

**PBIO-141**

# **Sensory and Physiological Ecology of Plants**

12b: Carbon Assimilation (E)

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# **Canopy photosynthesis**

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# Canopy photosynthesis

- If we use the big leaf analogy to express photosynthesis of a canopy we can compare the light response of a leaf to that of a canopy.
- In a canopy even when upper leaves are light saturated (photosynthesizing at maximum rate ( $A_{max}$ )) other lower leaves can still increase  $A$  if irradiance above the canopy increases.
- Consequently canopy photosynthesis ( $\mathcal{A}$ ) saturates at higher irradiances than  $A$  of individual leaves.