

March 27th, 2019

Rio Grande Cutthroat Trout Conservation Team

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Dear Conservation Team,

This letter is intended to summarize the 2018 range-wide activities for the conservation of Rio Grande Cutthroat Trout (RGCT) and to provide that information to conservation team leaders. The activities below are divided into eight primary categories identified in the RGCT Conservation Agreement.

Population Inventory

In 2018, 49 waters (93 individual surveys) were inventoried within the historical range of RGCT. The purpose of the inventories was to survey potentially occupied RGCT waters (4 waters, 10 sites), monitor known populations (33 waters, 50 sites), assess the genetic status of RGCT populations (9 AFLP tests), collect habitat information (2 waters, 23 sites), and test for diseases (1 water).

Population Maintenance

New Mexico Game and Fish removed Brook Trout from 6 miles of the Rio Bonito located in the Lincoln National Forest. A fish barrier on Leandro Creek was constructed by Turner Enterprises, Inc.

Population Expansion

Nine events were classified as population expansion. In the Lower Rio Grande GMU, RGCT were stocked into previously restored waters including Casias Creek, Costilla Creek, and Costilla Reservoir. Pure RGCT were also reintroduced into Las Animas Creek in the Caballo GMU and Rito de los Frijoles located on Bandelier National Monument. In the Rio Grande Headwaters GMU, Haypress Lake was restocked after being chemically reclaimed to establish a broodstock population. A total of 38 lakes and streams were stocked with RGCT for angler recreation.

Protecting/Restoring Habitat

Willow Creek was identified by Colorado Parks and Wildlife as a potential restoration stream in the Rio Grande Headwaters GMU. USFS-Carson and Trout Unlimited restored 6 miles of habitat on Comanche Creek. Beaver dam analogs were constructed in Rito de los Frijoles located on Bandelier National Monument.

Education

The Native Fish in the Classroom program led 6 classrooms from 3 schools to raise and release RGCT. Information regarding RGCT conservation was disseminated through a variety of other public outreach events.

Database Sharing

The annual RGCT range-wide database workshop was attended by the GMU leaders from New Mexico and Colorado. The range-wide database was updated with the previous year's data using the online editor.

Coordination

The annual rangewide meeting was well attended by all signatory agencies.

Miscellaneous

Miscellaneous activities included continued wild and hatchery spawning operations.

Thank you all for your help developing this report. The success of our work toward RGCT conservation would not be possible without the continued cooperation, dedication, and professionalism of all team members and their respective agencies and organizations.

Sincerely,

Tucker Brauer
Rio Grande Cutthroat Trout Biologist
New Mexico Department of Game and Fish

RGCT Rangewide Report 2016 - Summary by Strategy, January 1 to December 31, 2016

Strategy	Subhead	Title	Waters/Events	Total	Description
1	Survey	Population Inventory	4	10	Survey potential RGCT waters within historical range; maintain database
1	Monitor	Population Inventory	33	50	Monitor RGCT populations to detect changes; maintain database
1	Taxonomy	Population Inventory	9	9	Collect genetic information within historical range; maintain database
1	Habitat Inventory	Population Inventory	2	23	Collect habitat information within historical range; maintain database
1	Disease	Population Inventory	1	1	Conduct fish health surveys including WD
2	Identify	Population Maintenance	0	0	Identify Core Conservation and Conservation populations
2	Secure	Population Maintenance	1	1	Secure and enhance distribution and abundance of Conservation and Core Conservation populations
2	Metapopulation	Population Maintenance	0	0	Identify, maintain, and expand connectivity within metapopulations
3	Restore	Population Expansion	4	7	Increase RGCT populations by restoring RGCT habitat through chemical reclamation
3	Augment	Population Expansion	3	3	Augment pure populations within historical range by stocking or transplanting RGCT
3	Connectivity	Population Expansion	0	0	Promote and restore connectivity of populations to enhance metapopulation function
3	Stock RGCT	Population Expansion	2	38	Stock lakes and streams with RGCT for angler recreation (sum of lakes and streams stocked)
4	Improve	Protect sustaining habitat and restore degraded habitat	2	7	Inventory, maintain, protect, and improve existing habitat; improve fluvial/ hydrological processes
4	Unoccupied	Protect sustaining habitat and restore degraded habitat	1	2	Identify unoccupied habitat for restoration with RGCT
5	Education	Conservation Education and Interpretation	6	6	Subcommittee to develop education and interpretation program providing deliverables and a consistent message regarding RGCT conservation efforts
6	Database	Database Sharing	3	3	Summarize distribution, population genetics and habitat data; centralize data into a database; allow rangewide integrated data analysis, summaries, and comparisons
7	Coordinate	Planning/ Coordination	9	12	Share information; identify/ discuss/ solve common conservation problems; prioritize issues
A*	Miscellaneous	Other Activities/ Actions	2	2	Accomplishments that are not listed in the other titles or strategies
B	Habitat	Private Land Protection or Restoration (stream miles)	0	0	Landowner/ private land habitat protection or restoration

