

MANAGING
YOUR
LAND
FOR
**SHARP-TAILED
GROUSE**



Department of Natural Resources
Section of Wildlife
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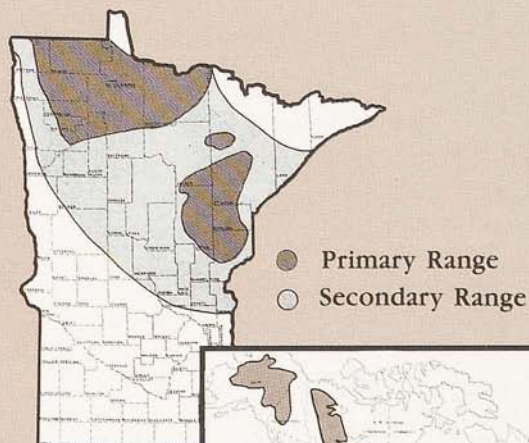
Reinvest in Minnesota

Managing Your Land for Sharp-tailed Grouse

Sharptail grouse were once one of Minnesota's most abundant and popular game birds. Unfortunately due to changes in sharptail habitat, their numbers have declined dramatically. But, if you own a tract of land surrounded by a large expanse of old fields, brush or open bog that supports or was once inhabited by sharp-tailed grouse, you can improve your property for this unique game bird. By actively managing your land to maintain and improve open grass and brushland habitat, the sight and sound of sharp-tails dancing and hooting each spring will remain a part of Minnesota's landscape.

The sharptail has narrow habitat requirements that include a complex of expansive, open grass and brushlands at least two-square miles in size. Natural succession has claimed most of the once open natural brushlands and homestead areas of Minnesota. The mosaic of farms, grass and brush have given way to tall, old brush and forest. In the past, wildfire maintained these open brushlands. Today, due to the absence of fire, large-scale land clearing for agriculture and reforestation within this habitat, sharptail populations have declined. Hunters annually harvested over 100,000 of these native game birds in the 1940s, but loss of habitat has reduced the harvest to 5,000-10,000 in recent years.

Sharp-tailed grouse are so named because the main tail feathers form a sharp V.



In Minnesota sharptails occur in scattered populations throughout much of the Primary Range and in very widely scattered areas of the Secondary Range.



Sharp-tailed grouse range in North America.

Habitat

Habitat for sharp-tailed grouse is open grass and brushland such as natural meadows, open bogs, abandoned farm clearings, and inactive commercial rice paddies. Sharptails do not tolerate tall trees, particularly evergreens. If trees grow over 25-feet tall within $\frac{1}{2}$ mile of a dancing ground (or "lek"), the habitat likely will be abandoned. This tree cover inhibits the bird's ability to see and escape hawks and owls. The brushlands around the lek satisfies the sharptail's needs for shelter, nesting cover, and food.

