# 1999 done

Notes from 2/6/23

* Empty watches are suspicious
  + 1999\_39 - 44, 1999\_58, 1999-80 – 95, \_110-\_116
  + **DELETED 2/24/23**
* Things I did (2/7)
  + Changed time of last 1999\_004 feeding 10:30->10:19 so it comes before end time
  + Changed time of last 1999\_012 feeding 18:30->18:19 so it comes before end time
* Otherwise, all the start/end times, durations, nests watched are in order
  + Seems like some of the start/end times are in a different format from the other times in the excel sheet
  + These should get resolved when brought into R and formatted to POSIXct

# 2000 done

Notes from 2/6/23

* Seems like something with the format of Event time column is off because whenever I try to sort it, the times don’t sort in order….
* Other than the time format, looks relatively normal
* Changed first 2000\_013 feeding 14:30->14:31
* Changed first two 2000\_014 feedings 15:35 -> 15:46 to fall within watch period
  + Idk if this was too much of a stretch but I almost feel like either the start or the feeding time was just typed in wrong and I think it was the feeding time just based off of the timing of the other observations in the watch
  + COULD DO: go back and see when the start time was based on blind time data to make sure the above assumption was right
* Undesignated feedings
  + There are a bunch of feedings that don’t have start/end times and therefore don’t have watch IDs
  + **à to do:** look @ raw data (if they exist) to see whether there are start/end times and nests watched to work
    - dates of the feedings
      * 7/11, 6/20, 6/30, 7/1, 7/2, 7/3
    - **DONE 2/15/23** 
      * Feedings deemed to be unable to be added to a watch
        + MC feedings on 6/20
        + 6/30 feeding by DH
      * Feedings added to watches by subsetting start and end times
        + How this is done: the “start” and “end” times become the same times as the first and last feedings (or just before/after the first/last feeding if it was obvious that they were at another time like if the first feeding is 6:16 you would say the watch prob started at 6:15). The number of nests watched are determined from other feedings from the year from the same areas and similar time periods. \_est added to end to indicate that the number of nests watched and the watch start/end were estimated
        + 2000\_085\_est
        + 2000\_086\_est
        + 2000\_087\_est

Note: deleted the 12:20 feeding of nest 05 because that nest doesn’t seem to exist???? Lol

* + - * + 2000\_088\_est
        + \_089\_est
        + \_090\_est, \_091\_est, \_092\_est
  + Theres a feeding on 7/20 that happened 30 min after the end of the watch so we can just ignore that

# 2001 done

Notes from 2/6/23

* Same time format issue as 2000 data for some watches
* Empty watches
  + 2001\_06, \_021, \_022, \_042 - \_046, \_049 - \_051, \_059
  + **DELETED 2/24/22**
* Otherwise everything looks normal
* Things I did (2/7)
  + Changed feeding time from 2001\_007 7:30 -> 7:31 to fit in the watch
  + Changed feeding time from 2001\_033 6:00 -> 6:01 to fit in the watch

# 2002 done

Notes from 2/6/23

* Things I did
  + Changed time of last 2002\_003 feeding from 16:01 to 16:00 so it comes before end time
  + Changed time of last 2002\_048 feeding from 20:02 to 20:01 so it comes before end time
  + Changed time of last 2002\_048 feeding from 20:02 to 20:01 so it comes before end time
  + There was a feeding from 6/30/02 (at 16:36) that wasn’t in a watch; added it to 2002\_068 where it belongs There was a feeding from 6/30/02 (at 16:36) that wasn’t in a watch; added it to 2002\_068 where it belongs
  + There was a feeding from 7/12/02 (at 16:20) that wasn’t in a watch
    - The timestamp was 10 minutes before the start of the 2002\_063 watch period which is the only watch that day it could be in considering which nest it is from. I am guessing it got typed in wrong (was supposed to be 16:30) so I changed it to 16:31 and added it to the \_063 watch.
    - **COULD DO:** go back to raw data and see if my above assumption is right
      * **2/13/23** à no raw data for this year
* Empty watches
  + 2002\_035 - \_040 , \_042, \_053 - \_058, \_065, \_066
  + **DELETED 2/24/23**
  + Only some of the empty feedings had “no” in the include for regression column
    - **TO DO**: ask Liz why only some are marked “no”
      * **2/17 answer**: unclear, ignore

# 2003 done

Notes from yellow rite in the rain:

* Just says “lost cause?” L

Has some watch IDs with weird nests

* E/F/G/H, W1, X/Y/Z
* à could do: figure out what these are with raw data
  + Done 2/13/23: unclear what they are…..

Notes from 2/6/23

* There’s not nearly enough data from this year to justify using it and therefore not enough to justify cleaning it up à **I cleaned it up anyway 2/13/23**
* Empty watches
  + \_016
* One feeding is missing a timestamp but was still given a watch ID
  + TO DO (but not rlly): check raw data to see if its in there
* Three unassigned feedings from 7/30
  + TO DO (but not rlly): figure out which watches they belong to
* **à to do:** make sure there aren’t any other data hiding somewhere (either in raw sheets or in Box)
  + **DONE 2/13/23 :** there are no raw data but there are feedings in box….
    - **Added feedings to all of the watches pretty much I think.**
    - **Added feedings from 8**
    - **2003\_017\_est**
      * **Added this and estimated start and end times the same way as described previously (I think in 2000 notes)**

2/13/23 note: SEEMS LIKE THE DATA MISSING WERE ANY FROM NESTS THAT WERE LABELED as “Fn” while those that made it in were any numbered nests….. wtf are the F nests? Also WXYZ and ABC

* The F nests are not in productivity data either….
* Anyway, I added the data back cuz I couldn’t think of a reason not to… there is no indication that these nests are ROST nests (they always label ROST nests with Rn)
* To do: U has been called “unknown adult” à find key and see whether this is true or whether U is supposed to be unknown chick (which is what I think it is)
  + **DONE 2/13/23**: called all “U” unknown chick because that’s def what it was! And turned all the “unknown adult” into “unknown chick”

