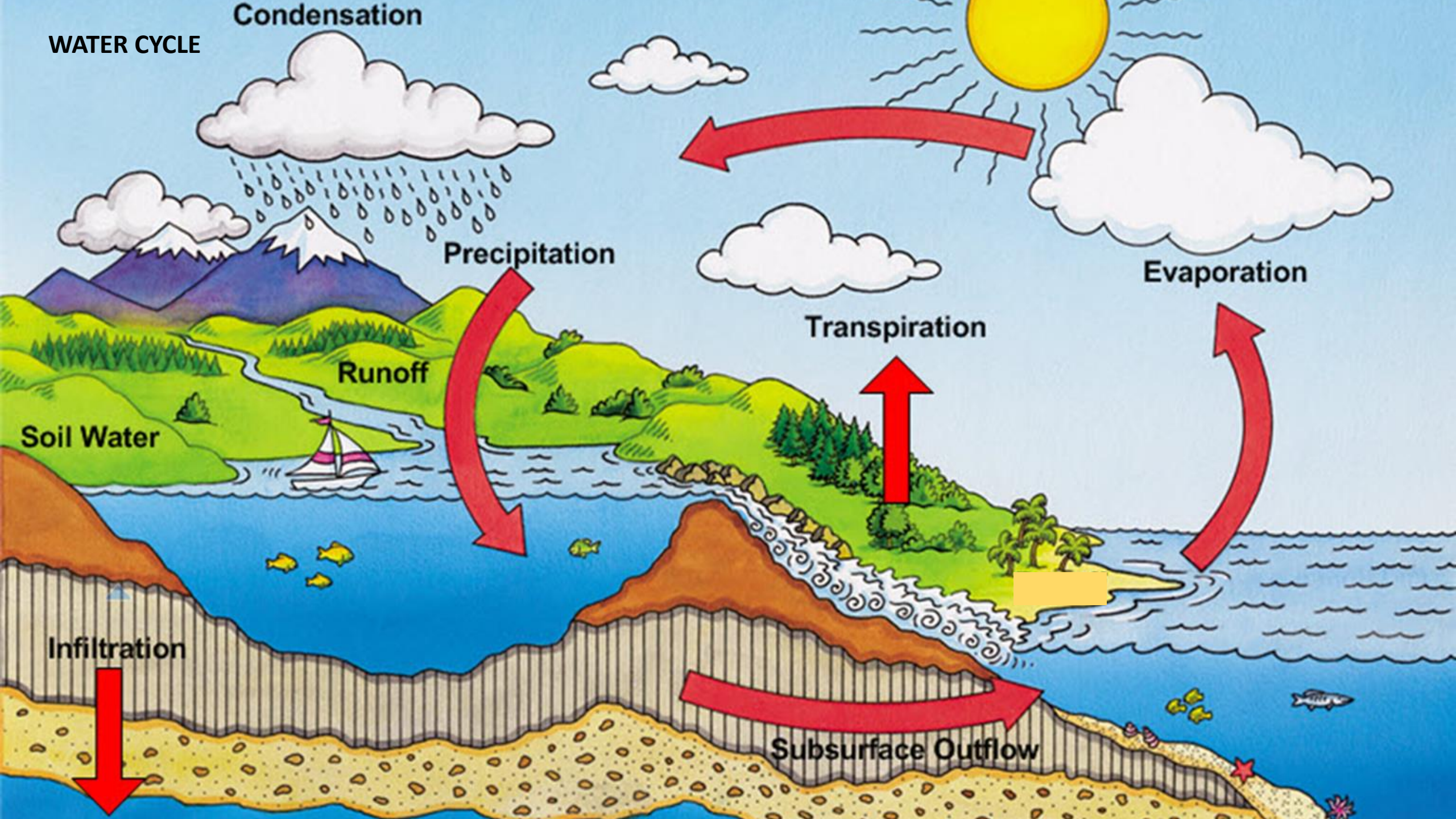


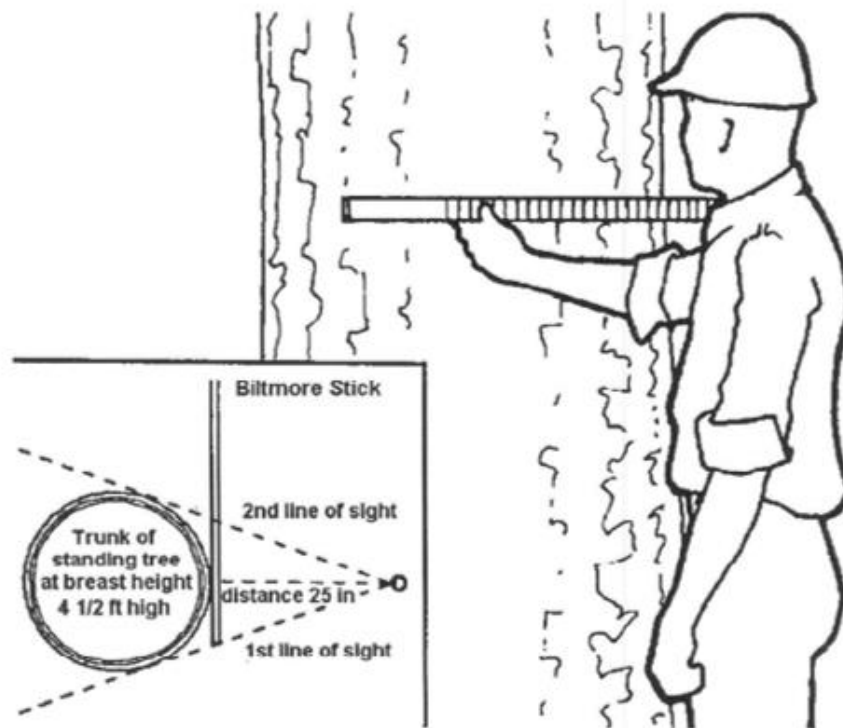
