Up the Creek and in the Floodplain: A Pacific Northwest Winter's Fish Tale. (A05-steiner134145-Poster)

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Abstract:

Poorly drained grass seed fields in maritime Pacific Northwest are closely linked to aquatic habitats and may provide refuge to endangered fish during winter high flow periods. During winter 2001-02, native fish and amphibian distributions were determined in different order drainages of a western Oregon watershed. Water quality was concurrently measured with aquatic wildlife capture. Terrestrial and aquatic invertebrates were also surveyed. Four salmonid, six other fish, and four amphibian species were differentially distributed by landscape features. Few to no fish were found in field drainages feeding directly into the river main-stem. Fish number decreased in drainage tributaries with increasing distance from the main-stem. Fish abundance was not associated with local riparian vegetation appearance or water quality. Season-long turbidity, nitrate-nitrogen, and dissolved organic carbon ranges were 11-60 NTU, 1-11 mg/L, and 4.4-11.5 mg/L, respectively. Autumn overland water flow through fields was a source of invertebrates to the aquatic system. This study is a first step determining the biological contributions of upland agricultural landscapes to aquatic wildlife habitat quality.

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