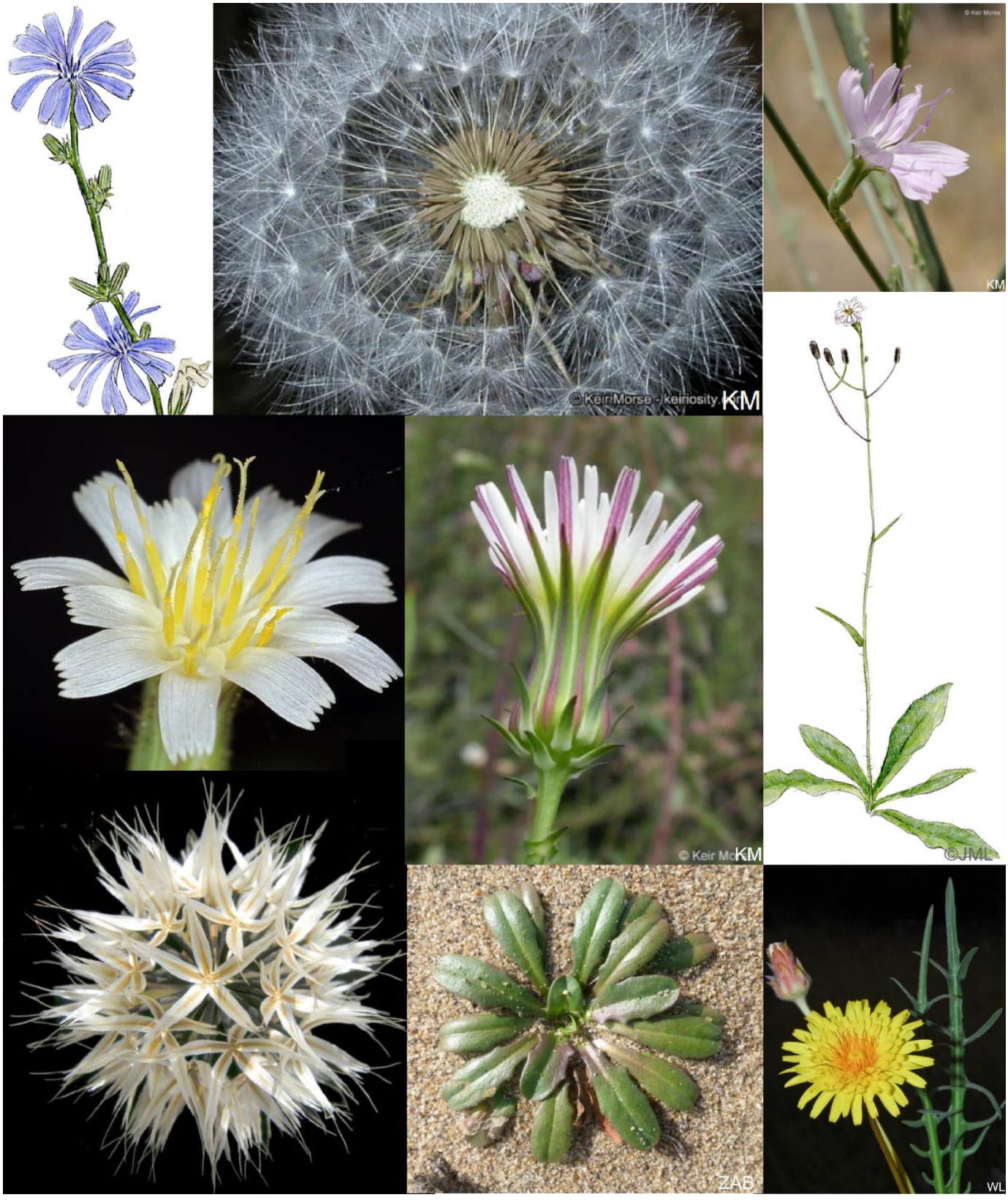
Field Key to the Marin Dandelion Tribe



Corrections/Comments: bruce@PlantID.net

Introduction

Marin County has 29 species in the Dandelion Tribe (the *Cichorieae*). As you can see above, their flower and seed heads present a wide variety of beautiful patterns. Stems and leaves also grow to species-specific designs.

This field guide uses a simple key to introduce you to those patterns and their variations. If you're not already an expert with asters, you might like to start with "What's a Dandelion".

Have fun with it!

