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## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Ecological Services  
420 South Garfield Avenue, Suite 400  
Pierre, South Dakota 57501-5408

July 1, 2002

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U.S. FISH & WILDLIFE SERVICE  
HURON WMD

#### MEMORANDUM

To: Mark Heisinger, Refuge Manager, Huron Wetland Management District  
Huron, South Dakota

From: Pete Gober, Field Supervisor, Ecological Services Field Office  
South Dakota Field Office; Pierre, South Dakota

Subject: Results of Dakota Skipper Status Assessment

The purpose of this memorandum is to announce the result of an assessment of the status of a prairie butterfly, the Dakota skipper (Hesperia dacotae). The U.S. Fish and Wildlife Service has determined that the species is warranted for listing pursuant to the Endangered Species Act (Act); however, efforts in that regard will be precluded in deference to higher priority species. This finding means that the Dakota skipper is now a candidate species for future reclassification as a threatened or endangered species under the Act. The Candidate Notice of Review for the Dakota skipper was published in the Federal Register 67:40657-40679 on June 13, 2002.

Candidate species have no legal protection under the Act at the present time; however, some agencies may consider their status in their management efforts. Landowners who protect native prairie and implement land management practices that are beneficial to Dakota skippers (i.e., delayed haying, reduced grazing, native prairie restoration, controlled burns) may be able to receive Federal funds to support those activities.

Attached you will find additional information on the Dakota skipper, including a U.S. Fish and Wildlife Service press release, a fact sheet, and a question and answer information sheet.

If you have any questions, please contact Joanna Whittier in this office at (605) 224-8693, Extension 31.

Attachments

P. Gober

NEWS RELEASE  
U.S. FISH AND WILDLIFE SERVICE

June 13, 2002

**Rare Prairie Butterfly Named Candidate for Endangered Species List**

The Dakota skipper, a small orange-to-brown-colored butterfly, has been named a candidate for addition to the list of endangered and threatened species. The skipper, found in high-quality remnants of tallgrass and mixed grass prairie, is among 16 new species named today by the U.S. Fish and Wildlife Service as candidates for listing under the federal Endangered Species Act (Act).

The Candidate Notice of Review, published in today's Federal Register, lists plants and animals which the Service believes meet the criteria for listing under the Act but which have not yet been proposed as endangered or threatened. Candidates are not given direct protection by the Act, but they often become the focus of local, state and federal agencies and their conservation partners to address the threats to the species' existence.

The Dakota skipper, found in North Dakota, South Dakota, Minnesota and two Canadian provinces, has a listing priority number of 11 on a scale of 1 to 12, based on the magnitude and immediacy of threats it faces. Candidate species with the highest, most immediate threats are given the highest priority (and lowest number) for listing. Before a candidate can be listed as endangered or threatened under the Act, the Service must publish a proposal to list, obtain public comment, and review all available information before determining whether listing is warranted.

In North Dakota, populations of Dakota skippers are found in 11 counties in various portions of the state. McHenry County supports the most known populations of the species, with smaller populations identified in Eddy, Ransom, Richland, Burke, Ward, Rolette, Stutsman, Sargent, Oliver and McKenzie counties. In South Dakota, most of the Dakota skipper populations are found in the northeastern and east-central portions of the state.

Dakota skippers have declined due to widespread conversion of native prairie. States and Canadian provinces in the original range of Dakota skipper have each lost from 72 percent to over 99 percent of the historical tallgrass and mixed grass prairie. This has left isolated remnants of native prairie within the historic range of the Dakota skipper. The species is sensitive to several types of artificial and natural disturbances and is almost always absent from remnant prairies that are overgrazed or otherwise degraded. The isolation of remaining populations and threats to their habitat indicates that further declines may occur. Without the availability of immigrants from nearby, undisturbed prairie, Dakota skippers are likely to disappear permanently if isolated prairie remnants are subjected to untimely and intensive disturbance.

"Designating the Dakota skipper as a candidate species indicates that populations of this species have been affected by habitat alterations in the northern Great Plains," said Bill Bicknell, acting supervisor of the Service's North Dakota Field Office in Bismarck. "The Fish and Wildlife Service's task is to work cooperatively with landowners, grazing associations, conservation organizations and county, state and federal agencies to develop practical conservation measures that help ensure the Dakota skipper is not listed as a threatened or endangered species."

Bicknell indicated that because about half of the remaining Dakota skipper populations are located on private land, candidate conservation agreements could be developed. Conservation agreements are developed with partners who have an interest or management responsibility for the species. The agreements outline measures that can reduce threats to the species so it does not require protection under the Endangered Species Act.

