

Willet
Tringa semipalmata



Photo by Larry Neel

Habitat Use Profile

Habitats Used in Nevada	
Wet Meadow Marsh (Great Basin Lowland Riparian)	
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 vegetation ⁵
Mosaic	Wet meadow expanses next to marsh, open water, or ephemeral wetlands; adjacent open uplands or agricultural areas for foraging; no trees or dense shrubs ^{5, 6, 7}
Water Depth	< 8 cm [3.1 in] depth, and/or saturated soils ⁵
Response to Vegetation Removal	Unknown
Area Requirements •	
Minimum Patch Size	100 ha [250 ac] ^{5, 7}
Recommended Patch Size	> 150 ha [375 ac] ^{EO}
Home Range	~ 45 ha [110 ac] ⁷

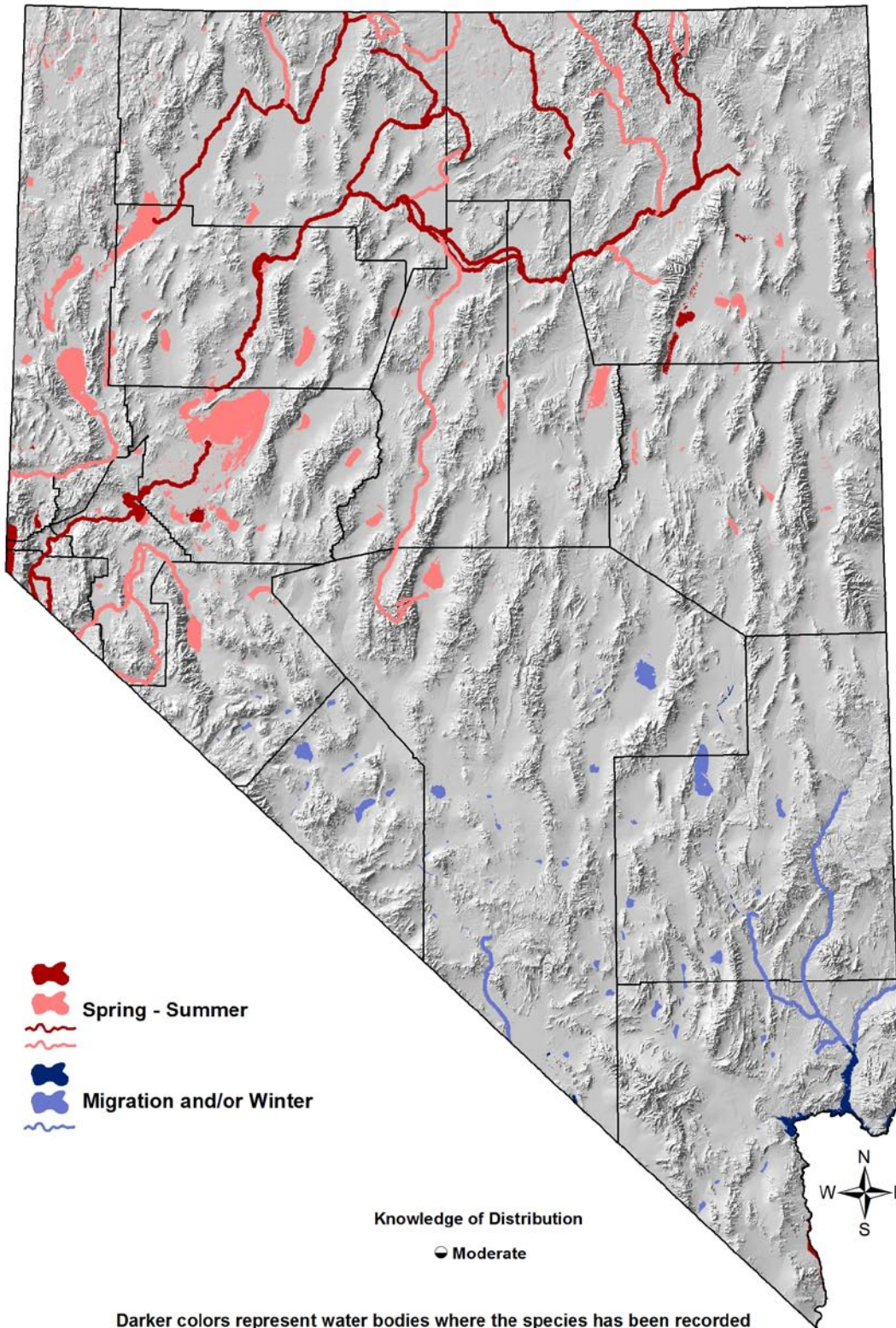
Conservation Profile

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 declines ⁵
Recent •	Stable ¹
Population Size Estimates	
Nevada •	2,100 ^{EO}
Global •	250,000; ¹ 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

Natural History Profile

Seasonal Presence in Nevada	
Spring – Summer Spring and Fall (migration)	
Known Breeding Dates in Nevada	
Early April – July ²	
Nest and Nesting Habits	
Nest Placement	On dry ground near shoreline or wet meadow ⁵
Site Fidelity	Unknown
Food Habits	
Basic	Prober, pecker, fisher
Primary Diet	Terrestrial, benthic and aquatic invertebrates ⁵
Secondary Diet	Small fishes ⁵

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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

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- 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 period⁴

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 (2001); ²GBBO unpublished Atlas data; ³GBBO unpublished Nevada Aquatic Bird Count data; ⁴Gratto-Trevor (2006); ⁵Lowther et al.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