# 2004 done

Notes from 2/6/23

* Everything looks normal in terms of start/end times, watch durations, and nests watched
* Very little data from this year

# 2005 done

Notes from 2/6/23

* Things I did
  + Changed first feeding in 2005\_003 from 11:15 to 11:16 so it falls within watch period

Things I did 2/8

* Unassigned feedings
  + 7/2 has two MDB unassigned feedings that have been verified as not belonging to a watch
  + 7/6 has a MDB feeding that happened about 10 mins before the start of a watch (\_011) and is confirmed as not belonging to a watch
  + Other feedings that were confirmed to be outside a watch period
    - 2/7 11:10
    - 2/9 13:17
* à to do: go to raw data and see if MDB feedings on 7/13 between 15:15 and 17:03 have a start/end time listed anywhere. OR consider making one up cuz it seems obvious
  + 2/13/23: added new watch for these data using same methods as 2000 watches called 2005\_055\_est. not super confident about the nest IDs watched. Just used the ones that had feedings in them cuz there was very little info otherwise to go off of.

Note from 2/13/23: LOOKS LIKE THERE ARE MISSING FEEDINGS that might be because they fell outside of a watch period? Are there other years where this is the case? I WANNA SCREAM

# 2006 done

Notes from 2/6/23

* Things I did
  + Changed last feeding of 2006\_003 time from 8:30 to 8:29 so it falls within watch period
  + Changed first feeding of \_023 to 10:41
  + Removed blue highlight from 2006\_013 and from \_025
    - Was a remnant of past work I

# 2007 done

Notes from 2/6/23

* Seems like I did a lot of work on this a couple years back
* There is one **TO DO** at the bottom to look at

Notes from yellow rite in the rain:

* Seems like most raw data sheets are missing
* Not sure how to rectify without raw data sheets
* Do this year
  + à not sure when I wrote that or whether I eventually got to it or not…

Things I did

* Deleted watch periods that were just ROST nests (03/02/2021)
* Added 08:40 as end time for 2007\_004
  + (03/02/2021)
  + Based on BLIND TIME sheet in “COTE feeding 2007” excel sheet
* Added 20:00 as end time for 2007\_005
  + (03/02/2021)
  + Based on BLIND TIME sheet in “COTE feeding 2007” excel sheet
* Added 08:30 as end time for 2007\_010
  + (03/02/2021)
  + Based on the start time and the fact that the watch duration said 150 min and that the last observation recorded was at 8:25AM
  + Based on BLIND TIME sheet in “COTE feeding 2007” excel sheet
* Added 20:00 as end time for 2007\_006
  + (03/02/2021)
  + Based on BLIND TIME sheet in “COTE feeding 2007” excel sheet
* Added 18:45 as end time for 2007\_008
  + (03/02/2021)
  + Based on BLIND TIME sheet in “COTE feeding 2007” excel sheet
* time for 2007\_015
  + (03/02/2021)
  + Above reasons
  + BLIND TIME sheet in “COTE feeding 2007” excel sheet
* Added 12:00 as end time for 2007\_028
  + (03/02/2021)
  + Above reasons
  + BLIND TIME sheet in “COTE feeding 2007” excel sheet
* Added 8:40 as end time for 2007\_007
  + (03/02/2021)
  + This end time was as per the BLIND TIME sheet in “COTE feeding 2007” excel sheet and in concordance with the watch duration listed there and in T-feeding
  + **DONE** (changed end time to 7am on 3/8/21) I don’t think that 8:40 was actually when the watch ended. I think they ended at 6 because the last recorded feeding was at 6:57 and there were very steady feeding events every few minutes previous to that last record. So, I think that the end time should be 7:00AM. So:
    - Changed watch end to 7:00 am and change watch duration accordingly
    - **2/13/23 added** \_est to the end because I deviated the end time from the blind time
* Added 17:25 as end time for 2007\_012
  + As per BLIND TIME sheet in “COTE feeding 2007” excel sheet
  + This also checks out in terms of the last observation which was at 17:25
* Added 17:25 as end time for 2007\_014
  + Same reasons as above
* Deleted two observations
  + They claimed to be nests 207 and 205 but they were smack dab in the middle of a watch that was supposed to only be ROST nests. There is a R207 and an R205, but no COTE nests called 207 or 205, so I think that the data were supposed to say that it was from R207 and R205 but got entered as COTE data on accident because the Rs were missing so anyway, I deleted them but they are still as they were in the “COTE feeding 2007” excel sheet. They are the only two “non-ROST” feedings from 7/18/07
* Added 8:40AM end time to 2007\_009
  + (03/02/2021)
  + As per last recorded obs and blind time sheet from “COTE feeding 2007” excel sheet and watch duration
* Added 20:00 as end time for 2007\_027
  + (03/02/2021)
  + Same reasons as above
* Added 17:45 end time for 2007\_034
  + (03/02/2021)
  + Same reasons as above
* Other end times I added for the same reason as above
  + (03/08/2021)
  + \_037à 14:51
  + \_038 à 15:00
  + \_030 à 18:21
  + \_029 à 11:55
  + \_035à COTE time in “cote feeding 2007” sheet makes it seem like the end time should be 11:50 but I don’t think that is what actually happened so I made the end time 10:10 cuz it seemed more like that’s what happened based on the data. So I also changed the watch duration.
    - 2/13/23 à added \_est to the end of the watch because I had altered the end time
  + \_011 à 13:41
  + \_013à 20:00
  + \_001à8:40
  + \_002à20:00
  + \_003à20:00
  + \_031à14:45
* Added nestIDs, number of nests watcted, and watch duration for 2007\_039
  + Used nests as they were written in COTE TIME on the “COTE feeding 2007” excel sheet (so I used the nests that were listed there rather than just the ones that got observed in the data)
  + Added watch duration based on start and end times
  + 2/13/23 à added \_est to the end of the watch because I had altered the end
* Filled in watch IDs for observations in the following (i.e. there weren’t watch IDs for all the rows but there were for start and end
  + 03/08/2021
  + \_037
  + \_030
  + 029
  + 011
  + 013
  + 002
  + 001
  + 003
  + 005
  + 010
  + 006
  + 012
  + 015
  + 007
  + 008
  + 009
  + 027
  + 014
  + 028
  + 034
* Three observations from watches on 6/22/07 were labelled as \_029 but they should have been \_035 (based on observer and nest IDs) so I relabeled them as such
  + 03/08/21