Rio Grande Cutthroat Trout Rangewide Report 2018

Year	GMU	Population Code	Water	WaterCode	HUC	Biologist	Agency	Strategy	Subhead	Activity	Units	Comments
Colorado Parks and Wildlife												
2018	Rio Grande Headwaters	13010004cp006	Big Springs Creek	38281	Saguache	Vigil	CPW	1	Monitor	Population monitoring	2	371 RGCT/mile
2018	Lower Rio Grande	13020101cd008	East Fork Costilla Creek	39390	Upper Rio Grande	Vigil	CPW	1	Monitor	Population monitoring	2	285 RGCT/mile
2018	Lower Rio Grande	13020101cd007	West For Costilla Creek	33890	Upper Rio Grande	Vigil	CPW	1	Monitor	Population monitoring	2	303.5 RGCT/mile
2018	Rio Grande Headwaters	13010005cd010	Osier Creek	44444	Conejos	Vigil	CPW	1	Monitor	Population monitoring	1	819 RGCT/mile
2018	Rio Grande Headwaters	13010002cp003	Rhodes Gultch	43840	Alamosa-Trinchera	Vigil	CPW	1	Monitor	Population monitoring	1	216 RGCT/mile
2018	Rio Grande Headwaters	13010005cp009	Rio De Los Pinos	42189	Conejos	Vigil	CPW	1	Monitor	Population monitoring	1	175 RGCT/mile
2018	Rio Grande Headwaters	13010003cp001	Medano Creek	42189	San Luis	Vigil	CPW	1	Monitor	Population monitoring	1	596 RGCT/mile
2018	Rio Grande Headwaters	13010005cp008	Lake Fork Conejos River	39289	Conejos	Vigil	CPW	1	Monitor	Population monitoring	1	401 RGCT/mile
2018	Rio Grande Headwaters	13010002cp001	Middle Fork San Fransico Creek	44850	Alamosa-Trinchera	Vigil	CPW	1	Monitor	Population monitoring	2	248 RGCT/mile
2018	Rio Grande Headwaters	13010004cp001	Whale Creek	42420	Saguache	Vigil	CPW	1	Monitor	Population monitoring	1	236 RGCT/mile
2018	Rio Grande Headwaters	13010001cp002	West Alder Creek	47755	Rio Grande Headwaters	Vigil	CPW	1	Monitor	Population monitoring	2	No RGCT Sampled
2018	Rio Grande Headwaters		Willow Creek	39831	Alamosa-Trinchera	Vigil	CPW	4	Unoccupied	Protect sustaining habitat and restore degraded habitat	2	320 Mixed genetic cutthroat/mile, could be potential stream for reclamation in the future.
2018	Rio Grande Headwaters	13010002cp001	Middle Fork San Fransico Creek	44850	Alamosa-Trinchera	Vigil	CPW	1	Taxonomy	Population monitoring	1	
2018	Rio Grande Headwaters	13010005cp009	Rio De Los Pinos	42189	Conejos	Vigil	CPW	1	Taxonomy	Population monitoring	1	
2018	Rio Grande Headwaters	13010004cp001	Whale Creek	42420	Saguache	Vigil	CPW	1	Taxonomy	Population monitoring	1	
2018	Rio Grande Headwaters		Willow Creek	39831	Alamosa-Trinchera	Vigil	CPW	1	Taxonomy	Population monitoring	1	
2018	Rio Grande Headwaters	13010002cp003	Rhodes Gultch	43840	Alamosa-Trinchera	Vigil	CPW	1	Taxonomy	Population monitoring	1	
2018	Rio Grande Headwaters					Vigil	CPW	3	Stock RGCT	Recreation stocking	28	Stocked recreation RGCT into 28 lakes/streams
2018	Rio Grande Headwaters					Vigil	CPW	6	Database	Updated RGCT database	1	Updated RGCT database with 2018 data
2018	Rio Grande Headwaters		Haypress Lake			Vigil	CPW	3	Restore	Post-restoration stocking	1	Stocked 229 juveniles and adults from Medano Creek

