

## Appendix H: Safe dates/breeding dates

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While June certainly represents the peak month of breeding season for many Ontario birds, each species has a slightly different window during which breeding evidence may be displayed/observed. To complicate things, the timing can vary markedly between different parts of the province and migrants can still be moving through an area while local breeders have begun nesting.

To help atlasers and Regional Coordinators navigate this complexity, the atlas has produced a series of seasonal charts depicting when a species may be breeding, when it may be migrating, and when it is safe to assume an observation of a species in breeding habitat is indeed a breeding individual.

The breeding charts are to be used as a guide only. Birds can certainly show breeding evidence outside of the listed dates and can be recorded outside of the safe dates too; in those cases extra documentation should be included to justify the use of the breeding code and how it was determined that the bird was breeding and not a migrant. The charts are divided by ecozone, as shown on the map in figure 1.

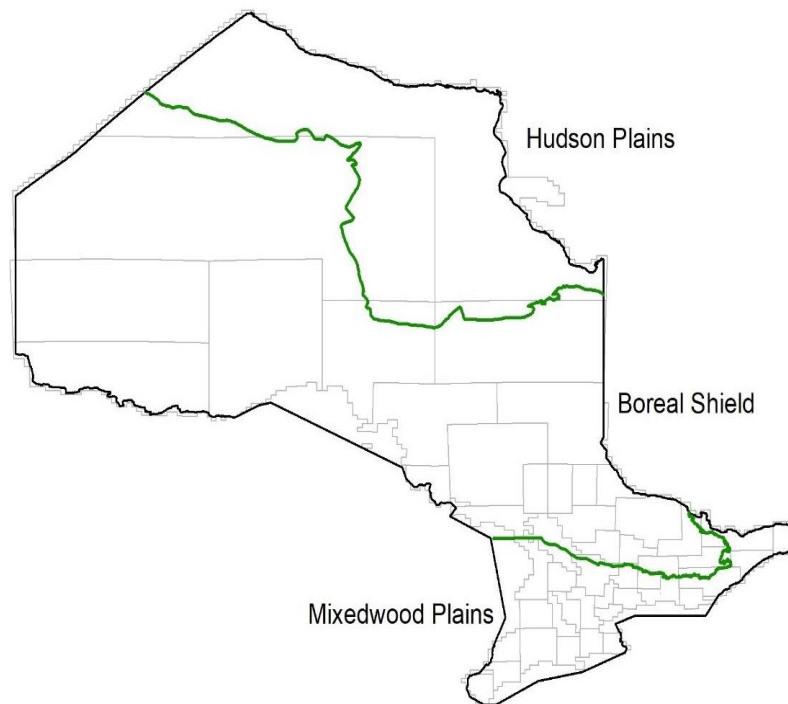


Figure 1: Map showing the three major ecozones (mixedwood plains, boreal shield, and Hudson plains) overlaid on the atlas regions.

## Reading the charts

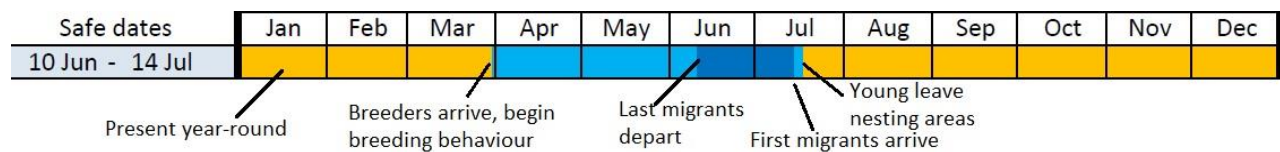
On each chart, there is a line for each species in each ecozone broken into the calendar year. The safe dates are listed to the left of the calendar. Shading depicts the potential for breeding evidence (or not) as follows:

	Shading	Status	Description
Non-breeding		Absent	Species is generally absent. (Note: fill colour alternates between rows).
		Migrant/non-breeding	Species is present as migrant/non-breeder only.
Breeding		Migrant/non-breeding or breeding	Species may show breeding evidence but may also be present as a migrant/non-breeder.
		Breeding: SAFE DATE	Generally safe* to assume any bird observed in suitable breeding habitat is breeding.

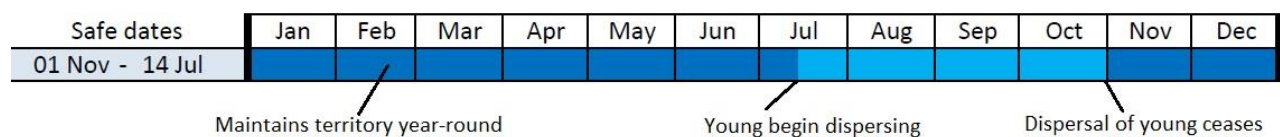
\*Caution should be applied, especially for waterbirds and some raptors which may have non-breeders present all year, and for species which can travel long distances from breeding sites.

