

NEBRASKA

THREATENED AND ENDANGERED SPECIES IDENTIFICATION GUIDE 2007



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ASSOCIATED GENERAL CONTRACTORS OF AMERICA
635 South 14th Street, Suite 125 • Lincoln, Nebraska 68508
Phone: (402) 435-4355 • Fax: (402) 435-4356 • www.agcne.org

To: AGC Contractors and Partners

From: Curt Beck, Executive Director

Date: November 1, 2006

This document was created to be used by Contractors and our partners as an identification and conservation guide. The information contained here is not all-inclusive, but it is specifically tailored to create a concise guide to threatened and endangered animal and plant species in Nebraska.

The information was gathered from the following resource agencies and websites:

Nebraska Game and Parks Commission

<http://www.ngpc.state.ne.us/>

US Fish and Wildlife Service

<http://www.fws.gov/>

University of Nebraska-Lincoln, Entomology Department

<http://entomology.unl.edu/>

US Department of Agriculture, Natural Resources Conservation Services

<http://www.plants.usda.gov/index.html>

Center for Plant Conservation

<http://www.centerforplantconservation.org/>

US Environmental Protection Agency

<http://www.epa.gov>

Center for Native Ecosystems

<http://www.nativeecosystems.org/>

US Geological Survey, Northern Prairie Wildlife Research Center

<http://www.npwrc.usgs.gov/>

The Nebraska Chapter AGC would like to thank everyone involved with the development of this informational guide. Special thanks to our partners in the construction industry: Nebraska Department of Roads, Nebraska Game and Parks Commission, US Fish and Wildlife Service and the Federal Highway Administration.

Building Nebraska's Highway, Heavy, Bridge, and Municipal/Utilities Infrastructure

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BLACK-FOOTED FERRET

(Status: Endangered)



Drawing courtesy of NE Game and Parks Commission

See attached distribution map.

Description

The black-footed ferret is about the size of a mink, with a total length of 20 to 24 inches including a five- to six-inch tail. Black-footed ferrets weigh up to about two and a half pounds, with males about 10-percent larger than females. Ferrets have long, slender bodies with short legs. The fur on the sides and back is generally a pale yellowish buff with lighter areas on the face, throat, chest and abdomen. The top of the head and middle of the back are dark brown, and the feet, tip of the tail and a mask across the face are black.

Habitat

Black-footed ferrets are closely associated with prairie dogs found in short and mid-grass prairies of the Great Plains. They use the prairie dog burrow systems for shelter and for raising young.

Food

The black-footed ferret is a predator and approximately 90 percent of their diet is prairie dogs. The remainder of the diet includes mice, ground squirrels, rabbits, rats, birds and even reptiles and insects.

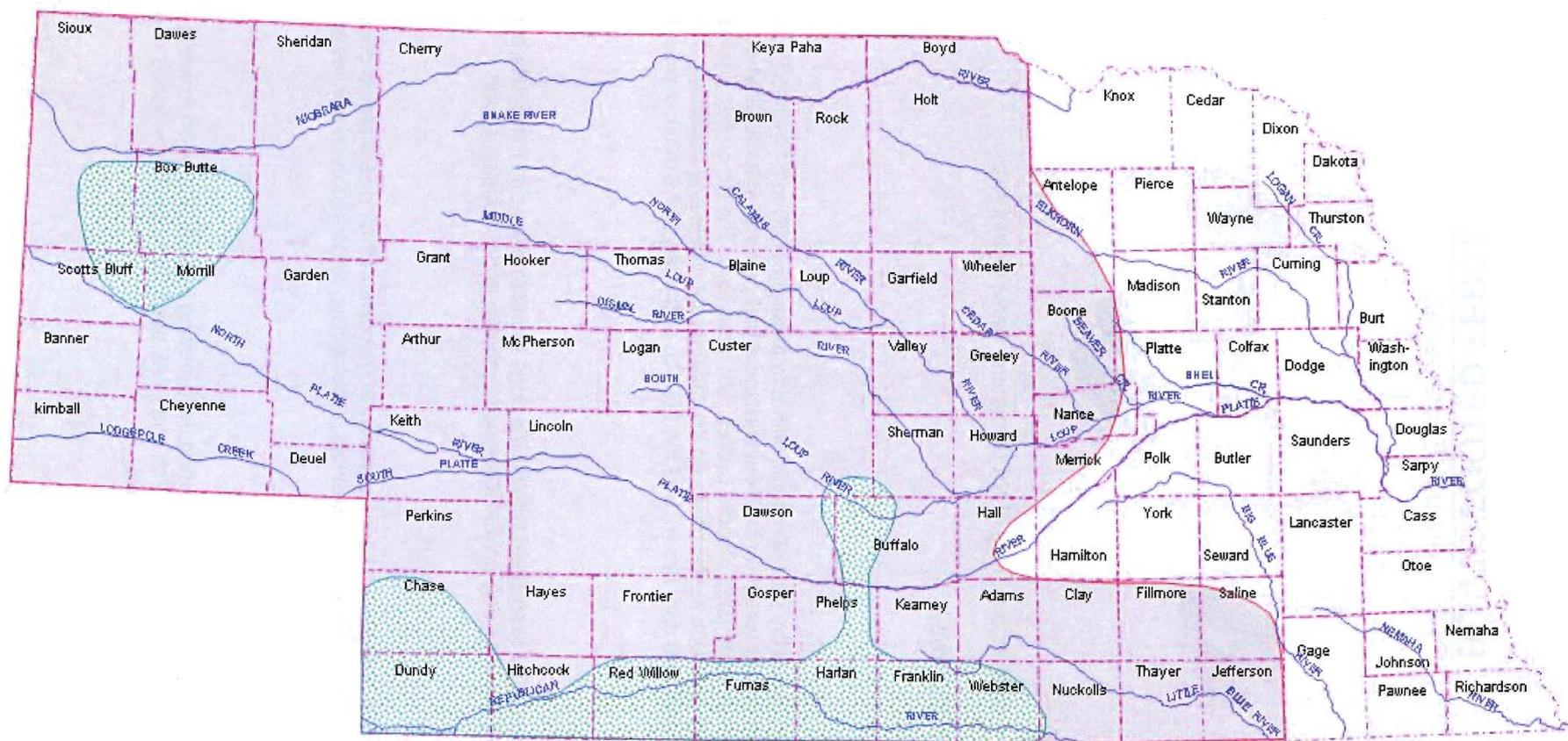
Reproduction

Black-footed ferrets lead solitary lives except during the breeding season and when females are caring for young. Breeding activity generally occurs in March and April, and after a gestation period of 41 to 45 days, a litter, typically three or four young, is born.

Black-footed Ferret (*Mustela nigripes*)

Distribution of Potential Habitat in Nebraska

July 2001



 POTENTIAL HABITAT (PRAIRIE DOG RANGE)

 HIGHEST POTENTIAL (PRAIRIE DOG DENSITY)

BLACK-TAILED PRAIRIE DOG

(Status: Federal Candidate for Endangered Status)



See attached distribution map.

Description

The prairie dog is a burrowing rodent. An adult black-tailed prairie dog is between 12 and 16 inches long and generally weighs between 1.5 and 2.5 pounds. Its body is tan to pale brown in color, its underparts are white to buff white, and its tail is tipped with black. The prairie dog's legs are short, but its feet are large and have well-developed claws, especially on the forefeet. Its head is broad and rounded, and its eyes are fairly large.

Distribution and Abundance

The black-tailed prairie dog is one of five species of prairie dogs found in North America. It is an abundant and widely distributed species and is the only prairie dog found in Nebraska. In Nebraska, prairie dogs are found roughly in the western two-thirds of the state. It is considered a candidate for endangered status because it is a major food source for the Black-footed Ferret. When poison or other methods are used for control of this species, it also affects its natural predator, the endangered Black-footed Ferret.

Habitat

Areas of short and mid-grass rangeland overgrazed by livestock are the prairie dog's preferred habitat. Prairie dog colonies are most recognizable by the mounds and holes at their burrow entrances. A colony will typically have 30 to 50 burrow entrances per acre.

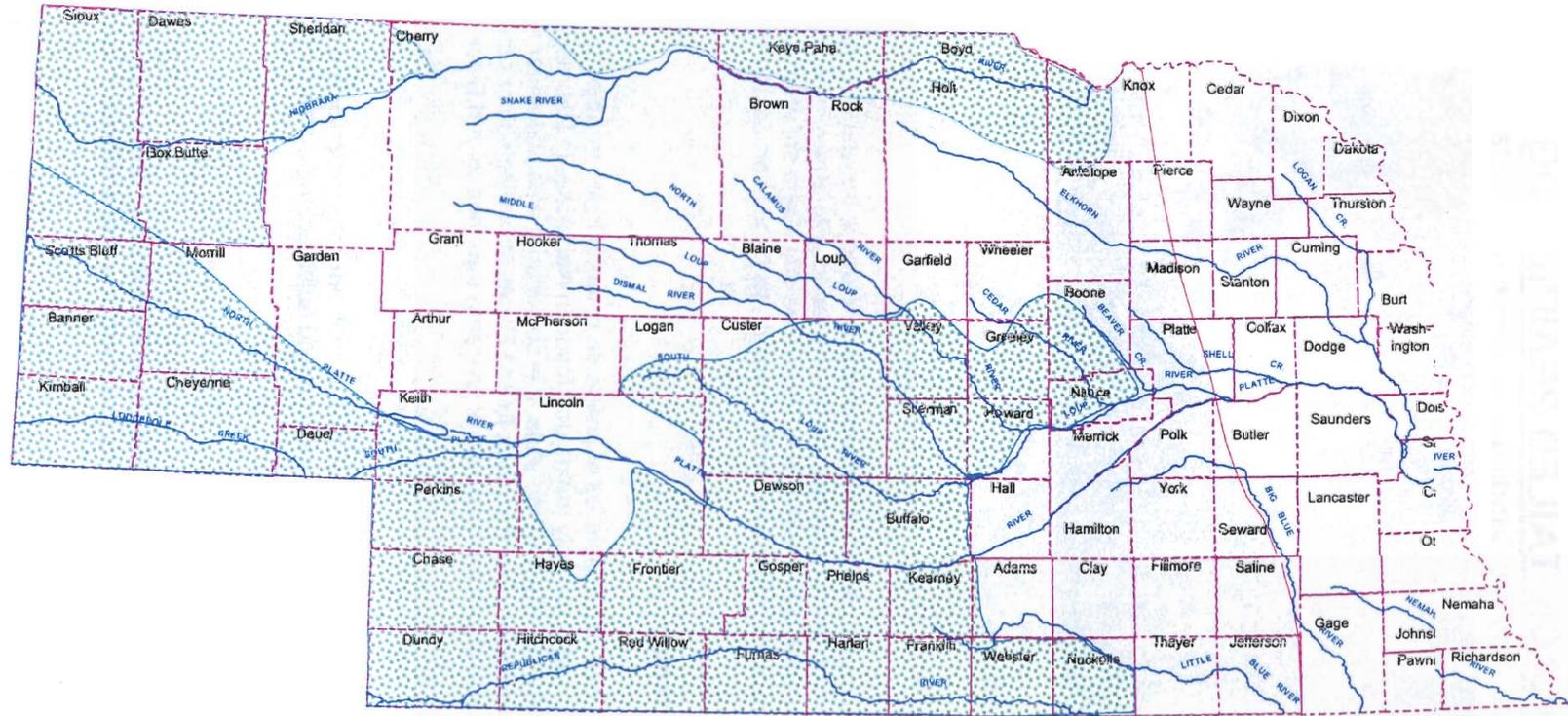
Food

Grasses are the preferred food of the prairie dog, and generally makes up about three quarters of its diet. In the fall, broadleaf forbs become more important as green grass is less available. In winter, any available green vegetation is consumed.

Reproduction

Breeding takes place in March and early April, and a litter of usually four to six young is born 30 to 35 days later.

Black-tailed Prairie Dog (*Cynomys ludovicianus*) Distribution of Potential Habitat in Nebraska - February 2002



VERY LOW DENSITY OF COLONIES



LOW TO MODERATE DENSITY OF COLONIES

NORTH AMERICAN RIVER OTTER

(Status: Threatened)



Drawing courtesy of NE Game and Parks Commission

See attached distribution map.

Description

The river otter is long and slender, whiskers and nose pad are prominent, and the ears are small. Upper parts of the body are dark brown, and the underside is gray to brown. The tail is long and heavy, and it is furred the entire length. The legs are short, with five webbed toes on each foot. Adult animals are three to four feet long.

Habitat

River otters are quite adaptable, utilizing a variety of habitat types. Although they frequent lakes and ponds, they typically live along wooded rivers and streams with sloughs and back water areas. They live in dens in the ground most of the year. Otters rarely dig the dens themselves; instead, they utilize dens built by beavers or other animals. The presence of beavers in an area is important to otters because of the dens they build and the ponds created by beaver dams.

Food

Fish make up the greatest portion of the otter's diet. Crayfish are also an important food source when available. Other food may include amphibians, insects, small mammals and birds. Foods and foraging techniques vary in different areas and at different times of the year.

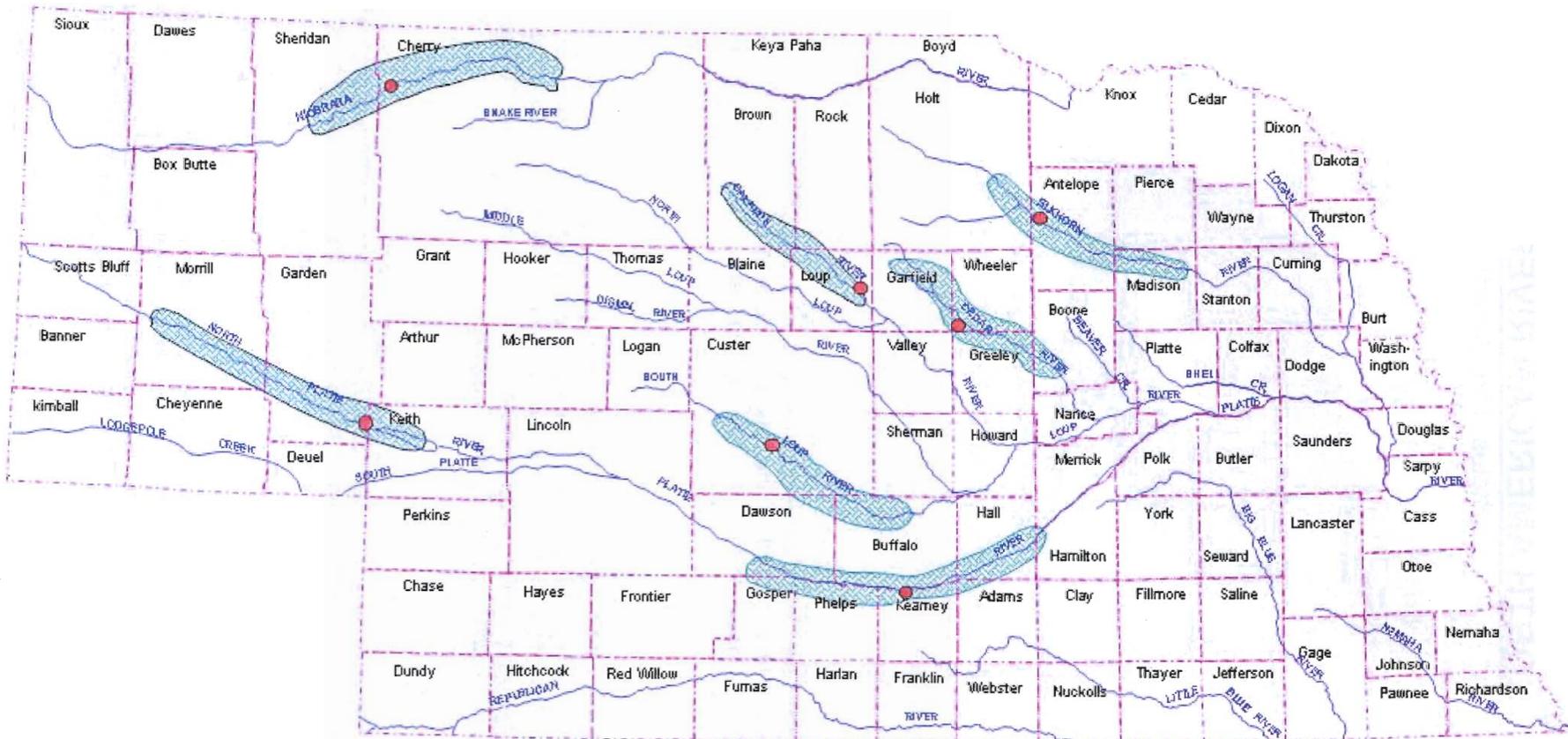
Reproduction

Breeding occurs in March or April, but the breeding season is extremely variable. Young can be born up to a year after conception, due to a phenomenon called delayed implantation, which involves discontinuous development of a fertilized egg. Young otters can care for themselves in about 5-6 months after birth, but the family usually stays together for 8-9 months, often until the birth of a new litter.

River Otter (*Lutra canadensis*)

Distribution in Nebraska

July 2001



-  PRESENT DISTRIBUTION
-  REINTRODUCTION SITES

SOUTHERN FLYING SQUIRREL

(Status: Threatened)



Photo courtesy of NE Game and Parks Commission

See attached distribution map.

Description

The southern flying squirrel is easily distinguished from other Nebraska tree squirrels by its smaller size and by its gliding membrane, or patagium, a fold of skin that extends from the wrist of the front leg to the ankle of the hind leg. When the front and hind legs are extended, the membrane forms a wing-like gliding surface. The furred, broad and horizontally flattened tail serves as a rudder and stabilizer during glides. The eyes are noticeably large, an adaptation for its nocturnal habits. The ears are more prominent than in other tree squirrels. Whiskers are also prominent. The upper body is grayish to brownish in color and underparts are creamy white.

Habitat

This mammal is found in the southeastern corner of the state of Nebraska. It is known to occur in the forested bluffs along the Missouri River from the far southeastern corner of the state to just north of Nebraska City.

In broad terms, southern flying squirrels require deciduous forests as habitat. Specifically, they require mast-producing trees such as oaks, hickories and walnuts for food, shelter and water. They live in cavities (naturally occurring or carved by woodpeckers) of living or dead trees. They have not been known to use leaf-litter nests, such as most Nebraska squirrels.

Food

Southern Flying Squirrels are primarily vegetarian, but will occasionally eat insects, bird eggs and nestlings, small nesting mammals, carrion and adult mice or shrews. Nuts, primarily acorns and hickory nuts are preferred foods and make up the bulk of the diet. They will also consume various seeds, fruits, berries, mushrooms, buds, flower blossoms and tree bark.