2018	Rio Grande Headwaters	Vigil	CPW	7	Coordinate	Planned and attend RGCT range-wide meeting	1	Attended RGCT range-wide meeting	
New Mexico Game and Fish									
2018		Comanche Creek	Brauer, Bakevich	NMDGF	1	Monitor	Population Monitoring	1	Electrofishing survey 4 miles
2018		Comanche Creek	Brauer, Bakevich	NMDGF	1	Monitor	Population Monitoring	1	Collected eDNA at 22 sites
2018		Comanche Creek	Brauer, Bakevich	NMDGF	1	Taxonomy	AFLP analysis	1	100% pure- Collected above barrier
2018		Little Costilla Creek	Brauer, Bakevich	NMDGF	1	Monitor	Population Monitoring	1	Electrofishing survey 2.5 miles
2018		Little Costilla Creek	Brauer, Bakevich	NMDGF	1	Monitor	Population Monitoring	1	Collected eDNA at 3 sites
2018		Little Costilla Creek	Brauer, Bakevich	NMDGF	1	Taxonomy	AFLP analysis	1	100% pure
2018		Vidal Creek	Brauer, Bakevich	NMDGF	1	Monitor	Population Monitoring	1	Electrofishing survey 1 mile
2018		Casias Creek	Brauer, Bakevich	NMDGF	1	Monitor	Population Monitoring	1	Collected eDNA at 8 sites
2018		Jacks Creek	Brauer, Bakevich	NMDGF	1	Monitor	Population Monitoring	1	Spot electrofishing survey-One Brown Trout found
2018		Willow Creek	Brauer, Bakevich	NMDGF	1	Monitor	Population Monitoring	1	Spot electrofishing survey-Only Brook Trout found
2018		El Rito Creek	Bakevich, Peralta	NMDGF	1	Disease	Fish Health Analysis	1	No pathogens detected-60 fish above barrier
2018		Jacks Creek	Brauer, Bakevich	NMDGF	1	Monitor	Population Monitoring	1	Collected eDNA at 4 sites
2018		Rio Cebolla	Brauer, Bakevich	NMDGF	1	Monitor	Population Monitoring	1	Collected eDNA at 3 sites
2018		El Rito Creek	Brauer, Bakevich	NMDGF	1	Taxonomy	AFLP analysis	1	100%pure-22 clips from wild spawned fish
2018		Rio Bonito	Bakevich	NMDGF	2	Removal	Nonnative Removal	5	Removed nonnative Brook Trout from 5 stream miles and one pond
2018		Costilla Reservoir	Brauer, Bakevich	NMDGF	3	Restore	Post-restoration stocking	2	Stocked age 0-1 RGCT
2018		Costilla Creek	Brauer, Bakevich	NMDGF	3	Restore	Post-restoration stocking	2	Stocked age-0 and age-2 RGCT
2018		Casias Creek	Brauer, Bakevich	NMDGF	3	Restore	Post-restoration stocking	2	Stocked age-0 and age-2 RGCT
2018		Rito de los Frijoles	Brauer, Bakevich	NMDGF	3	Augment	Post-fire stocking	1	Stocked 306 fish from El Rito
2018		Las Animas Creek	Bakevich	NMDGF	3	Augment	Post-fire stocking	1	Stocked 139 fish from Canones Creek
2018		El Rito Creek	Bakevich	NMDGF	A	Miscellaneous	El Rito Wild Spawn	1	Produced 1,200 eggs

