FraserSockeyeData2022.csv

|  |  |  |
| --- | --- | --- |
| **Column** | **Value** | **Notes** |
| **Pop\_Name** | Population Name |  |
| **yr** | Brood year |  |
| **rec4** | age 42 recruitment | Fish returning at age-4, after spending two winters in freshwater |
| **rec5** | age 52 recruitment | Fish returning at age-5, after spending two winters in freshwater |
| **R** | Total recruitment, generally rec4 + rec5 | Some stocks where this isn’t exactly true, due to unique age structure, let’s not worry about this! |
| **S** | Effective female spawners | Estimated by the Fraser Sockeye Operational Program. Methods include, flight counts, visual counts, mark-recapture programs, sonar. We do not take into account uncertainty in these estimates. Essentially total spawners \* proportion spawned out female |
| **juv** | Chilko Smolts | Age-1 smolts only. Counted during outmigration. |

FC\_Environmental\_Data.csv

|  |  |  |  |
| --- | --- | --- | --- |
| Column | Value | Notes/Changes | Yearly Updates |
| yr | Brood year | The data is aligned with brood year, assuming all fish out-migrate at age-2. | NA |
| Real\_year | Real Year data comes from | Yr+2 |  |
| aflow | April Fraser River discharge (m3/s) | Average monthly discharge (m3/s). From year of outmigration. | DFO Environmental Watch Program (Dave Patterson). Also [archived online.](https://wateroffice.ec.gc.ca/google_map/google_map_e.html?search_type=province&province=BC) |
| mflow | May Fraser River discharge(m3/s) | Average monthly discharge (m3/s). From year of outmigration. | DFO Environmental Watch Program (Dave Patterson). Also [archived online.](https://wateroffice.ec.gc.ca/google_map/google_map_e.html?search_type=province&province=BC) |
| jflow | June Fraser River discharge(m3/s) | Average monthly discharge (m3/s).. From year of outmigration. | DFO Environmental Watch Program (Dave Patterson). Also [archived online.](https://wateroffice.ec.gc.ca/google_map/google_map_e.html?search_type=province&province=BC) |
| peak | Peak annual Fraser River discharge(m3/s) | Outmigration year. | DFO Environmental Watch Program (Dave Patterson). Also [archived online.](https://wateroffice.ec.gc.ca/google_map/google_map_e.html?search_type=province&province=BC) |
| apesst | April Sea surface temperature (degrees C) | From Entrance Island lighthouse, year of outmigration. | British Columbia Shore Station Oceanographic Program (archived on [DFO website](https://www.dfo-mpo.gc.ca/science/data-donnees/lightstations-phares/index-eng.html)) |
| maesst | May SST | From Entrance Island lighthouse. From year of outmigration. | British Columbia Shore Station Oceanographic Program (archived on [DFO website](https://www.dfo-mpo.gc.ca/science/data-donnees/lightstations-phares/index-eng.html)) |
| jnesst | June SST | From Entrance Island lighthouse. From year of outmigration. | British Columbia Shore Station Oceanographic Program (archived on [DFO website](https://www.dfo-mpo.gc.ca/science/data-donnees/lightstations-phares/index-eng.html)) |
| appsst | April SST | From Pine Island lighthouse station. From year of outmigration. | British Columbia Shore Station Oceanographic Program (archived on [DFO website](https://www.dfo-mpo.gc.ca/science/data-donnees/lightstations-phares/index-eng.html)) |
| mapsst | May SST | From Pine Island lighthouse station. From year of outmigration. | British Columbia Shore Station Oceanographic Program (archived on [DFO website](https://www.dfo-mpo.gc.ca/science/data-donnees/lightstations-phares/index-eng.html)) |
| jnpsst | June SST | From Pine Island lighthouse station. From year of outmigration. | British Columbia Shore Station Oceanographic Program (archived on [DFO website](https://www.dfo-mpo.gc.ca/science/data-donnees/lightstations-phares/index-eng.html)) |
| jlpsst | July SST | From Pine Island lighthouse station. From year of outmigration. | British Columbia Shore Station Oceanographic Program (archived on [DFO website](https://www.dfo-mpo.gc.ca/science/data-donnees/lightstations-phares/index-eng.html)) |
| PDO | Pacific Decadal Oscillation | Climate change index for Pacific Ocean at decadal scale during year of outmigration. Average of November – March pdo index during winter before outmigration. | PDO data is collected from [University of Washington website](http://research.jisao.washington.edu/pdo/). For 2021, the data was gathered from [here](https://oceanview.pfeg.noaa.gov/erddap/tabledap/cciea_OC_PDO.html), since the UW website was down. |