MDWFP Aerial Waterfowl Survey Report

December 13 - 16, 2021

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The second MDWFP aerial waterfowl survey of the season occurred December 13 – 16, 2021. Wetland habitat availability was again well below average for much of the Mississippi Delta, with very little rainfall occurring since the November survey. While permanent and semi-permanent wetlands like oxbow lakes and sloughs have adequate water levels, shallow, seasonal water is still not widely distributed. Public lands continue to hold the majority of intensively managed waterfowl habitat across the state. As a result, waterfowl were observed responding to these areas, often in high numbers relative to the rest of the Delta. A large portion of harvested agricultural fields have been or are currently being disked, which will result in reduced food availability for waterfowl if the fields are eventually flooded. As in November, much opportunity remains for private landowners to capture rainfall with water control structures as fall and winter continue and as more waterfowl migrate into the state. Flooded habitat availability was greatest in the northeast portion of the Delta and was least in the southwest portion.

Although total duck numbers increased from the November survey, the total duck abundance estimate for the Mississippi Delta was below the long-term average for December surveys, as were the individual estimates for mallards and other dabbling ducks (Tables 1 and 2). The diving duck estimate was well above their long-term average for this time of year, and diving ducks made up about 50% of all duck observations. In contrast, the mallard estimate for December remained nearly identical to the November estimate, and well below the long-term average for this time of year. Northern shovelers and scaup were the two most abundant duck species observed overall, largely due to their high use of aquaculture ponds throughout the Delta. The southeast portion of the Delta contained the greatest abundances of all duck categories recorded: mallards, other dabblers, diving ducks, and total ducks overall.

Mallards were once again most observed using shallowly flooded natural, moist-soil vegetation. An increase in flooded agriculture was observed during this survey, but this type of habitat should become much more available later in the season. Most other dabbling ducks were observed using aquaculture complexes and semi-permanent or permanent wetlands with aquatic vegetation. And as usual, the greatest abundances of diving ducks were observed on aquaculture complexes. In general, ducks were not evenly distributed across available wetland habitat. Instead, ducks were observed together in relatively large groups in areas with managed complexes of diverse wetland habitat, which is typical of early-season behavior. Although significant rainfall will be needed to increase wetland availability in many areas, biologists speculate that ducks will soon begin to distribute further into more areas that are currently flooded. There was a significant increase in the number of observed concentrations of light geese (snow, blue, and Ross') and greater white-fronted geese (commonly called specklebellies) during this survey.

The bulk of Mississippi's waterfowl hunting season remains ahead, and peak numbers of waterfowl are typically observed during the month of January. Temperatures dipped below freezing recently in much of the state, but the current forecast predicts a significant warm up again around Christmas. Weekly waterfowl reports have begun, and will continue to include updates from Mississippi hunting reports, as well as updated weather and habitat conditions. For weekly waterfowl reports and more information on the MDWFP Waterfowl Program, visit our website at http://www.mdwfp.com/waterfowl.

