***Rosa woodsii* Lindl.** Wood's rose

ROSACEAE

Synonyms: *Rosa fendleri* Crep
*Rosa californica* Watson.
*Rosa macounii* Greene
*Rosa chrysocarpa* Rydb.

**General Description.**—Wood's rose is a prostrate to upright shrub from 0.5 to 3.0 m tall (Blauer and others 1975). It is a strongly armed to nearly unarmed shrub with well-developed, straight, or less often, somewhat curved infrastipular prickles, and often with other stout or weak prickles (Cronquist and others 1997). The opposite compound leaves are composed of five to 11 leaflets, which are oval, elliptic, or obovate in shape, with serrate margins (Blauer and others 1975). Leaflets are 2 to 5 cm long and 1 to 2.5 cm wide; the teeth are not gland-tipped except in var. *woodsii*. Flowers are light-pink to deep-rose color and are borne on lateral shoots from old wood, which are usually over 10 cm long (Blauer and others 1975). Flowers are solitary or two to several in small corymbiform cymes that terminate the lateral branches of the season and are relatively small (Cronquist and others 1997). The hypanthium is glabrous and 3 to 5 mm thick at anthesis (Cronquist and others 1997). Pedicels are glabrous (Cronquist and others 1997). The five persistent sepals are from 1 to 2 cm long and 2 to 3.5 mm wide at the base. The tip of each sepal is usually a little expanded above the median constriction (Cronquist and others 1997). The sepals are erect or spreading in the fruit (Blauer and others 1975). Petals, five in all, are 1 to 2.5 cm long (Cronquist and others 1997, Welsh and others 1987). Hips (fruits) are red to purple or nearly black in color and ellipsoid to subglobose in shape (Cronquist and others 1997, Welsh and others 1987). Hip size varies from 6 to 15 mm wide and up to 2.0 cm in length and contains from 15 to 30 achenes (Blauer and others 1975). Each achene is 3 to 4 mm long with stiff hairs along one side. Achenes weigh from 0.007 to 0.013 g (Gill and Pogge 1974). The diploid chromosome number of Wood's rose is 14 (Blauer and others 1975).

**Taxonomy.**—Two varieties of Wood's rose are recognized: var. *ultramontana* and var. *woodsii* (Blauer and others 1975, Cronquist and other 1997, Welsh and others 1987). Variety *ultramontana* is the most prevalent in the Intermountain area of Western United States. *Woodsii* is found on the prairies and plains of central North America and is smaller and stiffer than var. *utlramontana* with smaller leaflets that often have gland-tipped teeth (Blauer and others 1975, Cronquist and others 1997, Welsh and others 1987).

**Range.**—Wood's rose occurs from Minnesota west and northwest to Alaska and British Columbia, south to Arizona, northern Mexico and western Texas and north to western Kansas and North Dakota. It is the most widespread native rose in Alberta (Blauer and others 1975, Cronquist and others 1997, Pacific Southwest Experiment Station 2002). It grows in 24 ecosystems and occurs in 51 of Kuchler's plant associations (Pacific Southwest Experiment Station. 2002). The Society of American Foresters list Wood's rose as occurring in 55 of its cover types (Pacific Southwest Experiment Station 2002).

**Ecology.**—Wood's rose can grow at elevations reaching 3,549 m (Pacific Southwest Experiment Station 2002). It occurs on bluffs, dry grassy slopes, and on sandhills throughout the prairies

and on riverbanks and clearings in boreal and subalpine forests. It can be found on the eastern slopes of the Rocky Mountains and throughout the Great Basin. It is found along roadsides and south-facing cutbanks (Pacific Southwest Experiment Station. 2002). In the Great Basin, Wood's rose prefers moist sites along streams, in seepage areas along fences, irrigation canals, marsh lands, lake shores, and hillsides in palustrine and lacustrine habitats (Welsh and others 1987). When conditions are favorable, nearly impenetrable thickets of Wood's rose are formed along some mountain streams (Pacific Southwest Experiment Station 2002). It flourishes in moderate shade to full sunlight and so makes good growth on all aspects (Blauer and other 1975). Wood's rose is adapted to a wide range of soil types and textures (Pacific Southwest Experiment Station 2002). Growth is generally best on moderately fertile, well-drained clay loam, sandy loam, or sandy soils. It is tolerant of moderately acid to weakly basic soils. (Pacific Southwest Experiment Station 2002). It is seldom found where the average annual precipitation is less than 260 mm (Blauer and others 1975).

**Reproduction.**—Seeds are produced on 2 to 5 year old plants. Seeds of Wood's rose are ingested with the hip and dispersed in the dropping of birds and mammals. The seeds have a seed coat dormancy and require warm or cold stratification. Seed viability ranged from 44 to 64 percent for seed collected in northern Alberta. The seeds remain viable for 2 to 5 years. Seeds will germinate within 30 to 40 days (Blauer and others 1975, Gill and Pogge 1974, Pacific Southwest Experiment Station 2002). Wood's rose spreads vegetatively through underground rhizomes, sprouting from the root crown, and by layering (Blauer and other 1975, Pacific Southwest Experiment Station 2002).

**Management.**—Wood's rose has a fairly high tolerance to browsing (Pacific Southwest Experiment Station 2002). It is susceptible to various leaf spots, as well as to leaf rusts, gray mold, powdery mildew, common gall, and stem cankers (Pacific Southwest Experiment Station 2002). The principal forest insect pests are tent caterpillar, rose leaf hopper, and a subspecies of western tussock moth (Pacific Southwest Experiment Station 2002).

**Benefits.**—Wood's rose adds to the biodiversity of a multitude of ecosystems. It provides habitat and food for a number of wildlife species, and watershed protection. Fruits, leaves, or twigs are eaten by a number of birds and mammals. These include pronghorn, elk, mule deer, white-tailed deer, porcupines, beavers, squirrels, coyotes, bear, small nongame birds and upland game birds (Pacific Southwest Experiment Station 2002). Livestock also eat Wood's rose. Crude protein content of Wood's rose leaves vary from 5.7 (fall) to 16.4 (spring) percent of dry matter and stems from 5.4 (winter) to 12.0 (spring) percent (Dietz 1972). Phosphorus content of leaves varied from 0.29 (fall) to 0.48 (spring) percent of dry matter with stems varying from 0.12 (winter) to 0.32 (spring) percent (Dietz 1972). In vitro digestible for Wood's rose was 65.9 percent of dry matter digested for spring tissues and 54.5 percent for winter tissues (Dietz 1972). These in vitro digestible values would rank Wood's rose as a highly digestible spring and winter forage (Welch 1989, Welch and Andrus 1977). The dense thickets formed by Wood's rose are used for nesting and escape cover by many birds and small mammals (Pacific Southwest Experiment Station 2002). The extensive rhizomes and good survivability and revegetation characteristics makes this species an effective tool in erosion control (Pacific Southwest Experiment Station 2002). Good results have been obtained with rooting of hardwood cuttings, direct seeding, and transplanting trials (Pacific Southwest Experiment Station 2002). Native Americans made extensive use of Wood's rose roots, stems, leaves, flowers, and hips for foods and therapeutic purposes. The hips are a source of vitamin C and are dried for use in flavoring teas, jellies, fruitcakes, and puddings. Wood's rose is used as an ornamental near homes to attract birds and other wildlife (Pacific Southwest Experiment Station 2002).

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