

Identification of Common Wisconsin Weeds

Annual Broadleaves

source: rootedwi.org

BUCKWHEAT FAMILY

Wild buckwheat (51)*

Polygonum convolvulus

- Cotyledon:** oblong oval with granular waxy surface
- Ocrea:** at leaf axils; small
- Stems:** trailing vines
- Leaves:** heart-shaped with pointed tips
- Flowers:** greenish-white, small and inconspicuous
- Seeds:** 3-sided

* indicates the page in *Weeds of the North Central States* that describes the plant



Wild buckwheat seedling



Wild buckwheat ocrea



Wild buckwheat plant

BUCKWHEAT FAMILY

Pennsylvania smartweed (52)

Polygonum pensylvanicum

- Cotyledon:** lanceolate to oblong, rounded tips
- Ocrea:** at leaf axils; smooth top
- Stems:** reddish, branched swollen nodes
- Leaves:** rounded at base; pointed at tip
- Flowers:** pink, terminal flower clusters
- Other:** seed black, shiny, flattened, circular with pointed tip



Penn. smartweed ocrea



Penn. smartweed seeds



Pennsylvania smartweed flowering plants

BUCKWHEAT FAMILY

Ladysthumb smartweed (52)

Polygonum persicaria

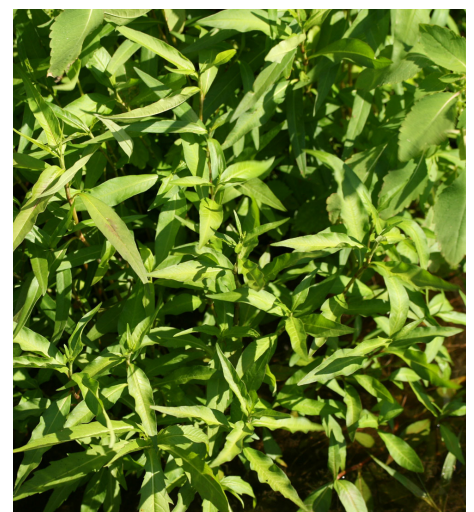
- Cotyledon:** lanceolate to oblong, rounded tips
- Ocrea:** at leaf axils; hairy top
- Stem:** reddish with swollen nodes branched
- Leaves:** pointed at both ends, often have "thumb print"
- Flowers:** pink, terminal flower clusters
- Other:** seeds black, most triangular



Ladysthumb ocrea



Ladysthumb seeds



Ladysthumb smartweed plants

GOOSEFOOT FAMILY

Common lambsquarters (57)

Chenopodium album

- Cotyledon:** linear, small
- Leaves:** often have whitish, 'mealy'
- Covering:** shape is triangular or "goosefoot" shaped
- Stems:** have reddish streaks, branched
- Seed:** shiny, black, disk-shaped, 1/16 inch in diameter
- Other:** many biotypes, some resistant to herbicides



Lambsquarters seedling



Lambsquarters leaves



Lambsquarter flowers

PIGWEEED FAMILY

Redroot pigweed (65)

Amaranthus retroflexus

- Cotyledon:** linear, smooth
- Root:** often reddish-pink taproot
- Leaves (stems):** notch in tip of first leaves; finely pubescent; reddish-purple color on underside of leaves
- Seedhead:** somewhat spiny, small, black, shiny seeds
- Other:** also called rough pigweed



Redroot pigweed seedling



Redroot pigweed stem



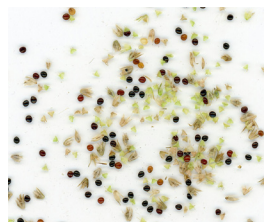
Redroot pigweed seedhead

PIGWEEED FAMILY

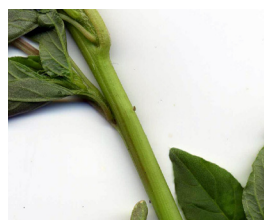
Smooth pigweed (64)

