Groundcovers for the Garden Designer

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An ecletic selection of unusual plants for innovative gardeners.

With one foot firmly planted in the living collections of the Arnold Arboretum and the other in the Landscape Architecture Department of the Harvard Graduate School of Design, I look at plants for novel uses that may not be fully appreciated by the gardening public. I have long believed that the cohesiveness of a well-crafted garden relies heavily on the successful application of groundcovers. These plants can be used as a "substrate" through which other plants emerge, and which knits the planting into a composition that is visually and spatially pleasing. Given time and the appropriate conditions for growth, groundcovers potentially can reduce the maintenance requirements of the total landscape.

Having the opportunity to visit many plant collections as well as developed gardens, I have come across a number of plants that appear to have all the qualities of a successful groundcover, but are seldom cultivated as such. What are those qualities, you might well ask? Most good groundcovers are little more than very successful weeds controlled and put to good use. The plants not only must maintain themselves in the spot where they are planted but also must be able to spread outward and colonize an ever-expanding area. With many good groundcovers, the primary concern is not to encourage their growth, but rather to contain them by installing restraining devices at the perimeter of the space allowed them.

A good groundcover should be rather low and dense enough to suppress the intrusion of most volunteer weeds, and tough enough to survive neglect, poor soils, and extremes of drought and cold. Groundcovers should maintain their foliage in good condition all summer long and not die back prematurely, leaving a patch of bare earth where late sum-
mer weeds can move in. While a groundcover can be either woody or herbaceous, the focus in this article will be on less familiar herbaceous species that deserve greater recognition and testing. As you read about the following plants, bear in mind that each one has strengths that can be used to advantage in garden-making as well as weaknesses to be suppressed.

What follows is a selection of plants that I am still learning about and that seem to have a bright future as groundcovers for our gardens. I hope that one or more of them may be unfamiliar to you, and that I may entice you into acquiring them for testing under your own growing conditions and maintenance regime. My comments are offered here in the spirit of challenge—to encourage you not only to keep an eye out for plants with unusual variations but also to experiment with nontraditional uses of these plants. I welcome hearing from any readers who might know of similar plants that deserve wider recognition.

**Anemone canadensis**

The rapid growth habit of *Anemone canadensis* leads some gardeners to dub it as “invasive,” and I have been cautioned against deploying it in the landscape. However, it is precisely this trait that enables the plant to make a tight, dense cover and to persist in difficult locations. While it may not be a plant for the mixed perennial border, it could be used very appropriately in challenging areas: beneath trees and shrubs, or in locations where it can be contained by barriers that restrict its spread.

I can envision this plant being used to good advantage in parking islands, between sidewalks and buildings, and in urban parks to fill in empty spaces that invite weeds. The small white flowers in early summer persist for several weeks and are charming if not spectacular. The attractively lobed foliage remains green and in good condition all summer long. This anemone might be improved by the selection of compact forms with darker green
foliage and a longer flowering period. There is also the possibility of hybridizing *Anemone canadensis* with other anemones to extend the floral color range, the season of bloom, or the spreading tendency. *A. canadensis* is often compared to *A. sylvestris*, a plant that blooms several weeks earlier, but one I find a weak grower under those conditions where *A. canadensis* thrives.

*Artemisia stellerana* 'Silver Brocade'

Parched, sunny growing conditions present a challenge in many areas of the country. *Artemisia stellerana* is one of those plants that loves to bake in the sun and that naturally inhabits sand dunes and poor soils. A native of Asia, it has naturalized itself on beaches from Quebec to Virginia where it holds and stabilizes the shifting sand. The cultivar 'Silver Brocade', a recent introduction of the University of British Columbia Botanical Garden, was selected for rich gray foliage, a more finely cut leaf, and a lower, more compact growth habit. In the landscape, it can look beautiful edging a bluestone path where it has the opportunity to spread out and soften the hard lines, while at the same time echoing the blue-gray color of the stone itself. In coastal New England, this plant is one of the best choices for the harsh environmental assaults encountered by the dunes along the ocean.

*Asarum canadense*

Few plants tolerate drought and moderate shade as well as the Canadian ginger. It grows naturally in the understory of woods in Ohio, Kansas, and Missouri where it forms diffuse, but widespread colonies. In cultivation and with some level of attention, it stays dense and displays a beautiful moderate green foliage all summer long. It combines naturally with ferns and other woodland plants. In the future, this plant could be improved by some selection for more vigor and darker colored foliage.

James Waddick of Kansas City, Missouri, recently took me to see a wild population with pale yellow variegation in the leaves. There is some question whether this is a natural variation or a population with a virus. If, however, some types are discovered with good stable variegations, they would be a definite plus for the shade garden. Horticulture can be enriched by observant individuals combing wild plant populations for individuals with superior traits for garden use. Once found, the plant needs to be propagated and evaluated under different environmental conditions. If the plant maintains its unique characteristic and is garden worthy, it can then be publicized and distributed.

