Groundcovers as Design Elements

- Aesthetic impacts
  - Unifying features
  - Softening elements
  - Highlighting through textural contrasts
  - Facers around buildings / shrubs

- Utilitarian uses
  - Green roofs
  - Fire breaks → succulents / fleshy plants / non-volatile
  - Hide irrigation / lighting / security fixtures / utilities / shallow roots
  - Wildlife food / habitat

Assigned Readings for Plant List 5

Read the pages in your textbook associated with the introduction to Vines & Groundcovers (p. 559), the family descriptions, and individual taxa covered on Plant List 5 that was distributed in lab. These plant lists are also available on the course website.

http://aggie-horticulture.tamu.edu/syllabi/308/home/frameset.htm
Groundcovers as Design Elements

- Aesthetic concerns
  - Careful mixing types
    → can add interest and biodiversity
    → or look weedy?

- Maintenance
  - Debris & organic waste
  - Minimal mowing / pruning
  - Tolerate greater shade than turfgrasses
  - Protect surface roots of trees
  - Combining with geophytes
  - Climbing vine concerns
  - Hidden unwanted insects / pests

Ecological Benefits of Groundcovers

- Physical
  - Reduced erosion / slope stabilization
  - Improved water infiltration
  - Reduce snow drifting / dust blowing
  - Glare reduction
  - Noise buffering

- Biological
  - Oxygen generation compared to bare soil or surface cover
  - Transpiration / temperature moderation
  - Biofiltration
  - Some are low water users

Groundcovers: Selection

- Many vines also serve as groundcovers
  - Evergreen versus deciduous
  - Woody versus herbaceous

- Temporary versus permanent
  - Annual versus nurse plants

- Speed of establishment
- Weed suppression
- Rapidity of canopy closure
- Ability to tolerate foot traffic
- Decreasing spacing is exponential in number of plants & cost required
**Ajuga reptans**
**Bugleweed**
- Evergreen herbaceous groundcover, z. 4 - 8(9)
- Stoloniferous rosettes, 2” to 6” tall
- Dark green, variegated, purple, pink, red, white

**Pachysandra terminalis**
**Japanese Pachysandra**
- Popular rhizomatous low groundcover, popular in USDA hardiness zones 5 (4) - 8 (9a)
- Uniform dark glossy medium coarse evergreen foliage, also some variegated cultivars
- Needs shade in south, ok sun or shade in cooler north; insignificant greenish white flowers
- Needs steady moisture supply and good fertility
- No foot traffic (Uncle Jim’s frustration), chlorosis on high pH soils, tends to establish slowly, not drought tolerant
- Good companion groundcover to small shrubs as it does not overwhelm them

**Ardisia japonica**
**Japanese Ardisia**
- Medium-coarse textured, slowly spreading rhizomatous semi-woody evergreen groundcover
- Dark glossy green leaves; bright green new growth
- Contrasting red fruit from late fall to winter
- Good substitute for *Pachysandra* in z. 9 (8b) - 13
- Morning sun to moderate shade, some irrigation needed, mulch until canopy closes
- Cold damage, algal leaf spot, crown gall, root knot nematodes, and hemispheric scale are occasional problems
**Ligularia spp.** *(Farfugium spp.)*

**Ligularia**

- Evergreen or dieback herbaceous perennial 1’ - 2’ mounds with flowers 3’ - 4’
- Useful in USDA z. 5(4) - 9(10)
  - Bold coarse textured leaves
  - Dark glossy green or splotched
- Corymbose, paniculate, or spike-like 3’ to 6’ tall inflorescences of yellow composite flowers

- Adapted to shade in south, sun to shade in north
- Taxa vary in environmental tolerances, but all need a steady water supply
- Alternative to *Hosta* as a shade groundcover
- Deserves wider trialing in our region

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**Asparagus densiflorus ‘Sprengeri’**

**Asparagus Fern**

- Spreading/sprawling mound of arching stiffly vine-like branches, 2’ to 3’ tall
- Fine textured bright to dark green leaves
- Sparse tiny white flowers, then red berries