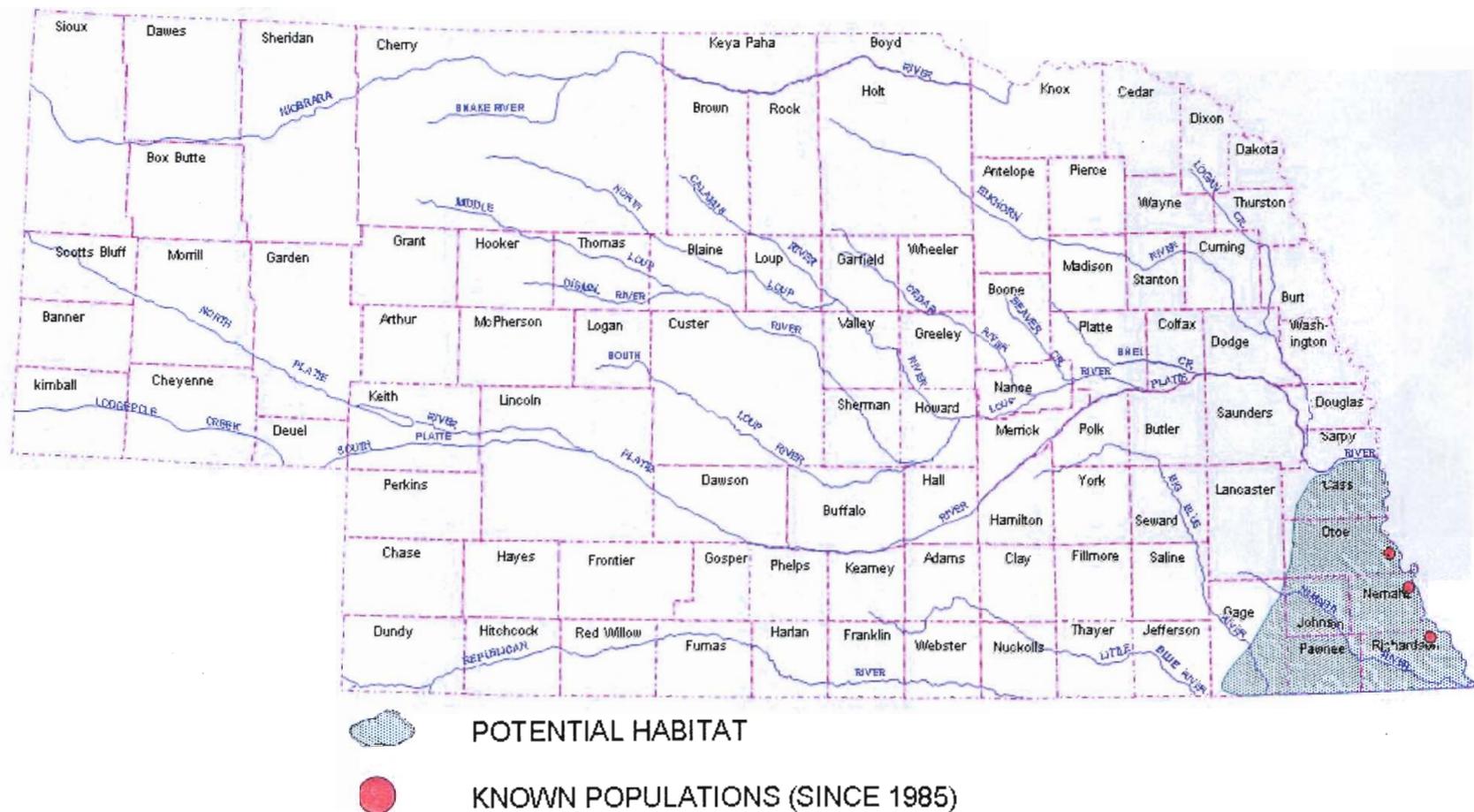
Reproduction

February to March and late May to July are the two periods of breeding activity. The young are born 40 days later. Young typically remain with the mother until the birth of the next litter.

Southern Flying Squirrel (*Glaucomys volans*)

Distribution in Nebraska

July 2001



SWIFT FOX

(Status: Endangered)



Photo by L. Carbyn, Canadian Wildlife Service

See attached distribution map.

Description

Swift foxes have dark buff gray coloration extending to a yellow-tan color across their sides and legs. The throat, chest and belly are pale yellow to white. They have a black-tipped tail, black patches on their muzzles and noticeably large ears. Weighing approximately 5 pounds, they are about 12 inches in height and 31 inches in length.

Habitat

Swift fox prefers open rolling grasslands with little or no shrubs. They live in dens or burrows dug into the sides of embankments or into the ground. They have been known to take over dens of other mammals, although they are capable of digging their own. They may occupy up to 13 dens in one year, moving because prey is scarce. They are nocturnal, vocal and only the females are territorial. Although they are social animals, they keep one mate throughout their lifetime.

Food

They feed on a variety of food sources, including small mammals such as rabbits, prairie dogs, ground squirrels and mice. Birds, reptiles, amphibians, insects, berries and seeds also make up their diet.

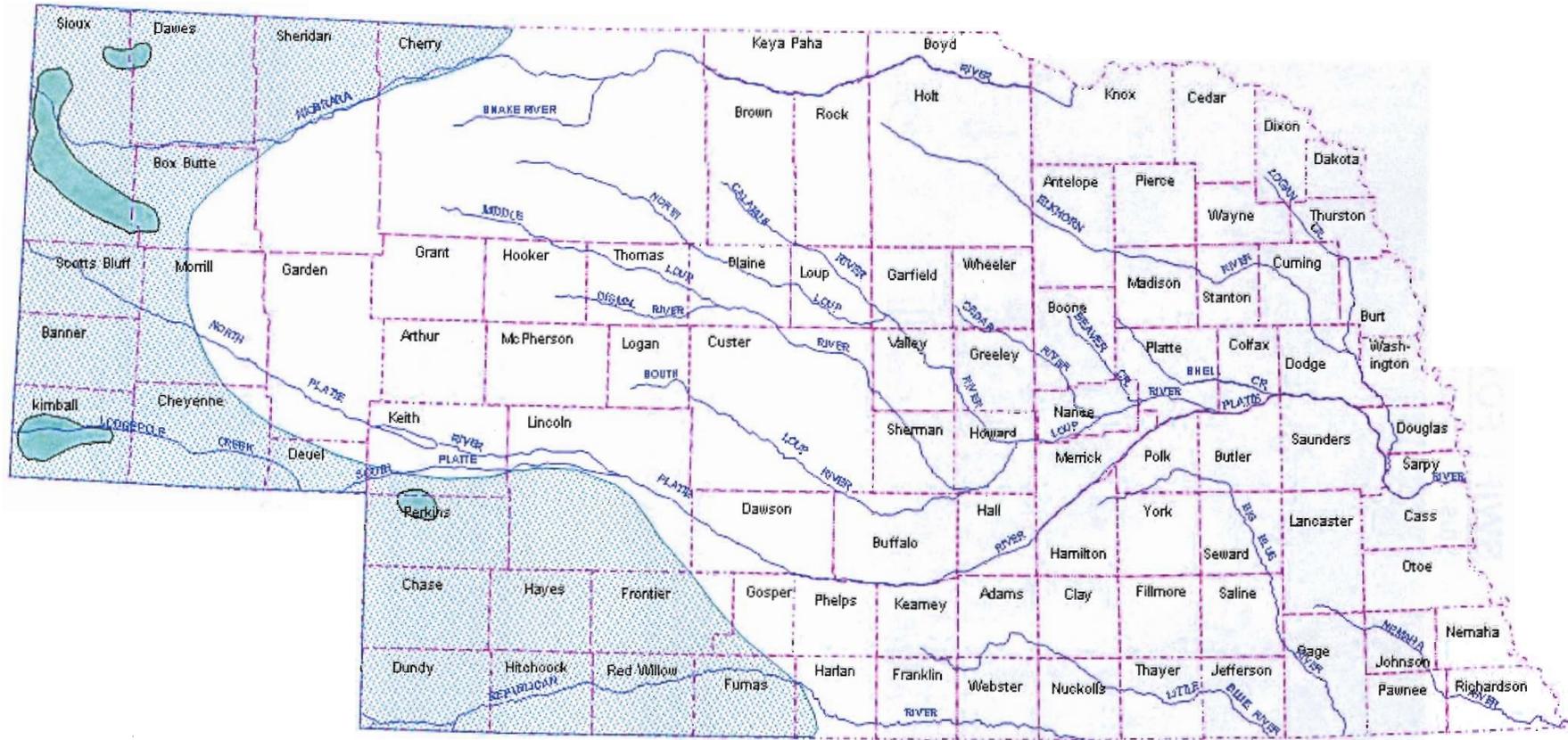
Reproduction

They breed from December to February. Approximately 51 days later, a litter is born. Litter size averages from 4-5 kits that begin dispersing from the den in September.

Swift Fox (*Vulpes velox*)

Distribution in Nebraska

July 2001

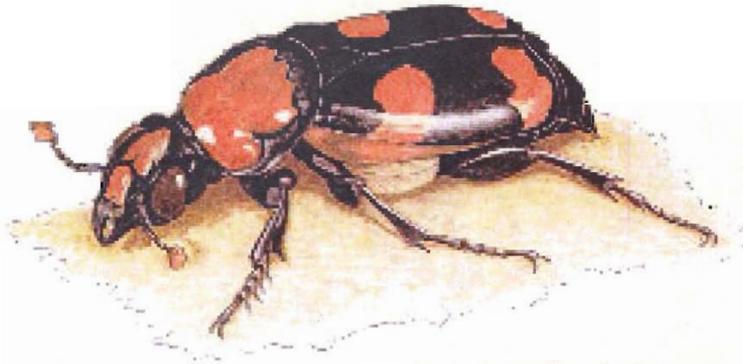


 POTENTIAL HABITAT

 CONCENTRATION AREAS

AMERICAN BURYING BEETLE

(Status: Endangered)



NEBRASKAland Magazine

Drawing courtesy of NE Game and Parks Commission

See attached distribution map.

Description

The American burying beetle is the largest carrion-frequenting insect in North America; it may reach a length of 1 1/2 inches. Like many other carrion beetles, it is shiny black and distinctively marked with two bright orange bands on each wing cover. Unlike any other species, however, the pronotum (the shield-like area just behind the head) of the American burying beetle is also orange, and there is a small orange patch on the face between the eyes. While Nebraska has 11 species of *Nicrophorus*, only the American burying beetle has the orange pronotum, and it can be readily distinguished from the other, more common species.

Habitat

Adult beetles are nocturnal and search widely for carrion. They are remarkably adept at detecting the odor of recent death. They can find a dead mouse within an hour of death and from as far away as two miles. In Nebraska, the sandhills, grassland prairies, forest edges and scrubland seem to be preferred habitat. Gothenburg, Brady, North Platte and the Valentine National Wildlife Refuge are all locales in which beetles are now found. Specific habitat requirements are unknown.

Food

American burying beetles are scavengers, dependent on carrion for food and reproduction. They play an important role in breaking down decaying matter and recycling it back into the ecosystem. While soils suitable for carcass burial are essential, it is probably carrion availability that is more important. Ring-necked pheasant chicks and small mammals are ideally suited.

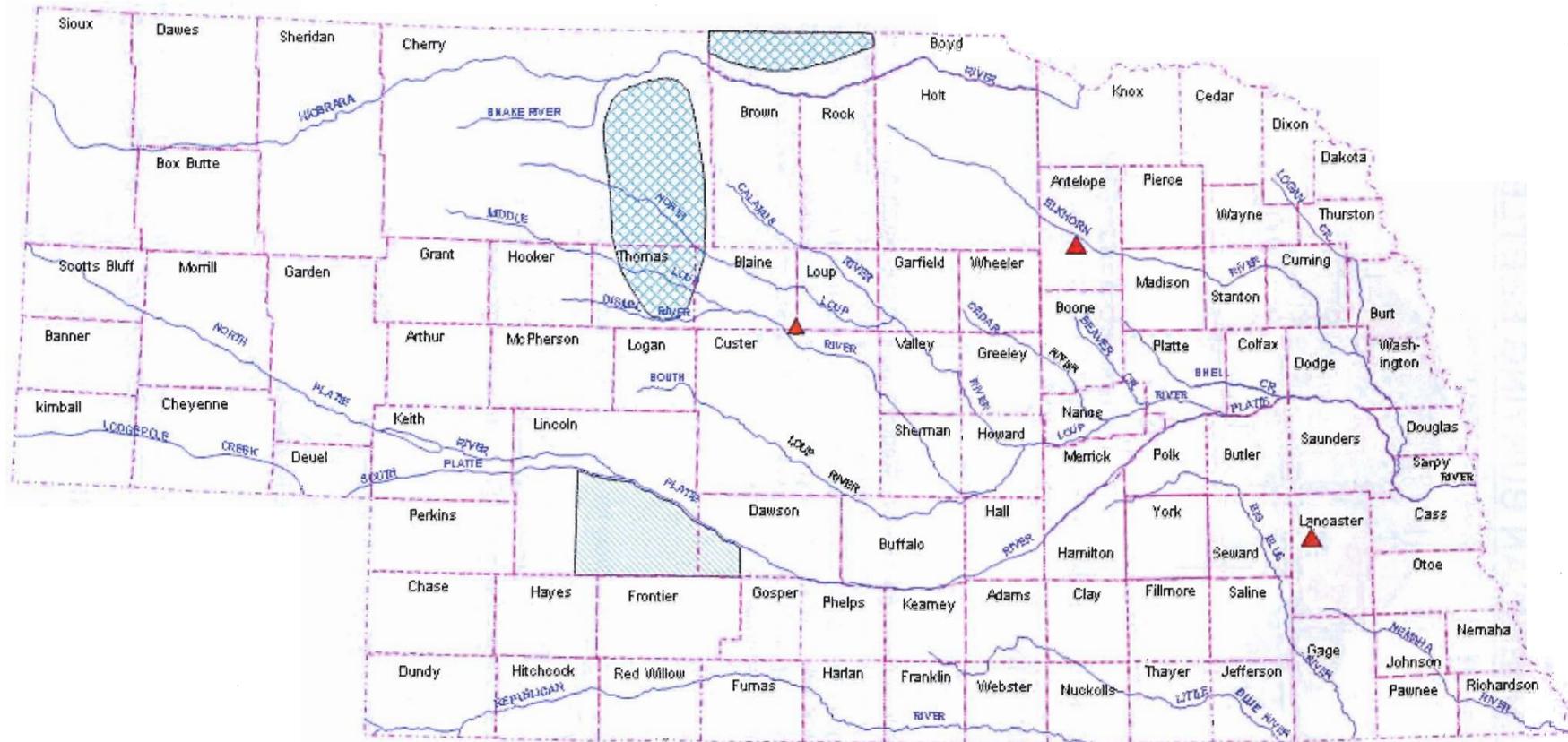
Reproduction

The most active season for the beetles is approximately between April and September. A male/female pair moves mouse-size remains several feet until a substrate soft enough for burial is found. The soil at the burial site is loosened by plowing through it. The dead carcass is then buried in several inches of soil. After burial, the beetles strip feathers and fur and work the mass into a compact ball. The female constructs a short chamber above the carrion in which she lays 10-30 eggs.

American Burying Beetle (*Nicrophorus americanus*)

Distribution in Nebraska

July 2001



- HISTORICAL COLLECTIONS
- ▨ PRESENT AREA OF MODERATE/HIGH POPULATION DENSITY
- ▩ PRESENT AREA OF LOW POPULATION DENSITY

SALT CREEK TIGER BEETLE

(Status: Endangered)



Photo courtesy of University of Nebraska-Lincoln, Department of Entomology

See attached distribution map.

Description

The Salt Creek tiger beetle is an active, ground-dwelling, predatory insect that captures smaller or similar sized arthropods in a “tiger-like” manner by grasping prey with its mandibles (mouthparts). The Salt Creek tiger beetle is metallic brown to dark olive green above with a metallic dark green underside. This insect measures about 0.5 inch in total length. It is distinguished from other tiger beetles by its distinctive form and the color pattern on its dorsal and ventral surfaces.

Habitat

The Salt Creek tiger beetle is confined to eastern Nebraska saline wetlands and associated streams and tributaries of Salt Creek in the northern third of Lancaster County. The insect is believed to have disappeared from the southern margin of Saunders Counties. It is found along mud banks of streams and seeps, and in association with saline wetlands and exposed mud flats of saline wetlands. Adults appear as early as the end of May or as late as mid-June and disappear by mid-to late July.

Food

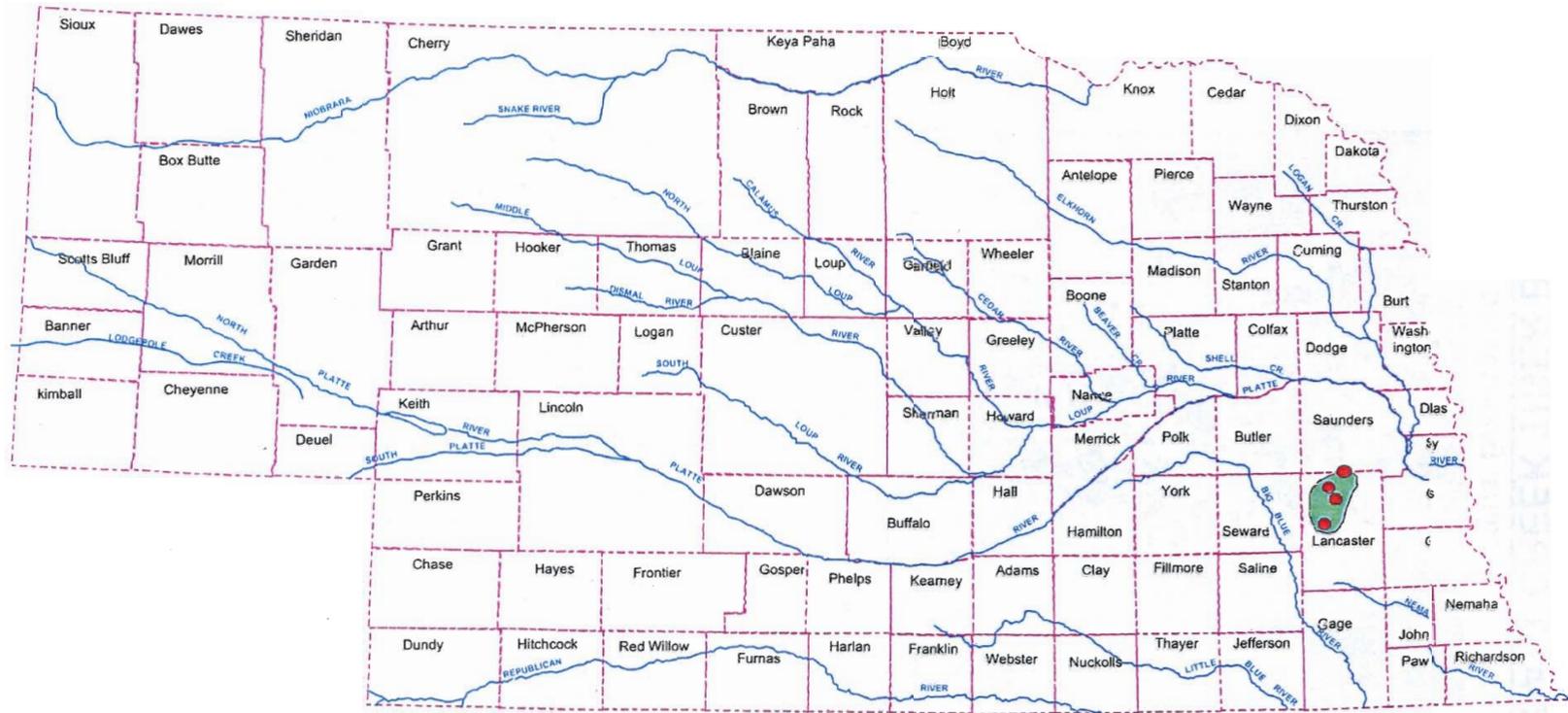
This beetle feeds on insects, some of which may cause harm to humans, such as mosquitoes and deer flies. In addition, they feed on arthropods.

