Summer Habitat Conditions in Canada

**Summary**

According to 2010 waterfowl surveys, breeding populations have increased in northern portions of the British Columbia/Western Boreal Forest region. Although survey results are not as positive for the Prairie Region, wetland conditions have improved significantly since surveys were conducted, which bodes well for renesting birds and brood survival prospects. Productivity appears to be above average in the Eastern Region, despite low water levels in some areas.
The coast continued to be cool and wet throughout June, but July is bringing warm weather. Snowmelt is almost complete, with low-elevation snow gone and high-elevation snow well on its way. As conditions become drier, concerns grow regarding potential forest fires, although the outlook is still good due to the wet spring. Farms around the lower mainland and Vancouver Island have finally planted crops. The late planting may result in fewer cover crops being planted over the winter, which could reduce food available for waterfowl during this period. Wetlands are still fairly full from the wet spring conditions, and resident waterfowl are attending broods and moving towards their moulting stage.

In the central Interior, spring precipitation was below normal. Recent hot temperatures have led to increased wetland evaporation, but this is typical, and uplands have turned brown. According to the 2010 Central Interior Waterfowl Pair Surveys, breeding waterfowl estimates were 2% higher than in 2009. Mallards were the most abundant species, accounting for 22% of the total. There were no major shifts in species, in terms of breeding abundance, but birds appeared to make greater use of permanent habitats due to drought-related lack of semi-permanent wetlands.

Spring and early-summer precipitation has been above average in the southern Interior. The extra moisture improved conditions in many wetlands, but not enough to make up for several recent dry seasons. Breeding effort appears slightly depressed. In the southeast Interior, rains continued throughout the past month and recharged wetlands.

Conditions are dry in the Peace region, where 40-85% of normal precipitation amounts have fallen since April 1. Virtually no measurable precipitation has fallen since the rain/snowfall event prior to the May long weekend. Haying has begun and the forecast for the next week is hot (30 C), with no rain. Upland conditions are good, and overall conditions are fair thanks to the May precipitation. Numbers of waterfowl breeding pairs were comparable to 2009. Broods appeared earlier this year than last year, and late class 2C or 3 mallard broods were observed during brood surveys between June 27 and July 2. However, it’s still too early to assess overall productivity.

The Yukon has had very little precipitation this spring and summer. This, coupled with the low snow pack, means that some ponds (and lakes) are lower than usual. Temperatures have also been slightly cooler than normal. Some duck broods, mostly goldeneyes, have been reported. Red-necked grebes have also been observed with young, as have Canada geese. In the Northwest Territories (NWT), precipitation was above normal in Yellowknife and Norman Wells (20mm above) in June.
According to the 2010 U.S. Fish and Wildlife and Canadian Wildlife Services’ Waterfowl Breeding Population and Habitat Survey (hereafter the USFWS/CWS Survey), total duck breeding population estimates were 52% above the long-term average (1955-2010; hereafter the LTA) in the region that includes the Yukon. This is the largest population estimate increase for any Canadian survey region this year. Compared to the LTA, population estimates for green-winged teal, blue-winged teal and northern shovelers were all over 100% above, while canvasbacks represented the largest drop (37% below) and scaups (an important boreal species) were almost on par at 3% above the average.

In the USFWS/CWS Survey region that includes the NWT, central and northern Alberta, and northeast British Columbia, total duck breeding population estimates were 23% above the LTA and 26% above the 2009 estimate. Compared to the LTA, green-winged teal populations represented one of the largest increases (90% above), while wigeon populations decreased the most (34% below), and scaup populations were 6% below the average.

Northern Alberta received some much needed rainfall in June. Precipitation was still below normal for many areas, but was close to normal in High Level and Fort McMurray. However, amounts in Peace River and Grande Prairie were well below normal.

Northern Saskatchewan has been in the news for the abundance of water that has fallen thus far this spring and summer. Some areas appear to have experienced continuous runoff since the snow melted, and levels are high in ponds, creeks, rivers, and lakes. Broods have not been as abundant as expected given the amount of water present, and some nests may have been flooded by fluctuating water levels. Canvasback broods have been observed, but they are an overwater nester and might be better suited for high water. Further north, conditions are drier and fire risks are high north of La Ronge.

