COLORADO NATURAL HERITAGE PROGRAM
2017-2022 Five-Year Strategic Plan

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WARNER COLLEGE OF NATURAL RESOURCES
COLORADO STATE UNIVERSITY

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The Colorado Natural Heritage Program (CNHP) is Colorado's key source of information on our natural heritage, which is the nature we have inherited as residents of Colorado. We know that nature is worth a great deal to us, and that our quality of life depends heavily on the condition and diversity of the environment around us. After all, it is the current high quality of our natural world that has made Colorado such a desirable place to live! At CNHP, we keep track of the places we know are tremendously important for conserving our natural wealth and we do this to ensure Colorado remains a great place to live. We map Colorado's rarest animals, plants and ecosystems, and through this work identify the conservation priorities that lead to the best opportunities for safeguarding our natural heritage. Our partners throughout Colorado and beyond count on us to help answer very difficult questions about how conservation can be successful, and our staff of 24 scientists is available to help answer these questions.

MISSION

We advance the conservation of Colorado's native species and ecosystems through science, planning, and education for the benefit of current and future generations.

VISION

Our vision is a future in which Colorado's native species and ecosystems are secure and thriving. We are committed to our role in helping our partners to actualize this vision. We support their decision-making needs and provide the science and data needed to conserve Colorado's natural heritage.

OUR VALUES

CNHP is a scientific organization. We hold objectivity as our defining core principle. We believe that the best way to make decisions about conservation is to start with science and data, and use them to support an objective rational process of setting conservation priorities, strategies, and plans. We believe that communication is fundamental to bringing science to the entire stakeholder community. We believe that communication must be followed by a genuine spirit of helping people and working closely with them to help solve their problems. We believe that trust and respect are earned, and we are committed to earning them from the relationships we have with our partners across the entire conservation community. We believe that a skilled, supported, inspired, and happy staff is critical to generating good science and nurturing our organizational relationships. We believe that all of these things are needed in order for partnerships to flourish, and that it is only through successful partnerships that appropriate planning, management, protection, and stewardship can occur.

OUR CORE PRINCIPALS

• We believe a world rich in biodiversity is a better world.

• We believe in honest communication.

• We will always use the best science available.

• We hold ourselves to the highest standards of scientific integrity and objectivity.

• We believe the reliability of our data is critical. We will not compromise data quality, veracity, or security for any reason.

• We value input and contributions from all of our staff, partners, and stakeholders.

• We are not advocates for special interests. We will serve our clientele with impartiality and will provide data and support without bias. We will only offer input based on science, never based on politics or special interests.

• We believe that our purpose is to provide the scientific foundation for informed decision-making to support conservation that matters.

• We honor our obligations to our funders in full and on time.

• We seek innovations that make our work better and more efficient, and that improve our ability to serve efficiently and economically.

• We use resources wisely to maximize impact.

• We exist to support our partners. Hence, our partners' needs come first. We will do everything we can, within the constraints of our organizational mission and principles, to help them.

GOAL 1
Conduct scientific research needed for effective conservation.

GOAL 2
Deliver relevant conservation information through maps, data and tools.

GOAL 3
Coordinate conservation planning that leads to action.

GOAL 4
Promote conservation through partnership development, education and outreach.

GOAL 5
Maintain the highest standards of honesty, integrity, respectfulness, and fairness towards the fulfillment of our mission.

We obtain information from a vast network of partners and piece it together to figure out the best- most valuable- path forward with respect to our natural wealth. From this information, we help decide where we can successfully invest in conservation for the sake of current and future generations. We do this as part of a network of programs like ours that spans the Western Hemisphere and is unified through the non-profit NatureServe. We are also part of the Warner College of Natural Resources at Colorado State University in Fort Collins. The adage that information is power holds true for CNHP and our partners. We empower our partners in their management decisions to enhance their success in conservation efforts.

GOAL 1

Conduct scientific research needed for effective conservation.

CNHP conducts field investigations, biological studies and scientific analyses to document and interpret the distribution, status, trends, and biodiversity significance of species, ecosystems and landscapes in Colorado and the West. Our research contributes to the body of knowledge that supports sound conservation decision-making.

1.1 Inventory, map and model the distribution of native plants, animals and ecosystems across Colorado and the West.
   1.1a. Document locations of priority plants, animals and ecosystems through Element Occurrences (EOs) within CNHP's BIOTICS Database.
   1.1b. Develop more accurate and comprehensive mapping of widespread ecosystems, including priority habitat such as wetlands and sagebrush.
   1.1c. Model the distribution of priority species and ecosystems to aid in locating new EOs and to support management decisions.
   1.1d: Develop negative data sets from survey efforts for priority species to improve distribution models.

1.2 Assess and monitor the status and condition of native plants, animals and ecosystems across Colorado and the West.
   1.2a. Actively monitor the population status and trends of priority species and the condition of their habitats.
   1.2b. Conduct or collaborate on in-depth studies of demography, reproductive ecology, disturbance ecology, physiological/autecology, and conservation genetics of priority species.
   1.2c. Assess the condition and functions of priority ecosystems at multiple spatial scales.