Reproduction

Eggs are laid along the salty muddy banks of Little Salt Creek, where soil is sloping. As the egg hatches, the young larva digs a burrow, using its head to scoop out soil. The life cycle is either a 1 or 2-year cycle based upon the month that the egg hatches. Adults mate throughout their life and may mate multiple times.

Salt Creek Tiger Beetle (*Cicindela nevadica lincolnian*)

Distribution in Nebraska - February 2002



● Documented occurrences 1980 - present

■ Historic range

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Section II
NRCS-NOVEMBER 2002

BLACKNOSE SHINER

(Status: Endangered)



See attached distribution map.

Description

Small minnow with olive-yellow on the back, silvery sides and whitish belly, conspicuous lateral band with vertical black crescents which does not extend to chin.

Habitat

This fish requires clean, cool, well oxygenated streams with abundant aquatic vegetation. The Blacknose Shiner is completely intolerant of turbid water and pollution. As lands surrounding prairie streams were disturbed by settlers, erosion increased the turbidity of streams and rivers. Silt covered the sand and gravel bars, suffocating much of the aquatic life that many fish rely on for food.

Food

The diet consists mainly of small aquatic invertebrates, insects, crustaceans and algae.

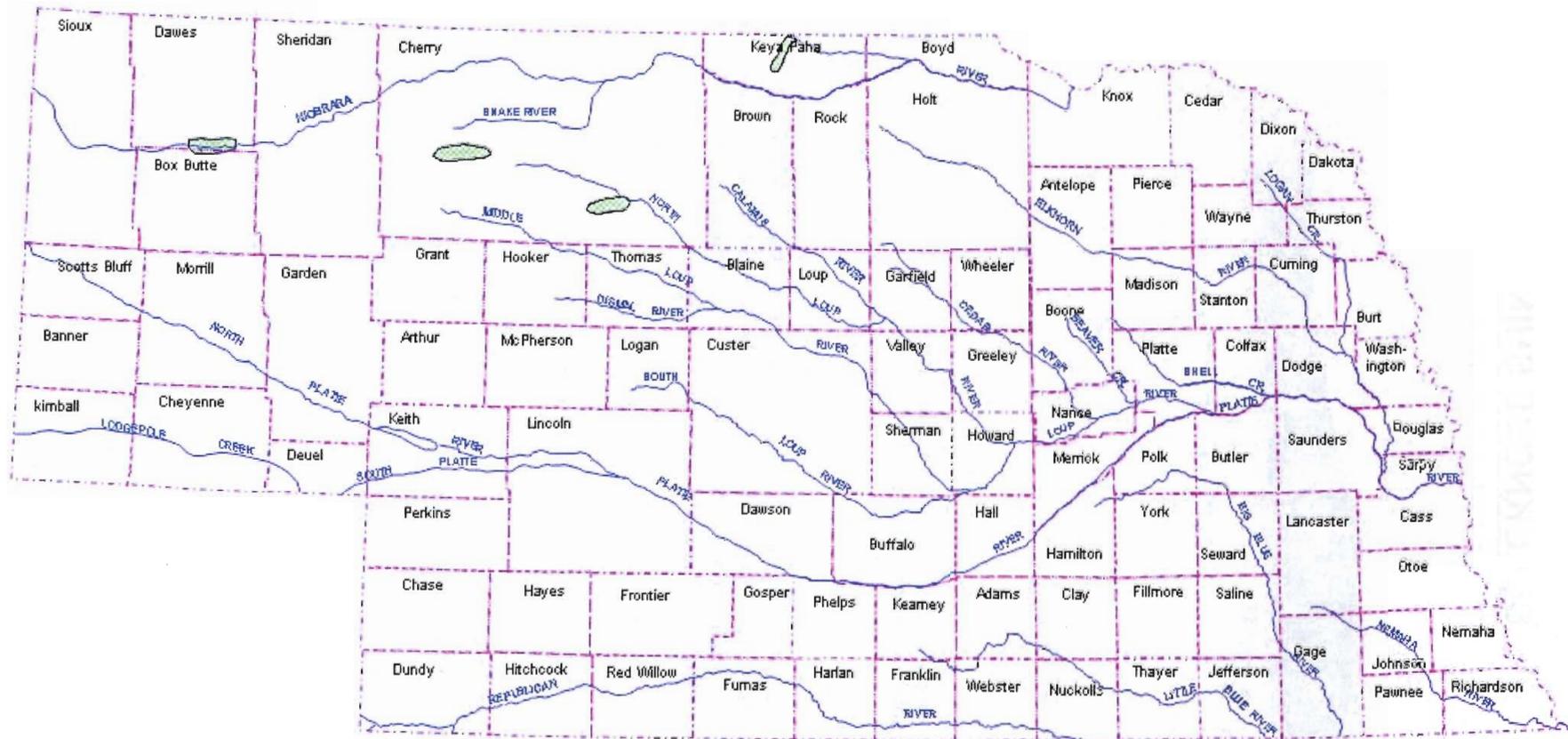
Reproduction

Spawning usually occurs in the last week of June.

Blacknose Shiner (*Notropis heterolepis*)

Distribution in Nebraska

July 2001



PRESENT DISTRIBUTION

FINESCALE DACE

(Status: Threatened)



See attached distribution map.

Description

The finescale dace is a small (2.5 inches, 55-65 mm) fish with a dark brown back. A dark stripe extends from the snout along the side, ending at a distinct spot at the base of the tail. Breeding males have a bright yellow to red underside.

Habitat

This species may occur in bog ponds, streams and lakes. It is commonly found in association with the northern redbelly dace, with which it may hybridize. This species is widely distributed in glaciated regions of southern Canada and northern United States. Isolated populations occur in South Dakota, Nebraska, Colorado and Wyoming.

Food

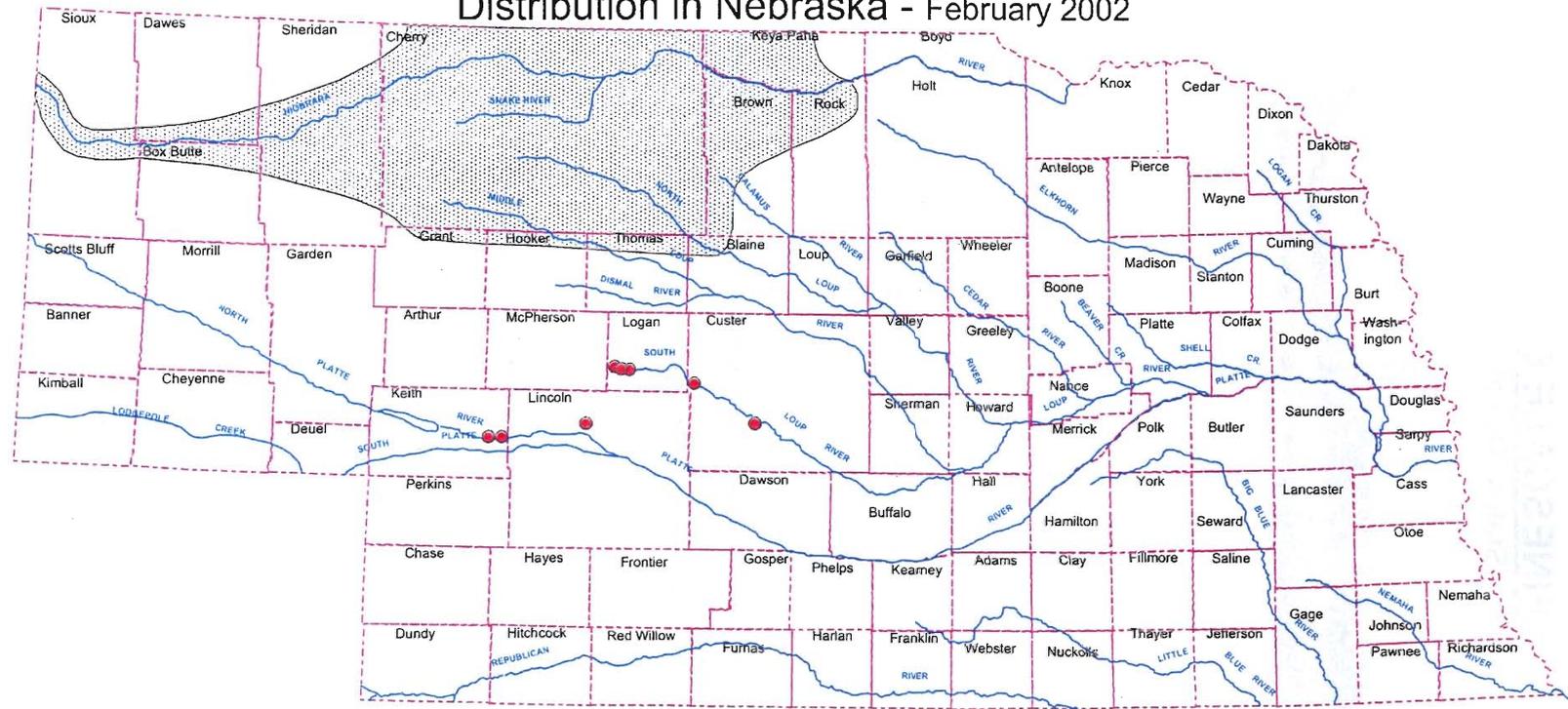
Diet studies have shown that they are carnivorous and consume mostly insects, crustaceans and plankton.

Reproduction

The Finescale Dace spawns in late April to early June under logs and debris. Eggs hatch within 4 days. Young reach maturity in one or two years.

Finescale Dace (*Phoxinus neogaeus*), and Northern Redbelly Dace (*Phoxinus eos*)

Distribution in Nebraska - February 2002



PRESENT DISTRIBUTION (BOTH SPECIES)



ISOLATED POPULATIONS (1 OR BOTH SPECIES)

NORTHERN REDBELLY DACE

(Status: Threatened)



See attached distribution map.

Description

A small minnow that grows to about two inches in length. Color consists of black with an olive to dark brown back. Silver, cream below the dark band on its side with a brilliant red streak in breeding males. Breeding fish have yellowish fins. Snout is short and blunt.

Habitat

Usually found in groups in boggy lakes, creeks and ponds. Often found in cool, dark, tea-colored and slightly acidic waters. Prefers the slow parts of streams with lots of silt and debris. Occasionally found in moderate current.

Food

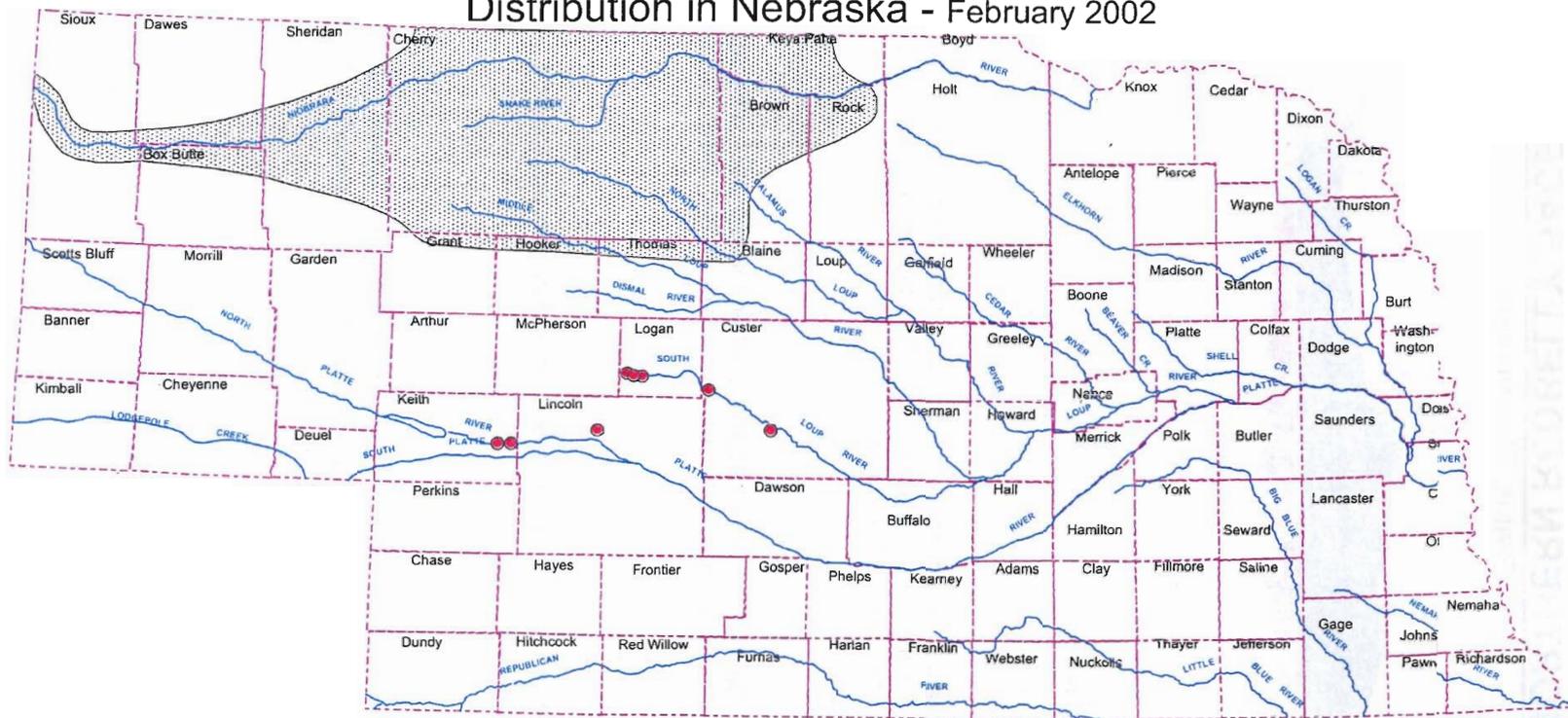
Diet consists of plant material, including algae. Also consumes plankton, aquatic insects and occasionally other small fish.

Reproduction

Spawning usually occurs in the late April to early June, with at least some females spawning twice a year. Spawning takes place on clumps of algae. 5-30 eggs are laid during each spawning episode. The eggs hatch in 8-10 days.

Finescale Dace (*Phoxinus neogaeus*), and Northern Redbelly Dace (*Phoxinus eos*)

Distribution in Nebraska - February 2002



PRESENT DISTRIBUTION (BOTH SPECIES)



ISOLATED POPULATIONS (1 OR BOTH SPECIES)

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LAKE STURGEON

(Status: Threatened)



Drawing courtesy of Michigan Department of Natural Resources

See attached distribution map.

Description

The sturgeon has no scales but is covered with five rows of bone like plates on its back, sides, and stomach. It is a long-lived fish if conditions are favorable. They can grow to over 8 feet in length and weigh up to 800 pounds.

Habitat

They inhabit large rivers as well as lakes and reservoirs over their range. The shape of the head, the flattened body, tactile barbells and tough skin allow the species to thrive in swift, turbid waters.

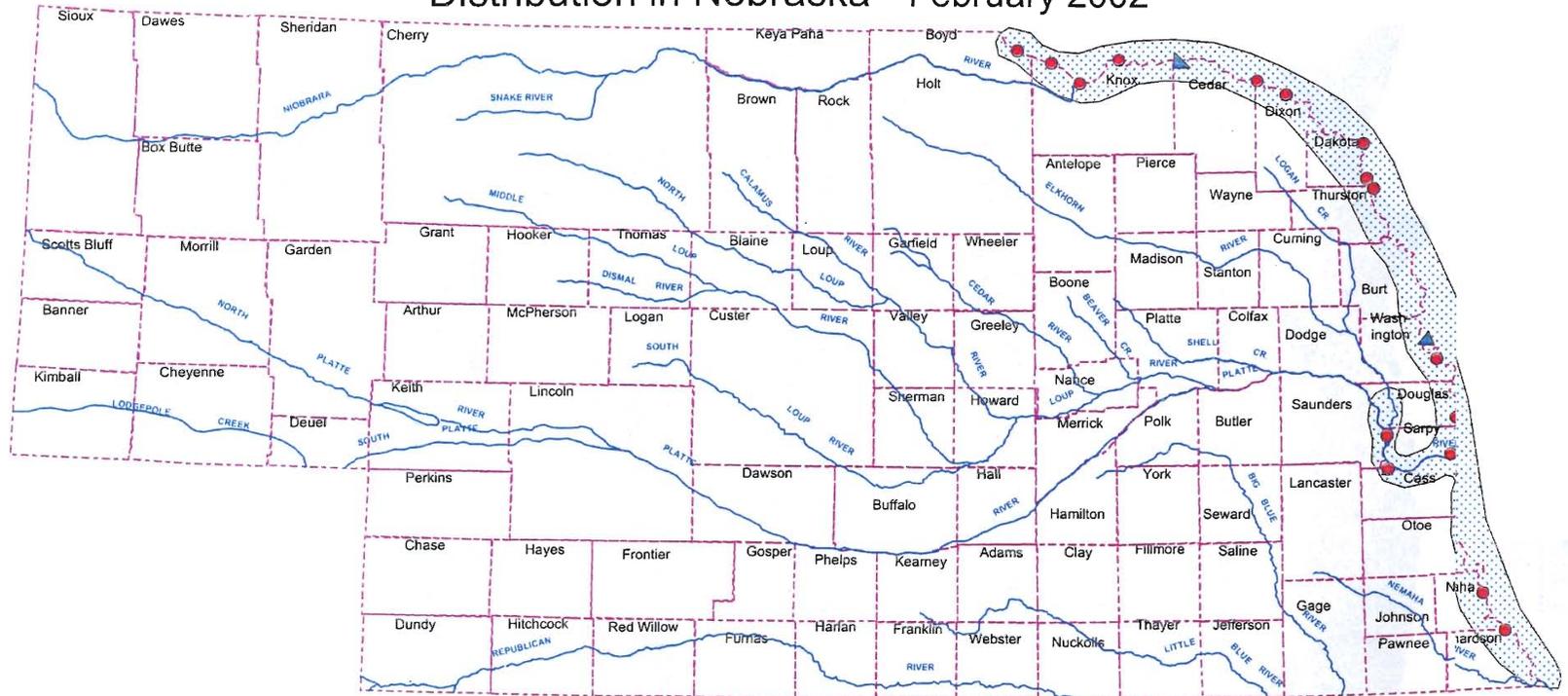
Food

They swim near the bottom searching with sensitive barbells lightly dragging the bottom. They suck food into their extendable tube-like mouths and pass inedible items out of their gill covers. Their diet consists mainly of crayfish and other crustaceans. They occasionally dine on insect larvae.

