

# PUBLIC LANDS



In cooperation with the  
**National Park Service**  
Lake Mead National Recreation Area

**University of Nevada Las Vegas**

**Public Lands Institute**

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**Research Assistant / Botanist**

# Sticky buckwheat and Threecorner milkvetch

- Rare, sand loving, annual plants endemic to Clark and Lincoln Counties, Nevada and Mojave County, Arizona.
- Geographic distribution associated with the Muddy Creek Formation, which is widely exposed in the Overton Arm, Virgin Basin, and Boulder Basin sections of LMNRA extending northward along the Virgin River Valley and westward along the Muddy River and Meadow Valley Wash



Sticky buckwheat

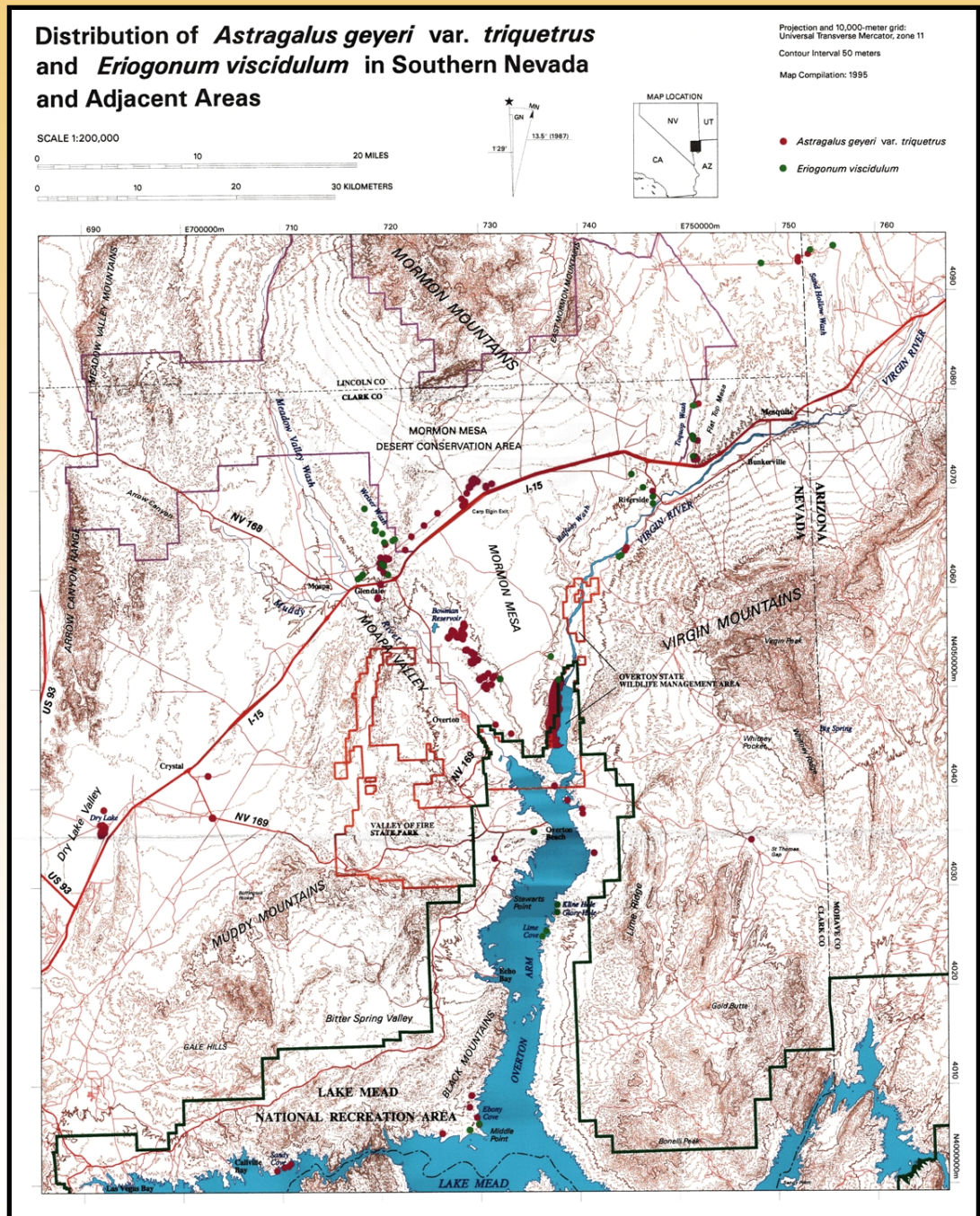


Threecorner milkvetch

# 1995 Rangewide Distribution

- 22 populations of sticky buckwheat totaling 20,020 individuals
- 19 populations of threecorner milkvetch totaling 3,853 individuals
- Subsequent surveys were conducted at select sites within LMNRA
- Rangewide survey planned for the next high rainfall year

