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In a study led by a University of Wyoming scientist, researchers have uncovered the fascinating ability of nectar-laden honey bees to adapt their flight behavior to prevent overheating in rising air temperatures. Jordan Glass, a postdoctoral research associate at UW's Department of Zoology and Physiology, spearheaded the research published in Proceedings of the National Academy of Sciences.

Amidst concerns about declining insect pollinators due to climate change, the study focused on how honey bees manage foraging for nectar in high temperatures. Contrary to expectations, the researchers discovered that honey bees can continue their foraging activities without jeopardizing their well-being in temperatures ranging from 77 to 104 degrees Fahrenheit.

By analyzing flight muscle temperatures, metabolism, and water loss of honey bees carrying nectar in a controlled flight environment, the researchers observed changes in flight behavior at varying air temperatures. Notably, the study revealed that honey bees adjust their wing movements to enhance flight efficiency and reduce metabolic heat production as temperatures rise, aiding in their ability to avoid overheating and conserve water.

While the findings offer some reassurance regarding the impact of warming temperatures on honey bee behavior, Glass emphasizes the continued need for vigilance as climate change progresses towards hotter and drier conditions.

Source: [phys.org](#)