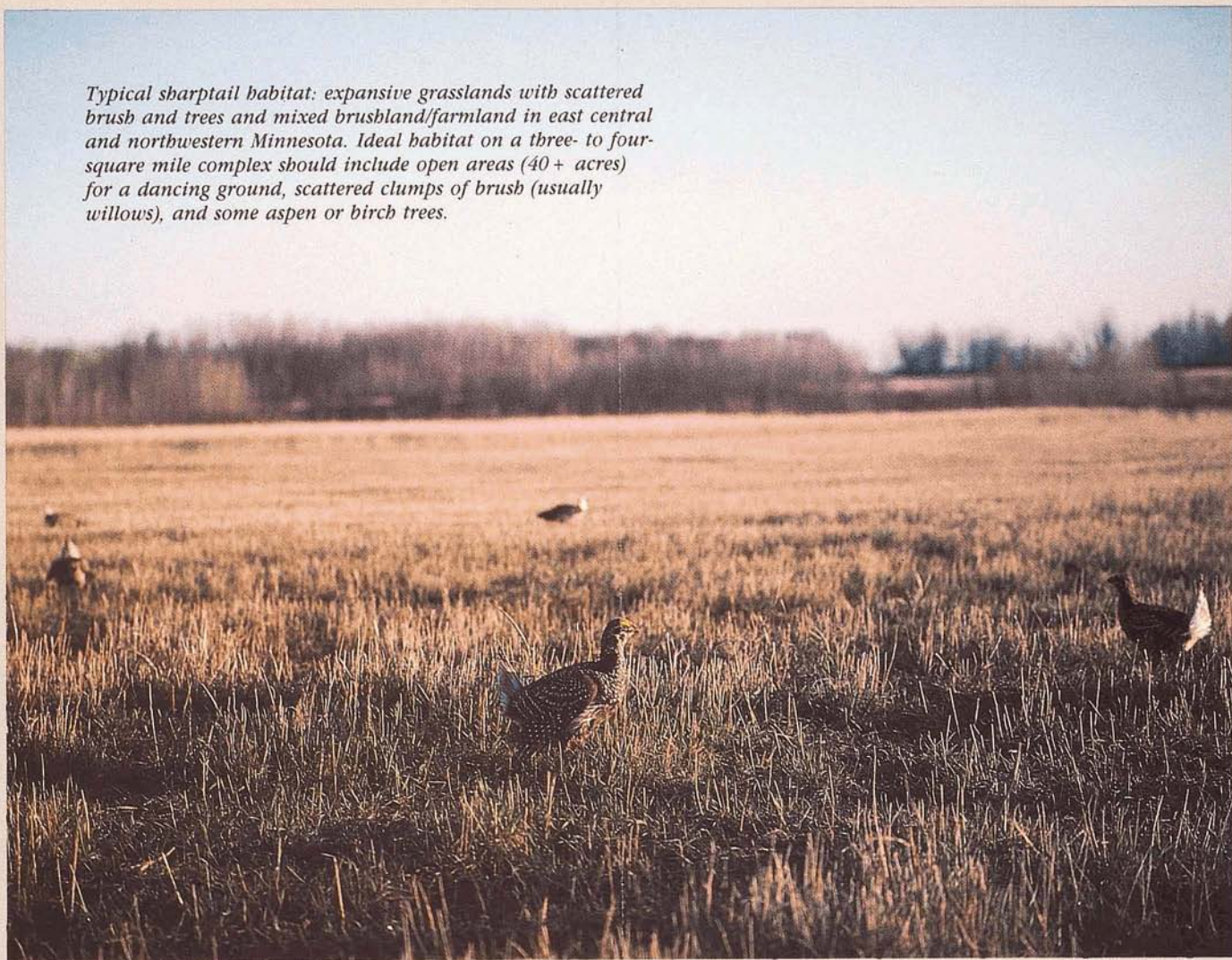
Good sharptail habitat also supports deer, moose, muskrats, mink, sandhill cranes, short-eared owls, waterfowl, and many other wildlife species. Once tall woody

