

# Common Loon

*Gavia immer*



Photo by Fred Petersen

## Habitat Use Profile

| Habitats Used in Nevada     |   |
|-----------------------------|---|
| Open Water                  |   |
| Key Habitat Parameters ◐    |   |
| Plant Density               | No emergent vegetation  |
| Water Depth                 | Depth at foraging locations usually 20-27 m [66 - 122 ft]; <sup>2</sup> water body must be deep enough to support prey populations <sup>1</sup> |
| Water Quality               | Sufficient to support healthy fish populations; heavy metals detrimental <sup>1</sup>   |
| Area Requirements ○         |   |
| Minimum Patch Size          | Unknown, but must be large enough to allow loons to become airborne   |
| Recommended Patch Size      | Not specifically quantified; at least several km <sup>1,EO</sup>  |
| Home Range / Territory Size | N/A during migration <sup>EO</sup>  |

## Conservation Profile

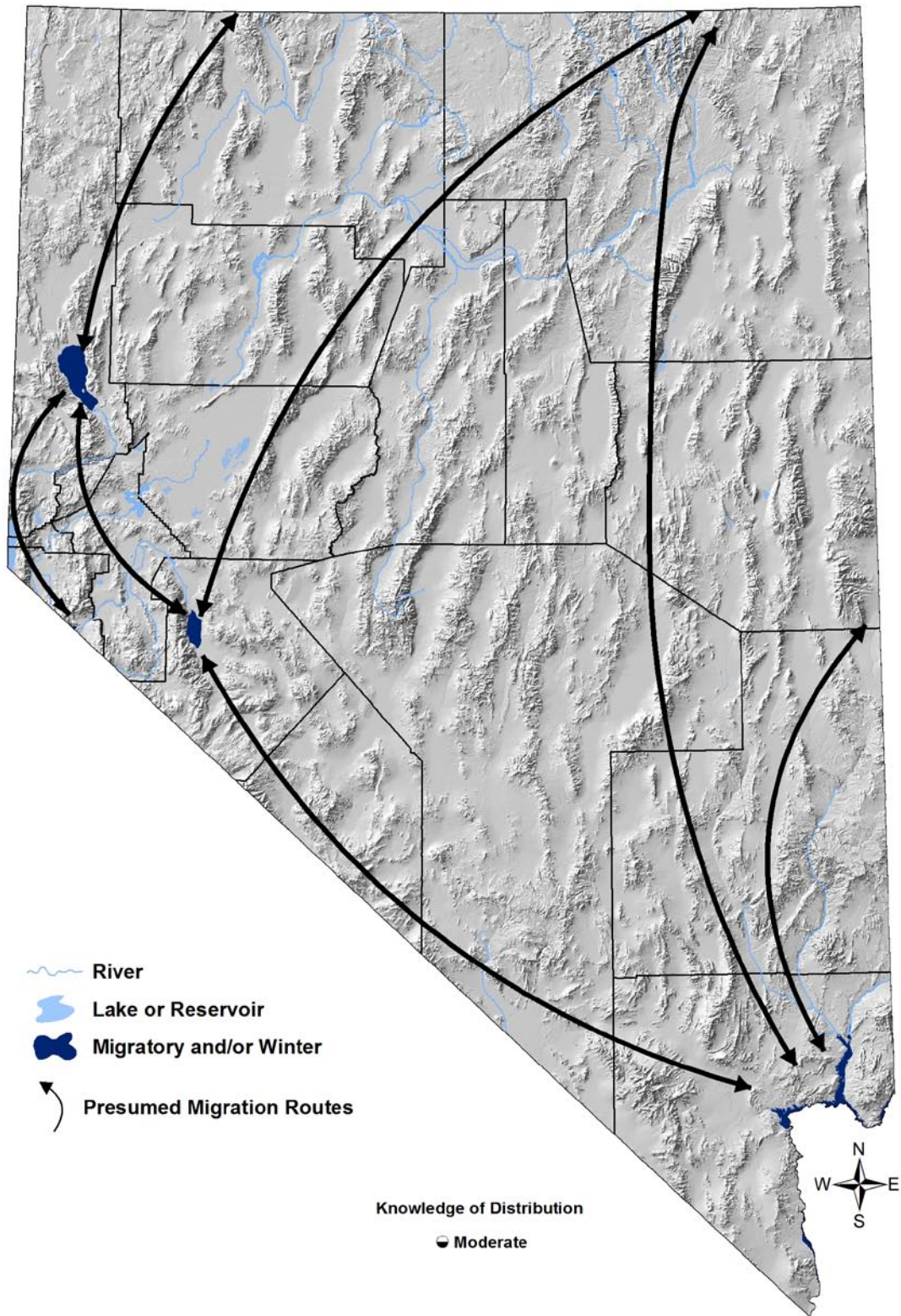
| Priority Status                   |  |
|-----------------------------------|--|
| Conservation Priority Species     |  |
| Species Concerns                  |  |
| Habitat threats                   |  |
| Recent declines (migration)       |  |
| Other Rankings                    |  |
| Continental PIF                   | None   |
| Audubon Watchlist                 | None   |
| NV Natural Heritage               | S2N  |
| USFWS                             | Migratory Bird   |
| BLM                               | None   |
| USFS                              | None   |
| NDOW                              | Conservation Priority  |
| IW Waterbird Plan                 | Moderate/High Concern  |
| Trends                            |  |
| Historical ○                      | Unknown  |
| Recent ●                          | Declines in number of migrants <sup>4</sup>  |
| Population Size Estimates         |  |
| Nevada ●                          | ~500 migrants, variable among years <sup>EO</sup>  |
| Global ●                          | 600,000 <sup>1,3</sup>   |
| Percent of Global                 | < 1%   |
| Population Objective              |  |
| Maintain / Increase <sup>EO</sup> |  |
| Monitoring Coverage               |  |
| Source                            | NDOW Walker Lake surveys, Aquatic Bird Count   |
| Coverage in NV                    | Fair   |
| Key Conservation Areas            |  |
| Protection                        | Walker, Pyramid, & Topaz Lakes and other Great Basin waterbodies large enough to allow takeoff |
| Restoration                       | Walker Lake  |

