



2019 Snake River Float Trips Annual Report

JACKSON HOLE



WILDLIFE
FOUNDATION

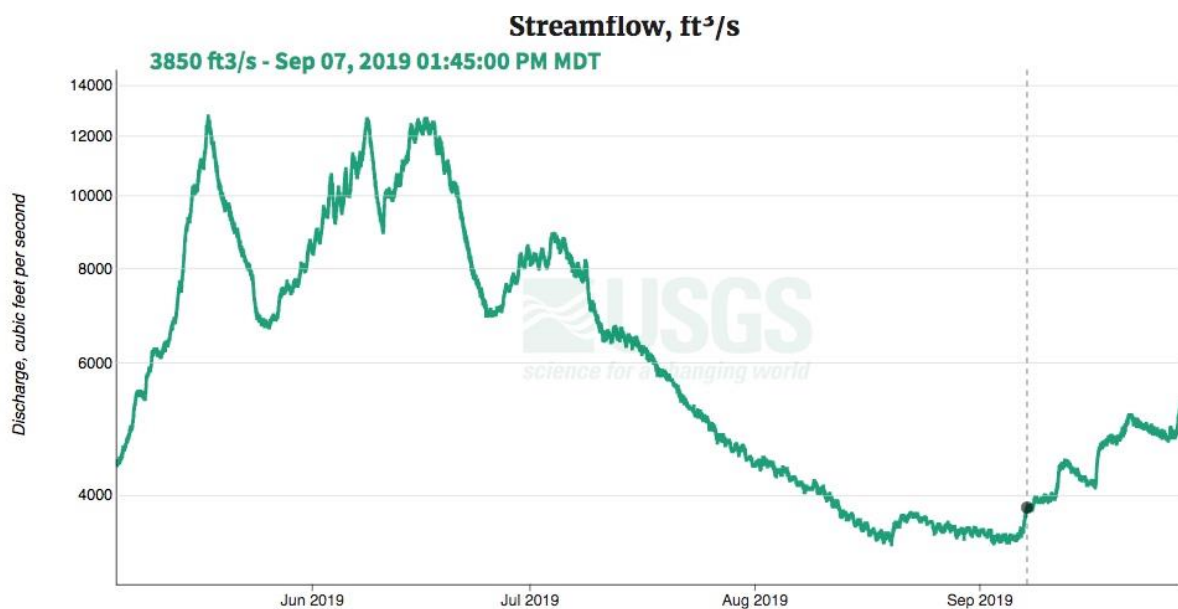
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Overview

Thanks for another great year in 2019! The 2019 float season started on May 5th and continued through September 29th. We welcomed 43 individual floaters on a total of 20 floats, 2 less than in 2018. Participants included volunteers and staff. We successfully floated every Sunday, with the exception of September 8th and September 22nd. Data for September 29th was not recorded in our database and is not included in this report.

As measured at the confluence of the Snake River and Flat Creek (the nearest gauging station), 2019 flow rate peaked in May and again in June at around 13,000 cubic feet per second. This high-water created new river channels early in the season that allowed boatmen to access previously unreachable, wildlife-rich riparian habitat. This included the Fish Creek channel, where a family of otters was spotted on May 12th. These were the only otters spotted all year. As has been the case in recent seasons, the guide staff did a fantastic job navigating the boat into backchannels to maximize wildlife viewing opportunities.

Figure 1: USGS flow rate of the Snake River measured below the Flat Creek confluence May 5 – September 29, 2019.



Nature Mappers recorded a total of 94 species of birds when totals from river floats and walking the grounds of “AJ’s camp” were combined. Our average number of bird species per float was 33 species. Our highest number of bird species recorded on a float was 51 species on June 2nd, on a trip led by Tim Griffith and friends.

While we caution against making scientific conclusions from trends in our data on a year-to-year basis, annual reports allow us to compare what Nature Mappers observed to previous years of floating. In 2019, we set a record for Bald Eagle observations with 223 (one more than

