

ES 10 March 14 and 17 2003

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Terrestrial Biomes: forests, savannas, grasslands, shrublands

Reading: B&K Ch 8

Topic outline

1. Biomes in the hierarchical organization of nature
2. Major terrestrial biomes

Definitions:

Biome: a collective term for ecosystems with similar physiognomy of primary producers

Forest: Vegetation type dominated by large (>5 m tall) closely-spaced woody plants.

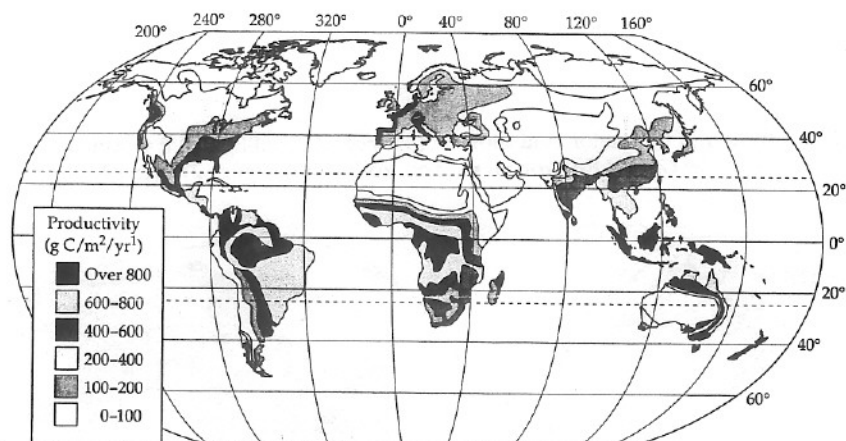
Shrubland: Vegetation type dominated by small (<5 m tall) woody plants.

Grassland: Vegetation type dominated by non-woody plants.

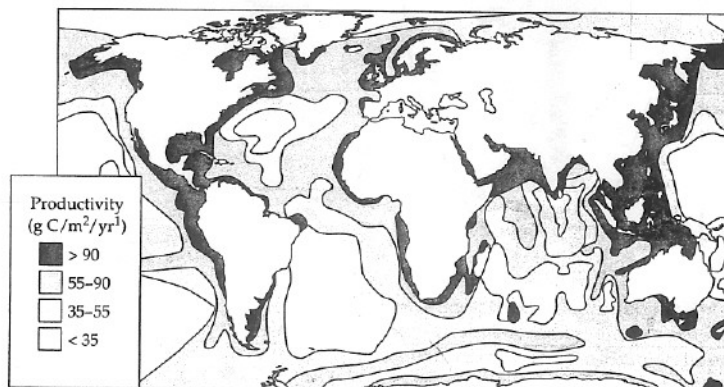
Savanna: A grassland with scattered trees.

Succession: directional change in a community or an ecosystem over time.

Biological diversity: richness, relative abundance, and dominance of genes/species.



(a)



(b)

FIGURE 11.3 Global net primary productivity. (a) Net primary productivity of the land. (Reichle, 1970.) (b) Net primary productivity of the oceans. (Koblentz-Mishke, 1970.)

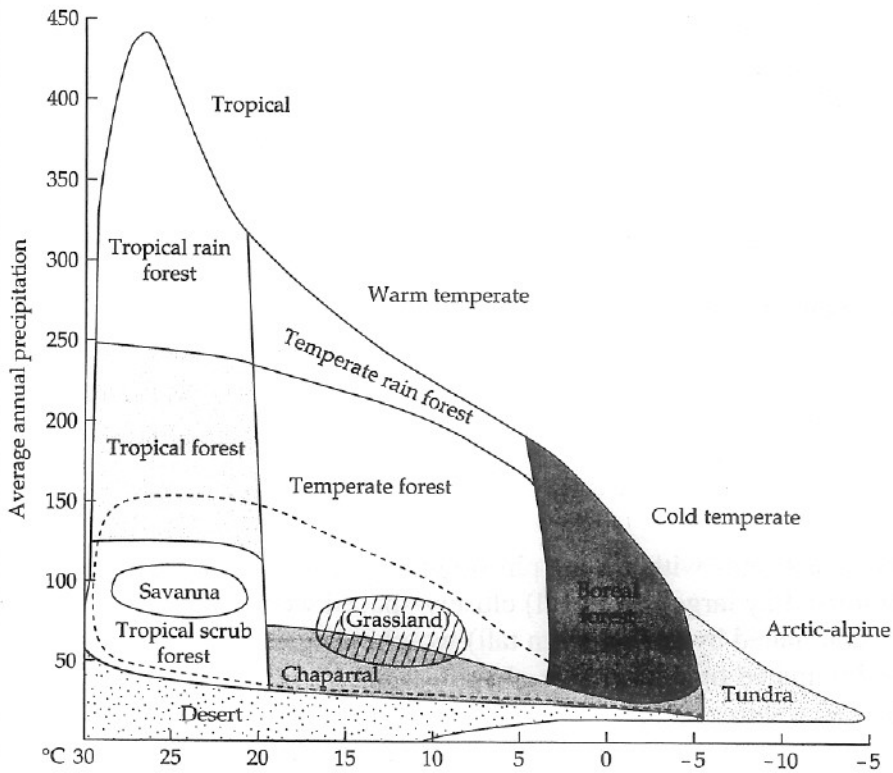


FIGURE 11.1 A broad-brush approach to classifying the biomes of land areas according to mean annual precipitation and temperature. At the boundary of each biome classification, secondary factors such as soil type, slope, aspect (compass direction that a slope faces), and seasonality will become increasingly important. Therefore, the lines separating biomes in this figure should be thought of as a little fuzzy, rather than as being sharp divisions. (Whittaker, R. H., *Communities and Ecosystems*, 2nd ed., 1975. Adapted by permission of Prentice-Hall, Inc., Upper Saddle River, NJ.)

FIGURE B1 Global distribution of the major land biomes. (Source: H. J. deBlij, and P. O. Muller, 1996, *Physical Geography of the Global Environment*, New York, Wiley, Figure 27-1, p. 290.)