## Natural History Profile

| Seasonal Presence in Nevada      |   |
|----------------------------------|---|
| Spring (migration peak in April) |   |
| Fall (migration peak in October) |   |
| Winter (Mojave)                  |   |
| Known Breeding Dates in Nevada   |   |
| N/A                              |   |
| Nest and Nesting Habits          |   |
| Nest Placement                   | N/A   |
| Food Habits                      |   |
| Basic                            | Diver                                       |
| Primary Diet                     | Small fish < 20 cm [8 in] long <sup>1</sup> |
| Secondary Diet                   | Aquatic invertebrates <sup>1</sup>          |

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

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## Overview

In Nevada, the Common Loon has become emblematic of the serious problems facing Walker Lake, where diversion of inflows from the Walker River is threatening the lake's fishery and, in the longer-term, its very existence. Historically, Walker Lake is thought to have hosted more migrating loons than any other inland site. Even as recently as the 1990s, a typical year saw approximately 1,000 migrants at Walker Lake, with reported peaks of about 1,400 birds. More recently however, as the water level continued to decline and water salinity increased, average numbers of migrating loons have fallen below 300, and evidence suggests that similar declines have also occurred on Pyramid Lake.<sup>5</sup> Inflows at Pyramid Lake are now secure, and conservation actions there should focus on maintaining water quality and fishery health. A focus on fishery health is also appropriate for other smaller water bodies (such as Topaz Lake) known to host loons. Walker Lake, however, does not have adequate guaranteed inflows, and securing them is a complex undertaking that lies largely within the political sphere. Without securing adequate inflows, other conservation actions at Walker Lake are secondary.

Although conservation attention is focused primarily on migrating loons in Nevada, some reports suggest that loons may winter on Lake Mead in southern Nevada, at least in some years. This possibility deserves additional study.

Currently, loons at Walker Lake are monitored by means of an annual survey that occurs in mid-October each year. Because the timing of migration peaks can vary among years, and because the timing of migration may be systemically shifting in response to a warming climate, it would be beneficial to expand this monitoring effort across several survey dates each year so that it more effectively captures the migration peak. Additionally, it would be beneficial to broaden this monitoring effort to include other lakes known or suspected of hosting migrant loons.

## Abundance and Occupancy by Habitat

In recent years, annual counts at Walker Lake have averaged ~ 285 birds, compared to ~ 1,000 birds in the 1990s. Surveys have not been systematically conducted at other potentially important lakes, but preliminary data<sup>2</sup> suggest that Topaz Lake is also commonly used by migrating loons

## Nevada-Specific Studies and Analyses

The Walker Lake survey data set (NDOW) indicates a pronounced decline in number of migrating loons at Walker Lake. Yates<sup>6</sup> conducted some preliminary telemetry study of loons at Walker Lake, but the study is ongoing and results are pending.

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## Main Threats and Challenges

### Habitat Threats

- Inadequate inflows to Walker Lake, resulting in increased water salinity and decline in fish prey base
- Decline in fisheries in other lakes because of declines in water quality or other issues
- Mercury contamination in fish<sup>4, 6</sup>

### Research, Planning, and Monitoring Challenges

- Currently, monitoring occurs only at Walker Lake, and only at one fixed time point each year (see Overview, above)

## Conservation Strategies

### Habitat Strategies

- The Open Water (p. Hab-15-1) habitat conservation strategy benefits this species
- Secure adequate guaranteed inflows for Walker Lake to stabilize its fishery
- Maintain good water quality and healthy fisheries in other lakes used by loons (Pyramid Lake, Topaz Lake, and Lake Mead)

### Research, Planning, and Monitoring Strategies

- Expand current monitoring protocol at Walker Lake to cover a range of survey dates during fall migration, to cover spring migration, and to cover additional lakes known or suspected to be used by loons
- Further investigate the possibility that loons winter on Lake Mead, and if so, determine their conservation status and needs
- Study the possible impact of mercury contamination on loons

### Public Outreach Strategies

- Continue efforts coordinated by the Walker Lake Working Group to build public support for saving Walker Lake ([http://www.walkerlake.org/about/about\\_issues.html](http://www.walkerlake.org/about/about_issues.html))

References: <sup>1</sup>Evers et al. (2010); <sup>2</sup>GBBO unpublished data; <sup>3</sup>Kushlan et al. (2002); <sup>4</sup>Nevada Wildlife Action Plan Team (2006); <sup>5</sup>Serdehely (2006); <sup>6</sup>Yates (1999b); <sup>EO</sup> Expert opinion