Seed Dispersal of Achyrachaena mollis

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The shape and size of a plant's seed impact how well it is able to scatter and move over time, notably in changing environmental circumstances. As the environment changes, the survival of the species is greatly dependent on how well the plant can disperse, affecting the gene flow that is most favorable. This project examines the dispersibility of Achyrachaena mollis in order to understand which seed morphological traits are most favorable and affect seed dispersal the most. The seeds were flown in a wind tunnel (low drain device), and their flights were recorded in order to measure the velocity. I expected seed flights to vary between populations, because the circumstances unique to their environments have likely selected for the traits that impact the seeds' flights. I also expected the seed mass and the seed's long wing width to affect the velocity of seed flights the most, because the mass affects how much force is required to move an object and the long wing width covers the greatest surface area and will have a greater impact on how much wind a seed is able to catch. The experimental results indicated that there was a significant difference among the populations' seed velocity. The seeds' long wing widths was the strongest indicator of the seed velocity, while seed mass had no correlation with seed velocity.