Split what was formerly all 2007\_014 into two watch periods

* Did this because there was a note in the middle that said “took break” and gave very clear time period for the break
* So I split it into \_014a for the first half and \_014b for the second half

Misc TO DO:

* There are a chunk of feedings from 7/12/07 that are really good data but they don’t have a start or end time
  + There is no record of the watch in the “Blind Time” tabs in the google sheet “COTE feeding 2007”, but it was Dan who took the data so it was most likely a fluke that he just decided to do it but didn’t put it into blind time recordings
  + Anyway, I think that I want to make a start and end time and turn it into a real watch (i.e. give it a watch ID), but there isn’t a super obvious start and end time (the first and last recordings are at 10:29 and 13:09)
  + DONE: created new watch ID (2007\_040\_est)
    - Same methods as described for other years

Data I am confident in, data I have yet to explore for quality, data I don’t yet trust, data I hesitantly trust

* Dates
* Watch ID
* Watch duration (min)
* Watch duration (mm:ss) à this is just formatted super off like when you click on the cell it gives a timestamp i.e. 165:00 ends up being 2:45:00AM… so this column is pretty useless in reality>
* Number of nests observed
* Event Time
* Event
  + Not sure of this because I think at some point, we went in and changed some of this to say feeding? I don’t think that they had a column for event
  + So I suspect that we went in and made all of these into “feeding” events, but I doubt someone went in and made sure that each was what we would designate a feeding (for example, they have observations where there is a “teaser parent”, we wouldn’t call these a feeding nor would we even include that observation. )
* NestID
* Unique nest ID
* Received by
* Unique chick ID
* Prey item
* Prey Size
  + Ok, so all of the data as they are recorded in the “COTE feeding 2007” sheet use the size codes and none of the raw data sheets that we have in hand indicate that there were any techs that were recording lengths in inches, so I am tempted to say that the lengths from this year are trustworthy
* Observer
* Provided by

IS IT DONE? à YES

HOW DO YOU KNOW?

* All watch IDs have start and end times that line up
* There are no stray observations
* Checked for missing data in 3 watches from raw sheets and didn’t find anything suspicious

# 2008 done

Things I did 2/13/23

* Added missing feedings from the raw data from 2008 to the following watches that were empty in t-feeding
  + \_002 from 7/1

Things I did 2/6/23

* Time changes to fit feeding into watch
  + 2008\_017 first feeding 15:20 -> 15:21
* Deleted the watch ID from 7/15 2008\_018 feedings from 16:44 to 18:09
  + Rationale: 2008\_018 looks like it was two separate watches. There is a start at 8:30 and an end at 11:30 that look like they are good and was logged in the BLIND TIMES sheet, but then there are feedings from 16:44 to 18:09 that are also listed as being in this watch. My guess is that was a different watch. There is no record of that watch happening in blind times.
  + **à to do:** potentially, create new watch ID for this feeding and estimate start/end times…
    - **DONE:** added 2008\_026\_est using methods developed and described for previous years (see 2000)
* Put feeding from 7/15 into 2008\_018 and changed event time from 8:28 -> 8:31
  + This feeding happened just before the watch so its easy just to stick it in there its only a two minute difference

Unsigned feedings

* I think the feeding at 12:03 on 6/30 was observed before the start of the watch and just written down because. I am leaving it as unassigned.

# 2009 done

2/6/23

* Things look very normal

# 2010 done

LEFT TO DO AFTER 2/10/23

* Figure out what T means in the “provided by column” à DONE 2/13/23 it means teaser bird
* Added observations from 7/10 from watch with an 11:17 start time but did not add to any watchID because there was no end time listed in the raw data or the blind times sheet. The last observation is from 12:29 so my guess is that this watch ended at 12:30 à consider calling this the end time and making it a watch
  + DONE: called it 2010\_065\_est as per methods described elsewhere

Notes from yellow rite in the rain:

* What does “\*” mean
  + à this isn’t important I don’t think
* Length recorded in inches in some instances à I think in the actual data that this isn’t an issue though 2/15/23
* There are some watches in t-feeding that are empty/missing data and also aren’t in the raw data sheets
* Remove ROST observations
  + à I don’t remember if I did this already, but should check
* Is 2010\_007 a real no data watch? i.e. were there no fish? Or was that a watch that didn’t get done?
* **Missing data** from watches
  + à investigate how much
  + There are watches were some of the observations (i.e. rows) from the raw data are present in t-feeding while others just aren’t. the extent of this issue is unclear
* Delete “feeding” as a label from event for observations with “teaser parent” because we wouldn’t have recorded those data 2017-2020?

