



Credit: Jim Williams

Red-breasted Merganser Minnesota Conservation Summary

*Audubon Minnesota
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The *Blueprint for Minnesota Bird Conservation* is a project of Audubon Minnesota written by Lee A. Pfannmuller (leepfann@msn.com) and funded by the Environment and Natural Resources Trust Fund. For further information please contact Mark Martell at mmartell@audubon.org (651-739-9332).

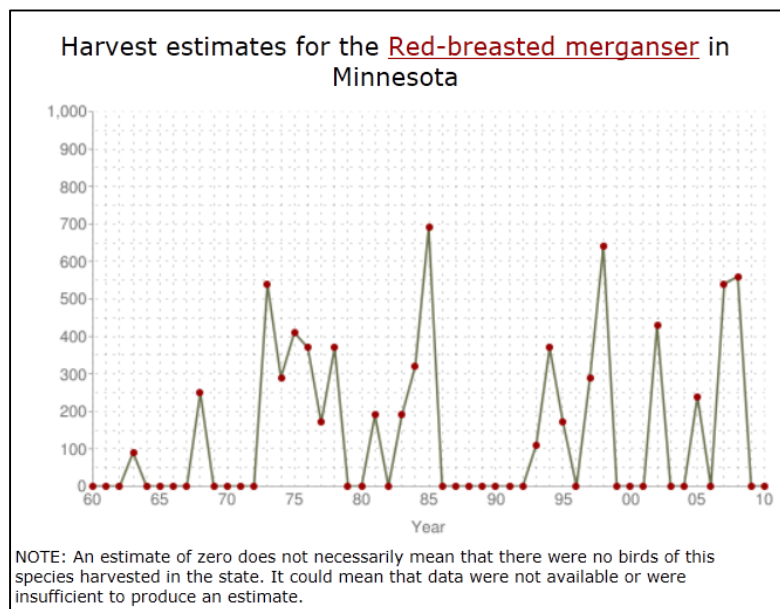
Red-breasted Merganser

Priority for Minnesota's Bird Conservation Plan:

- Boreal Hardwood Transition: Moderate Level Priority

Other Status Classifications:

- Federally protected migratory game bird in Canada, U.S. and Mexico
- Considered a priority marine bird in the Southeast Atlantic Region by the USFWS (<http://www.safmc.net/Portals/0/ProtRes/SEUSprioritybirdlist.pdf>)
- Continental Priority: Moderately Low
- Classifications in BCR11: None
- Classifications in BCR12: None
- Classifications in BCR22: None
- Classifications in BCR23: None
- The Red-breasted Merganser is a game species in Minnesota. The daily limit for Red-breasted Mergansers is six birds; the possession limit is twelve birds. The Minnesota harvest does not distinguish between Common Mergansers and Red-breasted Mergansers; they are combined and reported as "large mergansers." Harvest statistics are shown below. They can be found at the flyways website: <http://www.flyways.us/regulations-and-harvest/harvest-trends>.



- Although shot by hunters, Red-breasted Mergansers are not sought after; this is partly because hunters prefer to consume their fish firsthand rather than have it processed by a duck, and partly because this species is not easily accessible in the large open-water habitats it occupies in fall and winter (BNA)
- Red-breasted Mergansers account for a very small proportion of ducks shot annually: 0.13% in U.S., an average totaling about 18,500 from 1971 to 1980, 41% of which were shot in the Mississippi Flyway and 45% in the Atlantic Flyway (Carney et al. 1983); and 0.59% in Canada, an average totaling about 11,000 from 1988 to 1991 (BNA).
- Red-breasted Mergansers are harvested throughout their ranges, but total sport and subsistence harvest is low (Sea Duck Information Series).
- The number of birds taken by hunters in Canada and the United States averages 30,000 per year for both countries (Sea Duck Information Series).

- Subsistence harvest in Alaska was estimated at 200-300 birds per year between 1985 and 2000 (Sea Duck Information Series).

