* [Puma\_Lowland\_Occupancy\_Prep.R](https://drive.google.com/file/d/1TEhICOefZfcuywr5B32PHFYcTc27mipD/view?usp=sharing) = this file includes all the steps from loading in the raw lowlands dataset to producing the string to select species for occupancy; written by Dr. Rocha; there are two other versions of this for [paca](https://drive.google.com/file/d/1PDOzhHHTL4_-E8i03ZHOJgaO31BDZiA5/view?usp=sharing) and [peccary](https://drive.google.com/file/d/1qLhMxMOxFc2r6--oxfLkHiIhuZExInIq/view?usp=sharing)
  + **Input**
    - [CR\_Dataset04\_Lowland.csv](https://drive.google.com/file/d/1O9ib07ex7sXLOTPtJR674Acsjawdm3Ci/view?usp=sharing) = all data from lowland camera traps, subsetted from camera master dataset “Master(5.31.22)”; cameras with no start/end date were omitted
    - [CR\_lwl\_indrecs\_table.csv](https://drive.google.com/file/d/1X43iDYCDG99WKjWBRUNbvmcOC0Llnhe1/view?usp=sharing) = this table was made from manually selecting the best time window for each camera (done by Dr. Mooring) - which was the maximum amount of independent records (all species) per camera running for a maximum of 4 months; this file is just a table of the start/end month chosen for each camera
    - [CR\_lowlands\_covs.csv](https://drive.google.com/file/d/15ITJv8P8egNlQfwgJMQeSC8MfqkCA4FW/view?usp=sharing) = covariate table determined from Extracting\_Site\_Covariates.Rmd (description below)
  + **Output** (tables made w/i code)
    - recs.all = all the independent detections
    - d2.CT.on = creating a table with the number of independent records per camera per month/year
    - ston = camera trap activity table
    - records = creating capture histories
    - crop\_rec.mat = collapsed record history
    - crop\_rec.mat2 = collapsed capture history
    - crop\_eff.coll = occasion effort
  + **Common Errors**
    - Error in `[.data.frame`(records, , c("station", "species", "date", "Time")) : undefined columns selected
      * ???
    - Error in if (dif > 60) { : missing value where TRUE/FALSE needed
      * ???
    - Changing column names in comm\_hist\_maker to fit my actual table names was a common solution to other errors
* [Extracting\_Site\_Covariates .Rmd](https://drive.google.com/file/d/1Eq2tExltFycmdnqPRcl6-NoodrO_HF5t/view?usp=sharing) = code for extracting covariates values from camera trap latitude and longitudes; written by Dr. Rocha
  + **Input**
    - [CR\_Dataset04\_Lowland.csv](https://drive.google.com/file/d/1O9ib07ex7sXLOTPtJR674Acsjawdm3Ci/view?usp=sharing) = all data from lowland camera traps, subsetted from camera master dataset “Master(5.31.22)”; cameras with no start/end date were omitted
    - Covariates
      * [HFI\_CostaRica\_EPSG4326.tif](https://drive.google.com/file/d/1neDA2IuNBW6h3jcK96ypllrAFQ1KpUrS/view?usp=sharing)
      * [SRTM\_CostaRica\_1arc.tif](https://drive.google.com/file/d/1skrphPkFUGiMwtSjQwtsil5kR2mi_bcV/view?usp=sharing)
      * [WaterSurf\_CostaRica\_EPSG4326.tif](https://drive.google.com/file/d/1s2HOxmVrTAqvRwynsiBfKQMSw3n27Fnw/view?usp=sharing)
      * [PrimForest\_CostaRica\_EPSG4326.tif](https://drive.google.com/file/d/1ARZ24iqn91N6E5ZC2BgWZwhzow3KJck6/view?usp=sharing)
      * [NPP\_CostaRica\_1arc.tif](https://drive.google.com/file/d/1EBgfhwUOCFSHqO4bTocGn2YY86VeaoSo/view?usp=sharing)
    - CR\_lowlands\_sitecovs.csv = which is really just this [file](https://drive.google.com/file/d/1kZNhZlW-zUYR-hv46eWio9IV2_C8Z-zj/view?usp=sharing) with fragmented metrics that came from Dr. Rocha, not sure where he got the values
  + **Output**
    - [CR\_lowlands\_covs.csv](https://drive.google.com/file/d/15ITJv8P8egNlQfwgJMQeSC8MfqkCA4FW/view?usp=sharing) = the final product covariate table to load into running occupancy
  + **Common Errors**
    - plot.new() has not been called yet
      * Really not that important for these purposes but this occurs with using R Markdown - the interface showing the plot doesn’t recognize adding to it. Try deleting possible white space. But we are able to ignore this error since we aren’t focused on graphs but values from them.
* Fixes for Master(5.31.22).Rmd ; cleaning code to Master Dataset where issues found throughout summer are recorded and fixed her to upload a new revised version
  + To be uploaded at end of summer