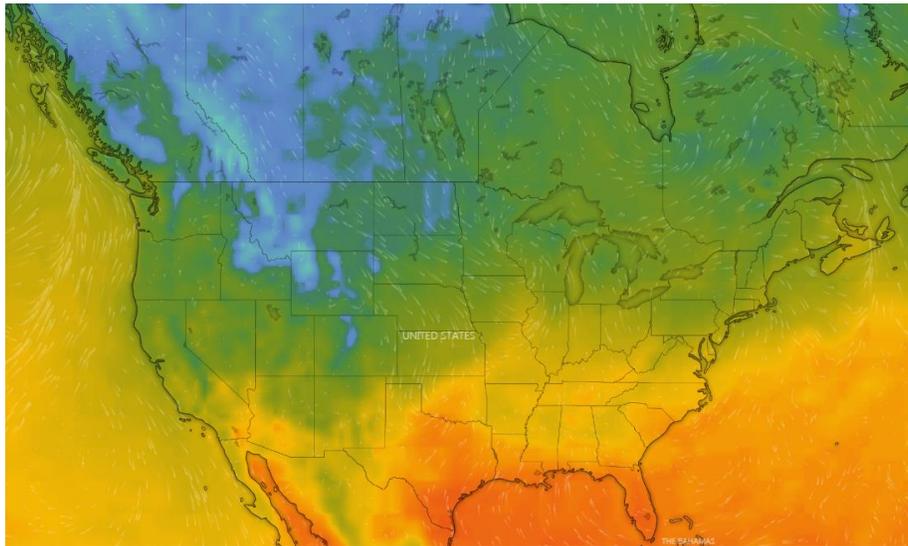


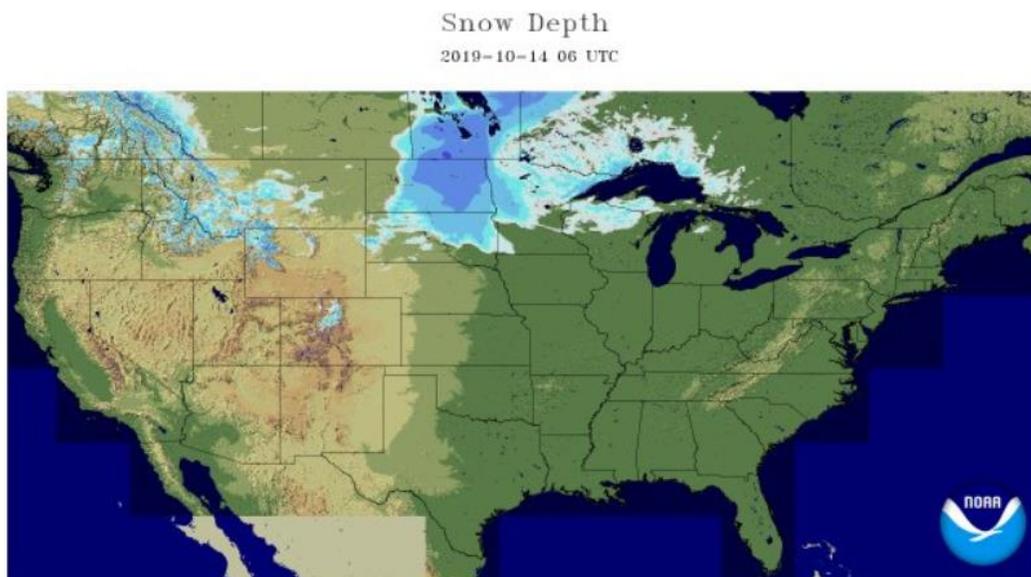
## 14 – 20 October 2019 DUCK MIGRATION FORECAST

Michael L. Schummer, Roosevelt Waterfowl Ecologist, SUNY College of Environmental Science and Forestry, 1 Forestry Drive, Syracuse, NY 13210

**OVERVIEW:** Last week brought an early season snowstorm to North Dakota and other portions of the prairies. The tendency has been for people to think this foretells an early winter and quality waterfowl migration to southern latitudes. The general pattern predicted across North America for the next two weeks is for a blocking high pressure system, partially created by early Siberian snow cover, that will cause troughing of cold air and create normal to slightly below normal temperatures for western North America and ridging eastward with normal to above normal temperatures for eastern North America (**Figure 1**). While this storm moved some early migrating species south, they did not have to go far to find warmer temperatures and no snow (**Figure 2**). Further, the weather this week is forecasted to moderate in the prairies and east, generally reducing conditions necessary to cause migrations. Snow melt is predicted this week for snow covered areas in the mid-continent shown in **Figure 2**.