WATER CYCLE



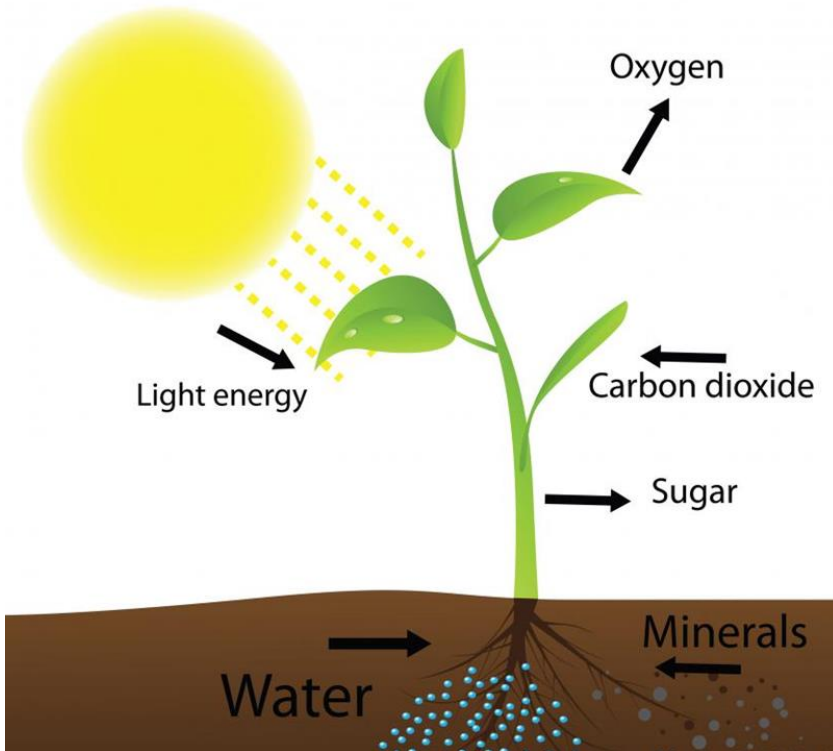