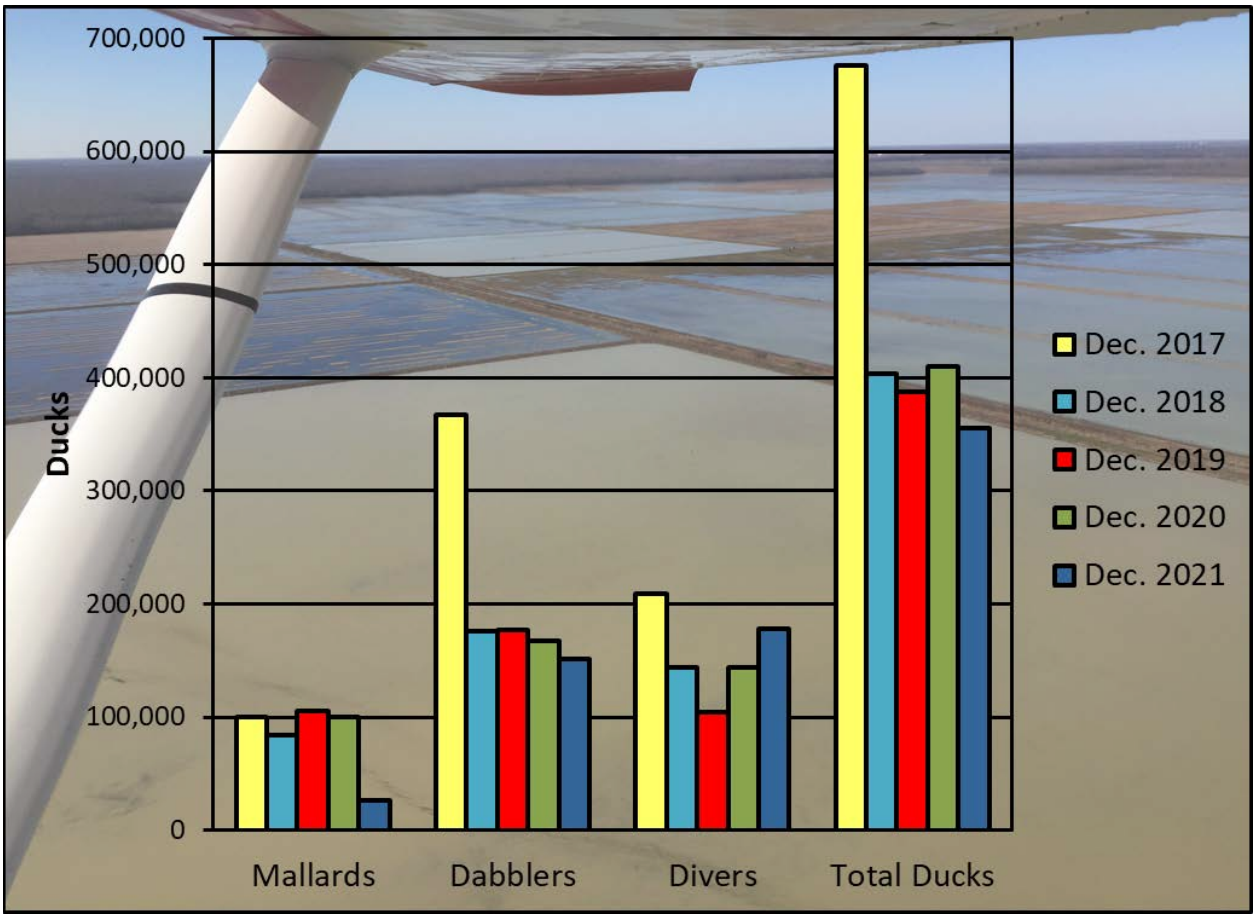
Table 1. Waterfowl abundance estimates in the Mississippi Delta during the December survey periods, 2007-2021.

	Mallards	**Dabblers**	**Divers**	**Total Ducks**
2007	50,368	75,604	41,738	167,710
2008	223,976	389,939	70,750	684,665
2009	116,748	209,346	74,396	400,491
2010	210,531	388,064	236,966	835,561
2011	136,776	281,560	111,423	529,758
2012	122,779	176,950	171,542	471,271
2013	230,634	638,386	100,412	969,432
2014	86,838	331,460	102,117	520,415
2015	139,805	193,719	90,958	424,482
2016	202,135	460,752	146,707	809,594
2017	100,389	366,802	208,749	675,940
2018	84,032	176,070	143,417	403,519
2019	105,827	176,863	104,843	387,533
2020	99,767	167,139	143,458	410,365
2021	26,403	151,460	177,615	355,478
Average	**129,134**	**278,941**	**128,339**	**536,414**

Table 2. Comparison of December 2021 aerial waterfowl survey estimates to the long-term average (LTA) for November survey estimates.

Species Group	December 2021	December LTA	% Change from LTA
Mallards	26,403	129,134	-79.6%
Other Dabblers	151,460	278,941	-45.7%
Diving Ducks	177,615	128,339	+38.4%
Total Ducks	**355,478**	**536,414**	**-33.7%**

Figure 1. Waterfowl abundance estimates in the Mississippi Delta during the five most recent December survey periods.

