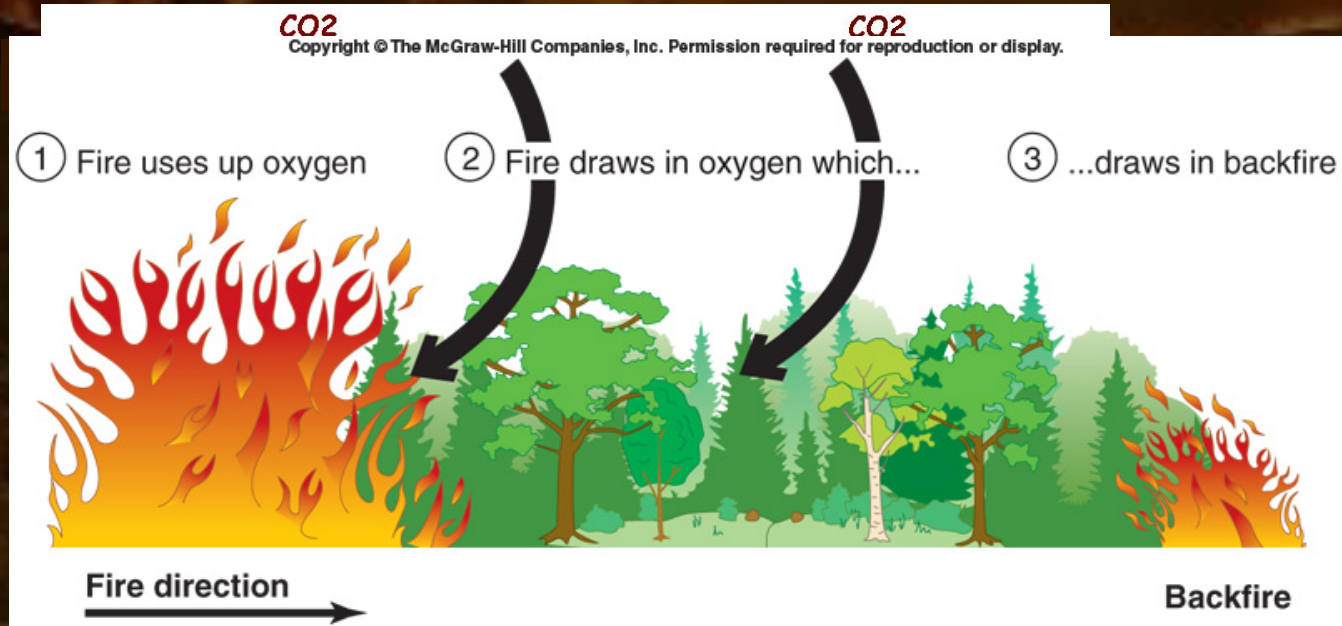
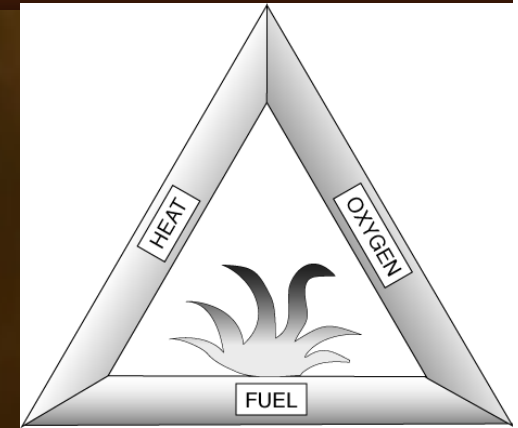


The Fire Triangle – How to Fight a Fire

Take any of the 3 away.