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What's a Dandelion?

Dandelion Flower Heads

Dandelions are a tribe in the **Aster Family**. Aster blooms are organized in **flower heads** which hold many **florets**.

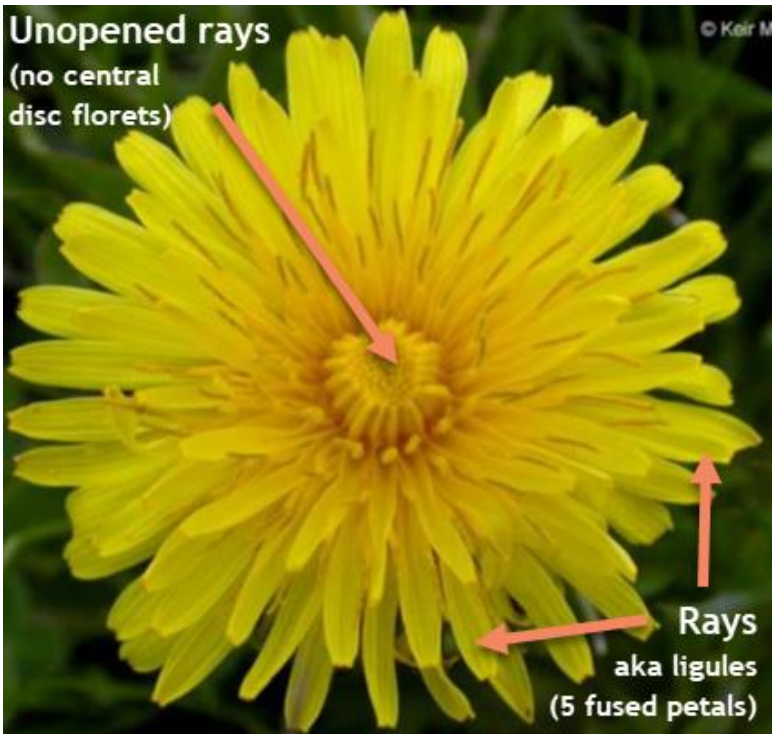
With dandelions, a flower head contains florets that radiate out from a central base, so they're called **rays.** You might suppose that each ray is a petal but it's actually a complete floret, containing not just fused petals but reproductive parts at its base.

Other Asters may also have ray florets, but dandelion flower heads are distinct in a couple of ways:

- Other Aster flower heads **always** have central **disc florets** in addition to possible ray florets. Disc florets are held in the center of the flower head and have no obvious petals. Dandelions **never** have central disc florets.

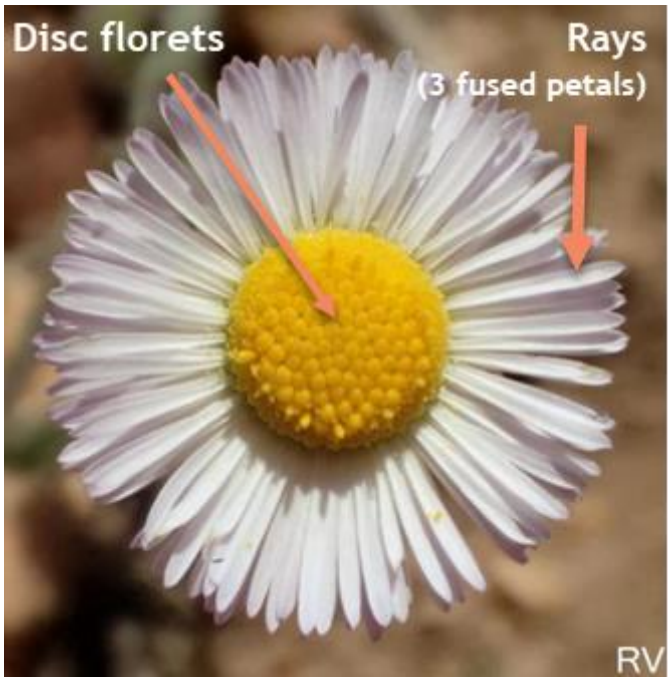
- Also, a dandelion ray floret has **5 fused petals,** called a **ligule.** Other aster rays have only 3 fused petals.

Dandelion flower heads have no disc florets.



Common Dandelion – Keir Morse

Other aster flower heads have disc florets.



Diffuse Daisy – Ron Vanderhoff.
This is not a dandelion.