2018	Alamitos Creek	Flynn	NMSU	1	Monitor	Population Monitoring	2	6-300 meter electrofishing surveys-depletion
2018	Columbine Creek	Flynn	NMSU	1	Monitor	Population Monitoring	2	6-300 meter electrofishing surveys-depletion
2018	Frijoles Creek	Flynn	NMSU	1	Monitor	Population Monitoring	2	6-300 meter electrofishing surveys-depletion
2018	Jacks Creek	Flynn	NMSU	1	Monitor	Population Monitoring	2	6-300 meter electrofishing surveys-depletion
2018	Powderhouse Creek	Flynn	NMSU	1	Monitor	Population Monitoring	2	6-300 meter electrofishing surveys-depletion
2018	Tanques Creek	Flynn	NMSU	1	Monitor	Population Monitoring	2	6-300 meter electrofishing surveys-depletion
2018	Rito de las Vacas	Flynn	NMSU	1	Monitor	Population Monitoring	2	6-300 meter electrofishing surveys-depletion
2018	Costilla creek	Kruse/Leinonen	Turner Enterprises, Inc.	1	Monitor	3-pass depletion	1	8-100m sections
2018	Casias Creek	Kruse/Leinonen	Turner Enterprises, Inc.	1	Monitor	3-pass depletion	1	5-100m sections
2018	Vermejo River	Kruse/Leinonen	Turner Enterprises, Inc.	1	Monitor	3-pass depletion	1	6-100m sections
2018	Ricardo Creek	Kruse/Leinonen	Turner Enterprises, Inc.	1	Monitor	3-pass depletion	1	3-100m sections
2018	Ricardo Creek	Kruse/Leinonen	Turner Enterprises, Inc.	1	Taxonomy	Genetic samples	1	30 samples from 6km of stream
2018	Leandro Creek	Leinonen	Turner Enterprises, Inc.	2	Secure	Barrier installation	1	1
2018		Bakevich	NMDGF	5	Education	RGCT presentations	1	RGCT talks to angler groups
2018		Brauer, Bakevich	NMDGF	6	Database	Updated RGCT database	1	Updated RGCT database with 2017-2018 data
2018		Brauer, Bakevich	NMDGF	7	Coordinate	Attend RGCT range-wide meeting	1	Attended RGCT range-wide meeting
2018		Jacobsen	NMDGF	A	Miscellaneous	Seven Springs Hatchery Spawn	1	Produced 750,000 eggs
2018		D'Allessandro	NMDGF	3	Stock RGCT	Recreational Stocking	10	Stocked 40,000 RGCT into 10 recreational waters
United States Forest Service - Colorado								
2018		Remshardt	USFS_RGNF	5	Conservation and Education	Monte Vista Middle School Biology Field Day	1	30 students participated in a outdoor education event where RGCT conservation was discussed as part of fisheries presentation

