SOUTHWEST AGROFORESTRY ACTION NETWORK
in partnership with the Arizona Community Tree Council presents:

Mana in the Drylands: Exploring the ecological, climatic and cultural dimensions of mast seeding in arid landscapes, By: Christopher J. Rizzo
Thursday, February 26, 2026 at 10:00am MST

Webinar registration: https://us06web.zoom.us/meeting/register/PyIHyQpASaytYndi3Yi60Q

10:00 – 10:15- Welcome, housekeeping, overview of SWAAN and presenter introduction- Casey Jones, SWAAN Chair

10:15 – 11:00- Presentation by Christopher J. Rizzo, Master of Forestry Candidate at Yale School of the Environment

Presentation Description: Mast fruiting is one of the most striking and mysterious reproductive strategies in the plant kingdom. Rather than producing seeds annually, many tree and shrub species release enormous, highly synchronized seed crops every few years, creating dramatic "resource pulses" that ripple through ecosystems. This talk explores how mast fruiting functions in the arid landscapes of the American Southwest, where water limitation, multi-year climate cycles, and disturbance regimes intensify the ecological importance of these boom-and-bust events.

Drawing on a synthesis of over a century of ecological scholarship, Chris examines the leading evolutionary and physiological theories explaining masting—resource storage, pollen limitation, phenological synchrony, predator satiation, and emerging molecular and epigenetic controls—and situate them within Southwestern systems dominated by oaks, pinyon pine, juniper, and desert shrubs such as blackbrush. In drylands, mast years are closely tied to cool-season moisture, temperature cues, and lagged reproductive investment, making them especially vulnerable to climate change–driven shifts in precipitation and warming trends.

Beyond ecology, this presentation introduces an applied framework for land managers: how mast fruiting might be intentionally integrated into agroforestry and silvopasture systems as a patterned but powerful pulse of forage, wildlife support, and cultural value. By viewing mast not as an anomaly but as a form of ecological "mana," we can begin to imagine dryland landscapes that align forest regeneration, livestock production, biodiversity conservation, and Indigenous knowledge within a shared socio-ecological rhythm.

Bio sketch:

Christopher J. Rizzo is a Master of Forestry candidate at the Yale School of the Environment, class of 2027, where his research focuses on forest dynamics in dryland systems and the potential of mast fruiting to support resilient agroforestry and silvopasture in the American Southwest. *Mana in the Drylands*, synthesizes 92 sources to explore the ecological, climatic, and cultural dimensions of mast seeding in arid landscapes.

Chris brings a multidisciplinary background to his work, holding a B.A. in Art History from Boston College with minors in Faith, Peace and Justice Studies and Classics, graduating magna cum laude. Before Yale, he worked as a Senior Associate Consultant supporting nonprofit strategic planning and community engagement initiatives.

In New Haven, Chris currently serves as a GreenSkills Tree Planting Crew Leader and Street Tree Inventory Technician with the Urban Resources Initiative, mentoring youth, leading municipal tree plantings, and contributing to the city's urban forestry database. His professional experiences also include nursery work, landscape installation, and wilderness education at Philmont Scout Ranch in New Mexico.

Chris is passionate about urban and community forestry, climate adaptation, environmental justice, and building working landscapes that strengthen both ecosystems and human communities.

11:00 – 11:15- Q & A with presenter

11:15 – 11:30- Wrap up by Casey Jones, SWAAN chair

11:30 to 12:30- SWAAN Executive Committee Meeting. Anyone interested in being involved with SWAAN are welcome to attend

Continuing education credits for today's program:

1 hour of Continuing Forestry Education credits (Cat. 1) by the Society of American Foresters (SAF – contact Andy Mason, acmason1954@gmail.com).
1 hour of Continuing Education Units (Sustainability) by the America Society of Agronomy (ASA – contact Mick O'Neill, moneill@nmsu.edu).