“Our goal for imperiled species is simple– we need to prevent extinction and ensure long-term survival,” said Bicknell. “Sometimes listing the species as threatened or endangered is the only way, but if we can achieve that goal through partnerships and cooperative agreements, we will put all our effort into making it work.”

The U.S. Fish and Wildlife Service is the principal Federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. The Service manages the 95-million-acre National Wildlife Refuge System which encompasses nearly 540 national wildlife refuges, thousands of small wetlands and other special management areas. It also operates 70 national fish hatcheries, 64 fishery resource offices and 78 ecological services field stations. The agency enforces Federal wildlife laws, administers the Endangered Species Act, manages migratory bird populations, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands, and helps foreign governments with their conservation efforts. It also oversees the Federal Aid program that distributes hundreds of millions of dollars in excise taxes on fishing and hunting equipment to state fish and wildlife agencies.

*For more information about the U.S. Fish and Wildlife Service,  
visit our home page at <http://www.fws.gov>*

Contact: Karen Kreil in Bismarck at 701-250-4481, Jodi Whittier in Pierre at 605-224-8693, Bill Bicknell in Bismarck at 701-250-4414 or Ken Torkelson in Bismarck at 701-250-4418



## U.S. Fish & Wildlife Service

# Designating Dakota Skipper as a Candidate for Listing under the Endangered Species Act Questions and Answers

### 1. What is a Dakota skipper?

Dakota skippers are small to medium-sized butterflies with a wingspan of about one inch and hooked antennae. They occur only in high-quality, native tallgrass and mixed grass prairie from Minnesota to Saskatchewan and are presumed to be extirpated (made extinct) in both Illinois and Iowa. Dakota skippers are active as adults for only about 3 weeks in June and July. Eggs hatch in July and larvae (caterpillars) are active, eating native grass leaves until they enter dormancy in late summer and overwinter in shelters at or near the ground. They emerge in spring to continue development. Adults depend on habitats that provide sufficient nectar sources, such as purple coneflower, and sites for reproduction.

### 2. What is a candidate species?

Candidate species are plants and animals for which the U.S. Fish and Wildlife Service (Service) has sufficient information on their biological status and threats to propose them as threatened or endangered under the Endangered Species Act (ESA), but whose proposed listing is precluded by other higher priority listing activities.

### 3. Why is the Service designating the Dakota skipper as a candidate for listing under the Endangered Species Act?

Dakota skippers are found exclusively on remnant, high-quality native prairie habitats. Dakota skipper populations declined historically due to widespread conversion of native prairie for agricultural and other uses. This destruction has left only isolated fragments of native prairie, only some of which are managed in a manner that allows for the persistence of Dakota skipper. Many populations are threatened by overgrazing, conversion of their habitat to cultivated agriculture, inappropriate fire management and herbicide use, woody plant invasion, road construction, gravel mining, invasive plant species, and, in some areas, historically high water levels. If significant conservation actions are not implemented, Dakota skipper could be at risk of extinction throughout a significant portion of its range.

### 4. What protection is provided to candidate species?

Candidate species receive no legal protection under ESA. That is, there are no prohibitions against taking candidate species. The Service encourages and actively pursues conservation actions for candidate species with private landowners, state agencies, and other partners. If effective, these actions may eliminate the need to list the species as threatened or endangered. On the other hand, continued declines and increased threats to the species could hasten the listing of the species as threatened or endangered, at which point it would become legally protected under the Endangered Species Act.

### 5. What does candidate designation of Dakota skippers mean to a private landowner?

Designating the Dakota skipper as a candidate for listing under the Endangered Species Act will not necessarily affect private landowners because the Act does not prohibit the taking of candidate species.

This designation, however, may increase funding available for landowners to protect native prairie and implement management practices beneficial to Dakota skippers and other native prairie species. Such practices may include native prairie restoration, rotational grazing systems, controlled burning, delayed haying, and integrated pest management to control leafy spurge.

#### **6. Why are insects important to the environment and people?**

Insects are needed for plant pollination and provide food for a variety of wildlife species. Like other rare plant and animal species, insects are useful indicators of environmental quality. Dakota skippers, for example, can survive only on high-quality native prairie, one of North America's most endangered ecosystems, and are noteworthy components of the prairie's biological diversity.

#### **7. How do species become candidates for listing under the Endangered Species Act?**

Identification of candidate species is a cooperative effort among the Service, other Federal and state natural resource agencies, local and tribal governments, business and industry, universities, conservation organizations and other private interests. If the Service determines that there is sufficient information on a species' biological status and threats to propose it as threatened or endangered it adds it to the list of candidate species. The lead Field Office for the species first makes the recommendation after reviewing and documenting the best available scientific and commercial information on the species. The Regional Office then forwards the recommendation to the Director of the Service, who then decides whether or not to concur with the recommendation. If the Director concurs, the species becomes a candidate for listing as threatened or endangered.