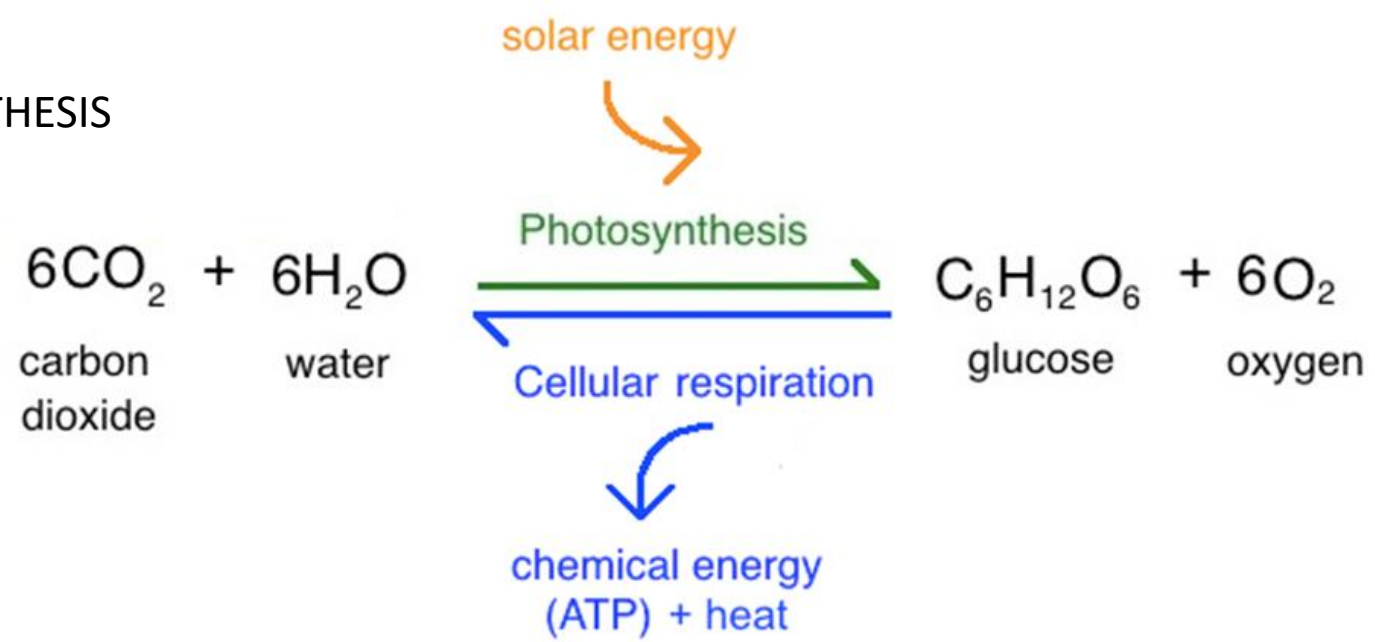
HOW TO USE A BILTMORE STICK ¶