Northern Manitoba has been in much the same state as northern Saskatchewan. Water conditions remain favourable but lower than normal. Conditions get drier north of The Pas, including in Cranberry Portage where forest fire hazards have been extreme and one fire is estimated to have covered 60,000ha. The Pas area has not been as dry, but has received less precipitation than normal for June. Precipitation in Thompson was well below normal for June: less than 10mm compared to the usual 70mm. Wigeon and mallard broods have been observed in the Cranberry Portage area. Around The Pas, various broods have been observed including ring-necked ducks, buffleheads, mergansers, goldeneyes and canvasbacks.

Northern Saskatchewan, northern Manitoba and western Ontario are all grouped into one region for the USFWS/CWS Survey. The largest drop in total duck breeding estimates for Canada was observed in this region (39% below the LTA and 44% lower than in 2009). Breeding populations were also lower compared to the LTA for all species, although gadwall populations have increased by 63% since the 2009 survey.

**Prairie Canada**

**ALBERTA**

June was wet and cool across most of Alberta, where rains have vastly improved habitat conditions in the Prairie and Aspen Parkland. Heavy rains in the southern Prairie, and localized heavy downpours elsewhere, have created spring-like wetland conditions. However, the northwest Aspen Parkland, western Boreal Transition Zone (BTZ) and Peace Parkland remain drier, and need additional moisture to improve conditions.

The Prairie is the wettest it has been in many years. Wetlands that have not held significant water for at least 25 years are now flooded and providing excellent habitat. Heavy rains in the Medicine Hat-Cypress Hills and Lethbridge-Pincher Creek areas led to localized flooding and washed out the Trans-Canada Highway east of Medicine Hat. Precipitation totals from April 1 to present (growing season) are in excess of 200% of average in these areas and 150-200% of average for the September 2009 to present period. Wetland habitat is in very good to excellent condition across the southern Prairie, while the northern Prairie is also good and is recovering from last year’s drought. Wetland projects that did not spill in
the spring are now spilling. Precipitation totals for the growing season are 150-200% of normal, and are average for the September to present period.

Moisture has also improved in the Aspen Parkland, particularly in the south and southwest where conditions are now good. A localized, heavy thunderstorm brought 100-200mm of rain, causing some flooding in the Pine Lake area. More rain is forecast for Red Deer. Good conditions continue to the east and northeast, through Wainwright and Lloydminster. The northeast Aspen Parkland and eastern BTZ also had heavy rain, which has improved conditions from poor to fair.

The northwest Aspen Parkland, into the BTZ and areas of the Peace Parkland, remains in poor to fair condition. These areas have also received rain, which has maintained existing water levels, but has not been sufficient enough improve habitat conditions significantly. Precipitation totals in Edmonton, Grande Prairie and Peace River have been 40-85% of average for the growing season and 60-80% of normal for the September 2009 to present period.

The rain has been largely welcomed by the agricultural community. However, some fields have not been seeded in the southern Prairie due to excess moisture. Cool June temperatures slowed crop development, but recent hot weather has helped to stimulate crop growth. Good pasture and hay growth is evident, and forage shortages are not anticipated. Localized showers and thunderstorms are delaying haying operations in many areas.

Overall, habitat conditions are much improved, particularly in the Prairie and in the southern Aspen Parkland. However, additional moisture is required in the northern Aspen Parkland, BTZ and Peace Parkland to fully recover from last year’s significant drought. Late-spring and early-summer precipitation will lessen the summer drawdown and, if average or above precipitation continues, could lead to average to above average habitat conditions next spring.

The USFWS/CWS Survey indicates that total duck numbers in southern Alberta (Prairie and Aspen Parkland) decreased by 20% compared to 2009 and by 38% compared to the LTA, in spite of only a modest decline in total ponds (-1% and -8%, respectively). The majority of this decline likely occurred in the northern Prairie and Aspen Parkland. In these areas, poor conditions prevailed and below average waterfowl numbers were observed during the survey, whereas good to very good habitat conditions and increased waterfowl numbers were reported on the southern Prairie. On a positive note, northern pintails appear to have taken advantage of good spring habitat conditions in the southern Prairie, and increased 41% from 2009 in southern Alberta.

