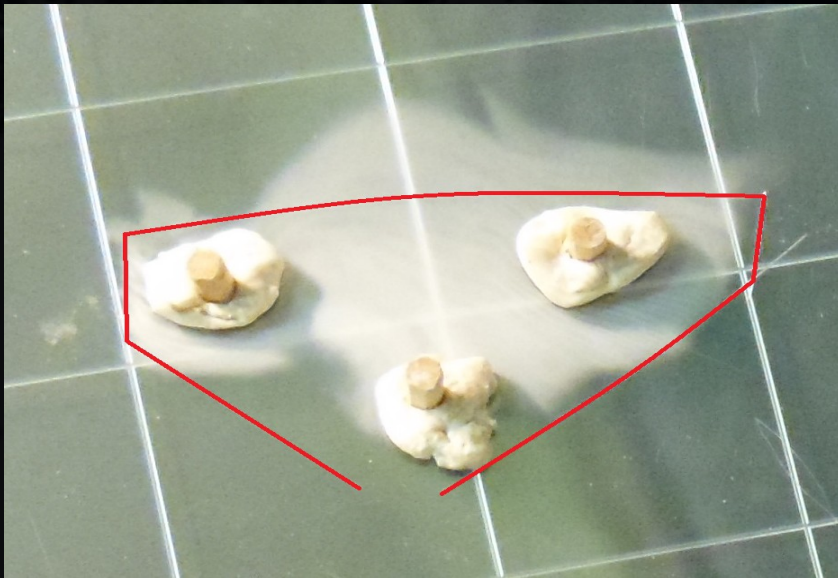


Spore Release Flux vs. % Escaped Spores

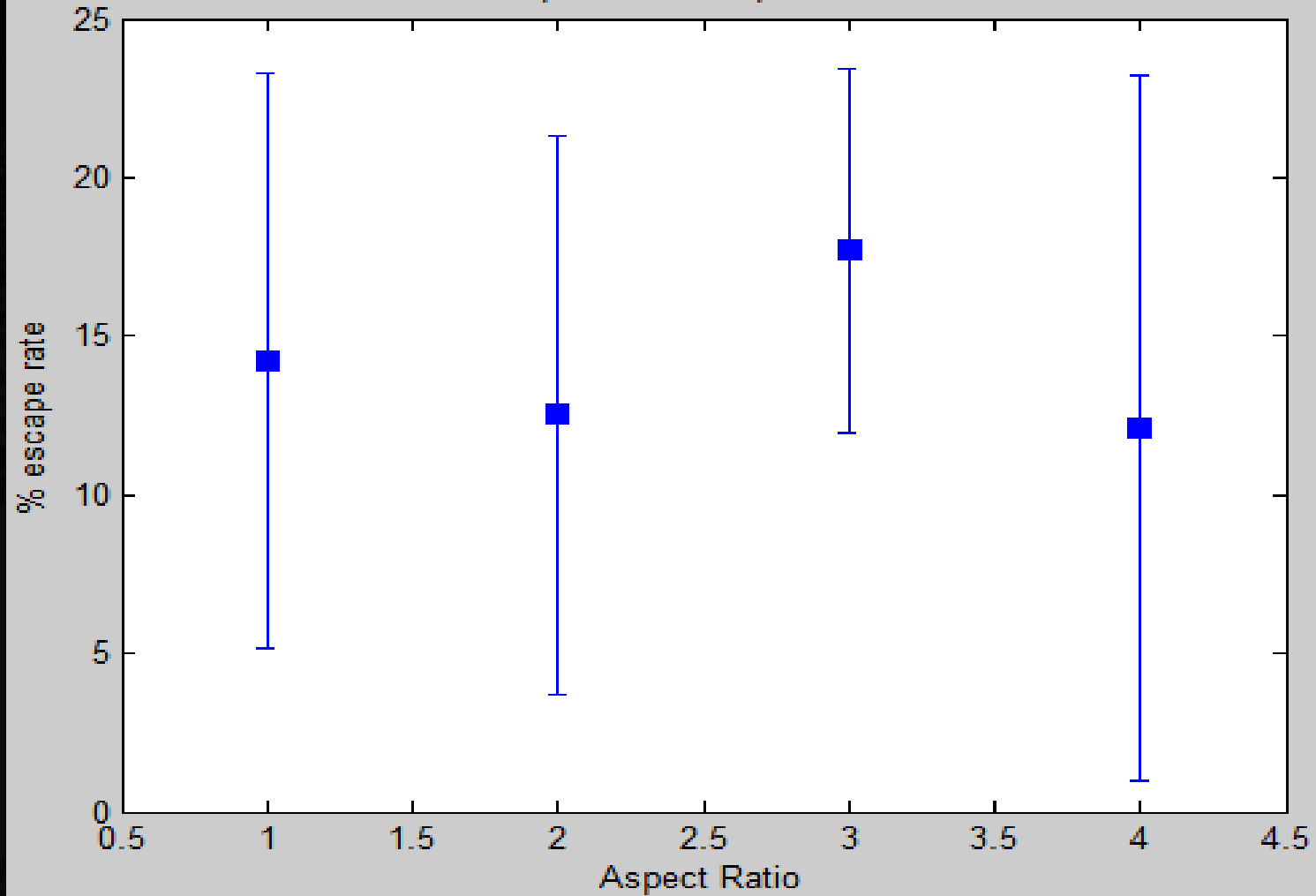


New Hypothesis

Small dimensions will lead to higher escape rates.



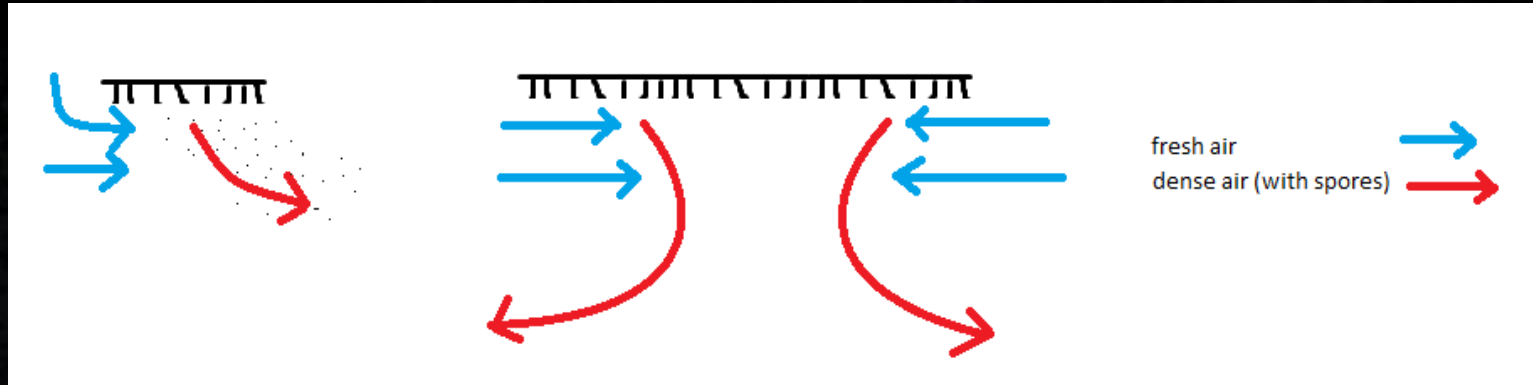
% Escape rate vs. Aspect Ratio Plot



Result

- Small dimensions → Higher Escape rate
- Escape rate is independent from aspect ratio.
- Larger pieces with same aspect ratio had significantly low escape rates.

Explanation



- With a longer dimension, spores are pushed in before pushed out.
(Risk of getting stuck)