To Measure Diameter

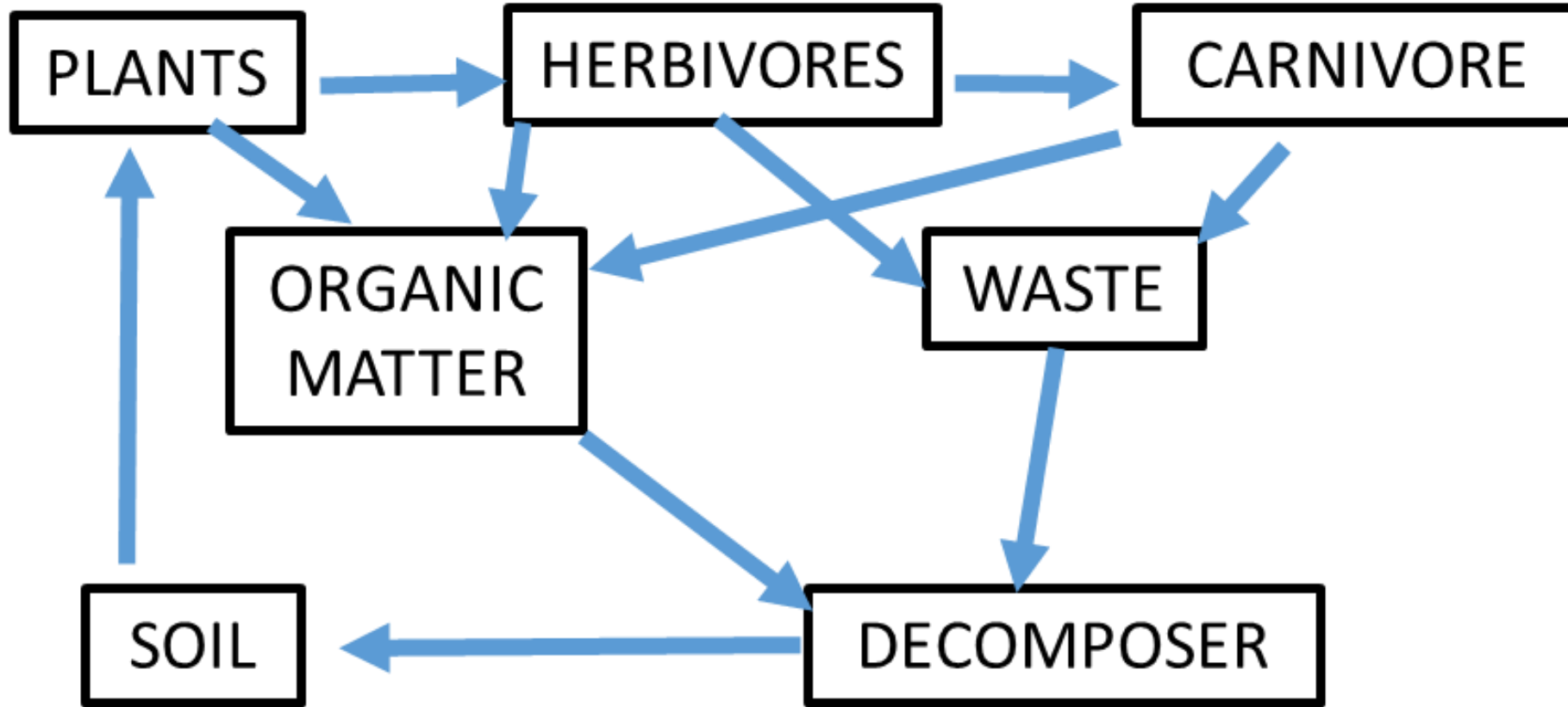
1. Diameter is measured at what is called Diameter Breast Height (DBH). This is 4.5 ft. (1.37 m) up the trunk from the ground. If the tree you are measuring is on a slope, diameter should be taken at 4.5 ft. (1.37 m) on the uphill side of the tree.
2. Hold the Biltmore stick against the tree at DBH, 25 in. (62.5 cm) from your eye. Make sure the edge of the stick that reads diameter is facing you.
3. Sight past the zero end of the stick and the edge of the tree.
4. Without moving your head, shift your eyes to other side of the tree and read the black diameter mark nearest to your line of sight.
5. Tree trunks usually are not round. If a trunk is very much out of round, you should measure both wide and narrow diameters and take the average of the two.



