

JACKSON HOLE



WILDLIFE
FOUNDATION

Monitoring Avian Productivity and Survivorship (MAPS) Banding

2021 Report

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BACKGROUND

The Monitoring Avian Productivity and Survivorship (MAPS) program has been operating across North America for over 30 years with the goal of collecting information on avian productivity, recruitment, and survival. These vital rates aid scientists in recognizing factors which contribute to population declines and guide actions to directly address threats, removing much of the guesswork from conservation. A key finding of the MAPS program includes the realization that winter habitat and migration routes are crucial components of landbird ecology that contribute to reproductive success in the following breeding season.

The permanence of MAPS data collection allows investigation into long-term phenomena such as the impacts of a changing climate on avian populations and their shifts in phenology, geography, and survival rates. These data allow land and wildlife managers to make decisions and adjustments in management plans to protect avian species in the face of growing environmental threats. At the Jackson Hole Wildlife Foundation (JHWF) and Teton Raptor Center (TRC), we are proud to contribute to a body of knowledge that can inform decision-making and regulations around the globe, as well as at home in Teton County, Wyoming. Our adoption of the local MAPS stations in Teton County has continued adding to a deep and long-standing dataset collection that began in 1991 with station number 11114-Teton Science Schools (TSS-) station.

This year was JHWF's fourth year running the MAPS banding program in Jackson Hole, Wyoming, under the master banding permit of Bryan Bedrosian, Research Director at Teton Raptor Center. All

data were collected according to the Institute for Bird Population’s MAPS protocol. Banding took place at both Jackson MAPS banding stations this year – the Teton Science School’s Kelly Campus station (TSS-) and the Boyles Hill station (JACK).

MAPS BANDING AT KELLY CAMPUS, TETON SCIENCE SCHOOL STATION #11114 (TSS-)

This marked the 30th consecutive year of operation for the TSS- station, which is one of the ten longest running MAPS banding stations in the United States.

Banding ran from MAPS Intended Periods 4 through 10 (June 3 to August 8, 2021). The team banded a total of ten times between June 3 and August 8, making sure to operate the station at least once every 7 days. This year’s effort resulted in a total of 575.4 net-hours. We closed nets early on occasion for heat and wind but there was no weather-induced cancellation of any full days of banding. We captured 337 individual birds of 43 species (Table 1).

Table 1. A summary of effort and results for the TSS- MAPS station in 2021.

2021 TSS- Station Summary	
	TSS-
Total net hours	417.9
Total captures	337
Newly banded birds	219
Recaptures	85
Unbanded birds	33
Bands changed	0
Bands lost/destroyed	1
Total Species	43

The ten most frequently captured species were Yellow Warbler (70), American Robin (36), Pine Siskin (18), Gray Catbird (17), and MacGillivray’s Warbler (17), Audubon’s Warbler (15), Ruby-crowned Kinglet (14), Song Sparrow (13), Warbling Vireo (12), and Cedar Waxwing (10; Figure 1).

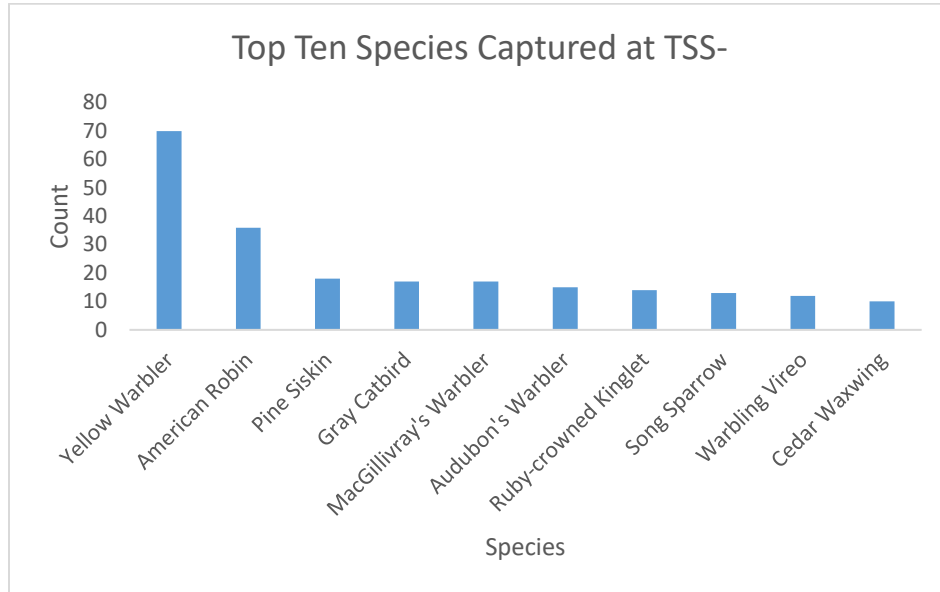


Figure 1. The ten most frequently captured species at the TSS- MAPS banding station in 2021.

We captured an adult male Sharp-shinned Hawk was captured on 6/9. We also captured a definitive cycle alternate female Wilson’s Warbler with a wrinkled brood patch on 6/30. A full list of species including newly banded birds, recaptures, and unbanded birds can be found in Table 2.



Figure 2. An adult male Sharp-shinned Hawk was captured at our TSS- MAPS banding station during the 2021 field season.

Table 2. A summary of banding data using the [ALPHA Code](#), including newly banded, recaptured, and unbanded birds caught at the Teton Science Schools – Kelly Campus station (TSS-).

