

Botany (H) CBCS Syllabus WBSU

Semester IV

Core Course IX: Plant Ecology and Phytogeography

Course Code: BOTACOR09T THEORY

Unit 5: Biotic interactions

STANDING CROP

The total amount or number of living things or of one kind of living thing (such as an uncut farm crop, the fish in a pond, or organisms in an ecosystem) in a particular area at any given time

A **standing crop** is the total dried biomass of the living organisms present in a given environment.

Pyramid of standing crop

A pyramid of standing crop indicates how much biomass is present in each trophic level at any one time.

As for pyramids of numbers, a pyramid of standing crop may not well reflect the flow of energy through the system, due to different sizes and growth rates of organisms.



biomass of carnivores
biomass of herbivores
biomass of producers

(at one point in time)

The difference between standing crop biomass and simply **bioamass** is a matter of accumulation (biomass) relative to total amounts of accumulation (standing crop biomass).

Standing crop is the total above-ground plant **biomass** on the site at a particular point in time. Standing crop includes **current year's production** together with that produced in previous years. Standing crop at a site fluctuates within and among years, depending on seasonal conditions and **utilization** by grazing animals.

One common objective of rangeland monitoring is to try to determine peak standing crop, or the greatest level of biomass at the site during the year. In environments with clearly defined seasons, peak standing crop coincides with the end of the growing season, such as in early fall following the monsoon rainfall in southern Arizona. Information regarding the peak standing crop is taken as an indicator of yearly **productivity** and used to estimate **carrying capacity**.

Sources:

<https://www.merriam-webster.com/dictionary/standing%20crop>

Michael Begon; Colin R. Townsend; John L. Harper. (2006). Ecology : from individuals to ecosystems. Blackwell Publishing Ltd. p. 499. ISBN 978-1-4051-1117-1.

<https://www.slideshare.net/PakeezaSana/energy-ecosystem>

http://www.biologyaspoetry.com/terms/standing_crop_biomass.html

<https://globalrangelands.org/inventorymonitoring/standingcrop>

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