Reproduction

Sturgeon have a low reproductive rate and may not even begin to spawn until they are 15 years of age. They move a great distance to spawn. Spawning usually occurs from late April to late June during high water. They prefer swift water, 2-15 feet deep with a gravel or rocky bottom.

Pallid Sturgeon (*Scaphyrhynchus albus*) and **Lake Sturgeon (*Acipenser fulvescens*)** Distribution in Nebraska - February 2002



-  DISTRIBUTION
-  PALLID STURGEON RECORDS SINCE 1970
-  LAKE STURGEON RECORDS SINCE 1970

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PALLID STURGEON

(Status: Endangered)



Photo courtesy of US Fish and Wildlife Service

See attached distribution map.

Description

The pallid sturgeon is one of the largest (30-60 inches, 76-152 cm) fishes found in the Missouri-Mississippi River drainage, with specimens weighing up to 85 pounds (39 kg). It is usually light brown on the dorsal surface and white underneath. It has a flattened, shovel-shaped snout. Fleshy chin barbels are located at about 1/3 the distance between the mouth and snout, with the inner barbels about 1/2 the length of the outer barbels. The pallid has a long, slender, flattened and armored region from the dorsal fin to the tail fin (caudal peduncle), which has a long upper lobe. There are no bony plates on the belly.

Habitat

This species is a bottom dweller, found in areas of strong current and firm sand bottom in the main channel of large turbid rivers such as the Missouri River. Many observations in Nebraska have occurred near the mouth of large Missouri River tributaries.

Food

Pallids are slow-growing, late-maturing fish that feed on small fishes and immature aquatic insects.

Reproduction

They are a bottom dwelling fish that move into tributaries for spawning. Spawning occurs over open gravel beds or other hard bottoms at the mouth of a large tributary in a main river channel area. Spawning occurs from late May to August.

STURGEON CHUB

(Status: Endangered)



Photo by David Ostendorf, Missouri Department of Conservation

See attached distribution map.

Description

Sturgeon chub are mottled olive green-brown on their back and have a silvery-cream belly. Their most distinguishing features are the small ridges of skin, called keels, found on each scale on their upper body. These keels can be seen without aid of a microscope on larger specimens. They are believed to help the chub maintain position in fast currents. Sturgeon chub have dense concentrations of tiny external taste buds on the lower head, body and fins. They have small eyes and a long fleshy snout which overhangs the mouth. They reach a maximum length of 4 inches.

Habitat

Sturgeon chub are most commonly collected in gravel and rock rapids. They are also collected in sandy areas as long as some gravel is present. High turbidity and swift currents are vital habitat components. Sturgeon chub are most frequently collected in water less than 3 feet deep.

Food

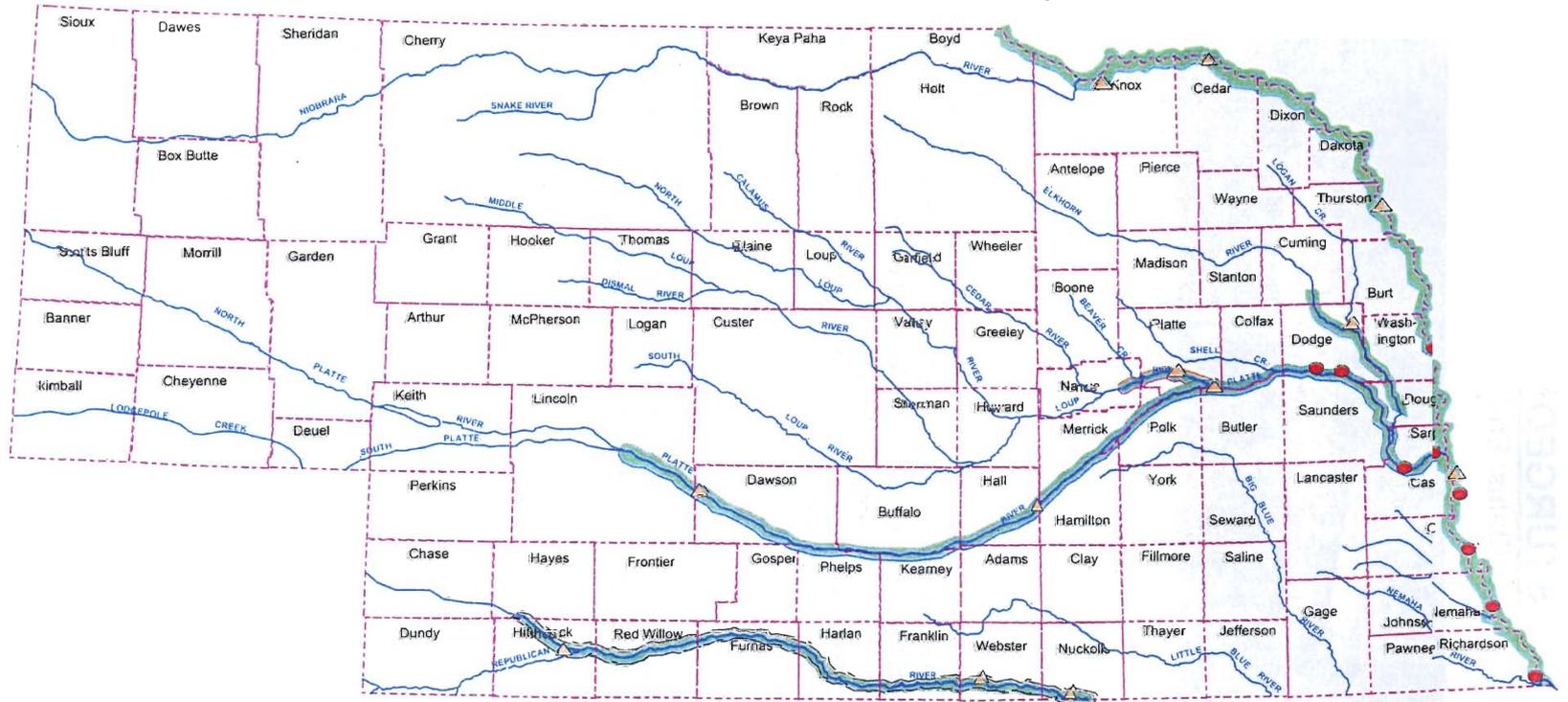
They appear to be carnivorous and consume primarily aquatic invertebrates.

Reproduction

It is generally accepted that sturgeon chub spawn early summer (June – mid July). Spawning usually takes place in high water flows. The eggs become semi-buoyant as they expanded and remained in the water column as long as current was maintains in the aquaria. This reproductive strategy is believed to be adaptive to the hydrology characteristic of Great Plains Rivers in spring and summer. Lack of current results in death of the eggs if they settle on the bottom and are covered with silt.

Sturgeon Chub (*Macrhybopsis gelida*)

Distribution in Nebraska - February 2002



Documented occurrences prior to 1980



Documented occurrences 1980 - present



Historic range

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TOPEKA SHINER

(Status: Endangered)



See attached distribution map.

Description

The Topeka shiner is a small minnow averaging 1.5 to 2 inches long. It has an olive-yellow back with dark-edged scales and silvery-white sides and belly. A dark stripe runs along the fish's sides and extends on to the head. All of the fins are plain except for the tail fin, which has a triangular black spot at its base. The anal fin has six to eight rays, usually seven. There is a dark stripe on the back in front of the dorsal fin. Breeding males have orange-red fins and orange-tinted heads and bodies.

Habitat

The Topeka Shiner occurs primarily in small prairie streams and pools containing clear, clean water. Most Topeka Shiner streams flow year-round, but some are small enough to stop flowing during dry summer months. Under these circumstances, water levels must be maintained by groundwater seepage for the fish to survive. Topeka Shiner streams generally have clean gravel, rock or sandy bottoms.

Food

They are omnivorous (eat plant and animal matter) opportunist (they eat what's available). There have been over 25 different food groups found in their stomachs. This includes insects, snails, water mites, worms, moss, sideswimmers, algae, plant stems and seeds, and fish larvae.

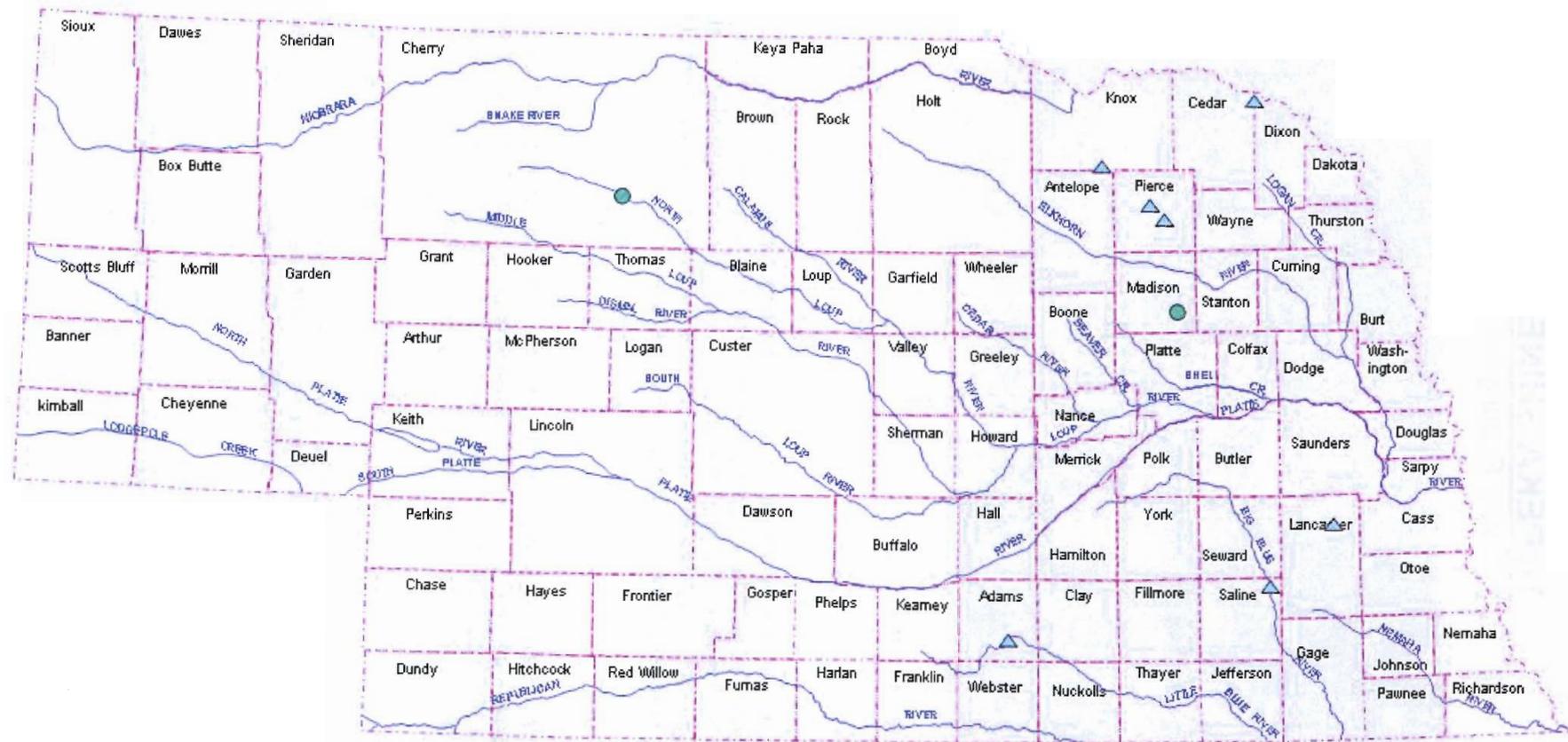
Reproduction

The spawning season lasts for 8-10 weeks starting in May. They do not build their own nests, but share a nest with orange-spotted or green sunfish. It takes about 5 days for the eggs to hatch and another 4 days before larvae begin to feed.

Topeka Shiner (*Notropis topeka*)

Collection sites for period of record, 1892 - 1996

July 2001



-  HISTORICAL SITE
-  RECENT OBSERVATION

BALD EAGLE

(Status: Threatened)



Photo courtesy of NE Game and Parks Commission

See attached distribution map.

Description

L 31-37"(79-94 cm) W 70-90"(178-229 cm). Sexes similar. Adults (over 5 years) have white head, neck and tail. Contrasting black-brown body. Yellow bill. Immatures are entirely brown, with whitish wing linings and a dark bill. Females are larger than males.

Habitat

Nesting or wintering Bald Eagles are found in close association with water. Rivers, lakes or reservoirs that provide a reliable food source and isolation from disturbing human activities are preferred. Large trees and snags along shorelines provide feeding and loafing perches and potential nest sites. During the fall and spring migration, Bald Eagles may be seen along virtually any waterway or impoundment in Nebraska. During the critical wintering period (December 15 – February 20), eagles are usually forced to concentrate in areas where waters remain free of ice and food is available.

Food

Fish are the Bald Eagle's primary source of food, but the fish need not be alive to attract the eagle's attention. Winter die offs of shad or alewife at some of Nebraska's lakes and reservoirs provide readily available forage. Waterfowl are another important source of winter food. Bald Eagles will occasionally hunt uplands for birds or mammals.

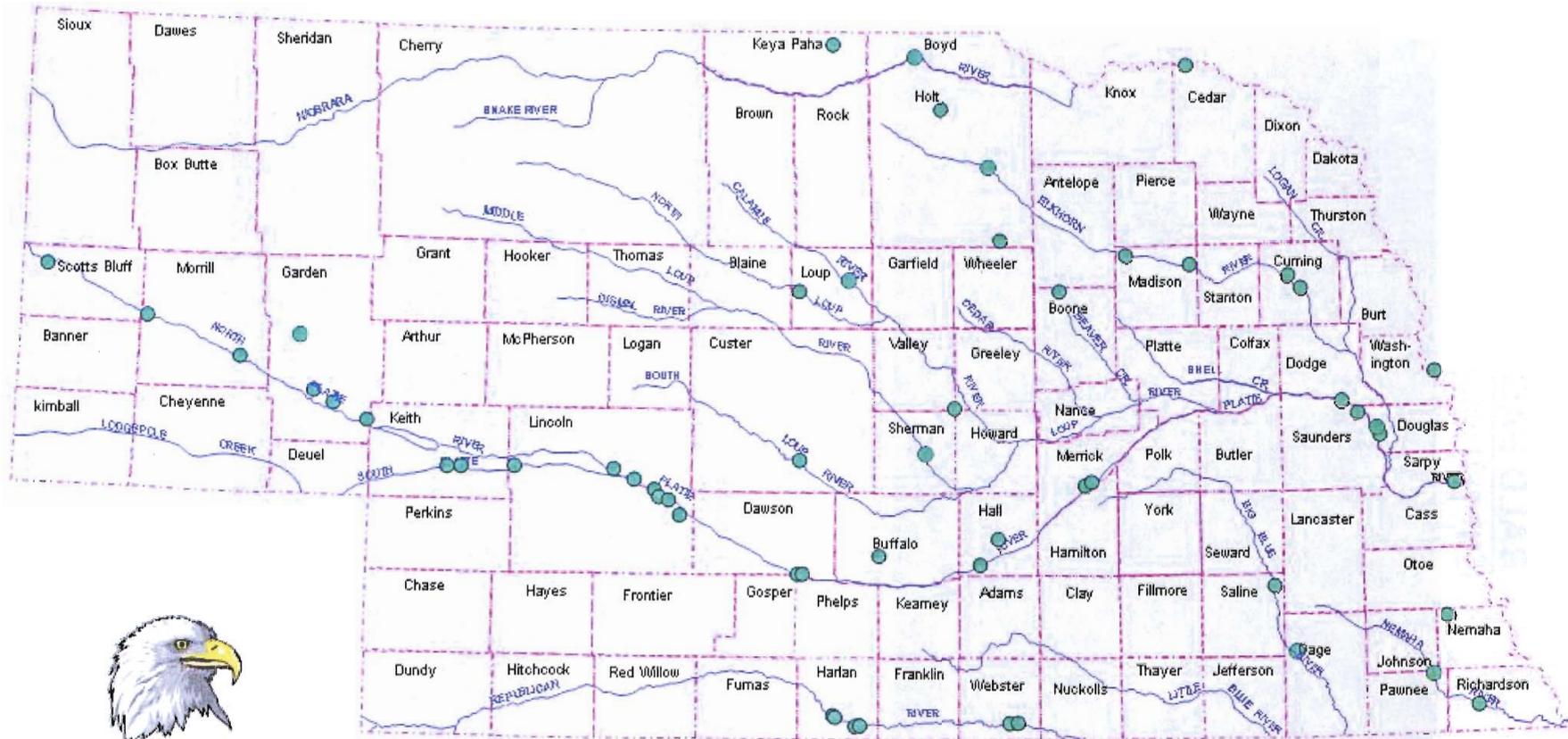
Reproduction

Bald Eagles nest near rivers, lakes and reservoirs, selecting sites free from disturbance. Nests are placed high in large trees near water. Nests are huge and constructed of large sticks and lined with soft materials. Nesting begins in mid to late March, with egg laying occurring in late March to early April. Eggs hatch in mid May.

