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Photo: Chris Evans



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## Common Buckthorn

*Rhamnus cathartica*



**Habit:** Deciduous, woody shrub to small tree ranging from 3-7.5 m (10-25 ft) in height and reaching 25 cm (10 in) in diameter.

**Leaves:** Simple, oval, dark green, smooth and shiny; small teeth along margins; veins that curve from base towards leaf tip; sub-opposite (not quite opposite) but may also appear opposite or alternate.

**Stems/bark:** One to several stems from the base; stems branch towards the crown; twigs often have thorns near the tips; bark is brown to gray, peeling with age, dotted with vertical light-colored lenticels; inner bark is orange.

**Flowers:** Small, green-yellow, four-petaled, clustered in leaf axils; dioecious; bloom May-June; fragrant.

**Fruits/seeds:** Round, pea-size, black berries (on female plants only); persistent through the winter.

**Habitat:** Found along roadsides, woodland edges, prairies, old fields; somewhat shade tolerant.

**Reproduction:** By prolific fruit and seed production, seeds widely dispersed by birds.

**Similar species:** Native alder-leaved buckthorn (*Rhamnus alnifolia*) is less than 1 m (3 ft) in height with dark scales on winter buds; non-native glossy buckthorn (*Rhamnus frangula*) has shiny entire leaves, always lacks terminal thorn.

**Comments:** Native to Eurasia. Produces a dense shade that suppresses growth of woody seedlings, and herbaceous groundcover, reduces overall plant diversity; changes nutrient cycling; had been widely recommended for conservation planting until invasive characteristics became apparent.

**Monitoring & rapid response:** Monitor woodland edges and paths. Buckthorn usually leafs out early and retains its leaves late into fall. Begin control efforts in highest quality areas; hand pull or dig seedlings or small plants; target large, fruit-bearing plants for control/removal; foliar spraying may be effective for large populations where there are few natives present; treat cut stumps with herbicide to prevent resprouting; basal bark treatment also effective. Where fuel is present, prescribed fire may provide effective control of seedlings in fire adapted communities.



Photo: John M. Randall, TNC



Photo: Leslie J. Mehrhoff, IPANE



Photo: John M. Randall, TNC



Photo: Suzan Campbell, MNFI



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## Glossy Buckthorn

*Frangula alnus* (*Rhamnus frangula*)



**Habit:** Deciduous shrub or small tree growing up to 6 m (20 ft) tall, multiple stems at the base, crown spreading, trunk up to 25 cm (10 in) in diameter.

**Leaves:** Simple, alternate, oblong, 2.5-6 cm (1-2.5 in) long, untoothed or crenulate margins, dark green, shiny; smooth or slightly hairy below; veins turn toward tip near leaf margins; leaves present from mid-May to November.

**Stems/bark:** Brown-green, hairy, prominent lenticels, chunky bark; terminal buds rust colored; bark gray or brown; sapwood yellow; heartwood pinkish to orange.

**Flowers:** Small, greenish yellow, five-petaled; perfect; clusters of 2-6; bloom late May through September.

**Fruits/seeds:** Round, pea-sized, drupes with 3-4 seeds, red, ripening to black/dark purple in July through September; abundant; remain viable in the soil for 2 to 3 years.

**Habitat:** Sun and shade tolerant; occurs in a variety of soil and moisture conditions, from wet to very dry; found in pastures, fence rows, roadsides, wetlands, and woodland edges.

**Reproduction:** Primarily sexual; plants mature quickly; at any given time there can be flowers, partially ripened fruit (red) and fully ripened fruit (black) on the same plant.

**Similar species:** Native alder-leaved buckthorn (*Rhamnus alnifolia*) is less than 1 m (3 ft) tall, hairless twigs. Dogwoods (*Cornus* spp.) have opposite leaves rather than alternate.

**Comments:** Native to Eurasia. Forms dense thickets; was recommended for wildlife planting until invasiveness became apparent.

**Monitoring & rapid response:** Monitor woodland and wetland edges, and paths; buckthorn usually leafs out early and retains its leaves late into fall. Begin control efforts in highest quality areas; hand pull seedlings or burn with propane torch where densities are high; target large, fruit-bearing plants for control/removal; treat cut stumps with herbicide to prevent resprouting; basal bark treatment is also effective. Where fuel is present, prescribed fire may provide some control of young seedlings in fire adapted communities. This species is difficult to control—research control options thoroughly.