

# Least Sandpiper

*Calidris minutilla*



Photo by Larry Neel

## Habitat Use Profile

Habitats Used in Nevada	
Open Water (shorelines) Ephemeral Wetland and Playa	
Key Habitat Parameters •	
Plant Density	Sparse emergent and shoreline vegetation <sup>4</sup>
Mosaic	Shallow waters near shoreline with sparse vegetation, interspersed with mudflats, wet meadows, and flooded agricultural stubble fields <sup>4</sup>
Water Depth	< 4 cm [1.6 in] <sup>4</sup>
Water Quality	Tolerant of a variety of salinities <sup>EO</sup>
Hydrology	Tolerant of stage fluctuations <sup>EO</sup>
Response to Vegetation Removal	Probably neutral <sup>EO</sup>
Area Requirements ○	
Minimum Patch Size	Unknown, but uses smaller waterbodies than some other shorebirds <sup>4</sup>
Recommended Patch Size	> 50 ha [125 ac] <sup>EO</sup>
Home Range / Territory Size	Unknown

## Conservation Profile

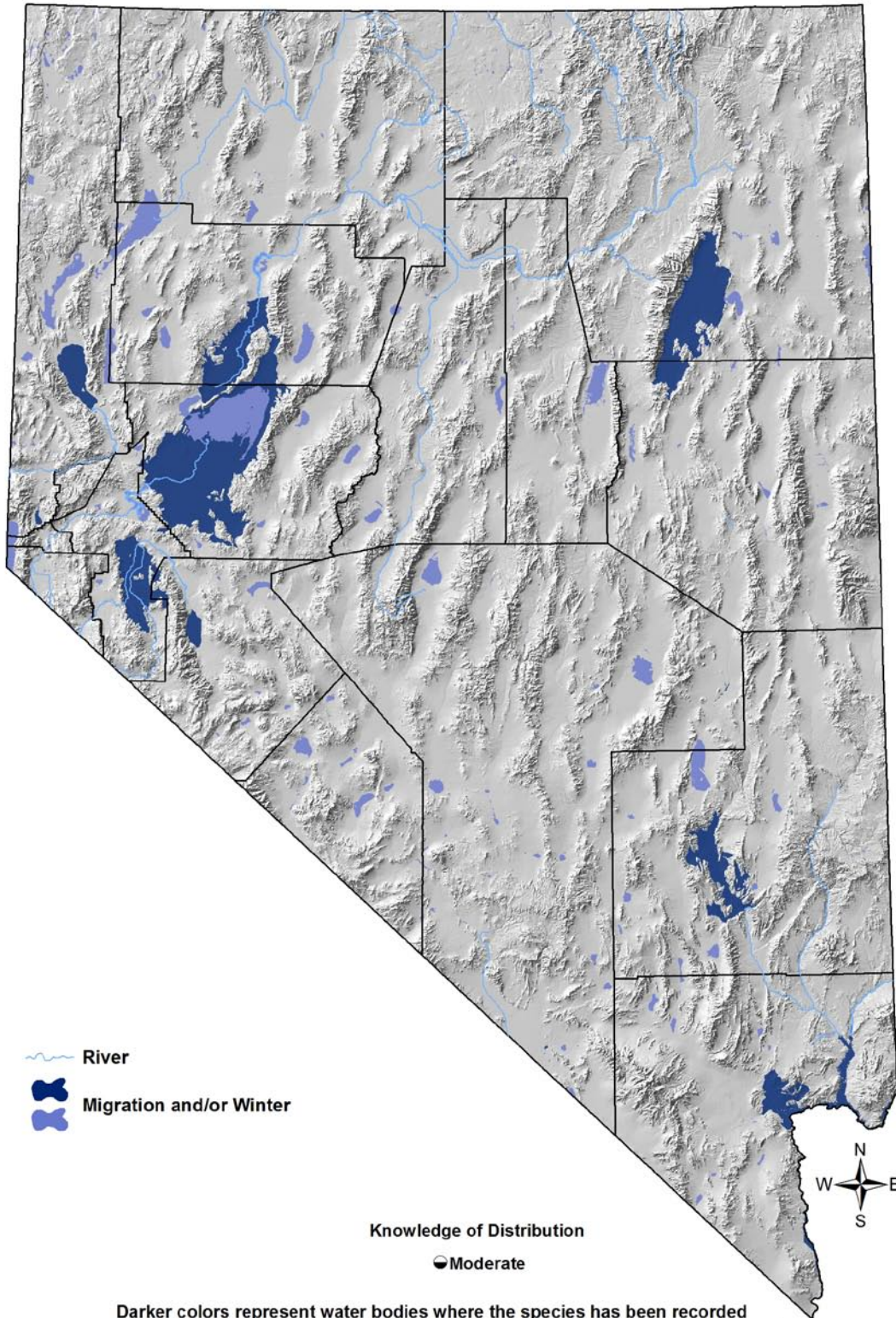
Priority Status	
Conservation Priority Species	
Species Concerns	
Recent declines Habitat threats	
Other Rankings	
Continental PIF	None
Audubon Watchlist	None
NV Natural Heritage	S4N
USFWS	Migratory Bird
BLM	None
USFS	None
NDOW	Conservation Priority
IW Shorebird Plan	Very Important
Trends	
Historical ○	Unknown
Recent •	Declining <sup>1</sup>
Population Size Estimates	
Nevada •	~ 2,200, with high annual variability <sup>2</sup>
Global ○	600,000 - 700,000 <sup>1, 3</sup>
Percent of Global	< 1%
Population Objective	
Maintain / Increase <sup>EO</sup>	
Monitoring Coverage	
Source	NDOW shorebird surveys, NWR and WMA counts, Aquatic Bird Count
Coverage in NV	Good in Lahontan Valley, Fair / Poor elsewhere
Key Conservation Areas	
Protection	Lahontan and Ruby Valleys, Mojave wetlands
Restoration	Threatened open water shorelines

