Ohio Sea Grant publication OHSU-POST-005-2012 results of project # M/P-002

what's a

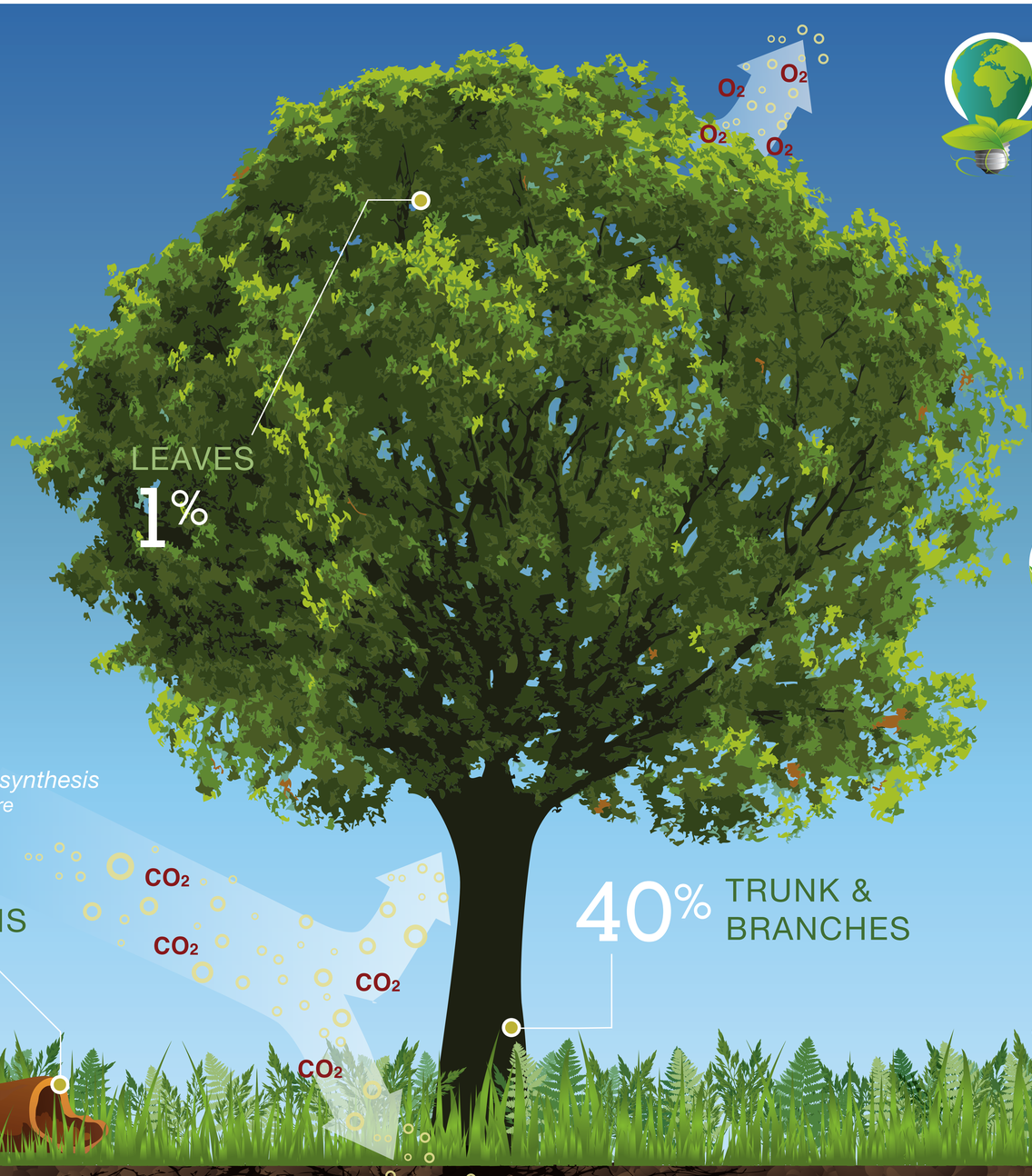
carbon sink?

Data from C.M. Gough and others, Bioscience 58(7) 2008

Spanning more than 68 million acres, the forests of the Great Lakes are a huge carbon sink, a natural reservoir that accumulates and stores carbon. By preserving our forests, we can help to reduce excessive amounts of carbon that are released into our atmosphere each year and restore balance to Earth's living systems.

carbon is life

Carbon is a natural part of all living things. In fact, 20% of our body mass is made up of carbon. Normally, carbon travels between organisms, soil, and the atmosphere in a balanced exchange. When this balance is disrupted—by burning fossil fuels, for example—we end up with too much carbon dioxide in our atmosphere, trapping heat and disrupting our world's climate.



carbon storage 101

CARBON IN: PHOTOSYNTHESIS

Plants make their own energy using carbon, water, and sunlight:

6.2 tons of carbon per acre taken in yearly

CARBON OUT: ECOSYSTEM RESPIRATION

After taking in gases to power their bodies, both plants and animals release waste gases into the atmosphere:

5.5 tons of carbon per acre released annually

CARBON STORED

After the natural exchange between plants, animals and the atmosphere, we end up with

0.7 tons of carbon stored each year

That's over 1500 pounds per acre!

TOTAL ECOSYSTEM CARBON how much is there?

The total carbon present in a Great Lakes forest adds up to

80 tons per acre

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