APIMONDIA SCANDINAVIA 2025
SWEDEN | DENMARK | NORWAY

PP-491 [Beekeeping for Rural Development]



APIS ARBOREA

LocApiary Program

Restoring Wild Honeybee Populations for Regenerative Apiculture



Our Vision

Making wild populations a cornerstone for sustainable and regenerative beekeeping by promoting local ecotypes to support their long term health and resilience.

How We Work

Biomimicry
Natural nest design & density

Local Genetics
Adapted strains & reproductive isolation

Knowledge Integration
Research + traditional wisdom

Self-Willed Ecologies
Support natural & evolutionary processes

Why It Matters

- Builds self-sustaining, resilient bee networks
- Preserves genetic diversity
- Promotes stable host–parasite relationships
- Strengthens human–pollinator connections

A Rengenerative Model forApiculture

- Wild colonies show >65% survival (vs. 38% managed hives, 2025)
- Preserve genetic diversity & reduce disease spread
- Empower local communities & regenerative agriculture
- Embracing evolutionary processes; no allopathic treatments



@ApisArborea /ApisArborea info@apisarborea.org www.apisarborea.org

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LocApiary: Restoring Wild Honeybee Populations for Regenerative Beekeeping Communities. Making wild populations a cornerstone for sustainable and regenerative beekeeping by promoting local ecotypes to support their long term health and resilience

Michael Thiele
Apis Arborea

Background/PURPOSE:
The LocApiary Program is a watershed-centric ecological restoration initiative fostering self-sustaining networks of wild, unmanaged honeybee populations within local ecosystems. This innovative approach integrates biomimicry and natural nest density principles, envisioning a collaborative relationship between landscapes, honeybees, and humans. The program aims to support wild, unmanaged honeybee populations as a cornerstone for sustainable and regenerative beekeeping.

Problem Description:
Recent data from the US reveal a stark contrast in survival rates between wild and managed honeybee colonies. Wild honeybees show an annual survival rate of around 80%, while managed colonies reported a record-low survival rate of 44.9% in 2024. This discrepancy highlights the need for new approaches to honeybee conservation and beekeeping practices.

METHODOLOGY:
LocApiary combines cutting-edge life sciences research with traditional practices. The program focuses on conserving locally adapted genetic stock and reducing the spread of pests and pathogens associated with industrial beekeeping. It prioritizes wild, unmanaged populations and integrates them into broader ecosystem management and small-scale beekeeping.

Results and CONCLUSION:
Collaborations between Apis Arborea, the University of Texas A&M, and Purdue University have documented the unique genetics of wild populations and their distinct characteristics compared to less genetically diverse industrial honeybee populations. These findings support the LocApiary approach of favoring local ecotypes and harnessing dynamic, evolutionary processes for long-term honeybee health and resilience.

Practical Implications for Beekeepers:
LocApiary represents a paradigm shift in apiculture. Once established, these apian networks allow local honeybee swarms to become the primary supplier for apiaries, minimizing the impact of industrial beekeeping practices on backyard beekeepers and the wider pollinator community. Apis Arborea is piloting integration programs with farms and communities across California, implementing lessons from the wild into cultivated ecologies. These systems are designed to align with local beekeeping regulations while fostering ecological integrity, offering beekeepers a sustainable and resilient approach to apiculture.