Population Information:

- At the national level Red-breasted Mergansers appear to be increasing.
- Continental population estimate: 250,000 (U.S. Waterfowl Plan: 1994-2003)
- A rough estimate of the breeding population in North America is 250,000 (Sea Duck Information Series).
- Size and trends of merganser populations in North America are difficult to interpret because aerial surveys of breeding birds do not differentiate common and red-breasted mergansers; they are lumped together in counts (Sea Duck Series).
- The North American Waterfowl Breeding Survey indicates increasing numbers of all merganser species combined from 1957 to 2002 (Sea Duck Series).
- Nothing is known about factors that potentially regulate populations of red-breasted mergansers.

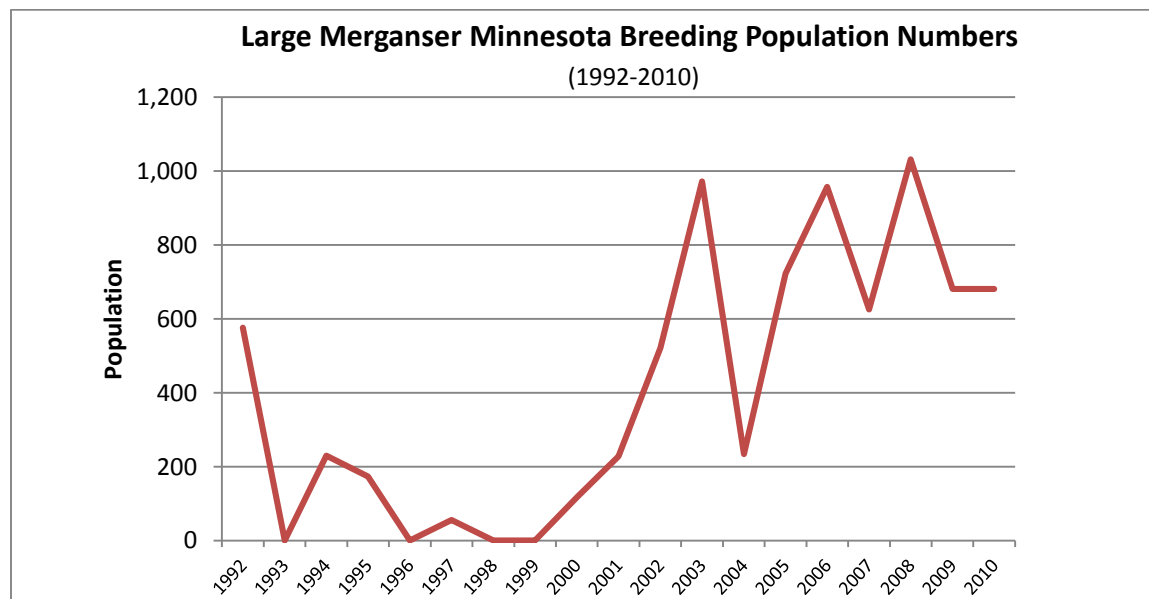
BBS Data:

- Red Level of Credibility
- 1966-2009: decreasing trend (**not statistically significant**) of -11.1; 1999-2009; decreasing trend of -10.8. Minnesota does not include one of the species centers of highest abundance
- 0.34% of the Red-breasted Merganser’s North American breeding range occurs in Minnesota

Minnesota Residency:

- Breeds in northeastern Minnesota; a migrant throughout the state and overwinters locally

Minnesota Waterfowl Population Trend: Red-breasted Merganser



Habitat Requirements: Lake/Pond

Deep-water marshes and open water; islands with herbaceous or brushy veg; herbaceous wetlands with associated forest/forested islands, riparian areas (Birds of North America/Cornell Lab of Ornithology).

From Sea Duck Information Series:

- During the winter, red-breasted mergansers are more frequently found in salt water than common mergansers, which winter more on fresh water.
- The large distance between the red-breasted merganser's arctic breeding areas and wintering areas as far south as coastal Mexico suggests a strong migratory tendency and dispersal ability. However, nothing is known about migration patterns or connectivity between nesting and wintering grounds.
- They breed at high latitudes where tundra and boreal forest predominate. On tundra, they prefer larger, deeper lakes rather than small ponds.
- The females nest on the ground, primarily near the coast, rivers, or large bodies of water. Crevices in coastal rocky cliffs and islets are also used for nesting. They often nesting in loose colonies, sometimes in association with terns, gulls or eiders.
- This species may nest late as an adaptation to better coincide with the upstream migration of forage fish.