Things I did on 3/8/2021

* Deleted the R52 from nestID and updated # nests accordingly for 2010\_003
* For 2010\_057 I added the nestIDs and adjusted the number of nests observed
  + For # observed I just did the number that were observed in that watch as I didn’t really see anything in any other doc that helped know whether there were any other nests that someone would have been watching at that time
  + This was also a watch that I had worked on previously (it was highlighted orange which was something I was doing while working with data last month)
  + 2/15/23 à added \_est to the end of this watch ID because I had done the above alteration
* Added number of nests and watch duration for watch 2010\_058
  + Based on raw data sheet
  + Added JMG as observer based on handwriting and the sheet it was on in the raw data (other observations on the same sheet with the same handwriting were JMG and ppl in this year had really distinguishable handwriting)
* Empty watches
  + \_007: not in “feedings” in “COTE feeding 2010” excel sheet nor is it in the raw data, it is just listed in “Blind Time”… what even is blind time L need to reach out to carloni
  + \_047: not anywhere (“feedings”) other than blind time
  + \_036: this is in the raw data (literally in the start/stop time column it says 11:10-12:30 and then there are no obs and a new one starts) so I would count this as a best chance of being a real empty watch (by real I mean they actually did the watch and didn’t see anything)
* Added “empty watch” column to data sheet
  + Will likely delete this later
  + I just want this in there for now in case I want to get to all of the empty watches easily

Rand notes

* \_058 was highlighted in orange which I think means that a month ago I had some question about it. I am assuming that it had to do with the watch duration and some other data being missing but I am not entirely sure. Anyway, I removed the highlight. à 3/8/21
* \_049 was also highlighted as described for \_058 but I really don’t know why
  + Hoping it was just mixed up because of confusion from that day of watches in general
  + Anyway, I removed the highlight à 3/8/21
* Changed time on feeding in \_003 from 7:01 to 6:41 as per “COTe…”

Missing data THIS IS THE BIG ISSUE FOR THIS YEAR of DATA

* \_018 missing half of its observations in t-feed à to do: enter from raw **DONE 2/9/23**
  + for not good reason that I can see
  + The observations are all there in the feeding sheet in “COTE Feeding 2010”
  + They are also in the raw data?
* \_032 is missing about half of its obs in t-feedà to do: enter from raw **DONE 2/10/23 added just the observations that made it into the COTE feeding 2010 sheet**
  + They are also in “COTE Feeding 2010”
  + They are in the raw data and a few are crossed out but there are others that aren’t crossed out there are in the data in excel so…
    - So for reference, there are 3 observations that made it to t-feed, there are 7 in the “COTE feeding 2010”, and there are 12 total in the raw data sheet (1 of which is from a nest that claims to not have been included in the official watch and 4 others of which are crossed out)… so it seems like what is in the “COTE Feeding 2010” sheet is really what should have made it over to T-Feeding but it didn’t so… idk if Jess had a reason or not but…
* \_019à to do: enter from raw **DONE 2/9/23**
  + This watch is missing almost all of its data in t-feed (it has 1 row). There are tons of observations in the raw data and in “COTe Feeding 2010” which is only missing a single row (the first row in the raw data)
* \_033à to do: enter from raw **DONE 2/10/23**
  + Seems to be missing it last observation w in t-feed
    - The obs is in the raw data and in “COTE…” excel sheet
* There is a watch on 6/30/10 from 2:10 to 2:35 that doesn’t seem to have made it into t-feed à to do: enter from raw
  + It is in the raw data
  + Also missing from “COTe Feeding…”
  + **Done 2/10:** made watch ID 2010\_060 to add this watch in
* \_034à to do: enter from raw
  + Missing last observation which is present in the raw data and in the “COTE…” sheet
  + **DONE on 2/10:** added the one missing observation
* \_020 à to do: enter from raw **DONE 2/10**
  + Missing a lot of obs that are in the raw data
  + Some, but not all, of the data that are missing are also in the “COTe…” sheet
* **DONE 2/10** added missing observations from
  + \_005
  + \_006
  + \_024
  + \_044
  + \_011
  + \_012
  + \_026
  + \_014
  + \_015
  + \_028
  + \_029
  + \_016
  + \_017
  + \_049
    - Also had to add nest 113 to nests watched and increase the number of nests accordingly
  + \_053
  + \_054 à this was SO MUCH data
* **DONE 2/10** added 2010\_062 for observations from 7/3 from 10:16-11:01 that were left out of t feeding and 2010 feeding data sheets
  + Same thing for 2010\_063 for feedings from 7/8 from 13:04-15:35
  + Also 2010\_064 and \_065 for feedings from 7/9 from 7:44-9:50 and from 10:35-12:05

Other things I did 2/10/23 and notes

* Added watch id 2010\_059 for two feedings present in the 2010 feeding data and raw data sheets
* Theres was a 7/7 entry of a watch from 11:30-12:30 that is just slashed out across the data sheet which makes me think that they didn’t do a watch but instead just took a break?
* Added observations from 7/10 from watch with an 11:17 start time but did not add to any watchID because there was no end time listed in the raw data or the blind times sheet. The last observation is from 12:29 so my guess is that this watch ended at 12:30 àcould do: consider calling this the end time and making it a watch

TO DO

* Unique nest IDs for some observations à DONE 3/8/21
* Unique chick IDs for some observations à DONE 3/8/21
* What to do with empty feedings?
  + \_007,\_029,\_036,\_047
    - Add \_029 data from “COTE feedings 2010” to t-feeding? **DONE 2023**
* **DELETED EMPTY FEEDINGS 2/24/23**

PROGRESS i.e. where I stopped working and need to pick up

* On 3/8/21 I ended having
  + Completed describing the missing data in all of the watch periods from 7/1/10 and earlier
* One 2/10/23 I finished entering missing data

# 2011 DONE

2/6/23

* Everything looks pretty normal
* Suspiciously normal

# 2012 DONE except minimal question about two missing watches

2/15/23

* Looks like all the JTB feedings are missing from the data because they didn’t have any nest IDs
  + Added them with the following watch IDs: 2012\_012 – 2012\_015
    - watch durations from blind time
    - no nests watched list