**Figure 1.** Colder temperatures (blue) in the west relative to the warmer (yellow and light green) east due to blocking caused by a high-pressure system centered over the North Pacific propagating from Siberia.



**Figure 2.** Snow cover in North Dakota and other prairie regions, but limited snow cover just south of this area.

**SPECIES PREDICTIONS:** We report WSI values and color code each day by species and location as **little to no migration (YELLOW)**, **increasing abundance (RED)**, and **decreasing abundance (BLUE)**. WSI models and thresholds differ among species, so the values by location will differ among some species. Little to no mallard migration is expected this week, although early movement to initial staging areas is expected. These initial movements occur before weather is cold or snowy enough to cause movements, but once ducks are physiologically capable of movements to initial staging areas, they move into these northern and mid-latitude areas until cold and snow cause them to make more flexible movements based on weather. Weather was not severe enough for our WSI to predict movement of mallards out of North Dakota last week and those conditions moderate this week with melting snow cover. Ducks that remained are likely to find abundant sheetwater from snowmelt. Early migrants were predicted to make substantial movements out of northern locales in the Mississippi Flyway last week (e.g., North Dakota), but only the earliest migrators such as shoveler, wigeon, and green-winged teal are predicted to make movements in the coming week elsewhere. Likelihood of movements are greatest for these species later this week out of the western Great Lakes, mid-west, and eastern Canada, but these are not expected to be substantial movements.

**MALLARD AND BLACK DUCK (WSI threshold = 5)**

Month	Day	Manitoba Churchill	North Dakota Devils Lake	Michigan Green Bay	Iowa Des Moines	Ohio Columbus	Tennessee Memphis	Ontario Ottawa	New York Syracuse	DC Washington	North Carolina Charlotte
10	10	-2	1	-16	-12	-18	-19	-11	-11	-15	-18
10	11	-3	3	-10	-4	-18	-8	-10	-11	-16	-19
10	12	-2	3	-4	-6	-9	-5	-10	-13	-17	-21
10	13	-3	4	-4	-6	-11	-5	-8	-11	-15	-17
10	14	-3	2	-5	-12	-10	-15	-6	-8	-16	-17
10	15	-2	3	-8	-8	-14	-10	-9	-11	-17	-19
10	16	-1	4	-5	-5	-8	-5	-10	-11	-13	-19
10	17	-3	-1	-6	-12	-8	-6	-6	-7	-12	-12
10	18	-3	-3	-11	-14	-10	-11	-5	-7	-12	-12
10	19	-3	-1	-11	-14	-15	-14	-8	-11	-14	-16
10	20	-2	-3	-13	-14	-18	-19	-11	-14	-17	-19

**PINTAIL (WSI threshold = -4)**

Month	Day	Manitoba Churchill	North Dakota Devils Lake	Michigan Green Bay	Iowa Des Moines	Ohio Columbus	Tennessee Memphis	Ontario Ottawa	New York Syracuse	DC Washington	North Carolina Charlotte
10	10	-2	7	-17	-13	-19	-20	-12	-12	-16	-19
10	11	-3	15	-10	-4	-19	-9	-11	-12	-17	-20
10	12	-3	17	-5	-6	-9	-6	-11	-14	-18	-22
10	13	-3	21	-4	-6	-12	-6	-9	-12	-16	-19
10	14	-3	16	-6	-13	-11	-16	-7	-9	-18	-18
10	15	-2	17	-8	-8	-16	-11	-9	-12	-18	-21
10	16	0	19	-6	-6	-9	-6	-10	-11	-14	-20
10	17	-3	9	-7	-13	-8	-7	-7	-8	-13	-13
10	18	-3	5	-12	-15	-11	-12	-6	-7	-13	-13
10	19	-3	7	-11	-15	-16	-16	-9	-12	-15	-17
10	20	-2	-3	-14	-16	-19	-20	-11	-15	-18	-21

