Cinnamon Teal / Waterfowl Banding Project 2015

Biological Summary Report

Monte Vista NWR, SLV NWR Complex, CO

August - September 2015

Prepared by: Dean Lee

Photo by Dean Lee, USFWS

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Crew Member(s): Cloe Traylor (SCA), Hilary Syvertson (SCA), Adam Braddock (Pathways),

Other Assistant(s): Casey Setash, *Colorado State University* (Grad student), Coleen Depasse (YCC Crew leader), various other volunteers and groups.

Purpose:

There is little information available in regards to Cinnamon teal (CITE) population dynamics and harvest pressure. Of what data that is available, it shows a lack of data points, thus resulting in the inability to calculate survival estimates based on age or sex. Without this adequate sampling pool and analysis of data, management decisions cannot be accurately made with any type of reasonable certainty. Dave Olson with the Migratory Bird Program (USFWS) set forward to develop a banding project in an attempted to 1) collect enough data so a reliable survival rate can be calculated and 2) derivation and distribution of the harvest can be better understood for making management decisions (ref.1). The project design called for a 5 year banding project resulting in a minimum banding number of 5,700 Cinnamon teal within the first 4 years. Colorado was selected as one of 5 states to participate in this project. It was determined that the focus of banding activity in Colorado would be narrowed to the San Luis Valley (SLV). Potential banding sites were identified as Monte Vista NWR (MV), Alamosa NWR, Blanca Wetlands (BLM), and Russell Lakes SWA (CPW). Cooperative efforts were made with the land managers with each of these properties and banding efforts started in the summer of 2012. After the 2014 banding season, there has been 2,190 Cinnamon teal banded in the SLV, with 4,213 Cinnamon teal being banded throughout the 5 state banding project sites.

This is now the fourth year (2015) of the five year banding project. Banding efforts occurred on the Monte Vista NWR (MV) and the Blanca Wetlands (BLM); however this report

will only address banding operations on MV. In addition to banding this year, there was a request by Todd Felix from the USDA-APHIS – Wildlife Services to conduct testing for Avian Influenza Virus (AIV). Testing consisted of oral and cloaca swabbing and blood sampling. Another addition to this season was a graduate student project looking at the life cycle and strategies of CITE. Casey Setash was the graduate student conducting this project. During the banding season she assisted the banding crews with banding, and performed nasal disc tagging to several female CITE. This was done in an effort to assist in the following years surveys of CITE in regards to habitat use and philopatry (ref.2).

Methods:

There were eight trap sites selected at Monte Vista NWR (Fig 1). Trap sites were selected based on impoundments that provided shallow but reliable water levels (6-12 inches) and accessibility to sites by banding crews. Benning II swim-in traps were used at each site and assembly of traps (using zip-ties) occurred on shore, and then walked out into the water by banding crews. The traps were set in place and baited, with barely, during the week of August 3rd. Banding operations started on August 10th and ended on September 10th.

Materials and equipment used for banding operations consisted of the eight Benning II traps, a catch/transport cage (for removing ducks from Benning II traps and transporting to shore), a make-shift float/raft for hauling catch cage and buckets of bait, fishing net with 30+" dia. netting (for removing ducks from the top of Benning II trap), retractable dog leash (for use as trip string on catch cage), styrofoam floats and metal rods (for placement inside traps to provide an area for ducks to get out of the water and dry off), and rubber bungee cords (for securing the side door and roof panel used for removal of ducks via the fishing net). Several tons of barley grain seed was donated to the refuge by Coors Brewing Company, and was used for the baiting of the traps.

Approximately ½ to 1 full bucket of grain was used at each trap site daily. If it was found that not all of the grain that was dispersed the previous day was completely consumed, the amount of grain would be cut back until a suitable level was obtained. Banding operations occurred every day of the week from approximately 0700 hrs. through until all traps were processed, except for a couple of weekend days. During those days that no banding occurred, traps were left "open", but were checked and baited daily.

Banding sites:

Monte Vista NWR

MV #1 – Unit 24 – Second series of open water. Located approximately 40 yards away from road/levee.

MV #2 – Unit 24 – Third series of open water. Located approx. 20 yards away from road/levee.