TSS- New	
Species	# of Birds
AMRO	25
AUWA	12
BCCH	5
BHGR	6
BRSP	4
CEDW	7
DEJU	8
DUFL	2
FOSP	3
GRCA	9
GTTO	4
HAFL	1
HAWO	1
HETH	1
HOWR	1
LEFL	1
LISP	3
MGWA	5
OCWA	5
OSFL	1
PISI	17
RCKI	10
RNSA	2
RSFL	2
SOSP	6
SSHA	1
SWTH	2
WAVI	6
WCSP	15
WETA	3
WEWP	1
WIFL	2
WIWA	3
YEWA	45

TSS- Recaptures	
Species	# of Birds
AMRO	8
AUWA	3
BHGR	2
CEDW	2
DUFL	2
DEJU	1
GRCA	8
HAFL	1
MGWA	12
MOCH	1
OCWA	1
PISI	1
RCKI	3
RNSA	2
SOSP	6
SWTH	1
WAVI	6
WIFL	1
YEWA	24

TSS- Unbanded	
Species	# of Birds
AMRO	3
BCHU	3
BTHU	8
CAHU	4
CEDW	1
DEJU	1
LISP	1
RCKI	1
RUHU	8
SOSP	1
WCSP	1
YEWA	1

MAPS BANDING AT BOYLES HILL, JACKSON STATION #11235 (JACK)

This marked the 17th year of operation for the JACK station.

Banding ran from MAPS Intended Periods 4 through 10 (June 3 to August 8, 2021). The team banded a total of ten times between June 3 and August 8, making sure to operate the station at least once every 7 days. This year's effort resulted in a total of 417.9 net-hours. We closed nets early on occasion for heat and wind but there was no weather-induced cancellation of any full days of banding. We captured 315 individual birds of 30 species (Table 3).

Table 3. A summary of effort and results for the JACK MAPS station in 2021

2021 JACK Station Summary	
	JACK
Total net hours	553
Total captures	315
Newly banded birds	222
Recaptures	64
Unbanded birds	29
Bands changed	0
Bands lost/destroyed	0
Total Species	30

The ten most frequently captured species were Yellow Warbler (88), American Robin (47), Cedar Waxwing (32), Black-headed Grosbeak (21), Song Sparrow (20), Gray Catbird (12), Calliope Hummingbird (9), Brown-headed Cowbird (8), Rufous Hummingbird (7), and House Wren (7; Figure 1).

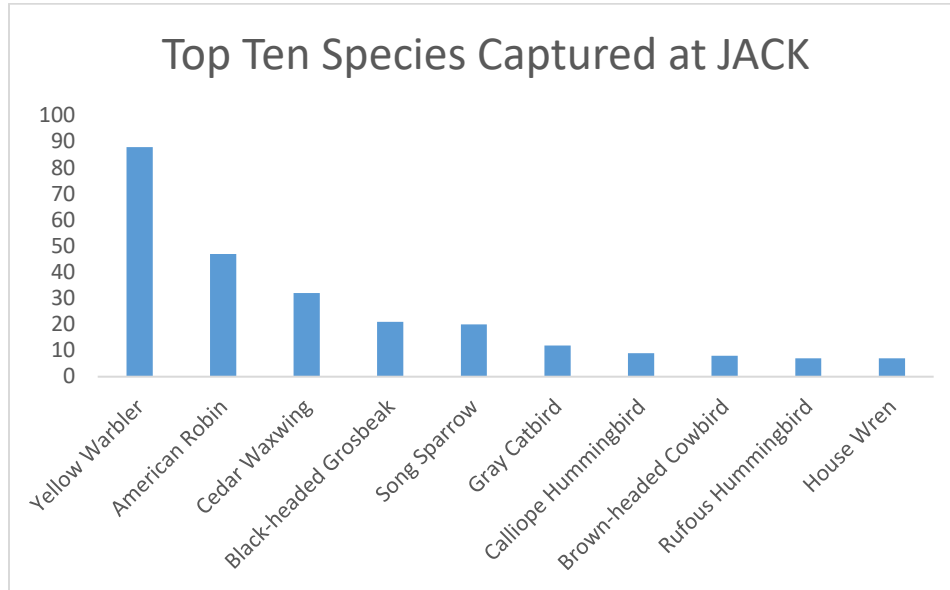


Figure 3. The ten most frequently captured species at the JACK MAPS banding station in 2021.

We caught several Bullock’s Orioles, including a family group of an adult female and two hatch year birds on July 23 (Figure 4).



Figure 4. A male Bullock’s Oriole was captured at our JACK MAPS banding station during the 2021 field season.

On August 8, our last day of MAPS banding at the JACK station, we captured an Olive-sided Flycatcher. A full list of species including newly banded birds, recaptures, and unbanded birds can be found in Table 4.

Table 4. A summary of banding data using the [ALPHA Code](#), including newly banded, recaptured, and unbanded birds caught at the Teton Science Schools – Boyles Hill station (JACK).

JACK New	
Species	# of Birds
AMGO	5
AMRO	44
AUWA	3
BCCH	5
BHCO	4
BHGR	15
BUOR	4
CAFI	1
CEDW	27
COFL	1
GRCA	8
HOWR	6
MGWA	3
MOBL	3
MOCH	1
NFIN	2
OSFL	1
PISI	5
RCKI	4
RNSA	1
RSFL	2
SOSP	11
SWTH	4
TRES	2
WAVI	4
WETA	2
WEWP	1
YEWA	53

JACK Recaptures	
Species	# of Birds
AMRO	2
BHCO	4
BHGR	6
CEDW	5
GRCA	3
SOSP	9
WEWP	2
YEWA	33

JACK Unbanded	
Species	# of Birds
AMRO	1
BCCH	1
BTHU	7
CAHU	9
CEDW	1
GRCA	1
HOWR	1
RUHU	7
YEWA	2