2/6/23

* Erased the highlights that I think are just remnants from previous work
* There are way more watches in BLIND TIME than in the feeding data… I am guessing they didn’t happen?
* à to do: investigate the WYXZ nests that are in the “Feeding Study 2012” data but not in the feeding data (more info abt how I dealt with them below). Figure out if they should be excluded and add them back in if they should be.
  + This would include a bunch of data that are in the feeding study 2012 sheet but not in t feeding (because they were all watches for WXYZ nests)
* 🡪 to do: investigate where \_007-\_009 went RAW DATA
  + I am guessing that they were WYXZ watches that got deleted or were left out

Notes from yellow rite in the rain:

* The times of the feedings were entered wrong throughout this
  + à pretty sure I went and fixed all of that
  + Event time was messed up but the raw data and time departed column in t-feeding were enough to get the real start times
* What’s up with the “X” nest IDs? They aren’t included in t-feeding data but they are in the raw data. They are listed in “nests observed”
  + à deleted them from the nests observed count so this should be rectified at this point
* Recalculate time for watch periods for which I redid observation times
  + à I think I likely did this already
* Is 2012\_009 missing from raw data and empty in t-feeding excel sheet? Same with 2012\_007 and \_008

# 2013 DONE (other than ABC nests which I am considering adding back in)

2/15/23 NOTE: consider adding the ABC nests back in just because I added the lettered nests (WXYZ and EFGH) back into the data for other years.

Things I did 2/6/23

* Removed highlight that was a remnant from previous work
* There was a feeding from 7/2 listed as being in watch \_020 which happened on 6/30. Changed it to be in 2013\_021 as per “feeding 2013” excel sheet blind times and feeding data
* Changed last feeding of \_023 time from 7:00 -> 6:59
* Changed last feeding of \_024 time from 15:00 -> 14:59
* Changed time on \_025 feeding of nest 277 14:54 -> 10:54 because it was supposed to be that based on the “feeding data” raw data sheet
* Changed time on \_043 feeding of nest 177 10:55 -> 6:55 because it was supposed to be that based on the “feeding data” raw data sheet
* Changed time on \_044 feeding of nest 162 0:00 -> 6:54 because it was supposed to be that based on the “feeding data” raw data sheet

2/6 notes

* Empty feedings
  + \_002, \_021
  + This isn’t a suspicious number of empty feedings
* à to do: figure out what the deal with ABCD nests was
  + They were listed in the nests watched but the feedings from those nests were not entered in the T Feeding sheet. This is similar to the WXYZ nests from 2012.
  + **DONE 2/15**: No good evidence of ABCD nests in the banding data
    - In the productivity monitoring data, there is a note that says nest nest à A,B for the ROST data, but I am guessing that means a new nest with an A and a B chick
* à to do: make decision about what to do with the suspicious number of “unknown adults” in the Received By column
  + Options: delete, add “?” to end, or change to “unknown chick”
  + DONE 2/14/23 à changed all of them to unknown chick

Notes from yellow rite in the rain:

* The times of the feedings were entered wrong throughout this
  + à pretty sure I went and fixed all of that
  + Event time was messed up but the raw data and time departed column in t-feeding were enough to get the real start times
* Length data entered as bill lengths but are in inches in the raw data in most cases
* Whats going on with rows with feedings on 6/28 from 6:20-18:36
  + Two of them seem like repeats from the 9:30-10:10 watch (2013\_031) so was that all one watch and the raw data are gone?
  + à im not sure what this is about or if I fixed it at all
  + 2/6/23 WHAT DID I DO WITH THIS? It looks fine now but àcould do: go back to old data and see what I changed and document it better **à DONE 2/13**: decided not to do this lol
* Sometimes it says “unknown adult” in received by column instead of unknown chick (labelled as “U” in raw data which is supposed to mean unknown chick but maybe they used it to mean unknown adult?
  + It seems like too many unknown adults fed by “parents”
* What to do about A/B/C nests? They are in nests watched column but not entered as observations leading to some empty obs periods
  + à im pretty certain that I deleted all of the A/B/C nests and adjusted the nests watched number

# 2014 DONE

What I did 2/14/23

* the times were wrong for all of the feedings, so I had to go back to the Feeding 2014 sheet on box and start over. I was able to keep the start and end times, just not the feedings.
* Things I called “failed feedings”
  + Stolen
  + Nobody wanted it
* There are some feedings that cant fit easily into watches so I left them with no watch ID; they could potentially get included if I tried hard enough to find their place but I just cant be bothered rn.
* Did not include ROST nests

Notes 2/6/21

* LOL none of the feedings are assigned to watches
* THIS IS PARTICULARLY FUCKED; come back to this at the beginning of a day

Notes from yellow rite in the rain:

* Just says “needs help”

# 2015 DONE (except minimal missing feedings)

Notes 2/6/21

* Everything looks good from this year
* Did notice there are a few feedings missing (just that the number of feedings from the “Feeding 2015” sheet is higher than in t feeding…. But the issue isn’t big enough to justify figuring out whats going on for me rn)

# 2016 DONE

No data

# 2017 DONE

Things I did 2/8

* Assigned watch IDs to
  + 2017\_086 - \_088
* could do: ask liz if she remembers why the above watches weren’t given watch IDs in the first place
  + Answers 2/17/23
    - \_086 was excluded because the chick was flying so liz wasn’t confident we were seeing every feeding in the video. In recent years, these data wouldn’t even have been collected.
    - \_087 out of frame for most of the watch
    - Added “x” to include for regression column.