Bald Eagle (*Haliaeetus leucocephalus*)

Nesting Distribution in Nebraska

July 2001

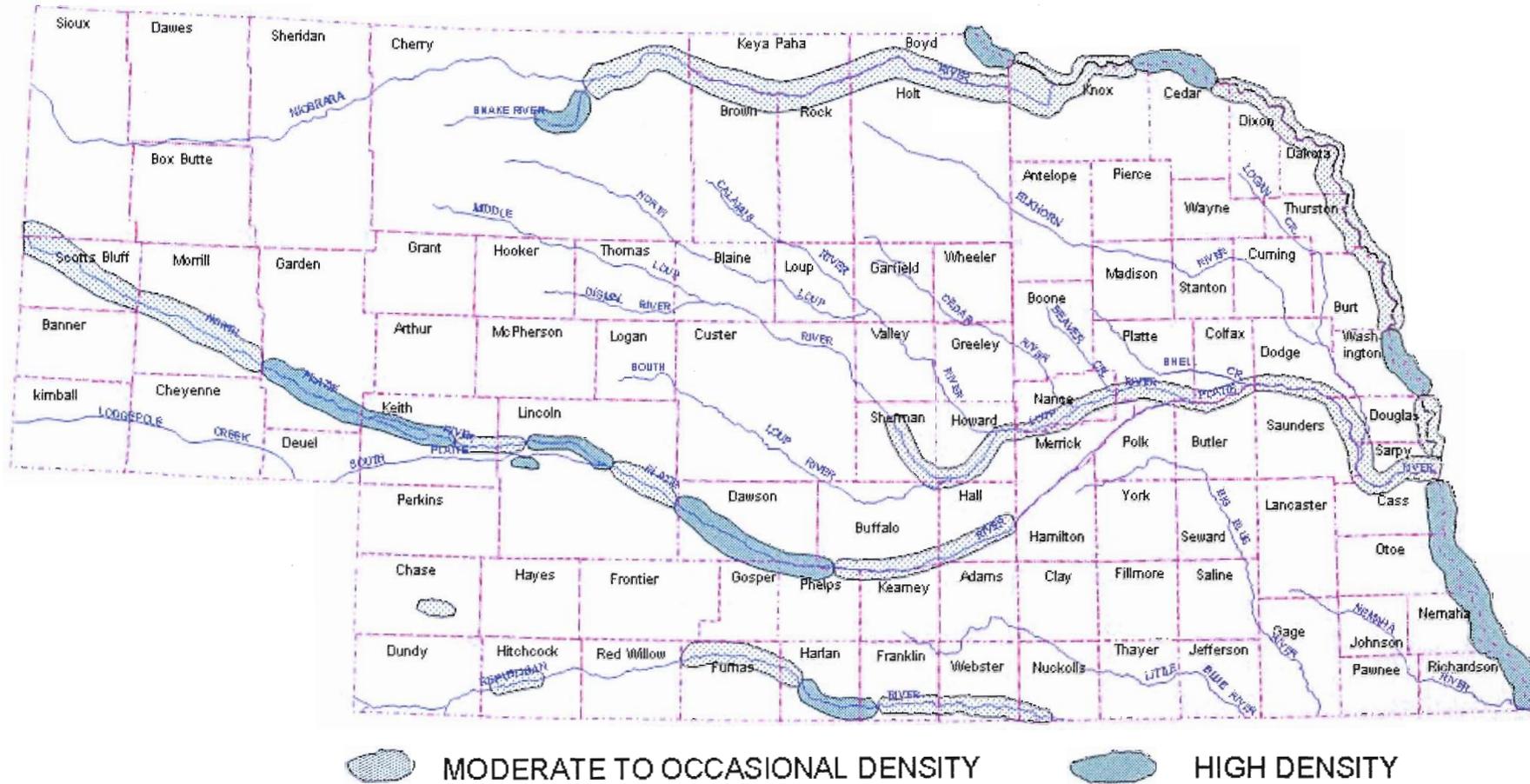


● Nesting Sites Used by Bald Eagle

Bald Eagle (*Haliaeetus leucocephalus*)

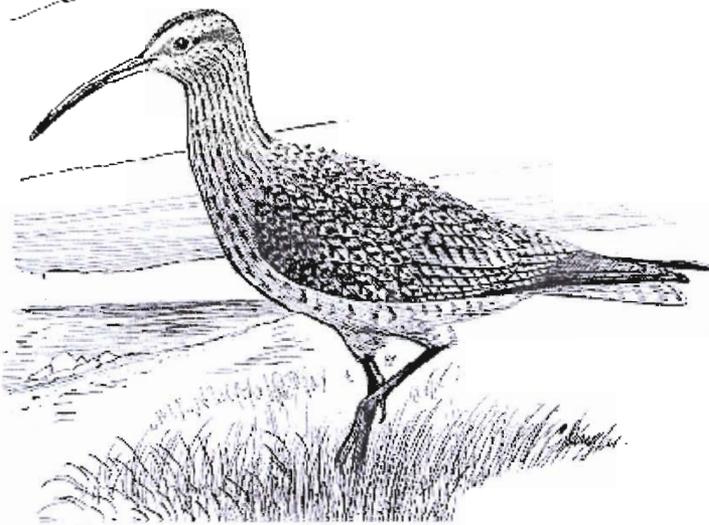
Wintering Distribution in Nebraska

July 2001



ESKIMO CURLEW

(Status: Endangered)



Drawing courtesy of Canadian Museum of Nature

See attached distribution map.

Description

L 14" (36 cm). Sexes similar. A small curlew with a relatively short, slender, and slightly down curved bill. Grayish-brown with buff mottling above; cinnamon underparts with buff v-shaped markings on neck, breast, and sides. Crown is less strongly patterned than similar Whimbrel; and wing linings are pale cinnamon. Primaries are dark and unbarred.

Habitat

The route of the curlew's northward migration flight encompasses the eastern portion of Nebraska. It has been reported that the bird has migrated through the state during the months of March, April, May and June. Newly plowed fields, burned prairies and marshes are particularly attractive to migrating curlews.

Food

Feeding in the plowed fields by 8 or 9 am, these birds could be observed consuming grasshopper egg pods, earthworms and locusts. Occasionally eats berries and snails.

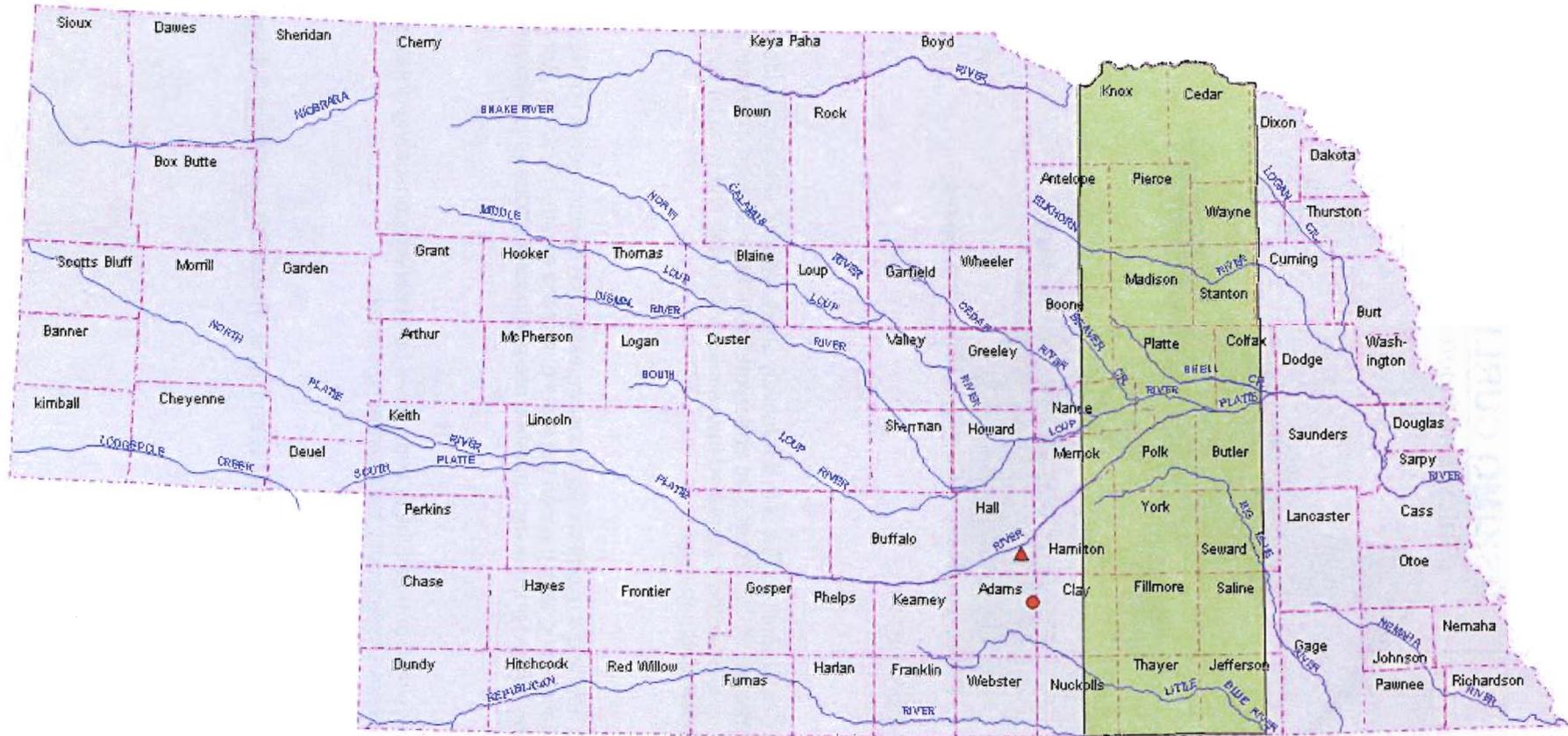
Reproduction

The curlews breed in Northern North America in May and June. The clutch consists of 3-4 eggs and hatch in July. Young remain in nest for short time.

Eskimo Curlew (*Numenius borealis*)

Historic Distribution in Nebraska

July 2001



GENERAL MIGRATION CORRIDOR



PRIMARY MIGRATION CORRIDOR



1926 CONFIRMED SIGHTING



1987 POSSIBLE SIGHTING

INTERIOR LEAST TERN

(Status: Endangered)



Photo courtesy of US Fish and Wildlife Service

See attached distribution map.

Description

The interior least tern is the smallest member of the tern family with a wingspan of 20 inches (50 cm). They have a grayish back and wings, and snowy white undersides. Least terns can be distinguished from all other terns by their combination of a black crown, white forehead, and a variable black-tipped yellow bill.

Habitat

Interior least terns favor islands or sandbars along large rivers for nesting. The sand must be mostly clear of vegetation to be used by terns. Least terns prefer shallow water for fishing. Water levels must be low enough so that nests stay dry.

Food

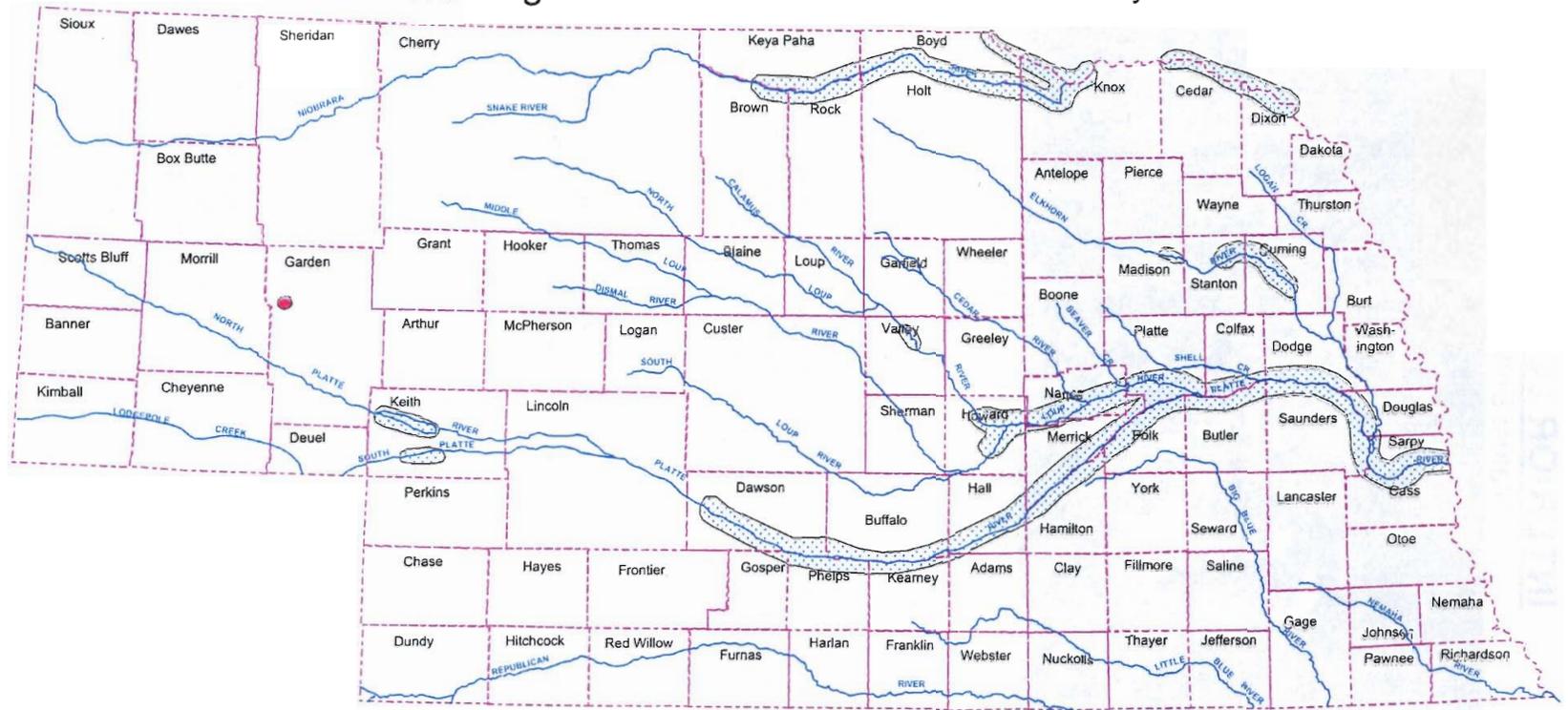
Terns will travel four or more miles from their breeding colonies to find the small fish that make up the major portion of their diet.

Reproduction

Interior Least Terns arrive at breeding sites from late April to early June where they typically spend four to five months. Pairs go through an elaborate courtship period that includes courtship feedings and a variety of postures and vocalizations. Least terns nest in small colonies on exposed salt flats, river sandbars, or reservoirs beaches. Nests are small scrapes in the sand, and usually two or three eggs are laid. The young are fairly mobile soon after hatching. Both parents feed the young and remain with them until fall migration.

Interior Least Tern (*Sterna antillarum athalassos*) and Piping Plover (*Charadrius melodus*)

Nesting Distribution in Nebraska - February 2002



PRESENT DISTRIBUTION



ISOLATED PIPING PLOVER SITE

NE T.G. Notice 522
Section II
NRCS-NOVEMBER 2002

MOUNTAIN PLOVER

(Status: Threatened-State, Candidate-Federal)



Photo courtesy of US Fish and Wildlife Service

See attached distribution map.

Description

L 9"(23 cm). Sexes similar. Lack of breast bands is distinctive. Sandy brown above and white below. Small black crown patch and black eye line offset by white forehead and eyebrow. Show white underwings in flight. Winter plumage shows extensive buff tinge on breast, pale unspotted underparts, and pale legs.

Habitat

The Mountain Plover is generally considered an inhabitant of the arid short grass prairie, which is dominated by blue grama, buffalo grass and is scattered with clumps of cacti and forbs. They are very selective in choosing nest sites, preferring expansive, arid flats with very short grass and lots of bare ground. They have been found nesting in prairie dog towns. Adults also use plowed fields.

Food

Primarily insects, especially spiders, beetles, grasshoppers, crickets and ants, make up this bird's diet. The type of prey changes throughout the season. The Mountain Plover can thrive without drinking free-standing water because sufficient water is obtained from its food.

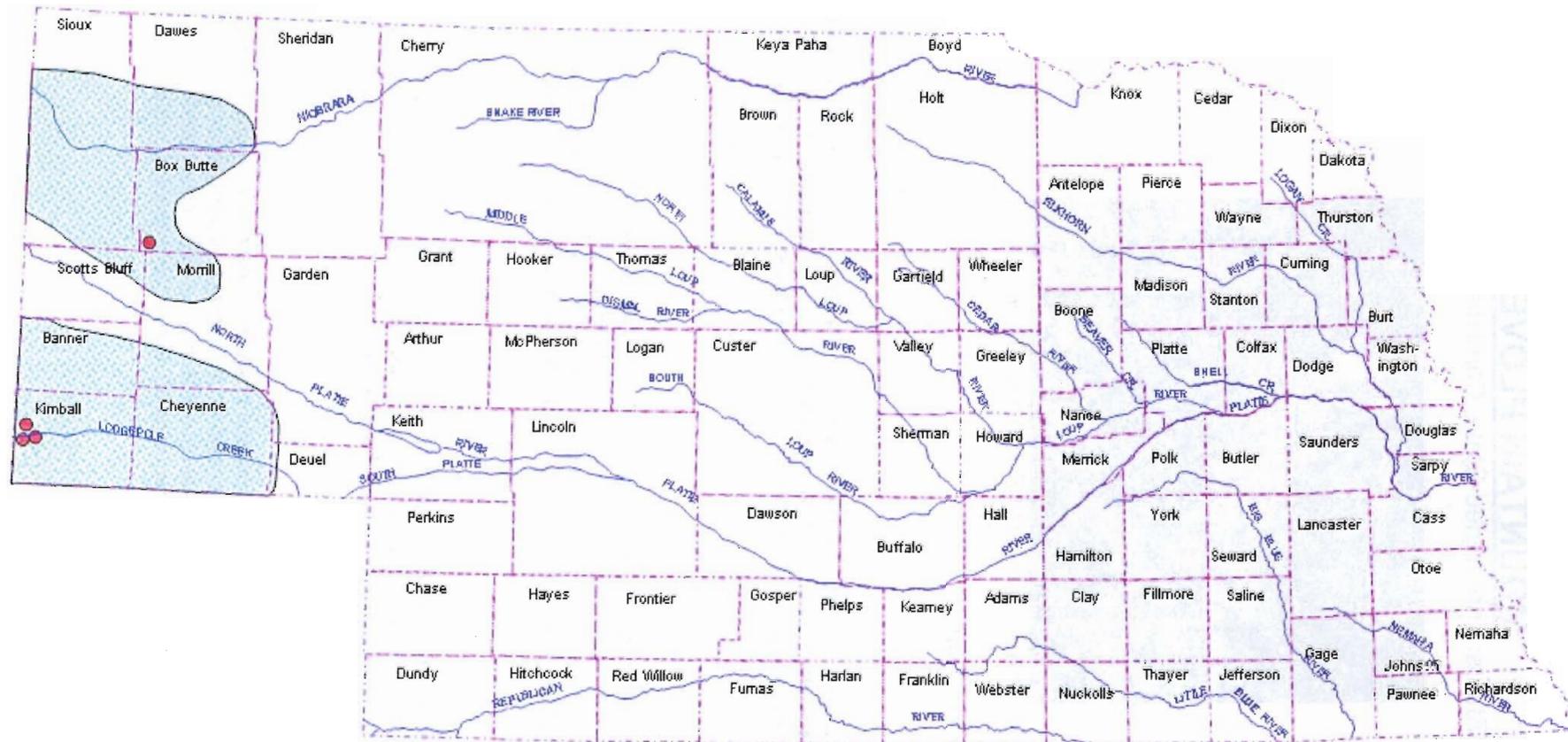
Reproduction

Arrive on breeding grounds in small flocks. Nests consist of shallow depression in ground lined with small amount of materials found nearby. Nests are often next to conspicuous objects, such as cow chips. The bird lays three well-camouflaged eggs that are dark olive with black marks. Young seek out shade under tall vegetation, shadows cast by livestock tanks, fence posts, telephone poles and under adult plovers.

