

## **Context:**

Great Plains: Ecological "disturbance"







**Context:** Great Plains

PHE

## LOCUST PLAGUE

IN THE

UNITED STATES:

BEING MORE PARTICULARLY A TREATISE ON THE

Bocky Mountain Locust

OR SO CALLED

GRASSHOPPER,

AS IT OCCURS EAST OF THE ROCKY MOUNTAINS.

MITTE

Practical Recommendations for its Destruction.

CHARLES V. RILEY, M.A., Ph. D.,

STATE ENTOMOLOGIST OF MISSOURI; CHIEF OF THE U.S. ENTOMOLOGICAL COMMISSION: LECTURER ON ENTOMOLOGY IN VARIOUS COLLEGES; AUTHOR OF "FOTATO PESTS," ETC.

WITH 45 ILLUSTRATIONS.

BAND, McNALLY & CO., PUBLISHERS.

1877.



## **Context:**Great Plains

The carving up of the sea of grass into tiny parcels has profound implications for all life.

Rate of loss **continues** today

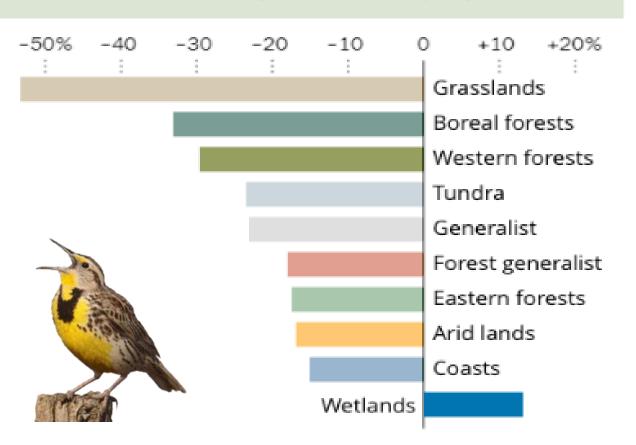
#### Ecosystem loss:

- Tall-grass prairie >99% lost
- Mixed-grass ~75 90% lost

once converted, full function almost irreparable!



#### NORTH AMERICAN BIRD POPULATION CHANGE BY BREEDING HABITAT SINCE 1970



1/4 of 3 billion birds lost = grassland birds

e.g. in Canadian law, 23% of all birds listed = grassland birds

**Context:** Great Plains





## **PARTNERS**

American Bird Conservancy | American Wind & Wildlife Institute | Audubon Rockies | Bird Conservancy of the Rockies

Blackfeet Nation | Canadian Wildlife Service | Colorado Parks and Wildlife | CONABIO | Conoco Phillips

Kansas State University | Montana Fish Wildlife and Parks | National Fish and Wildlife Foundation

National Wildlife Federation | Natural Resources Conservation Service | North Dakota Natural Resource Trust

NRCS South Dakota | Oaks & Prairies Joint Venture | Partners for Conservation | Government of Saskatchewan

Texas Parks and Wildlife | Tristate Energy | U.S. Fish & Wildlife Service | U.S. Forest Service International

Universidad Autonoma de Nuevo Leon | Winnett ACES | World Wildlife Fund



- 2019: ~1 year of planning including large gap analyses, U.S. landowner survey +++
- 2020: Virtual summit in August 2020 (350 people), formation of planning group
- 2021: information & gap analyses, e.g. land manager surveys
- 2022: In-person summit in May 2022 (60 travel awards)

  Working Groups:
  Communications

Policy

Metrics (soil, Water, birds, land +)

**Indigenous Kinship Circle** 

Mexico

Canada

\*Social science

- 2023: >600 people involved to date
   Resource tab on website, many products
   Story map in progress
- 2024: New coordinator begins in February

#### THE CENTRAL GRASSLANDS ROADMAP

A Collaborative Strategy for a Working Lands Biome



GUIDING US TOWARDS RESILIENT AND CONNECTED

GRASSLANDS AND HUMAN COMMUNITIES

Updated June 21, 2022

#### **Constellation Governance Model** Workgroup Delegate Public Steering Committee **Convening Organization** Messaging Bird Conservancy of the Rockies (2021) Diverse representation Integrates workgroup Workgroup Delegate Workgroup Delegate across sectors progress into the Roadmap Guides facilitation team & coordinator Grasslands State Hub for reporting on Leads steering committee Declaration Sub-committee Implementation Roadmap metrics, stewards, communicates progress Roadmap outcomes Catalyzes momentum Bird Conservancy to Delegate community and makes connections and measures Workgroup Delegate Workgroup Delegate Builds trust with stakeholders Advises/directs overall Helps plan and coordinate work and pulse of roadmap Lead Secures resources **DNRs** Delegate Indigenous First Nations **Metrics Workgroup** 23 Workgroup Delegate Identifies key metrics for workgroups to pursue and report progress. Metrics adjusted/informed by workgroups Country Workgroups Workgroup Delegate Workgroup Delegate US/MX/CA Shared Vision. Workgroup Delegate **Goals & Objectives** Innovation SC of all delegates in Funding Leaders Workgroup Delegate Warkgroup Delegate Land Private Stewards Industry Workgroup Delegate WWF Federal Workgroup Lead Policy & or Co-Lead Agencies Farm Audubon Bill Workgroup Delegate Regional Outputs/Deliverables Workgroup ROCKIES Delegate Work Key metrics, as identified by the Metrics Workgroup in consultation with Summit Delegates, form the basis of an annual Workgroup Delegate Updated scorecard. Successful outputs, deliverables, and ongong metrics are reported annually JV8 August 2021 by Workgroups and shared widely.

