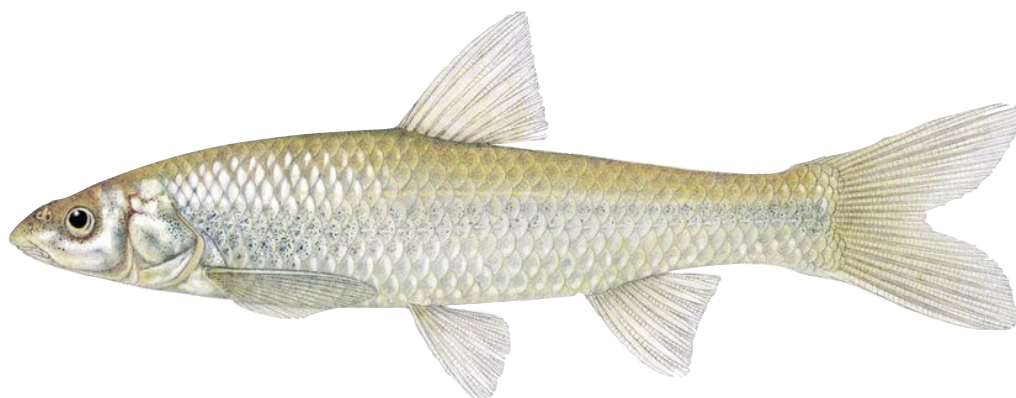


*Proposed Risk Status:* **Threatened**

## *Species at Risk Act*

Consultation Workbook  
on the proposed listing of the...



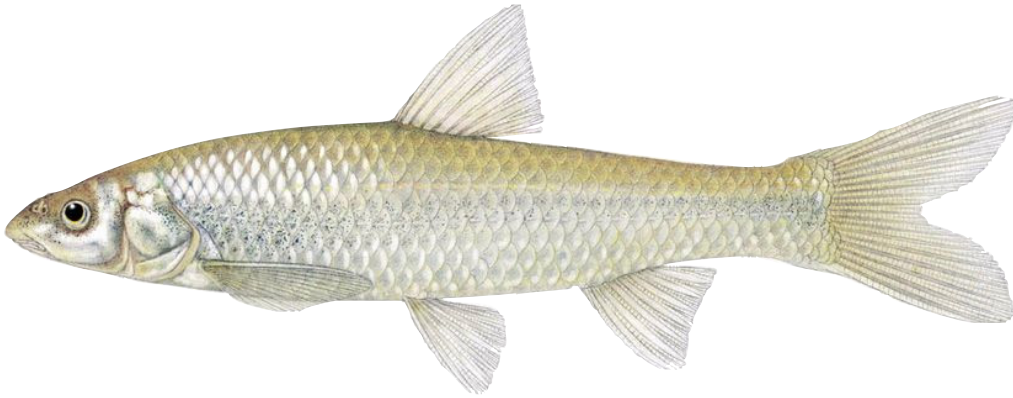
## Plains Minnow

November 2013



# Plains Minnow

<b>Common Name:</b>	Plains Minnow
<b>Scientific name:</b>	<i>Hybognathus placitus</i>
<b>SARA Status:</b>	Under consideration
<b>COSEWIC Status:</b>	Threatened (May 2012)
<b>Region:</b>	Saskatchewan



**Figure 1.** A mature Plains Minnow (Illustration © Joseph R. Tomelleri)

## GENERAL DESCRIPTION:

The Plains Minnow (*Hybognathus placitus*) is a member of the Cyprinidae family. The Plains Minnow is one of four species of *Hybognathus* found in Canada. It has the following characteristics and distinguishing features:

- A small-sized fish between 50 and 90 mm in total length, with some specimens as large as 125 mm;
- Slim, slightly compressed body;
- Short triangular head;
- Blunt snout;
- Relatively small eyes;
- Fins tend to be pointed, rather than rounded;
- Body colour is tan to olive towards the back, silver along the sides and white along the belly;
- Maximum weight of 15 g;
- Spawning males develop small bumps (tubercles) on the top of the head and back, as well as on the pectoral fin. Individuals can live up to two to three years.

