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Title: Long-term changes in kelt survival of WA coastal steelhead

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Abstract: Abundances of steelhead along the outer Washington coast have declined over the past few decades, which has created challenges to fishery managers and highlighted the need to better understand why population abundances are declining. We developed an Integrated Population Model for steelhead in a Bayesian framework that explicitly accounts for iteroparity to study whether changes in kelt survival rate have contributed to declining productivity and abundance of WA coastal steelhead. Our model results indicate significant declines in kelt survival rate since the 1980s across populations. Kelt survival declined from 0.2-0.45 in the early years to around 0.1 in recent years. Such consistent and steep declines in kelt survival can have far-reaching ecological and economic repercussions.