Willet
Tringa semipalmata

Photo by Larry Neel

Habitat Use Profile

Habitats Used in Nevada

<table>
<thead>
<tr>
<th>Habitat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wet Meadow</td>
</tr>
<tr>
<td>Marsh</td>
</tr>
<tr>
<td>(Great Basin Lowland Riparian)</td>
</tr>
</tbody>
</table>

Key Habitat Parameters ●

- **Plant Composition**: Sedges, spike rush and other rushes, wet meadow grasses and forbs, some agricultural and pasture crops
- **Plant Density & Height**: Low-growing (< 15 cm [6 in]), dense emergent or wet meadow vegetation5
- **Mosaic**: Wet meadow expanses next to marsh, open water, or ephemeral wetlands; adjacent open uplands or agricultural areas for foraging; no trees or dense shrubs5, 6, 7
- **Water Depth**: < 8 cm [3.1 in] depth, and/or saturated soils5
- **Response to Vegetation Removal**: Unknown

Area Requirements ●

- **Minimum Patch Size**: 100 ha [250 ac]5, 7
- **Recommended Patch Size**: > 150 ha [375 ac]5
- **Home Range**: ~ 45 ha [110 ac]7

Natural History Profile

**Seasonal Presence in Nevada**

- Spring – Summer
- Spring and Fall (migration)

**Known Breeding Dates in Nevada**

- Early April – July6

**Nest and Nesting Habits**

- Nest Placement: On dry ground near shoreline or wet meadow5
- Site Fidelity: Unknown

**Food Habits**

- Basic: Prober, pecker, fisher
- Primary Diet: Terrestrial, benthic and aquatic invertebrates5
- Secondary Diet: Small fishes5

Conservation Profile

**Priority Status**

- Conservation Priority Species

**Species Concerns**

- Habitat threats
- Historical declines
- Possible high stewardship responsibility

**Other Rankings**

- Continental PIF: None
- Audubon Watchlist: None
- NV Natural Heritage: S3B
- USFWS: Migratory Bird
- BLM: None
- USFS: None
- NDOW: Conservation Priority
- IW Shorebird Plan: Very Important

**Trends**

- Historical ●: Rangewide declines5
- Recent ●: Stable1

**Population Size Estimates**

- Nevada ●: 2,100 EO
- Global ●: 250,000; much less for Western Willet
- Percent of Global: ~1%; much higher but unquantified percent of Western Willet population

**Population Objective**

- Maintain EO

**Monitoring Coverage**

- Source: NWR and WMA counts, Nevada Bird Count, Aquatic Bird Count
- Coverage in NV: Fair / Poor in most of the state

**Key Conservation Areas**

- Protection: Lahontan, Ruby, Carson, Washoe, and Mason Valleys, Humboldt River, Lake Mead
- Restoration: Same

Confidence in Available Data: ● High ○ Moderate ◇ Low
Willet
Tringa semipalmata

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.
Overview

Nevada’s Willets belong to the *inornatus* subspecies, known as the Western Willet. Like the Long-billed Curlew, the Willet’s habitat is not limited to shoreline areas, but it does not typically stray as far from water or saturated soils as the curlew often does. Willets use a diverse array of wet habitat types, including irrigated agricultural lands, although not to the same extent as the Long-billed Curlew or Sandhill Crane. Willet territories tend to be large, and they may therefore be more sensitive to fragmentation or wet landscapes than some other shorebirds. Nevada Aquatic Bird Count data and other sources suggest that Nevada probably supports more migrating Willets than breeding Willets, with the largest number of migrants recorded in Ruby Valley and Lake Mead, and smaller numbers at many other sites throughout most of the state.\(^3,8\) Most of the areas shown in the map above as “Spring – Summer” range may therefore be equally or more important as migratory stopover locations.

Given that Nevada probably hosts a fairly large, if unquantified, proportion of the total Western Willet breeding population, this species is not sufficiently-well studied or monitored in our state, nor have its threats received enough investigation. Specific habitat preferences during migration also need to be better determined.

Abundance and Occupancy by Habitat

The Nevada population estimate was generated by multiplying the amount of suitable habitat in Humboldt, Truckee, Carson, and Walker River systems, Lahontan Valley, and Ruby Valley by a mean density of 2 birds / 100 acres, which is typical of the Humboldt River system.\(^8\) The total statewide population estimate may be conservative in that densities in some of these areas are probably higher than the density within the Humboldt River system.

Nevada-Specific Studies and Analyses

No information

Main Threats and Challenges

Habitat Threats

- Loss of wet meadows to water diversions, groundwater pumping, or development
- Loss or degradation of marsh habitat due to water diversions, declines in water quality, or development
- Loss of flood irrigated agricultural fields to habitat conversion
- Fragmentation of wet landscapes

Spp-33-3
**Willet**  
*Tringa semipalmata*

- Heavy livestock grazing or haying during the nesting period

**Research, Planning, and Monitoring Challenges**

- Nevada population size and total Western Willet population size need to be better estimated, and presumed stable trend needs better confirmation
- Willets are not sufficiently-well sampled by current monitoring programs, partly because they are not vocal during the incubation period

**Conservation Strategies**

**Habitat Strategies**

- Wet Meadow (p. Hab-20-1) and Marsh (p. Hab-9-1) habitat conservation strategies benefit this species
- Prioritize protection of large landscapes with a continuous mosaic of wet meadows, marshes, and irrigated agricultural lands
- Manage wet meadows for maximum density of low vegetation cover during the nesting period (1 April – 15 July) by deferring grazing or haying
- Burning or grazing after the nesting season can help to create desirable low vegetation conditions for the subsequent breeding season

**Research, Planning, and Monitoring Strategies**

- Improve or supplement current monitoring programs to better sample Willets during the breeding and migration seasons
- Conduct additional studies to better understand population size, trends, distribution, habitat needs, and seasonal movements

**Public Outreach Strategies**

- Where Willets nest on or use privately owned lands, encourage landowners to defer haying and grazing until after the nesting period (1 April – 15 July)

**References:**  
1. Brown et al. (2001);  
2. GBBO unpublished Atlas data;  
3. GBBO unpublished Nevada Aquatic Bird Count data;  
4. Gratto-Trevor (2006);  
5. Lowther et al. (2001);  
6. Oring and Reed (1996);  
7. Ryan and Renken (1987);  
8. Shuford et al. (2002);  
EO Expert opinion