Here's how dandelion heads and rays are organized.

Dandelion head in cross section **An individual ray floret**

Images © Donald C. Drife, michigannatureguy.com/blog

The flower head has a **receptacle** at its base that sits at the top of a stem. Each **ray floret** connects to a spot on the receptacle. An involucre of leaf-like **phyllaries**, often green, wraps around the flower head, providing protection to the head, especially when it is young. These phyllaries are often distinctive, making a good ID characteristic.

Each ray floret has an **ovary** at its base that sits on the receptacle. When pollinated, the ovary develops into a **fruit** containing a single **seed**, a thin covering, and **pappus** that will help the seed float away on the wind when it's mature.

Several structures grow out of the top of each ovary. 5 fused petals extend outward, creating a visual display that attracts pollinators. Remember that there are many ray florets on the head, so the flower head looks like a many-petaled flower.

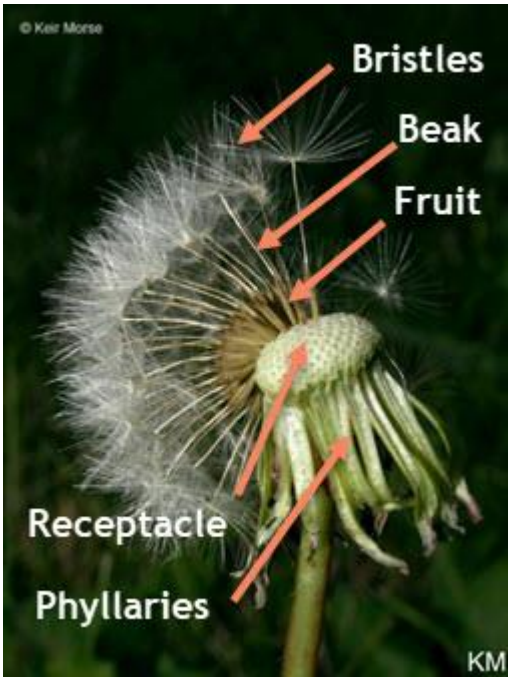
Growing up from the ovary is a hollow **column of 5 fused stamens** covered with male **pollen**. Inside the column, a female **style** grows, pushing pollen out as it extends beyond the **stamen column**. After the pollen is spent, the style opens up a receptive bi-lobed **stigma**, ready to receive pollen from other flowers of its species.

Dandelion flower heads vary by the number of rays they produce. For instance, chicory and wire lettuce produce only a handful or a couple dozen rays, making them easy to distinguish from heads of over 100 rays.

Pappus – a Dandelion Parachute

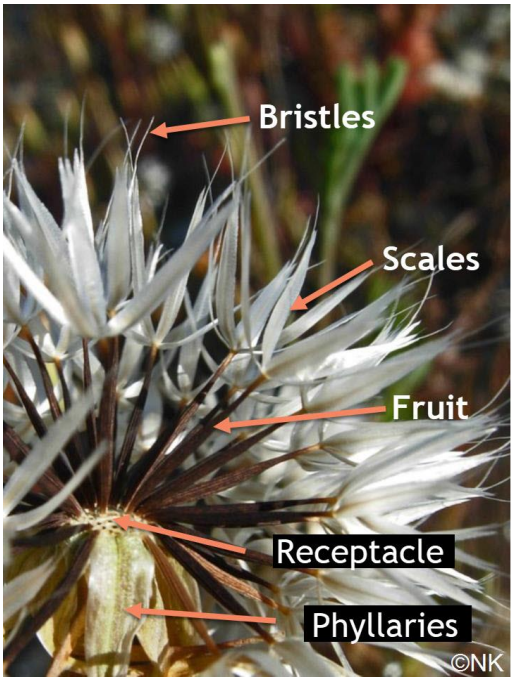
Also growing out of the top of each ovary, and outside the base of each floret's 5 fused petals, is **pappus.** It's made up of **bristles,** and sometimes **scales** as well. During flowering, pappus parts are small but once the floret is pollinated, pappus grows in species-specific patterns.

Fruit, narrow beak and bristles



Common Dandelion – Keir Morse

Elongated fruit, scales and bristles



Silver Puffs – © Neil Kramer

Plumose bristles

Bristly Ox Tongue
© Neil Kramer

When an ovary is pollinated, it becomes an emerging fruit. The fruit begins a complex generation of cells as it starts to develop a new living thing. For instance, the fruit often grows a narrow column at its tip, called a **beak.** Pappus scales and bristles grow from the top of the fruit, preparing an effective parachute for when the fruit and its seed are mature and ready to fly to a new location.