THE PROCESS OF PHOTOSYNTHESIS



NUTRIENT CYCLE

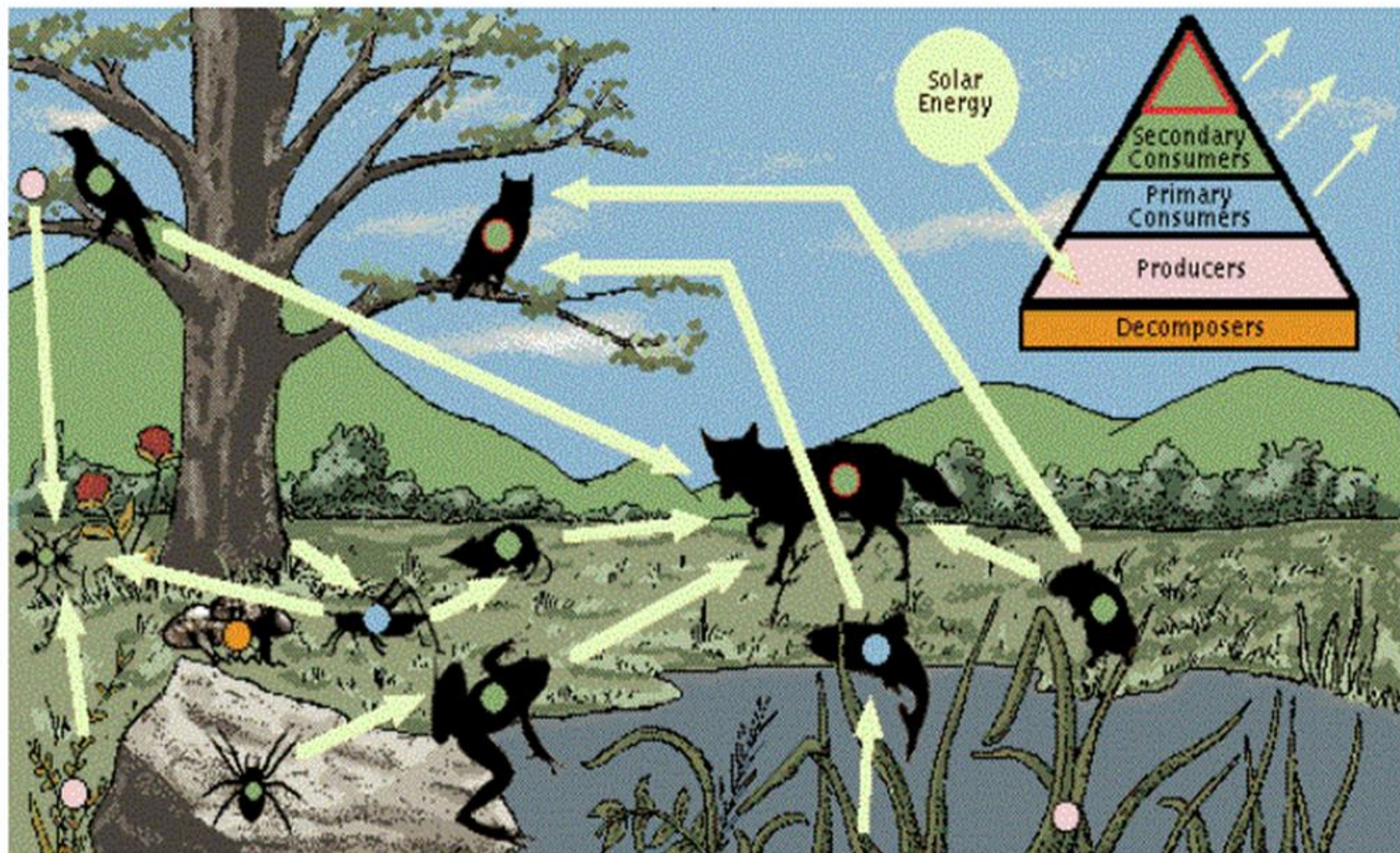


PRODUCERS- Consist of photosynthetic organisms (plants and/or phytoplankton)