- Foliage may yellow / brown in response to excess sun, cold, or nutrient deficiencies
- Root hardy z. 9 (8b) - 13; foliage damaged by hard frosts / light freezes
- Small scale shade to filtered sun groundcover, hanging baskets, patio containers, weeping over a wall, interiorscapes
- Bit spiny on older plants
**Vinca major**  
**Big Periwinkle**

- Essentially a larger version of *V. minor*
- Coarser textured, but more vigorous than *V. minor*; can become aggressive; avoid hot dry locations, particularly with variegated cultivars
- Variegated taxa increasingly popular in the trade
- Cold tolerant only to z. 7, but heat tolerant to z. 10

**Vinca minor**  
**Periwinkle**

- Attractive evergreen mat-forming groundcover
- Use mostly in shady locations in TX; can be invasive
- *V. major* or *T. asiaticum* alternative for colder climate
- 1” diameter blue flowers in spring, sporadically thereafter; adapted to USDA z. 5 (4b) – 8a (8b)

**Aspidistra elatior**  
**Cast Iron Plant**

- Rhizomatous evergreen groundcover, USDA zones 8 (7b) - 13; bold statement
- Coarse textured large leaves; tropical effect; contrast to fine textured plants
- Fades / burn in sun, very shade tolerant

**Aspidistra elatior**  
**Cast Iron Plant**

- Well drained organic soil, pH adaptable, moderate heat and drought tolerance; very durable, inconsequential flowers
- Groundcover, containers, raised beds in shaded sites; good under trees; a favorite for low light interiorscapes
- Slow to cover ground, limited cold hardiness, insect problems in interiors, periodic clean-up pruning required
**Cyrtomium falcatum**
- Holly Fern
  - Well adapted fern for general use in Texas, USDA z. 8b (8a)-13
  - Fronds reminiscent of holly leaves, dark lustrous green, sharply serrated margins appear spiny, but are not
  - Reproduces via sporangia on the backs of the fronds
  - Needs shade as do most ferns in Texas, best in a moist well drained acidic soil, but can tolerate higher pH soils & more salinity than most ferns

**Nephrolepis exaltata**
- Boston Fern
  - Spreading clumps of overall sword-shaped bipinnately lobed fronds
  - Legendary interiorscape plant, but a bit messy (drops fronds)
  - Semi-evergreen (USDA z. 9 - 8b) to evergreen (USDA z. 10 - 13) groundcover; niches in walls or palm trunks; pots & hanging baskets
  - Most rapid growth in partial shade and fertile moist soils
  - Low relative humidity or drought induces marginal necrosis

**Thelypteris kunthii**
- Wood Fern
  - Dieback to semi-evergreen herbaceous perennial fern, 2' to 3' tall, indefinite spread
  - Shield-shaped fronds; TX native
  - Shady moist environments, USDA z. 8 - 13, better adapted to our region than most ferns
  - Effective shade groundcover, naturalizing plant; tough fern

**Tradescantia pallida**
- Setcreasea
  - Succulent evergreen purple or green medium-coarse textured groundcover, USDA z. 9(8b)-13
  - Small 3-petal pink-purple flowers
  - Best color in full sun, root rots in wet soils, some irregularity in canopy density
  - Containers, hanging baskets, groundcover, over low walls
**Liriope muscari**  
*Liriope*

- Dense clumping groundcover once established
- Versatile USDA z. 6 - 13 plant; handles full sun conditions better than *Ophiopogon japonicus,*
- Often thicker coarser foliage than *O. japonicus*

**Ophiopogon japonicus**  
*Monkeygrass*

- Tufted mat-forming groundcover, more turfgrass-like texture than *Liriope muscari*
- Often softer texture & lower growing, 2” to 6” (12”) tall, than *L. muscari*
- Very useful due to fine texture & shade tolerance, avoid afternoon sun, useful in USDA zones 7 (6b) - 13
**Trachelospermum asiaticum**  
**Asian Jasmine**

- Woody evergreen groundcover/vine in USDA z. 8-13, can be used as herbaceous groundcover z. 7
- Premier groundcover for southern half of Texas
- Tolerates full sun to dense shade, soil adaptable, moderately drought & salt tolerant; seldom climbs