MV #3 – Series Pond #3 (Unit 7) – Impoundment located SSE from Parking area # 1

MV #4 – Series Pond #4 (Unit 7) – Impoundment located ENE from Parking area # 1.

MV #5 – Unit 15 East – Impoundment located in the NE corner of unit.

MV #6 – Unit 15 West – Next impoundment located west of Unit 15 East.

MV #7 – Spring Creek Pond (Unit 14) – Trap site location was on south end of pond, near service road.

MV #8 – Spring Creek Pond (Unit 14) – Trap site location was on south end of pond, near service road.

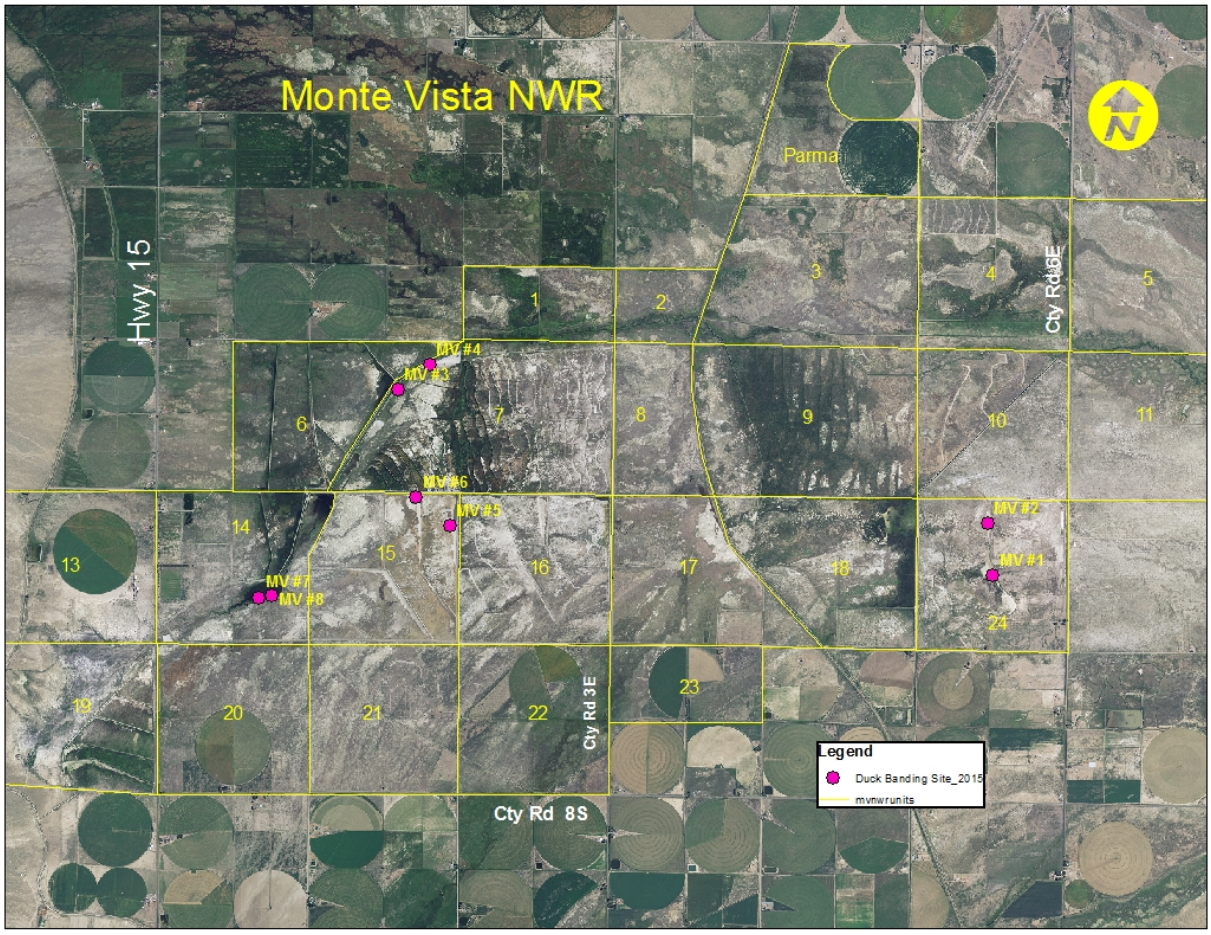

Figure 1: 2015 Duck Banding Sites - MVNWR

Results:

