

# Sustainability and Beekeeping

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*Much of environmentalism's emphasis today is shifting from preservation to sustainability. While preservation often results in conflicts with people arguing over limited resources, sustainability allows for use of natural resources in a way that ensures long-term preservation. This new emphasis on sustainability has three aspects upon which it focuses: environment, sociology, and economics. The Illinois State University Beekeeping Club was established in the spring semester of 2012 as a result of this new form of environmentalism, and has taken advantage of campus-wide sustainability efforts to build and grow the group, build up area beekeeping, and secure beekeeping resources – all of which we hope will sustain the future of beekeeping in Illinois.*

The founding of the Illinois State University (ISU) Beekeeping Club was initiated after the author of this article received an October 2011 email from colleague Dr. Thomas Fuller, faculty advisor of the ISU Student Sustainability Committee. In his email, Dr. Fuller asked Dr. Wenning to consider starting a beekeeping club at ISU in order to take advantage of Student Sustainability Committee funds that recently had become available to registered student organizations. They decided to meet to discuss the possibility. Over dinner during November, Tom explained that the funds of the Student Sustainability Committee were large and growing, and that the Committee was looking for ways to spend allocations in meaningful fashion.

Carl noted that he had become a beekeeper in 1997, and had written regularly for *American Bee Journal* from 1999-2004, but had retired from public life as a beekeeper – now keeping bees only in his backyard apiary. He had removed his colonies from a rural apiary following devastating winter losses in 2005. Late that winter he moved his now-empty beehives into his family garage and later to his backyard when he needed room in the garage for a new manufacturing business. Later that spring he became an “unintentional beekeeper” after his daughter phoned him at work on campus to inform him that a swarm of honeybees had just populated one of the empty hives. Carl unexpectedly had returned to beekeeping after only a few month's hiatus.

At Tom's urging, Carl agreed to start a beekeeping club on campus if he could find sufficient student interest. That could be a problem Carl noted. After all, typical university students are not local residents and have neither the money to purchase supplies nor the location to set up an apiary. Despite these impediments, Carl said that he would contact some beekeepers he knew on campus and in the local community in an effort to see what might be accomplished. They left that meeting with the

understanding that any newly formed campus beekeeping club would apply for Student Sustainability Committee funds to further its purposes. Any grant funding would provide all necessary resources for a new student group that could deliver education and public outreach relating beekeeping to sustainability.

Within a few days, Carl contacted fellow beekeeper and university employee Josh Lindsey to talk about what they might accomplish working together. It turned out that Josh and his friend, a student by the name of Melissa Shinke, were both interested in working to make a beekeeping club a reality. Within a few weeks arrangements were made to meet with Jessica Chambers (head of the ISU Horticultural Center), Joe Sibley (an area beekeeper who maintained an apiary at the ISU Horticultural Center), and Katelynn Clement, president of the ISU Horticulture Club. They met on January 26, 2012 to further discuss the possibility of a beekeeping club.

After talking about the prospects, it was agreed by all parties involved to move ahead with starting a student group using area beekeepers as primary educators and counselors. Taking the lead in this area were Josh and Melissa. Within the next few months, five students were identified who began working together to form a registered student organization with Carl as faculty advisor. Within a very short time, the club-to-be submitted its first Student Sustainability Committee grant proposal for \$9,800. A constitution was written, and the club formally came into existence on April 25, 2012, with ratification of the constitution. With final exams occurring the following week, the ISU Beekeeping Club wouldn't hold its first formal meeting until September 11, 2012. At that first meeting Melissa was elected the club's first president.

On March 1, 2012, the Student Sustainability Committee approved the emerging club's request for \$9,800 to provide for all the necessary materials to set out

six beehives, and adequate resources to recruit and educate future generations of beekeepers. On March 14, two club members undertook a trip to Dadant & Sons in Hamilton, Illinois, to purchase a trailer load of materials. A generous discount by Dadant allowed the club to stretch its dollars even further. Because the club was committed to education and public outreach, plans were made for the first *Introduction to Beekeeping Workshop* a few weeks later.

**Beekeeping Workshops:** Not yet being a formally registered student organization didn't stop the enthusiastic founding members of the ISU Beekeeping Club from getting started with the work of the group. Even before the University formally recognized the Club, the group held its first hive openings at the ISU Horticultural Center for prospective members and hosted its first *Introduction to Beekeeping Workshop* working with the ISU Department of Agriculture. That workshop took place on April 21, 2012, with 18 prospective beekeepers in attendance.

