



November 6, 2009

Public Comments Processing
Attn: FWS-R2-ES-2009-0060;
Division of Policy and Directives Management
U.S. Fish and Wildlife Service
4401 N. Fairfax Drive, Suite 222
Arlington, VA 22203

**RE: COMMENTS REGARDING REQUEST FOR ADDITIONAL INFORMATION ON
WRIGHT'S MARSH THISTLE**

The September 10, 2009 posting by the U.S. Fish & Wildlife Service (USFWS) of the 90-Day Finding on a Petition to List *Cirsium wrightii* (Wright's marsh thistle) as Threatened or Endangered with Critical Habitat requests additional information regarding the status of the species. Responses are required by November 9, 2009.

Several practical factors prevent adequate responses within this limited time period. These include:

1. The present distribution of the species is not determined due to a lack of systematic field surveys during the flowering season throughout the historic range.
2. Existing herbarium collections must be found, identifications verified, and relevant ecological data enumerated to provide a complete understanding of the habitat parameters and species variability's.
3. The effects of long-term drought conditions over the species range must be examined. It may be a significant determining factor in the apparent loss of known individuals and/or populations of the species in historic and transitional habitat areas.
4. The effects of climate change in the southwestern U.S. on historic and transitional habitats of this species, and other wetland obligate species, are unknown.

ADDITIONAL INFORMATION ON WRIGHT'S MARSH THISTLE

5. The posting was made near the end of the species' flowering season. The onset of flowering in this biennial or monocarpic perennial in its historic habitats has not been adequately studied. No systematic seasonal surveys have been published examining a statistically adequate proportion of the wetland habitats within the species known range.

The examination of these factors will require funding, staffing, and an interdisciplinary team of qualified scientists. This will require time to establish with the largest caveat being the search for funding. Valid scientific investigation follows protocols and produces testable results. Science does not make value judgments but it does provide evidence that, if used prudently, can lead to reasonable legislative action.

While groundwater pumping and/or surface water diversions may be contributing factors to the loss of some wetland habitat areas, it is too simplistic. Ground and surface water monitoring activities are conducted by many agencies including the U.S. Geological Services (USGS) and the U.S. Army Corps of Engineers (Corps). The Corps, under the Clean Water Act, has been vigorously examining impacts to wetlands throughout the U.S. Given the relative scarcity/rarity of these habitats in the southwestern U.S., the Corps has been particularly concerned with their preservation and has developed a wetland delineation protocol specific to the region.

The mantra "no net loss of wetlands" is clearly heard by the Corps permitting personnel. Completion of the Corps' peer-reviewed protocol is required when federal permits are needed for projects that may impact, in any way, wetlands in the southwestern U.S. The Corps cooperates with all federal and state agencies that seek information, advice, or counsel regarding wetlands. This cooperation should be vigorously encouraged of both sides.

The one factor influencing wetland habitats that cannot be controlled is "climate change." This phrase is meant to include subtle seasonal shifts in climatic parameters (i.e., precipitation and temperature) that can have significant impacts to local habitats and individuals of a species. For example, precipitation that occurs during a species' dormant period and then evaporates from adjacent soil horizons or passes through to groundwater, will not benefit the species. One of the unavoidable consequences of climate change is that some habitats, some species populations, and/or some individuals of a species may be irrevocably lost.

What effects have long-term drought and climate change had on traditional wetland habitats within the historic range of *Cirsium wrightii*? Is the species a valid taxon if it readily produces hybrids in transitional habitats? What additional wetland obligate species remain unexamined and essentially ignored by the current practice of listing individual species. The scientific community stands ready to provide the relevant research necessary to allow the formulation of a more reasoned regulatory system. The Corps' delineation protocols for the southwestern U.S. provide an excellent model to follow.

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Environmental groups have again brought up livestock as a threat to a plant species with absolutely no supporting evidence. This allegation appears to point to a politically driven agenda by the petitioners. Thistles are spiny and scattered in distribution. Thistle would not be a major food component of livestock or wildlife due to lack of nutritional value. When thistles are young before they get spiny cattle would have a wider choice of palatable fodder and select the most nutritional palatable foods. The nitrate concentration in thistle is unhealthy for cattle. Thistle in a drying wetland could theoretically concentrating minerals and be worse for livestock and wildlife than upland thistle. These are issues for scientific research.

In summary, the consideration of listing criteria for *Cirsium wrightii* must be given the time and latitude necessary to understand the ecology of the species. The impacts of regional climate change cannot be ignored. Listing this species without a full understanding of the factors that determine its existence can lead to incorrect regulatory restrictions that ultimately have not relationship to the persistence of the species.

We are available to participate in biological surveys, research and reports to update the scientific data for this species should be Service be commissioning such studies.

Sincerely
Darling Environmental & Surveying, Ltd.

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