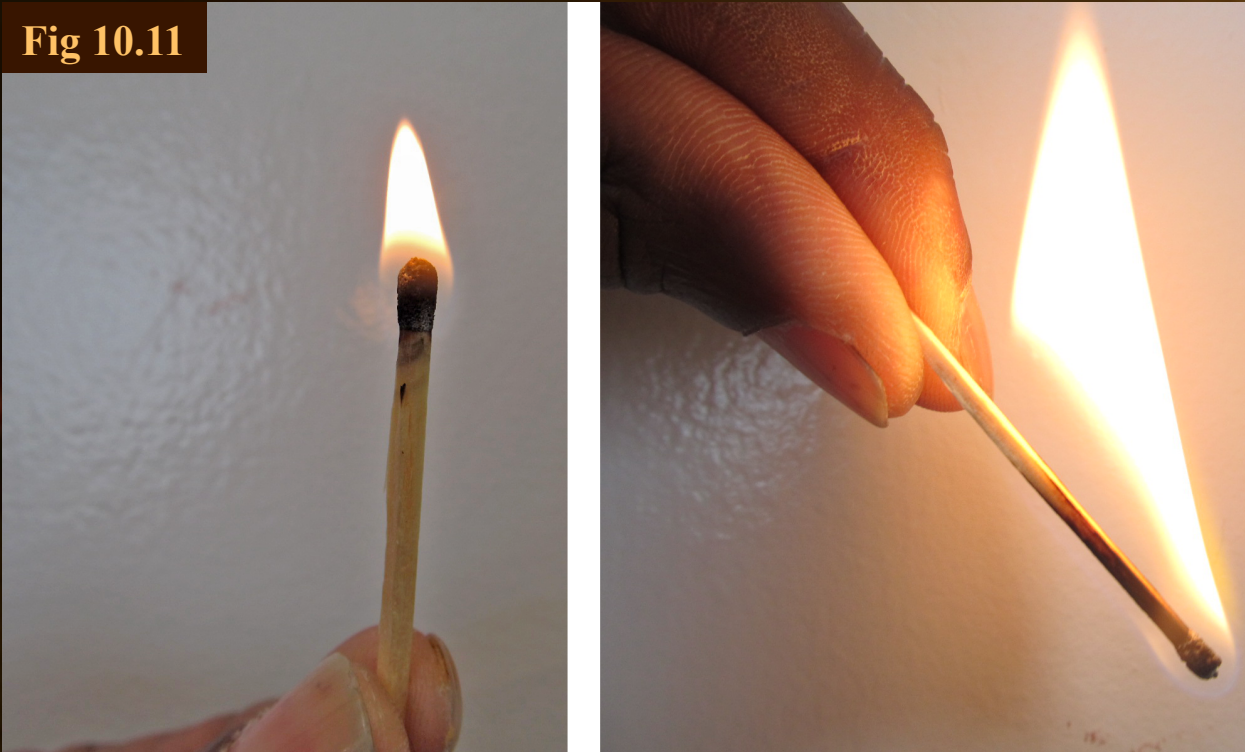
- heat ➤ water
- oxygen ➤ fire retardant (reddish)
- fuel ➤ clear vegetation, backfires



source: Abbott "Natural Disasters"

Some Characteristics of Fire

Fig 10.11



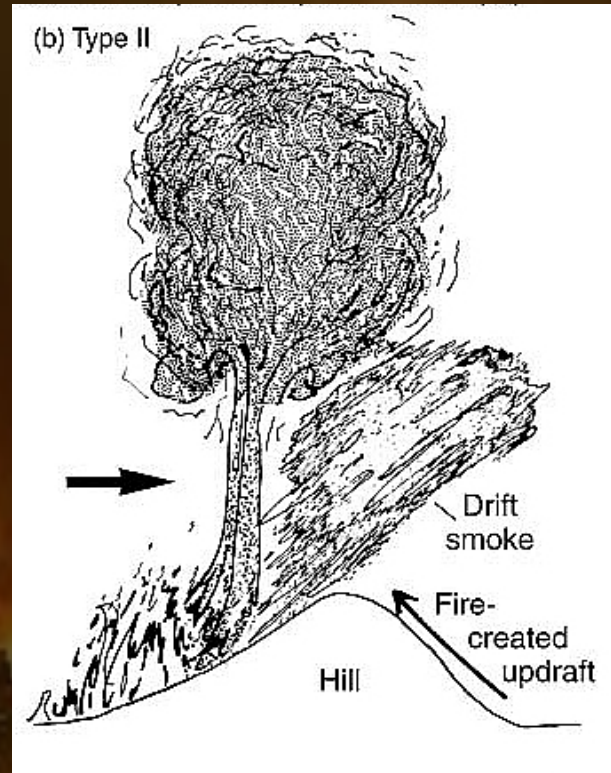
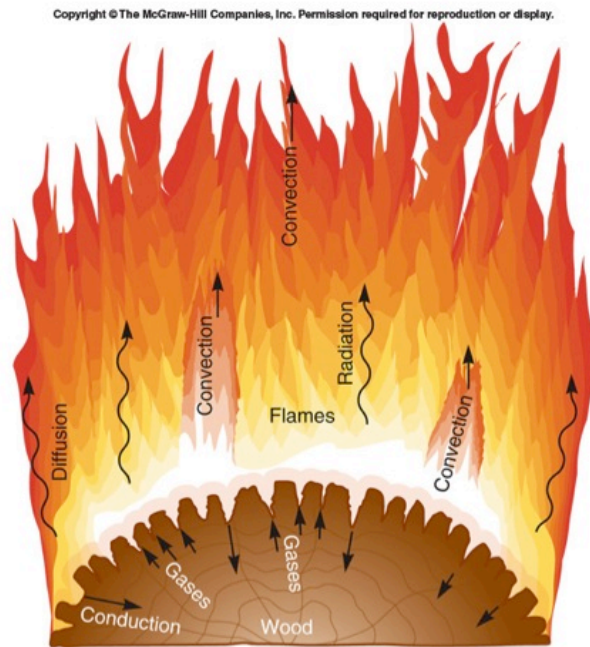
❖ Lecture 2: heat most efficiently transported by convection

- ❖ fires burn quickly upslope (because heat rises)
- ❖ fires burn quickly in ladder fuel