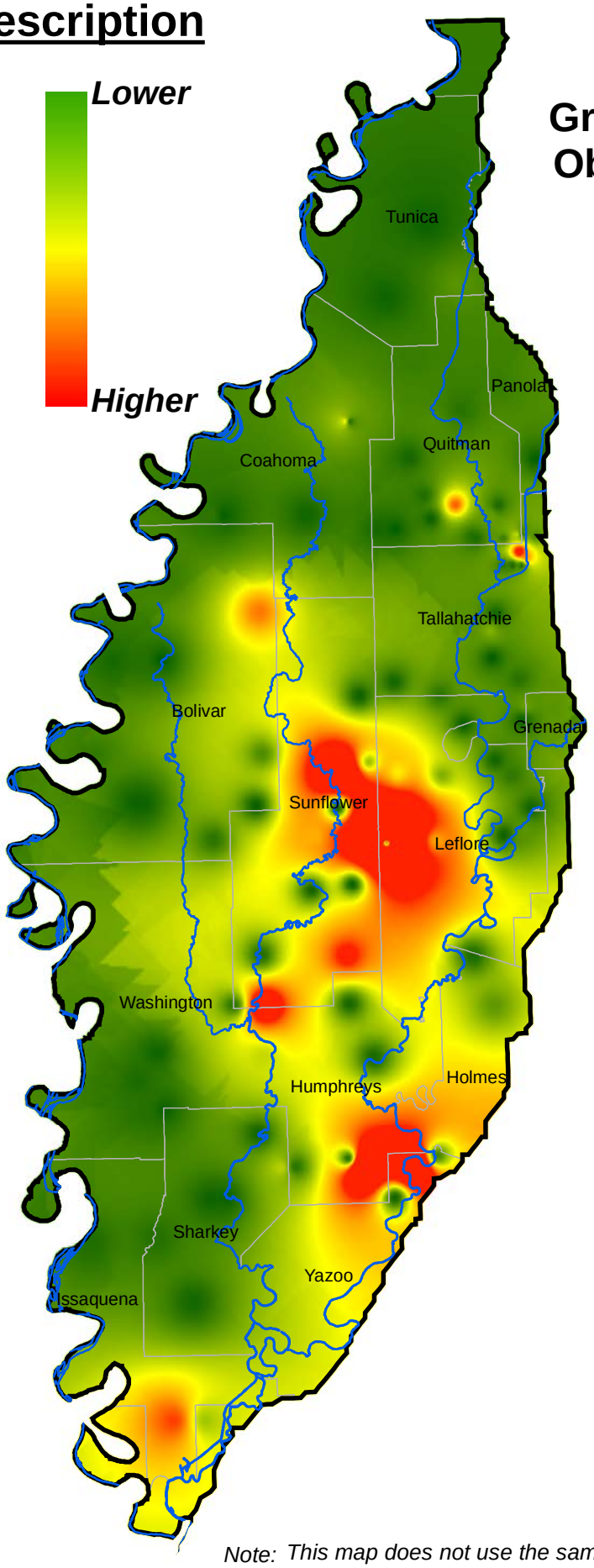


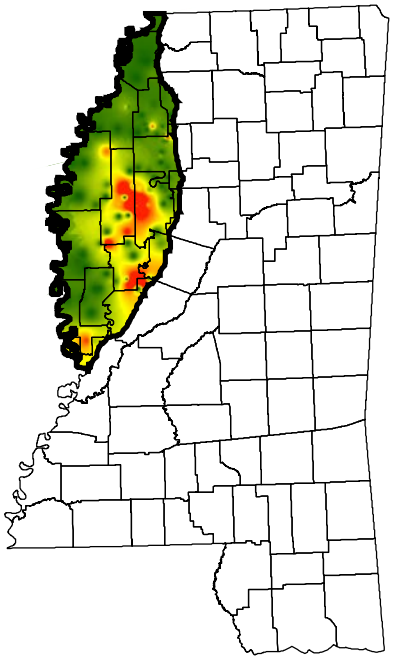
Description

Lower

Higher

Greatest Concentrations of Ducks Observed in the Mississippi Delta Nov. 13 -16, 2021

