## **Planting Box Turtle Outdoor Habitats**

Sandy Barnett sandybarnett95@gmail.com www.boxturtlefacts.org

Shown below is a partial list of plants for outdoor habitats for box turtles. It includes plants I have used in furnishing my habitats. I have found that they grow well in moist soil and are turtle-proof (handle a lot of digging and climbing behavior).

Notice that there is only one annual on the list – a very fast-growing ornamental grass. Annuals are O.K. as minor fill-ins in a habitat, but the bulk of the vegetation should be perennials, of which most should be evergreen. They should be purchased at a size that benefits a turtle in providing shade and something to hide under. If a turtle can't walk under the plant and be hidden by it (groundcovers excepted), it isn't big enough. BIG is better – purchase plants in quart size to gallon size containers or larger. A major bush should be five gallons or larger.

Why evergreen? Imagine moving into a house and having to wait a month or two for any of the furniture to arrive, or only having access to child-size furniture for an extended period. You would undoubtedly feel ill at ease, stressed, and uncomfortable in the interim. So will your turtle if he has to wait for the plants to grow or they are tiny. Plant your habitat with at least half-grown plants, to the extent possible, and plant with the knowledge that the habitat should look well enriched in spring, not just in the depths of summer. You can add interesting logs for turtles to nestle up against or crawl under that will help to inexpensively fill up some of the space. And for Western Box Turtles, it is valuable to add large but lightweight slabs of bark (cottonwood works well) over soft soil where the turtles can dig their year-round underground burrows.

I do not advise planting vegetables and berries in your habitat for your turtle to munch on ad lib. You should control what goes in your turtle's mouth with nutritious meals. (See "Box Turtle Diet" at <u>boxturtlefacts.org</u>).

Your habitat will need one or more evergreen bushes that provide deep shade and whose branches come nearly to the ground or has space under the branches to accommodate vegetation the turtle can hide in. A tall tree whose canopy shades part of your habitat is great for controlling unwanted heat in the summer but is not a substitute for the emotional support of dense growth your turtle can hide in. All the greenery in a tree is "way up there," not down where the turtle spends his time.

In addition to some wooden evergreens, you will need herbaceous plants that have a "presence" from the moment your turtle emerges from hibernation. These can be a combination of evergreens as well as perennials that die back in the fall but have some structure still standing in the spring, such as perennial ornamental grasses. Locate perennials in clusters so that the crowns touch, creating a sort of shady archway for the turtle to walk/sit under. Among my favorites are Lilyturf (Liriope), the Everlime EverColor<sup>®</sup> Sedge (in full sun) and the "mop head" Everillo Sedge (in partial sun). Sedges look like ornamental grasses but thrive in moist soil. I find sedges difficult to find in most nurseries other than the big box stores (Home Depot, Lowe's).

The entire habitat does not need not be densely planted, but a turtle should be able to find a quick retreat to a plant hide no more than a few body lengths away at any given time. A turtle that knows that cover is nearby tends to be much more relaxed and outgoing (towards you) than a turtle forced to live in a habitat that is wide open or furnished mostly with plants too short for him to fit under. Turtles in spartan habitats often hide a lot.

	Common Name	Species	Туре	Dimensions	Light Tolerance	
	EVERGREEN BUSHES/SHRUBS					
1.	Glenn St. Mary Compact Elaeagnus	<i>Elaeagnus</i> Glen St. Mary	Evergreen shrub; tolerates heavy pruning	3-4 ft. H x 5- 6 ft. W (or prune to make more compact)	Full sun to part shade	
2.	Purpleleaf Wintercreeper	<i>Euonymus fortunei</i> 'Coloratus'	Medium growing evergreen ground cover or low spreading shrub with lots of ground-hugging branching once established	2 ft. H x 6'-8' W as ground spread	Full sun to part shade	
3.	Microphyllua Euonymus	Euonymus japonicus 'Microphylla'	Dwarf compact evergreen shrub with tiny dark green leaves	12-24 in. H x 9-12 in. W	Full sun	
4.	Taunton's Yew	Taxus x media 'Tauntonii'	Ground-hugging slow growing dwarf evergreen shrub; tolerates heavy pruning	2-3 ft. H x 4- 5 ft. W	Full sun or shade at low elevation; shade at high elevation	
			HERBACEOUS PERRENIALS			
5.	Lillyturf or Liriope	Liriope muscari	Herbaceous perennial that acts as evergreen in moderate climates with some snow but dies back some in severe winter weather growing back in the spring; it propagates from rhizomes	12-18 in. H	Full sun to deep shade (plant only non- variegated variety in sun)	
6.	Large Leafed Lamb's Ears	<i>Stachys byzantine</i> "Helen von Stein"	Maintains lower profile in winter months and benefits from some modest early spring pruning out of dead material; spreads quickly propagating by rhizomes	Minimum of 12 in. H x 12- 18 in. W, but spreads!!	Full sun	
7.	Hosta Sandy Barnett	Hosta	Herbaceous perennial that grows larger each season but dies back die back completely in the winter, so should be a "fill-in" plant, not the major source of early season cover/shade for turtles – it takes time to grow!	12-48 in. H x 12-48 in. W	Shade at high elevation; shade to full sun at low elevation	

