**Plant:** mostly herbs, often hairy, rarely woody; elsewhere in world may be vines, shrubs and trees

**Stem:**

**Root:**

**Leaves:** simple, mostly alternate but sometimes lower leaves opposite

**Flowers:** perfect; often on one (upper) side of stem or at tip, tip is sometimes arched or coiled; 5 sepals; 5 petals, often fused into a tube and flared at tip; 5 stamens alternate with lobes; ovary superior, 2 carpels, 1 style

**Fruit:** 4 nutlet fruit, but not all may develop; nutlet character sometimes used in classifications - difficult

**Other:** widespread, some present in all climates; Dicotyledons Group

**Genera:** 100+ genera, locally – *Lappula* (stickseed or begger’s lice), *Lithospermum* (puccoon), *Mertensia* (bluebell), *Myosotis* (forget-me-not), and others

WARNING – family descriptions are only a layman’s guide and should not be used as definitive
Boraginaceae (Borage Family) – corolla of 5 petals, usually lobed (flared at tip) and fused into a tube at base, calyx of 5 sepals, inflorescence often coiled (scorpioid); leaves simple and alternate; plant often with stiff hairs; 4 nutlet fruit; many genera
Hound’s Tongue [Gypsy Flower]; Cynoglossum officinale L.  (Introduced)
Wild Comfrey; Cynoglossum virginianum L.
Common Viper’s Bugloss [Blueweed]; Echium vulgare L.  (Introduced)
Arctic Alpine Forget-Me-Not; Eritrichium nanum (Vill.) Schrad. ex Gaudin
Manyflower Stickseed; Hackelia floribunda (Lehm.) I.M. Johnst.
Beggar’s-Lice [Stickseed]; Hackelia virginiana (L.) I.M. Johnston
Turnsole [Indian Heliotrope]; Heliotropium indicum L.  (Introduced)
Pasture Heliotrope; Heliotropium tenellum (Nutt.) Torr.
Flatspine Stickseed [Western Stickseed]; Lappula occidentalis (S. Watson) Greene var. occidentalis  
(L. redowski (Hornem.) Greene)
Hoary Puccoon; Lithospermum canescens (Michx.) Lehm.
Hairy [Carolina]; Lithospermum caroliniense (Walt. ex J.F. Gmel.) MacM. var. croceum
Narrowleaf Puccoon [Stoneseed; Gromwell]; Lithospermum incisum Lehm.
Tall Fringed [Mountain] Bluebells; Mertensia ciliata (James ex Torr.) G. Don
Virginia Bluebells [Virginia Cowslip]; Mertensia virginica (L.) Pers. ex Link
Smaller [Bay] Forget-Me-Not; Myosotis laxa Lehm.
Largeseed Forget-me-not; Myosotis macroserpa Engelm.
True Forget-Me-Not; Myosotis scorpioides L.  (Introduced)
Strict [Small Flowered] Forget-me-not; Myosotis stricta Link ex Roemer & J.A. Schultes  (Introduced)
Soft-Hair Marbleseed [Western False Gromwell]; Onosmodium bejariense DC. ex A. DC.  
var. bejariense (O. Molle)
Common Comfrey; Symphytum officinale L.
Hound’s Tongue
[Gypsy Flower]
Cynoglossum officinale L.
(Introduced)
Boraginaceae (Borage Family)
Maumee Bay State Park, Oregon County, Ohio
Notes: reddish-purple (rarely white) 5-petal flower; plant very hairy; stem leafy and basal leaves also present; fruit composed of bristly nutlets; late spring to summer
[V Max Brown, 2006]
Wild Comfrey
*Cynoglossum virginianum* L.
Boraginaceae (Borage Family)
Alley Springs, Ozark National Riverways,
Shannon County, Missouri
Notes: very pale blue 5-petal (lobed) flower, no bracts present; plant very hairy; 1-3 clasping stem leaves, most leaves are basal; fruit composed of nutlets; spring to early summer
[V Max Brown, 2010]
Common Viper’s Bugloss [Blueweed]

*Echium vulgare* L. (Introduced)
Boraginaceae (Borage Family)
Sam A. Baker State Park, Madison County, Missouri

Notes: corolla usually blue (rarely pinkish to white) and funnel-like, 5-lobed with upper lobe larger; plant usually much-branched, hairy to bristly and often tall; waste areas; summer to fall