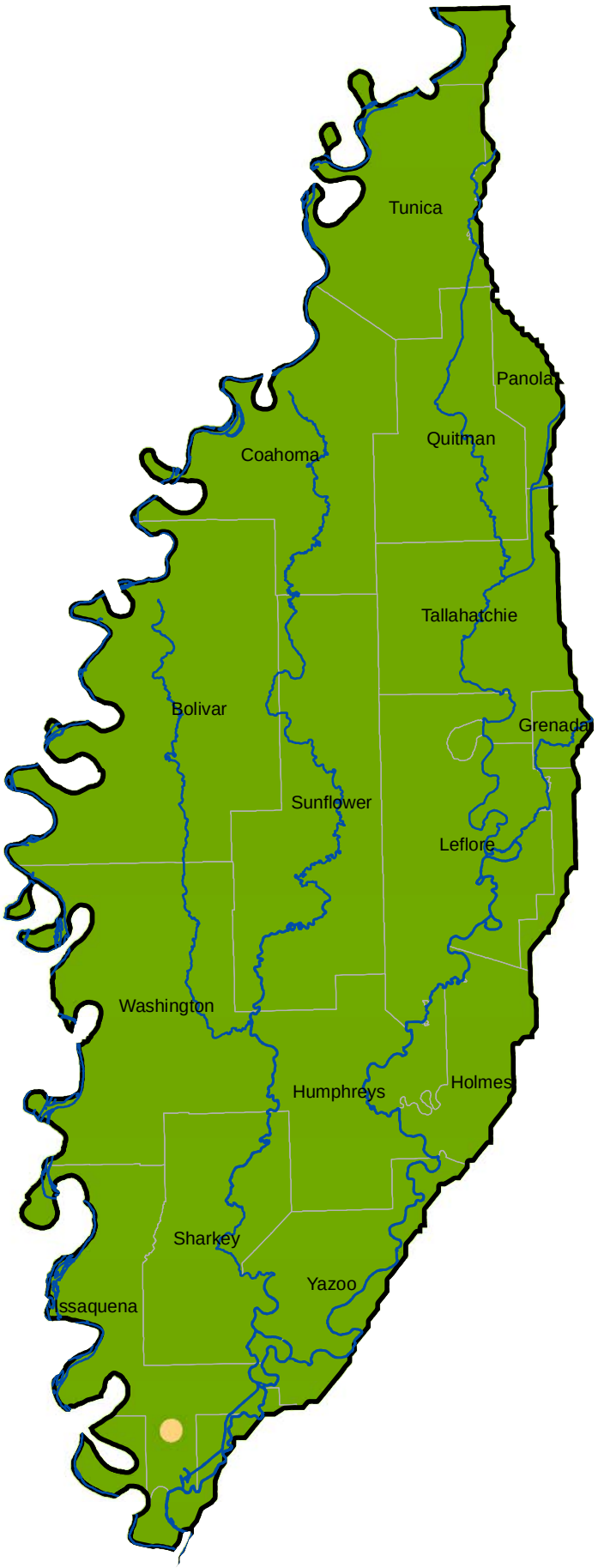




Note: This map does not use the same area calculations as previously published maps and is intended to illustrate major concentrations of ducks in the Mississippi Delta.

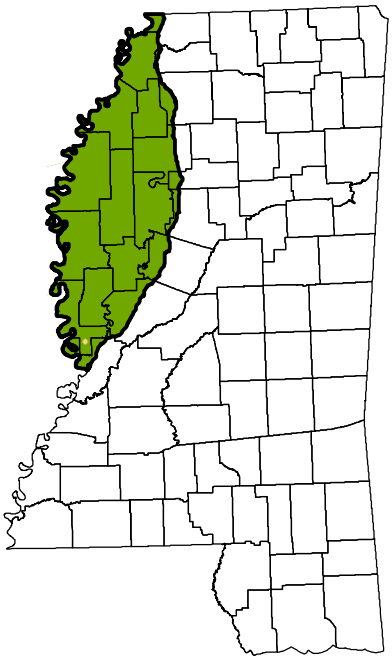
Prepared by MDWFP
GIS Lab 20 Dec. 2021

Distribution of Mallards in the Mississippi Delta Dec. 13 -16, 2021



Description

- Low (<12/mi2)
- Medium (12-115/mi2)
- High (>115/mi2)