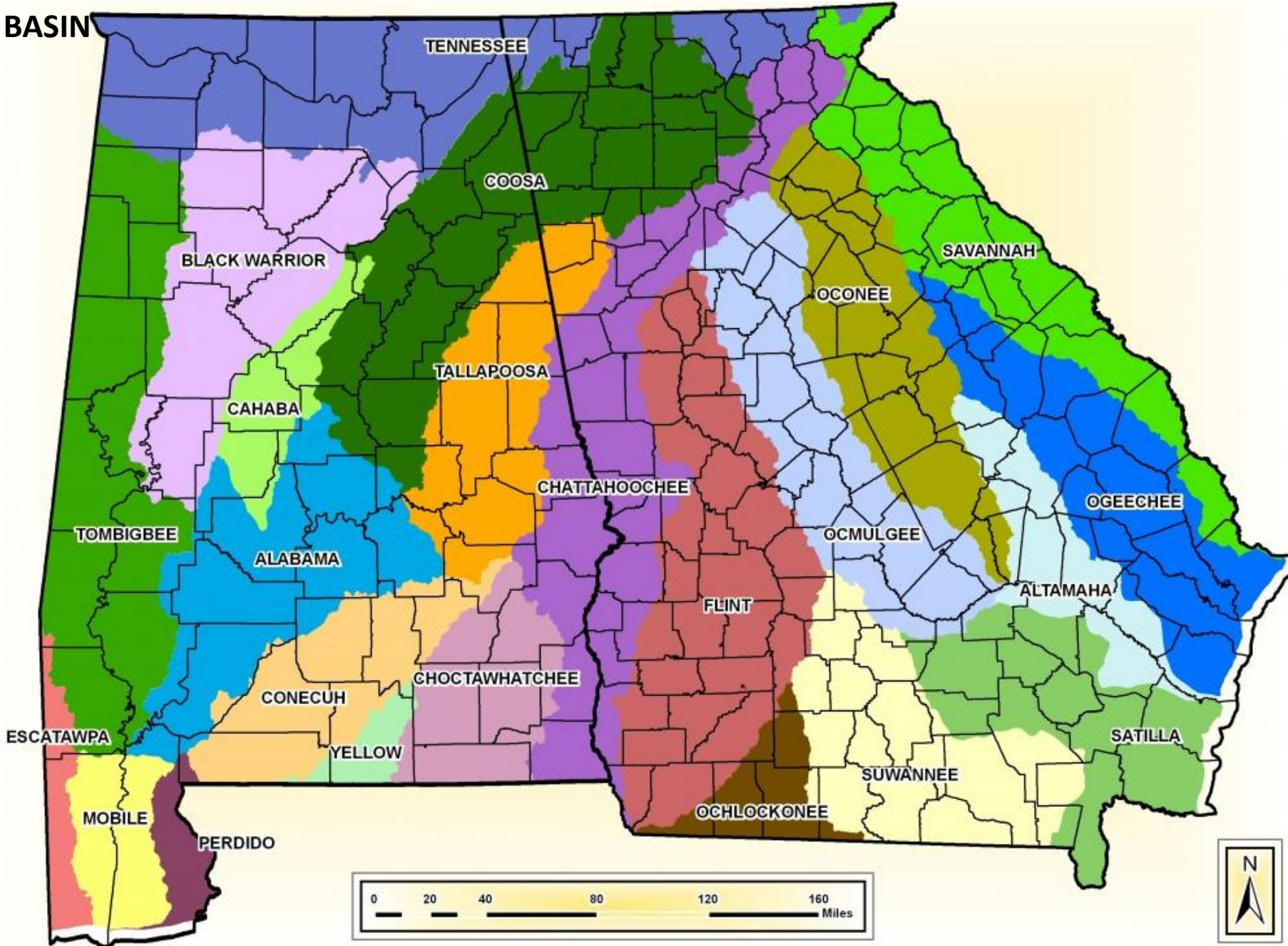
PRIMARY CONSUMERS- Herbivores that eat producers

SECONDARY CONSUMERS- Carnivores that eat the primary consumers

TERTIARY CONSUMERS- Carnivores that eat other carnivores. Higher-level consumers feed on the next lower trophic levels, and so on, up to the organisms at the top of the food chain: the apex consumers.



GEORGIA RIVER BASIN ECOSYSTEMS



Pith

A small and often pulpy core running up the center of the trunk

Heartwood

Sapwood that has been clogged with resins, gums and other extractives; supports tree

Growth ring

A concentric ring divided into earlywood and latewood indicating the amount of wood added to a tree's diameter in one growing season

Ray

Carries nutrients laterally through the wood; also stores nutrients

Bark

Insulates tree against temperature extremes; keeps sapwood and phloem from drying out