**Hedera helix**

**Trachelospermum asiaticum**

- Good weed suppression once established
- Probably over-used, but hard to beat in adverse sites; variegated cultivars less vigorous
- Flowers not as effective, use *Trachelospermum jasminoides* (Confederate Jasmine) for fragrant white flowers or as a climbing vine in z. 9 (8)-13

**Euonymus fortunei**  
**Wintercreeper Euonymus**

- Extremely variable growth form = vine, groundcover, or small shrub
- Useful in USDA hardiness z. 6 (5) - 8 (9a), but needs afternoon shade in Texas for best performance
- Naturalized, invasive?, in some regions; climbs but slow to start

**Euonymus fortunei**

- Often used as groundcover for purple effect in winter or for variegated foliage
- Best reserved for use in Central to North Texas
- Scale insects, crown gall, anthracnose, aphids

-Up a tree

- Coloratus in winter
**Lonicera japonica**
Japanese Honeysuckle
- Rampant naturalized vine or groundcover, USDA z. 4 - 9
- Evergreen to semi-evergreen
- White & yellow spring flowers
- Can be major weed problem
- Overwhelms smaller plants

**Aptenia cordifolia**
Hearts-And-Flowers
Aizoaceae
- Rich glossy succulent foliage with small red composite-like flowers
- Sun to mostly sunny sites, well drained soils; pH adaptable; some salinity and drought tolerance
- Limited cold tolerance, useful USDA hardiness zones 9 (8b) – 13
- Groundcover, roadside plantings, hanging baskets, spiller in patio containers or over low walls

**Sphagneticola trilobata**
Wedelia
- Evergreen herbaceous perennial vining groundcover, USDA z. 9-13, 6”-12” (24”) tall
- Sparsely distributed yellow daisy-like flowers, contrast with dark glossy green leaves
- Rapid grower, sun to part shade, heat & very salt tolerant
- Genus = Complaya, Sphagneticola, Silphium, Thelechitonia, Wedelia?

**Fragaria × ananassa**
Strawberry
- Rosette forming stoloniferous herbaceous perennial that spreads to form a mat-like groundcover 6” to 8” (10”) tall
- Pubescent dark green leaves, ¾” to 1¾” white to pink flowers, & edible strawberries
- June-bearing versus everbearing
- Hardy in z. 5 to 8a, best treated as a cool season annual in 8b - 11
- Avoid heavy clay, high pH soils, or saline soils / irrigation water
- Virus, nematodes, animals and pillbugs can be problems
**Fragaria × ananassa  Strawberry**

Numerous production practices from low to high tech

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**Rubus spp.**

Blackberries, Raspberries, Dewberries, & Brambles

- More often encountered as edible crops
- Sometimes effective for dual edible / ornamental purposes
  - Primocanes versus floricanes
- Usually better in northern portions of our region
- Tendency to trap trash
- Bank covers, naturalizing, woodland edges, wildscaping, educational gardens, home orchards

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**Rubus trivialis**

Southern Dewberry

- Semi-evergreen semi-woody vine-like suckering bramble groundcover
  - Handsome dark green lustrous trifoliate leaves and white flowers in spring
  - Tattered ragged appearance by late summer through winter, spider mites and rust fungus on summer leaves
  - Hardy in USDA zones 6 – 9 (10)
- Valued for edible dewberries of variable quality
- Forms dense impenetrable low stands of prickly canes
- Too vigorous for mixed plantings
**Ipomoea batatas**  
*Ornamental Sweet Potato*  
– Low (6") sprawling annual or perennial vine  
– Valued for foliage effects, bright green, purple-black, or variegated  
  • 'Blackie', 'Margarita', 'Tricolor', and 'Black Beauty' are excellent cultivars  
  • Source of commercial sweet potatoes, but not palatable with ornamental clones  
– Flowers not important, heat tolerant  
– Foliage feeding insects; sweet potato weevil

**Ipomoea imperati**  
*Beach Morning Glory*  
• Stoloniferous vine, important dune stabilizer  
• White flowers, thick glossy leaves  
• Extremely salt, heat, & wind tolerant, z. 9 – 13  
• Can be a vigorous grower to a fault

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