

LACK OF EVIDENCE FOR INTERSPECIFIC HYBRID ORIGIN IN FERAL RYE.
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Feral rye (*Secale cereale*) is an exotic invasive weed of dry land agricultural regions of the western United States. It looks like cultivated cereal rye with the exception of having a shattering seed head. Past research suggests it is hybrid-derived. We investigated the history of introduction, characterized the genetic structure, and reexamined the evidence for hybrid origin of feral rye populations across three climatically distinct regions in the western United States using fourteen isozyme and three microsatellite loci. We found no evidence of a genetic bottleneck or of strong geographic structure in feral populations, suggesting locally idiosyncratic colonization and gene flow events at each site. Populations were, however, weakly clustered as a distinct lineage relative to cultivars. Our results do not support an interspecific hybrid origin for feral rye, but do suggest that the sampled populations of feral rye share a common ancestry that may explain its weedy nature.