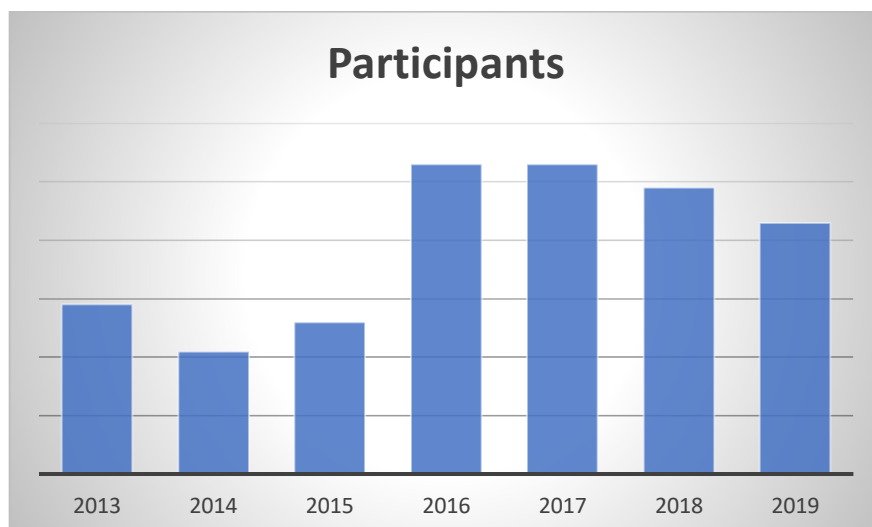
the previous year). We also recorded a record number of Spotted Sandpipers (784). For many species, the raw observations from 2018 were similar to 2019. For instance, our count of both Song Sparrows and Yellow Warblers in 2019 closely resembled our 2018 count. Alternatively, we recorded our lowest number of Osprey (14) and Mountain Bluebirds (26) since 2015. For the fifth straight year, the elegant and sophisticated Canada Goose was the most numerous bird species on the river!

As for mammals, our observations of moose (9), elk (4), and mule deer (6) remained characteristically low, although our moose total for the 2019 did set a Snake River Float Trips record. We spotted a record number of marmots on the levees, and encountered mink and otter each once, on separate floats.

2019 Highlights

- TOTAL NUMBER OF SPECIES COUNTED: 105
- BIRD SPECIES COUNTED: 94
- MAMMAL SPECIES COUNTED: 9
- AMPHIBIAN SPECIES COUNTED: 1
- TOTAL NUMBER OF INDIVIDUALS COUNTED: 7,624
- VOLUNTEERS AND STAFF PARTICIPATING: 43

Figure 2: Number of participants between 2013 - 2019. A drop in participants reflects a reduced number of Nature Mappers permitted on the boat in recent seasons.



Species Focus: Bald Eagle (BAEA)

- TOTAL BAEA COUNTED: 223
- HIGH BAEA COUNT: 20
- LOW BAEA COUNT: 3
- AVERAGE BAEA COUNT: 12

Figure 3: 2019 BAEA Counts by Week. Eagles were recorded on every float and the number of eagles recorded per float peaked on August 25th.

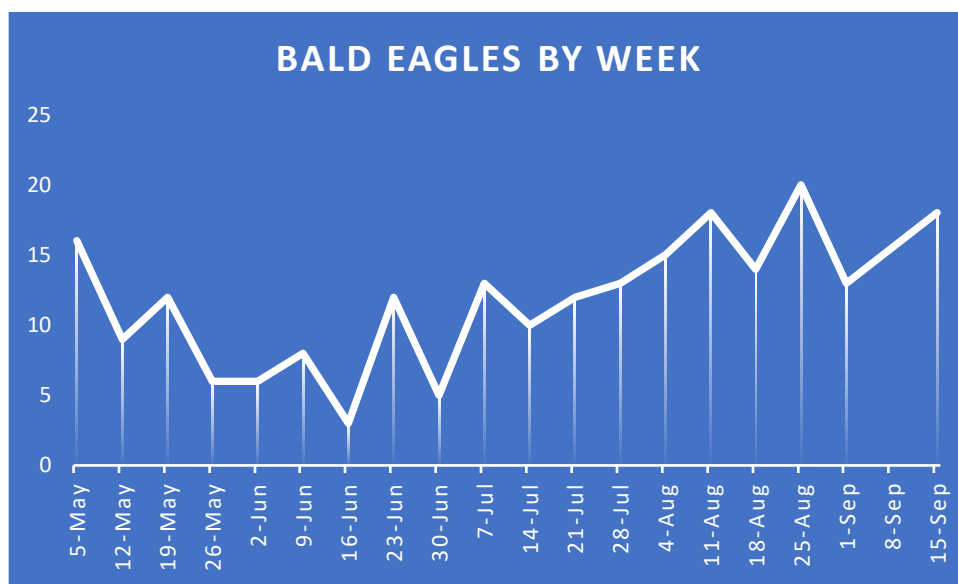
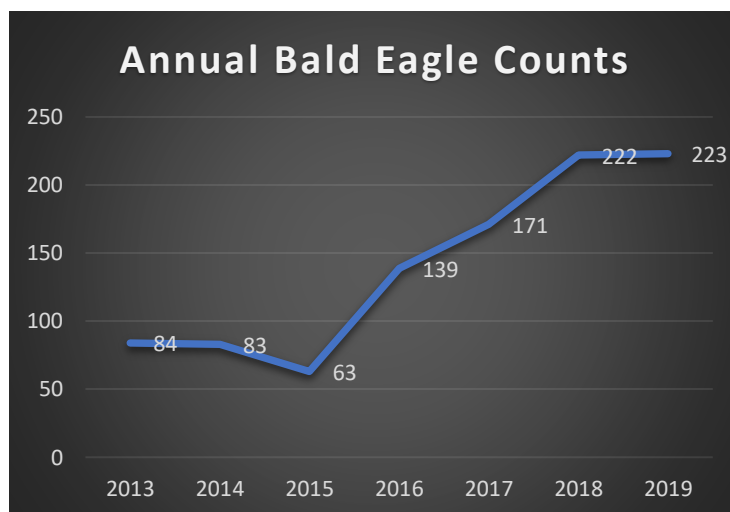