Almost every dandelion grows pappus, but with different materials and in different patterns. This makes pappus a useful character to check when figuring out what species you have.

- Many times, an upside-down cone of dozens of **bristles** grows on top of each fruit (see the first picture above). The individual bristles are hair-like, forming a light parachute to catch the wind. Some bristles are **plumose,** with fuzz along their length, increasing their wind resistance (see the third picture above).

- Another pappus arrangement includes **scales.** Scales are thin and long but also have width. They create a papery surface, making a sail to catch the wind. They often end in a hair-like bristle (see papery starburst below).

Pappus components combine to create several distinctive looks which I refer to in the key:

Fluffy sphere		Fruits have beaks that end in many bristles. The overall effect is a fluffy sphere, with space on the inside.
Dense sphere		Fruits do not have beaks, so bristles grow closely to them, creating a dense sphere without space on the inside.
Brush shape		Fruits do not have beaks. There are only a handful of fruits, so the overall effect is spaced bristles, rather than a dense sphere.
Papery starburst		Fruits connect to triangular, flat, papery scales that end in a bristle. I call this distinctive look a papery starburst.

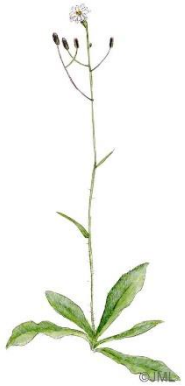
Beautiful pappus is a hallmark of dandelions. Use the key to have fun looking at it closely.

Dandelion Leaves

Douglas' Silverpuff

Hairy Cat's Ear

Bristly Ox Tongue


White flowered Hawkweed

Dandelion leaves vary a lot, which makes them a great identification tool.

- Most species have basal leaves, either lying along the ground in a rosette, or reaching up like blades of grass.
- Stem leaves tend to get smaller as you go up the stem. Some wrap around the stem.
- Leaves are generally long ovalish shapes or narrower, and often have lobes along their edges. The shape and pattern of these lobes is often useful in identification.

Dandelion Stems

Most dandelion stems have a milky white sap which you can see if a stem or branch is broken. Other asters typically do not.

Several dandelion species have stems that are bare, free of leaves or branches. They support a single flower head at their top, often drooping when in bud and becoming erect in flower.

Other dandelion stems are full of leaves and often branched.

Field Key to the Marin Dandelion Tribe (Cichorieae)

Find a group description that best describes your plant, and click it.

If you don't have flowers, leaves and pappus to look at, you may have to check out more than one group.

Don't know what a word means? For instance, don't know what a "papery starburst" is or don't know what I mean by "ovalish"? See "Terms Used in the Key."

Bare Stems

1 Basal leaves **narrow**; pappus a **papery starburst**.

2 Basal leaves **narrow**; pappus a **fluffy sphere**.

3 Basal leaves **ovalish**, in a **rosette**; pappus a **dense sphere**.

4 Basal leaves **ovalish**, in a **rosette**; pappus a **fluffy sphere**.

Leafy/Branched Stems

1 Flower heads of a **few rays, along the stem**.

2 Lots of **ovalish**, **prickly-bristly** leaves.

3 Lots of **ovalish**, **not-prickly-bristly** leaves.

4 Stem leaves **tiny**; stem often branched; basal leaves **ovalish**.

5 **Narrow**, rising leaves; p**hyllaries much longer** than rays.

Bare stems

These plants have bare flower stalks (scapose) that rise from near the ground. They have only basal leaves.

If your plant has stem leaves or branches, skip to Leafy Branched Stems.

