

Cottonwood Sex Ratios on the Wapato Reach: New Conclusions

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Black cottonwoods are the only native riparian tree in the semi-arid portion of Yakima River riparian zones. As such, they provide critical functions to riparian and aquatic ecosystems, including linkages between hydrology, channel dynamics, and other organisms. Previous studies have suggested that the sex ratios of black cottonwoods may be severely skewed towards males on the middle reaches of the Yakima, potentially creating a reproductive bottleneck with long term population implications.

As part of my thesis research, I sampled for cottonwood sex ratios on the Wapato Reach between Parker Dam and Satus Creek. My results show that there is probably not an imbalance between males and females and that in this respect at least Wapato Reach cottonwood forests may be relatively unimpaired. Additional spatial analyses of sex ratios found no association between hydrological factors and sex ratios.

Although sex ratios may be balanced, more work is needed to understand the long term trajectory of cottonwood forests in the Wapato Reach and whether current flow and sediment regimes are sufficient to maintain sufficient rates of forest regeneration.