*Campanula takesimana*

This campanula is familiar to only a few dedicated perennial gardeners, who mostly use it in the mixed border. Spreading at a deliberate pace, it forms sizable colonies over time, and because of this tendency, it seems well adapted to use as a groundcover. The leaves are roughly heart-shaped with attractive, scalloped edges. The flowers are produced in large terminal panicles, which rise out of the basal cluster of leaves to a height of 30 to 60 centimeters (12 to 24 inches). Because of the number, weight, and size of the individual flowers, the inflorescence has a tendency to arch over. Individually the flowers are tube-shaped, and range from a pale, pink-beige to ivory, with chocolate or bronze markings on the inside of the blossom. If flowering stems are cut back as the blooms fade, the plant is capable of flowering two or three times a summer. This tendency to rebloom varies directly with the amount of light available. Repeat flowering also appears to be dependent on soil moisture, for in extremely dry seasons I have observed that these plants flower less frequently. In any case, I have found that the foliage itself is quite drought-resistant.

*Carex siderostricta* 'Variegata'

In northern landscapes (Zones 5 and 6), *Carex siderostricta* 'Variegata' has the potential to be used much as *Liriope muscari* 'Variegata' is in the south—except that its greater cold
hardiness is accompanied by a deciduous habit. *Carex siderostricta* 'Variegata' forms broad clumps of cream-colored variegated foliage, which stand 20 to 30 centimeters tall (8 to 12 inches). It thrives in light shade and soils that vary from dry to moist. In extremely dry locations, I have noticed the white markings of the leaves will assume a tired, brownish cast by late summer. This species mixes well with hosta, astilbe, and ajuga, forming tapestries of foliage texture and color.

**Epimediums**

Few plants are as tough, dependable, and persistent in shaded landscapes as the various species and cultivars of *Epimedium*. These plants could be made more useful by the introduction of variegated types, which presently exist in Japan and perhaps elsewhere. Barry Yinger, a noted collector of Japanese plants, tells me that, while there are several mediocre forms in terms of degree of variegation, a spectacular form is available from Watanabe Nursery.

While I am not aware that they exist yet, would it not be desirable to select epimediums for unusual leaf types, for richer, more saturated, autumn foliage colors persisting into wintertime, or for foliage marbled with contrasting colors of green? We need to seek out new forms actively and introduce them to the gardens of America. I’ll be the first in line to purchase them.

**Liriope muscari**

Southern gardens are rich in many forms of lily turf, which allow for numerous creative applications of this attractive groundcover. In
the north we have no reliable cold-hardy forms, although I have heard of rock gardeners growing this species farther north than it should be expected to grow. Have they hit upon some secret treasure? Think of the market potential if a selection could be made that would extend *Liriope muscari* by another hardiness zone, making it reliable for the urban areas such as Boston, Montreal, and Chicago. It seems that a nursery with a pioneering spirit could make a greater market impact by selecting a more cold-tolerant form rather than yet another cultivar of questionable distinctiveness.

**Petasites japonicus 'Variegata'**

Earlier in this century, *Petasites* was the signature plant of the landscape architect Fletcher Steele, who found a place for it in each of his garden compositions. One can still find the plant thriving in the garden at Naumkeag in Stockbridge, Massachusetts. Steele realized that plants with huge leaves and great stature could provide visual excitement and spatial illusion for smaller landscape spaces.

At maturity, *Petasites* can stand over a meter tall (3 to 4 feet), reaching the limit in height of what is considered acceptable as a groundcover. What makes *Petasites japonicus 'Variegata'* a desirable addition to garden design is that the early-season leaves are richly marked with cream-colored blotches, which appear different from leaf to leaf. These foliage markings are most intense in spring, and as summer advances, they become somewhat muted. In conditions of adequate soil moisture and light shade, the plant thrives and spreads vigorously. It is particularly useful as a design element to bring boldly textured, cream-colored leaves into shaded locations. Here they provide a color accent all summer long. This is a plant large enough to be planted along the edge of lakes and rivers where the size and scale will not be dwarfed by the expanse of the countryside, and it is equally at home in the small garden when sited appropriately.