Most of the Prairie and Aspen Parkland regions of Alberta have received average to well above average precipitation during and after the USFWS/CWS Survey. While this precipitation may have flooded some nests, it will produce excellent brood-rearing habitat for successful nesters. Brood survival is anticipated to be above average in areas with good to excellent habitat conditions. Overall, waterfowl productivity is anticipated to be above average in the southern Prairie, but below average elsewhere in the agricultural region of Alberta.

**SASKATCHEWAN**

Wetland conditions remain good to excellent in most areas, due to continual rains. In north central and northeast parts of Saskatchewan, this continues to be the wettest spring and early summer on record. Since April 1, towns such as Invermay and Rama have
received over 500mm of rain, which has caused flooding in fields, road washouts, and problems with soil erosion. The downtown portion of the city of Yorkton was flooded in one rain event, making national news and prompting a visit from the prime minister. July wetland conditions resemble typical May conditions, due to the number of seasonal and temporary wetlands that are still present on the landscape. DUC staff are still managing full and overflowing large wetland projects in areas where these operations would have been completed by late May. Wetland drainage in east central Saskatchewan has accelerated the flow of water, which has contributed to flooding problems. Overall, wetland conditions should be good to excellent going into freeze-up, which should bring good to excellent conditions in spring 2011.

Duck broods are being observed, and habitat conditions look favourable for those hens that managed to hatch a brood. Given that there is so much brood habitat available, survival of broods will likely be good. The abundance of water should also encourage renesting, although brood survival for late-nesting hens tends to be lower than for those nesting early in the spring. Most species of ducks, including ruddy ducks, have been observed with broods.

Many acres of land remain unseeded in east central areas, as well as in parts of the southwest, due to excessive moisture. Those farmers who did manage to plant a crop are having a hard time managing weeds. The province recently unveiled a farm relief package, which includes $360 million in aid for Saskatchewan farmers. Due to the moisture, pastures are in good to excellent condition, and haying operations have just started. Some cattle producers are having a hard time getting their cattle to pastures, because they cannot access remote areas.

**MANITOBA**

Wetlands are inundated throughout southwest Manitoba breeding areas, and remain in excellent condition. Heat and thunderstorms have been common since the last report. Much of the breeding range has received well above average precipitation, with the majority of that moisture coming in the past 60 days. Accumulations for this spring now range from 275 to 350 mm. Currently, Class III and IV wetlands remain inundated, and most Class II wetlands are wet.
Although previous reports did speculate that fewer pairs were settling in the area than usual, the USFWS/CWS Survey indicates that these numbers were lower than anticipated, likely due to dry early spring conditions during migration. Prior to the rains of May and June, total ponds were down 43% compared to last year and by the same amount compared to the LTA. This translated into a 20% decline in breeding population estimates compared to last year, and a 28% decline compared to the LTA.

Despite lower population estimates in the province, favourable (albeit later-arriving) wetland conditions are providing excellent brood-rearing habitat. These late rains have also been positive for renesting efforts, with three-bird territorial flights still being observed in late June. Lone drakes were also frequently observed during the first week of July, indicating strong renesting efforts.

Heat and frequent scattered showers have created good upland cover conditions and these rains have drastically delayed haying efforts. This will lead to an increase in nesting success, over most years, for birds that selected this habitat type. Broods of all species are now a common sight, which indicates high nesting success of first initial nesters and excellent brood survival. A good fall flight is predicted for southwest Manitoba.

