Biodiversity of insect foragers collected from bristly Nama (Nama hispida)

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## Background

Nama hispida is a small flowering plant native to the southwestern US, hosting diverse foraging insects including pollen-specialist bees.

The objective of this project was to identify the species occurring on bristly Nama and co-occurring with the specialized bee Sphecodosoma pratti.

## Process

Insect foragers were collected on Nama using aspirators to ensure direct association with the plant. The collection localities were referenced with GPS coordinates. The specimens were mounted, labeled, and characterized using morphological features.

When new morphologically distinct specimens are encountered, they are counted, a representative set aside, and the number of specimens of that morphospecies from that site added to a new column in the data set. These morphospecies can later be identified to species level.

## Preliminary Results

To date, a total of 313 individuals have been collected, dominated by the insect order Hymenoptera, including 23 bee and 4 wasp morphospecies. The Nama-specialist Sphecodosoma pratti comprised 54% (171) of the total number of individuals. Other taxa collected were 5 beetles, 2 true bugs, 1 fly, and 1 butterfly.

To date, of the 34 morphospecies collected, 10 have been identified to species, 18 to genus, 2 to subgenus, and 4 to family.

## Impact Areas/Conclusions

- Nama is an overlooked hub of native bee biodiversity (23 bee morphospecies)
- Conventional community sampling might underestimate this unique biodiversity
- Background biodiversity data for this system will support investigations of community interactions and populations depending on this host plant, ultimately supporting conservation actions to protect this unique biodiversity.

## Acknowledgements

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## Collected taxa from Nama to date include:


**Bees**: Sphecodosoma pratti, Lasioglossum, Ashmeadiella bucconis, Anthophorula compactula, 6 Perdita, 2 Dialictus, Halictus tripartitus, Colletes areniformis, Hylaeus, Augochorella, Ceratina, Megachile rotundata, 3 Nomada including N. texana.