Mountain Plover (*Charadrius montanus*)

Distribution in Nebraska

July 2001



POTENTIAL HABITAT



RECENT OBSERVATIONS

PIPING PLOVER

(Status: Threatened)



Photo courtesy of US Fish and Wildlife Service

See attached distribution map.

Description

L 7 1/4"(18 cm). Sexes similar. Very pale above, white below. In breeding plumage has single complete black breast band. Sometimes the breast band can be incomplete, especially in females and juveniles. White forehead and small black cap. Legs are orange. Bill is yellow with black tip.

Habitat

Sparsely vegetated shorelines of shallow water bodies. Prefer shorelines with areas of bare sand, and sandy or pebbly mud. Nest on gravel pits along rivers and on the salt-encrusted bare areas of interior alkali wetlands and lakes. Occasional to rare spring and fall migrant, and rare local summer resident. Recent breeding records for Platte, Niobrara, Loup, and Middle Loup Rivers and at Lake McConaughy.

Food

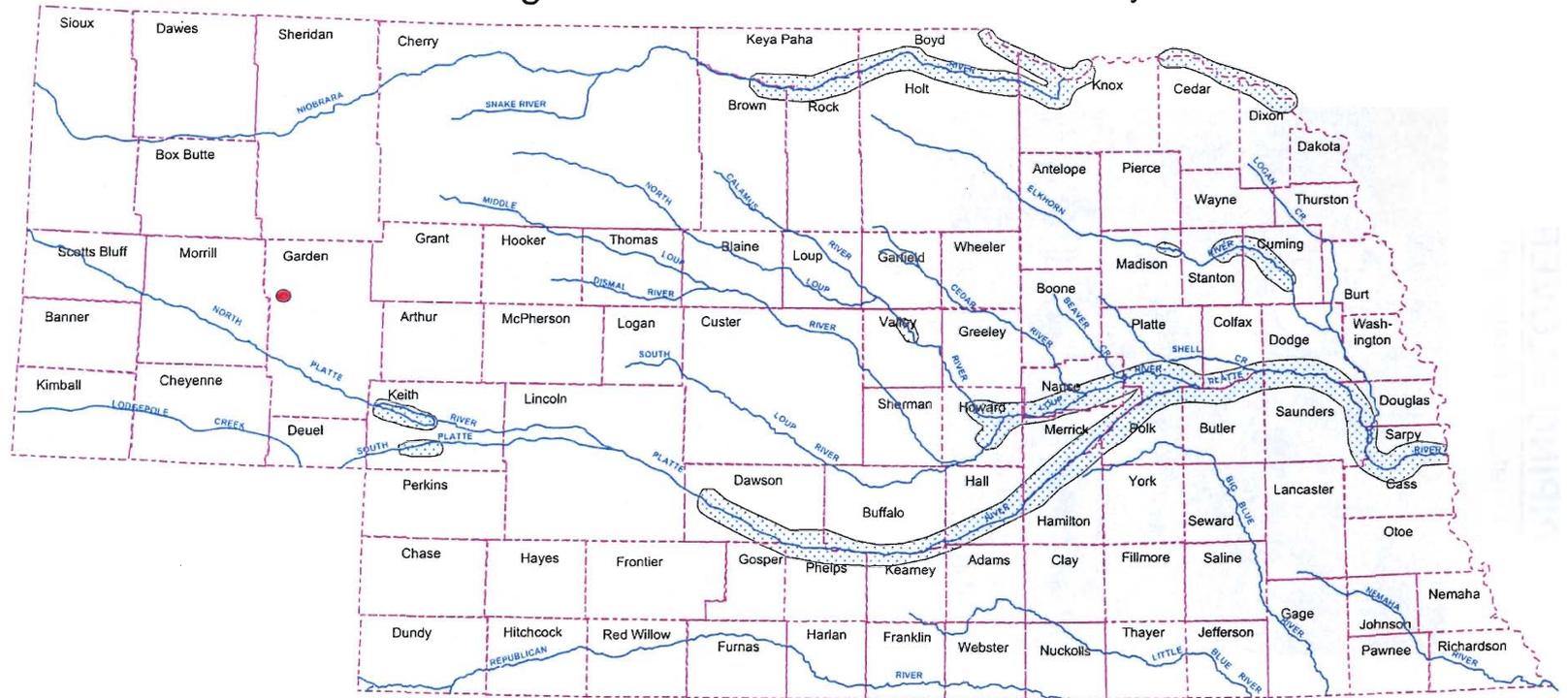
The Piping Plover feeds on small insects, grasshoppers and beetles on the surface of the sand along the shoreline.

Reproduction

Piping Plovers arrive in Nebraska in mid-April and begin nesting in early May, then typically migrate back to their winter ground in mid to late July. These plovers usually lay 4 eggs in a scrape in the sand lined with pebbles.

Interior Least Tern (*Sterna antillarum athalassos*) and **Piping Plover (*Charadrius melodus*)**

Nesting Distribution in Nebraska - February 2002



 PRESENT DISTRIBUTION

 ISOLATED PIPING PLOVER SITE

NE T.G. Notice 522
Section II
NRCS-NOVEMBER 2002

WHOOPING CRANE

(Status: Endangered)

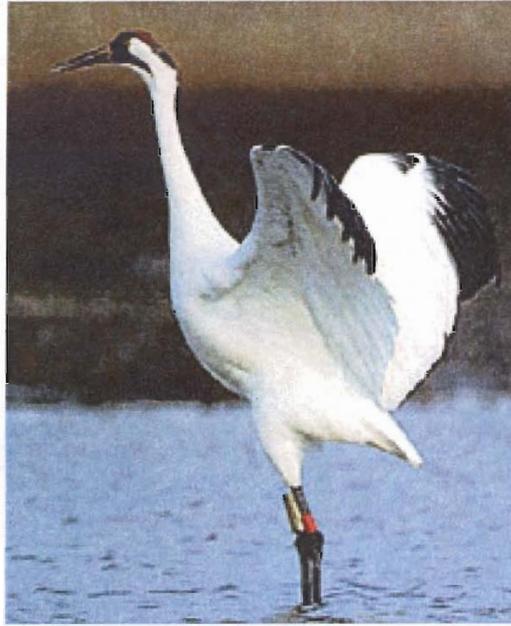


Photo by Rocky Hoffmann, NEBRASKAland Magazine

See attached distribution map.

Description

L 52"(132 cm) W 87"(221 cm). Sexes similar but males are larger. White body with red and black facial markings. Yellow bill and long dark legs. Immature is white with tawny head and neck, and reddish-brown mottling on rest of body.

Habitat

In Nebraska is found along the Platte Valley, with its wide slow moving river and associated sandbars and islands. Nearby wet meadows, croplands, and marshlands are important for foraging. The migration brings them to Nebraska's Platte River valley twice a year, usually in April and October. The likelihood of spotting one of these creatures in Nebraska is small. Big Bend reach of the Platte River boasts the greatest number of spring sightings. In the fall, Rainwater Basin area is a good place to find them.

Food

Cranes eat snails, larval insects, leeches, frogs and other amphibians, minnows and other small fish, small rodents, reptiles, plant matter and berries.

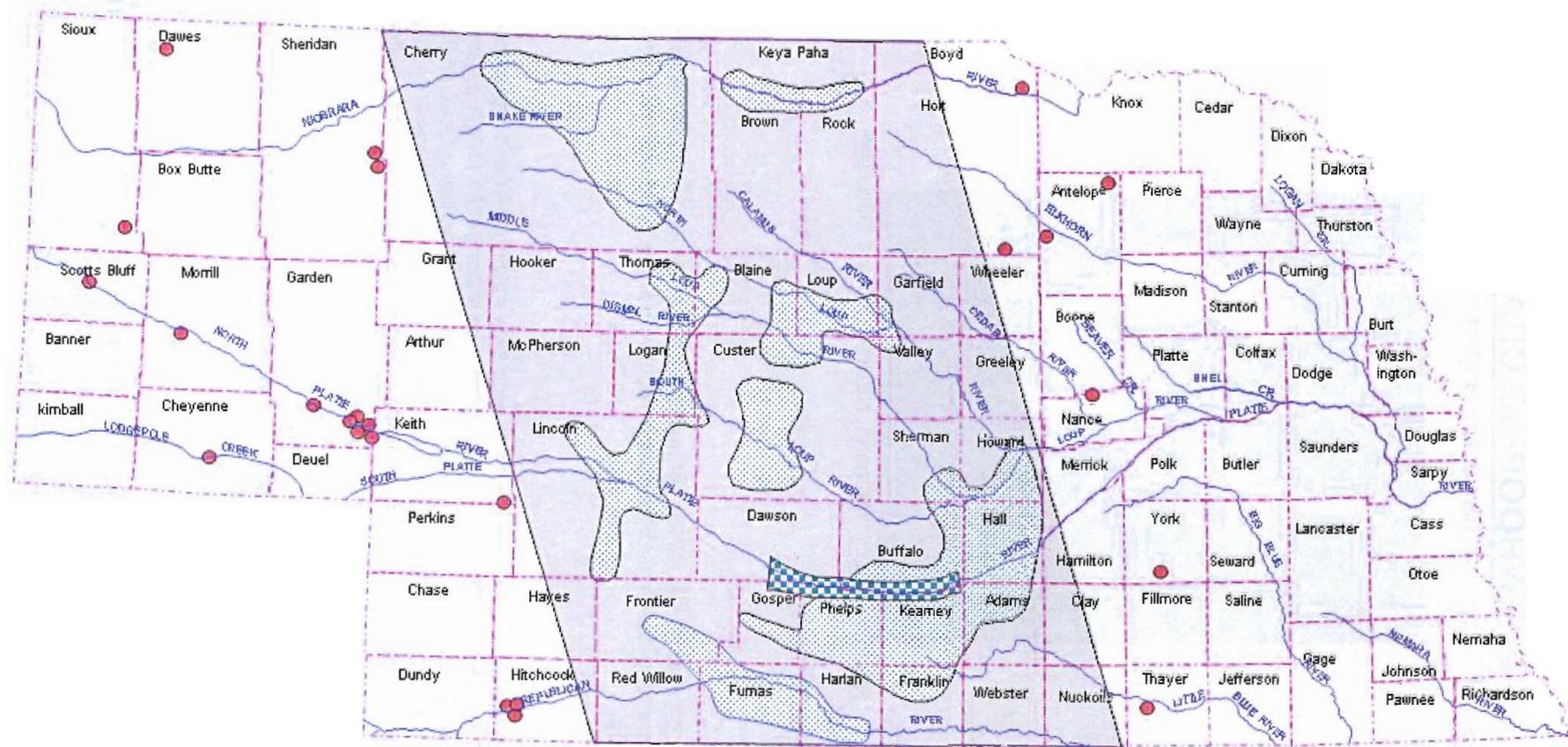
Reproduction

Whooping Cranes mate for life. In early spring, adults display elaborate courtship rituals, bobbing, weaving, jumping and calling with their mates. The female lays two large eggs and both adults incubate them for the next month. The eggs hatch at different times and the second chick is often pushed out of the nest or starved. Chicks can swim as soon as they hatch. They fledge within 80-90 days. The lifespan of a Whooping Crane is up to 24 years in the wild.

Whooping Crane (*Grus americana*)

Migration Distribution in Nebraska

July 2001



-  PRIMARY USE AREAS DURING MIGRATION
-  CRITICAL HABITAT
-  80% OF CONFIRMED SIGHTINGS AND PRIMARY MIGRATION CORRIDOR
-  ISOLATED SIGHTINGS

WESTERN MASSASAUGA RATTLE SNAKE

(Status: Threatened)



Photo by Creative Photo Art

See attached distribution map.

Description

This is a small rattlesnake, about 20-30 inches long, with dark, somewhat round, blotches down the back and other smaller and less distinct blotches on the sides. The ground color is light gray or tan-gray and the belly light with brown or black mottling. The head has nine large scales on top, unlike other rattlesnakes that have many smaller scales on top of the head.

Habitat

Massasaugas are found in prairie areas, often in marshy sites or on rock outcroppings. The name massasauga is a Native American term meaning "swamp dweller", referring to its use of marshy or wet habitat areas. These snakes may remain silent and try to retreat when approached, but if aroused or picked up, they are quick to bite.

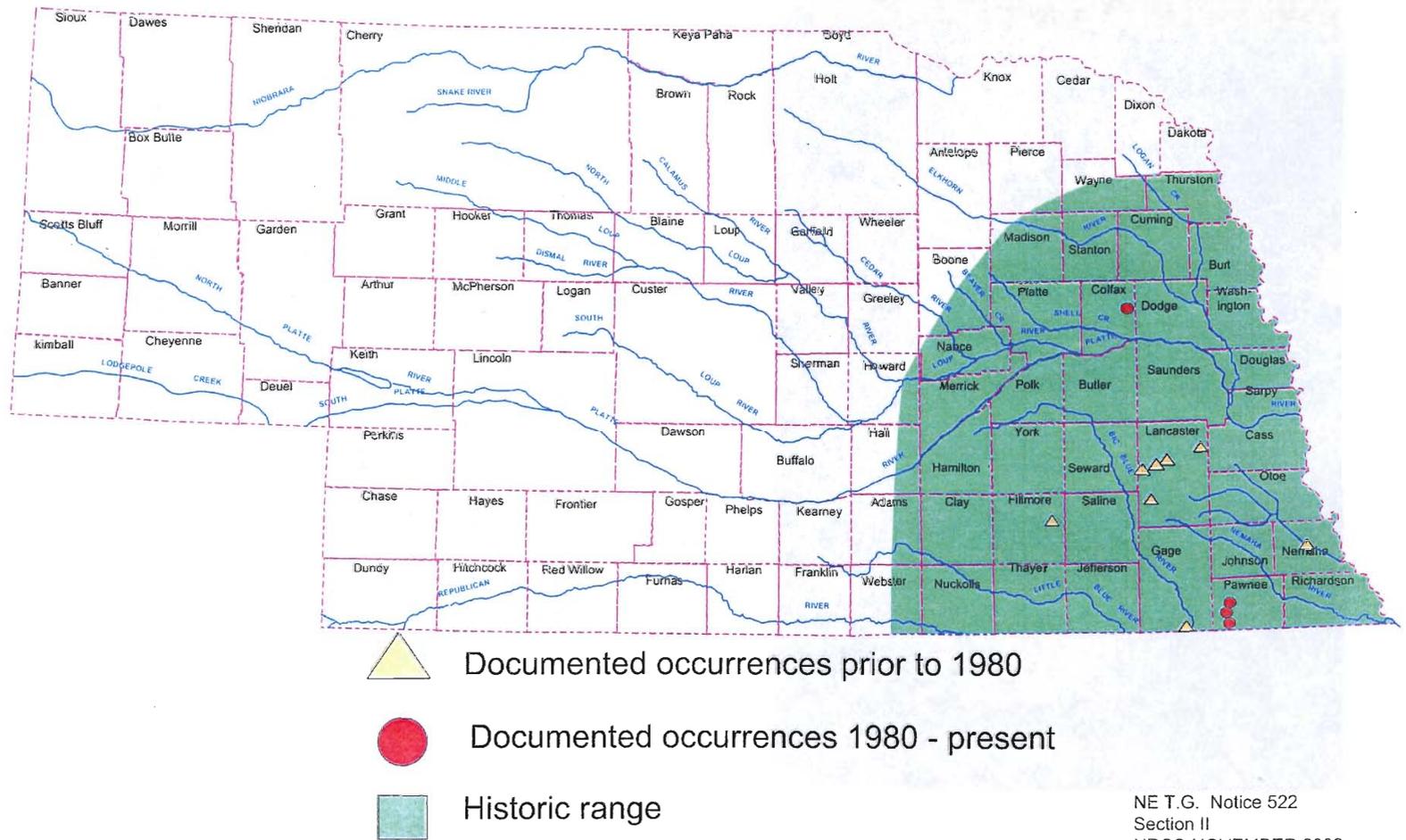
Food

These snakes feed mostly on small mammals, but will eat snakes, lizards, amphibians and some small birds.

Reproduction

Massasauga begin breeding by the third year. Breeding generally occurs in the spring with birth occurring in early fall. They may not breed every year. Females give birth to between five and 24 young, each about as long as a pencil.

Massasauga (*Sistrus catenatus*) Distribution in Nebraska - February 2002



COLORADO BUTTERFLY PLANT

(Status: Endangered)



Photo courtesy of US Fish & Wildlife Service

See attached distribution map.

Description

Two to Three foot tall plant with reddish, fuzzy stems and flowers that turn from white to red with age. The fruits of this plant are hard and nut-like in appearance.

Habitat

Colorado Butterfly plants are limited to approximately 1700 acres of habitat centered in Laramie County, WY, with scattered populations in western Kimball County, NE. They are found in sub-irrigated, alluvial soils on level or slightly sloping floodplains and drainage bottoms, also found in old abandoned stream channels with a high water table. Colonies are often found in low depressions or along bends in wide meandering stream channels.

