Canvasback
Aythya valisineria

Habitat Use Profile

Habitats Used in Nevada
- Marsh
- Open Water

Key Habitat Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Composition</td>
<td>Cattail, bulrush, sedges, submerged aquatic plants⁵</td>
</tr>
<tr>
<td>Plant Density</td>
<td>100 – 400 stems / m² [9 – 37 / ft²] of emergent plants for breeding⁴</td>
</tr>
<tr>
<td>Mosaic</td>
<td>Breeding: Shallow marsh with variable emergent plant stem densities, interspersed with open water; Winter: open water with aquatic plants⁵</td>
</tr>
<tr>
<td>Water Depth</td>
<td>40 – 80 cm [16 – 31 in] for nest³, up to 5 m [16 ft] for foraging⁶</td>
</tr>
<tr>
<td>Hydrology</td>
<td>Minimal daily stage fluctuations during nesting³</td>
</tr>
<tr>
<td>Response to</td>
<td>Probably negative for breeding</td>
</tr>
<tr>
<td>Vegetation Removal</td>
<td></td>
</tr>
</tbody>
</table>

Area Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Patch Size</td>
<td>Unknown</td>
</tr>
<tr>
<td>Recommended Patch Size</td>
<td>Breeding: &gt; 50 ha [125 ac]; Migration: &gt; 100 ha [250 ac]; Winter: large open water bodies³, ⁴, EO</td>
</tr>
<tr>
<td>Home Range / Territory Size</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Conservation Profile

Priority Status
- Conservation Priority Species

Species Concerns
- Historical declines
- Habitat threats

Other Rankings
- Continental PIF: None
- Audubon Watchlist: None
- NV Natural Heritage: S3, S4
- USFWS: Migratory Bird
- BLM: None
- USFS: None
- NDOW: Conservation Priority, Gamebird
- Pacif. Flyway Council: High

Trends
- Historical: Rangewide declines⁷
- Recent: Stable⁸, ⁹

Population Size Estimates
- Nevada: 4,600 (excluding migrants)⁶
- Global: 580,000 – 740,000 ⁵, ⁸
- Percent of Global: < 1%

Population Objective
- Maintain / Increase EO

Monitoring Coverage
- Source: NDOM aerial surveys, NWR and WMA counts, NDOM hunter surveys, NV Aquatic Bird Count
- Coverage in NV: Good

Key Conservation Areas
- Protection: Ruby Valley and Lahontan Valley
- Restoration: Degraded marshes and open water

Natural History Profile

Seasonal Presence in Nevada
- Spring – Summer (northern Nevada)
- Winter (southern and northwestern Nevada)
- Spring (migration, statewide, March peak)
- Fall (migration, statewide, October peak)

Known Breeding Dates in Nevada
- May – July²

Nest and Nesting Habits
- Nest Placement: Over water, on platform in emergent vegetation²
- Site Fidelity: Probably high for breeding territory,⁵ moderate for wintering sites⁷

Food Habits
- Basic: Diver
- Primary Diet: Aquatic plants and aquatic invertebrates⁵
- Secondary Diet: N/A

Confidence in Available Data: ● High ○ Moderate ◇ Low
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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.
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Overview

Although it is one of North America’s less numerous ducks, the Canvasback has been intensively studied and monitored, perhaps due to its popularity as a game bird. Canvasbacks have complicated patterns of season abundance and distribution in Nevada. They are well-established, if not particularly numerous, as breeders, and Ruby Lake and Lahontan Valley support the species’ most southerly large breeding populations.\(^3\) Canvasback numbers increase greatly during spring and fall migration (www.ebird.org), and many of the areas shown in the map above as “Spring – Summer” range may be equally or more important as migration habitat. Approximately 50,000 Canvasbacks are estimated to migrate through the Great Basin region,\(^2\) although the Nevada portion of this total has not been determined. Canvasbacks also winter in Nevada, primarily in the far west and south, with significant numbers having been recorded by the Nevada Aquatic Bird Count in Pahranagat NWR and Ash Meadows NWR, among other locations. It is not clear whether there are individual birds that remain within Nevada year round, but it seems most likely that there are distinctive seasonal cohorts. For example, birds from the Ruby Valley breeding population are known to winter in central and southern California.\(^4\)

Canvasbacks have distinctive seasonal habitat use patterns. They place their nests over water on matted-down emergent vegetation, and their foraging activity during the breeding season necessarily occurs within these emergent marshes. In migration and winter, however, Canvasbacks frequent large bodies of open water with relatively little emergent vegetation.

Canvasback populations appear to be stable, and current management actions and protocols are probably adequate. As with other waterfowl, population trends are closely monitored and harvest limits adjusted as needed by NDOW and Pacific Flyway Council.

Abundance and Occupancy by Habitat

No information

Nevada-Specific Studies and Analyses

Kruse et al.\(^3,4\)

At Ruby Lake, average nest success was 50%. In comparison to failed nests, successful nests were located over shallower water, but were further from shore, and in wider bands of emergent vegetation with lower stem densities. Successful nest tended to be located 4 – 25 m [13 – 82 ft] from the shoreline. Unusual fluctuations in water level also reduced nest success.
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Main Threats and Challenges

Habitat and Other Threats

• Loss and degradation of marsh and open water habitat due to water diversions, declines in water quality, or development⁴
• May abandon breeding efforts during years of drought,⁵ or suffer nest failure in high water years³

Research, Planning, and Monitoring Challenges

• Key migration and wintering sites need to be better identified

Conservation Strategies

Established Strategies

• Annual harvest rates are set by NDOW in consultation with the Pacific Flyway Council

Habitat Strategies

• Marsh (p. Hab-9-1) and Open Water (p. Hab-15-1) habitat conservation strategies benefit this species
• In breeding marshes, maintain a consistent water level during the nesting period (1 May – 15 July)
• Open water migration and wintering habitat should be managed to maintain the presence of submerged aquatic plants up at depths up to 5m [16ft]

Research, Planning, and Monitoring Strategies

• Important winter and migration sites need to be better identified, though improved inventory and monitoring efforts

Public Outreach Strategies

• None identified

References: ¹GBBO unpublished Atlas data; ²Kadlec and Smith (1989); ³Kruse et al. (2003a); ⁴Kruse et al. (2003b); ⁵Mowbray (2002); ⁶Nevada Wildlife Action Plan Team (2006); ⁷Robertson and Cooke (1999); ⁸USFWS (1998); EO Expert opinion