## Example charts

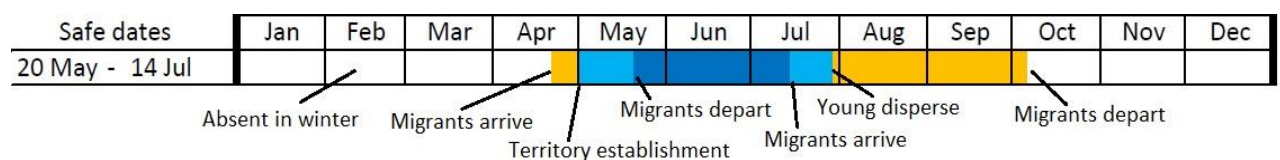
### Canada Goose, Mixedwood Plains:



### Eastern Screech-owl, Mixedwood Plains:



### Northern Waterthrush, Mixedwood Plains:



### **Important notes**

- The charts are meant to be a guide only.
- The ecozones are very large; expect things slightly earlier at the south and slightly later at the north part of each.
- Please include notes along with your record whenever you are reporting breeding evidence outside of a species' "safe dates".
- Special attention should be given to waterbirds and some raptors which may have non-breeders present all year, and for species which can travel long distances from breeding sites.

### **Safe dates/breeding dates charts:**

[Visit the website to view the different Safe / Breeding Dates charts that are available](#)

### **Breeding codes and when to use them**

The breeding dates and safe dates are meant to guide the use of breeding codes associated with observed breeding evidence throughout the year. There are clearly periods when breeding evidence should be recorded, but there are shoulder seasons, typically associated with migration, that require additional scrutiny of your observation. Remember that some "higher" levels of breeding evidence (i.e., confirmed) can be used outside of the safe dates because migrants/non-breeders will not show those types of evidence. Below is a list of the breeding codes and a general guideline for when to use each in relation to a species breeding season/safe dates.

**When using any of the exceptions below, the individual records should be accompanied by written documentation to justify the use of the breeding code. Remember that these are guidelines only and there will be examples that fall outside of these situations.**

To see the full definition of each breeding evidence code visit:

<https://www.birdsontario.org/breeding-codes/>

Code	When to use
[blank]	Leave the breeding evidence code blank outside of the breeding season and when no evidence of breeding detected.
X – observed	Any time within the species' breeding season when no evidence of breeding is detected.
H – habitat	Any time within the species' safe dates and breeding habitat
S – singing	Any time within the species' safe dates and breeding habitat
M – multiple	Any time within the species' safe dates and breeding habitat
P – pair	Any time within the species' safe dates and breeding habitat. Exceptions can be made in circumstances <b>within the breeding season</b> but outside of the safe dates if the male and female are clearly acting as a pair.
T – territory	Any time within the species' safe dates and breeding habitat. Exceptions can be made in circumstances <b>within the breeding season</b> but outside of the safe dates if the adult bird is clearly maintaining a distinct territory (i.e. for a period of at least a week at the same location).
D – display	Any time within the species' safe dates and breeding habitat. Exceptions can be made in circumstances <b>within the breeding season</b> but outside of the safe dates if it involves a pair exhibiting courtship behavior for most species.
V – visiting	Any time within the species' safe dates and breeding habitat. Exceptions can be made in circumstances <b>within the breeding season</b> but outside of the safe dates if it is a situation where a nest is highly probable.
A – agitated	Any time within the species' safe dates and breeding habitat. Exceptions can be made in circumstances <b>within the breeding season</b> but outside of the safe dates in suitable breeding habitat provided the response appears to be a territorial response and not a predator response (e.g. not to pishing).
B – brood patch or cloacal protuberance	Any time within the species' breeding season and breeding habitat for brood patch. Only within the safe dates for cloacal protuberance.
N – nest building (wrens/woodpeckers)	Any time within the species' breeding season and breeding habitat.
NB – nest building (other birds)	Any time within the species' breeding season and breeding habitat.
DD – distraction display	Any time within the species' breeding season and breeding habitat.
NU – used nest	Any time of the year (provided the nest was active during the atlas period).
FY – fledged young	Any time within the species' breeding season and breeding habitat.
AE – adult entering	Any time within the species' breeding season and breeding habitat.
FS – fecal sac	Any time within the species' breeding season and breeding habitat.
CF – carrying food	Any time within the species' breeding season and breeding habitat.
NE – nest with eggs	Any time within the species' breeding season and breeding habitat.
NY – nest with young	Any time within the species' breeding season and breeding habitat.

## **Other resources**

The two-volume set *Breeding Birds of Ontario* by George Peck and Ross James contains summary information on nest and eggs dates and other aspects of nesting ecology of Ontario breeding birds gathered from the Ontario Nest Records Scheme. Digital versions can be downloaded:

Volume 1: [Non-passerines](#)

Volume 2: [Passerines](#)

Birds Canada also has a very handy [Nesting Calendar Query Tool](#) which lets you look up nesting dates for species at various geographic scales.