



Director's Report

FY 2020 (October 1, 2019-September 30, 2020) was the fifth and final year in our 2015-2020 Cooperative and Joint Venture Agreement between our partners in the Great Plains Cooperative Ecosystem Studies Unit (CESU). In early 2020 we applied for and received a new Cooperative and Joint Venture Agreement renewing University of Nebraska Lincoln (UNL) as the host institution for the Great Plains CESU through 2025. We are very thankful for this opportunity, and appreciate the efforts of Tom Fish, Director of the CESU Program, and those that reviewed our proposal. This past year has indeed held its challenges to all of us due to issues related to COVID-19. Nevertheless, we were able to successfully make progress on our long-term goals and aspirations. This included hosting our Annual Partners Meeting virtually, and the addition of one new non-federal partner to the Great Plains CESU.

Partners

We have 12 federal agency partners and 25 university/non-federal partners (23 academic institutions and 2 NGOs). We are very pleased to announce that this year we added Southwestern Oklahoma State University as a new non-federal partner of the Great Plains CESU. We look forward to working with them in the coming years.

Engaging partners

The Great Plains CESU hosted our Annual Partners Meeting on November 10, 2020, and due to COVID-19, we held this as a virtual meeting. In the first portion of the meeting we discussed updates from our office and our plans for the future. We also included invited talks from Dean Archie Clutter of UNL's Institute of Agriculture and Natural Resources (IANR) and David Doty, Director of our Office of Research and Economic Development. It should be noted that the IANR has provided critical funding for our office for the past several years, and we are grateful for this as well as their continued overall support.

This year we presented two recipients with our annual Great Plains CESU Graduate Student Award. Both of the recipient's research projects were funded through the National Park Service (NPS) and conducted in Theodore Roosevelt National Park. The first was awarded to Michael Brunson at Kansas State University on his project on Visitor Use Management in National Parks. We are grateful to Michael's graduate adviser, Dr. Ryan Sharp, for nominating Michael. The second award was given to Gaimi Davies at the University of North Dakota for her work on the Paleocology of Northern Great Plains Bison: Inferences from Stable Isotopes and Dental Calculus. A big thanks to her advisor Igor Ovtchinnikov for nominating Gaimi.

Our meeting also included a presentation from Tom Fish, the Director of the CESU program, as well as comments by representatives from some of our local and regional federal partners. Speakers from the NPS, U.S. Army Corps of Engineers (USACE), U. S. Department of Agriculture/Natural Resources Conservation Service (USDA/NRCS), and U.S. Geological Survey (USGS) shared their insights on the future direction of funding opportunities and collaboration potentials within their agencies. The meeting ended by highlighting a research project funded by the NPS through the Great Plains CESU. Dr. Mikal Brotnov from UNL presented research findings from his work on Black Homesteaders on the Great Plains. Overall, we received positive feedback from attendees and expect that our future meetings will build on this momentum.

Staffing and office support

Our office staff remained constant in FY2020, with the only change being the programs Director. On January 1, 2020 Dr. Paul Hanson of UNL's School of Natural Resources assumed the role of Great Plains CESU Director, replacing Dr. Larkin Powell. Dr. Powell had a truly transformative role in the operation of the Great Plains CESU, for which we are extremely grateful. Brittany Grove, our Program Coordinator, has been working on updating our web

site to a new template and maintaining our database. Dr. Tanya Shenk continues her role as Research Coordinator for the Great Plains CESU as well as served for another year in the same role for the Great Rivers CESU, at the University of Missouri, because of an ongoing vacancy in that region.

The funding for our office is provided in part by support from the Great Plains federal partners and supplemented by the Institute of Agriculture and Natural Resources (IANR) at UNL. In FY2020 we received \$13,500 from the National CESU network, which included \$4000 in funds from the Interior Regions 3, 4, and 5 (Great Lakes / Mississippi River Basin / Missouri River Basin) NPS Office. As always we are extremely grateful for this support from our federal partners and the regional NPS office. This funding is critical to our operation, but additional support received annually from IANR allows us to effectively oversee the Great Plains CESU. IANR annually provides \$30,000/yr: \$14,000/yr in administrative support, \$15,000/yr in office support for the office coordinator position, and \$1,000/yr in support of office communication (website, phones, internet). We are grateful to Dr. Mike Boehm, IANR Vice Chancellor, Dr. Ron Yoder, Associate Vice Chancellor, and Archie Clutter, Dean of the Agricultural Research Division for their continued support. The continued support of Dr. John Carroll, Director of the School of Natural Resources, is appreciated for the allocation of office space in Hardin Hall.

Financial Report

The following projects were either initiated or modified during FY2020 under a Great Plains CESU’s Cooperative Agreement. *This list is completed each year to the best of our ability, and we note that not all projects funded through the CESU framework are reported back to us. Indeed, federal agencies such as the U.S Fish and Wildlife Service (USFWS) do not keep internal documentation indicating whether a given project was funded through the CESU. Therefore, both lists convey the minimum number of projects funded through the Great Plains CESU. With that said, our ability to document projects continues to be a critical hurdle, and we appreciate our federal partners’ responses to our annual requests for this information.*

Agreement modifications with \$0.00 funding levels indicate no-cost modifications for administrative changes.