# 2018 DONE

Notes from 2/7/23 and 2/8

* --> could do: ask liz why there are observations in red text in 2018\_032 and \_122? But it is almost definitely just remnants of previous work
* LOTS of very short watches (see 2022 data for same issue and more explanation in notes)
* Empty watch: 2018\_284

Things I did 2/8

* Gave watch ID (2018\_275) to 7/28 observations with 14:41 start and 16:40 end
* There were observations from 7/28 that were not assigned to a watch with a start time of 10:41 and an end of 12:41 with feedings that stopped by 11:20. These sorted weird but I do think that they are all associated so I put them all in a watch together (2018\_276)
* Gave watch ID (2018\_277) to 7/30 observations with 9:29 start and 11:28 end
* Other periods I gave watch IDs to
  + 2017\_278 - \_289
* àto do: ask liz if she remembers why the above watches weren’t given watch IDs in the first place
  + DONE 2/17/23 see notes from 2017 for answer about this. Added “x” to include for regression column.

# 2019 done

Notes from 2/8/23

Things I did 2/8/23

* Added watch duration to \_005 start
* Some of the durations were decimals so I rounded them
* Gave watch ID (2019\_294) to 6/24 feedings with 10:28 start and 15:27 end this watch so I must have deleted it for some reason and not said why?
* Gave watch ID (2019\_295) to 6/25 feedings with 10:28 start and 15:26 end
* Gave watch ID (2019\_296) to 6/28 feedings with 10:28 start and 15:26 end
* Gave a watch ID (2019\_288) to OAS watch from 7/5 that had start and end time and didn’t fit within any other watch
* Gave watch ID to 7/23 watches from 11:32 – 13:30 (2019\_289), 13:32-15:29 (2019\_290), and 17:31-19:29 (2019\_291)
* Gave watch ID 7/24 watches from 9:30-11:28 (2019\_292) and 13:30-15:28 (2019\_293)
* could do: ask liz if she remembers why the above watches weren’t given watch IDs in the first place
  + 2/17/23
    - Same reasoning as 2017/2018
    - TO DO: add “x” to IncludeForRegression column
    - DONE 2/24

# 2020 done (but videos need watching)

Notes from 2/6/23

* 2020\_005 is missing but who cares
* --> to do: ask liz if all the video data have been gone through

Things I did 2/8

* Added 12:53 feeding of D.22? to 2020\_035 cuz idk where else that could have gone
  + Also added D.22 to the list of nests watched
* Added 8:32 self feed of D.19 to \_004
* Gave watch ID (2020\_068) to 7/13 feedings from 9:10 to 10:30
  + Screamer shot in the middle of this watch to maybe that is why it didn’t get a watch ID?
* Added 12:09 flying observation and 12:30 feeding observation to 2020\_053
  + And added D.17 to the nests watched
* Deleted duplicate data
  + There were duplicate \_040 data that weren’t assigned any watch ID but were obviously just duplicate of \_040 so I deleted them and assigned some of the feedings to \_040 if they weren’t already
* Added GBS NB.07 12:17 feeding and D.06 12:40 feeding to \_045
  + Also added to list of nests watched
* Added 9:14 D.10 feeding and 10:26 herring feeding to \_037
* Added 15:13 feeding of D.05? to \_034
  + And added D.05 to list of nests watched
* à to do: ask liz if she remembers why the above watches weren’t given watch IDs in the first place
  + TO DO: add x to include for regression DONE 2/24/23

TO DO: watch videos (there are no video data right now)

# 2021 DONE (other than more videos maybe)

**2/24/23 notes**

* In the following watches, the watch duration was listed as “0?”. DONE 🡪 changed them to the appropriate duration based on start/end times
  + 2021\_022, 2021\_024,
* 2021\_034 doesn’t have an end time and therefore doesn’t have a watch duration
  + Done: made the end time the same as the last observation (10:16) and added a watch duration
* 2021\_103 number of nests watched unclear 🡪 GG could rectify
* Deleted 2021\_131 because it was useless lol

Notes from 2/7/23

* Added this year to the working df from the T-Feeding up to 2022 df in Furey Lab shared materials
* Ongoing: video data collection?
* Number of nests watched missing from 2021\_002, \_033
* There are nuptial feedings from 5/28 and 6/5 that have no timestamps or nest info à consider deleting?
* Things I did 2/7 and 2/8
  + Changed first feeding of \_003 to 13:35->13:36 so it sorts into the watch
  + 2021\_100 through 2021\_158 had the columns to the right of event time shifted one over to the right, so I moved the data back.
    - They also didn’t have anything filled in for # nests watched or watch duration, so I filled in the durations based on start/end times and filled in the nests watched based on whatever was listed in the NestID column in the start row for each
      * --> to do: ask liz how to fill in the number of nests watched for some of these (i.e. sometimes it just says “diet area 2” in the NestID for the start of these watches and that means nothing to me. The ones I have questions about are marked “?” in the number of nests column.
        + -->TO DO 2/17/23 liz said to just delete
        + **DONE 2/24/23** deleted \_094 because it just said “diet area 2” and there weren’t useful data anyway. Left \_002 as it is even though it has a ? for number of nests watched.
    - Deleted 2021\_110 because the only nest being watched was a ROST nest
    - --> to do: 2021\_100, \_101, \_102, \_105, \_107, \_109, \_113, \_118, \_127, \_129, \_ 132\_, \_133, \_135, \_137-\_139, \_143-\_145, are all <10 min long.... ask liz what that is about and consider deleting some or all?
    - --> to do: ask liz why 2021\_128 has two end times
      * Also, \_131 has this same issue where there are two different end times
      * Chick left frame, I deleted the first of the two end times
  + Added 6/29 feeding of SB.06 to the \_013 watch (based on timing and observer) and changed the time 7:27->7:48 to fit in
  + Added 7/6 9:50 feeding of D.76 to \_022 watch based on timing and observer
  + Added 7/10 feeding of D.16 to the \_031 watch (based on timing and observer) and changed the time 7:57->7:58 to fit in
  + Deleted ROST nest observations and adjusted the Nests watched list accordingly (the nests watched number was already adjusted not to include ROST nests by liz I suppose) in the following nests
    - P.s. I decided to delete these observations to be consistent with what was done with the early years in which someone decided to leave ROST out of this df all together
    - Also, just a note for anyone using a version of this df that does include rosts: the nests watched column is inconsistent in reporting ROST nests (sometimes it includes them, sometimes it doesn’t even if there are observtaions of them)
    - 2021\_003
    - \_007
    - \_009
    - \_012
    - \_013
    - \_015
    - \_016
    - \_019
    - \_024
    - \_026
    - \_027
    - \_028
    - \_034
    - \_036
  + Deleted 2021\_014 because it was just a ROST watch
* --> to do: ask liz what is going on with axis cam watches
  + It looks like there are a bunch of very very short watches. Were these just a way to record feedings that people saw?? Like did they only record a watch if there was a feeding? Im just confused about these 2 min long watches
* There were a bunch of AED watches that also needed watch times and number of nests added
* There are some watches that are labeled as being a watch of just one diet nest, but then have data in them from neighbors of those nests.
  + àto do: decide whether to delete/filter out neighbor feedings OR if I should just increase the number of nests watched to include neighbor nest since it was obviously being watched. There are a lot of watches that only have feedings from the neighbor of the nest technically being watched. --> 2/17/23 discussed with liz delete
  + DONE 2/24/23:
    - Deleted watch ID from the following watches that included a neighbor nest: 2021.AED.02, 2021.AED.03, AED.06, AED.08, AED.09, AED.15, and AED.16, 2021.105
      * Now I am realizing that it will be unclear which observations fell within these watches because I deleted the watch IDs lol 🡪 DONE: put the former watch id in the notes so that I know where these came from
    - Deleted the watch id just from the neighbor feedings in the following watches: 2021.AED.07