Since that time, the introductory workshop has become a semi-annual event. During subsequent workshops the club coordinated efforts with University of Illinois Extension that has a local office in Bloomington – just a few miles from the ISU campus in Normal – that provided a more spacious and convenient venue for the workshops. These latter three workshops were presented October 13, 2012 (16 households), April 20, 2013 (18 households), and January 28, 2014 (16 households). Plans are now being developed for an autumn 2014 workshop.

The Club's workshops are patterned after five workshops presented by the Heart of Illinois Beekeepers Association (1998-2002) and employ the very substantial educational resources prepared by the club advisor and described in his *American Bee Journal* articles "Beekeeping on the Ebb – Turning the Tide" (January 2000) and "Ebb to Flow – Turning the Tide of Beekeeping" (February 2000). Experienced area beekeepers present the workshops, and the central Illinois apiary inspector Jim Wellwood contributes to the presentations.

**Education & Public Outreach:** In addition to the Club's formal workshops, the membership has involved itself with informational outreach, working primarily through Sugar Grove Nature Center (SGNC) near McLean, Illinois. The Club participated in SGNC's *Hummingbird Festival and Pollination Celebration*, September 1, 2012 and again on



August 31, 2013. The club also participated in the Nature Center's *Autumn Celebration* on October 20, 2012 and again on October 19, 2013. The club featured a beekeeping display at the August 2013 Festival ISU event on campus, and at the Miller Park Zoo of Bloomington, IL, on April 19, 2014. Hundreds of interested individuals and families have stopped by the various

displays to view honeybees in our observation hive as well as other items such as tools and protective devices.

These events provide opportunities to show and talk about both honeybees and honey, and to sell honey donated to the Club by established beekeepers. Because an excellent working relationship between the Club and the SGNC has been established as a result of these interactions, several other things have occurred that are proving very significant benefits to each entity – one of which was a secure storage space for all the Club's beekeeping supplies that had been heretofore stored in the faculty advisor's all-to-cramped garage workshop.

**A Maple "Sirup" and Honey House:** Funks Grove is a 264-acre preserve just north of McLean, Illinois. It is one of a very few old-growth forests remaining in Illinois. In addition to forestlands, the nature preserve contains broad swaths of native prairie. Its location is one where maple "sirup" has been produced commercially for generations. Its maple sirup shop is a famous waypoint along historic US Route 66. SGNC is located within Funks Grove. Since its opening in 2004, the Nature Center has conducted public education in the area of sustainable practice – including maple sugaring – the process of taping trees and boiling the sap down to make maple sirup.

Up to the point of time when the Club began involvement with SGNC, the Nature Center's February *Maple Sirup Experience* was conducted under an open-air picnic shelter that was less than accommodating due to cold and wind. It was soon agreed between the SGNC staff and the Club that it would be very nice to have a "sugar shack" that could serve for cold weather sugaring and warm weather beekeeping. In mid November 2012, the Club applied for another Student Sustainability Fund grant. The new proposal was to provide materials to build a *Maple Sirup and Honey House* at SGNC.



It was agreed that the SGNC would provide the land, architectural services, planning, permitting, volunteer labor, electricity, maintenance, and insurance, and then provide access to the ISU Beekeeping Club for its activities at no cost for the life of the building. The request was for

\$20,500, and the proposal was fully funded shortly thereafter by the Student Sustainability Committee. The “sugar shack”, patterned after a 1940s Vermont sap house, was built during the summer of 2013. The following September, the facility was used for the first time for Club outreach activities including displays and the sale of honey.

**Summer Intern:** Working with SGNC has paid the Club still more benefits. During the summer of 2013 the Club accepted an intern for two months at the request of SGNC staff. Jason Solberg – a graduating senior environmental education major from ISU – learned to work hives, manage bees, assemble hive boxes, build frames, and install and crosswire foundation. While he has no immediate intention of becoming a beekeeper, these experiences will be valuable to him as a future nature interpreter thereby expanding the Club’s outreach. In the end, Jason assembled more than a dozen brood boxes and supers with frames and foundation.

**Observation Hives:** As this article is being prepared, the Club is working with SGNC to install an observation hive within the Nature Center building. A new design – an Ulster Observation Hive – will be used because a traditional two-frame hive used previously proved to be too small to work successfully within the environs of the air-conditioned building. The Club advisor has maintained a traditional two-frame observation hive at Weldon Springs State Park in nearby Clinton, Illinois, for many years because that building is not air conditioned during the summer. A similar attempt at SGNC had failed earlier due to the lower internal temperatures of the Center’s main building during the summer time.

