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# Hummingbird Flower Use at the Humboldt Botanical Garden



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# Introduction

- Hummingbirds accessible to variety of flora that vary in coloration
- Flower color potential explanation for selection
- Residential species, Anna's Hummingbird
- Migratory species, Allen's and Rufous
   Hummingbird
- Ecologically important pollinators

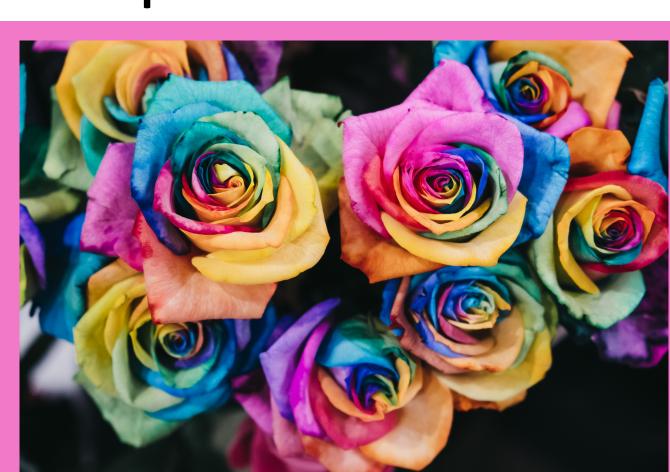
# Study Objective

- Explore if hummingbirds' preference particular flower color(s)
- Determine if hummingbirds' select for certain garden patches

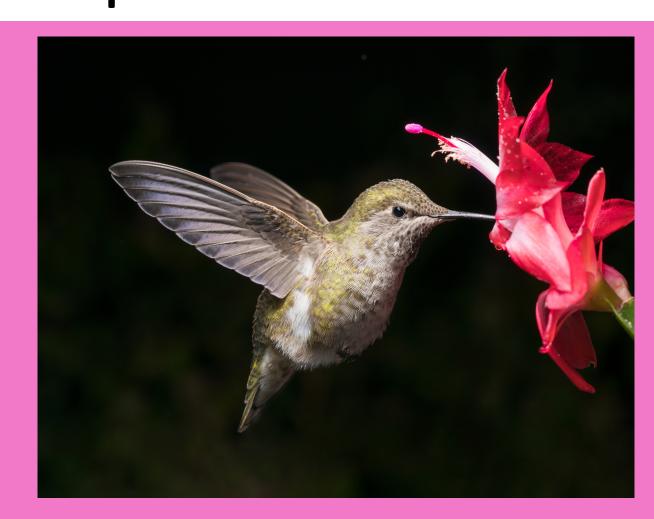
# Methods

- Feeding pattern data
- Fisher's exact test

# Independent Variable



Dependent Variable



| Color  | Use | Available |
|--------|-----|-----------|
| Red    | 13  | 19.12     |
| Orange | 1   | 6.2       |
| Yellow | 1   | 24        |
| Blue   | 0   | 3.8       |
| Indigo | 0   | 9         |
| Violet | 3   | 13.8      |
| Pink   | 352 | 48.22     |
| White  | 423 | 42.32     |

## Results

- 793 total feeding observations
- Pink/white flowers used the most,
   blue/indigo the least
- Green flowers unavailable
- Yellow used very little, high availability index
- Statistically significant

# Discussion

- Hypotheses supported
- Active selection among pink and white flowers
  - •All other colors that were available had little/no use
- Studies suggest attraction for red,avoidance of yellow
  - Vision ability with wavelengths of pink/white
- Focus on highly selected flora species for management