### **Long-form** roadmap



## Vision **Goals Strategies Scorecard**





The Central Grasslands Roadmap

#### The Central Grasslands Roadmap Executive Summary

The Central Grasslands span across more than 600 million acres of North America and are home to both diverse ecosystems and equally diverse human communities. As it stands, disparate efforts are not adding up, and measures of human community health and healthy grassland ecosystems across the biome continue to decline. We must think, collaborate, and act differently, and that starts with us working together. We must agree to the directions we need to go and focus on what we need to do more of, what we need to know more about, and which new strategies are the most critical to save our grasslands over the next ten years.

As a collective of stakeholders from across the Central Grasslands, eight diverse sectors and three countries have come together to identify common principles and shared priorities to address these challenges. By increasing support for coordinated conservation and fostering mutual respect for the diverse people living and working across the Central Grasslands, we can ensure resilient and connected grasslands and thriving human communities, now and for generations to come.

#### The Eight Roadmap Sectors

- Indigenous Communities & First Nations
- · Private Land Managers, Owners, & Ranchers

- Industry, Agriculture, & Private Sector

#### HOW TO READ THIS DOCUMENT

The Roadmap is what you're reading here and describes the full scope of the cooperative process in detail. The Roadmap Community includes all stakeholders from the eight sectors and three countries across the biome - it identifies who is involved in the process (see Constellation

The primary purpose of the Roadmap is to describe what the Community wants to achieve, what actions they will take to get there, and how they will work together to do so (figure 1). The Vision describes why the Roadmap Community is collaborating and the four Principles describe how the diverse Community should engage with one another when planning and implementing on-the-

The seven Scorecard Goals (the Goals) describe what the Community will achieve, including goalspecific metrics, approaches to tracking progress, key questions, resources, and considerations. The three Strategy Areas each have four Priorities, which identify specific actions that contribute to achieving the Goals. Stakeholders in the Roadmap Community will report on their work and actions using a variety of reporting tools, which will be compiled in a bi-annual Scorecard Report to track overall progress and identify successes, continued gaps, and emerging needs.



\$500-\$1,500

The Central Grasslands Roadmap

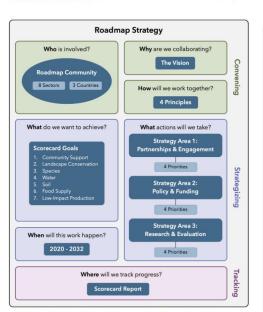
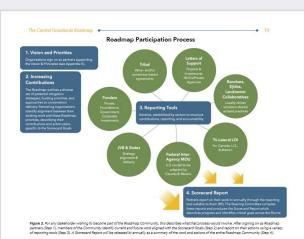


Figure 1. A visualization for how the many elements of the Roadmap fit together, and how each supports the overall goals of the Roadman.





The Central Grasslands Roadmap **Table of Contents** 





The language of each of the seven Scorecard Goals is listed below by category. See the Roadmap Appendices document for information about goal-specific metrics and additional context.

1. Community Support: Each year, Indigenous/First Nation, ejido, rancher alliance, and family rancher communities across the biome report the ability to both sustain their working operations and access sufficient financial and technical assistance resources that support their land management and stewardship decisions, (App. A)

- Landscape Conservation: By 2032, hundreds of millions of acres of grass will be improved, restored, or kept intact for the benefit of people and nature across the biome. (App. B)
- 3. Species: By 2032, wildlife populations will remain stable if common, become stabilized if declining, and have population trends reversed and recovering if in steep decline, understood through a chosen suite of insects, birds, herpetofauna, and mammals. (App. C)
- 4. Water: By 2032, extractions from groundwater and surface water sources will be reduced as necessary to sustain dynamically stable groundwater levels, baseflows, and lake levels. (App. D)
- 5. Soil: By 2032, comprehensive soil health will be improved to increase drought resilience, availability of livestock forage and wildlife habitat, and net carbon sequestration. (App. E)
- 6. Food Supply: Food companies, agribusinesses, and supply chain actors, immediately work to
- increase the positive impacts of agricultural production and stop grassland conversion. (App. F) 7. Low-Impact Production: Transportation and energy industry companies immediately work to
- ensure intentional siting of energy, transportation, and other commercial or industry developments for all projects including wind, solar, oil, gas, coal, and transmission. (App. G)