Flowering Season

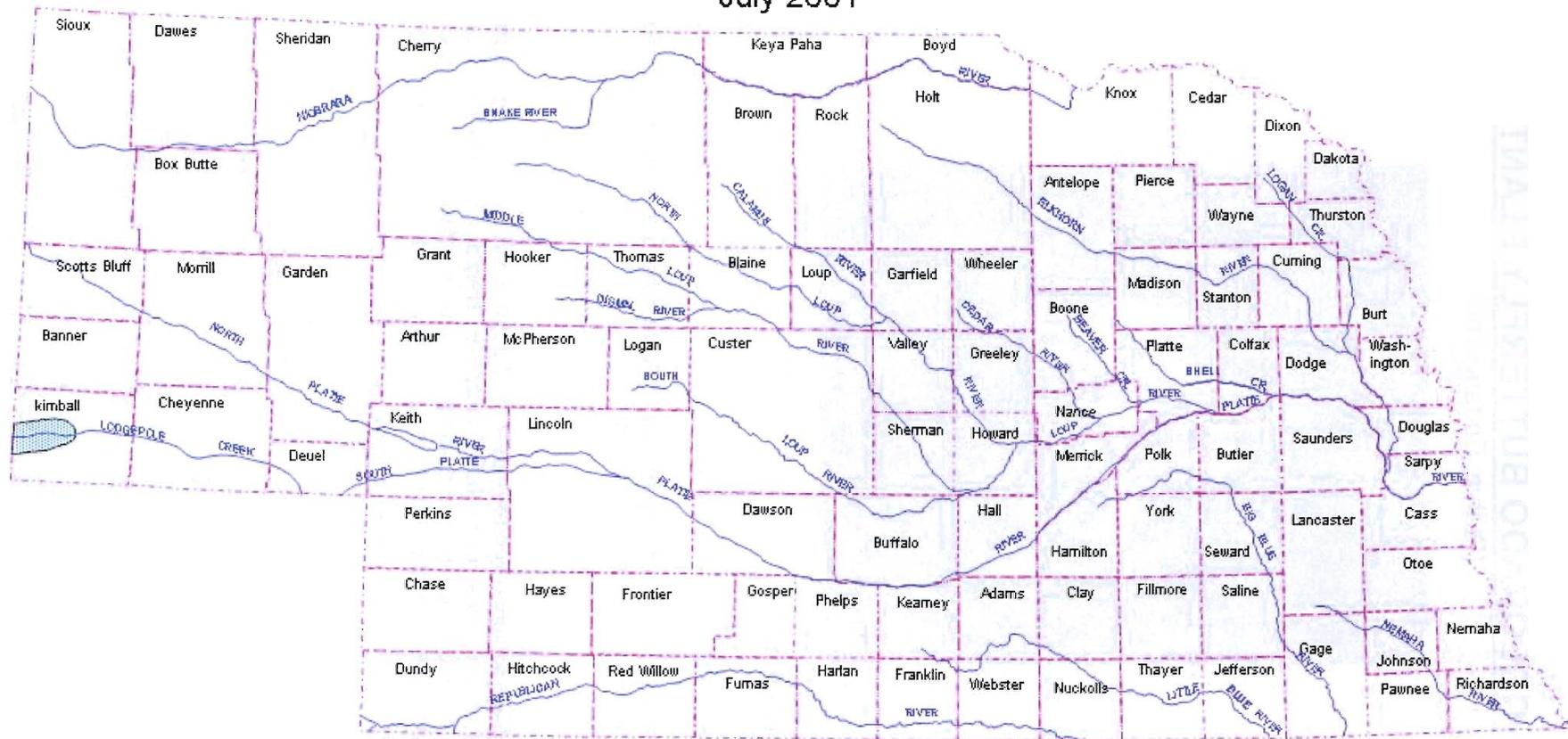
This plant flowers from June to September.

Colorado Butterfly Plant

(*Gaura neomexicana* ssp *coloradensis*)

Distribution in Nebraska

July 2001



PRESENT DISTRIBUTION

GINSENG

(Status: Threatened)



Photo courtesy of *Virginia's Endangered Species*

See attached distribution map.

Description

American ginseng grows to about 20 inches in height at maturity and has 1 to 5 compound leaves emanating from a stalk. Its glossy-green leaves and stalk arise from an underground root in late spring.

Habitat

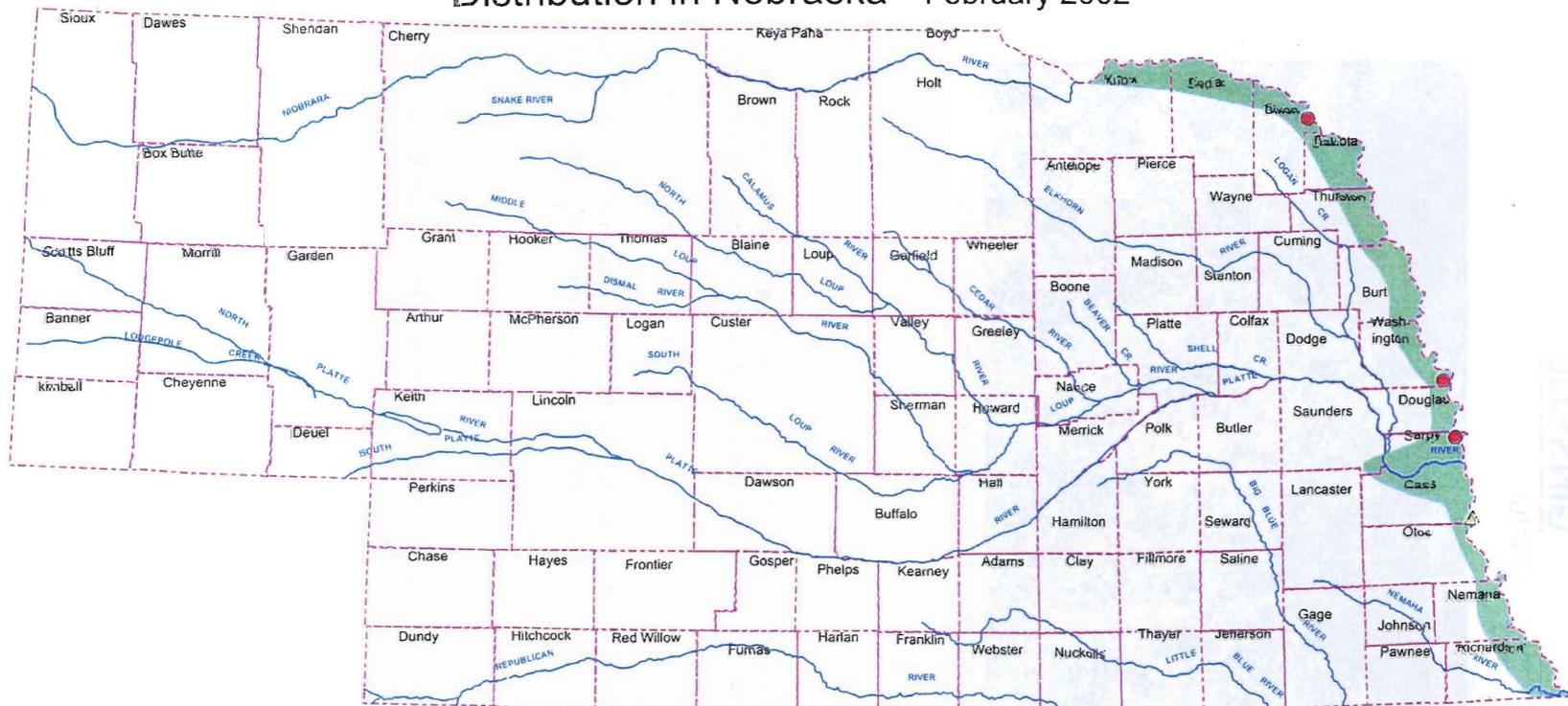
American Ginseng primarily inhabits rich, mixed hardwood forests, often on slopes, over a limestone or marble parent material. The species requires adequate moisture (but not wet hollows or swamps) and a closed canopy.

Flowering Season

About mid-June, most plants over three years produce a cluster of tiny white flowers in the center of the whorl of leaves. The flowers produce a hard-seeded fruit, which turns a distinctive red in the fall.

American Ginseng (*Panax quinquefolium*)

Distribution in Nebraska - February 2002



Documented occurrences prior to 1980



Documented occurrences 1980 - present



Historic range

NE T.G. Notice 522
Section II
NRCS-NOVEMBER 2002

HAYDEN'S BLOWOUT PENSTEMON

(Status: Endangered)



Image found at www.environmentaltrust.org

See attached distribution map.

Description

Native perennial, 10-30 inches tall; often found in multi-stemmed clumps. Leaves have a slight waxy bloom and are smooth edged. Flowers are densely grouped in clusters at the top of a stem; each cluster of 4-6 flowers rising opposite on the stem. Flowers are tubular, flaring into a 2-lobed upper lip and a 3-lobed lower lip; pink to a milky blue with darker nectar lines. Strongly fragrant flowers. This plant is unique in that it is only found in Nebraska's Sandhills with a very small population residing in eastern Wyoming.

Habitat

This plant is restricted to blowouts or depressions created in the sand of Nebraska by wind erosion.

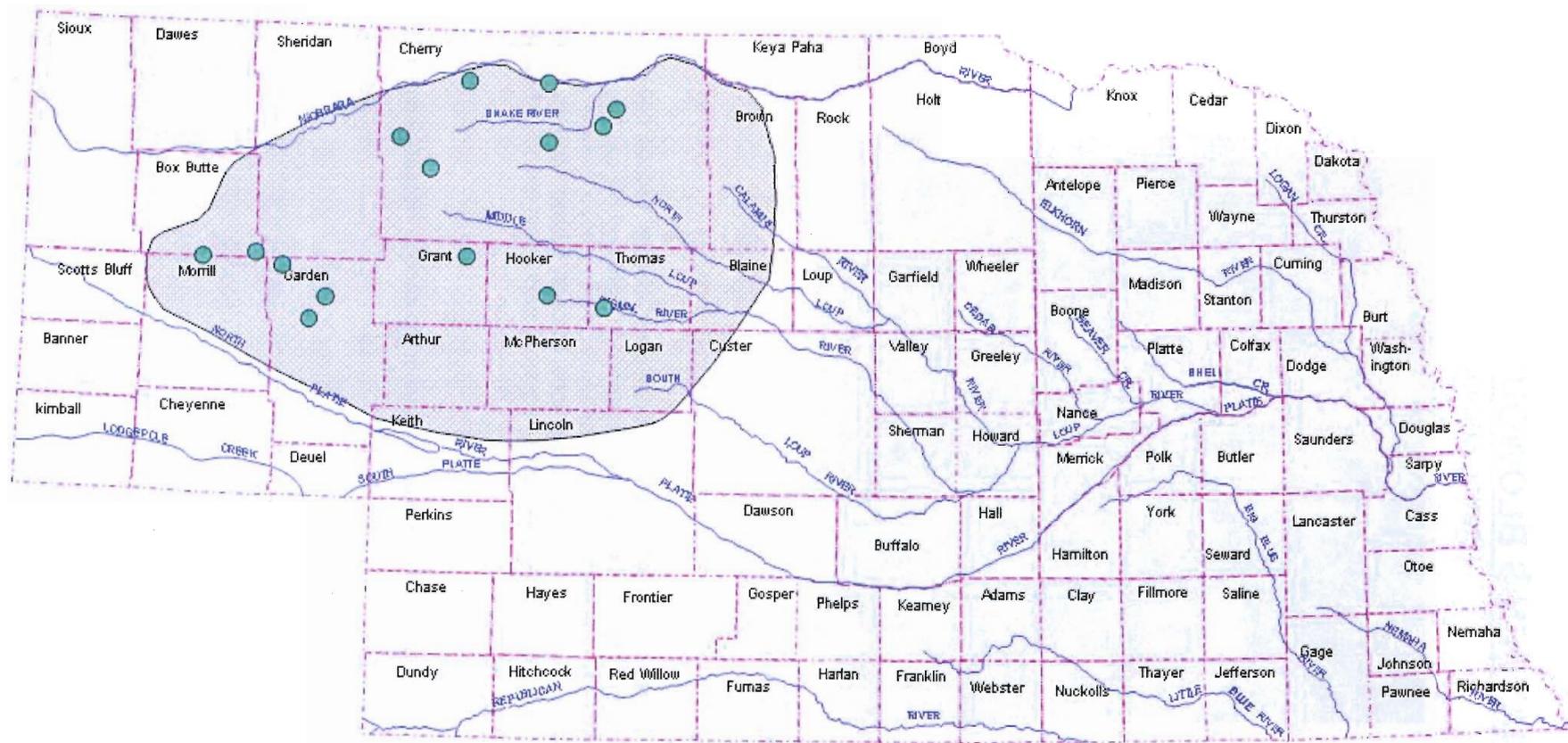
Flowering Period

This plant flowers in late May to mid-June.

Blowout Penstemon (*Penstemon haydenii*)

Distribution in Nebraska

July 2001



-  KNOWN POPULATIONS
-  POTENTIAL HABITAT

SALTWORT
(Status: Endangered)



Photo by Bob Moseley, USDA NRCS. 1992

See attached distribution map.

Description

Red saltwort can be recognized by its fleshy, smooth, usually red habit and oppositely branched, jointed stems. The leaves are minute and scale-like with numerous terminal spikes of inconspicuous flowers.

Habitat

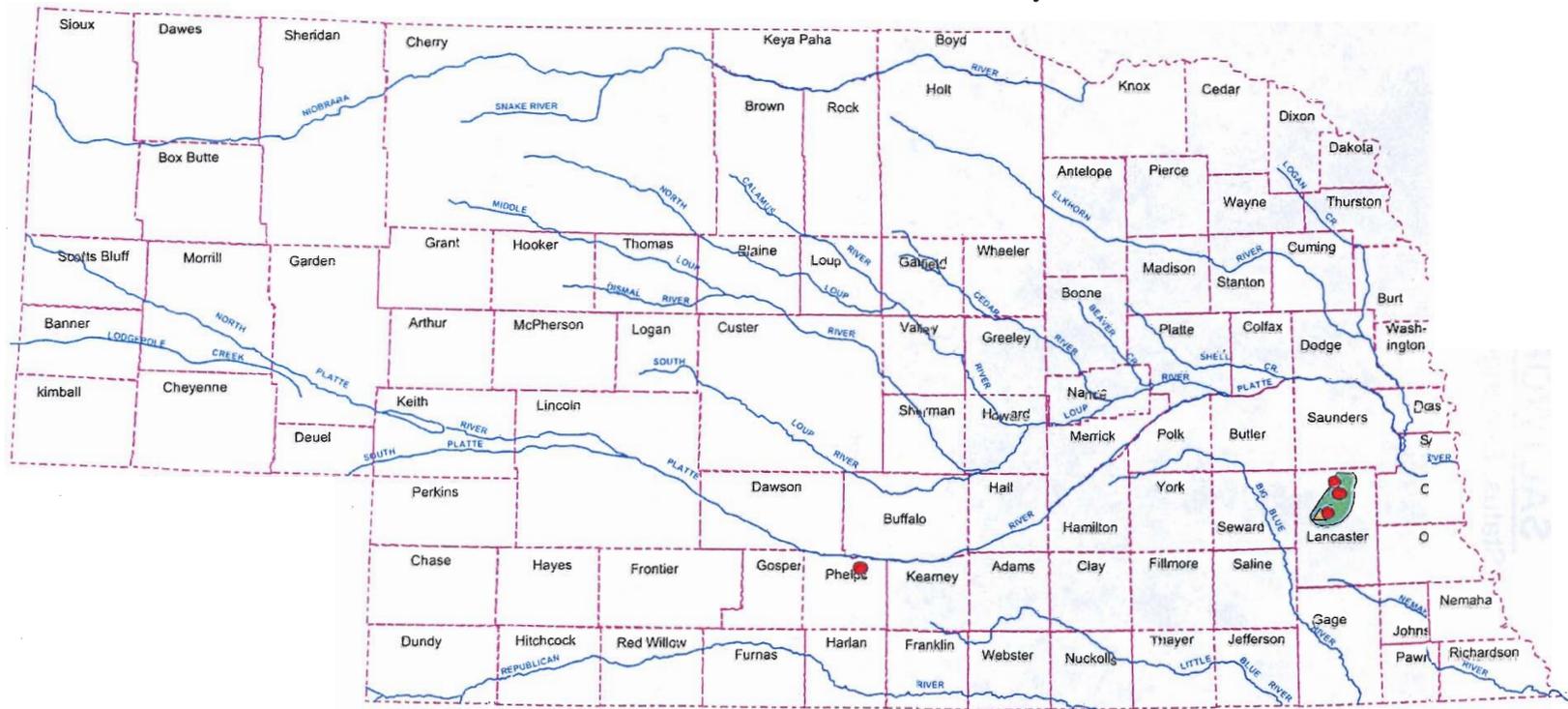
This plant is only found in moist, saline or alkaline soil of flats, shores, seepage areas and ditches.

Flowering Season

Saltwort flowers in late June through July.

Saltwort (*Salicornia rubra*)

Distribution in Nebraska - February 2002



Documented occurrences prior to 1980



Documented occurrences 1980 - present



Historic range

NE T.G. Notice 2
Section II
NRCS-NOVEMR 2002

SMALL WHITE LADY'S SLIPPER

(Status: Threatened)



See attached distribution map.

Description

4 - 10" tall with 1 - 3 flowers per stem, 1 - 2" in width. Pouch white with lavender inside, sepals purple. Leaves robust, lance shaped.