From Birds of North America:

- Tundra and boreal forest zones on fresh, brackish, and saltwater wetlands with sheltered bays, typically not far from sea coast.
- Habitat selection affected by availability and abundance of small fish (10-15 cm).
- Uses wooded shorelines along rivers or lakes

Migration: Temperate

Climate Change Vulnerability: Low (0); the National Audubon Society's annual Christmas Bird Count has documented that the winter range of the Red-breasted Merganser has moved 317 miles north in response to climate change over the past 40 years:

<http://web4.audubon.org/news/pressroom/bacc/pdfs/birds%20and%20climate%20report.pdf>

Threats/Issues:

From BNA Species Profile:

- Both Red-breasted and Common mergansers have been shot illegally while suspected of foraging on fry in salmon rivers. Numbers removed in this fashion will never be known.
- Lead poisoning has affected all North American waterfowl but is purportedly rare in fish eating species such as mergansers.
- Diving ducks are frequent casualties in fish nets.

OVERALL MINNESOTA GOAL: Ensure the protection of a sustainable breeding population in Minnesota by supporting the Minnesota Department of Natural Resources' Long Range Duck Plan; the habitat protection and restoration goals of the Upper Mississippi Valley/Great Lakes Joint Venture; and Subsection Forest Management Plans, the Minnesota Forest Resources Council Landscape plans, and Forest Management Practices that emphasize the protection of riparian forests.

BEST MANAGEMENT PRACTICES

From MNDNR Long Range Duck Plan:

- Broad habitat strategies are listed in the Long Range Duck Plan that, when implemented, may help increase Red-breasted Merganser populations in Minnesota; however, the plan is more focused on prairie pothole habitats than forest habitats.

From Birds of North America:

- Principal management concern with mergansers has been to reduce the impact they may have on commercially important fish such as salmon. However, Anderson et al. (1985) pointed out that merganser control on salmon streams is difficult and expensive and not justifiable on aesthetic and ecological grounds.
- Because nesting females prefer dense overhead cover, it may be possible to enhance breeding habitat by providing artificial shelter similar to what has been done for eiders in Maine.

MONITORING RECOMENDATIONS

- The Red-breasted Merganser is not well-sampled by traditional waterfowl surveys. Overall its numbers are difficult to determine because the birds similar in profile to Common Mergansers and the two species are usually combined and reported as “large mergansers” for both breeding population surveys and when harvest statistics are reported.

Action: Once the Minnesota Breeding Bird Survey is completed assess the species distribution and status and whether additional monitoring efforts are needed.

CONSERVATION ACTIONS

- Identify and target high priority landscapes and habitats for conservation action

Action: Identify Important Bird Areas that are a priority for this species in Minnesota

- **Upper Mississippi Valley/Great Lakes Joint Venture Region:** Adopt the habitat protection and restoration goals for the extensive open water habitat. The focal species for this habitat are the Canvasback and Lesser Scaup; they were selected to also represent the habitat needs for the Red-breasted Merganser.

Action: Protect a total of 19,028 ha of extensive open water habitat (13,418 ha in BCR12; 371 ha in BCR22 and 5,239 ha in BCR 23) and restore a total of 1,120 ha (2,803 ha in BCR12, 81 ha in BCR22 and 1,120 ha in BCR23).

- **Minnesota**

Action: Support implementation of the Minnesota Department of Natural Resources Long Range Duck Recovery Plan

Background: The following vision, goals and strategies are from the Long Range Duck Recovery Plan (2006); note: the plan is focused primarily on prairie pothole duck populations.

Strategic Vision

By 2056, Minnesota’s landscape will support a productive spring breeding population of ducks averaging 1 million birds. The landscape necessary to support this population will also provide spring and fall migration habitat attracting abundant migrant waterfowl, 140,000 waterfowl hunters and 600,000 waterfowl watchers.