Amaranthus hybridus

- Cotyledon:** linear, smooth
- Root:** often reddish-pink taproot
- Leaves (stems):** generally smooth
- Seedheads:** longer than redroot pigweed; rarely branched
- Other:** resistant biotypes



Smooth pigweed seeds



Smooth pigweed stem



Smooth pigweed seedhead

PIGWEEED FAMILY

Waterhemp

Amaranthus tuberculatus

- Cotyledon:** linear; egg-shaped
- Leaves:** nick in tip of first leaves; long-petioled; 3 to 6 in. long; somewhat shiny
- Stems:** smooth, often with colored stripes
- Inflorescence:** small greenish flowers, male and female flowers on separate plants
- Other:** several species of waterhemp in the region; resistant biotypes



Waterhemp seedling



Waterhemp young plant



Waterhemp inflorescence

PURSLANE FAMILY

Purslane (71)

Portulaca oleracea

- Cotyledon:** linear or oblong, smooth
- Leaves:** fleshy, rounded, opposite
- Stems:** fleshy, prostrate, reddish, branched
- Flowers:** 5 yellow petals; small; numerous
- Seeds:** small, flattened, oval, glossy black
- Other:** plants can establish from stem pieces



Purslane seeds



Purslane flower



Purslane plant

MUSTARD FAMILY

Wild mustard (89)

Brassica kaber

- Cotyledon:** heart or kidney-shaped; smooth
- Leaves (stems):** few bristly hairs
- Lower leaves:** large, triangular and lobed (not to midrib)
- Upper leaves:** reduced in size; no petioles
- Flowers:** 4 bright yellow petals
- Seed pods:** "beak" of seed capsule 1/3 length of whole capsule; open to release round seeds



Wild mustard seedpod



Wild mustard stem



Wild mustard flowers

MUSTARD FAMILY

Wild radish (100)

Raphanus raphanistrum

- Cotyledon:** heart or kidney-shaped, smooth
- Lower leaves:** rounded lobes often reach to midrib
- Leaves (stems):** stiff, scattered hairs
- Flowers:** 4 yellowish-white petals; sometimes with purplish veins
- Seed pods:** form constrictions and break into small segments with seed inside
- Other:** fruits contaminate oats and barley grain



Wild radish lower leaf



Wild radish stem



Wild radish flowers and seedpods

MUSTARD FAMILY

Shepherd's purse (91)

Capsella bursa-pastoris

- Cotyledon:** ovate to rounded
- Rosette leaves:** starlike branched hairs on upper surface; leaf lobes point to leaf tip
- Stalk (stems):** elongated stalk; leaves clasp stem
- Flowers:** small with 4 white petals
- Seed pod:** small, triangular-shaped



Young plant



Seed pods



Shepherd's purse plant

MUSTARD FAMILY

Field pennycress (104)

Thlaspi arvense

- Cotyledon:** round, bluish-green
- Leaves:** rosette and stem leaves; ear-like lobes that clasp stems on upper leaves
- Flowers:** flowers with 4 white petals; in clusters
- Seed pod:** notch in top of pod and flat wing around edge
- Other:** garlic-like odor in crushed leaves and stems



Young plant



Seed pods



Field pennycress flowers

MALLOW FAMILY

Velvetleaf (122)

Abutilon theophrasti

- Cotyledon:** round or heart-shaped
- Leaves:** very large, heart-shaped, softly hairy
- Stem:** pubescent
- Flowers:** yellow with 5 petals
- Seed capsules:** 13-15 segments; resembles "butterprint"



Velvetleaf seedling



Flower and seed capsule



Velvetleaf leaf and flower

NIGHTSHADE FAMILY

Jimson weed (157)

Datura stramonium

- Cotyledon:** lanceolate, smooth
- Leaves:** ovate (egg-shaped) with pointed tip lobes; wavy margins
- Stems:** hollow, purplish, and smooth
- Flower:** white tubular flowers
- Seed capsules:** spiny, golf ball sized with many seeds
- Other:** strong, foul odor in leaves and stems; poisonous



