File:

**moonsequ\_tidesequ.csv**

Variables:

* **year**: 2006-2013, 2015-2016
* **date\_time**: Date-time of lunar event
* **event**: lunar event (nm= new moon, fq= first quarter, fm= full moon, lq= last quarter)
* **moon\_cycle**: number of moon cycle for the given year, count starts with first new moon of the year (1 - indicates the 1st full moon cycle of the year starting with new moon, 2 - starts with the next new moon and so on)
* **start\_moon\_cycle**: start date-time of the moon cycle (equals date-time of new moon event)
* **tide\_cycle**: number of tide cycle for the given year, count starts with first first-quarter of the year (1 - indicates the 1st spring tide cycle of the year starting with 1st quarter, 2 - starts with 3rd quarter and so on)
* **start\_tide\_cycle**:  start date-time of spring tide cycle (date of 1st or last quarter)

File:

**metadata\_nests\_birds.csv**Variables:

* **year**: 2006-2013, 2015-2016
* **nest\_ID**: individual nest identification, Year + Nesting Site + Nest Number merged together; some IDs include an „n“ (i.e. 2016Cn2), which means, that the location of the nest was unknown and a random nest number was picked
* **found**: date when nest was found
* **laid**: estimated laying date (if the chicks hatched, then laying date equals end date minus 25 days (estimated incubation period), otherwise laying date was predicted on floating stage of eggs)
* **end**: end date of nest
* **fate**: observed fate of the nest (Hatch= Hatched, Unhatch= Unhatched, Aban= Abandoned, Pred= Predated, Flood= Flooded, Trampled, Broken, Unknown, Rain)
* **lat**: Latitude of nest coordinates in decimal degrees
* **long**: Longitude of nest coordinates in decimal degrees
* **male\_ID**: individual bird ID for male parent, if unknown, it’s nest number + gender
* **female\_ID**: individual bird ID for female parent, if unknown, it’s nest number + gender

File:

**metadata\_illu\_tide\_temp.csv**

Variables:

* **year**: 2006-2013, 2015-2016
* **nest\_ID**: individual nest identification, Year + Nesting Site + Nest Number merged together; some IDs include an „n” (i.e. 2016Cn2), which means, that the location of the nest was unknown and a random nest number was picked
* **found**: date when nest was found
* **laid**: estimated laying date (if the chicks hatched, then laying date equals end date minus 25 days (estimated incubation period), otherwise laying date was predicted on floating stage of eggs)
* **end**: end date of nest
* **found\_julian**: date when nest was found in julian days
* **laid\_julian**: estimated laying date in julian days
* **end\_julian**: end date in julian days
* **fate**: observed fate of the nest (Hatch= Hatched, Unhatch= Unhatched, Aban= Abandoned, Pred= Predated, Flood= Flooded, Trampled, Broken, Unknown, Rain)
* **temp**: maximum temperature at laying date
* **meridian\_passing**: time of lunar meridian passing, that’s the noon of the moon (NAs indicate that there was no meridian passing on the given date)
* **d\_after\_nm**: days after the last new moon for laying date (to the nearest of 0.1 d)
* **illumination\_meridian\_passing**: the illumination of the moon at the time it passed the meridian
* **illumination\_noon**: the illumination of the moon at 12 pm (interpolated with the illumination at meridian passing)
* **tide\_height**: the height of the highest high tide at laying date
* **d\_after\_springtide**: days after last springtide at laying date