❖ **BUT: strong winds can push fire downslope**

Some Characteristics of Fire

Fig. 15.6

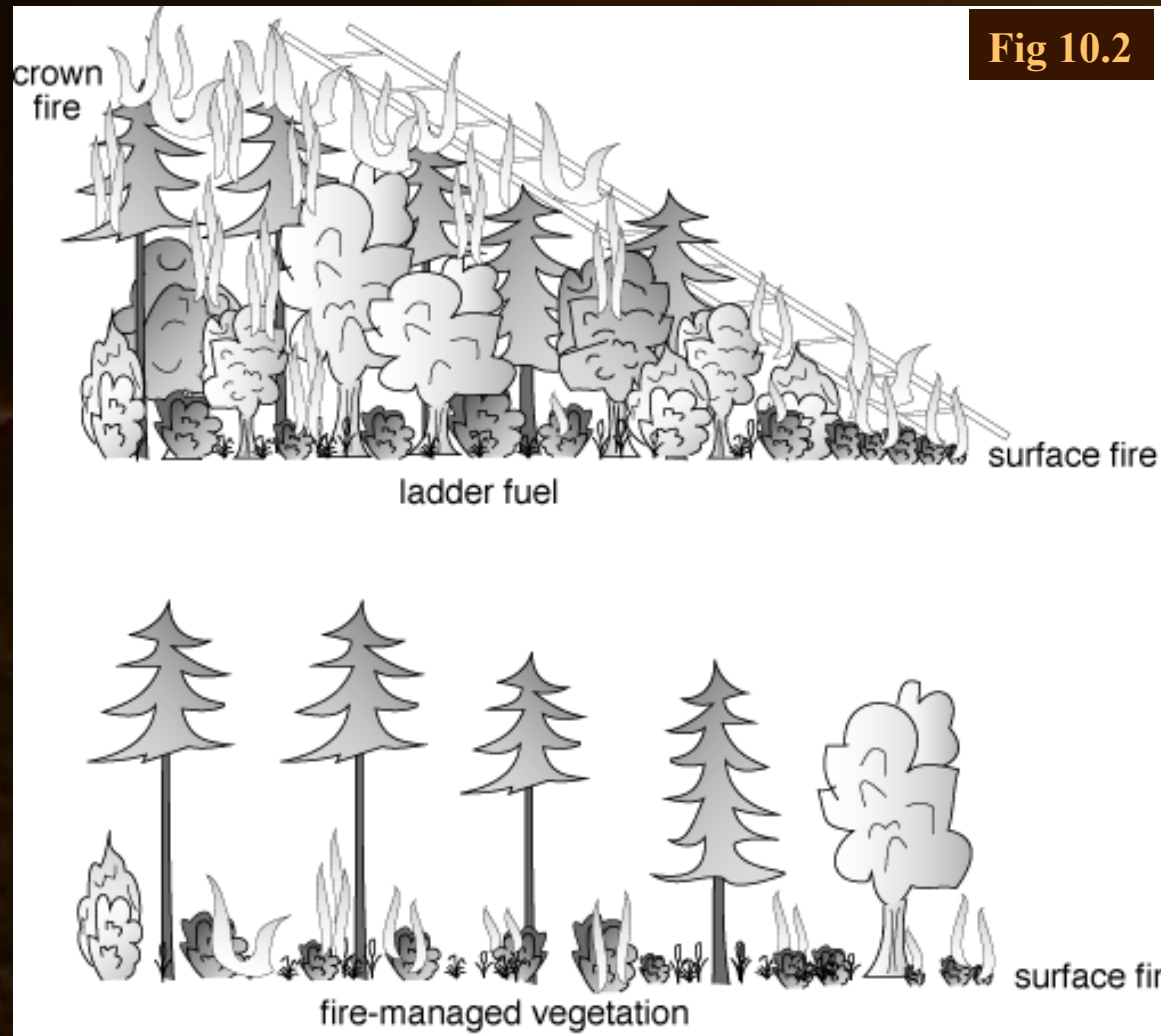


❖ Lecture 2: heat most efficiently transported by convection

- ❖ fires burn quickly upslope
- ❖ fires burn quickly in ladder fuel

❖ **BUT: strong winds can push fire downslope**

Ladder Fuel



ladder fuel:
continuous vegetation with
increasing height

mitigation:
interrupt the ladder fuel

Climate and Nature's Need for Fires

climates with need for fire

- Mediterranean
- savanna/bush
- some temperate

- ❖ to recycle organic material
- ❖ control of parasites
- ❖ to influence insect behavior
- ❖ germination



Knobcone Pine



Lodgepole Pine

Climates with no need for Fires

climates with no need for fire

- tropical: warmth and moisture abundant for effective decomposition
- desert: plant growth too slow
- polar: plants not abundant

Daintree Rainforest, Australia



source: wikipedia.org

Anza Borrego Desert



photo: David Corby
on wikipedia

Mt. Erebus, Antarctica



source: wikipedia.org