To guide the order in which species are listed, the Service assigns a listing priority from 1 to 12, based on the magnitude and immediacy of threats to the species and taxonomic considerations (for example, full species have higher priority than subspecies). The species' listing priority determines the order in which proposed listing rules are prepared, with the species at greatest risk (listing priority 1 through 3) being proposed first. The Dakota skipper listing priority number is 11.

#### **8. Are there advantages to designating species as candidates for listing before adding them to the list of threatened or endangered species?**

Species become and remain official candidates for listing because funds available for listing species as threatened or endangered are not sufficient to list all of the eligible species at once. An effective program for conservation of endangered and threatened species requires a means to conserve species that are not yet listed, but face immediate, identifiable risks. Recovering species before they are listed under the Endangered Species Act may have greater management flexibility to stabilize or restore the species and their habitats. The Service's primary goal for candidate species is to remove or reduce threats so that it is no longer necessary to list it under the Endangered Species Act.

#### **9. If the Service decides to go forward with listing the Dakota skipper as a threatened or endangered species, what is the process?**

The Service would prepare a document, called a proposed rule, that would be published in the Federal Register and made available for public review. The public would be given at least 60 days to review the proposal and provide us with any comments or additional information. During this 60 day period, we would notify the public that the proposal has been published and explain how to provide us with comments for our review before finalizing our decision. During this time interested individuals may also request public hearings. After the comment period ends, we would consider and analyze all the public comments and make a final decision on whether to list the species as threatened or endangered.



#### **10. What can I do to help conserve the Dakota skipper?**

- Contact U.S. Fish and Wildlife Service (see below), your state natural resource agency, or non-governmental organizations, such as The Nature Conservancy, if you are interested in finding out if Dakota skippers occur on your property and, if so, what options may be available to you to conserve the species and its habitat.
- Support the efforts of governmental conservation agencies and non-governmental organizations to conserve, acquire, and provide incentives to private landowners to conserve native prairie.
- Volunteer to participate in habitat management activities on lands where agencies, groups, or individuals are interested in managing for the Dakota skipper.
- Learn more about the Dakota skipper and native prairie. The *Status Assessment and Conservation Guidelines for Dakota Skipper* are available online at <http://midwest.fws.gov/endangered/insects/dask-status.pdf>. You may also contact U.S. Fish and Wildlife Service for further information (see below).
- Share your concerns with U.S. Fish & Wildlife Service, state natural resource agency staff, and other conservation agencies so that we can address them in the process of planning for Dakota skipper recovery.

#### **11. Where can I learn more about Dakota skippers and the efforts being made to conserve them?**

For more information on Dakota skippers and ongoing conservation efforts, visit the Service's website at <http://midwest.fws.gov/endangered> or contact one of the following offices:

**In Minnesota:** U.S. Fish and Wildlife Service, Twin Cities Field Office, 4101 E. 80<sup>th</sup> St., Bloomington, MN 55425; Phone: (612) 725-3548 ext. 206; Fax: (612) 725-3609; Email: [Phil\\_Delphey@fws.gov](mailto:Phil_Delphey@fws.gov)

**In North Dakota:** U.S. Fish and Wildlife Service, North Dakota Field Office, 3425 Miriam Avenue, Bismarck, ND 58501; Phone: (701) 250-4481; Fax: (701) 250-4400; Email: [Karen\\_Kreil@fws.gov](mailto:Karen_Kreil@fws.gov)

**In South Dakota:** U.S. Fish and Wildlife Service, South Dakota Field Office, 420 South Garfield Ave., Suite 400, Pierre, SD 57501; Phone: (605) 224-8693; Fax: (605) 224-9974; Email: [Jodi\\_Whittier@fws.gov](mailto:Jodi_Whittier@fws.gov)



## U.S. Fish & Wildlife Service

### Dakota Skipper *Hesperia dacotae*

The Dakota skipper is a small butterfly with a 1-inch wingspan. Like other skippers, they have a thick body and a faster and more powerful flight than most butterflies. The upper side of the male's wings range from tawny-orange to brown with a prominent mark on the forewing; the lower surface is dusty yellow-orange. The upper side of the female's wing is darker brown with tawny-orange spots and a few white spots on the margin of the forewing; the lower side is gray-brown with a faint white spotband across the middle of the wing. Dakota skipper pupae are reddish-brown and the larvae (caterpillars) are light brown with a black collar and dark brown head.