Jimson weed flower



Seed capsule



Jimson weed plant

NIGHTSHADE FAMILY

Eastern black nightshade (162)

Solanum ptycanthum

- Cotyledon:** ovate, smooth, small
- Leaves:** purplish color on underside; often with "shot holes"
- Stems:** erect or spreading; widely branched
- Flowers:** 5 white reflexed petals
- Fruits:** green, turning black at maturity; contaminate harvested products



Seedling



Black nightshade flower



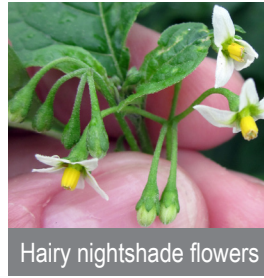
Black nightshade fruit

NIGHTSHADE FAMILY

Hairy nightshade

Solanum physalifolium

- Cotyledon:** ovate, hairy
- Leaves:** ovate to nearly triangular; finely hairy, especially veins & margins
- Stems:** finely hairy
- Flowers:** 3-9 flowers on short stalk; 5-petaled; white or tinged with purple
- Fruit:** turns yellowish brown when ripe



Hairy nightshade flowers



Hairy nightshade stem



Hairy nightshade fruit

GOURD FAMILY

Bur Cucumber (178)

Sicyos angulatus

- Cotyledon:** large; spoon-shaped, thick with dense short hairs
- Stems:** long, ridged vines; sticky-hairy; branched tendrils allow plants to climb over crops
- Leaves:** 3 to 5 shallow lobes (pentagon-shaped), alternate, petioled
- Flowers:** male and female flowers arise at separate axils; 5 greenish-white fused sepals and petals
- Fruits:** in clusters of 3 to 20 egg-shaped, barbed, prickly pods; each pod with one seed



Bur cucumber seedling



Bur cucumber flowers



Bur cucumber plant

COMPOSITE FAMILY

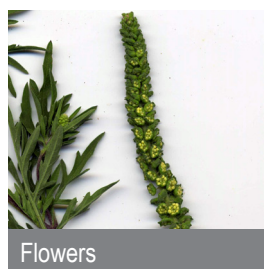
Common ragweed (181)

Ambrosia artemisiifolia

- Cotyledon:** oval to spatulate, thick
- Leaves:** lacy, finely divided, opposite initially, then alternate; first leaves with 5 lobes
- Stems:** rough, hairy and branched
- Flowers:** male flowers in terminal clusters; female flowers in leaf axils



Seedling



Flowers



Common ragweed plant

COMPOSITE FAMILY

Giant ragweed (183)

Ambrosia trifida

- Cotyledon:** oval to spatulate
- Leaves:** opposite, large and 3-5 lobed; upper leaves often simple; roughly hairy
- Stems:** woody and 1-2 inches thick; tough, hairy; 6-14 feet tall
- Flowers:** male flowers in terminal clusters; female flowers in leaf axils



Giant ragweed seedling



Giant ragweed leaf



Giant ragweed flowers

COMPOSITE FAMILY

Horseweed (204)

Conyza canadensis

- Cotyledon:** round to ovate
- Leaves:** many leaves, no petioles; hairy; entire or toothed
- Stems:** covered with bristly hairs; branched at top
- Flowers:** many small flowers on axillary branches
- Other:** also called marestail; common in no-till sites



Horseweed leaves



Horseweed flowers



Young horseweed plant

COMPOSITE FAMILY

Smallflower galinsoga (210)

Galinsoga parviflora

- Cotyledon:** oval to squarish, hairy; abruptly tapered at base
- Leaves:** opposite, toothed
- Stems:** branched, hairy
- Flowers:** 4-5 white ray flowers surrounding yellow disk flowers