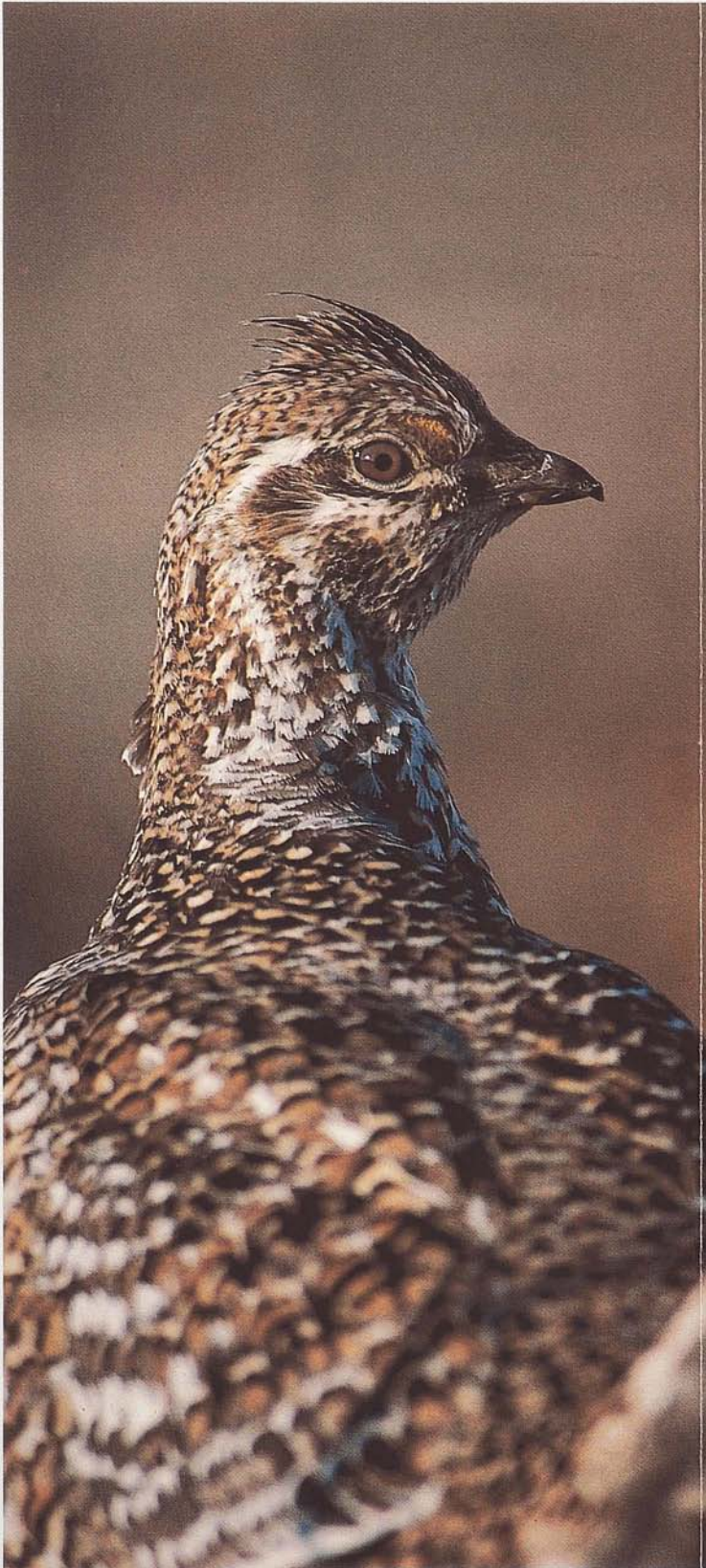
vegetation becomes established, the habitat deteriorates.

Sharp-tailed grouse habitat needs to be managed every 5-10 years to keep it in the open, early successional stage. The open nature of sharp-tailed grouse habitat is the most important feature and should include:

- A large open treeless area for the dancing ground (lek)
- Brush for cover and nesting habitat
- Seeds and berry-producing plants which also harbor insects for food
- Scattered clumps of aspen or birch for winter food (buds).

Typical sharptail habitat: expansive grasslands with scattered brush and trees and mixed brushland/farmland in east central and northwestern Minnesota. Ideal habitat on a three- to four-square mile complex should include open areas (40+ acres) for a dancing ground, scattered clumps of brush (usually willows), and some aspen or birch trees.





Food & Cover

Sharptails feed before sunrise and at sunset, and often travel one to three miles a day. The various shrubs that comprise brushlands provide both cover and food resources. In the summer, both adult and young sharp-tails eat insects and fruit. In the fall they forage on seeds, small grains and fruits, such as cherries, blueberries and cranberries. In agricultural areas, fall offers small grain foods such as oats, flax, wheat and barley. During winter, sharptails feed on buds of aspen and paper birch, and on catkin-bearing shrubs. Unharvested corn and sunflowers also provide an important winter food.

Dancing for a Mate

Each spring, males perform a courtship display on a dancing ground or lek to attract hens for mating. Leks are open areas under an acre in size and may be located on a small rise. Leks are seldom located closer than 200 yards to brush or trees that are over four-feet tall.

Cooing, cackling and chuckling sounds are made as the males stamp their feet, inflate their purplish neck sacks, leap into the air, and charge and fight each other as they try to establish dominance. Sharptails dance from March through May with the peak activity in April. Hens are attracted to the leks, to mate, and begin nesting in April.