#### Official Status

The Dakota skipper is a candidate for listing under the Endangered Species Act. Candidate species are those for which U.S. Fish and Wildlife Service (Service) has sufficient information to list as threatened or endangered. To determine the order in which it proposes species for listing, the Service assigns listing priority numbers to candidate species based on the magnitude and immediacy of threats and the species' taxonomic distinctiveness. Listing priority numbers range from 1 (high priority) to 12 (low priority). Dakota skipper has a listing priority number of 11. Candidate species receive no legal protection under the Endangered Species Act (Act) - that is, there are no legal prohibitions under the federal Endangered Species Act against taking candidate species. The Fish and Wildlife Service works to implement conservation actions for candidate species that may eliminate the need to list the species as threatened or endangered.

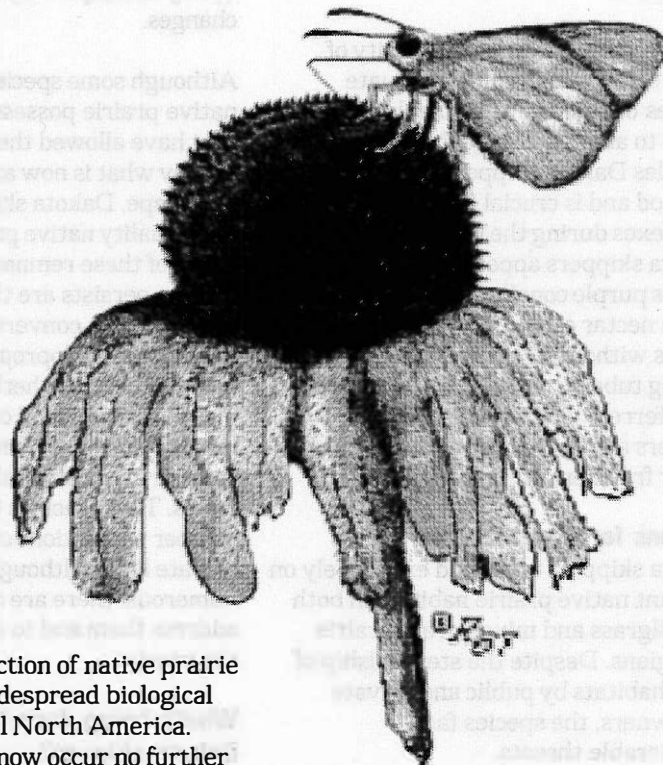
#### Range

Scientists have recorded Dakota skippers from northeast Illinois to southern Saskatchewan. Their historical range is not known precisely due to the

extensive destruction of native prairie that preceded widespread biological surveys in central North America. Dakota skippers now occur no further east than western Minnesota and scientists presume that the species is extirpated (no longer exists) in Illinois and Iowa. Although it likely occurred throughout a relatively unbroken area of grassland in the north-central U.S. and south-central Canada, it now occurs in scattered remnants of high-quality native prairie. Its current distribution straddles the border between tallgrass prairie ecoregions to the east and mixed grass prairie ecoregions to the west. The most significant remaining populations of Dakota skippers occur in western Minnesota, northeastern South Dakota and north-central and southeastern North Dakota.

#### Habitat

Dakota skipper occurs primarily in two types of habitat throughout its range. The first is low (wet) prairie dominated by bluestem grasses. In suitable examples of this habitat type, three species of wildflowers are usually present and in flower when Dakota skippers are in their adult (flight)



stage - wood lily, harebell, and smooth camas. The second habitat type is upland (dry) prairie and is often on ridges and hillsides. Bluestem grasses and needlegrasses dominate these habitats and three wildflowers are typically present in high quality sites that are suitable for Dakota skipper: pale purple and upright coneflowers and blanketflower.

#### Ecology and Life History

Dakota skippers have four basic life stages - egg, larva, pupa, and adult. During the brief adult (flight) period in June and July, female Dakota skippers lay eggs on the underside of leaves approximately 1-2 inches above the ground. These eggs take about 10 days to hatch into larvae. After hatching, the pale-brown larvae build shelters at or below the ground surface and emerge at night to feed on grass leaves until late summer or early fall when they become dormant. They overwinter as mid-stage larvae in shelters at or just below ground level, typically in the bases of

native bunchgrasses. The larvae emerge to continue development the following spring. Pupation takes about 10 days and occurs primarily in June. Males emerge as adults about five days before females. Maximum life span as adults is about three weeks. This brief period is the only time during which Dakota skippers can reproduce.

