**Columns headed with month-day** are a concatenation of 4 fields from the site\_visits data. Concatenation is in the form of Adults [space]Stage[/]ChicksConfidence (an asterisk if Yes).

Thus,

1 3/2

indicates 1 Adult was present, Stage was determined as 3, and 2 chicks were counted but the observer was not confident in this count.

Whereas

1 3/2\* indicates the same but the observer was confident that there were exactly 2 chicks in the nest.

An 8 in any position indicates that the value was at least 1 but an exact count was not possible.

A 9 in any position indicates that data were not collected for that field. (NA in the site\_visit database are filled with 9)

**Focal** = 1 if:

The nest was first observed active on or before the date of peak active colony size, AND

The nest was first observed before it reached stage 2, AND

The nest was observed in a stage greater than 0, AND

The earliest date the nest was observed was before incubation had lasted 14 days

This evaluation based on estimates of incubation start calculated by counting backward from both 1) the earliest date the nest was observed in stage 2 and 2) the latest date the nest was observed in stage 1. The nest must first be observed before 2 weeks of incubation for one or the other of these estimates.

**Fledged** = 1 if:

The length of time between the date the nest was first observed in stage 1 and the date it was last observed with chicks\* is greater than the minimum fledging age (calculated from start of incubation)

\*7/31/2019 this changed from date nest was last observed in stage 4 or 5 to date nest was last observed with chicks. This change made to account for possible long duration of stage 3.

**Focal.fail** = 1 if:

The conditions for focal were met, AND

The nest was not active on the last survey date of the year, AND

The Conditions for Fledged were not met.

**Days.short.of.fledging** is only calculated for nests that at least reached stage 3 and that did not meet the conditions for fledged.

Calculated as the difference between the minimum fledging age (calculated from start of incubation) and the dureation between the first date the nest was observed being incubated and the last day the nest was observed with chicks\*.

\*7/31/2019 this changed from date nest was last observed in stage 4 or 5 to date nest was last observed with chicks. This change made to account for possible long duration of stage 3.

**inc.start.by.stg4** calculated as the date obtained by subtracting the minimum age of reaching stage 4 from the date that the nest was first observed in stage 4. *This is the true start of incubation if the date the nest was first observed in stage 4 was really the first day in stage 4 and the nest entered stage 4 after the expected number of days.*

**hatch.by.stg1** calculated as the date obtained by adding the incubation duration to the earliest date the nest was observed being incubated. *This is the true hatch date if the date the nest was first observed being incubated was the true start of incubation and incubation lasted the expected number of days.*

**Hatch.by.stg4** calculated as the date obtained by subtracting the time from hatching to start of stage 4 from the date the nest was first observed in stage 4. *This is the true hatch date if the date the nest was first observed in stage 4 was really the nest’s first day in stage 4 and the nest entered stage 4 after the expected number of days.*

**Stg4.brood** = the brood size on the latest date that:

The nest was in stage 4, AND

Confidence was checked Yes