Sapwood

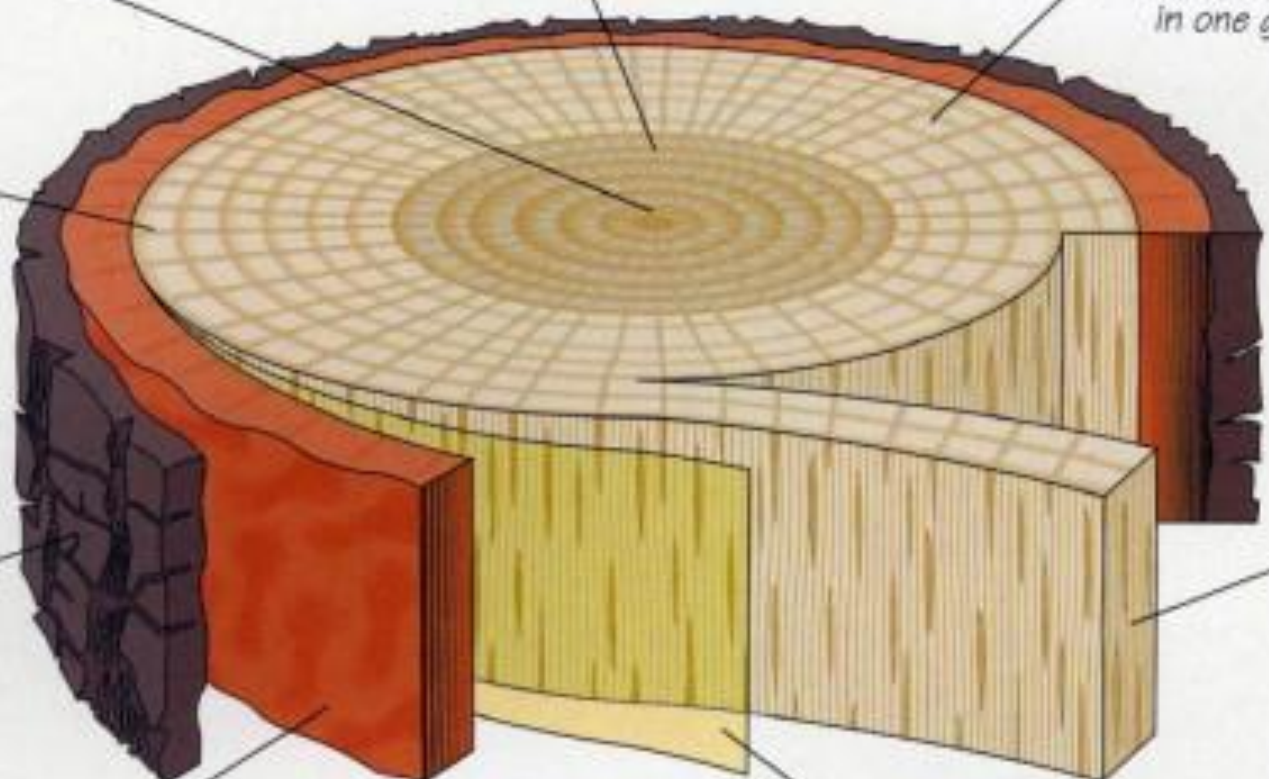
Active part of the tree's wood through which water and minerals are conducted from the roots to the leaves; also stores nutrients and helps to support the tree

Phloem

A thin, spongy layer of tubes that carry dissolved sugars and growth hormones from the leaves to other parts of a tree

