

FOCUS:

TUPELO FORESTS AND BEEKEEPERS IN GULF COUNTY, FLORIDA: LIVELIHOOD PRESERVATION AND FOREST CONSERVATION IN A CHANGING RURAL LANDSCAPE.

KELLY WATSON, DISSERTATION FELLOW '06
FLORIDA STATE UNIVERSITY

While looking to buy honey at the 2004 Annual Tupelo Honey Festival in the small, rural town of Wewahitchka, Florida, I struck up a conversation with several local beekeepers. My father is a small-scale producer of wildflower honey, and I was curious about the types of bees they use and how they go about the difficult task of bringing their bees to the tupelo trees, which grow in remote and swampy forests. As our conversations progressed, several beekeepers led the discussion into a personal story of frustration and uncertainty, expressing doubts about the future of their livelihood. “Before long, tupelo honey may well be a thing of the past,” one beekeeper told me. Their stories were compelling, and I decided to focus my dissertation research on an urgent need close to home. As the research was driven by a problem largely defined by the beekeepers and motivated by a need for lasting change, it seemed appropriate to adopt a framework of participatory action research.

I have now spent more than two years working with beekeepers and tramping through tupelo swamps in Gulf County, Florida. I’ve endured a fair share of back-breaking labor, bee stings, and close encounters with venomous snakes. Working with beekeepers has meant quite literally, donning a bee suit and working the bees. Our collective goal is to enable beekeepers to develop strategies in the defense of their livelihood. “Wewa,” as the locals say, is a rural town in transition. Resident beekeepers remain dedicated to a natural-resource based way of life, one that is threatened by



myriad challenges, not least the suburbanization of the landscape. Forests that have long been used for the production of tupelo are undergoing a number of changes that render them either unproductive or inaccessible to tupelo honey producers.

Beekeeping as a way of life has helped to shape and define the local identity of this unique and culturally rich region of

Florida. Wewa was even made famous by the 1997 film “Ulee’s Gold.” Beekeepers are also intimately connected to the forests they depend upon. The dense stands of tupelo trees that grow in the swampy bottom-land-forests along the floodplains of the Apalachicola River and its tributaries make Northwest Florida one of the only places in the world where tupelo honey is produced commercially. For more than a century beekeepers have relied on the forests’ abundance of tupelo to produce a honey that is world renowned. These forests are also one of the most biologically diverse ecosystems in North America. Beekeepers are important actors in preserving the socio-natural landscape of Northwest Florida—both because they have an intimate knowledge of the processes and contexts that shape the landscape, and because their future is directly dependent upon the continued survival of the forest.

Yet, the future of tupelo honey production may be in jeopardy, as beekeepers contend with a combination of environmental, socio-political, and economic obstacles. One of the goals of my work with beekeepers

“Before long, tupelo honey may well be a thing of the past.”

Beekeepers are important actors in preserving the socio-natural landscape of Northwest Florida—both because they have an intimate knowledge of the processes and contexts that shape the landscape, and because their future is directly dependent upon the continued survival of the forest.

is to unravel the relative importance of these obstacles in the survival of beekeeping in Gulf County. Among the biggest challenges beekeepers face is the growing problem with exotic pests, such as the Varroa mite and the African small-hive beetle. These pests destroy bee colonies and decrease honey production, and they are severely impacting not just Florida's tupelo honey producers, but beekeepers throughout the nation.

Another concern is the effects of river dredging on the health of tupelo forests. Between 1940 and 1986, one quarter of the riverbank along the Apalachicola was buried or converted to sandbar habitat by the Army Corps of Engineers as part of a river navigation project. Once removed from the river channel, dredged materials were deposited on floodplains, tributary streams and near-bank habitats. Dredge spoil not only kills tupelo trees outright, but a recent study by the USGS suggests that dredging on the Apalachicola also affects the long-term health of floodplain forests by disrupting the flow of water through sloughs, depriving the trees of the freshwater they require for survival (Light et al. 2006). Fortunately, dredging was discontinued in May of 2005 and a restoration plan set in motion. However, the effects of both dredging and ongoing upstream water diversion may continue to impact both the forests and beekeepers for decades.

