

Appendix A.

Species Summary

Lythrum salicaria L.

Purple loosestrife of Purple lythrum
Lythraceae (Loosestrife family)

Description: Purple loosestrife is a robust, rhizomatous perennial herb with slightly tomentose, square stems 50-200 cm tall (Figure 1). Leaves are sessile, opposite or whorled, and have pubescent, oblong or lance-shaped blades 3-10 cm long and 5-20 mm wide. The inflorescence is an elongated, terminal spike with 3 or more flowers arranged in a whorl at each leafy node. The flowers have 6 rose-purple petals 7-12 mm long inserted at the top of a 4-6 mm long, multi-nerved, greenish floral tube. Flowers may consist of three morphological types (all in the same inflorescence), differing in the relative length of the style and stigma. Flowers also have 12 anthers, each alternating in length (long and short). Fruits are small capsules contained within the floral tube (Cronquist *et al.* 1997; Graham 1986).

Similar Species: *Lythrum alatum*, an uncommon native species in Wyoming, has glabrate herbage, ovate to oblong leaves less than 4 cm long, and flowers with 6 stamens arranged singly or in pairs at each node of the leafy inflorescence. *Epilobium angustifolium* has 4-petaled flowers and rounded stems. *Liatris* spp. have slender leaves, spike-like inflorescences of thistle-like flower heads, and typically occur in drier habitats (Dorn 1992; Graham 1986).

Geographic Range: Purple loosestrife is native to Eurasia, but has been widely introduced in northeastern and central North America and the Pacific coast (Cronquist *et al.* 1997; Thompson *et al.* 1987). In Wyoming, purple loosestrife is currently known from the vicinity of Lovell (Park County), Lusk (Niobrara County), and Cheyenne (Laramie County) (Rocky Mountain Herbarium records).

Habitat: *Lythrum salicaria* is an emergent, aquatic, or semi-aquatic plant adapted to streambanks, small ponds, ditches, marshes, and other wetlands or areas with permanently wet soils (Hight and Drea 1991). The Crow Creek colony on FE Warren Air Force Base is found on damp soil at the edge of thickets of coyote willow (*Salix exigua*) and Bebb willow (*S. bebbiana*) and moist meadows of reedtop (*Agrostis stolonifera*), Baltic rush (*Juncus balticus*) and Canada thistle (*Cirsium arvense*). This colony is within a medium-sized population of Colorado butterfly plant (*Gaura neomexicana* ssp. *coloradensis*), a species recently proposed for federal listing as Threatened.

Population Biology: Purple loosestrife flowers from early July to mid August and can produce fruits and seeds over most of the summer. The species is able to spread rapidly by rhizomes, broken stem and root pieces, and is a prolific seed producer.

Figure 2. Line drawing of Purple loosestrife by Ellen Hand Galligan (from Castilleja 17(2):1, 1998).



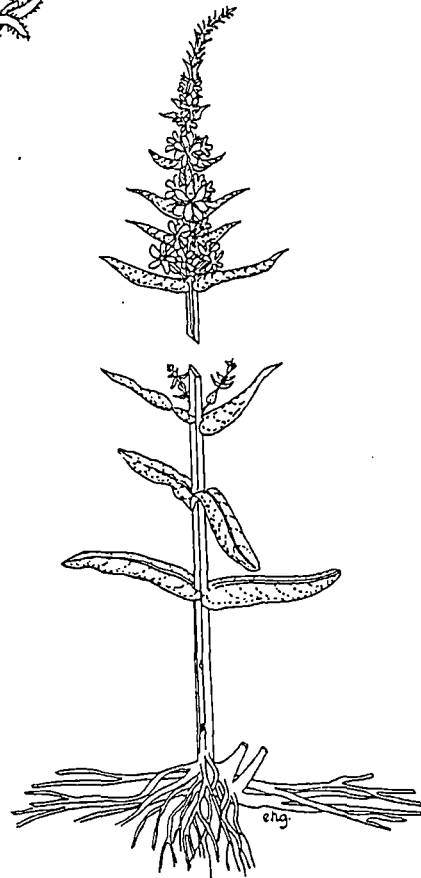
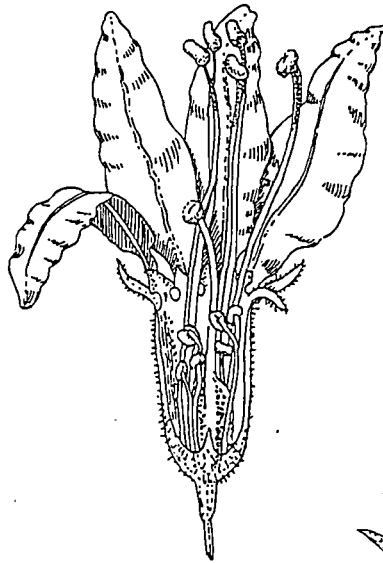
Castilleja

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Purple Loosestrife (*Lythrum salicaria*) is a beautiful, but undesirable exotic herb that may be slowly increasing in eastern Wyoming. This purple-flowered member of the loosestrife family (Lythraceae) is native to Eurasia but has become established in wetland areas throughout eastern North America and more sporadically in the west. Purple loosestrife is an aggressive species that can form extensive colonies and choke out native species. Winged loosestrife (*Lythrum alatum*) is a related, native species that differs in having solitary or paired flowers in the leaf axils and in having glabrous herbage. In Wyoming, *L. alatum* is restricted to Crook and Platte counties. Illustration of purple loosestrife by Ellen Hand Galligan.