Galinsoga flowers



Young galinsoga plant



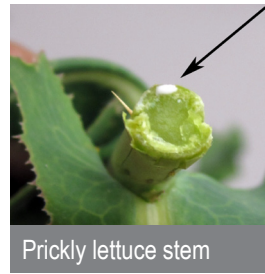
Galinsoga plants

COMPOSITE FAMILY

Prickly Lettuce (224)

Lactuca serriola

- Cotyledon:** ovate to spoon-shaped
- First leaves:** rosette of pale green leaves; no spines
- Later leaves:** lobed with spiny edges and spines on midrib of underside of leaves; leaf bases clasp the stem
- Stems:** hollow; top very branched when mature
- Flowers:** pale yellow flower heads that release seeds attached to a pappus
- Other:** leaves and stems with milky sap



Prickly lettuce stem



Prickly lettuce leaf



Prickly lettuce flowers

COMPOSITE FAMILY

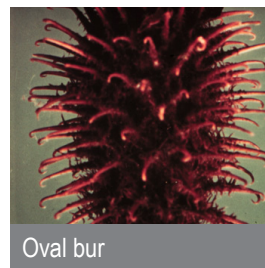
Cocklebur (240)

Xanthium strumarium

- Cotyledon:** lanceolate, thick
- Leaves:** large, triangular and lobed; 3 prominent veins
- Stems:** rough texture, dark purple spots
- Leaves (stems):** sandpaper-like textured surface
- Flowers:** small, male and female separate but borne together in clusters in axils of upper leaves; two female flowers are enclosed in each oval bur



Cocklebur seedling



Oval bur



Cocklebur leaves

Biennial Broadleaves

COMPOSITE FAMILY

Burdock (187)

Arctium minus

- Taproot:** large, thick, and fleshy
- Rosette leaves:** huge with heart-shaped base; white-woolly below
- Leaves:** alternate, prominent veins
- Stems:** tough; much branched
- Flowers:** red-violet color; 3/4 - 1 inch across
- Fruit:** a bur with hooked spines



Burdock flowerbuds



Burdock burs



Burdock young plant

COMPOSITE FAMILY

Musk thistle (199)

Carduus nutans

- Leaves:** smooth, waxy; grey-green margin with a white, hairless midrib; spiny edges that extend down stem
- Stems:** spiny from leaf bases except right below flower head
- Flowers:** 1-½ to 2 inches in diameter; rich pink color; head often tips downward



Musk thistle flowerbud



Musk thistle leaf



Musk thistle flower

COMPOSITE FAMILY

Plumeless thistle (198)

Carduus acanthoides

- Leaves:** leaves deeply divided; hairy esp. lower surface midrib; decurrent
- Stems:** spiny from base to flower head due to decurrent leaves
- Flowers:** ¾ to 1 ½ inches in diameter; pinkish



Plumeless thistle rosette



Plumeless thistle flowerbuds



Plumeless thistle flower

COMPOSITE FAMILY

Bull thistle (202)

Cirsium vulgare

- Leaves:** deeply cut, spiny margins with a wrinkled surface; hairy
- Spines:** prominent; needle-like
- Stems:** spiny with decurrent leaves (extend down the stem)
- Flowers:** 1-2 inches in diameter; are flask-shaped; pink to pink-lavender



Bull thistle rosette



Bull thistle stem



Bull thistle flower

Perennial Broadleaves

HORSETAIL FAMILY

Horsetail (11)

Equisetum arvense

- Spreads:** by spores and rhizomes
- Fertile stems:** stems hollow, not branched; easily separated joints
- Vegetative stems:** "leaves" in whorls at joints; looks like small pine trees
- Other:** most common in wet areas



Horsetail roots



Horsetail seedheads



Horsetail plants

BUCKWHEAT FAMILY

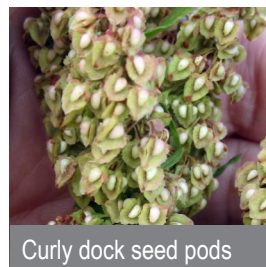
Curly dock (55)