Bigflower Dandelion

Douglas' Microseris

Mountain Dandelion

	Flower Heads	Basal Leaves	Pappus
Group 1: Basal leaves **narrow**; pappus a **papery starburst**. (*Microseris* and *Uropappus* hybridize to form the *Stebbinsoseris* genus.)			
Coast Microseris *Microseris bigelovii* CA native **Bare stem, ½-2'** **Yellow/Orange rays** Found near the coast. **Long,** pinnate basal rosette. Pappus a papery starburst. See also Marsh Microseris.	**Medium head (¾")** **Yellow** or **orange rays** Sometimes purple-marked phyllaries. 	**Basal leaves long** (4-8") Rising, opposite lobes. Flat rosette. Not hairy. 	**Papery starburst** Columnar fruits tipped w/ 5 **papery scales**, each tipped with a bristle. 
Douglas' Silverpuffs *Microseris douglasii* CA native **Bare stem, ½-2'** **Yellow/White rays** Inland clay or gravel soils. Basal leaves rising, narrow. Pappus a papery starburst.	**Small head (½")** **Yellow** or **white rays** Nodding in bud. 	**Basal leaves long**, (4-6") Rising, narrow. Not hairy. 	**Papery starburst.** Columnar fruits tipped w/ **5 papery scales**, each tipped with a **bristle**. 

Bare Stems

	Flower Head	Basal Leaves	Pappus
Continued: Basal leaves **narrow**; pappus a **papery starburst**.			
Santa Cruz Microseris *Stebbinsoseris decipiens* CA native **Bare stem, ½-2′** **Yellow rays** Narrow, rising basal leaves. Pappus a papery starburst. **Coastal Bay Area**, Rare.	**Small head (½″)** **Yellow rays** Phyllary = ray length. 	**Basal leaves medium** (4-6″) Rising, narrow. Not hairy. A rare hybrid of Coast Microseris and Silver Puffs. 	**Papery starburst** Columnar fruits tipped w/ **5 papery scales**, each tipped with a **bristle**. 
Grassland Silverpuffs *Stebbinsoseris heterocarpa* CA native **Bare stem, ½-2′** **Yellow/White rays** **Long**, narrow, rising basal leaves. Pappus a **papery starburst**.	**Small head (½″)** **Yellow or white rays** Phyllary = ray length. A hybrid of Douglas' Microseris and Silver Puffs. 	**Basal leaves long** (6-10″) Rising, narrow. Not hairy 	**Papery starburst** Columnar fruits tipped w/ **5 papery scales**, each tipped with a **bristle**. 
Silver Puffs *Uropappus lindleyi* CA Native **Small, yellow** head nestled in **long green** phyllaries. **½-2′ tall.** Stem may be branched and leafy. Narrow leaves. Pappus a **papery starburst**, brighter and bigger than other dandelions.	**Small (½″)** **Many yellow rays (>100)** **~8 Phyllaries >> rays** 	**Basal leaves medium** (4-6″). Rising, narrow. Soft hairy. 	**Papery starburst** **Bigger** scales than others. Columnar fruit tipped w/ 5 **papery scales**. 

Bare Stems

	Flower Head	Basal Leaves	Pappus
Group 2: Basal leaves **narrow**; pappus a **fluffy sphere**.			
Bigflower Dandelion *Agoseris grandiflora* var. *grandiflora* CA native **Tall, bare stem, 2-3'.** **Big, yellow head.** Hairy phyllaries. Rising, narrow basal leaves. Pappus a big fluffy sphere.	**Big head (1½")** **Many yellow rays** **Hairy phyllaries** Sometimes, red/brown stamen columns and purple marks on phyllaries. 	**Basal leaves long** (8") Narrow, rising leaves. Hairy Narrow, **pinnate lobes.** 	**Big fluffy sphere** (1-2") >100 **long beaks** (½"), each tipped with dozens of **bristles**. 
Mountain Dandelion *Agoseris heterophylla* CA native **Bare stem 1'.** **Small, yellow head.** Rising, narrow basal leaves. Pappus a fluffy sphere.	**Small head (⅓")** **Many yellow rays** Ray backs purple tinged. Phyllaries purple tinged. 	**Basal leaves med** (4") **Rising**, **narrow**. Hairy, smooth edges. 	**Fluffy sphere (1")** >100 **beaks** (⅓"), each tipped with **2 or 3 sets of bristles.** 
Group 3: Basal leaves **ovalish**, in a **rosette**; pappus a **dense sphere**.			
Coast Dandelion *Agoseris apargioides* var. *apargioides* & var. *eastwoodiae* CA native **Bare stem, 1'.** **Medium, yellow head.** **Low to the ground.** Dunes and sandhills. Pappus a dense, white sphere	**Medium (¾")** **Many yellow rays** Stamen columns red. Outer rays often marked purple underneath. 	**Basal leaves med** (4") **Rosette,** often hairy 	**Dense sphere** **~125 short fruits**, **no beaks**, tipped w/ ¼" white bristles. 

