

JACKSON HOLE



WILDLIFE
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Monitoring Avian Productivity and Survivorship (MAPS) Banding

2020 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 key information on bird productivity, recruitment, and survival. These vital rates aid scientists in recognizing contributing factors 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, similar to the ecology of ungulates.

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 station.

MAPS BANDING AT KELLY CAMPUS, TETON SCIENCE SCHOOL STATION #11114

This year was JHWF's third year running the MAPS program in Jackson Hole, Wyoming, under the master permit of Bryan Bedrosian, Research Director at TRC. All data were collected according to the Institute for Bird Population's MAPS protocol.

Banding took place at only one location this year because of the COVID-19 pandemic: the Teton Science School's Kelly Campus station (-TSS). Typically, two stations are run throughout a full MAPS season. However, JHWF was unable to recruit and hire our usual two bird banders due to the travel restrictions that existed in late spring because of the pandemic. Due to the lack of staff capacity, it was decided that JHWF would run the TSS station with help from TRC. The TSS station was in its 29th consecutive year of operation so it was decided to continue with this history of long-term monitoring of vital rates for individual avian species.

Banding ran from MAPS Intended Periods 4 through 10 (June 4 to August 12, 2020). The team banded a total of seven times between June 4 and August 12, making sure to operate the station at least once every 10 days. In a usual year with a full staff, the intention is to band once every 7 days. Despite the truncated schedule, this year's effort resulted in a total of 48.4 net-hours (Table 1).

Table 1. An overview of effort and captures at the MAPS TSS Station during 2020.

2020 MAPS Station Summary	
	TSS
Total net hours	48.4
Total captures	333
Newly banded birds	227
Recaptures	74
Unbanded birds	32
Bands changed	1
Bands lost/destroyed	3
Total Species	39

Overall, we captured 333 individual birds of 39 distinct species. The five most captured species in 2020 were Yellow Warbler (45), Pine Siskin (40), MacGillivray's Warbler (30), American Robin (22), and Dusky Flycatcher (22). Two Olive-sided Flycatchers were also notable captures this season as well as one Spotted Sandpiper. Since the Spotted Sandpiper is a shorebird and our research permit does not include this type of bird, we released it unbanded. A full list of species that were new captures (i.e., the bird has never been banded), recaptures (any capture of a previously banded bird), or unbanded (birds that are captured, but not banded) can be seen in Table 2.

Figure 1. Chart of the Top 10 most captured species in 2020 at MAPS TSS station.

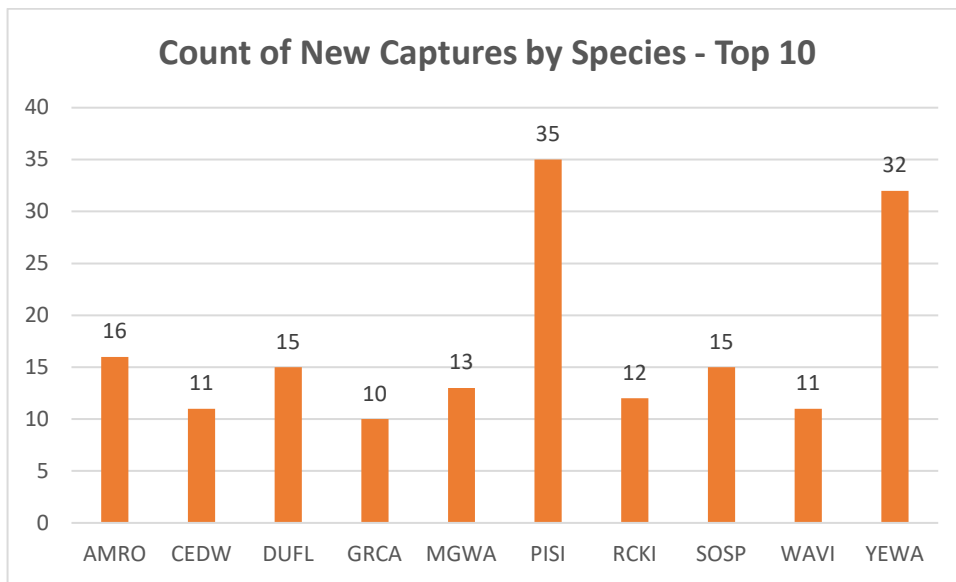


Figure 2. Percent of top 10 captured species.

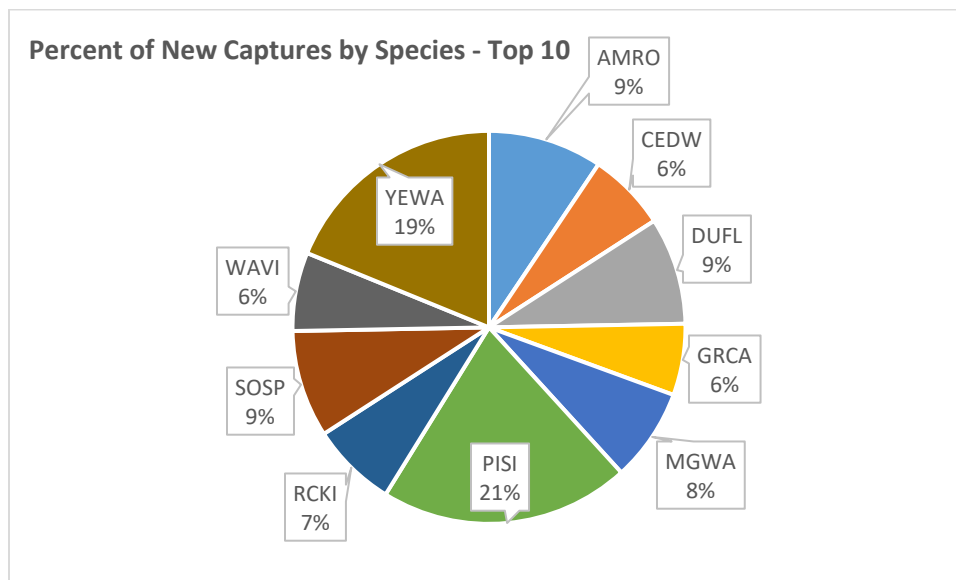


Table 2. A summary of banding data using the [ALPHA Code](#), including newly banded, recaptured, and unbanded birds caught at the Teton Science Schools – Kelly Campus station (-TSS).

TSS New	
Species	# of Birds
AMRO	16
AUWA	4
BHGR	1
BRSP	3
CAFI	1
CEDW	11
CHSP	1
COFL	1
DOWO	1
DUFL	15
FOSP	1
GRCA	10
GTTO	3
HAFL	2
HETH	1
HOWR	3
LAZB	1
LISP	4
MGWA	13
MOBL	1
MOCH	3
OCWA	1
ORJU	5
OSFL	2
PISI	35
RCKI	12
RNSA	2
SAVS	1
SOSP	15
SWTH	6
TOSO	1
WAVI	11
WETA	1
WIFL	2
WIWA	5
YEWA	32

TSS Recaptures	
Species	# of Birds
AMRO	6
AUWA	2
BHGR	1
CEDW	1
DUFL	7
GRCA	7
HOWR	1
MGWA	17
PISI	5
RCKI	1
RNSA	1
SOSP	6
SWTH	1
WAVI	5
YEWA	13

TSS Unbanded	
Species	# of Birds
AMRO	1
BTAH	5
CAHU	8
HOWR	3
PISI	1
RUHU	9
SOSP	3
WAVI	1
YEWA	1