

13 Response of Prairie Fringed Orchid to Fire and Reduction in Grazing (Nebraska)

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A colony of more than 50 flowering prairie white fringed orchids (*Platanthera leucophaea*) was discovered in a pasture at Mormon Island Crane Meadows, along the Platte River in Hall County in July 1982. This is the first recording of this species in the county, although nonflowering plants never authoritatively identified were sampled at this location in 1978.

Crane Meadows is being managed to restore native grasslands, which are used by sandhill and whooping cranes as feeding sites. Under the management plan, traditional grazing practices (which are compatible with crane use) are being employed under a pasture rotation and prescribed burning system.

Prairie fringed orchids flowered following spring burning (April 9) and delayed grazing (beginning July 15, two months later than usual) of the pasture. In addition, the summer of 1982 was unusually wet. The season-long grazing practiced during the past half-century had probably maintained the prairie orchids in a nonflowering condition. Reduction of grazing intensity, stimulation by fire, and abundant moisture apparently triggered the flowering response.