

2019-2020 Banding Report

University of Arkansas at Monticello

Division of Agriculture Experiment Station



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DUCKS
UNLIMITED

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Justification: Waterfowl distributions and migration patterns are changing, subsequently impacting hunting opportunity in various ways. Existing long-term data such as banding and band recovery data and harvest information can provide insight into factors influencing change. These data sources can be an effective tool for monitoring patterns into the future.

Continently, the number of bands deployed annually across the breeding areas (pre-season banding) and non-breeding areas (post-season banding) have fluctuated as a result of change in funding mechanisms and the ability to effectively catch ducks. The decline in the number of bands deployed annually is alarming for scientists that rely on hunter harvested band recoveries to monitor population parameters used to guide harvest management decisions. Pre-season banding has become a financial and logistical challenge, and fewer are banded now than in previous decades because the location of breeding populations are dynamic and the location of long-term banding stations have remained consistent. To complicate matters, pre-season banding coordinated by the U.S. Fish and Wildlife Service has been cancelled for the summer of 2020 due to Covid-19, thus making winter banding more important in coming years.

Winter banding has occurred off and on in the Mississippi Alluvial Valley since the 1960s, with peak band numbers for mallards approaching 6,000 annually during the 1960s and 1980s. Winter banding can be more cost and time efficient than pre-season banding. The purpose of the current winter banding program coordinated with partners out of the University of Arkansas Monticello campus is to monitor changes in the timing of migration, distribution, and homing rate compared to historical banding data, to identify direction and magnitude of change.

Lastly, this program aims to increase public outreach and education by bridging the gap between science and the public. This banding program allows us to give back to the hunters that invest in the hunting enterprise and to facilitate recruitment of students pursuing waterfowl careers.



Banding: Banding occurred on 7 sites in Arkansas and Mississippi during February-March 2020. Warm weather and flooding in early February forced a late start to the 2020 banding season; however, our teams managed to band 3,504 ducks and 13 species, making 2020 the second most successful year since inception of the winter banding program in 2014 (Table 1).

Recoveries: To date, 1,076 (6.4%) of 16,926 bands deployed have been reported to the Bird Banding Laboratory, of which 1,048 (97.4%) were harvested by hunters. Nearly 40% (n=410) of hunter harvested band recoveries occurred in Arkansas. Mallards account for 88% of all band recoveries, followed by American green-winged teal (4.6%) and Wood ducks (4.4%; Figure 1).

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Table 1. Number of ducks banded annually by species

| Species | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|---------------------|------------|------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Black duck | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 5 |
| Green-winged teal | 0 | 0 | 131 | 204 | 89 | 341 | 243 | 1,008 |
| Am. coot | 0 | 0 | 127 | 2 | 0 | 3 | 35 | 167 |
| Am. wigeon | 0 | 0 | 5 | 1 | 0 | 15 | 34 | 55 |
| Blue-winged teal | 0 | 0 | 0 | 0 | 0 | 16 | 11 | 27 |
| Gadwall | 0 | 0 | 54 | 55 | 1 | 120 | 12 | 242 |
| Hooded merg. | 0 | 0 | 2 | 0 | 3 | 1 | 2 | 8 |
| Lesser scaup | 0 | 0 | 9 | 0 | 0 | 0 | 2 | 11 |
| Mallard | 130 | 830 | 1,081 | 3,067 | 3,990 | 1,870 | 2,788 | 13,756 |
| N. pintail | 0 | 5 | 0 | 9 | 10 | 69 | 2 | 95 |
| N. shoveler | 0 | 0 | 9 | 1 | 0 | 18 | 0 | 28 |
| Redhead | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ringneck | 0 | 0 | 0 | 29 | 2 | 3 | 33 | 67 |
| Wood duck | 0 | 0 | 108 | 22 | 727 | 250 | 340 | 1,447 |
| Hybrid | 0 | 0 | 0 | 1 | 7 | 0 | 1 | 9 |
| Annual Total | 130 | 835 | 1,526 | 3,392 | 4,830 | 2,709 | 3,504 | 16,926 |