[V Max Brown, 2006]
Arctic Alpine Forget-Me-Not
_Eritrichium nanum_ (Vill.) Schrad. ex Gaudin
Boraginaceae (Borage Family)
Rocky Mountain National Park, Colorado
Notes: very small 5-petaled flower, lobes flaring, pale blue with yellow center, 5-lobed green sepals, in densely hairy cluster; leaves alternate, mostly lanceolate, covered with dense long hairs; stem with dense long hairs; fruit of 1-4 nutlets, smooth; alpine environment; summer

[V Max Brown, 2012]
Manyflower Stickseed
*Hackelia floribunda* (Lehm.) I.M. Johnst.
Boraginaceae (Borage Family)
Near Fraser, Grand County, Colorado
Notes: 5-petaled flower, lobes flaring, pale blue, along long axillary spikes ascending from stem, small bracts sometimes present; leaves mostly lanceolate and sharp pointed; stem finely hairy; nutlets with lines of sticky spines; plains and foothills to subalpine environments; summer to fall

[V Max Brown, 2012]
Beggar’s-Lice [Stickseed]

*Hackelia virginiana* (L.) I.M. Johnston
Boraginaceae (Borage Family)

Oak Openings Metropark, Lucas County, Ohio

Notes: flowers white (rarely pale blue) on same side of stem, small bracts only sometimes present or often none; leaves mostly ovate to lanceolate; stem hairy and freely branching; nutlets attached along the middle, sticky; woods; summer to fall

[V Max Brown, 2004]
Turnsole [Indian Heliotrope]
Heliotropium indicum L. (Introduced)
Boraginaceae (Borage Family)
HWY 82 access to Sac River, St. Clair County, Missouri
Notes: 5-lobed flower, blue to light purple often with yellow center, form in one-sided curled clusters or raceme (scorioid); leaves deltoid to ovate, margins undulate, leaf blades have a ‘wrinkly’ or rugose appearance, with petiole; stem hairy; summer to fall
[V Max Brown, 2010]
Pasture Heliotrope

*Heliotropium tenellum* (Nutt.) Torr.

Boraginaceae (Borage Family)

Busiek State Forest and Wildlife Area, Christian County, Missouri

Notes: tubular flower with 5 lobes, white with yellow center, style not exerted, calyx lobes unequal, with appressed hairs; leaves alternate, linear, sessile, with appressed hairs above and below; stem also with appressed hairs, lower stem a dark reddish brown; plant erect; limestone glades; summer

[V Max Brown, 2010]
Flatspine Stickseed [Western Stickseed]

*Lappula occidentalis* (S. Watson) Greene
*var. occidentalis* (L. redowski (Hornem.) Greene)

Boraginaceae (Borage Family)

Wichita Mountains Wildlife Refuge, Comanche County, Oklahoma

Notes: 5-lobed flowers white, small; cauline and basal leaves linear-lanceolate, mostly entire, with dense long and soft hairs; stem densely hairy; nutlets with 1 row of tubercles usually fused to a basal rib or ridge; spring to early fall