Goal

Recover historical breeding and migrating populations of ducks in Minnesota for their ecological, recreational, and economic importance to Minnesota citizens. Progress towards this goal will be measured by the following long-term objectives: 1) a breeding population of 1 million ducks

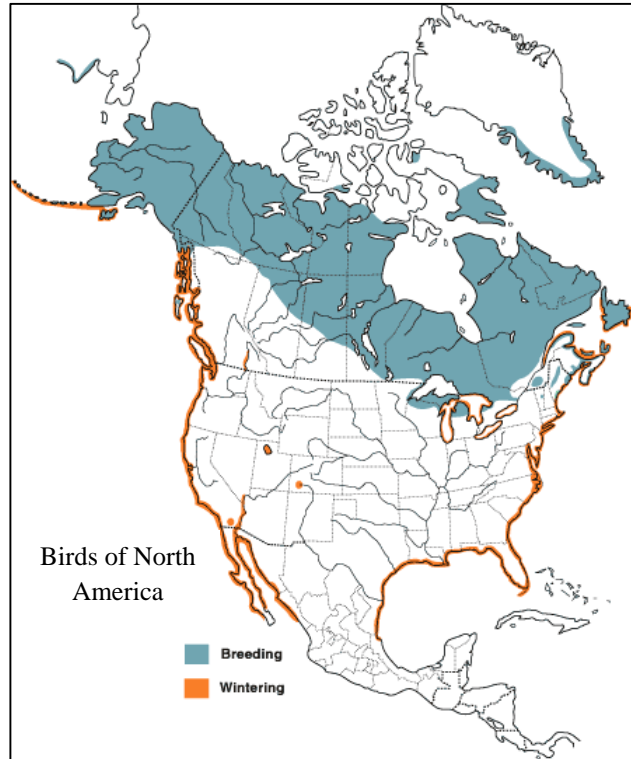
producing a fall population of 1.4 million ducks; 2) a fall duck harvest that is 16% or more of the Mississippi Flyway harvest; and. 3) an average of 140,000 waterfowl hunters and 600,000 waterfowl watchers.

RESEARCH NEEDS

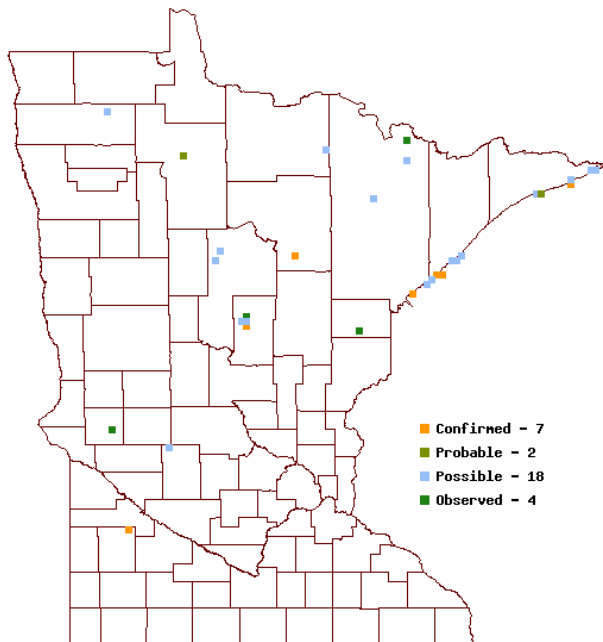
From Sea Duck Information Series:

- Many gaps remain in our knowledge about the habits and biology of Red-breasted Mergansers, as well as factors that influence population size and composition.
- Nesting habits and biology are known primarily from studies in Eastern Canada, and remain basically unknown elsewhere.
- Levels of male breeding philopatry (i.e. return to same breeding area each year) are lacking, as are estimates of adult and juvenile survival.
- Aspects of migration and wintering ecology and the connectivity of breeding and wintering areas remain poorly understood.
- No genetic studies have been conducted to examine associations among breeding and wintering populations or the validity of proposed subspecies across North America and Eurasia.

Red-breasted Merganser Distribution Maps



Birds of North America <http://bna.birds.cornell.edu/bna/>



There is no Minnesota County Biological Survey Map for the Red-breasted Merganser

MN Breeding Bird Atlas <http://www.mnbba.org/>

MNBBA 2014 Red-breasted Merganser