# Plains Minnow

## DISTRIBUTION

The Plains Minnow has a widespread distribution in the United States, occurring in the middle of the continent from eastern New Mexico, central Texas and western Arkansas, north to North Dakota and Montana. The existence of the Plains Minnow in Canada was discovered in 2003 in southern Saskatchewan, with its distribution limited to Rock Creek and a portion of one of its tributaries, Morgan Creek.



**Figure 2:** Map of the distribution of the Plains Minnow, in Canada.

## HABITAT & LIFE HISTORY

The Plains Minnow lives in schools, and is found in sand and silt-bottom rivers and streams of the Central Great Plains. Found in a range of small creeks to fairly large rivers, the Plains Minnow prefers slow, relatively shallow to moderately deep waters with a range of turbidity. Many of these small-to-medium-sized streams experience natural seasonal fluctuations, from drought conditions to flash floods and heavy precipitation, indicating a high level of adaptation in withstanding natural changes in water quality. Spawning takes place in areas of moderate flow to maximize the downstream distribution and incubation of the fertilized eggs. The Plains Minnow lives for about two to three years, and breeds for the first time in its second year. Many individuals die after spawning. The Plains Minnow has an extended spawning period, frequently reproducing after major flow peaks. The majority of reproduction takes place in spring; however, it has also been recorded in the summer. Females carry less than 1,000 eggs. Once hatched, growth takes place quickly and juveniles nearly reach their adult size by the end of their first summer.

## DIET

The diet of the Plains Minnow is believed to be similar to the Western Silvery Minnow, consisting of benthic diatoms and algae, and other organic matter originating from bottom detritus.

## THREATS

The Plains Minnow has a very limited distribution in Canada. At the northern extent of its range, this region of southern Saskatchewan is subject to drought, temperature extremes, decreasing habitat quality from agricultural runoff and potential effects of invasive species.

## SIMILAR SPECIES

The Plains Minnow is one of four species of *Hybognathus* found in Canada: the Western Silvery Minnow (*H. argyritis*); the Eastern Silvery Minnow (*H. regius*); the Brassy Minnow (*H. hankinsoni*) and the Plains Minnow. Distribution of the Plains Minnow and the Brassy Minnow may also overlap in the Rock Creek drainage. The Plains Minnow was originally lumped into a single species of Mississippi Silver Minnow (*H. nuchalis*) that also included the Western Silvery Minnow. Highly similar in appearance, there are slight differences in the dorsal fins, scales, eyes and snout between these minnow species.

## Socio-economic considerations

### PLAINS MINNOW

When a species is being considered for listing under the *Species at Risk Act*, an analysis of the benefits and costs of listing must be developed.

For more details, please contact the SARA Regional Manager.

### SUMMARY OF THE COST-BENEFIT ANALYSIS

The purpose of the socio-economic analysis is to examine the incremental costs and benefits to Canadians that result from listing the Plains Minnow as Threatened under the federal *Species at Risk Act*.

When a species is listed as Threatened under the *Species at Risk Act*, the general prohibitions to protect the species take effect. A recovery strategy and an action plan are prepared, critical habitat is protected once identified and a ministerial order has been put in place, permits/agreements authorizing activities affecting a listed wildlife species can be entered into, and there can be exemptions for activities that are permitted by a recovery strategy or action plan.

The Plains Minnow is not commercially or recreationally fished; consequently the general prohibitions are not anticipated to have a significant incremental socio-economic impact. The incremental costs of developing and implementing the recovery strategy are also anticipated to be low. Consequently, listing the Plains Minnow as Threatened under the *Species at Risk Act* is anticipated to result in low or negligible socio-economic impacts.

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\* **NOTE:** In 2012, amendments to the *Fisheries Act* were passed into law, and were in force as of November 25, 2013. The *Fisheries Act* is unlikely to provide protection to the Plains Minnow or its habitat, as current information suggests that the Plains Minnow distribution does not overlap with any commercial, recreational or Aboriginal fisheries.