[V Max Brown, 2011]
Hoary Puccoon
*Lithospermum canescens* (Michx.) Lehm.
Boraginaceae (Borage Family)
Oak Openings Metropark, Lucas County, Ohio
Notes: bright yellow (orange-yellow) 5-lobed flowers, 1.0 to 1.5 cm wide; stem and leaves with fine, white downy hairs (not stiff to the touch), usually with less than 5 stems per clump; sandy areas; spring to summer
[V Max Brown, 2007]
Hairy [Carolina] Puccoon
*Lithospermum caroliniense*
(Walt. ex J.F. Gmel.) MacM.
var. *croceum* (Fern.) Cronq.
Boraginaceae (Borage Family)
Oak Openings Metropark, Lucas County, Ohio
Notes: bright yellow (orange-yellow) 5-lobed flowers, 1.5 to 2.5+ cm wide; stem and leaves with stiff white hairs (not soft downy), sometimes many stems per plant; sandy areas; spring to fall
[V Max Brown, 2005]
Narrowleaf Puccoon
[Stoneseed; Gromwell]
Lithospermum incisum Lehm.
Boraginaceae (Borage Family)
Wichita Mountains Wildlife Refuge, Comanche County, Oklahoma
Notes: bright yellow 5-lobed flowers, with long (>2.5 cm tube, lobes fringed; leaves alternate, linear and with appressed hairs; stems densely hairy; fruit nutlets; sandy areas; spring to summer
[V Max Brown, 2011]
Tall Fringed [Mountain] Bluebells
*Mertensia ciliata* (James ex Torr.) G. Don
Boraginaceae (Borage Family)
Rocky Mountain National Park, Colorado
Notes: corolla 5-lobed, pink but becoming blue with age, basal tube longer than flared bell; leaves alternate, broadly lanceolate, entire, usually with a tapered base (not cordate); foothills to montane environments; summer
[V Max Brown, 2012]
Virginia Bluebells
[Virginia Cowslip]
*Mertensia virginica* (L.) Pers. ex Link
Boraginaceae (Borage Family)
Maumee River Metroparks, Lucas County, Ohio
Notes: corolla 5-lobed, pink when young but becoming blue with age, then often fading to pink; leaves elliptical, entire; spring
[V Max Brown, 2004]
Smaller [Bay] Forget-Me-Not
*Mycostis laxa* Lehm.
Boraginaceae (Borage Family)
Irwin Prarie Nature Preserve, Lucas County, Ohio
Notes: 5-lobed flower, light blue with yellow center, small (mostly 3-6mm), sepals hairy (appressed), sepal lobes about equal to half of length of calyx tube; leaves lanceolate to elliptical, sessile; stem mostly erect, very branching, pubescence appressed; seeds of fruit longer than style; wet areas; summer
[V Max Brown, 2008]
Largeseed Forget-me-not
*Myosotis macrosperma* Engelm.
Boraginaceae (Borage Family)
Taum Sauk Mountain State Park, Iron County, Missouri
Notes: tubular flower with 5 lobes, white, style not exerted, calyx lobes mostly equal at flowering and pubescent, hairs mostly are hooked at tip; leaves alternate, lanceolate to long elliptical or oblong, blunt tips to rarely acute tips, densely hairy; stem densely hairy; plant erect, usually branched from base; spring to summer
[V Max Brown, 2012]
True Forget-Me-Not [Water Scorpion Grass]

*Myosotis scorpioides* L. (Introduced)
Boraginaceae (Borage Family)
Lake Springfield Park, Greene County, Missouri
Notes: flowers 5-lobed, light blue with yellow center, greater than 0.5 cm dia., calyx with strongly appressed hairs; leaves lanceolate to mostly elliptical with appressed hairs; stems usually weak, finely hairy; wet areas; late spring to fall

[V Max Brown, 2011]
Strict [Small Flowered]  
*Forget-me-not*

*Myosotis stricta* Link ex Roemer  
& J.A. Schultes (Introduced)

Boraginaceae (Borage Family)

Oak Openings Metropark, Lucas County, Ohio

Notes: tubular flower with 5 lobes, mostly blue, calyx hairy and about same length as corolla tube; stem leaf blades mostly sessile, entire, and elliptical to oblong, basal leaves ovate to oblong, all leaves with one main vein; entire plant very coarse and hairy; spring

[V Max Brown, 2007]
Spring [White] Forget-me-not
[Early Scorpiongrass]

*Myosotis verna* Nutt.
Boraginaceae (Borage Family)
Waterville Area, Lucas County, Ohio

Notes: tubular flower with 5 lobes, white, style not exerted, calyx lobes unequal and pubescent but hairs mostly not hooked; leaves alternate, lanceolate to long elliptical or oblong, blunt to sharp tipped, densely hairy; stem hairy; plant mostly erect, often branched from base; spring to summer

[V Max Brown, 2008]
Soft-Hair Marbleseed [Western False Gromwell]

*Onosmodium bejariense* DC. ex A. DC.
var. *bejariense* (O. Molle)

Boraginaceae (Borage Family)

Busiek State Forest and Wildlife Area, Christian County, Missouri

Notes: flowers are tubular and form in one-sided curled clusters (scorpioid) or raceme subtended by leaf-like bracts, flower color varies but usually white to greenish yellow, style exerted, sepals hairy; leaves alternate, sessile, narrowly lanceolate, upper surface with stiff white hairs, soft and downy below; late spring to summer

[V Max Brown, 2010]
Common Comfrey
Symphytum officinale L. (Introduced)
Boraginaceae (Borage Family)
Oak Openings Metropark, Lucas County, Ohio
Notes: flowers are tubular and form in one-sided curled clusters or raceme, color varies but often bluish to pink, less often white to yellow; stem leaf blades not clasping, large basal leaves present; entire plant very coarse and hairy; summer
[V Max Brown, 2006]