1. Planodes virginica (L.) Greene (Virginia rock cress)

Cardamine virginica L.

Arabis virginica (L.)Poir.

Sibara virginica (L.)Rollins

Pl. 326 i–k; Map 1377

Plantsannual, terrestrial, mostly glabrous above, usually pubescent with mostlyunbranched hairs near the base. Stems 1 to several per plant, 10–40 cmlong, erect or ascending, sometimes branched in the upper half. Leavesalternate and basal, the basal leaves petiolate, not clasping the stem, theblades oblong in outline, 2–8 cm long, pinnately divided into5–21 narrow, entire or few-toothed lobes, those of the stems similarbut gradually reduced in size and number of lobes. Inflorescences racemes, theflowers not subtended by bracts. Sepals 1.2–1.5 mm long, narrowlyoblong-elliptic, erect, usually purple-tinged. Petals 2–3 mm long, notlobed, white. Styles 0.2–0.5 mm long. Fruits ascending, straight,15–25 mm long, more than 10 times as long as wide, flattened parallelto the septum, the valves extending to the margins, the replum not winged,dehiscing longitudinally, the valves breaking off without coiling and each witha faint midnerve near the base. Seeds in 1 row in each locule, 1.1–1.5mm long, broadly elliptic to nearly circular in outline, somewhat flattened,the margins winged, the surface with a netlike or honeycomb-like pattern ofridges and pits, reddish orange. 2n=16. March–May.

Commonnearly throughout Missouri, except in the northernmost counties (eastern U.S. west to Kansas and Texas, also California; Mexico). Banks of streams and rivers; also moistpastures, fallow fields, roadsides, and open, disturbed areas.

Thiscommon member of the spring flora is occasionally misdetermined as Cardaminehirsuta, C. parviflora, or C. pensylvanica, but it can bedistinguished from these species by its broader fruits with wingless replum,fruit valves not coiled upon fruit dehiscence, and strongly winged seeds.

Thisspecies has been known as Sibara virginica to most Missouri botanists(Steyermark, 1963; Rollins, 1993), but its generic classification has long beencontroversial. Ongoing, as-yet unpublished molecular systematic studies by MarkBielstein, a student in the Missouri Botanical Garden’s cooperative graduatestudies program with Washington University, indicate that Sibara Greeneis an unnatural genus because S. virginica forms a distinct lineageunrelated to the other Sibara species, that this species is more closelyrelated to Cardamine, Nasturtium, and Rorippa, and that it shouldbe recognized in an independent genus, Planodes.