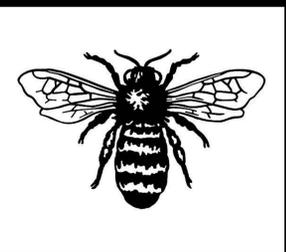


Biodiversity of insect foragers collected from bristly Nama (*Nama hispida*)



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Trichochrous sp.

Sphecodosoma pratti

Lasioglossum sp.

Ashmeadiella buconis

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*.



Nama hispida



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.

Process

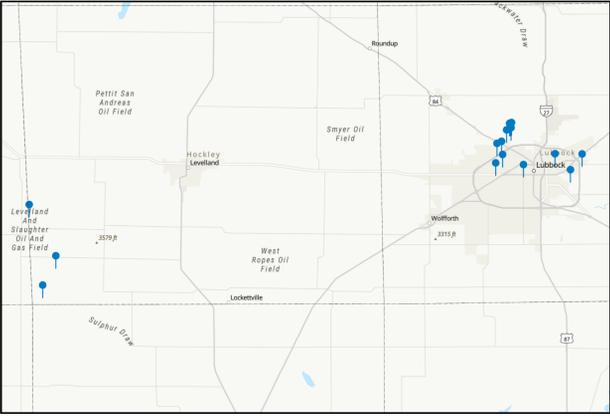
Insect foragers were collected on *Nama* using aspirators to ensure direct association with the plant. The collection localities were referenced with GPS coordinates. The specimens were mounted, labeled, and characterized using morphological features.

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.



Perdita sp. on *Nama hispida*



Location	Date	tricho	crypt	S. pratti	Lasioglossum	A. buconis	A. compactula	Perdita	Perdita	Perdita	Perdita	Perdita	Dialictus	Halictus	parviflorus	Stenobothrus	Geocoris	Dissonycha	C. andreae	emallip	Acmaeodera	Hyssopus	Nomada	Nomada	Pyrota	Pyrota	Pyrota	Liris	mor	Augochorella	Curculio	M. rotundata	Polymerus	N. texana	Dialictus	Nathalis		
Muller Ranch, P	6/20/2023	4			33			1	1	1																												
Muller Ranch, P	5/23/2023				23																																	
Muller Ranch, P	5/25/2023				4																																	
18th street, S3	4/26/2023				37																																	
18th street, S3	5/23/2023				10																																	
18th street, S3	6/22/2023				26																																	
FBRN, S3 5886	4/8/2023				3																																	
Cannon Lake 6	4/27/2023				2																																	
Cannon Lake 6	4/28/2023				2																																	
Cannon Lake 6	4/30/2023				1																																	
Cannon Lake 6	5/4/2023				2																																	
Cannon Lake 6	5/7/2023				1																																	
Cannon Lake 6	5/13/2023				5																																	
Lubbock Lake 1	5/4/2023				1																																	
Lubbock Lake 1	5/20/2023				1																																	
Lubbock Lake 1	6/5/2023				1																																	
23rd and Oliver	5/14/2019				4																																	
23rd and Oliver	7/16/2019				1																																	
Lubbock Lake 1	7/23/2019				1																																	
Lubbock Lake 1	7/23/2019				1																																	
Lubbock Lake 1	7/23/2019				1																																	
Lubbock Lake 1	7/23/2019				5																																	
Lubbock Lake 1	7/23/2019				1																																	
Erskine, Airport	7/12/2019				1																																	
Innovative Park	7/16/2019				10																																	
TTU Duplex East	7/15/2019				1																																	

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.



Trichochrous sp.

Sphecodosoma pratti

Lasioglossum sp.

Ashmeadiella buconis

Collected taxa from Nama to date include:

Beetles: *Trichochrous*, *Cryptorhopalum*, *Pyrota*, *Disonychia*, *Acmaeodera neoneglecta*. **True bugs:** *Geocoris*, *Polymerus basalis*. **Wasps:** Ichneumonidae, 2 Crabronidae, *Liris*. **Fly:** Bombyliidae. **Butterfly:** *Nathalis iole*. **Bees:** *Sphecodosoma pratti*, *Lasioglossum*, *Ashmeadiella buconis*, *Anthophorula compactula*, 6 *Perdita*, 2 *Dialictus*, *Halictus tripartitus*, *Colletes andreniformis*, *Hylaeus*, *Augochorella*, *Ceratina*, *Megachile rotundata*, 3 *Nomada* including *N. texana*.

Acknowledgements

We thank Aqeela Sehrish and Dr. Scott Starr for assisting with collections of insect foragers of *Nama*. Special thank you to Dr. Jennifer Girón for helping edit the poster.