## Natural History Profile

Seasonal Presence in Nevada	
Spring (migration, peak April) Fall (migration, peak August) Winter (southern Mojave)	
Known Breeding Dates in Nevada	
N/A	
Nest and Nesting Habits	
Nest Placement	N/A
Site Fidelity	Unknown
Food Habits	
Basic	Prober
Primary Diet	Aquatic invertebrates < 6 mm [0.2 in] long <sup>4</sup>
Secondary Diet	Terrestrial invertebrates <sup>2</sup>

# Least Sandpiper

*Calidris minutilla*



Darker colors represent water bodies where the species has been recorded within the past 12 years. Lighter colors represent water bodies where the species could potentially occur. Smaller water bodies may be difficult to visualize on the map.

# Least Sandpiper

*Calidris minutilla*

## Overview

The Least Sandpiper is seen most often in Nevada in mixed, migrating flocks, usually with Western Sandpipers, which are generally more numerous. Like the Western Sandpiper, Least Sandpipers use shallow water and mudflats for foraging, but they are more likely to also forage on the drier parts of beaches and shorelines than their flock-mates.<sup>4</sup> Least Sandpipers are also more likely to use small habitat patches,<sup>4</sup> which are typically more vulnerable to habitat conversion than larger water features.<sup>7</sup> Least Sandpipers tend to be more numerous during spring migration than fall migration, with the greatest numbers occurring in Lahontan Valley, followed by Ruby Valley, southern Nevada (primarily Lake Mead and Ash Meadows NWR), and Pyramid Lake.<sup>6</sup> According to data from the Nevada Aquatic Bird Count program, some Least Sandpipers also remain in far southern Nevada throughout the winter, primarily in Lake Mead, but also in smaller numbers at Ash Meadows NWR. As is the case with many other Conservation Priority shorebirds, Lahontan Valley provides Nevada's most critically important habitat for Least Sandpipers. For this reason, it has been designated as a "Site of Hemispheric Importance" by the Western Hemisphere Shorebird Reserve Network ([www.whsrn.org](http://www.whsrn.org)).

Because of their affinity for mixed-species flocks, it is difficult to obtain accurate counts of Least Sandpipers, and population estimates for Nevada are somewhat suspect. Least Sandpipers appear to be declining, though perhaps more sharply in the eastern part of North America than in the west. It has been suggested that ongoing declines are related to threats associated with migration or wintering grounds, but specific mechanisms of decline, or possible management responses, have not yet been identified.<sup>7</sup> It is unclear whether Least Sandpipers use ephemeral wetlands and playas (when wet) to the extent postulated for Western Sandpipers. Further investigation into this issue seems warranted.

## Abundance and Occupancy by Habitat

The ten-year average seasonal count for Lahontan Valley is 2,000 birds, with 200 birds estimated to occur in other locations around Nevada (L. Neel, pers. comm.). The most recent ten-year peak for Lahontan Valley was 8,300 birds in 2001 (L. Neel, pers. comm.)

## Nevada-Specific Studies and Analyses

Shuford et al. (2002)<sup>6</sup> provides the most comprehensive data for migratory shorebirds in the Intermountain West region, including Nevada.

# Least Sandpiper

*Calidris minutilla*

## Main Threats and Challenges

### Habitat Threats

- Loss or degradation of flat, muddy open water shorelines due to water diversions, declines in water quality, or development
- Mid-summer dewatering of traditional or potential fall migration stopover sites

### Research, Planning, and Monitoring Challenges

- Extent and causes of declines are not well understood
- The relative importance of ephemeral wetlands such as flooded playas, particularly during spring migration, has not been well-studied<sup>5</sup>

## Conservation Strategies

### **Habitat Strategies**

- Open Water (p. Hab-10-1) and Ephemeral Wetland and Playa (p. Hab-6-1) habitat conservation strategies benefit this species
- Maintain flooded conditions in important stopover habitat during the migration periods (20 April – 10 May; 1 – 30 August); prevent mid-summer dewatering of traditional or potential fall migration stopover sites
- Allow or encourage seasonal runoff into ephemeral wetlands and playas sufficient to create mudflats with water depth < 4 cm [1.6 in] during migration periods

### **Research, Planning, and Monitoring Strategies**

- Devote more inventory and monitoring effort to ephemeral wetlands and playas to determine their relative importance as migration habitat
- Continue and expand current monitoring efforts to confirm and better quantify population trend and identify possible causes

### **Public Outreach Strategies**

- None identified

References: <sup>1</sup>Brown et al. (2001); <sup>2</sup>IWJV (in prep.); <sup>3</sup>Morrison et al. (2006); <sup>4</sup>Nebel and Cooper (2008); <sup>5</sup>Oring et al. (2000); <sup>6</sup>Shuford et al. (2002); <sup>7</sup>Thomas et al. (2006); <sup>EO</sup> Expert opinion