

Metadata for file fall_height_data_2001_2020.csv

Description of column headings for data on fall heights in experimental and observational plots. Experimental layout and procedures for data collection in experimental plots were described in Bilyeu, D. M., D. J. Cooper, and N. T. Hobbs. 2008. Water tables constrain height recovery of willow on Yellowstone's northern range. *Ecological Applications* 18:80-92. Sampling design and procedures for data collection for observational plots are described in Marshall, K. N., D. J. Cooper, and N. T. Hobbs. 2014. Interactions among herbivory, climate, topography and plant age shape riparian willow dynamics in northern Yellowstone National Park, USA. *Journal of Ecology* 102:667-677.

| Column name | Description |
|-------------|--|
| willid_full | Identification code for an individual plant. Components are site-treatment-plant number. For example eb1-cc-614 is plant number 614 in the control plot of site eb1. Treatment codes are given below. Site codes and their spatial coordinates are given in the document “Site Locations.pdf”. |
| year | The year that the measurement was taken. |
| treat | Code for treatment: cc = experimental unfenced, undammed; cx = experimental undammed, fenced; dc = experimental dammed, unfenced; dx = experimental dammed, fenced; obs = observational |
| site_id | Identification code for site (without treatment code) |
| exp | Indicator variable for membership in experiment = 1 if a experimental plot and 0 otherwise. |
| willid | Plant number |
| species_id | Identification code for species: Identification code for species: geyer = <i>Salix geyeriana</i> ; beb = <i>Salix bebbiana</i> ; pseudo = <i>Salix pseudomonticola</i> ; planifolia = <i>Salix planifolia</i> ; boothi = <i>Salix boothii</i> |
| fence | Indicator variable for fence = 1 if a fenced plot and 0 otherwise. |
| dam | Indicator variable for dam = 1 if a dammed plot and 0 otherwise. |
| browse | Indicator variable for browsed = 1 if unfenced or observational plot, 0 otherwise. |
| n.plants | Number of plants in the plot |
| n.years | Number of years the plant was observed |
| min.year | First year that plant was marked and measured |
| max.year | Last year that plant was measured |
| site_full | Identification code for site including site abbreviation and treatment code. Treatment codes are given the treat row above. Site codes and their spatial coordinates are given in the document “Site Locations.pdf”. |
| fall_height | Height of tallest stem on plant in cm |