

Least Tern



ASSESSING HABITAT QUALITY FOR PRIORITY WILDLIFE SPECIES IN COLORADO WETLANDS



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The least tern (*Sternula albifrons*, Family *Laridae*) is a small, ground nesting bird that nests in open, sandy soil. They are rare throughout their range, including in Colorado.

Species Description

Identification

At 8–9 inches in length and slightly smaller than an American robin, the least tern is the smallest tern of North America. Their white forehead contrasting with a black cap is easily seen in flight. They have a yellow bill tipped in black.

Preferred Habitats

Interior least terns nest on sandy shores of reservoirs and gravel pits; although not usually considered wetlands, these habitats are often adjacent to or associated with wetlands along the shores. Sandbars, particularly along the Arkansas River, represent potential nesting habitat, however, the regulation of water probably precludes least terns from successfully nesting. They forage in streams, reservoirs, marshes, gravel pits, and other impounded wetlands.

Diet

The diet of least terns consists primarily of small (1–4 inches long), slender (½ inch) fish that swim near the surface. To a lesser degree, they also feed on aquatic invertebrates.

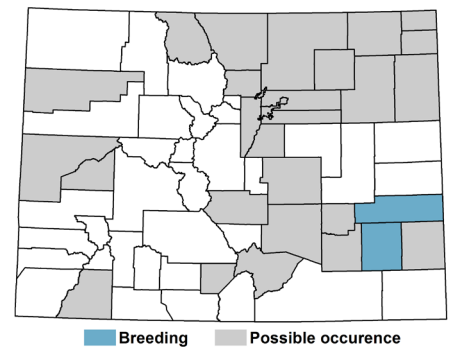
Conservation Status

The interior population is Federally listed as endangered. In Colorado, least terns are listed as endangered and a Tier 2 Species of Greatest Conservation Need (CPW 2015). During the second Colorado Breeding Bird Atlas (2007–2011), least terns were observed and confirmed breeding in only two priority blocks: Adobe Creek Reservoir and just south of Neesopah and Neegronda Reservoirs. During the previous Colorado Breeding Bird Atlas (1987–1994), they had also been confirmed as breeders in the vicinity of Neenoshe Reservoir.

Species Distribution

Range

Least terns range extensively along coasts and major rivers in North America, Central America, the Caribbean, and northern South America. In Colorado, least terns breed only in the Lower Arkansas River Basin. During migration, they occasionally occur in the Lower South Platte River Basin, and less frequently on the west slope.



North America map used by permission from Cornell Lab of Ornithology's Birds of North America Online (<http://bna.birds.cornell.edu/bna>). Colorado map based on Andrews and Righter (1992), Kingery (1998), COB-BAT (2015), and CFO (2015).

Preferred Habitat Conditions

Dominant vegetation	open view with little to no vegetation
Height of vegetation	< 6 inches
Location of nesting habitat patch	next to water with an unobstructed view
Nesting substrate	sand or fine gravel, free from silt and/or clay
Percent canopy cover	none
Percent herbaceous cover	0-5%
Size of nesting habitat <i>if</i> other ideal conditions met	> 0.2 acres
Size of unvegetated patch on vegetated bar	> 1 acre
Water depth at nest sites	0 inches
Woody debris on ground	presence of woody debris near nests (not well understood)

Management Recommendations

This fact sheet contains easy-to-use guidelines for understanding habitat needs of Colorado Parks and Wildlife priority wetland-dependent wildlife. A number of practical steps can be taken to improve habitat for least terns.

Hydrology / Substrate

- Manage and time flows to benefit habitat (scouring) while minimizing nesting mortality.
- Create sand and gravel river islands.
- Control vegetation by flooding after breeding and lower water level prior to arrival in spring.
- Add sand to islands as needed.
- Add small amount of woody debris where needed.

Vegetation

- Control vegetation to create or maintain sparse vegetation.

Land Use

- Curtail cattle grazing near potential nesting sites.

Conservation

- Provide exclosures/enclosures or electric fencing where needed to protect from predators.
- Close beaches to human use during breeding season.
- Create educational signage to protect breeding birds from human disturbance.



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Acknowledgements

Dr. Eileen Kirsch (U. S. Geological Service) reviewed an earlier version and provided input on preferred habitat conditions.

Suggested Reading and Citations

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HATCHING EGGS © JANE LEDWIN, USFWS

Habitat Scorecard for Least Terns (v. Jan 2016)

Assessment of habitat before and after restoration or management actions

Project Name: _____ Date(s) of Assessment: _____

Instructions: Select appropriate checklist: (1) **Nesting** (e.g., sandbars, reservoir edges, gravel pits) or (2) **Foraging** (e.g., emergent marshes, ponds, stream channels, warm water sloughs). Enter one value that best describes early to mid-summer conditions of each habitat variable, using the numbers in the value column. Habitat variables are in shaded boxes; ranges of condition are directly below each variable. If condition is outside range or is not described, enter a zero.

Nesting Habitat (e.g. sandbars, reservoir edges, gravel pits)

Key habitat variable and conditions	Value	Before	After
Dominant vegetation			
Open bare ground	11.8		
Low grass	3.9		
Location: Juxtaposition of habitat patch to water			
Totally surrounded by water	11.8		
Partially connected and adjacent to water	7.9		
Not adjacent to water	3.9		
Location: Distance with unobstructed view (from appropriate patch)			
>275 yards	11.8		
>100 – 275 yards	7.9		
50 – 100 yards	3.9		
Percent total canopy cover 6.6 feet			
NO canopy cover > 6.6 feet	11.8		
Substrate			
>75% coarse and/or fine sand	11.3		
Size of habitat patch (Answer for ONLY one, using best option)			
Size of entirely unvegetated bar or island			
>0.25 acre	10.7		
>0.06 – 0.25 acre	7.1		
0.02 – 0.06 acre (~900 sq feet – ~2,500 sq feet)	3.6		
Size of unvegetated patch on otherwise vegetated bar or island			
>1 acre	10.7		
0.5 – 1 acre	7.1		
0.25 – 0.5 acre	3.6		
Predominant water depth			
No water	10.7		
Vegetation height			
<6 inches	9.4		
6 – 20 inches	3.1		
Total (of 100 possible): add all numbers in before or after columns			

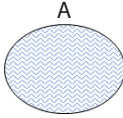
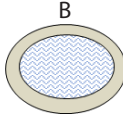
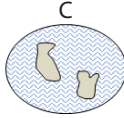
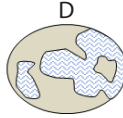
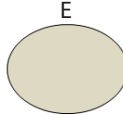
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Foraging Habitat (e.g. emergent marshes, ponds, stream channels, warm water sloughs)

Key habitat variable and conditions	Value	Before	After
Interspersion			
A or B	27.1		
C	18.0		
D	9.0		
Interspersion patterns refer to the above diagram (stippled = water, solid = vegetation)	    		
Dominant vegetation			
Open water (no vegetation)	24.3		
Sparse emergent vegetation	16.2		
Presence of small fish			
Abundant small fish 1 – 4 inches	24.3		
Abundant aquatic invertebrates	16.2		
Distance to potential nesting habitat			
<3 miles	24.3		
3 – 6 miles	16.2		
>6 – 9 miles	8.1		
Total (of 100 possible): add all numbers in before or after columns			