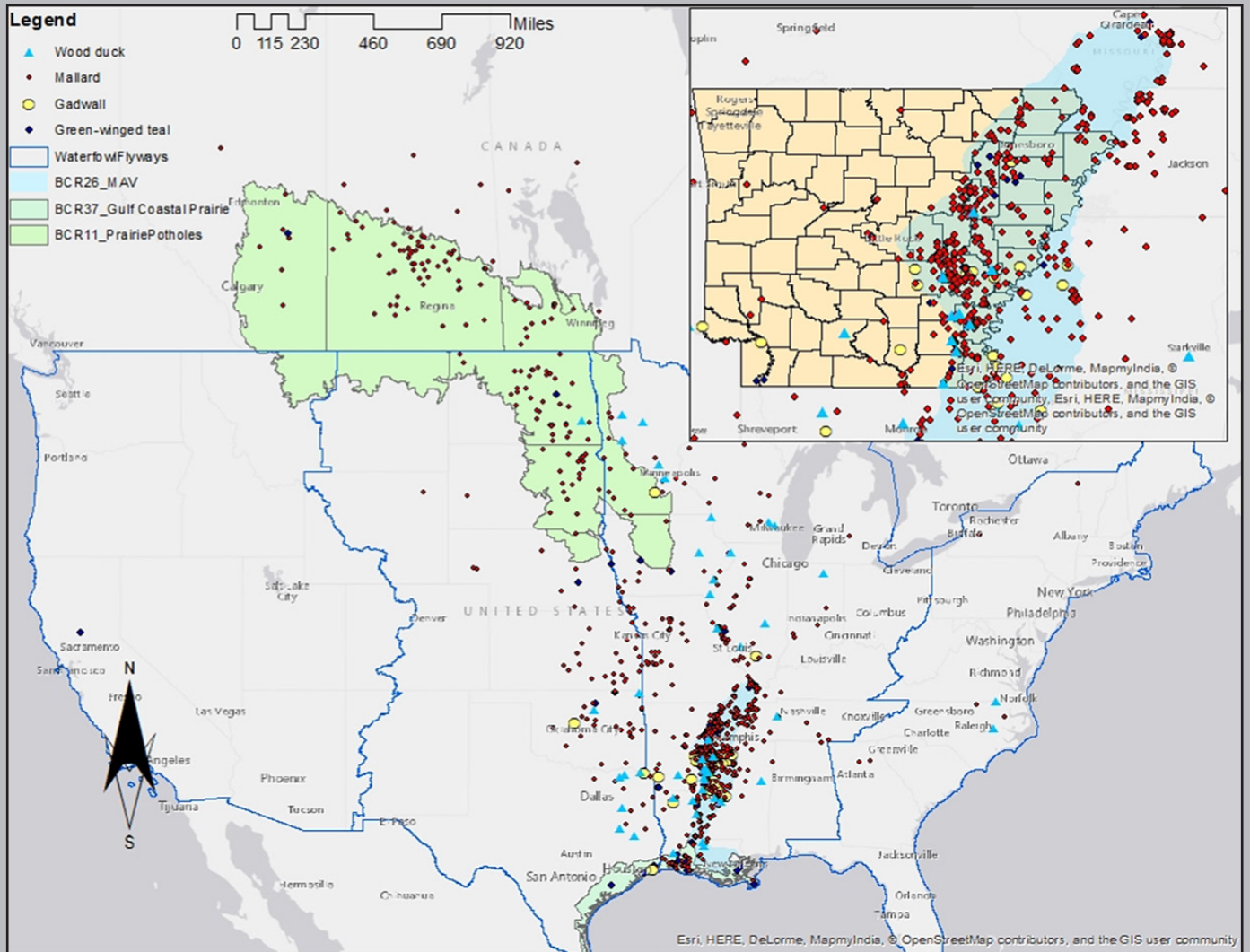


To Our Donors: We extend our gratitude to the many generous donors that make this winter banding program successful. The financial and logistical contributions in support of this program and the hospitality they provide our banding crews is unsurpassed. This program is completely funded by private individuals with a similar passion for waterfowl conservation and hunting heritage. We also thank the hunters for reporting harvested bird bands. These data are used by scientists across the country to better understand the ducks.

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Figure 1. Band recovery locations by species from 2014-2020. Flyway boundaries and important ecological waterfowl regions are displayed.



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Table 2. Cumulative hunting season harvest recoveries by state and Canadian province for all species banded by this winter banding program. Updated 1 February 2020.

| | 2014-2015 | 2015-2016 | 2016-2017 | 2017-2018 | 2018-2019 | 2019-2020 | State Total |
|-------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| AL | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| ALB | 0 | 0 | 0 | 2 | 1 | 4 | 7 |
| AR | 1 | 18 | 40 | 130 | 119 | 97 | 405 |
| CA | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| GA | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| IA | 0 | 0 | 0 | 5 | 7 | 7 | 19 |
| IL | 0 | 1 | 5 | 15 | 12 | 11 | 44 |
| IN | 0 | 0 | 0 | 2 | 2 | 1 | 5 |
| KS | 0 | 0 | 1 | 3 | 6 | 11 | 21 |
| KY | 0 | 1 | 1 | 8 | 6 | 7 | 23 |
| LA | 1 | 2 | 14 | 34 | 29 | 16 | 96 |
| MAN | 0 | 0 | 2 | 4 | 6 | 0 | 12 |
| MI | 1 | 3 | 0 | 3 | 0 | 0 | 7 |
| MN | 0 | 2 | 1 | 6 | 10 | 4 | 23 |
| MO | 0 | 5 | 6 | 17 | 20 | 21 | 69 |
| MS | 0 | 0 | 2 | 28 | 22 | 21 | 73 |
| NC | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| ND | 1 | 3 | 5 | 11 | 15 | 3 | 38 |
| NE | 0 | 0 | 1 | 2 | 3 | 3 | 9 |
| NV | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| NY | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| OK | 0 | 1 | 3 | 9 | 13 | 3 | 29 |
| SAS | 0 | 5 | 7 | 16 | 22 | 13 | 63 |
| SD | 0 | 0 | 1 | 6 | 7 | 5 | 19 |
| TN | 0 | 3 | 2 | 21 | 10 | 9 | 45 |
| TX | 0 | 0 | 5 | 1 | 8 | 6 | 20 |
| VA | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| WI | 0 | 1 | 0 | 5 | 2 | 1 | 9 |
| WY | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Total | 4 | 48 | 98 | 331 | 324 | 243 | 1048 |

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For more information on this project or other Ducks Unlimited funded research, please contact:

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