One of the most imminent and under-documented threats to beekeepers is land-use change and development, as Northwest Florida is divided up into parcels of real estate prime for development. Long considered forgotten by the development that carved up South and Central Florida, this region is experiencing growth pushed by large corporate developers, which own seventy-five percent of Gulf County.



Land-use change and development present a number of obstacles for beekeepers, some direct and others indirect. One of the most important considerations a beekeeper must make throughout the year is where to locate hives, both when the tupelo trees are blooming in the spring, and during the rest of the year when the bees produce honey from various other floral sources. Bees may be moved to new locations as many as three or four times per year, and beekeepers have developed a range of land-access arrangements to meet these demands and find suitable hive locations. These arrangements include purchasing land, leasing land, or establishing more informal bartering arrangements, such as providing honey or pollination services to landowners.

Thus, beekeepers must continually contend with securing access to good hive locations. This struggle for access is becoming increasingly difficult in the face of land-use change and development. Forested areas are logged, wetlands are drained, and beekeepers lose places to keep their hives and floral sources to sustain their bees. Tupelo honey producers are also impacted as property rapidly changes hands in anticipation of future development and the wave of rising property values. Many private landowners are selling their land, which means beekeepers are continually renegotiating leasing agreements. And in many cases new landowners are interested in attracting the attention of developers and do not want bees on their land. Another

problem is that many formerly rural areas are being rezoned for commercial and residential development, which is often exclusionary to agricultural activities like beekeeping. This development has brought with it a rise in property values and an increase in overall cost of living, which hurts beekeepers as well as other rural residents.

Finally, as development

spreads throughout Northwest Florida, beekeepers are increasingly susceptible to losing bees due to the application of insecticides. Forests adjacent to recently developed areas are not necessarily good places for bees to forage, as bees are highly susceptible to insecticides regularly sprayed to suppress mosquitoes throughout Florida's residential areas.

The challenges presented by land-use change and development increasingly leave beekeepers dependent upon public lands, yet gaining access to these areas is currently difficult. I am working to better understand and resolve the disconnect between tupelo honey producers and restrictive public land managers. It may be possible to adopt an approach used in other parts of the state where beekeepers have successfully developed arrangements to keep bees on county, state and federal lands.

In the face of these myriad challenges, many beekeepers are throwing up their hands in frustration. Beekeepers will only harvest honey as long as it is feasible in terms of economics, time and labor. Amidst this abandonment of the livelihood is the abandonment of the forest. Local knowledge may be lost, threatening both the forest and a unique way of life important in Gulf County for more than one-hundred years. Therefore, it is my hope that by continuing to work with beekeepers, we can create a critical understanding of the complexities of socio-natural change in this region and develop strategies for beekeepers to adapt and maintain their natural-resource based way of life. If forest conservation and livelihood preservation are to occur, it is important to bring the voices of tupelo honey producers to the forefront of conservation efforts.

In the spring, I will continue working with beekeepers in the participatory mapping of the forest, which will hopefully generate relevant land use and land cover categories to document and assess change, as well as identify areas important to beekeepers. The long-term goals are to disseminate the results in a manner that is informative to both the public and policy makers. Through greater communication we hope to uncover a realistic and persuasive voice for the community—a voice that serves the larger goals of beekeepers, the rural communities of Gulf County, and those tasked with the restoration and protection of the Apalachicola River and its floodplain forests. And of course, it is

my personal goal to complete a dissertation that does more than collect dust, but serves as an impetus for change, while contributing to a better understanding of the co-survival of forests and forest-dependent human communities.

References

Light, H.M., Vincent, K.R., Darst, M.R., and Price, F.D., 2006, Water-Level Decline in the Apalachicola River, Florida, from 1954 to 2004, and Effects on Floodplain Habitats. U.S. Geological Survey Scientific Investigations Report.