**Eastern Region**

**ONTARIO**

After a relatively dry spring across most of southern Ontario, summer has been ushered in by very wet weather. June precipitation totals ranged from 115 to 200% of their monthly average throughout the region, with the only exception being the extreme southwest, which saw only 40 to 60% of typical amounts. While this is the opposite pattern to that observed in May (substantial precipitation in the southwest and limited amounts elsewhere), 60-day rainfall amounts throughout the south have rebounded to near normal for this time of year. Habitats remain in fair to good condition. Not only has recent rain recharged water levels in many brood-rearing wetlands, it has also interrupted haying operations enough to enable renesting birds to hatch nests that might have otherwise been destroyed. Average June temperatures continued to be slightly warmer than normal, which is boding well for developing broods. Water levels in all of the Great Lakes remain below their respective long-term averages, although these differences are much less pronounced for lakes Ontario, Erie and St. Clair than for lakes Huron and Superior.

June also brought much needed wet weather to parts of northern Ontario, although the rains tended to be more localized and amounts were generally less than in the south. Despite conditions being drier in the northeast than in the northwest, wetlands remain satisfactory across the north for brood-rearing waterfowl, although water levels in many water bodies are still significantly lower than normal. Average temperatures continue to be slightly warmer than normal throughout the north, including the Hudson Bay Lowlands, which will benefit waterfowl productivity.

The USFWS/CWS Survey (eastern survey area) found no substantial change in the population estimates for many of the waterfowl species common to Ontario. Despite a seemingly
typical breeding effort, the presence of more late-class broods than early-class ones indicates that many initial nesting attempts were successful. Many of these older broods also contain full or near-full complements of ducklings, so duckling survival appears to have been particularly good this year. Local Canada goose productivity estimates are positive across southern Ontario, while northern productivity by both Southern James Bay and Mississippi Valley populations is expected to be good. Overall, 2010 waterfowl productivity is still expected to be marginally higher than average for Ontario.

QUÉBEC

June temperatures were close to or slightly colder than normal for the whole province. Since the beginning of July, temperatures have been much higher than normal, except in eastern regions. The period from July 5 to 9 was particularly hot, with temperatures between 30 and 33°C.

Total precipitation in June was generally higher than normal for Montreal, Eastern Townships, Lower St. Lawrence, Abitibi and Ottawa River Valley regions. In July, Montreal and the Eastern Townships have received significantly more precipitation than normal.

The average St. Lawrence water level at Sorel station remained very low, at 90cm lower than normal. In the Saguenay region, the St. Jean Lake water level is 2.5m lower than last year. Consequently, only enhanced wetlands still have water and are available to provide good brood-rearing habitat conditions.

Based on preliminary observations, productivity seems to be good despite low water levels (i.e., on the St. Lawrence River). Habitat conditions remain fair across the province.

On Bylot Island, the snow was deeper than normal this year, and snowmelt was slightly late. Consequently, breeding effort is reduced and nest density is lower than last year, at 146 nests. Peak laying date for the greater snow goose was June 16, four days later than usual, so productivity will likely be lower than the long-term average. However, a lower level of nest predation is also anticipated.

ATLANTIC CANADA

Unseasonably warm weather continues in Atlantic Canada, where daytime temperatures have reached above 30°C. These temperatures, coupled with below normal precipitation amounts, are resulting in drier than normal conditions. Some rivers are so low, they are impassable to salmon. Several DUC projects are below normal operating levels, but intermittent thunderstorms have provided some relief and most projects are in good condition. However, habitat outside of these projects is suffering somewhat, and many seasonal floodplain wetlands are already dry.
The warmer temperatures and earlier spring seemed to result in an early migration, earlier nesting and a possible increase in brood survival. Many large broods can be observed at higher than normal densities, and some fledged black duck broods have been flying in family groups already.

There is some concern that the already low water in many areas may result in a substantial drop below normal operating levels this summer. However, this seasonal water fluctuation is natural on a floodplain system, and will likely have no influence on brood rearing, especially considering the earlier breeding effort. Many hens move their older broods to larger brood-rearing areas that are less likely to be affected by the low levels that are anticipated. In fact, reduced water levels can concentrate invertebrates in more accessible shallow areas, for easy duckling feeding.

Reports of early, numerous, high density waterfowl broods, some of which having already fledged, indicates that this will be a great recruitment year. Many reports are confirming that there has been a greater local breeding effort this year. The ideal early conditions may have prompted some to stop short of their traditional northern migration. Overall, habitat conditions in Atlantic Canada are good.