Draft: Juvenile Annual Report

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Introduction

Already exists in previous reports, just needs to be combined and formatted for the group report.

Methods/Locations

The methods section will be very similar to what already exists previous documents We only need to gather that information and place it here. This will change very little during future iterations.

Results

Table 1 - Data Collection

- RST Operation Dates
- Fall Chinook Juvenile Seining Dates

Table 1: Table 1. Data Collection - Important dates for Rotary Screw Trap and Juvenile Seining operations.

| Project | Start.Date | End.Date |
|---------|------------|------------|
| RST 1 | 2018-02-25 | 2018-06-27 |
| RST 2 | 2018-02-14 | 2018-07-12 |
| Seining | 2018-01-28 | 2018-06-14 |

Performance Measures

Table 2 - Productivity and Survival

- Juvenile Emigrant Abundance (PM10)
- Post-release Survival (PM19)
- Juvenile Survival to first mainstem dam (PM17)
- Juvenile Survival to all mainstem dam (PM18)
- Smolts (PM11)

Table 2: Table 2. Juvenile Summer Nacó'x (Chinook salmon) abundance and survival estimates to Lower Granite Dam from Nez Perce Tribe sampling locations. (Standard Error in parentheses)

| StreamName | Origin | Lifestage | SpeciesRun | Abundance | Survival | equivalents |
|---------------|---------|------------------------|------------|-------------------|-------------|-------------|
| Johnson Creek | Natural | Parr | S_CHN | 98358 (3508.66) | 0.15 (0.01) | 14753.70 |
| Johnson Creek | Natural | Presmolt | S_CHN | 32244 (1919.16) | 0.34(0.04) | 10962.96 |
| Johnson Creek | Natural | Smolt | S_CHN | 5884 (1774.13) | 0.32(0.05) | 1882.88 |
| Johnson Creek | Natural | Total | S_CHN | 136486 (4454.7) | NA (NA) | NA |
| Secesh River | Natural | Parr | S_CHN | 167116 (13353.81) | 0.2(0.01) | 33423.20 |
| Secesh River | Natural | Presmolt | S_CHN | 129236 (4298.34) | 0.34(0.02) | 43940.24 |
| Secesh River | Natural | Smolt | S_CHN | $4202\ (2225.61)$ | 0.45(0.11) | 1890.90 |
| Secesh River | Natural | Total | S_CHN | 300554 (14367.05) | NA (NA) | NA |
| Imnaha River | Natural | Presmolt | S_CHN | 62308 (16757) | NA (NA) | NA |
| Imnaha River | Natural | Smolt | S_CHN | 34904 (4262) | NA (NA) | NA |
| Imnaha River | Natural | Total | S_CHN | 97212 (16011) | NA (NA) | NA |
| Lolo Creek | Natural | Presmolt | S_CHN | NA (NA) | 0.62(0.23) | NA |
| Lolo Creek | Natural | Smolt | S_CHN | NA (NA) | 0.65(0.1) | NA |
| Newsome Creek | Natural | Presmolt | S_CHN | NA (NA) | 0.14(0.02) | NA |
| Newsome Creek | Natural | Smolt | S_CHN | NA (NA) | 0.6 (0.11) | NA |

Table 3 - Hatchery Performance Measures

- Hatchery Production Abundance (PM47)
- Prerelease Mark Retention (PM58)
- Prerelease Tag Retention (PM59)
- Hatchery Release Timing (PM60)

Table 3: Table 3. Hatchery Chinook Production Information.

| Release.Site | Release.Date | Abundance | Prerelease.Mark.Retention | Prerelease.Tag.Retention |
|---------------|--------------|-----------|---------------------------|--------------------------|
| Johnson Creek | | 150000 | 00,0 | 97% |
| Imnaha River | 2018-04-03 | 500000 | 98% | 98% |

${\bf Table~4-Recruits/Spawner}$

• Recruit/spawner (R/S) (Smolt Equivalents per Redd or female) (PM15)

Table 4: Table 4. Recruits per Spawner. The number of smolts per Redd counted per stream. [Calculated as Smolt Equivalents/# Redds]

| StreamName | Equivalents | Redds | Recruits.Spawner |
|---------------|-------------|-------|------------------|
| Johnson Creek | 40000 | 150 | 266.67 |
| Imnaha River | 50000 | 130 | 384.62 |

Table 5 – Size and Condition

- Size-at-Release (PM49)
- Size-at-Emigration (PM32)
- Age-at-Emigration (PM30)
- Juvenile Condition Factor (PM50)
- Condition of Juveniles at Emigration (PM33)

Table 5: Table 5. Size and Condition at Release/Emigration.

| Release.Site | Origin | Size.at.Emigration.Release | Age.Class | Condition.Factor |
|--------------------------|----------|----------------------------|------------------------|------------------|
| Johnson Creek Screw Trap | Natural | 60 | Presmolt | 0.93 |
| Imnaha River Screw Trap | Natural | 62 | Presmolt | 0.93 |
| Johnson Creek Screw Trap | Natural | 101 | Smolt | 1.01 |
| Imnaha River Screw Trap | Natural | 96 | Smolt | 1.02 |
| Johnson Creek | Hatchery | 120 | Smolt | 1.50 |
| Imnaha River | Hatchery | 115 | Smolt | 1.40 |

Table 6 / Figure 1

- Juvenile Emigration Timing (PM37)
- Mainstem Arrival Timing (PM38)

Table 6: Table 6. Arrival Timing at Lower Granite Dam

| Trap | Origin | 0% | 10% | 50% | 90% | 100% |
|--------|----------|------------|------------|------------|------------|------------|
| IMNTRP | Hatchery | NA | NA | NA | NA | NA |
| IMNTRP | Natural | 2018-03-29 | 2018-04-06 | 2018-04-22 | 2018-05-15 | 2018-06-28 |
| JOHTRP | Hatchery | NA | NA | NA | NA | NA |
| JOHTRP | Natural | 2018-04-01 | 2018-04-14 | 2018-05-01 | 2018-05-18 | 2018-06-10 |
| SECTRP | Hatchery | NA | NA | NA | NA | NA |
| SECTRP | Natural | 2018-03-29 | 2018-04-10 | 2018-04-15 | 2018-05-03 | 2018-06-25 |

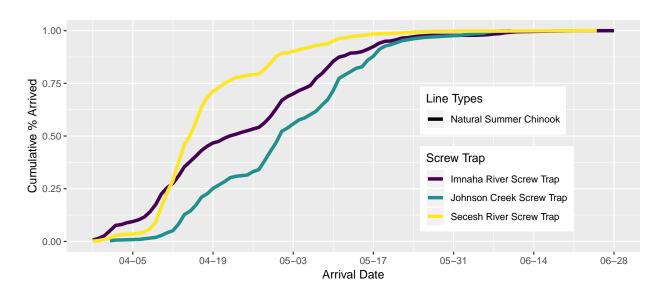


Table 7

• Fish and Amphibian Assemblage (PM46)

Table 7: Table 6: Fish and Amphibian Assemblage. I hope we didn't catch a \log .

| | <u> </u> |
|-------------|----------|
| Species | Count |
| Frog | 1 |
| Dog | 2 |
| Log | 3 |

Discussion

Keeping in my the goal of minimizing the length of this report, the discussion should only include noteworthy (e.g. abnormal) events or results from the sample year and reference back to results/appendix.

Appendix

• Raw data here along with anything else that is necessary.