If they attain maximum longevity of about three weeks and if adequate sources of nectar are available, females lay up to about 250 eggs. Nectar provides Dakota skipper with both water and food and is crucial for the survival of both sexes during the flight period. Dakota skippers appear to prefer plants, such as purple coneflowers (*Echinacea*), whose nectar cannot be obtained by insects without a relatively long, slender feeding tube (proboscis). In the absence of preferred plant species, Dakota skippers attempt to obtain sufficient nectar from less preferred plants.

#### **Reasons for current status**

Dakota skippers are found exclusively on remnant native prairie habitats in both the tallgrass and mixed grass prairie ecoregions. Despite the stewardship of these habitats by public and private landowners, the species faces considerable threats.

Dakota skipper populations have declined historically due to widespread conversion of native prairie for agriculture and other uses and are now threatened, in part, due to the isolation of remaining populations. States and provinces in the original range of Dakota skipper have each lost 85%-99% of their historical tallgrass prairie and 72%-99.9% of their historical mixed-grass prairie. This has left isolated fragments of native prairie, only some of which are suitable for Dakota skippers. Dakota skippers are sensitive to several types of artificial and natural disturbances and are almost always absent from remnant prairies that are overgrazed or otherwise degraded. Because of this sensitivity, the historical persistence of Dakota skippers may have depended on the vastness of the prairie and the availability of immigrants to repopulate areas in which the species was eliminated by disturbances, such as fire or intensive bison grazing. Absent the availability of immigrants from

nearby, undisturbed prairie, Dakota skippers may disappear permanently when isolated prairie remnants are subjected to untimely and intensive disturbance. Even if they persist at such isolated sites, the lack of interaction with other populations reduces genetic diversity and may result in a reduced ability to adapt to environmental changes.

Although some species that depended on native prairie possessed adaptations that have allowed them to successfully occupy what is now an agricultural landscape, Dakota skippers need high-quality native prairie habitats. Many of these remnants where the species persists are threatened by over-grazing, conversion to cultivated agriculture, inappropriate fire management and herbicide use, woody plant invasion, road construction, gravel mining, invasive plant species, and, in some areas, historically high water levels. These factors threaten Dakota skipper populations on both public and private land. Although the threats are numerous, there are opportunities to address them and to effectively conserve the species.

#### **What's being done to conserve Dakota skipper?**

The Service and the states have been working with private landowners and other partners in North Dakota, South Dakota, and Minnesota to conserve the Dakota skipper's native prairie habitat. With cooperation from landowners, we are able to survey for and study Dakota skippers and have entered into cooperative agreements to conserve the species. The conservation of Dakota skipper depends on private landowners. Excluding lands owned by conservation organizations, such as The Nature Conservancy, approximately 50 percent of all known populations are on private lands. Public agencies are actively seeking private landowners who are willing to sell easements or secure conservation agreements that would facilitate land management practices that are conducive to the conservation of Dakota skipper and other native prairie species. These easements often simply ensure the continued implementation of existing land uses that are compatible with prairie conservation. On public lands and other conservation

areas, land managers are modifying prescribed burn practices and other land management techniques. Fire is a natural component of prairie habitats, but Dakota skippers are vulnerable to fire at virtually all life stages and likely depended historically on repopulation from unburned areas to persist. Therefore, many land managers are ensuring that only a small proportion of Dakota skipper habitat is burned in any given year and are only burning as frequently as is necessary to achieve specific objectives, such as preventing succession from grassland to shrubs or trees. Finally, research is ongoing to better understand the effects of livestock grazing on Dakota skippers.

#### **How can I find out more about Dakota skippers?**

For more information on Dakota skippers and ongoing conservation efforts, visit the Service's website at <http://midwest.fws.gov/endangered/> or contact one of the following offices:

##### **In Minnesota:**

U.S. Fish and Wildlife Service  
Twin Cities Field Office  
4101 E. 80<sup>th</sup> St.  
Bloomington, MN 55425  
Phone: (612) 725-3548 ext. 206  
Fax: (612) 725-3609  
Email: Phil\_Delphey@fws.gov

##### **In North Dakota:**

U.S. Fish and Wildlife Service  
North Dakota Field Office  
3425 Miriam Avenue  
Bismarck, ND 58501  
Phone: (701) 250-4481  
Fax: (701) 250-4400  
Email: Karen\_Kreil@fws.gov

##### **In South Dakota:**

U.S. Fish and Wildlife Service  
South Dakota Field Office  
420 South Garfield Ave., Suite 400  
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Phone: (605) 224-8693  
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Email: Jodi\_Whittier@fws.gov

#### **References**

U.S. Fish and Wildlife Service. 2002. *Status Assessment and Conservation Guidelines, Dakota skipper*. April 2002.