	Common Name	Species	Туре	Dimensions	Light Tolerance	
8.	Midnight Blue Salvia					
9.	Daylily (many varieties)	Hemerocallis	Foliage somewhat resembles lilyturf (Liriope), but daylilies die back to a "stump" in the winter, so should be a "fill-in" plant, not the major source of early season cover/shade for turtles – it takes time to grow!	Several feet H	Sun to part shade (doesn't flower in shade)	
			FERNS			
10.	Autumn Fern	Fern Dryopsteris 'Brillance'	Deciduous perennial fern (evergreen if frost-free); needs evenly moist, rich substrate	Fronds 18-30 in. H	Part to full shade	
11.	Japanese Holly Fern	Cyrtomium falcatum	Deciduous perennial fern (evergreen if frost-free); needs evenly moist, rich substrate	3 ft. H x 2 ft. W	Full shade	
12.	Ostrich Feather Fern	Fern matteuccia struthiopteris	Deciduous perennial fern needs constantly moist, rich substrate	3-5 ft. tall x 2-3 ft. wide	Part to full shade	
	ORNAMENTAL GRASSES					
13.	Blue Fescue	Festuca glauca	Evergreen or semi-evergreen herbaceous perennial grass; silver blue- green; most drought tolerant of those listed here	Mounded 8- 10 in. H	Full sun	
14.	Dwarf Zebra Grass	Miscanthus sinensis 'Little Zebra'	Perennial grass; foliage dies in winter but can be left standing until new growth starts to emerge in spring, then trim dead growth; regard as accent feature for summer shade	3-4 ft. H x 2- 3 ft. W	Sun to part shade	
15.	Golden Variegated Sweet Flag	Acorus gramineus 'Orgon'	Same as above	24 in. H x 12 in. W	Full sun	
16.	Northern Sea Oats	Chasmanthium latifolium	Same as above; tolerates heavier watering than many ornamentals	2-5 ft. H	Full sun to part shade	
17.	'Rubrum' Crimson Fountain Grass	Pennisetus setaceum	Ornamental <b>annual</b> grass that grows rapidly	3-4 ft. H	Full sun	
	<b>RUSHES</b> (do well in very moist soil; do not like dry soil)					

	Common Name	Species	Туре	Dimensions	Light Tolerance	
18.	Blue Dart Juncus or Common Rush	Juncus tenuis	Vertical growing thin leaf grass cluster	14-16 in. H x 10-12 in. W	Full to part sun	
	SEDGES (do well in very moist soil; do not like dry soil)					
19.	Amazon Mist Sedge	Carex comans 'Amazon Mist"	Evergreen pale green grass-like clump that arch to ground making it an excellent hide for box turtles	10 in. H x 12- 18 in. W	Full sun to part shade	
20.	Blue Sedge	Carex flauca	Evergreen, blue-green grass-like clump that is spikey but soft to the touch	6-12 in. H x 6-12 in. W	Full sun to part shade	
21.	Everillo Sedge	<i>Carex oshimensis</i> 'Everillo' PP21002	Evergreen lime green grass-like clump where foliage arches to ground making excellent hide for box turtle	12-18 in. H x 12-18 in. W	Full sun to part shade; outer leaves fade in hot sun	
22.	Everlime EverColor® Sedge	<i>Carex oshimensis</i> PP25622	Evergreen variegated (lime and darker green) grass-like clump with soft but erect blades that arch outward from the center	12-15 in. H x 18-24 in. W	Full sun to part shade	
23.	Orange Sedge	Carex testacea	Evergreen orange green grass-like clump with fine-textured foliage	18-24 in. H x 18-24 in. W	Full sun to part shade	
	GROUNDCOVER PLANTS (use around water features to reduce the amount of soil carried into the water)					
24.	Bugleweed or Ajuga	Ajuga reptans	Dense rapidly spreading, mat-forming ground cover featuring dark green leaves and wholes of tiny blue-violet flowers in mid to late spring on 10-inch soft spikes		Sun to shade	
25.	Creeping Jenny	Lysimachia nummularia	A fast-growing and vigorous lime-green groundcover growing to 2 in; has yellow floweres in summer		Sun to shade	
26.	Mondo Grass or Dwarf Lilyturf	Ophiopogon japonicus	A lush groundcover of dense, dark green, grass-like clumps that slowly spreads		Sun to shade	

	Common Name	Species	Туре	Dimensions	Light Tolerance
27.	Virginia Creeper	Parthenocissus quinquefolia	Rapid-growing (easily invasive) woody deciduous vine with tendrils ending in adhesive-like tips that attach to surfaces. Also grows as spreading groundcover. Large green leaves turn bright red in the fall. Berries harmful if ingested by humans, unknown if it is a problem for turtles (although I have never seen turtles show an interest in them). Tolerates low watering but also very moist conditions.	Can trail on ground many feet rooting along its length where it contacts soil	Sun to shade



One of the author's pens (10 ft x 10 ft) inside a walk-in screened enclosure that is predator-proof. It houses 7 female and one neutered male Western Box Turtles. Not visible in the picture is the <u>box turtle safe pond</u> beneath the Elaeagnus.