Data processing for Scotts sea lion counts

Cleaning up Scott’s Shilshole sea lion data for use in Ballard model. [Pinniped-Case-Studies/Data/BallardLocks/SeaLionCounts\_ScottVeirs\_Shilshole.xlsx at main · lizallyn/Pinniped-Case-Studies (github.com)](https://github.com/lizallyn/Pinniped-Case-Studies/blob/main/Data/BallardLocks/SeaLionCounts_ScottVeirs_Shilshole.xlsx)

Created copy of Sea lion raw data (old) so I could delete the total counts and counts from Everett or killer whale observations. Sometimes there are multiple counts per day at the same location, and sometimes it is just multiple independent counts at the same time. Super annoying to go through and summarize.

Ended up pulling out the counts labeled total in the location description and adding those to the summary table, and then pivot tabling the rest of them to sum by day and adding those totals. Then take the max total per day as the final value. Then pivot by month and take the max count per month.

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| **Month** | **Max of Max Daily Total Count (Shilshole)** |
| 1 | 163 |
| 2 | 166 |
| 3 | 80 |
| 4 | 96 |
| 5 | 80 |
| 6 | 42 |
| 7 | 0 |
| 9 | 1 |
| 10 | 0 |
|  |  |

Comments in the data mention that starting in 2023 sea lions showed up at Shilshole right around the week between Christmas and new years, so I’m keeping it at 0 for December bc it is 0 for most of the month.

Scott said only Californias but also mentioned that he’s really bad at telling them apart.

Counts were also separated by location in the Sea lion survey (~weekly) sheet. Totals for the Locks to Ray’s region were mostly 0, some 1s, max 8. 1 in April, then fairly consistent presence in Sept to early October. These counts seem to be from 2024 and start in February and go through early October. So no data for crucial time period around the coho fishery yet. Ask Ava et al. to fill in the gaps. Need to ask them about presence above the Locks anyway.

Moving forward with 5 Zc in source pool and 1 Ej for now. All higher counts occur outside of the model run period anyway