# Let us know what you think

This workbook is part of a public consultation process to get your feedback on whether to add the **Plains Minnow** to the *Species at Risk Act* (SARA) List. Your answers to the following questions will help determine the federal Government's decision.

It is important that you understand how the proposed listing can help to protect and recover Plains Minnow, and how it may impact on your activities. As a legally threatened species, automatic prohibitions of SARA would apply.

These prohibitions make it illegal to kill, harm, harass, possess, collect, buy, sell or trade an Extirpated, Endangered or Threatened species. It is also generally illegal to damage or destroy the places these species live. These prohibitions do not apply to species of Special Concern.

If a wildlife species is added to the SARA List as an Extirpated, Endangered or Threatened species, the federal government must prepare a strategy for its recovery. The recovery strategy outlines known threats to the species, identifies the habitat it needs to survive, and highlights gaps in knowledge. It also sets a goal for the species' recovery.

A recovery strategy must be completed within two years if it is listed as Threatened. Note that the recovery strategy process will also involve further consultation.

## How to use this questionnaire:

Please provide your responses to the questions on the following pages. Your comments can be attached to this workbook. We welcome feedback from all individuals, regardless of whether you are involved in activities that may or may not be affected by this listing.

Please also use extra sheets to expand your answers as needed.

**Please return your completed comments by **FEBRUARY 28, 2014**  
to the following federal Species at Risk office:**

SARA Regional Manager  
Fisheries and Oceans Canada  
501 University Crescent  
Winnipeg, MB R3T 2N6  
**Email:** [fwisar@dfo-mpo.gc.ca](mailto:fwisar@dfo-mpo.gc.ca)  
**Toll-free:** 1-866-538-1609

Or provide comments directly through the SARA Registry at: [www.sararegistry.gc.ca](http://www.sararegistry.gc.ca)

**The information you provide is important.  
We appreciate the time and effort you take to complete this questionnaire.**

# Proposed SARA Listing of Plains Minnow

1. Are you in favour of listing the Plains Minnow as a Threatened species?

- ☐ Yes
- ☐ No
- ☐ Undecided

Please explain your decision.

2. The following questions provide us with information about how you value the Plains Minnow. Please choose the response that best describes your opinion.

a. I believe it is important to maintain the Plains Minnow so that future generations can enjoy them.

- ☐ Strongly disagree    ☐ Disagree    ☐ Neutral    ☐ Agree    ☐ Strongly agree

b. I believe the Plains Minnow plays a significant role in maintaining a healthy ecosystem.

- ☐ Strongly disagree    ☐ Disagree    ☐ Neutral    ☐ Agree    ☐ Strongly agree

c. I believe the Plains Minnow has social and/or cultural significance to my community.

- ☐ Strongly disagree    ☐ Disagree    ☐ Neutral    ☐ Agree    ☐ Strongly agree

d. I believe the Plains Minnow is an important part of our national heritage.

- ☐ Strongly disagree    ☐ Disagree    ☐ Neutral    ☐ Agree    ☐ Strongly agree

e. I believe the Plains Minnow is an important subsistence food source.

- ☐ Strongly disagree    ☐ Disagree    ☐ Neutral    ☐ Agree    ☐ Strongly agree

f. I believe the Plains Minnow has economic value (recreational or commercial values).

- ☐ Strongly disagree    ☐ Disagree    ☐ Neutral    ☐ Agree    ☐ Strongly agree

g. I believe the Plains Minnow provides job opportunities (e.g. tourism) to the local economy.

- ☐ Strongly disagree    ☐ Disagree    ☐ Neutral    ☐ Agree    ☐ Strongly agree

h. Others? (*please specify*)

## Proposed SARA Listing of Plains Minnow

3. The following questions provides us with information about how you perceive the following threats to the Plains Minnow. Please choose the response that best describes your opinion.

a. **Farming/ Agriculture:** Threats to species includes the modification of habitat (e.g. pollution, sedimentation, salinization, water turbidity, reduction in oxygen levels, drainage works, and changes in water levels due to irrigation).