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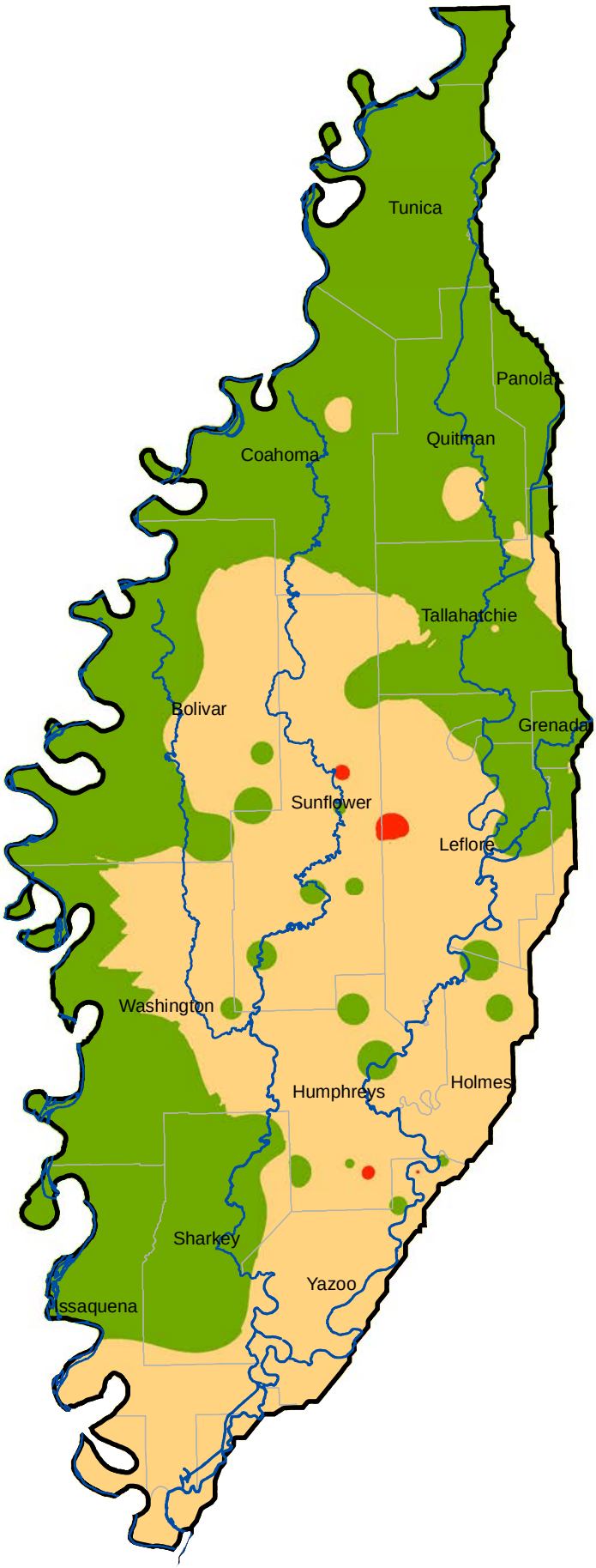
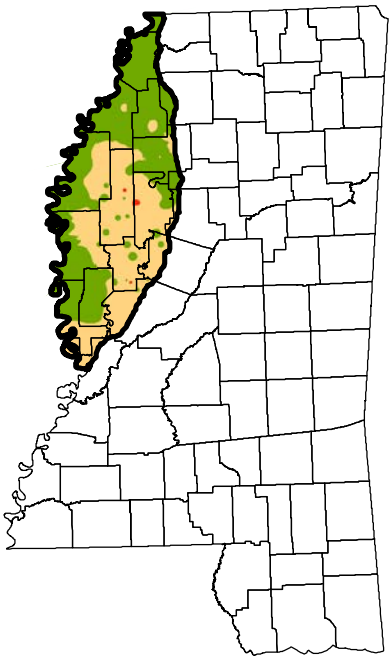
Distribution of Total Ducks in the Mississippi Delta Dec. 13 -16, 2021



Description

- Low (<12/mi2)
- Medium (12-115/mi2)
- High (>115/mi2)



