

Decreasing the Subjectivity Associated with Redd Identification Using a Discriminant Function Analysis model



DFA model accurately predicts whether an unoccupied redd was constructed by Chinook Salmon, steelhead, or Pacific Lamprey

BACKGROUND

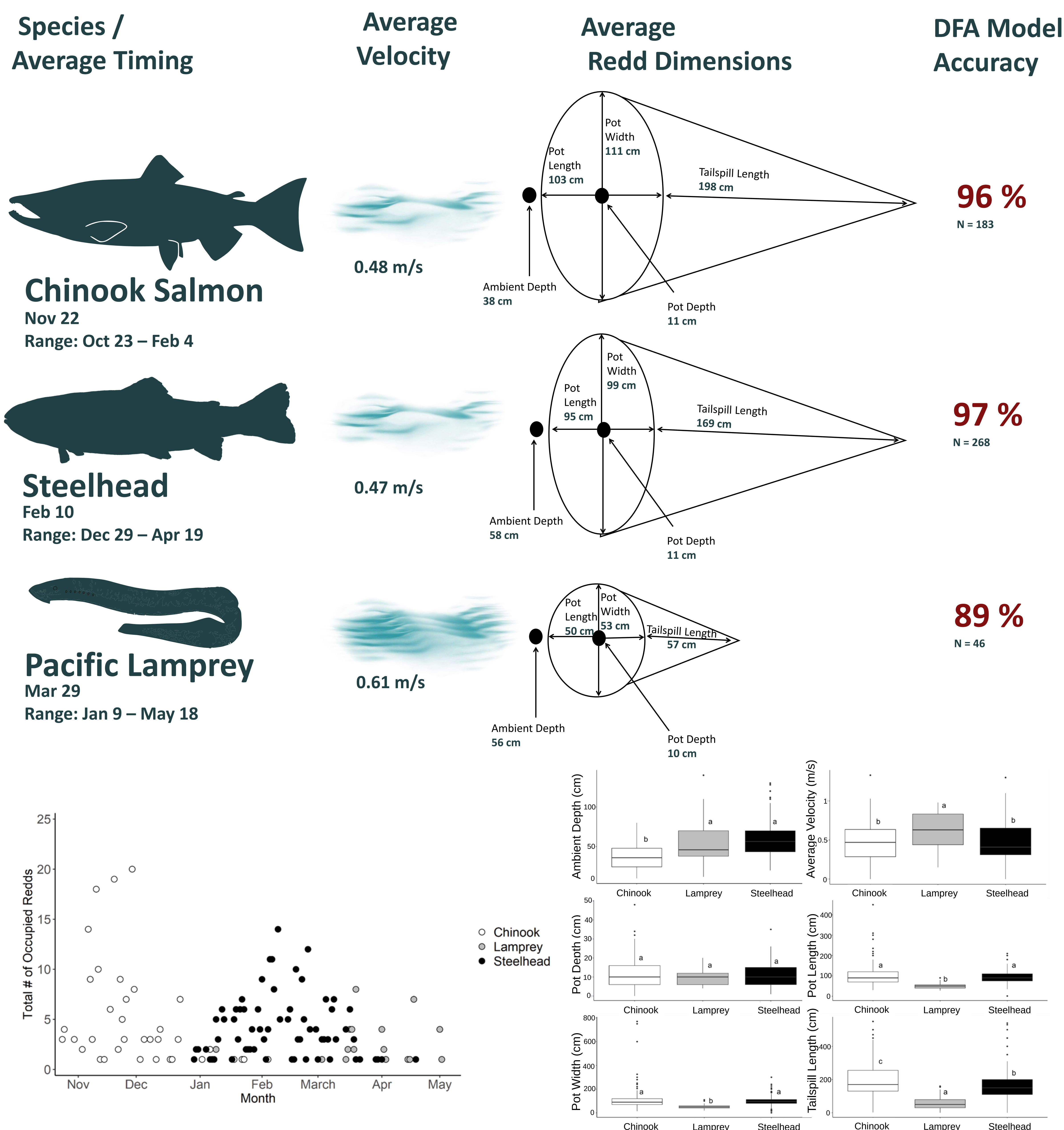
- Chinook Salmon, steelhead and Pacific Lamprey all construct redds on the Lower American River, CA
- Historically, redds encountered during spawning surveys were identified to species based on time of year and professional judgement
- Due to overlap in spawning seasons and similar redd dimensions, there is potential to misidentify the species that built the redd

METHODS

- Dimension data (2003-2021) were collected from occupied (identified to species) and unoccupied (classified as 'unknown') redds
- Data from redds identified to species were used to develop DFA model and predict species identity of unoccupied redds (2016 – 2021)



RESULTS



DFA predictive power strengthens as additional occupied redd data is added to the model annually

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