SAMPLING THE GRAINS: POLLEN SAMPLES FROM HUMMINGBIRDS (Poster)

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Hummingbirds transmit pollen both actively and passively while feeding or moving through the landscape. They play a largely undocumented role in plant pollination on their breeding grounds. Many hummingbirds also migrate thousands of miles, potentially transporting pollen greater distances than other pollinators. To investigate the role of hummingbirds in both short- and long-distance pollen transfer, we collected pollen samples from the heads and bills of hummingbirds during migration and throughout the breeding season. We identified the pollen from 44 hummingbirds captured during the 2016 and 2017 field season in western Montana. We also solicited and analyzed 9 samples from southwestern Idaho. Pollen analysis revealed 18 different genera of pollen on sampled hummingbirds, including genera (e.g., Pinus, Larix) that passively broadcast pollen. We detected some pollen from plant species not locally available, suggesting that hummingbirds do transfer pollen long distances, and may serve as vectors for plant genetic diversity. Pollen grains differed in their anatomy and potential for adhesion to hummingbird feathers and bills, suggesting that some pollen is better suited for long-distance dispersal. We plan to continue collecting pollen samples from ours and other sites in the future. We also hope to perform experiments that investigate the role pollen morphology may play in adhesion longevity.