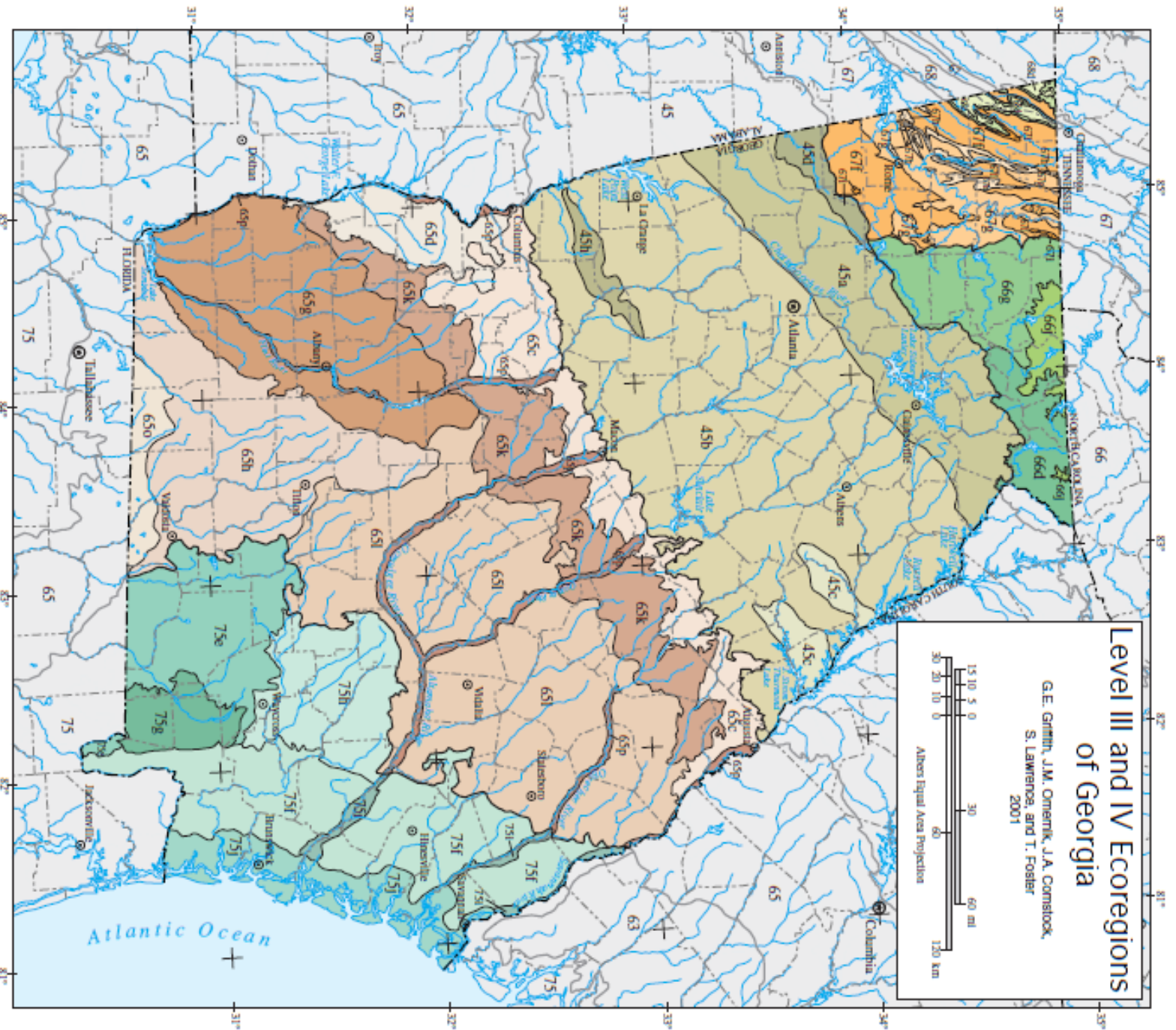
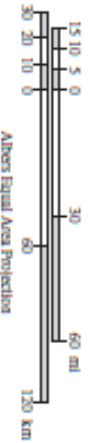
Cambium

A thin reproductive layer that forms new tissue, adding to the phloem and sapwood to increase a tree's girth



Level III and IV Ecoregions of Georgia

G.E. GRIFFIN, J.M. OMIENIK, J.A. COMSTOCK,
S. LAWRENCE, AND T. FOSLER
2001



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|--------------------|--|-------------------------------|--|----------------------------------|--|
| 45 Piedmont | | 65 Southeastern Plains | | 66 Blue Ridge | |
| | 65d Southern Hilly Gulf Coastal Plain | | | 67 Ridge and Valley | |
| | | | | 75 Southern Coastal Plain | |
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- Level III ecoregion
Level IV ecoregion
State boundary
County boundary