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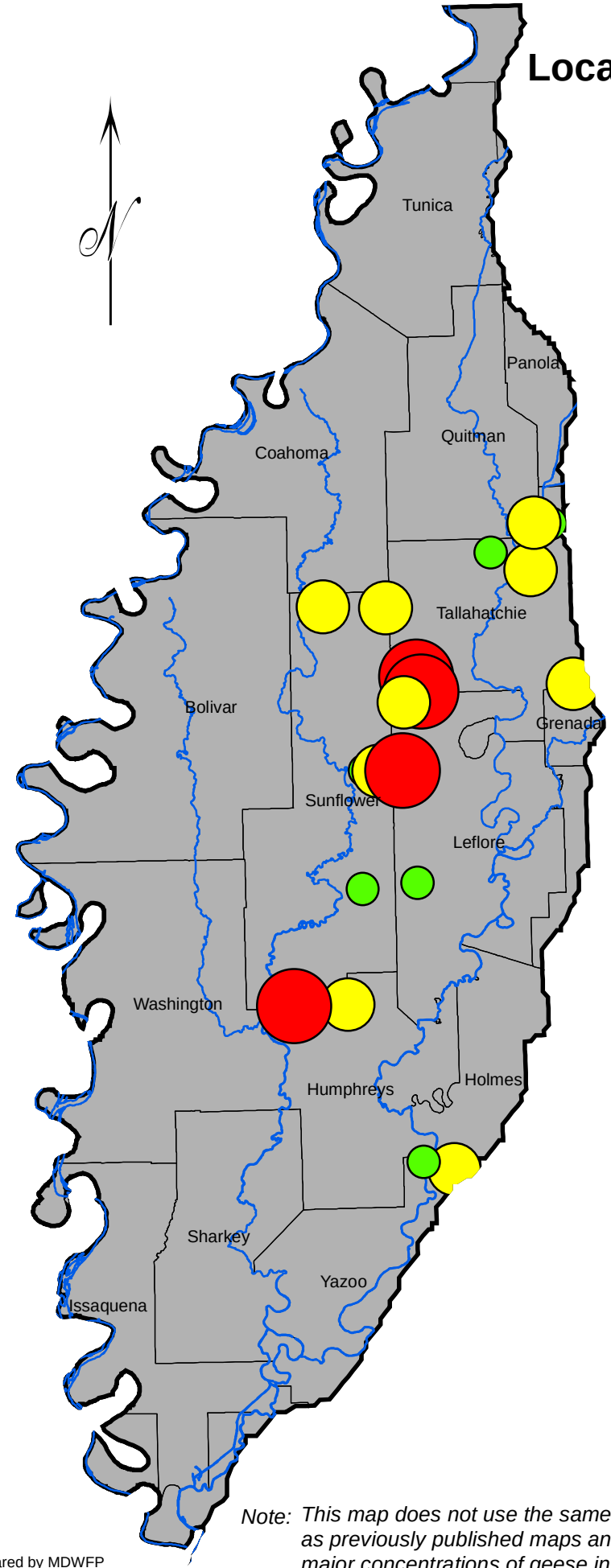
Locations and relative size of light goose flocks in the Mississippi Delta Dec. 13 - 16, 2021



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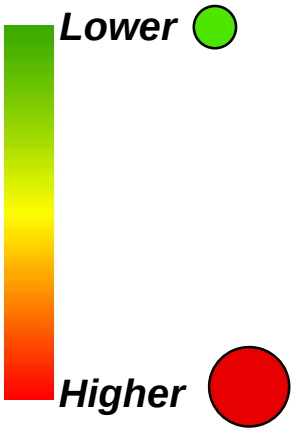

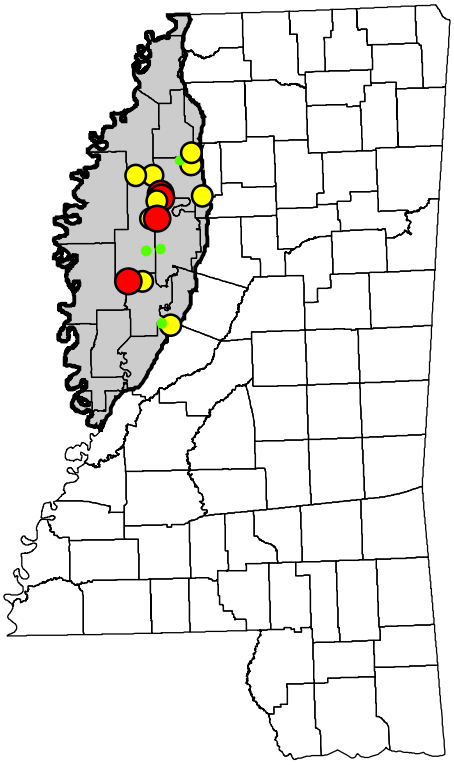

Note: This map does not use the same area calculations as previously published maps and is intended to illustrate major concentrations of geese in the Mississippi Delta.

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