Habitat

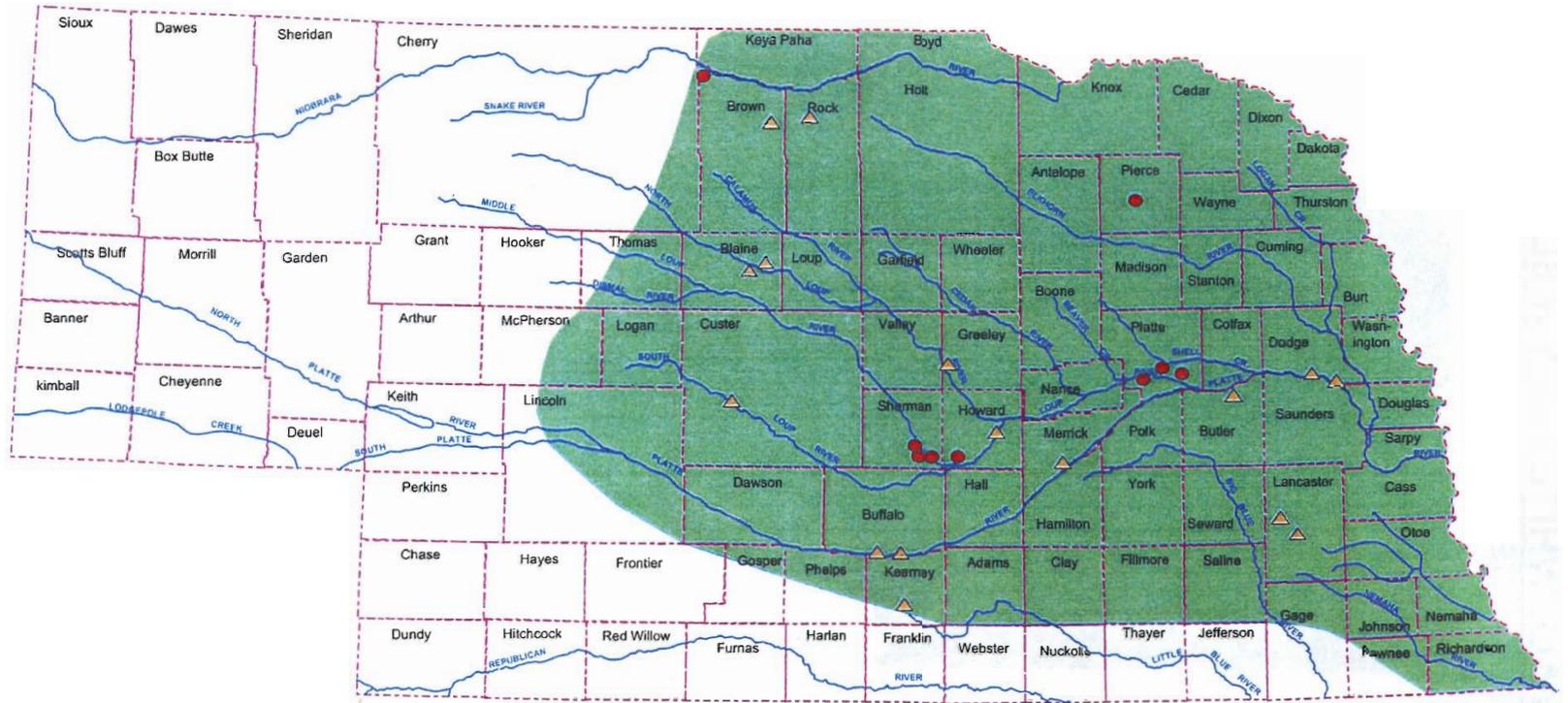
Today, the Small White Lady's Slipper is found in prairie openings, wooded grasslands, marshy areas and calcareous sandy loam soil with southern exposure. Additional research is needed to fully understand this species needs and requirements.

Flowering Season

This plant blooms at the end of May and early June.

Small White Lady's Slipper (*Cypripedium candidum*)

Distribution in Nebraska - February 2002



Documented occurrences prior to 1980



Documented occurrences 1980 - present



Historic range

NE T.G. Notice 522
Section II
NRCS-NOVEMBER 2002

UTE LADY'S TRESSES

(Status: Threatened)



See attached distribution map.

Description

Ute-ladies'-tresses orchid is a perennial, terrestrial orchid with stems 20 to 50 centimeters (8 to 20 inches) tall, arising from thickened roots. Its narrow leaves can reach 28 cm (11 in) long. Basal leaves are the longest and become reduced in size up the stem. The flowering stalk consists of few to many small white or ivory flowers clustered into a spike arrangement at the top of the stem.

Habitat

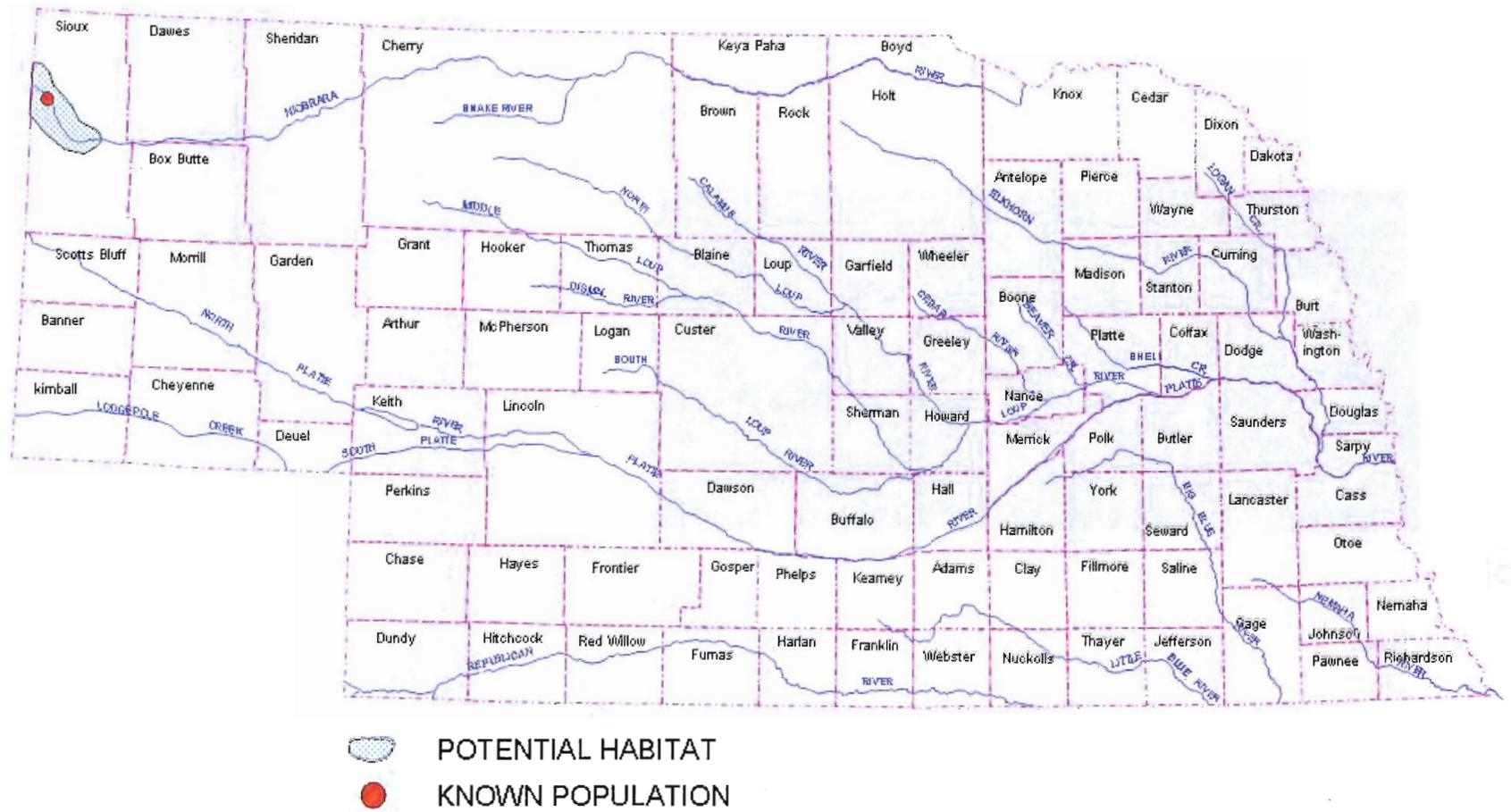
The Ute's Lady's Tresses grow in moist soils on primary or secondary flood plains of rivers or wet, open meadows and springs. As the Ute Lady's Tresses only provide nectar to pollinators, other flowering plants must be present in the vicinity to attract pollinators and meet pollinator needs.

Flowering Season

It blooms, generally, from late July through August.

UTE Ladies' - tresses (*Spiranthes diluvialis*) Distribution in Nebraska

July 2001



WESTERN PRAIRIE FRINGED ORCHID

(Status: Threatened)



Photo by Steve Duecker, NDOR

See attached distribution map.

Description

The Western prairie fringed orchid is a single-stemmed plant with up to 25 white showy flowers. It may grow to nearly four feet tall, but is generally shorter. The white flowers have lower petals which are deeply three-lobed and fringed. Flowers may be up to one and one-half inches in the western prairie fringed orchid.

Habitat

The Western prairie fringed orchid occurs in moist to wet native prairie areas. These include prairie remnants along roads and railroad rights-of-way. This plant is found in the eastern two-thirds of Nebraska, from the Missouri River in the east, to Cherry and Keith counties in the west. Typically, the Orchid is found in moist tall grass prairies and sedge meadows.

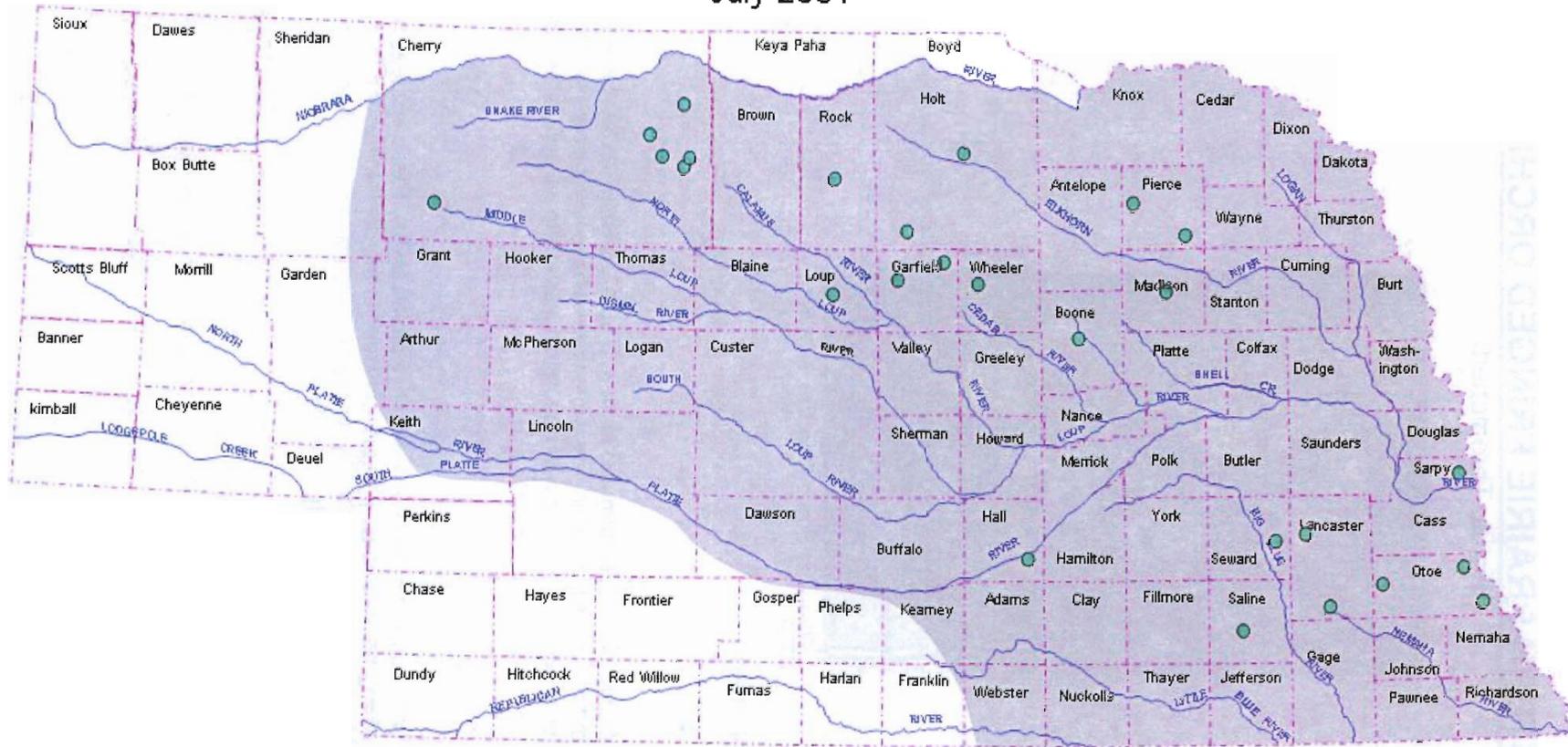
Flowering Season

This orchid blooms almost exclusively in the last week of June to the first two weeks of July in Nebraska.

Western Prairie-fringed Orchid (*Platanthera praeclara*)

Distribution in Nebraska

July 2001



-  POTENTIAL HABITAT
-  KNOWN POPULATIONS

SCALESHELL MUSSEL

(Status: Endangered)



Photo courtesy of US Fish and Wildlife Service

See attached distribution map.

Description

The scaleshell is a relatively small freshwater mussel with a thin, fragile shell and faint green rays. It grows to about one to four inches in length. The inside of the shell is pinkish white or light purple and highly iridescent. The scaleshell gets its name from the scaly appearance of the shell, which is only seen in females.

Habitat

Scaleshell live in medium-sized and large rivers with stable channels and good water quality. They bury themselves in sand and gravel on the bottom with only the edge of their partially-opened shells exposed.

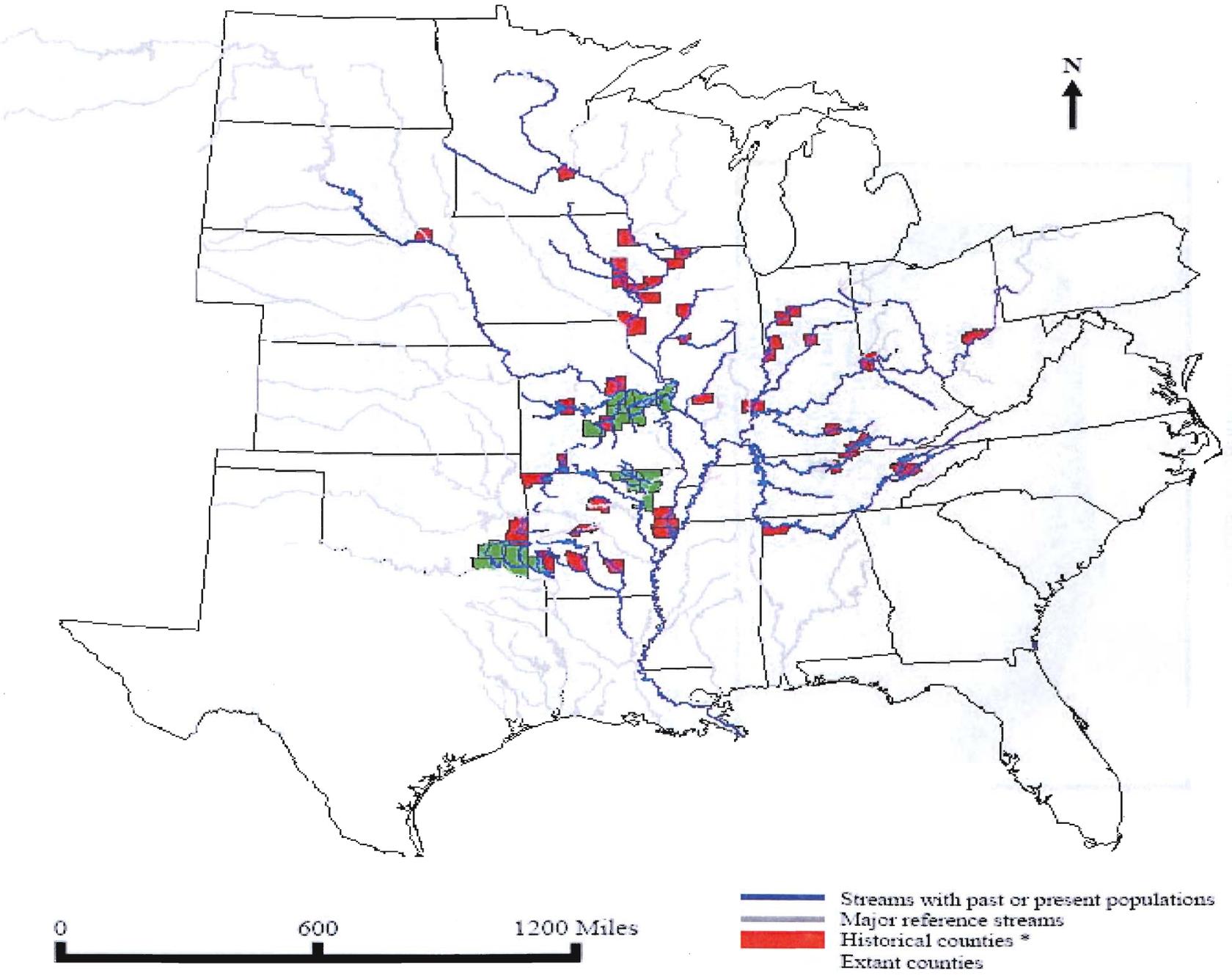
Food

As river currents flow over them, they siphon particles out of the water for food such as plant debris, plankton, and other microorganisms.

Reproduction

The life cycle of the scaleshell, like most freshwater mussels, is unusual and complex. Their eggs develop into microscopic larvae (glochidia) within the gills of the female. The female discharges its glochidia into the river where they must attach to gills or fins of a fish to continue developing. Each mussel species has specific fish species (host fish) that are needed by the glochidia to develop. It appears that scaleshell be other species. Glochidia continue growing on the fish and transform into juveniles. After a few weeks, they drop off, land on the river bottom, and continue maturing into adults.

SCALE SHELL MUSSEL DISTRIBUTION



CONTACT INFORMATION

Nebraska Chapter—Associated General Contractors

Curt Beck
635 South 14th Street, Suite 125
Lincoln, NE 68508
Phone: (402) 435-4355
Fax: (402) 435-4356
Web: www.agcne.org

Nebraska Department of Roads

Cindy Veys
1500 Highway 2, Box 94759
Lincoln, NE 68509
Phone: (402) 471-4567
Fax: (402) 479-4325
Web: www.dor.state.ne.us

US Fish & Wildlife Service

Bob Harms/Steve Anschutz
8200 Cody Dr. # H
Lincoln, NE 68512
Phone: (402) 423-0062
Web: www.fws.gov/

Nebraska Game and Parks Commission

Kristal Stoner
2200 North 33rd Street
Lincoln, NE 68503
Phone: (402) 471-0641
Web: www.ngpc.state.ne.us/

Federal Highway Administration

Bill Brownell/Ed Kosola
100 Centennial Mall N # 220
Lincoln, NE 68508
Phone: (402) 437-5765
Web: www.fhwa.dot.gov/nediv/index.htm