**GADWALL (WSI threshold = -7)**

Month	Day	Manitoba Churchill	North Dakota Devils Lake	Michigan Green Bay	Iowa Des Moines	Ohio Columbus	Tennessee Memphis	Ontario Ottawa	New York Syracuse	DC Washington	North Carolina Charlotte
10	10	-5	-1	-13	-13	-17	-18	-9	-12	-19	-23
10	11	-5	7	-13	-12	-16	-16	-10	-11	-18	-22
10	12	-4	10	-12	-12	-16	-14	-10	-12	-18	-21
10	13	-4	15	-11	-11	-15	-13	-11	-12	-18	-20
10	14	-3	13	-10	-11	-14	-12	-10	-12	-18	-20
10	15	-3	15	-10	-10	-14	-12	-10	-12	-17	-20
10	16	-1	19	-9	-9	-14	-11	-10	-12	-17	-20
10	17	-2	12	-8	-9	-13	-10	-9	-11	-16	-19
10	18	-3	10	-7	-9	-12	-9	-9	-10	-16	-18
10	19	-3	9	-7	-10	-11	-10	-8	-10	-16	-18
10	20	-2	-2	-9	-11	-13	-11	-8	-11	-16	-18

**SHOVELER (WSI threshold = -9)**

Month	Day	Manitoba Churchill	North Dakota Deville Lake	Michigan Green Bay	Iowa Des Moines	Ohio Columbus	Tennessee Memphis	Ontario Ottawa	New York Syracuse	DC Washington	North Carolina Charlotte
10	10	-5	-1	-13	-13	-17	-18	-9	-12	-19	-23
10	11	-5	7	-13	-12	-16	-16	-10	-11	-18	-22
10	12	-4	10	-12	-12	-16	-14	-10	-12	-18	-21
10	13	-4	15	-11	-11	-15	-13	-11	-12	-18	-20
10	14	-3	13	-10	-11	-14	-12	-10	-12	-18	-20
10	15	-3	15	-10	-10	-14	-12	-10	-12	-17	-20
10	16	-1	19	-9	-9	-14	-11	-10	-12	-17	-20
10	17	-2	12	-8	-9	-13	-10	-9	-11	-16	-19
10	18	-3	10	-7	-9	-12	-10	-9	-10	-16	-18
10	19	-3	9	-7	-10	-11	-10	-8	-10	-16	-18
10	20	-2	-2	-9	-11	-13	-11	-8	-11	-16	-18

**WIGEON and GREEN-WINGED TEAL (WSI threshold = -10)**

Month	Day	Manitoba Churchill	North Dakota Deville Lake	Michigan Green Bay	Iowa Des Moines	Ohio Columbus	Tennessee Memphis	Ontario Ottawa	New York Syracuse	DC Washington	North Carolina Charlotte
10	10	-5	-1	-13	-13	-17	-18	-9	-12	-19	-23
10	11	-5	7	-13	-12	-16	-16	-10	-11	-18	-22
10	12	-4	10	-12	-12	-16	-14	-10	-12	-18	-21
10	13	-4	15	-11	-11	-15	-13	-11	-12	-18	-20
10	14	-3	13	-10	-11	-14	-12	-10	-12	-18	-20
10	15	-3	15	-10	-10	-14	-12	-10	-12	-17	-20
10	16	-1	19	-9	-9	-14	-11	-10	-12	-17	-20
10	17	-2	12	-8	-9	-13	-10	-9	-11	-16	-19
10	18	-3	10	-7	-9	-12	-10	-9	-10	-16	-18
10	19	-3	9	-7	-10	-11	-10	-8	-10	-16	-18
10	20	-2	-2	-9	-11	-13	-11	-8	-11	-16	-18