Niles et al. 1995



# State and Federal Status

- Listed as critically endangered plants in the state of Nevada
- MSHCP covered species
- Nevada Natural Heritage Programs sensitive species list (ranked G2 S2-defined as imperiled)
- Rare plant status with the National Park Service
- No Federal listing

Sandy Cove



# Sticky buckwheat (*Eriogonum viscidulum*)

## Unique characteristics

- Sticky surface near the base of the plant usually covered by sand particles
- Very fine flowering stalks gives delicate appearance
- Habitat – open areas, loose sand



# Sticky buckwheat

## Threats: Invasive species

- **Sahara mustard** – crowds out natives, germinates early in the season, prolific seed producer
- **Saltcedar** – chokes habitat, degrades soil, depletes soil moisture
- **Tumbleweed** – chokes habitat, depletes soil moisture

Sahara mustard

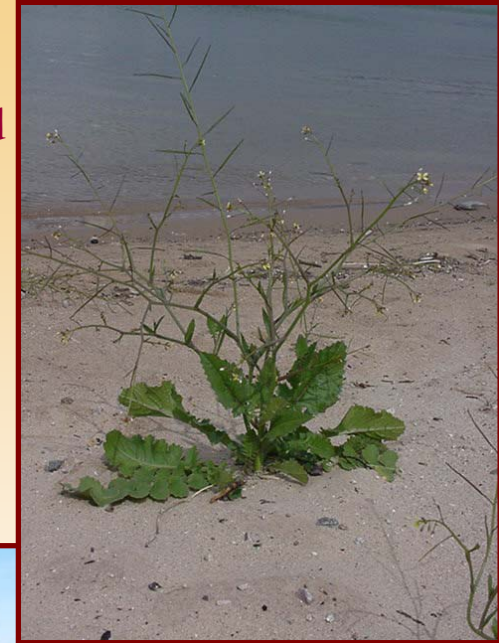


Photo courtesy of Lee Dittman

Tumbleweed



Salt cedar

# Sticky buckwheat

## Threats: Trampling and Grazing (trespass cattle and burros)

- Graze on sticky buckwheat when preferred species are absent
- Trample through habitat on route to the lake
- Upcoming fencing project



# Threecorner milkvetch (*Astragalus geyeri* var. *triquetrus*)

## Unique characteristics

- three sided, sharply angled fruit
- habitat – requires loose sand, active sand dunes

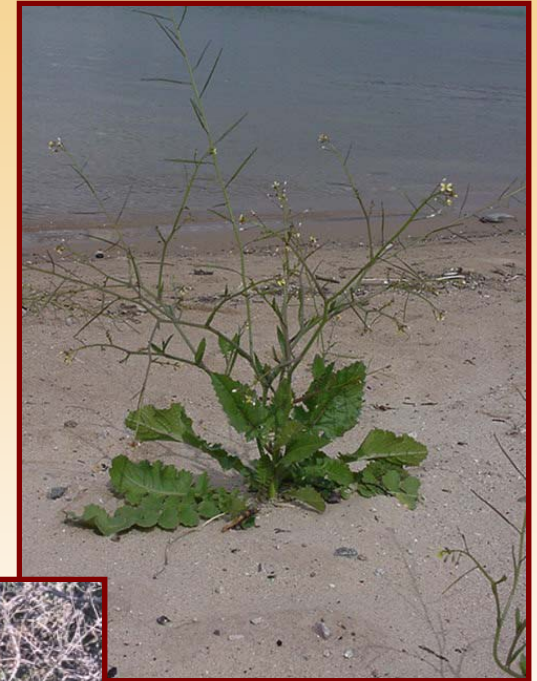




# Threecorner milkvetch

## Threats: Invasive species

- Sahara mustard – crowding, early germinant, prolific seed producer
- Mediterranean grass – sand dune stabilization



Sahara mustard



Mediterranean grass

# Research Needs

- Seed bank studies
- Seed longevity and seed fate studies
- Germination requirements and dormancy cycles
- Habitat selection (responses to environmental stimuli)
- Habitat monitoring to supplement species monitoring
- Pollinator studies

For species and monitoring information contact...

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**A special thank you to  
National Park Service  
Lake Mead National Recreation Area**