At present only a lucky few have this plant in New England, but in time the plant should become a common component of our gardens, especially gardens with an area that is moist and lightly shaded. I first heard of it through Wayne Winterrod of Reedsboro, Vermont. When he learned that I was making a trip to the Pacific Northwest, he assigned me the task of bringing back a division for him. Upon inquiry, I located what probably is the original colony introduced into North America, growing in the Asian Garden at the University of British Columbia Botanical Garden, Vancouver. Dr. Gerald Straley, Curator of Collections, showed me the colony and gave me permission to gather divisions to bring back to Boston. The plant was originally introduced to the University of British Columbia Botanical Garden by its then Director, Dr. Roy Taylor, who found it growing in a field near an airport in Japan. He collected divisions to bring back to Canada, and from there it is now finding its way across North America.
Back in Boston some months later, I spoke with Paul Aden of Long Island, who for many years has collected rare variegated plants. I thought I had a new plant for him, but he informed me that he had a “whole field of it.” He could not understand why no one grew or used it as a landscape plant. The answer is, of course, that no one can grow a plant if it’s not distributed.

**Pleioblastus viridistriata (= Arundinaria viridistriata)**

I have a weakness for plants with foliage in shades of yellow to gold. As a result, I have long admired and grown *Pleioblastus viridistriata*, a yellow variegated bamboo that stands 60 to 120 centimeters (2 to 4 feet) tall. In sunny exposures the new foliage emerges with an irregular pattern of golden-yellow stripes alternating with green; in shade, however, the variegation is muted and appears light greenish-yellow. In full sun the golden-yellow color is retained all summer long and into the fall or winter, when severe cold causes the foliage to turn beige. I find the foliage most attractive in the autumn landscape, for it blends well with other autumn foliage colors and generally looks attractive until Christmas or beyond.

The colony in my yard is underplanted with minor spring bulbs—*Crocus chrysanthus*, *Galanthus nivalis*, and *Eranthis hyemalis*. I find I must cut the bamboo back at the end of winter so that the bulbs will have head space to grow and to be seen well as they flower. As the bulb foliage begins to ripen off, the bamboo begins its new growth. This bamboo is a strong, vigorous grower and, once established, can run outwards 1.6 meters (5 feet) or more each season; therefore, permanent and strong containment is essential. *Pleioblastus viridistriata* is tolerant of considerable abuse, and I have found it a particularly suitable choice for raised beds in urban parks and for islands along city and suburban streets. Here the golden foliage provides the illusion of abundant color all summer long and works, from a color standpoint, somewhat like a planting of marigolds—with the advantage of coming back each season.

In the Vermont garden of Wayne Winterrod and Joe Eck, this bamboo occurs in a mixed planting with the white-stemmed raspberries (*Rubus lasiostylus* var. *hubeiensis*). Cornelia McMurtrie, a local landscape designer, showed me photographs of one of her designs where the client was attempting to create a strong tropical landscape effect. In the design, she combined the *Pleioblastus* with *Yucca filamentosa* and rhubarb to create a bold, non-traditional effect.

A planting at Haskell’s Nursery in New Bedford combines the bamboo with a gold-variegated form of *Acer negundo* so that the gold color is visually pulled from ground level to a height of 8 to 10 meters (25 or 30 feet). In my own designs, I have combined the bamboo with *Chamaecyparis obtusa* ‘Cripsii’, a gold-leaf form of this Japanese conifer, which worked as a gigantic echo of the yellow color. All of the above plantings create a strong and consistent color effect lasting several months.

**Rubus calycinoides ‘Emerald Carpet’**

Taiwan creeping raspberry is a plant suitable only for the warmest sections of New England—Cape Cod, Martha’s Vineyard, and Block Island. The wild species occurs at high elevations in Taiwan and, while its hardness
The winter aspect of Sasa veitchii, growing on a mound in Japan. Reprinted from The Horticultural Bamboo Species in Japan by H. Okamura, 1986.

Rubus calycinoides is a plant that hugs the ground while it spreads outward, forming a solid mat of foliage. Evergreen in mild locations and semi-evergreen to deciduous at the northern fringe of its range, this plant tolerates exposures ranging from full sun to moderate shade, but in northern locations some protection from the winter sun and wind may mean the difference between success and failure. It will also probably benefit from being placed in a location with excellent soil and air drainage.

The foliage is bright green, with three- to five-lobed leaves of an unusual crinkly texture. The visual quality of the leaf surface is distinctive and adapts well to tapestry plantings, which bring unusual combinations of height and texture together. The autumn foliage may turn a coppery color. Neither flowers nor fruit on this plant is a significant ornamental attribute.

Rubus calycinoides ‘Emerald Carpet’ was propagated from seed collected for the University of British Columbia Botanical Garden by Dr. Richard J. Pearson at Ho Huan Shan, Taiwan [elevation 2900 meters], in 1978. First introduced to the horticultural trade in 1985, it is just now becoming available in New England. Bruce McDonald, Director of the University of British Columbia Botanical Garden, suggests that this plant is well suited to small townhouse gardens as a low groundcover for shaded or semi-shaded areas.