Figure 4: BAEA Counts by Year: 2013 – 2019. We recorded our most BAEA sightings ever in 2019 year with a final count of 223. Please note: this number refers to number of eagles spotted and not individual birds, as it is likely the same eagles were counted on multiple floats.



Top 10 Species Counted in 2019

1. CANADA GOOSE: 1,205
2. SPOTTED SANDPIPER: 784
3. TREE SWALLOW: 769
4. COMMON MERGANSER: 536
5. BANK SWALLOW: 496
6. YELLOW WARBLER: 442
7. CLIFF SWALLOW: 379
8. SONG SPARROW: 352
9. MALLARD: 260
10. AMERICAN ROBIN: 251

Species Report

In 2019, Nature Mappers recorded the most total species in a single float season. The “top ten” list for birds in 2019 consisted of the same species as in 2018, with the exception of American Robin, which replaced the American White Pelican as the 10th most numerous bird species counted on the year. Less common birds observed on floats in 2019 were American Avocet (6), Greater Yellowlegs (2) Wood Duck (1), Wilson’s Phalarope (3), Solitary Sandpiper (1) and Least Sandpiper (1). A single flock of American Pipits was sighted in early May, and there were zero gull species observed on the year.

For some context into species trends, please note (from Tim Griffith’s 2018 report): ***“Weekly float trips and improved participant identification skills has helped increase the number of individuals seen on an annual basis. The first year for weekly float trips was 2016. In 2013-2015 the float trips were held every other week, which resulted in fewer numbers recorded. For this review one, should look at the data sets from the past three float seasons for the best insights.”***

Weekly counts of six species that return to Jackson Hole each spring to nest are highlighted below. Flycatchers and Wood-Pewees didn’t start to show up in our data until early-June. Yellow Warblers were virtually absent on May 5th, but exploded in abundance on May 12th, the following week. Unlike Yellow Warblers, Yellow-rumped Warblers were counted in relatively high numbers from the first float until July 7th, which was the last date we recorded this species. Our data also seems to have captured the 2019 Western Tanager “explosion” in early-mid June.

Overall, we tended to observe more species in May-June than we did in August-September. If you want to see the maximum number of species on a float trip, early season seems like the time to do it!

Figure 5: Average counts and species trends for several “top species” since 2016. While our data is useful in showing the presence of individual species, as well as rough ratios of abundance relative to other species, the “trends” presented here should not be considered scientifically valid due to inconsistencies in data collection (e.g. just because Spotted Sandpiper observations have increased for four straight years does not necessarily mean that the SPSA population along the Snake River is increasing).