About 45 minutes before sunrise and continuing for up to three hours, the males will dance to attract the hens . . . a display of foot stomping, strutting and running with wings outstretched and tail held high, accompanied by cooing and cackling sounds. Occasionally males will dance in the evenings or during the fall.



Nesting

After breeding, hens select a nest site within ½ mile of the lek in an elevated site of dense grass or low brush. She will lay about a dozen eggs. Chicks are able to fly after ten days and become increasingly independent of their mother. During their first few weeks, chicks feed on insects before switching to a bud, berry, and seed diet in the fall. Typically about one-half of the brood survives until fall.

Fall Habitat

In agricultural areas, sharptails congregate in flocks and feed in grain fields adjacent to their summer habitat. When small grains are not available, they survive on buds and catkins of aspen, bog birch, shrubs, and the fruit of mountain ash, sumac, juniper and chokecherry trees.

Winter Habitat

The sharp-tailed grouse spends most of the winter under the snow to conserve energy and avoid predators. Snow roosts are scratched out in dense marsh or swamp vegetation, or in open stands of tamarack or spruce. The availability of grain or native food sources such as fruiting shrubs or deciduous trees is an important component of winter habitat.

Managing for Sharp-tailed Grouse

This upland game bird thrives in large, open grass and brushland that is periodically burned or disturbed by other methods. Most wild areas such as marshes, grassland and brushland that historically supported sharptails can be restored and maintained by prescribed burning, shearing, or mowing every five to ten years, depending on the amount of woody growth. The bird's preference for burned areas earned it the name "firebird" from Native Americans.

Food Plots

A grain food plot will allow sharptails to enter the critical winter period in prime physical condition. One to two acres of corn, sunflowers, or small grains such as wheat, oats, flax, barley or buckwheat; or red, white or alsike clover are recommended. These plots should be at least

100 yards from trees over 15- to 20-feet tall. Never plant a food plot for sharptails near evergreens because it makes them vulnerable to hawks and owls.



Management Suggestions

Sharptail populations respond well to habitat management practices that reverse natural forest succession. Follow these techniques to encourage sharptail populations:

1. Don't plant evergreens within $\frac{1}{2}$ mile of dancing grounds.
2. Maintain existing marshes, grassland and brush areas.
3. Cut old brush by dozing or hand cutting.
4. Delay mowing of roadsides and hayfields until after the nesting period (August 1).
5. Periodically conduct controlled burning of brushland in the spring or fall. Consult DNR for advice and to obtain the necessary burning permits. Prepare adequate firebreaks.
6. Light to moderate grazing benefits sharptails by helping control natural succession and maintain the desired openness.
7. Leave or plant small grain food plots for winter food.
8. Remove tall trees near food plots and leks.
9. Encourage your neighbors to manage their open lands for sharptails.

At sunrise in the spring, listen for the cooing and cackling sounds of the sharptail. Look for an open area with bird droppings and feathers and you will have located the sharptails' lek. Place an observation blind near the lek and delight in the colorful dance of the male sharptail. All of these are wildlife experiences that will be thrilling for you and your family. Since areas that support sharptails are disappearing, landowners that manage sharptail habitat for observation and hunting should feel a real sense of accomplishment.