☐ Very low      ☐ Low      ☐ Moderate      ☐ High      ☐ Very high

b. **Ecosystem modification (Altered flow regimes):** Water management and alteration of natural flow patterns can modify habitat areas and migration routes.

☐ Very low      ☐ Low      ☐ Moderate      ☐ High      ☐ Very high

c. **Ecosystem modification (Urban development and land use practices):** Damage to habitat and poor water quality resulting from urban development and agricultural practices.

☐ Very low      ☐ Low      ☐ Moderate      ☐ High      ☐ Very high

d. **Invasive species:** Threats to species includes competition with native wild native populations for resources and shelter.

☐ Very low      ☐ Low      ☐ Moderate      ☐ High      ☐ Very high

e. **Climate change:** Threats to species include the modification of habitats (e.g. water temperature, salinity, distribution of ice, breeding and feeding grounds); negative impacts on reproduction seasons; modification of food chain flows (e.g. plankton species).

☐ Very low      ☐ Low      ☐ Moderate      ☐ High      ☐ Very high

f. **Other:** Do you have any other comments about other possible threats to the Plains Minnow that may threaten their survival or recovery?



## Proposed SARA Listing of Plains Minnow

4. The following questions provide us with information about how the listing of the Plains Minnow could impact you or your activities.

a. Based on what you have learned about the *Species at Risk Act*, do you think adding the Plains Minnow to the SARA List would impact your activities? *Why?*

- ☐ Not at all      ☐ Not much      ☐ Don't know      ☐ Yes, a bit      ☐ Yes, a lot

5. Do you feel that the listing of the Plains Minnow will have economic, social and/or ceremonial impacts to you?

- ☐ Not at all      ☐ Not much      ☐ Don't know      ☐ Yes, a bit      ☐ Yes, a lot

*In what way?*

6. If your activity is impacted by listing the Plains Minnow would you be willing to change your activity?

- ☐ Not at all      ☐ Not much      ☐ Don't know      ☐ Yes, a bit      ☐ Yes, a lot

*How?*

7. All Canadian households, as well as industry, pay for the protection of all legally listed species under SARA. How much would you be willing to pay (in Canadian dollars) each year for the conservation, protection and recovery efforts for the Plains Minnow?

- ☐ \$0      ☐ \$10      ☐ \$20      ☐ \$50      ☐ \$100      ☐ more than \$100

# Proposed SARA Listing of Plains Minnow

This last section is personal and confidential. We recognize that it is not insignificant to ask people to share personal information. To that end, we will adhere to strict ethical standards of privacy in doing further research with this information. Unless directed otherwise by the respondents, no information will be reported that can be attributed to any particular individual.

9. In what capacity are you completing this questionnaire?  
o - Individual o - Representative of a group
10. Where do you live?  
o - British Columbia o - Quebec o - Newfoundland & Labrador  
o - Alberta o - Nova Scotia o - Yukon  
o - Saskatchewan o - New Brunswick o - Northwest Territories  
o - Manitoba o - Prince Edward Island o - Nunavut
11. Which sector do you represent?  
o - Aboriginal community o - Fishing – aquaculture o - Hydro-electric  
o - Aboriginal organization o - Fishing – commercial o - Manufacturing  
o - Academic community o - Fishing – recreational o - Oil and gas  
o - Environmental organization o - Forestry o - Professional services  
o - Farming o - Government (*specify level*)  
o - Other \_\_\_\_\_
12. What is your age?  
o - Under 20  
o - 20 - 29  
o - 30 - 39  
o - 40 - 49  
o - 50 - 59  
o - 60 or over
13. What is your gender?  
o - Female o - Male

Please add any other comments or concerns (add additional sheets if necessary) that you would like to have considered.

**Thank you for taking the time to complete this survey.**