

UNH Food Forest Agroforestry Research

Food Forests as Outreach, Education and Research in New England Agroforestry

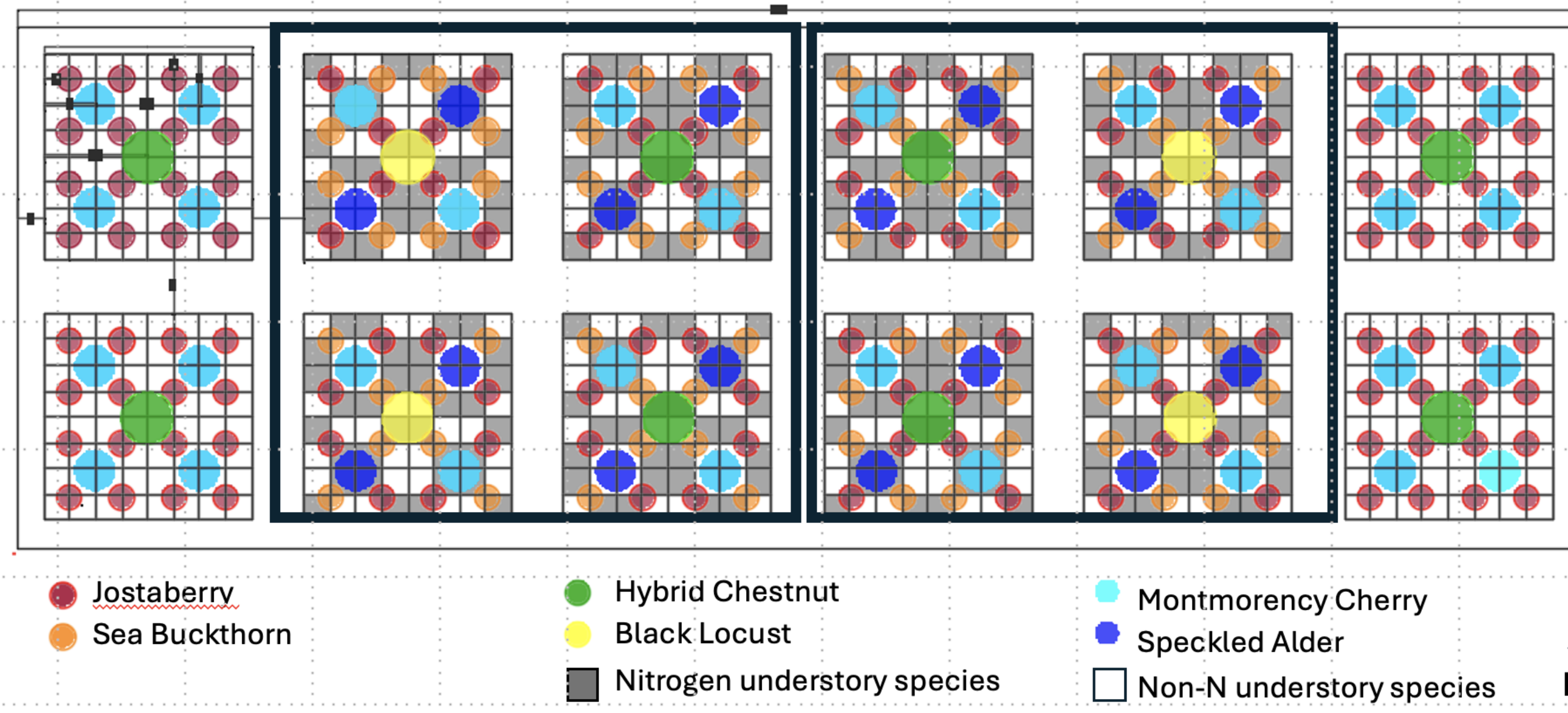
Exploring the potential of agroforestry as a climate-smart and sustainable strategy for expanding regional agricultural production in New England while promoting ecological forestry and forest-based goods and services.

Adaptive Agroforestry Principles and Teaching in New England



UNH Research at Kingman Farm

A multi-factorial design of 4 vertical strata: canopy, sub-canopy, shrub, and understory layers.



Species from two different functional groups (N-fixing and non-N-fixing) are planted in each stratum with 16 experimental treatments replicated 16 times.

Research question: How does the combination of nitrogen fixing and non-fixing plants integrated across four vertical strata (canopy trees, subcanopy trees, shrubs, ground layer) of a food forest influence the establishment, succession, resilience, and provisioning of ecosystem services?