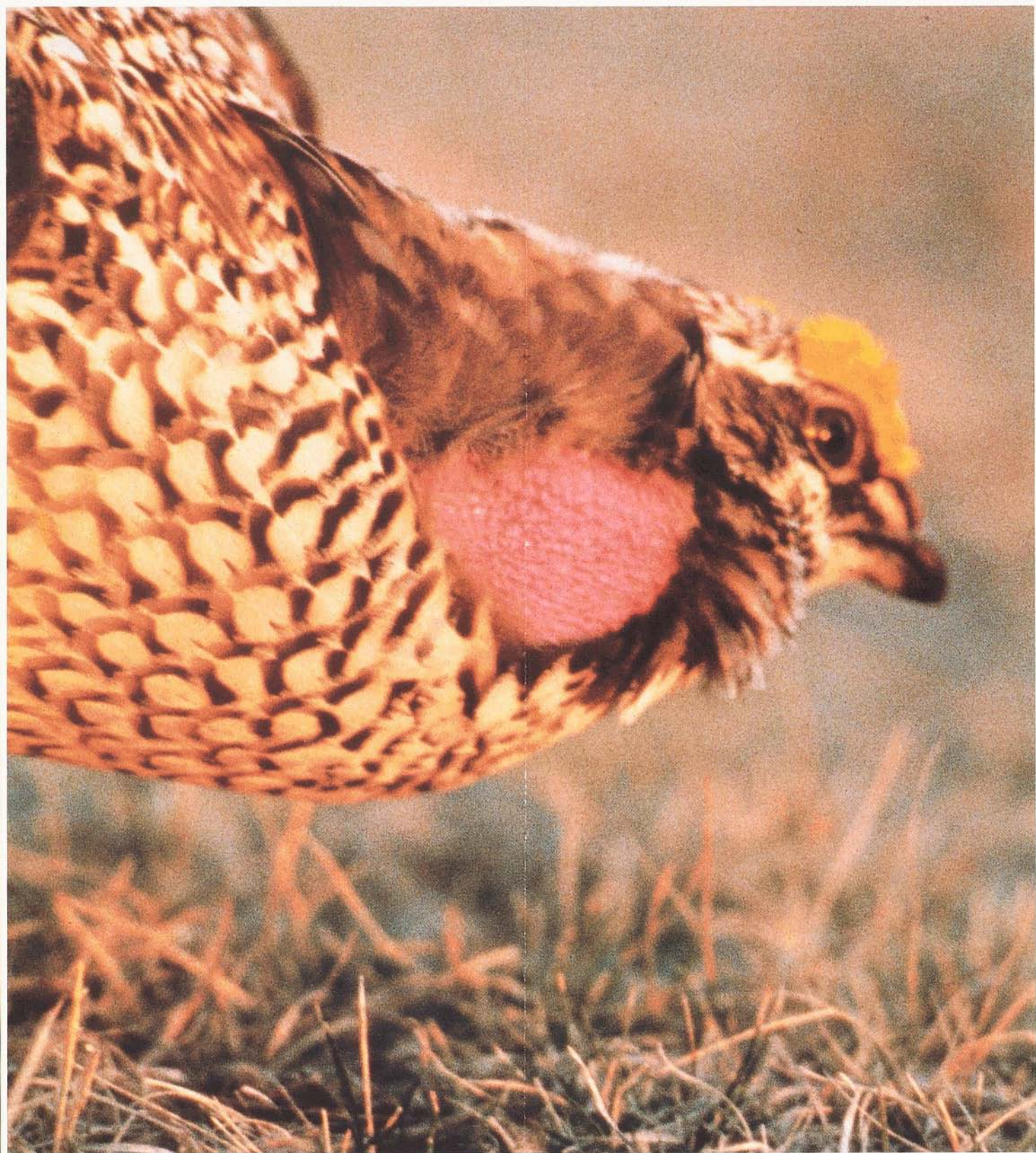
Shearing brush in the winter with a bulldozer is an option for sharptail habitat maintenance where fire cannot be used because of poor fuels or bazardous burning conditions. Keep fields open and manage fallow farmlands to maintain low brush and grasses.



Burning often is the best technique for maintaining large areas of brush for sharp-tailed grouse. Contact the DNR for advice and required permits.



Typical winter sharptail habitat.



Management Resources

For more information:

Through the Private Forest Management (PFM) Program, the Department of Natural Resources can help you take an inventory of your property and develop a plan for multiple use management, including wildlife habitat, timber stand improvement, timber harvesting and recreation. The PFM Program provides technical advice and assistance in state and federal cost-share programs for landowner participants. Contact your local DNR Wildlife Manager or District Forester for help in preparing a Private Forest Management plan.

For more information, contact your Regional DNR Office for the name and location of the Area Wildlife Manager or Forester for your area.

Credits

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