FY2020 NEW AGREEMENTS

NEW AGREEMENTS FY2020				
Federal Agency	Agreement Number	Partner Institution	Project Title	Funding
NPS	P20AC00283	Emporia State University	Survey wintering and migratory birds at Tallgrass Prairie National Preserve	24,937
NPS	P20AC00284	North Dakota State University	Understand Landform Ages on Stockton Island Tombolo, APIS	8,978
NPS	P20AC00365	University of South Dakota-Missouri River Institute	Expand Missouri River Intern Program with the Missouri River Institute	17,628
NPS	P20AC00430	University of Wyoming	Acoustic Monitoring of Bats in the Northern Great Plains	120,000
NPS	P20AC00767	University of Wyoming	Northern Long Eared Bat Maternity Roost Use and Selection – Mount Rushmore National Park	70,000
NPS	P20AC00880	University of Wyoming	Macroinvertebrate Monitoring at Agate Fossil Beds	61,871
NPS	P20AC00919	University of Wyoming	Surveillance for the White-nose Syndrome Fungus in Multiple Northern Great Plains Parks	126,000
NPS	P20AC01055	New Mexico Highlands University	Sustainable Tourism and Visitation to National Park Service in New Mexico and Outdoor Recreation Economy and Tourism Trends	13,997
USACE	W9126G-20-2-0012	Colorado State University	HAF/SAF HQ AF Cultural and NEPA	1,808,567
USACE	W9126G-20-2-0036	Colorado State University	Cultural Resource Support	440,989
USACE	W9132T-18-2-0005	University of Oklahoma	CESU Monitoring and Management of the Texas Horned Lizard on Tinker AFB	37,901
USACE	W9132T-20-2-0008	University of Oklahoma	Comparison of Fish Assemblages of the Crutcho Creek Drainage Basin, Oklahoma	54,988
USGS	G20AC00398	University of Nebraska	investigate downscaled conditions, information, & forecast data sets	84,999
				\$ 2,870,855

FY2020 MODIFICATIONS TO EXISTING AGREEMENTS

MODIFIED AGREEMENTS FY2020				
Federal Agency	Agreement Number	Partner Institution	Project Title	Funding
USACE	W9126G-16-2-0013	Colorado State University	Conservation Program Support	1,646,753
USACE	W9126G-16-2-0015	Colorado State University	Maneuver Damage Coordinator	2,122,159
USACE	W9126G-20-2-0012	Colorado State University	HAF/SAF HQ AF Cultural and NEPA	225,318
USACE	W9126G-19-2-0031	Oklahoma State University	Natural Resource Support	410,208
USACE	W9126G-19-2-0018	University of Oklahoma	Natural Resource Support	73,000
USACE	W9126G-18-2-0061	South Dakota State University	Compilation and Analysis of Wildlife	28,885
USACE	W9126G-19-2-0048	Colorado State University	CLEO	440,146
USACE	W9126G-19-2-0048	Colorado State University	CLEO	593,278
USACE	W9126G-18-2-0017	Colorado State University	Cultural Resource Support	878,448
USACE	W9126G-19-2-0039 P00002 - Clin 0011 Eustis	Colorado State University (CEMML)	HIMC Sustainable Range NR Support	575,311
USACE	W9126G-19-2-0039 Clin 0012 Lee	Colorado State University (CEMML)	HIMC Sustainable Range NR Support	879,260
USACE	W9126G-19-2-0039 Clin 0013 Huachuca	Colorado State University (CEMML)	HIMC Sustainable Range NR Support	716,179
USACE	W9126G-19-2-0039	Colorado State University (CEMML)	HIMC Sustainable Range NR Support	15,079,579
USACE	W9126G-19-2-0039	Colorado State University (CEMML)	HIMC Sustainable Range NR Support	5,544,762
NPS	P15AC01334	University of Wyoming	Monitoring of aquatic invertebrates at Agate Fossil Beds National Monument (AGFO)	0
NPS	P15AC01642	University of Wyoming	Acoustic monitoring of bats in the Northern Great Plains Parks	0
NPS	P15AC01750	University of Nebraska-Lincoln	Leadership, Coordination, and Administrative Oversight for the GPCEU	13,500
NPS	P16AC01378	University of Wyoming	Plant Species Verification and Checklists for Northern Great Plains Parks	0
NPS	P16AC01385	Colorado State University	Gap Analysis of National Natural Landmarks of the Midwest Region	0
NPS	P17AC00128	North Dakota State University	Monitoring the Relative Abundance of Bats at National Parks of the Upper Midwest	99,631
NPS	P17AC00128	North Dakota State University	Monitoring the Relative Abundance of Bats at National Parks of the Upper Midwest	0
NPS	P17AC00181	University of Nebraska-Lincoln	African American Homesteaders Historic Resource Study for Homestead & Nicodemus National Parks	30,712
NPS	P17AC00929	Kansas State University	Master CA, 508 Compliance Mod, corrected end of performance date to be 5 years	0
NPS	P17AC01135	University of Wyoming	Surveillance for the White-nose Syndrome Fungus in Multiple Northern Great Plains Parks - NGPN	0
NPS	P18AC00040	University of South Dakota	Evaluating Post-Flood Sandbar Succession and Species Biodiversity Related to Listed Species Habitat	50,990
NPS	P18AC01217	Kansas State University	Research to Evaluate Visitor Characteristics Across and Within Seasons at Joshua Tree National Park	0
NPS	P19AC00049	Kansas State University	Determine Status of Topeka Shiners and Potential for Propagation and Reintroduction throughout TAPR	53,539
NPS	P19AC00050	Kansas State University	Conduct Visitor Use Study at Tallgrass Prairie National Preserve	34,215
NPS	P19AC00110	North Dakota State University	Partnership to Increase Recreation Opportunities and Access - RTCA	0
NPS	P19AC00164	South Dakota School of Mines and Technology	Document Significant Fossil Localities within the Sharps Formation Badlands National Park (BADL)	0
				\$ 29,495,679

Respectfully submitted,



Paul Hanson
 Professor, School of Natural Resources
 Director, Great Plains CESU
 January 15, 2021

With grateful thanks to Brittany Grove for her work to document projects with agencies and to develop information contained in the financial report.