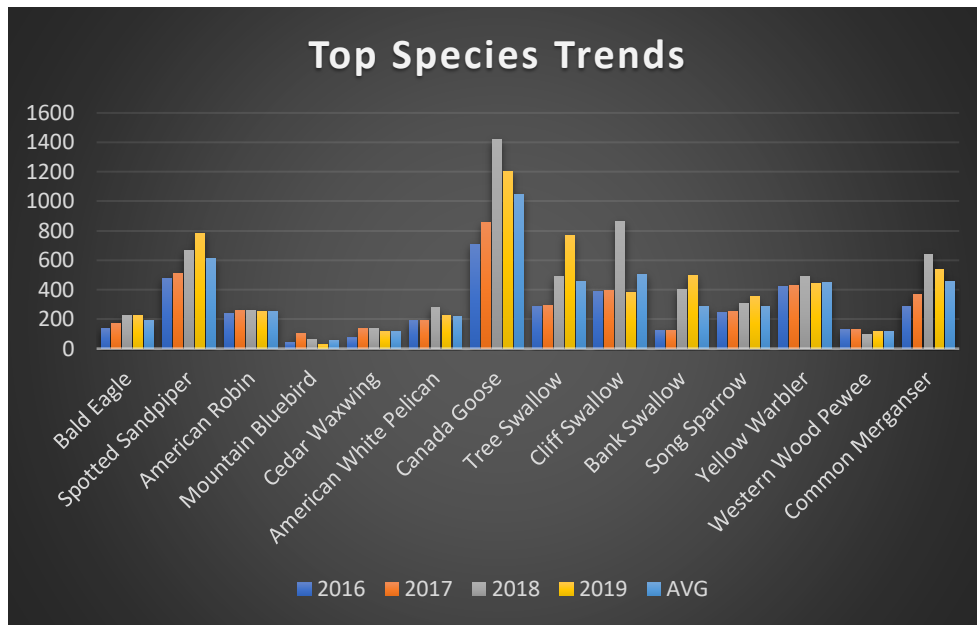
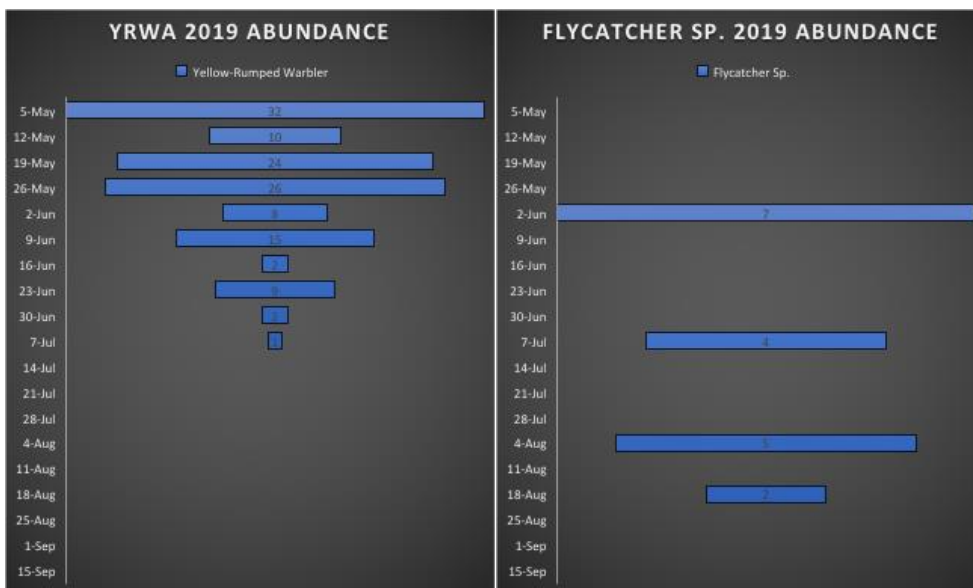
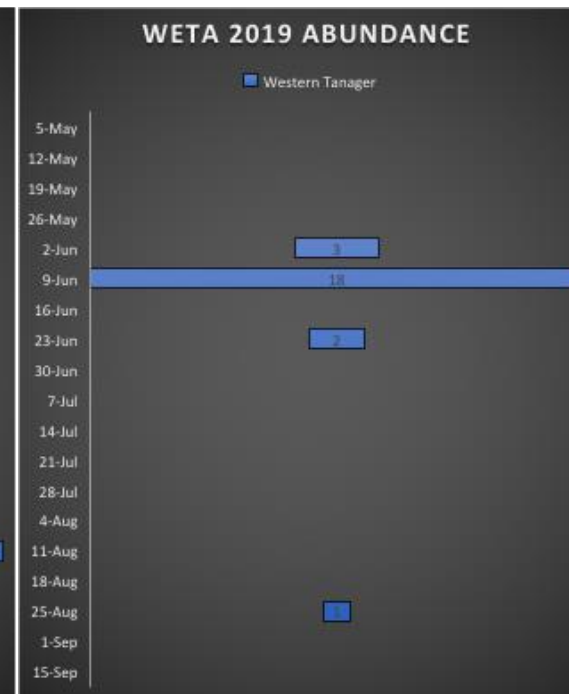
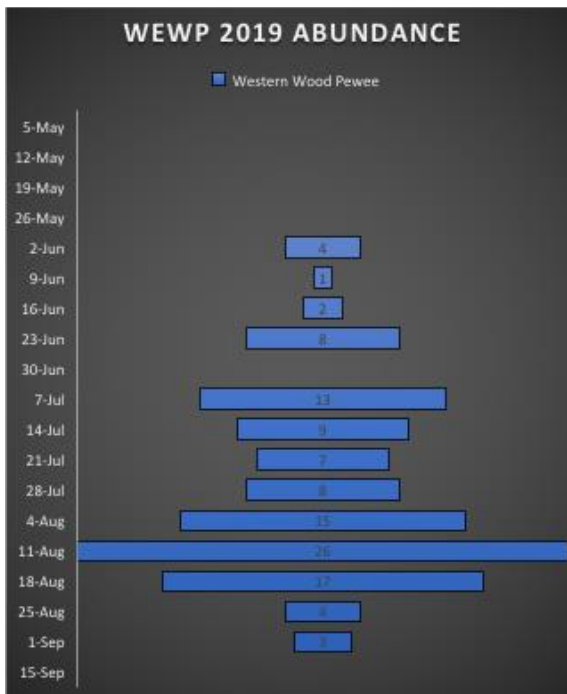