1.3 Research threats that limit recruitment and viability of native plants, animals and ecosystems across Colorado and the West.
   1.3a. Identify vulnerabilities and potential impacts of climate change on species, ecosystems and ecosystem services.
   1.3b. Provide science support for the management of priority non-native species.
   1.3c. Identify and research additional major threats facing native species and ecosystems.

1.4 Build a foundation of science that leads to effective restoration of priority species, habitats and ecosystems.
   1.4a. Develop restoration targets for priority species and ecosystems, both spatial targets and descriptions of ecological reference conditions.
   1.4b. Promote appropriate restoration practices that incorporate changing land-use and climate.

GOAL 2

Deliver relevant conservation information through maps, data and tools.

We will build, maintain, and improve the State's comprehensive databases and derived products that have made the CNHP a successful partner in collaborative conservation for a variety of stakeholders. We will increase access to data and our products through a variety of modalities, including new web-based tools.

2.1 Modernize and improve CNHP's web access to all our products and resources.
   2.1a. Develop a new CNHP website with a streamlined, secure, intuitive interface to easily access our products and resources.
   2.1b. Ensure that the website meets existing standards (e.g., American's with Disabilities Act and can be translated into Spanish, CSU graphics standards).

2.2 Develop a comprehensive online data portal to display and deliver all CNHP products and data through customizable user account profiles.
   2.2a. Conduct a market analysis and develop a sustainable business plan for online data sharing.
   2.2b. Develop an interactive online map and data portal to view Element Occurrence Data, Potential Conservation Areas, and CNHP's modeling and mapping products.
   2.2c. Develop intuitive and interactive derived products to convey conservation information (e.g., maps of tracked species by county, watershed, or quad and Story Maps to showcase hotspots of biodiversity or high profile projects).
   2.2d. Provide access points from the CNHP data portal to other key providers of biological data to improve data quality and accessibility.
   2.2e. Provide multiple modes of data delivery to allow partners to integrate CNHP datasets into their own analyses (e.g., hyper-link tools, geospatial services).

2.3 Expand the suite of tabular and geospatial databases and services provided by CNHP.
   2.3a. Build, expand and maintain robust data storage and analysis platforms for complex datasets (e.g., COMaP, STReaMS, and Colorado Herp Atlas).
   2.3b. Develop online and mobile field guides with detailed information on species and ecosystems (e.g., Rare Plant Field Guide, Field Guide to the Wetland Plants of Colorado).
   2.3c. Develop resource-specific websites with access to detailed information on data, reports, and resources (e.g., Colorado Wetland Information Center, Sagebrush Conservation Initiative).

GOAL 3

Coordinate conservation planning that leads to action.

CNHP serves as an objective convener and catalyst for bringing diverse stakeholders together to advance conservation. Through partnerships, we turn scientific data on the status and trends of our natural resources into conservation action.

3.1 Identify conservation targets and priorities using CNHP and partners' data and advanced spatial analytical techniques.
  3.1a. Identify elements of biodiversity in decline that need additional conservation efforts.
  3.1b. Increase awareness of Colorado's key landscapes for conserving our biodiversity, especially B1 and B2 PCAs (e.g., develop IUCN Key Biodiversity Areas based on PCAs).

3.2 Identify strategies to address climate change that support the resilience of ecological communities and livelihoods.
  3.2a. Develop adaptation strategies for the most vulnerable species and priority ecosystems.
  3.2b. Connect climate science to adaptation action by providing managers with guidance on developing and implementing adaptation strategies.
  3.2c. Integrate ecological science into adaptation strategies involving social science.

3.3 Develop a suite of services to support the private land conservation community.
  3.3a. Develop capacity to document the baseline condition of conservation easements.

3.3b. Work with the conservation community to improve financial analysis for conservation easements, including property appraisals and return on investment.
3.3c. Lead the production of an annual State of the State report on conservation easements for the legislature and conservation community.
3.3d. Integrate conservation services and COMaP into online web map services at CNHP.

3.4 Work with a broad range of decision makers and practitioners to develop and implement innovative, science-based conservation solutions.
  3.4a. Provide data and expertise to collaborative efforts (e.g., Colorado Rare Plant Symposium, Colorado Bat Working Group, Landscape Conservation Cooperatives, sagebrush initiatives, and the Social-Ecological Climate Resilience project).
  3.4b. Measure ecosystem services provided by conservation easements and potential conservation areas.
  3.4c. Support the development of credit markets (e.g., Colorado Habitat Exchange, Colorado Conservation Exchange) and mitigation banks.
  3.4d. Participate in the development of decision support tools (e.g., the Eco-Logical framework).

GOAL 4

Promote conservation through partnership development, education and outreach.

