

By

Lisa M. Gring-Pemble

People, Planet and Prosperity Depend on the Health of Pollinators like the Humble Honey Bee

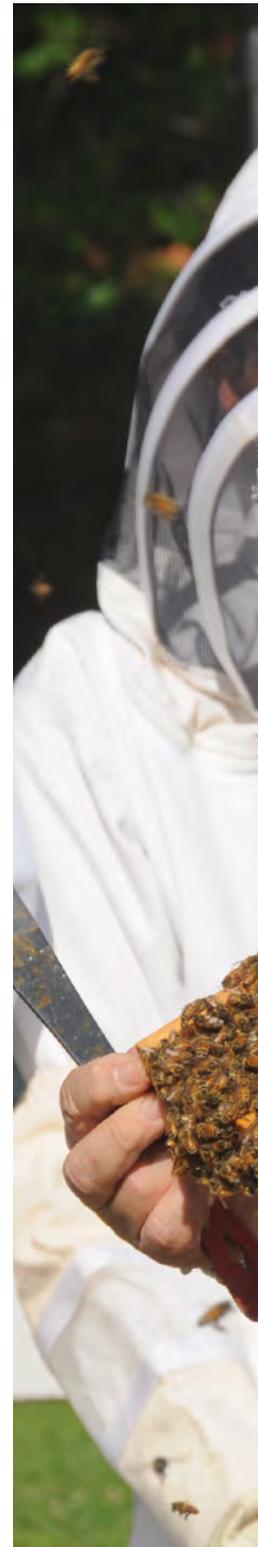
The Honey Bee Initiative (HBI), housed in the Business for a Better World Center at the School of Business of George Mason University, responds to an important global food security crisis. The U.S. Pollinator Health Task Force observed that 'pollinators are critical to our Nation's economy, food security, and environmental health'. Bees pollinate one-third of the food we eat and contribute more than 15 billion USD in pollination services in the United States alone. No wonder then, that at a 2019 Royal Geographical Society of London meeting, bees, now an endangered species, were declared 'the most important living beings on Earth'.

But for many reasons – colony collapse disorder, invasive mites (*varroa destructor*), and pesticides – honey bees are dying at unprecedented rates. Between April 2019-2020, nearly 44 % of all US honey bee colonies, already in decline, were lost, with terrible implications for pollinator diversity and survival. Human food security, the agricultural industry, and the environment are all compromised without bees. People, planet, and prosperity depend on bees thriving.

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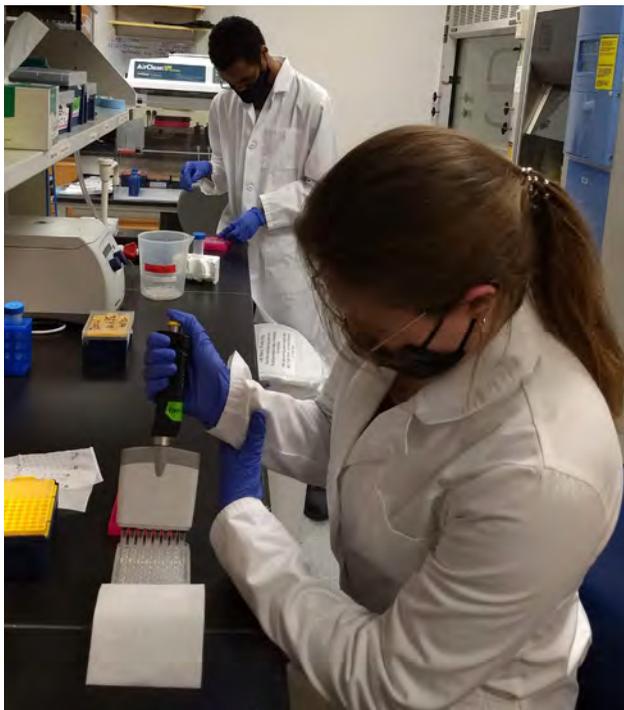


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Mason, seeing the opportunity to educate students about the United Nations Sustainable Development Goals (SDGs), embraced the imperative to respond to this pollinator crisis and to prepare future leaders for a better world. This is done in a variety of ways by units across the university, but most directly through HBI. The Initiative has provided us with an ideal vehicle for educating both students and the community about how to tackle global goals around food security, gender equality, life on land, among others.

We began modestly in 2012 when we acquired seed funding from a Mason grant to purchase four hives for the initial purpose of educating our community about the benefits of sustainable hive management in an urban setting. Soon thereafter, we launched a beekeeping class and explored possibilities for further programme development. More specifically, we inventoried complementary campus-wide initiatives, natural resources on campus, and existing partnerships. Further, we consulted with potential faculty and staff partners from a wide range of disciplines, including biology, business, global and community health, nutrition, environmental and sustainability studies, art, and education. HBI was officially launched in 2013 with a mission to empower communities through sustainable beekeeping. One of the Initiative's primary goals is to introduce students, faculty, staff, and community members to the green economy and inspire them to take meaningful action for the benefit of people and planet.

Focusing on impact, business for good, science education and research, and programme scale, our work is guided by the UN Sustainable Development Goals. Today, with over 700 hives (domestically and internationally), an established teaching and research programme, thriving international programmes, and dynamic public-private partnerships, HBI continues to grow the impact of the programme. We promote multi-disciplinary, experiential, and entrepreneurial approaches to honey bee sustainability.



Students from the fields of business, the humanities, education, engineering, health, science, and art collaborate on initiative-related problems and projects. HBI offers opportunities for engaging in scientific research, art projects, innovative teaching, community outreach, and even study abroad. For example, science faculty and undergraduate students have used DNA sequencing to study pollen to illustrate the diversity of plants used by honey bees across the growing season. And an art professor designed an exhibit called 'The Living Hive', which toured up and down the East Coast educating museum-goers about the plight of pollinators. Currently, faculty from the School of Business, the College of Education and Human Development, and the College of Engineering and Computing are working on a National Science Foundation grant to develop new technologies for beekeepers to monitor their hives more effectively.





Notably, our work in Colombia focuses on implementing beekeeping and meliponiculture programs to support community development, environmental sustainability, and the empowerment of rural women. The Colombian program was selected by 'Premios Latinoamerica Verde' as one of the 15 best social and environmental projects in Latin America and the Caribbean. Many of our students have travelled to the Santander region of Colombia to see our beekeeping programs with rural women in action.

Over time, we have learned many invaluable lessons. First, partnerships are vital to the success of the initiative and we are committed to collaborative multi-sector efforts that are supported by a variety of stakeholders such as government, business, non-profits, institutions of higher education, and community members. Second, our programme success is only possible when the communities we serve are driving the mission, measurement, and outcomes of our partnerships. Third, a sustainable business plan is essential to the long-term success of the program. Consequently, we are developing a sustainable beekeeping business plan that will allow us to replicate beekeeping businesses both regionally and internationally. Fourth, we have a moral imperative to address the pollinator crisis. Our very survival depends on it.



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About the author

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