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**Sent:** Thursday, May 2, 2019 10:21 AM  
**To:** Brian Ellrott  
**Subject:** spring run in delta, chipps Island

For spring run analysis, here's relative distribution suggesting table in env baseline should be updated for Mar and May months in the Delta

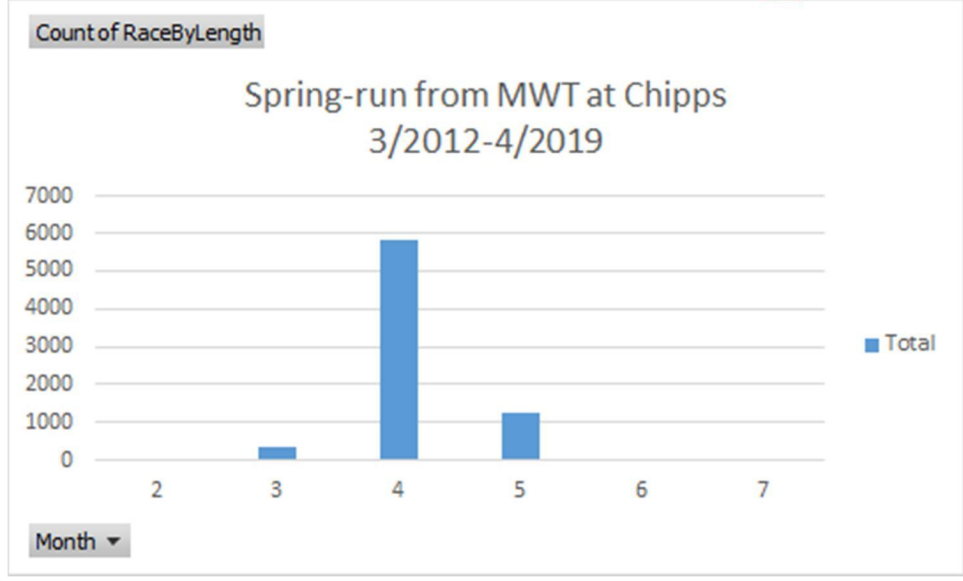
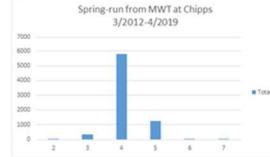
Table 2.4.4-1 The Temporal Occurrence of Adult (a) and Juvenile (b) Central Valley Spring-run Chinook Salmon in the Mainstem Sacramento River.

Relative Abundance	High			Medium			Low					
<b>(a) Adult Migration</b>												
Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Delta <sup>a</sup>												
San Joaquin Basin												
Sac. River Basin <sup>b,c</sup>												
Sac. River Mainstem <sup>c,d</sup>												
<b>(b) Juvenile Migration</b>												
Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sac. River at RBDD <sup>d</sup>												
Sac. River at KL <sup>i</sup>												
San Joaquin basin												
Delta <sup>a</sup>												

Sources: <sup>a</sup>CDFG (1998); <sup>b</sup>Yoshiyama et al. (1998); <sup>c</sup>Moyle (2002); <sup>d</sup>Myers et al. (1998); <sup>e</sup>Lindley et al. (2004); <sup>f</sup>CDFG (1998); <sup>g</sup>McReynolds et al. (2007); <sup>h</sup>Ward et al. (2003); <sup>i</sup>Snider and Titus (2000); <sup>j</sup>SacTravi (2015)  
 Note: Yearling spring-run Chinook salmon rear in their natal streams through the first summer following their birth. Downstream emigration generally occurs the following fall and winter. Most young-of-the-year spring-run Chinook salmon emigrate during the first spring after they hatch.

**Rosalie del Rosario**  
 Update citations to annual reports on juvenile abundance and confirm relative abundance is accurate.

**Rosalie del Rosario**  
 Here's relative abundance of spring run from MWT at Chipps from 3/2012-4/2019 showing that the Delta chart should be updated to reflect relative abundance: (i.e., higher in May, lesser in Mar). And update citation.



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