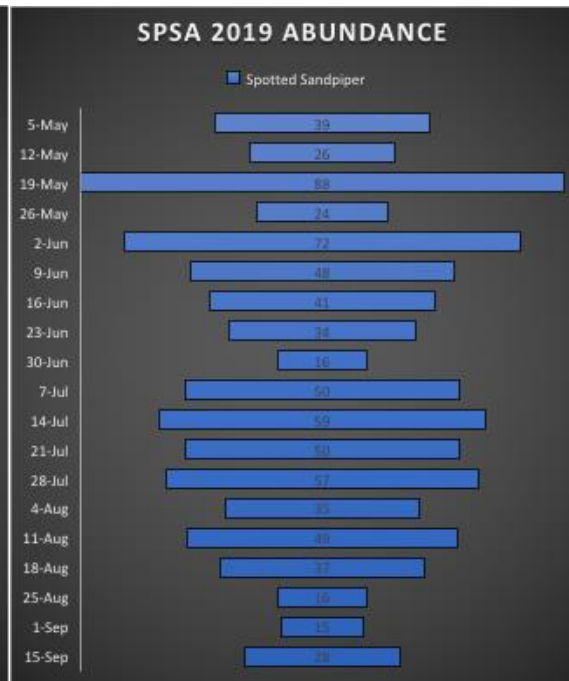
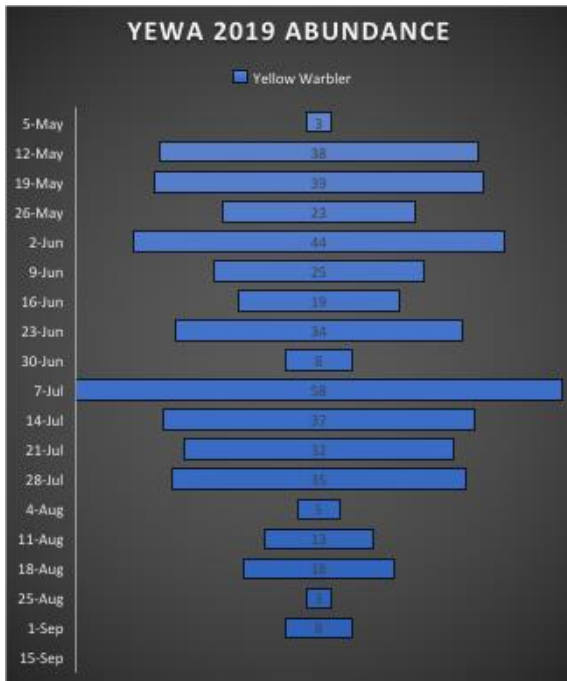
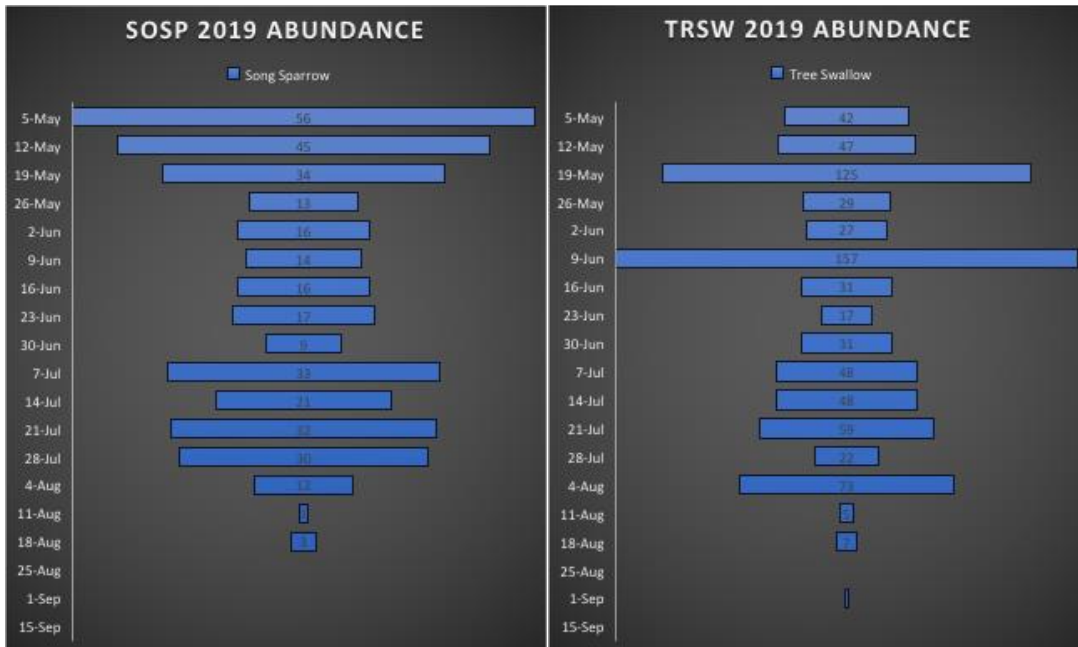