# 2022 DONE (other than videos)

2/15/23

* deleted a feeding cuz it was missing too much info: GVC feeding of 2022.D.76.B w unknown fish of 1 bill length

Notes from 2/7/23 and 2/8

* Added this year to the working df from the T-Feeding up to 2022 df in Furey Lab shared materials
* Ongoing: video data collection
* Currently only has blind data in the df

Things I did 2/8

* Changed first feeding of \_002 to 14:45
  + It was entered as 4:43 am but was likely supposed to be entered 14:43
* Deleted ROST nest observations and adjusted the Nests watched list accordingly (the nests watched number was already adjusted not to include ROST nests by liz I suppose) in the following nests
  + Rational: see 2021
  + 002
  + 003
  + 008
  + 026
  + 038
* 2022\_002 had two end times. There was an earlier one, then a number of additional feedings and a later one. I deleted the earlier one. I also adjusted the watch duration because it had been calculated based on the earlier end time. The earlier end time was 15:45 (just in case we want to put this back in at some point for whatever reason).
* The date for \_018 observations was messed up so I entered the date based on month/week/day columns
* TO DO
* consider deleting \_018?
  + Because it seems like it was just a ROST watch and it doesn’t have any nest info anyway
  + DONE on 2/24/23 and here are the data I deleted (LOL at the formatting) :

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| blind | 2022 | 7/4/22 | 7 | 28 | 185 | 2022\_018 |  |  | 60 | ? | 9:06:00 | start |  |  |  |  |  |  |  |  | GLG |  | yes |  |  |  |  |
| blind | 2022 | 7/4/22 | 7 | 28 | 185 | 2022\_018 |  |  |  |  | 9:11:00 | feeding | left of R.50 | 2022.left of R.50 | unknown | 2022.left of R.50.unknown | herring | herring | 2 | 7.62 | GLG | stiff fish |  |  |  |  |  |
| blind | 2022 | 7/4/22 | 7 | 28 | 185 | 2022\_018 |  |  |  |  | 9:27:00 | feeding | R.66 | 2022.R.66 | unknown | 2022.R.66.unknown | unknown fish |  | 1 | 3.81 | GLG |  |  |  |  |  |  |
| blind | 2022 | 7/4/22 | 7 | 28 | 185 | 2022\_018 |  |  |  |  | 9:42:00 | feeding | R.87 | 2022.R.87 | unknown | 2022.R.87.unknown | unknown fish |  | 1.5 | 5.715 | GLG |  |  |  |  |  |  |
| blind | 2022 | 7/4/22 | 7 | 28 | 185 | 2022\_018 |  |  |  |  | 9:43:00 | feeding | ReD flag | 2022.ReD flag | unknown | 2022.ReD flag.unknown | butterfish | butterfish | 1.5 | 5.715 | GLG |  |  |  |  |  |  |
| blind | 2022 | 7/4/22 | 7 | 28 | 185 | 2022\_018 |  |  |  |  | 10:06:00 | end |  |  |  |  |  |  |  |  | GLG |  | yes |  |  |  |  |

* See if I can get list of nests watched for \_019 and \_020 and \_022 (this one is labeled all but D.48 lol), \_028, \_032, \_033, \_039

