

**COLLECTION AND IDENTIFICATION OF POLLEN COLLECTED FROM
BEEHIVES (*APIS MELLIFERA*) ON THE MISSOURI SOUTHERN STATE
UNIVERSITY PRAIRIE**

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Honeybee populations in the United States have been in decline for several years, due to a combination of factors, including loss of habitat, use of pesticides and infestation by a various pests and parasites. An important part of habitat restoration for these insects is to determine which native plants provide an optimal food source, generally in the form of nectar or pollen. Collecting pollen directly from beehives can provide information on preferred food sources. The goal of this pilot study was to collect and identify pollen from beehives, to determine the viability of the process. Pollen was collected from two beehives located on the Missouri Southern State University prairie using bottom-mounted Sundance pollen traps. Monthly pollen collections were planned for May-August 2018, however, a severe drought in the latter half of the season limited availability of pollen and reduced collected amounts. Collected pollen was sorted by size and color, then weighed to quantify relative amounts collected. Prior to mounting, pollen was washed using a 20% isopropyl alcohol solution, then mounted using a fuchsin jelly technique. Mounted pollen was analyzed microscopically using pollen identification keys and compared to known pollen samples for confirmation. Although samples were limited, at least six distinct types of pollen were found with pollen types varying by date of collection. Despite environmental limitations, the success of collection and identification indicates the potential usefulness of this method. This information can be valuable to landowners and land managers seeking to restore habitat specifically for pollinating insects.