

# COMMON BUCKTHORN

[*Rhamnus cathartica* L.]

## RHCA3



**Habit:** Deciduous shrub or tree to 8 m (26 ft) and as wide.<sup>7,17,4,3</sup>

**Reproduction:** Primarily by seed; may sucker from base; dioecious.<sup>7,17,4</sup>

**Leaves:** Elliptic to oblong/obovate, 3-7 cm (1¼-2¾ in); twice as long as wide; pinnately veined, lateral veins curving upward;<sup>7,14,17</sup> opposite, some alternate, often abruptly pointed with rounded teeth (each bearing a gland<sup>14,18</sup>) on the margin;<sup>7,17</sup> upper surface dark green, lower light green;<sup>7,14,3</sup> yellow/brown in fall;<sup>3,8</sup> downy beneath if young;<sup>8</sup> early leaf-out,<sup>9</sup> late senescence; leaf lifespan exceeds that of native shrubs by 58 days.<sup>9,1,3</sup>

**Stems:** Branches opposite (or nearly) at right angles to trunk;<sup>8</sup> some twigs end in a short thorn;<sup>7,17,8,3,14</sup> grayish/yellowish-brown, glabrous;<sup>3,14</sup> trunk becomes scaly with age.<sup>18,14</sup>

**Flowers:** Male 2-6 per cluster with 4 yellowish-greenish petals and sepals, 4 stamens; female 2-15 per cluster, usually without petals, if present, linear and yellowish-brown, 4 vestigial stamens, 4 green sepals shorter than those in the male;<sup>14,7,8</sup> April-June;<sup>14</sup> appear with the leaves;<sup>7,17</sup> females at a 6 to 1 ratio to males; honey-scented; calyx tube with nectarial lining; insect pollinated (bees and flies).<sup>8</sup>

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**Fruits/Seeds:** Glossy black at maturity in late summer/early fall; fruit 0.5 cm (¼ in) in diameter; drupe contains 3-4 seeds;<sup>8,4,7,3,17</sup> cold stratification may<sup>2</sup> or may not<sup>1</sup> be required; optimal germination at 20 or 30°C (68 or 86°F);<sup>2</sup> most fruit falls beneath females; bird dispersed, but not preferred (even in native habitat);<sup>8</sup> seedling establishment more likely on ground with little herb cover;<sup>6</sup> dormancy and seed bank still unclear.<sup>1,13</sup>

**Habitat:** Native of Eurasia; introduced into the U.S. in 1880s;<sup>21,1</sup> on calcareous soils in native habitat;<sup>8,1</sup> open/shaded areas, roadsides, woodlands, riverbanks (not flooded<sup>5</sup>), pastures,<sup>1,12,17,19</sup> and mature forests;<sup>9</sup> tolerates various soil conditions.<sup>1</sup>

**Comments:** An alternate host for oat crown/leaf rust<sup>15</sup> and an overwintering host of soybean aphid;<sup>20,16</sup> early leaf-out more important than late senescence for carbon gain;<sup>9</sup> growth rates higher in light;<sup>10</sup> leaves decompose more rapidly than some natives and are high in nitrogen;<sup>11</sup> USDA hardiness zones 3-7.<sup>3</sup>

**Similar Native Species:** *R. caroliniana*; flowers perfect and in parts of 5; leaves alternate.<sup>7,17</sup>