Rumex crispus

- Taproot:** fleshy, branched, and yellow
- Ocrea:** long; prominent
- Basal leaves:** 6-12 inches with wavy edges
- Stems:** smooth, erect, reddish
- Flowers:** small greenish becoming reddish brown at maturity, found in dense clusters on branches at tip of stem



Curly dock leaf



Curly dock seed pods



Mature curly dock flowers

PINK FAMILY

White cockle (74)

Lychnis alba

- Leaves:** hairy and opposite, with no petiole; softly hairy
- Stems:** softly hairy
- Flowers:** white; male & female parts on separate plants (dioecious)
- Fruit:** seed pods with 10 short teeth



White cockle stem



White cockle flower



White cockle seed pod

MUSTARD FAMILY

Yellow rocket (86)

Barbarea vulgaris

- Rosette leaves:** pinnate with large terminal lobe
- Stem leaves:** smooth with waxy surface
- Upper leaves:** clasp stem
- Flowers:** 4 yellow petals, similar to wild mustard but smaller



Yellow rocket leaves



Yellow rocket seed pods



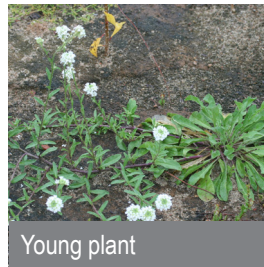
Yellow rocket flowers

MUSTARD FAMILY

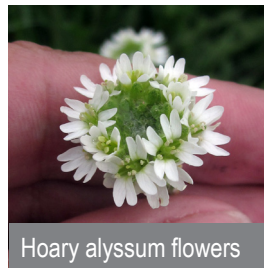
Hoary alyssum (87)

Berteroa incana

- Leaves (stems):** grey-green in color; rough hairs on whole plant
- Flowers:** white with 4 deeply-divided petals
- Fruit:** seed pods small with short "beak"



Young plant



Hoary alyssum flowers



Hoary alyssum-upper part of plant

SPURGE FAMILY

Leafy Spurge (118)

Euphorbia esula

- Roots:** deep and spreading
- Stems:** smooth
- Leaves:** alternate, strap-shaped, 1/4 inch wide, usually drooping
- Flowers:** small and borne above greenish-yellow bracts
- Fruit:** explode when ripe, shooting 3 seeds, from parent plant
- Other:** all plant parts have milky sap



Leafy spurge leaves



Leafy spurge fruit



Leafy spurge plants

MORNINGGLORY FAMILY

Field bindweed (139)

Convolvulus arvensis

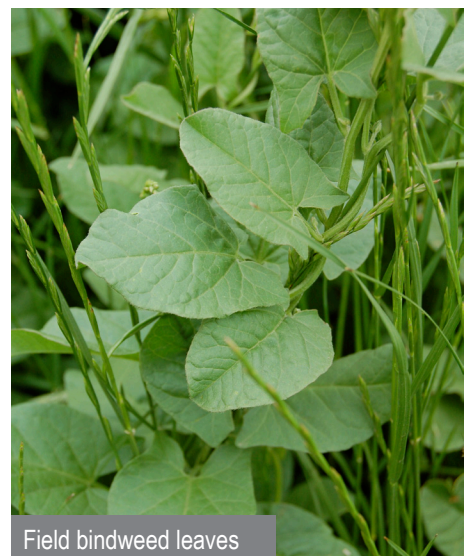
- Roots:** deep and spreading
- Stems:** trailing or climbing
- Leaves:** “arrowhead”-shaped leaves with 3 “points”
- Flowers:** white or pink, funnel-shaped, 1 inch or less in diameter, found in axils of leaves
- Other:** flower stalks have 2 stipules below flowers