Overarching objective: Assess the establishment success and performance of the food forest agroforestry system relative to the reference system, through monitoring of plant survival, growth, biomass production, weed and pathogen pressure, and yield).

Species grown from seed in the UNH Greenhouse

Cultivar	Latin	Days to germ	Weeks to transplant	Temp °F	Notes
Greek oregano	<i>Origanum vulgare hirtum</i>	7-14	8-10	65-70°	ready to transplant with 4 true leaves, early May
Heal All	<i>Prunella vulgaris</i>	7-21	8-10	65-70	ready to transplant with 4 true leaves, early May
Meadow Arnica	<i>Arnica chamissonis</i>	7-21	6-8	60	ready to transplant with 4 true leaves, early May
Little Bluestem	<i>Schizachyrium scoparium</i>	7-21	8-10	60	ready to transplant with 4 true leaves, early May



Origanum vulgare hirtum



Prunella vulgaris



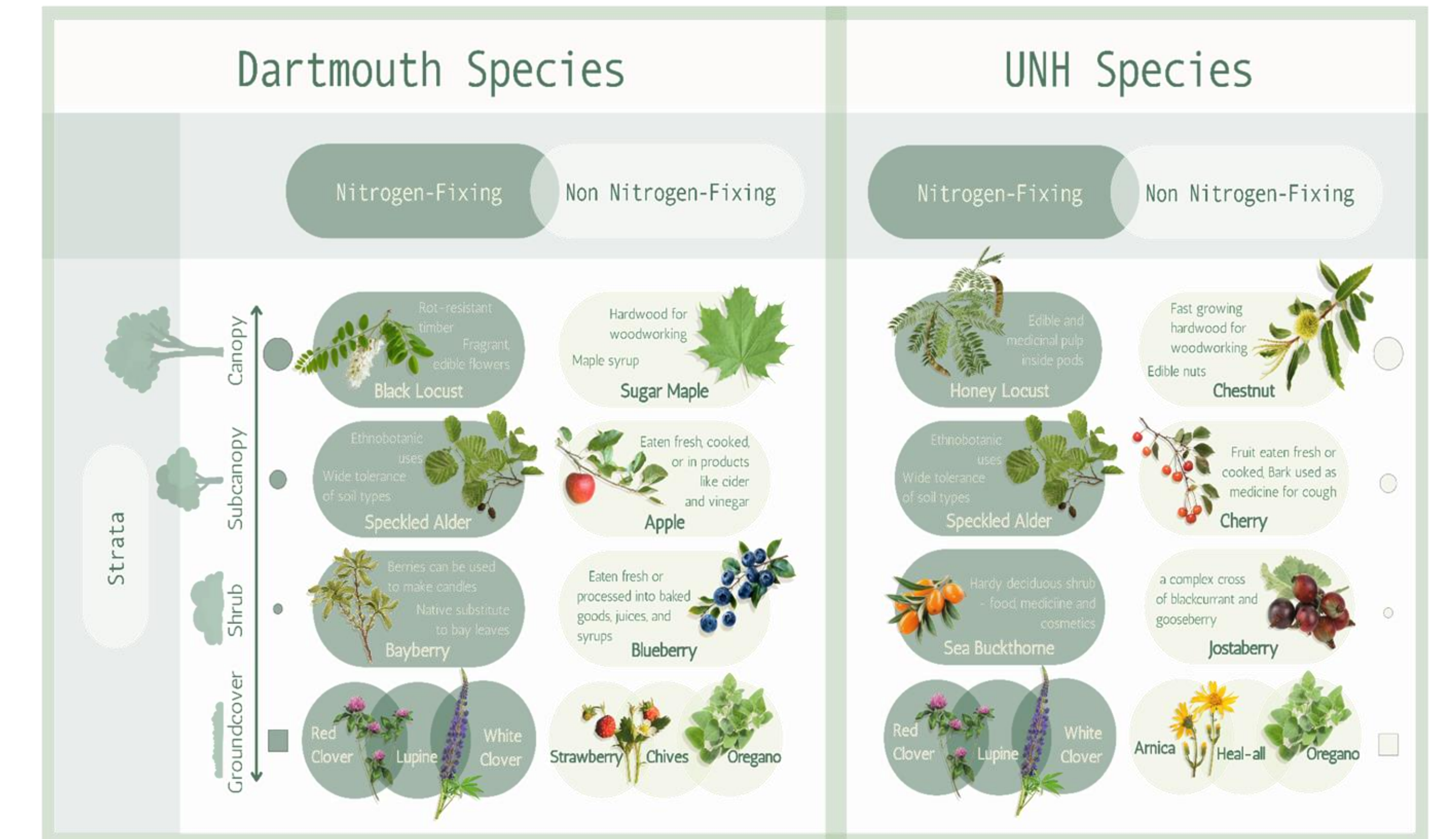
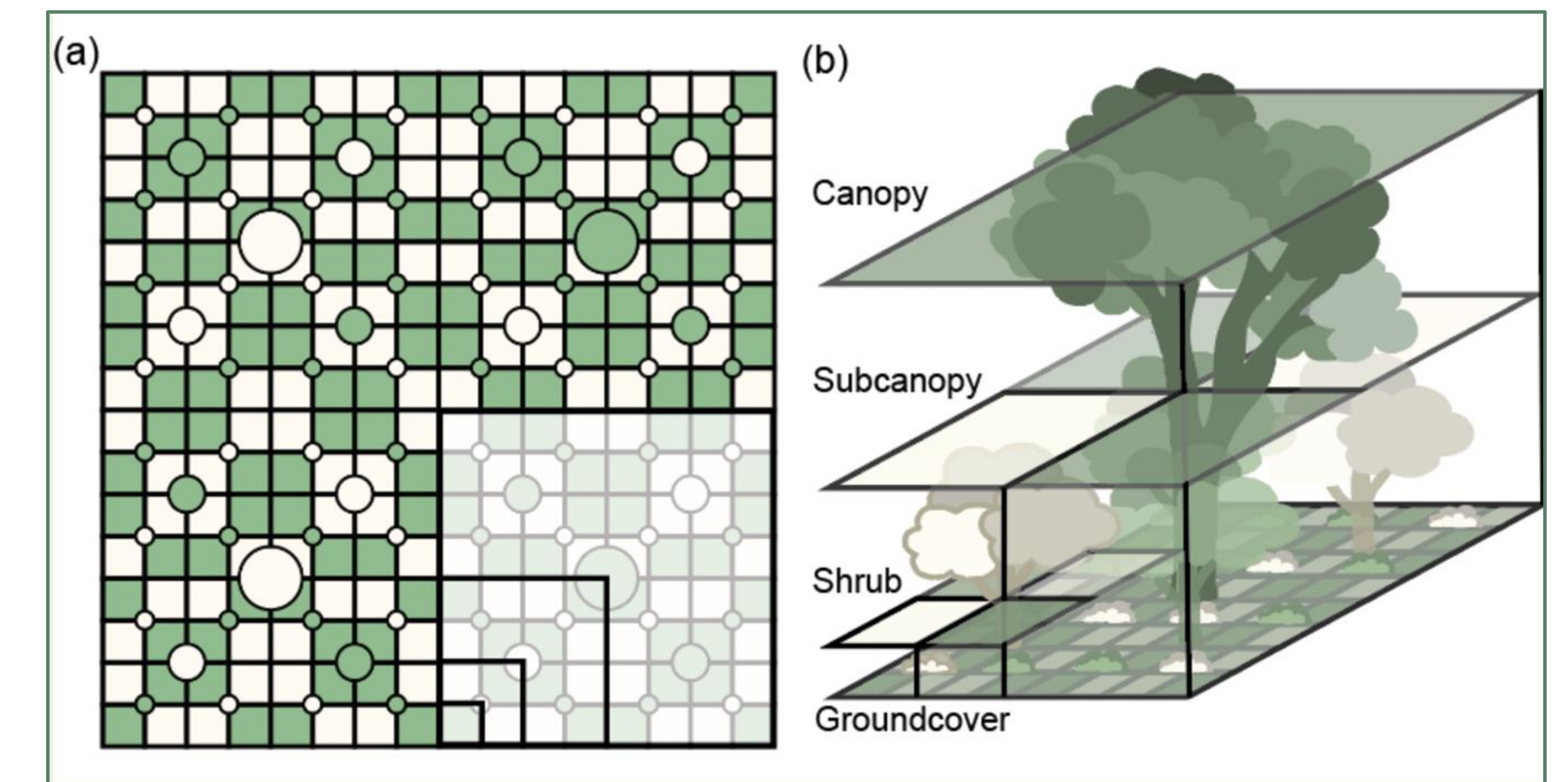
Arnica chamissonis



Schizachyrium scoparium

University Experiments

A collaboration with Dartmouth College and Yale Univ



Images by Krystal Bagnaschi, PhD Student, Dartmouth College

Food forests are “intentionally designed, highly integrated, multistoried systems of diverse food-producing annual and perennial species managed within the same space (and over time) in ways that support resource partitioning and complementary interactions.”

- ADAPT Team



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