The future of conservation is in the development of strong conservation advocates in both the public and private spheres. We will work to develop networks of conservation stakeholders and to educate this generation and the next about the importance of our natural resources.
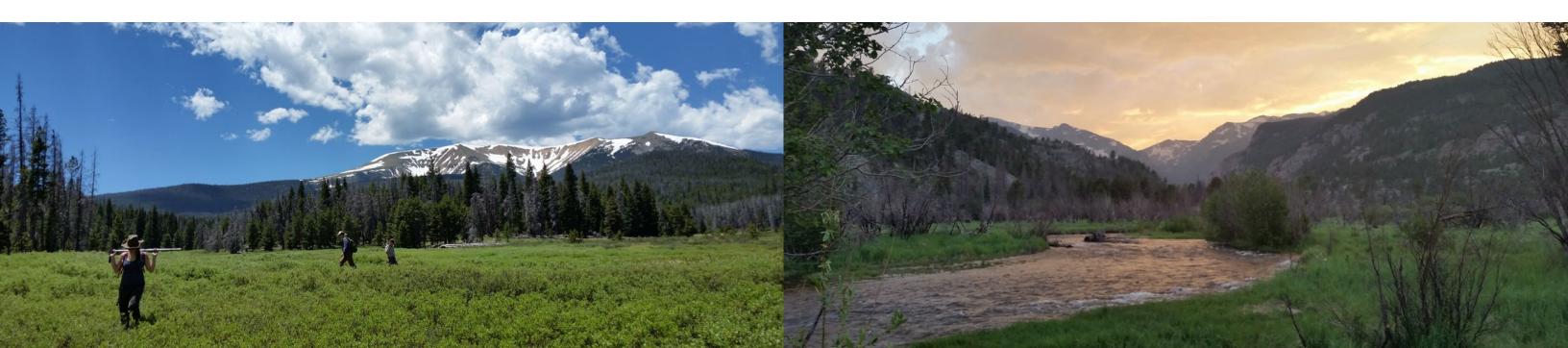
4.1 Foster collaboration and expand the network of conservation stakeholders.
  4.1a. Host events and meetings that catalyze connections within the conservation community (e.g., Biennial Partners Meeting and events specific to topic and geographies).
  4.1b. Maintain, incentivize and support the participation of CNHP's staff in leadership and support roles on councils and boards.
  4.1c. Proactively reach out to entities with whom we are not fully engaged (e.g., industry, agencies and NGOs).
  4.1d. Work collaboratively with NatureServe, other members of the NatureServe Network, and The Nature Conservancy.

4.2 Provide educational opportunities for current conservation professionals and the next generation.
  4.2a. Lead workshops and trainings for professionals.
  4.2b. Engage with Warner College of Natural Resources to develop teaching roles for our staff.
  4.2c. Expand internships at CNHP through additional engagement with philanthropists, agency partners, and WCNR faculty.

4.2d. Proactively engage students in roles at CNHP through hourly employment, volunteer positions, and academic credit.

4.3 Increase public appreciation for conservation through a robust outreach strategy targeted at both elected officials and the general public.
  4.3a. Conduct outreach to convey the importance of priority conservation landscapes to society.
  4.3b. Engage with elected officials and leaders within natural resource agencies to understand potential uses of CNHP data and services in management and development decisions.

GOAL 5

Maintain the highest standards of collaboration, integrity, respectfulness, and fairness while working towards the fulfillment of our mission.

Recognizing that our staff are our greatest asset, we will provide a healthy, flexible work environment that attracts and retains high quality staff, rewards creative thinking and outstanding work, and provides staff with the training, technology, and long-term security needed to succeed.

5.1 Promote a positive work culture through group events, activities, meetings, and responsibilities.
5.1a. Maintain regular staff, PI and Management Team meetings to foster open communication.
5.1b. Encourage cross-team collaboration through subject matter working groups.
5.1c. Provide incentives to share responsibility for programmatic tasks.
5.1d. Encourage critical thought and respectful debate.
5.1e. Host annual end-of-the-year celebration and other social events and recognize staff achievements in these public forums.

5.2 Ensure that employees are treated with fairness and respect by all peers, partners, and University representatives and that inappropriate actions are responded to swiftly.
5.2a. In all of our interactions, embrace Goal 4 of the WCNR Strategic Plan:
Warner College has an inclusive culture that embraces diversity in gender, sexual orientation, backgrounds, culture, ethnicity, and experiences of faculty, students, and staff.

5.2b. Adhere to CSU and CNHP Human Resource policies.
5.2c. Encourage Management Team and staff attend trainings on gender bias, diversity, sexual harassment, etc.

5.3 Enhance and maintain administrative resources for supporting CNHP staff.
5.3a. Maintain compensation, professional development and appraisal standards that support a dynamic and productive staff.
5.3b. Ensure that all employees (permanent staff, field technicians, temporary employees, student hourly, and volunteers) understand CNHP and CSU policies, procedures and benefits.

5.4 Manage financial resources efficiently.
5.4a. Develop annual budgets for all administrative accounts.
5.4b. Develop a biannual financial report for better internal management and external communication.

CONTACT

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Photos provided by current and former CNHP Staff Conor Flynn, Lexine Long, Michael Menefee, and Pam Smith.