

DRAFT - OUTREACH PLAN
REGARDING THE 90-DAY FINDING FOR THE WESTERN GLACIER STONEFLY

Issue:

We have completed a 90-day petition finding for the western glacier stonefly. We have determined that there is substantial information in the petition and in our files that listing the western glacier stonefly as threatened or endangered under the Endangered Species Act may be warranted. Therefore, we will be conducting a full biological status review of the species to determine if listing is warranted.

Facts About the Issue:

- On January 10, 2011, the Service received a petition dated December 30, 2010, from The Xerces Society for Invertebrate Conservation and The Center for Biological Diversity requesting that the western glacier stonefly (*Zapada glacier*) be listed as endangered and critical habitat be designated.
- The status review is on a statutory timeframe. There are no court actions at this time.

Description and Range:

- The western glacier stonefly is an insect in the order Plecoptera, also known as the stonefly order. Adults are dark-colored and have a body length and wing length ranging from 0.2 to 0.4 inches. The females are almost twice the size of males. The immature stage (nymph) of the western glacier stonefly has not been described.
- The western glacier stonefly has only been found in or near five glacier-fed streams on the east side of the Continental Divide in Glacier National Park in northern Montana.
- There is little information available regarding the life history of the western glacier stonefly. In general, stoneflies are typically found in clean, cold running waters that have high oxygen content. Stonefly egg and nymph stages require an aquatic habitat and adults require a terrestrial habitat. Stoneflies could complete their life-cycle in one year or it may take up to 2 or 3 years for the nymph to emerge from the water and mature into a short-lived adult. The timing of life-stages and maturation depend on the species and are influenced by local conditions (e.g., temperature and light).
- We do not know how many western glacier stoneflies exist or if the species is still extant. All but one of the western glacier stoneflies collected were collected between 1963 and 1969. One individual was collected in 1979. No record of the species has been reported since 1979. In the past the species appears to have been quite rare. Only 25 specimens have been collected in total with only 1-4 individuals collected at any 1 survey location.

Threats:

We analyzed the information in the petition regarding the five threat factors: (A) the present or threatened destruction, modification or curtailment of a species' habitat or range; (B) overutilization for commercial, recreational, scientific or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting a species' continued existence. We found that substantial information was presented for factors A, D, and E.

- **Factor A:** The western glacier stonefly is apparently a narrowly-distributed species known only to occur in a few glacier-fed alpine streams in Glacier National Park, Montana. The ongoing melting and projected disappearance of glaciers in the Park due to warming temperatures may eliminate them as a source of cold, clean water necessary to support the aquatic forms of the species' life cycle. Alteration of precipitation regimes also projected to occur with climate change could alter the volume of snowmelt which then results in a reduction of suitable habitat due to seasonal or permanent stream dewatering.
- **Factor D:** The primary cause of potential habitat loss and deterioration for the western glacier stonefly may be due to environmental changes caused by climate change. Existing regulatory mechanisms (e.g., Clean Air Act) may not adequately address environmental changes due to global climate change or the emission of greenhouse gases which contribute to increasing global temperatures and the projected altering of precipitation regimes.
- **Factor E:** The western glacier stonefly, if extant, apparently has a small population size and limited geographic range. This may make the species more vulnerable to extinction from impacts caused by other stressors such as habitat loss and deterioration.

Other potential stressors that we evaluated include water temperatures exceeding the physiological tolerance of the species or altering the timing of development and breeding to a point where population size is impacted. However, there was not substantial information available to conclude that these stressors are likely impacting the species now or would impact the species in the future. No information is available or presented in the petition regarding overutilization or disease and predation (factors B and C). We will evaluate all potential stressors to the species more thoroughly during the status review. We will seek the best available scientific information and commercial data to evaluate the threats to the species and determine if listing may be warranted.

Communication Goals:

- Encourage the general public and resource agencies to provide any available information on this species.

Messages:

- After a thorough review of all the information provided by the petitioners and available in our files, we have determined that there is substantial information indicating that listing the western glacier stonefly may be warranted due to habitat loss and modification caused by the environmental effects of climate change (see Threats section above).
- This action does not mean the species will be added to the list of Threatened or Endangered Species. The substantial finding indicates that more analysis is needed to make that determination.
- We are especially seeking information on the species' current distribution because it appears that the range has not been surveyed in 30 years.

Interested Parties:

Petitioners: Xerces Society for Invertebrate Conservation, The Center for Biological Diversity

Congressional: Senators Max Baucus (MT) and Jon Tester (MT), Rep. Dennis Rehberg (MT-AL)

Governor: Brian Schweitzer (MT)

Federal Agencies:

- National Park Service (Glacier National Park)
- USGS (Northern Rockies Science Center)
- U.S. Forest Service (Region 1)

State Agencies:

- Montana Natural Heritage Program
- Montana Department of Fish, Wildlife and Parks
- Montana Department of Natural Resources and Conservation

Environmental Organizations

Media

Strategy:

Key Dates: December 15, 2011 – finding due to the Federal Register

December 19, 2011– Federal Register publication

December 16, 2011 – Federal Register online availability

Suggested Materials

Press Release, Q&As

Day of online publication:

- FWS CLA, in coordination with DOI OCL, will distribute press release to Members Offices on Hill.
- FO will provide notification via email or phone to local Congressional District Offices.

- Field Supervisor or FO staff will contact NPS, USGS, FS, Governor's Office, Montana Heritage Program, Directors of MT FWP and MT DNRC.
- * Press release will be distributed to media.
- * Press release, Q&As, 90-day Finding will be posted to R6 web page.
- * Key EA and FO personnel available to respond to inquiries
- * EA will post on our Facebook and Twitter pages

Facebook post: Today, the U.S. Fish and Wildlife Service announced the completion of a petition review for the western glacier stonefly. Click on the link below to read the finding. <http://www.fws.gov/mountain-prairie/species/invertebrates/WGS>.

Tweets: U.S. Fish and Wildlife Service announces completion of a petition review for the western glacier stonefly. Link to press release