Banding operations started on August 10th and ended on September 10th. During that time a total of 1,202 ducks were banded on MV. A total of 373 CITE were banded, along with 730 mallards and 99 "Other" species of ducks (Table 1). There were unfortunately 20 confirmed mortalities that were discovered. All mortalities are believed to have been trap related with no predator caused mortality. A total of 43 ducks were recaptured from previous banding efforts. They consisted of 6 CITE, 36 Mallards, and 1 Northern Pintail.

A break-down of the numbers of ducks banded is as follows:

- Out of the 373 CITE banded, there were 29 adult (AHY) males (AM), 156 immature (HY) males (IM), 15 adult (AHY) females (AF), and 173 immature (HY) females (IF).

- Out of the 730 Mallards banded, there were 107 (AM), 322 (IM), 72 (AF), and 229 (IF).

- Out of the 99 “Other” species of ducks banded, there were 78 Redheads, 5 Gadwalls, 7 Northern Pintails, 2 Northern Shoveler, and 7 American Green-wing Teal.

Species	AM	IM	AF	IF	Total
Cinn. Teal(CITE)	29	156	15	173	373
Mallard (MALL)	107	322	72	229	730
Redhead (REHD)	0	42	4	32	78
Gadwall (GADW)	0	3	0	2	5
N. Pintail (NOPI)	0	2	2	3	7
N. Shoveler (NSHO)	0	1	1	0	2
Amer.G.W. Teal (AGWT)	3	4	0	0	7

Table 1: Ducks Banded by species, age, and sex - MVNWR 2015

There was a total of 113 ducks that were tested for Avian Influenza Virus (AIV) on MV, of which 35 (31%) came back positive for the presence (viral RNA) of AIV. All samples which tested AIV-positive were tested for H5 and H7 by PCR (polymerase chain reaction). These are the 2 hem agglutinin groups which have housed all of the “Highly Pathogenic” subtypes of the virus. All ducks tested negative for H5 and H7.

Discussion:

For the most part, we saw good numbers of ducks using the banding sites throughout the banding season. Occasionally there were temporary “dry spells” on capture rates at some of the traps due to potential predator threats (Peregrine falcons), water levels, or lack of band-able sized ducks. Six of the eight banding sites were used during the entirety of the banding season. Banding sites MV #1 and MV #2 were discontinued midway through the season due to water depth issues and high numbers of recaptures. Approximate location to and from good brood rearing areas seemed to add to overall site success. At sites that were remote from brood rearing habitat, capture numbers only started to increase once broods became fledged and mobile. Sheep grazing in the area of banding sites MV #7 and MV #8 may have had some influence on duck numbers, as well as an irrigation well (well 61) turning off or tail-water being diverted to other areas.

We seemed to have a high number of mortalities, of which the majority was juveniles (15). It was believed that the nesting season was late this year due to a wet spring and late run-

off. This resulted in more than normal numbers of very young juveniles being caught in the traps. Once these juveniles where in the traps they tended to get stuck more easily in the mesh of the traps or in any gaps that may have occurred. Daily vigilance was given to trap maintenance and checking for holes in the mud to minimize mortalities. Even though some duck parts (entrails) were found on top of one trap (MV #2), which could indicate predator mortality, no predated carcasses were found inside, (or outside), any of the traps and thus not allowing for conclusive proof of predator mortality.

Acknowledgements:

Dave Olson, USFWS - *Migratory Bird Program Region 6*, Denver, CO

Casey Setash, Graduate student - *Colorado State University*

Todd A. Felix, Wildlife Biologist - *USDA-APHIS-Wildlife Services*; Lakewood, CO (303)-870-2736 cell, **todd.a.felix@aphis.usda.gov**

References:

(ref. 1) Cinnamon Teal Banding Report 2014 Update; Olson, Dave

(ref. 2) Report on the 2015 Colorado cinnamon teal population ecology pilot season; Casey Setash, *Colorado State University*