**Club Characterization:** Unlike traditional beekeeping clubs, the ISU Beekeeping Club is primarily an informational group. Constrained by the lack of personal resources and space for beekeeping, student members join our group primarily for the purpose of gathering information about beekeeping that they might use in the future. Some of these students are future elementary and middle school teachers who undoubtedly will teach their students about honeybees one day. Others have an abiding interest and hope to become beekeepers one day. While the club’s membership is ever changing, it’s common to have 5-10 students present at each on-campus meeting. In March 2014 we began honeybee outreach at the local Children’s Discovery Museum in Normal, IL.

Informational resources, including recently prepared resources for beekeeping workshop and elementary school teachers, are maintained on the ISU Beekeeping Club’s website. The site also includes information about capturing swarms, beekeeping supplies such as package bees and woodenware.

The Club meets three times per semester and, in addition to workshops during autumn and spring semesters, holds hive openings in nearby apiaries. In May 2014 we intend to hold our first formal field day at a rural apiary.

The Club currently maintains six hives. Club members, most of whom became beekeepers as a result of our *Introduction to Beekeeping* workshops, manage these hives. One student who lives in town who had prior experiences with beekeeping maintains one of the hives. The hives are loaned with the agreement that half of the honey generated each year will be given to the Club for sale. The hive is the property of the Club; the colony is the property of the beekeeper.

### **Beekeeping and Sustainability**

The ISU Beekeeping Club has been able to obtain substantial monetary resources due to its understanding of the sustainability movement. This is one movement that other beekeeping groups might pursue in an effort to develop similar resources. Successful relationships between beekeeping clubs and funders of sustainability will likely include mutual concerns for the environment, sociology, and economics. Consider these connections in the strings that bind the Club with the Sugar Grove Nature Center and the ISU Student Sustainability Committee.

**Environment:** Sugar Grove Nature Center is located in Funks Grove among over 1,000 acres of high quality natural area, most of which are protected as registered Illinois Land & Water Reserves or dedicated Illinois Nature Preserves. Funks Grove is the largest remaining intact prairie grove in the state of Illinois and portions have been designated a National Natural Landmark by the U.S. Department of Interior. Over five miles of well-maintained trails take visitors through prairie and woodland habitats. It is here that the club conducts a considerable amount of its outreach activities.

**Sociology:** Environmental education is the *sin qua non* for developing positive thoughts toward sustainability. Equal-access environmental education socializes people and helps them to appreciate and value their environment. Such educational efforts as Aldo Leopold’s *A Sand County Almanac*, Rachel Carson’s *Silent Spring*, and Sandra Steingraber’s *Living Downstream* have shown this impact. Additionally, the club’s environment-based education employs key social strategies for supporting beekeeping. We point out the benefits of having honeybees and note that honeybees are an indicator species that, unfortunately, are not doing well under current environmental conditions. We draw attention that this has implications for our environment that we dismiss at our own risk.

**Economics:** When people learn about beekeeping and making maple sirup, about native prairies and old-growth forests, and about Earth and its place in the cosmos, they come to understand viability and sustainability. Programing offered by the ISU Beekeeping Club in cooperation with the SGNC do and will increase respect for nature, promote interdependence and self-reliance, and encourage respect for and preservation of honeybees, bumblebees, wildflowers, native prairies, and woodlands. When the club

sells products of the hive at Nature Center activities, a portion of the sales is donated to SGNC to grow and sustain their environmental programming.

### **One Beekeeper's Perspective**

Over the last several years the number of bees in the world has decreased by about one-third. Honeybees are currently threatened by colony collapse disorder and a growing variety of diseases, pests, and predators. Over the past 50 years the honeybee population in the USA has dropped precipitously – primarily due to diseases and pests that have been introduced to the country through international trade, as well as the indiscriminant use of pesticides. The exceptionally frigid winter of 2014 hasn't helped. The Food and Agriculture Organization of the United Nations predicted recently that over the next 20 years honeybees numbers might drop precipitously worldwide. In the last three years alone, the number of honeybee colonies maintained by beekeepers in the USA has dropped some 50%. Additionally, the vast majority of American beekeepers are in their 60s and 70s, and beekeepers are threatened with becoming a disappearing breed.

Today beekeeping might seem to be an "option". However, when one comes to realize that about 1/3 of all food humans eat is pollinated by honeybees, the loss of honeybees will have a major impact on world food production. Using sustainability resources, the ISU Beekeeping Club is working to stem, and perhaps reverse the trend locally by providing educational resources and offering services to diverse populations. We hope that these will result in the development of new and better beekeepers, and increase appreciation of honeybees by non-beekeeping public. Other clubs might want to consider doing the same.