Figure 6-13: Series of charts showing number of individual observations per float trip for six summer resident (nesting) species of Jackson Hole.







Sightings by Species 2013-2019

Species	2013	2014	2015	2016	2017	2018	2019
Bald Eagle	84	83	63	139	171	222	223
Spotted Sandpiper	185	244	221	478	513	669	784
American Robin	97	198	101	240	257	260	251
Mountain Bluebird	0	19	7	44	103	62	26
Cedar Waxwing	58	71	6	73	135	138	114
American White Pelican	63	141	161	190	190	277	223
Canada Goose	98	194	399	708	856	1422	1205
Tree Swallow	124	112	203	285	292	489	769
Cliff Swallow	39	66	72	387	396	861	379
Bank Swallow	20	48	10	125	126	401	496
Song Sparrow	53	63	73	246	252	306	352
Yellow Warbler	145	125	88	424	431	490	442
Western Wood Pewee	40	42	4	128	129	97	117
Common Merganser	168	197	115	287	369	641	536
Mallard	41	91	133	248	296	336	260
Osprey	28	12	17	29	31	24	14
Moose	0	1	0	0	1	5	9
Elk	0	0	0	113	15	3	4

Mule Deer	0	0	0	35	11	7	6
Yellow-bellied Marmot	0	2	0	40	38	70	94
Total # Of Species	72	62	62	111	80	87	105
Average # Of Species	23	14	19	40	26	28	34

Conclusions

The 2019 Nature Mapping Jackson Hole Snake River Float Trips continued to be a popular program offering Nature Mappers both a unique wildlife-watching opportunity and chance to improve birding skills.

Despite conducting less overall floats than the previous year, we recorded our highest number of bird species since the program’s initiation. Overall, mammal sightings remained scarce on this section of river (with the exception of marmots). The observations Nature Mappers have helped to collect on these float trips can help show “presence” of certain species along the Snake River corridor and provide an estimate of the abundance of certain species relative to other species. When augmented with other datasets (eBird observations, etc.) we hope this data can be useful to scientists studying long-term trends of wildlife in our region.

As usual, we wish to offer our enormous gratitude to A.J. DeRosa and his fabulous staff from Jackson Hole Vintage Adventures for allowing us to conduct our Snake River Float Trips in 2019. JHVA staff were continuously polite, engaging, and provided insightful information for floaters. Further, they put Nature Mappers in excellent positions to record wildlife observations throughout the season, despite tricky river conditions at times.

We are excited to continue this Nature Mapping Jackson Hole tradition in 2020!