Flower & stalk



Field bindweed flowers



Field bindweed leaves

MORNINGGLORY FAMILY

Hedge bindweed (140)

Convolvulus sepium

- Roots:** deep and spreading
- Stems:** trailing or climbing (similar to field bindweed)
- Leaves:** "arrowhead"-shaped leaves with 5 "points"
- Flower stalks:** no stipules below flowers
- Flowers:** large, 1 ½ to 2 inches, white or pinkish



Hedge bindweed bud



Hedge bindweed flower



Hedge bindweed plants

PLANTAIN FAMILY

Blackseed Plantain (171)

Plantago rugelii

- Roots:** fibrous, tough
- Leaves:** in rosette, broad, ovate with 3 to 5 prominent veins; smooth; petioles purplish; egg-shaped, wavy margins
- Flowering stems:** leafless with many small inconspicuous flowers
- Other:** broadleaf plantain similar but lacks purple petioles and has smaller leaves



Young plantain plant



Blackseed plantain seeds



Blackseed plantain plant

NIGHTSHADE FAMILY

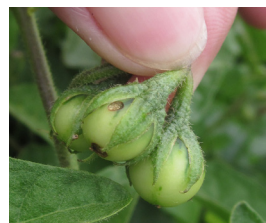
Horsenettle (160)

Solanum carolinense

- Root:** spreading, deep with adventitious buds
- Leaves:** with yellow prickles on the petioles, veins and midribs; hairy; oblong with wavy edges (like oak leaf)
- Stems:** with sharp, stout spines; simple or branched
- Flowers:** potato-like with 5 fused white to purple petals; prominent anthers
- Fruits:** smooth green berries to 0.5" diameter, becoming yellow; become wrinkled and hang on plants most of winter
- Other:** plants poisonous



Horsenettle flower



Horsenettle fruit



Horsenettle stem

COMPOSITE FAMILY

Canada thistle (200)

Cirsium arvense

- Roots:** deep and branched
- Stems:** smooth
- Leaves:** crinkled edges and spiny margins; smooth
- Flowers:** pink to purple, flash-shaped rarely white, $\frac{3}{4}$ inches wide; male and female flowers on separate plants



Canada thistle stem



Canada thistle leaf



Canada thistle flowers

COMPOSITE FAMILY

Perennial Sow Thistle (234)

Sonchus arvensis

- Roots:** spreading; shoots arise from buds
- Leaves:** prickly toothed, lobed; milky sap
- Stems:** milky juice; hollow; branch near top
- Flower heads:** branched with yellow ray flowers
- Seeds:** ribbed; with feathery pappus



Perennial sow thistle leaf



Perennial sow thistle stem



Perennial sow thistle flowers

COMPOSITE FAMILY

Dandelion (237)

Taraxacum officinale

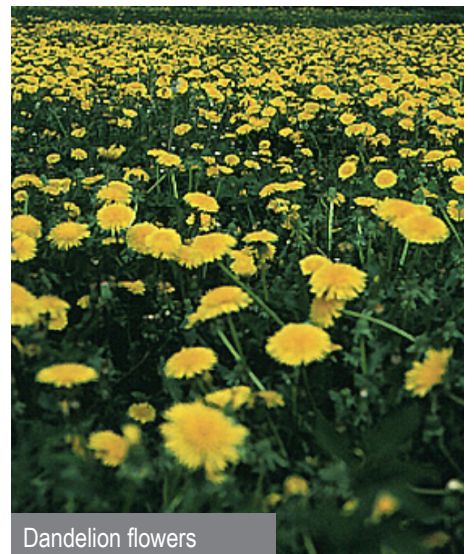
- Roots:** deep taproot with many buds
- Leaves:** lobes point to base of plant; watery, milky juice
- Flowers:** bright yellow with many seeds
- Seeds:** ribbed with barbs to aid in soil penetration; pappus aids in seed spread



Dandelion young plant



Mature flower head



Dandelion flowers