# 2023

Things I did 9/27/23

* Copy and pasted observations from the online 2023 tern program data feeding sheet into the T-Feeding document
* Calculated Month, Week, Day, and PreySizeCM columns
* Made watch IDs
* Calculated watch durations in MM from the hh:mm:ss format
* Changed observer from AC to AP for 7/22 and 7/23 diet area 1 watched
  + Based on my memory and the activity log info, both of these watches were done by Asher (AP) and not me (AC) but I think the tern team entered the data and probably just got confused!
  + It was watches 2023\_032 and 2023\_038
* Added number of nests watched
  + Did not include ROST nests in this and deleted ROST observations from the data
* One of the nests in 2023\_021 started getting watched late, so I split the watch into two separate watches, one that went until the last nest got added and one starting when it did
  + Now 2023\_021a and 2023\_021b
* There was a 6/29/23 observation at 8:37 that just said “KZ0 present”. The observation is from 2 minutes before the start of a watch, so I just went ahead and added “KZO present at 8:37” as a note in the notes column for that watch start and deleted the row it was in before
* There are two blind observations on 7/8 that I am not sure what to do with
  + I think there were probably just observations that liz happened to make and wanted to make a note of? In the notes of one of them it says that it’s anecdotal data. So, I am deleting these from the data sheet and recording them here:
    - 7/8/23 5:00PM event=failed feeding of 3BL sandlance to GPS.ZH3 observed by Liz
    - 7/8/23 17:07 event=chick on ledge observed by liz with note: Post fieldtrip blind watch with Jeff. Fish stolen. Anecdotal data and with provided by=ZH3
* Changed 2023\_009 end time to 11:29 (from 11:28) so that it sorts better since theres an 11:28 feeding
* 2023\_013 has a pause in it which I just turned into a stop/start of a new watch
  + Now 2023\_13a and 2023\_13b
* Changed some things in events to attendance (like if it said “ZK7 arrived” I would put that in the notes and put attendance in the event column)
* Noticed that the nests listed in NestIDs that were watched for start rows sometimes were missing nests… or had extras… so:
  + 2023\_011 added ZH3
  + 2023\_005 added ZH3
  + \_006 added ZK3
  + \_007 added ZH5, 208
  + \_009 added ZL3
  + \_014 removed D.105 (it was listed twice)
  + \_024 added D.302
  + \_033 added D.306
  + To do
    - \_010 what is up with NG and NG2 and NBS1 and NBS2???????
    - \_013a and \_013b also have NG, NG2 etc observations but this time they are in the list of nests watched…… does that mean I should add those nest IDs to the nest lists for \_010?
    - \_017 there is a feeding of nest “SL3”… is that a ROST nest? If so then I’ll delete or if not then that needs to get added to the list of nests to watch
* I made unique watch IDs for each observation
  + For the ones with “near” nestIDs I changed it to “neighbor”
* Made unique chick IDs too
* Deleted nest and chick ID for 9:42 feeding in \_034 (see explanation for why in the note for that observation)
* Changed the chick ID to A chick on all of my observations from 7/22 (I had written that the chick was ZB1 and then went and looked at the google sheet and saw that the A chick in that nest had PFR 2B1 so I def just misread it)
* Change timestamp on first feeding in \_035 from 16:35 to 16:36 to sort easier into watch
* Change timestamp on first feeding in \_039 from 8:25 to 8:26 to sort easier into watch
* Changed ReceivedBy from PFR IDs to A and B in watch \_039
  + For that watch I also Deleted nest and chick ID in the 9:46 feeding for the same reason as I did for 9:42 feeding in \_034

TO DO

* What to do about observations that say “near ###” in the nest ID…… do we add those nest IDs to the nests watched list or do we delete those observations
  + watches with “near” observations:
    - \_008
    - \_009
    - \_010
    - \_014
    - \_018
    - \_026
    - \_030
    - \_032
    - \_034
* 2023\_015 doesn’t have any nests watched list; create one based on other watches
* “NESTID” column for 11:39 feeding of a 1BL hake in 2023\_018 says “notes” 🡪 go into PGs notes to find nest ID?
* When PG writes “NZM0” is that just nest ZM0?
* PG has “NR” in the REceivedBy column for some observations…. What does that mean? For now, I deleted “NR” from the following observations
  + 11:23 feeding of 2.5BL sandlance in 2023\_018
  + 11:39 feeding of 1BL hake in \_018 (same obs as above “notes” question)
* Go back and clarify whether the chicks that I recorded for my diet watches were A or B chick 🡪 DONE 9/27/23

# GENERAL NOTES

Teaser parents 🡪 RESOLVED

* These pop up in the “provided by” column (see 2010 as an example). What are these? Did the chick listed actually get fed, or did it just get teased? Should these be listed as failed feedings or be deleted?
* 2/17/23 convo with liz: to do compose liz email about teaser birds to forward to linda
* 3/6/23: Made the event “failed feeding” for any observations with teaser parent in the provided by column

Prey sizes 🡪 RESOLVED

* Years where prey are confirmed to be written in bill lengths
  + Confirmed for all years!

Nests watched 🡪 I don’t think this will ever get fully resolved…. That’s gonna have to be OK

* Need to figure out when the nests listed are all the nests watched vs when they are just the ones that were observed to have a feeding
* Another thing is that some of these nests must have failed throughout the season but might still have been recorded as being watched despite not being active. Not sure there is anything we can do to account for this.

Empty watches/blind time 🡪 RESOLVED

* 2/17/23
  + Liz did use the blind times to make start/end periods and then superimposed them on the feeding data
  + To do: delete empty watches!
* There are a number of cases of empty watches in the T-Feeding data. These watches look like they came from watch periods listed in “BLIND TIME”. In some years, all of the watches from blind time seem to have been copied over into the feeding data, but in some years (take 2012 as an example) there are MANY more watches in blind time than in the feeding data. So, I am thinking that the blind time sheet is a schedule that sometimes happens and sometimes doesn’t; in some years, someone for whatever reason added empty watches to the feeding data for watches that were supposed to happen (based on the blind time data) and in other years, those watches were left out. What I need to do is figure out which of the empty watches actually happened and which are just remnants from blind time.
* Years with empty watches that appear to have come from blind time
  + 1999-2003, 2010 and likely others
* Years with more watches in blind time than in the feeding data
  + 2012 and likely others

Month/Week/Day Columns 🡪 RESOLVED

* I am pretty sure I auto filled these at some point and there are some observations that are missing values for these. Not sure I ever even really use these columns in analysis but if I do, make sure that all the necessary rows have the appropriate month/week/day data in them

Keys 🡪 RESOLVED

* What does N mean in received by
* What does M, MA, T mean in provided by
* Where are the keys for the sizes