2018			Remshardt	USFS_RGNF	5	Conservation and Education	Monte Vista Crane Festival Booth	1	250 contacts by fisheries biologist where RGCT conservation and posters were made available
United States Forest Service - New Mexico									
2018			Gatlin	USFS-NM	4	Improve	Comanche Creek habitat Restoration	6	6 miles restored
2018		13060001	C. Rich	USFS-NM	5	Education	Conservation Education and Interpretation	1	25 NHEC students
2018		1302020202	C. Rich	USFS-NM	5	Education	Conservation Education and Interpretation	1	25 NHEC students
2018			C. Rich	USFS-NM	7	Coordinate	Planning/Coordination	1	Attended NM RGCT Coordination Meeting
2018		1302020202	C. Rich	USFS-NM	1	Habitat Inventory	Habitat survey	3	USFS Region 3 survey methodology
2018		1302020201	C. Rich	USFS-NM	1	Habitat Inventory	Habitat Survey	20	USFS Region 3 survey methodology
United States Fish and Wildlife Service									
2018			Kitcheyan	FWS	7	Coordinate		1	Presentation to the Southwest Tribal Fisheries Commission and its membership pertaining to an overview of RGCT conservation
2018			Kitcheyan, Wilkins	FWS	7	Coordinate		4	Technical assistance with surveys and use of electrofishing equipment
2018			James, Davenport, Abila, Henry	FWS	7	Education		10	7th Annual Native Fish in the Classroom Program hosted at three elementary schools
2018			James, Sinclair, Carrillo	FWS	5	Education		1	7th Annual Native Fish in the Classroom - "Releasing the Natives Field Day" event
2018			Kitcheyan	FWS	6	Database		1	Annual database entry
2018			Kitcheyan	FWS	7	Coordinate		1	Filled out this form
Bureau of Land Management - Colorado									
Bureau of Land Management-New Mexico									

2018			Red River	13020101	R. Besser, S. Dunn, E. Frey, R. Hansen, L. Dalessandro, S. Green	BLM/NMDGF	1	Survey	Depletion survey	1	No Oncorhynchus clarki virginalis detected. Salmo trutta and Oncorhynchus mykiss detected.
2018			Rio Chama	13020102	R. Besser, S. Dunn, R. Hansen, W. Patterson, R. Roch	BLM/NMDGF	1	Survey	One pass CPUE, 7, 1 mile long sections	7	One Oncorhynchus clarki virginalis detected. Abundant Salmo trutta and few Oncorhynchus mykiss detected.
2018			Rio Grande Upper box/Red River confluence	13020101	R. Besser, L. Dalessandro, S. Green	BLM/NMDGF/USFS	3	Augment	RGCT stocking	1	Stocking: recreational, not into pure population.
2018					R. Besser	BLM	7	Coordinate	Attended range-wide meeting	1	
2018			Rio Grande Upper box/Red River confluence	13020101	R. Besser, L. Dalessandro, S. Green	BLM/NMDGF/USFS	5	Education	RGCT stocking	1	Conservation Education during stocking event
National Parks Service - Colorado											
2018						NPS	7	Coordinate	Attended range-wide meeting	1	
National Parks Service - New Mexico											
2018			Rito de los Frijoles		McFarland	NPS	4	Improve	Built Beaver dam analogs and planted willows in riparian areas	1	
Taos Pueblo											
Jicarilla Apache Nation											
2018	Lower Rio Grande	13020102cp002	Little Willow Creek	13020102	J. Mazzone	JGFD	1	Survey	Drought spot checks (Visual)	1	
2018	Lower Rio Grande	13020102cp002	Little Willow Creek	13020102	J. Mazzone	JGFD	7	Planning	Little Willow Creek Terminal Barrier (Survey and Design)	1	
2018	Lower Rio Grande	13020102cp003	Poso	13020102	J. Mazzone	JGFD	7	Planning	El Poso Creek Terminal Barrier Survey and Design	1	
2018	Lower Rio Grande	13020102cp003	Poso	13020102	J. Mazzone	JGFD	1	Survey	Drought spot checks (Visual)	1	
Mescalero Apache Tribe											