Sasa veitchii
One of the most important and frequently used species of bamboo for Japanese garden design is kuma-zasa. In the United States it
Shibataea kumasaca in a landscape setting in an American garden. Photo by Gary Koller.

has proven to be root hardy to -31 degrees Centigrade (-25 degrees F), and it is reliably hardy in the Boston area. The plant, standing 60 to 150 centimeters tall (2 to 5 feet), has a relatively wide leaf blade that is a moderate green color all summer. The arrival of shorter and cooler days in the autumn causes the margin of each leaf to turn beige or straw color in a band roughly 0.6 to 1.2 centimeters wide. It is at this time that the plant is most visually distinctive, for the leaf color variation is a striking part of the autumn landscape. In areas where winter temperatures and winds are not so severe, the leaf remains evergreen; with more exposure, the entire leaf becomes desiccated and fades to beige.

Unable to thrive in full sun, Sasa veitchii requires light shade. It is an ideal groundcover under mass plantings of large trees and shrubs and for stabilizing steep, wooded slopes in cultivated locations. The soil must be well drained for it is intolerant of wet and poorly drained locations. While it does spread outward, I have found it to be less aggressive than most of the other stoloniferous bamboo species.

**Shibataea kumasaca**

A bamboo of small stature with a distinctively erect habit and lustrous, dark green foliage, Shibataea kumasaca can range in height from 1 to 1.6 meters (3 to 5 feet). Long-established plantings observed by this author have produced colonies so uniform in height that they resemble the top of a table. A fine example of mature growth can be seen at the Biltmore Estate in Asheville, North Carolina, where a huge colony grows near the edge of the driveway leading to the main house. In locations with a winter climate similar to
Boston, the plant requires shade in order to remain evergreen. The winter sun can beat and tatter the foliage, and recovery takes until mid-July when new growth masks the damage.

**Uvularia grandiflora**

This plant is native to woods and thickets from southwest Quebec to North Dakota, and in the south, ranges from Georgia to Oklahoma. In the wild, it inhabits calcareous soils, but I have seen it cultivated in more acidic conditions. In garden use, one normally sees it as an individual mixed among other woodland species; it is displayed in this manner at the Gardner Museum, Boston, where a large plant emerges through a simple groundcover of *Hedera helix*. Groundcover-style mass plantings can be seen in the native plant section of the Landscape Arboretum at the University of Minnesota and at the Calgary Zoo in Alberta, Canada. In both of these locations, plants are situated in what appear to be dry sites, with considerable tree shading.

**Uvularia grandiflora** produces rich, dark green leaves that, when full grown, can reach heights of 30 to 100 centimeters (1 to 3 feet). Its yellow flowers are small, nodding, and delicately showy, for they appear before any significant leaf expansion each spring. Individual plants expand slowly to form a robust clump that is generally circular in shape. To achieve a solid continuous cover, some attention must be given to spacing and placement, or else the colony appears as scattered circles of foliage. Once established, plantings seem to be persistent, dependable, and attractive throughout the entire summer.

**Uvularia sessilifolia 'Variegata'**

This quietly variegated plant bears creamy white stripes on each leaf and is similar in size, habit, and spreading qualities to *Disporum sessile 'Variegatum'* It naturally inhabits dry to moist woodland sites and forms colonies that range from dense to diffuse in character. Blossoms are small pale yellow, nodding bells. The plant has thin, wiry stems, and its colonies spread outward. *Uvularia sessilifolia 'Variegata'* looks beautiful when woven through *Vinca minor*, drifted through colonies of European ginger, or rising out of masses of bronze and purple-leafed *Ajuga reptans*. The only problem I have ever noticed is that the variegated leaf sections sometimes turn yellow or brown when the plant is excessively dry or located in too much sun.

**Vancouveria hexandra**

This *Epimedium* relative, native to the Pacific Northwest, provides a low, tightly knit mass of thin-textured, light-green leaves, which stand 15 to 45 centimeters tall (6 to 18 inches), with height depending on the clone and the conditions of the site. Small individual leaflets are positioned in such a way as to give
the total plant a very delicate visual effect, not unlike that presented by ferns. The flowers are also small and rather insignificant but at their finest contribute to the delicate veiled effect.

While *Vancouveria* will never be regarded as a great flowering plant, the color and texture of the foliage make it useful when weaving foliage tapestries into the landscape. It can be successfully interplanted with hellebores, which rise above it with bold dark-green foliage; with hosta cultivars selected to mimic the same foliage color; with trilliums, which poke up through the foliage of the *Vancouveria* and appear to float across a cloud of delicate leaves; and with many ferns, which provide contrasts in height, color, and texture. From a cultural standpoint, it requires little more than some shelter from the sun and a moisture-retaining, well-drained soil. Established plants need little attention and can remain undisturbed for many years. In the West, the plant bears the charming common name redwood-ivy.

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