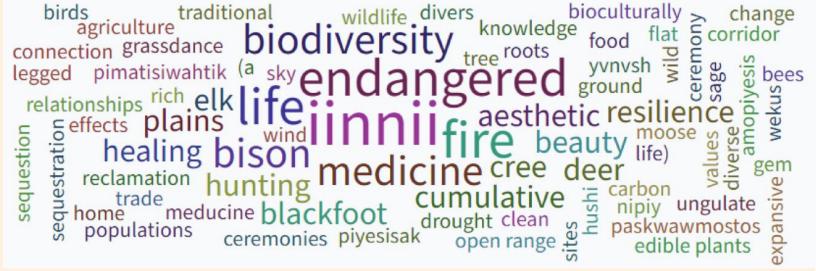
## **Indigenous Kinship Circle**

The Indigenous Kinship Circle is building a cross-boundary community of practice for Indigenous people and allies working to advance the wellbeing of Indigenous communities and grasslands. The community offers members a space to elevate Indigenous voices, find support, reconnect with Indigenous knowledge, share beneficial practices, collaborate on projects, and bridge with the Western environmental and conservation communities on Indigenous perspectives and needs.



# Size nous tinst

## Circle







Cheyenne Ironman is from Sloux Valley Dakota Nation and has been working in her community since August 2020, which brings together two of her greatest passions – working within her community and creating a more sustainable future. Cheyenne manages several projects and initiatives from adaptation planning, food sovereignty, renewable energy, Jand-based programming, language and cultural programs, cemetery mapping, training, awareness, youth kayaking and skateboarding programs, and more! She previously worked as a Research Associate (2017-2020) for the Centre for Indigenous Environmental Resources after attaining a B.A. in Political Science and a minor in Sociology from Brandon University.



Kansie Fox is Blackfoot, Navajo and a proud mother of two. She enjoys working on the Blood Reserve as the Environmental Protection Manager with the Blood Tribe Land Management Department and is working towards her Masters in Bloogleal Sciences degree studying the ecological and cultural effects of linnii (Buffalo) rematriation to the Kalinai / Blood Reserve

The Kainai linnii Rematriation research project is studying the effects of Blackfoot ecocultural restoration on soil health, mixed grassland vegetation and Blackfoot traditional plants composition, insect communities, grassland birds, amphibians and reptiles, mammals, and the Kainai community. As linnii return home and restore important relationships they will be the ecological driver for increasing prairie biocultural diversity by improving soil structure, plant community heterogeneity, create healthy habitat for prairie

Mitakuyepi, Emily Boyd-Valandra emaciyapi ksto. Greetings relatives, my name is Emily Boyd-Valandra and I am a dual citizen of the Sicangu Lakota Oyate (Rosebud Sioux Tribe) and the USA. My educational background is in environmental science and ecology. I also have years of experience in Tribal land use and environmental management and as an adjunct instructor at our local Sinte Gleska University, From 2009-2021, I was the biologist for Rosebud's Department of Natural Resources. The pandemic has temporarily shifted my focus toward my family and working as a contract biologist consultant, which is how I pined the Central Grasslands Roadmap to coordinate their Indigenous workgroup efforts. I also earned a professional certificate in cultural heritage tourism last year and have completed many hours over the last couple years learning how to build effective engagement to our Indigenous communities. I am also a founding board member and officer of the recently formed Buffalo Nations Grasslands

I hope to facilitate an interactive, engaging session surrounding our relationships with the land and environment. Being Lakota, this conversation will be through







## **Canadian Working Group**

- Monthly meetings collaborative plans
- Catalyzed great relationships & built bridges =
   e.g. Funding opportunities, comms, invited plenaries
- "network of networks"



## Saving Grasslands

We are working with Indigenous organizations, governments, academia, non-government organizations, and the agricultural community to support grassland conservation.

www.grasslandsroadmap.org





## **CENTRAL GRASSLANDS ROADMAP**



What social issues do we need to name and address to improve outcomes for people, wildlife, and nature in the central grasslands?

conservation/resilience towards colonialism

Sinclusion

Sinclusio

Equitable Collaboration.

The IKC is guided by our worldview, and we are committed to doing work grounded in community for the benefit of our relatives. Our group collaborates on all the projects, and we make decisions through consensus at each of our meetings. We value and respect knowledge offered by our community and our environment.

## → Socio-Ecological Workgroup

- \* Broader effort to link social & environmental spheres
- \* Voices of all communities elevated



## Social-Ecological Systems (SES) and Resilience

- Sacred interconnections/kincentric ecology/reciprocal relationships
- Ancestral keystone processes
- New social-ecological theories
- Colonialism degraded social-ecological resilience

(Davis, 2016; Hails et al., 2019; Huntsinger and Oviedo, 2014; Kimmerer and Lake, 2001; Sala et al., 2017; Twidwell et al., 2021; .Roos, 2018)

Indigenous social-ecological relationships are essential for grassland resilience.