Bare Stems

	Flower Head	Basal Leaves	Pappus
Continued: Basal leaves **ovalish**, in a **rosette**; pappus a **dense sphere**.			
Hairy Hawkbit *Leontodon saxatilis ssp. saxatilis* Not CA native **Short, bare stem <1'.** **Large, yellow head.** Rosette of stiff-bristly-hairy leaves. Pappus a dense sphere.	**Large (1")** **Yellow rays (~30)** Nodding in bud Inner phyllaries narrow, pointed, sometimes purple-tinged.  	**Basal leaves long** (6") **Rosette**. **Stiff-bristly-hairy.** Sometimes many-lobed. 	**Dense sphere** **~30 fruits**, **no beaks**, tipped w/ short bristles. 
Group 4: Basal leaves **ovalish**, in a **rosette**; pappus a **fluffy sphere**.			
Woolly Goat Chicory *Agoseris hirsuta* CA native **Bare stem 1'.** **Medium, yellow head.** **Pinnate** basal leaves, **densely hairy.** Pappus a fluffy sphere.	**Medium (¾")** **Many yellow rays** Often purple under rays and on phyllaries. 	**Basal leaves long** (6-10") **Variable lobes**. **Densely hairy.** 	**Fluffy sphere (1")** >100 **beaks (⅓")** each tipped with **3 or 4 sets of bristles.** 
Common Dandelion *Taraxacum officinale* Not CA native **Short, bare stem <1'.** **Big, yellow head**. The dandelion we all know. Dense rosette, lobes pointing backwards, **not hairy**. Large, fluffy pappus.	**Big (1½")** **Many yellow rays** Often, stamen columns are **darker yellow** and **ray backsides** are **pale brown** up the middle. 	**Long (7")** **Lobes point backwards.** **Not hairy.** Tangled rosette. 	**Fluffy sphere >1" dia.** ~150 **long beaks** (½"), each tipped with dozens of bristles. 

Leafy/Branched Stems

These flowers share a stem with leaves and branches. Sometimes, the leaves are merely bumps on the stem but the stem is not unmarked.

If your plant has bare stem, skip to Bare Stems.

White Hawkweed


Nipplewort


Smooth Cat's Ear

	Flower Head	Leaves	Pappus
Group 1: Flower heads of a **few rays**, **along the stem**.			
Rod Wirelettuce *Stephanomeria virgata ssp. pleurocarpa* CA Native **Wirelettuce look** – flower heads of few rays along a mostly bare, wiry stem. **2-6' tall.** Erect. **Few leaves.** Rays **white** or **pink** Phyllaries lie **flat**.	**Medium (¾")** **~7 Pink** or **white rays** **Heads along stem** Phyllaries lie flat on head. 	**Basal leaves short** (2") and **narrow** **Stem leaves tiny.** 	**~7 fruits,** each tipped with **plumose bristles.** 
Santa Barbara Wirelettuce *Stephanomeria elata* CA Native **Wirelettuce look** – flower heads of few rays along a mostly bare, wiry stem. **2-3' tall.** Erect. **Few leaves.** **A handful** of **pink rays**. Phyllaries **reflexed.**	**Medium (¾")** **Pink rays (~6)** **Heads along stem.** Phyllaries reflexed from head. 	**Basal leaves short (2")** and **narrow** **Stem leaves tiny.** 	**~6 fruits,** each tipped with **plumose bristles.** 

Leafy/Branched Stems

	Flower Head	Leaves	Pappus
Continued: Flower heads of a **few rays, along the stem**.			
Willow Lettuce *Lactuca saligna* Not CA native **Wirelettuce look** – flower heads of few rays along a mostly bare, wiry stem. **1-3′ tall.** Erect. **6-12 yellow rays.** Narrow, vertical stem leaves near base.	**Medium (¾″)** **Yellow rays (6-12)** **Heads along stem.** 	**No basal leaves** **Stem leaves narrow,** sometimes prickly. 	**Brush shape** **~9 fruits** each tipped with white **bristles**. 
Chicory *Cichorium intybus* Not CA Native **Big blue heads** along stem are distinctive. **2-6′ tall.** Erect. About **a dozen rays**. Many stem leaves, bigger below.	**Big (1¼″)** **Blue rays (~15)** **Heads along stem.** 	**Long leaves below,** smaller higher up. Variably lobed, hairy. 	**No noticeable pappus** Whole plant: 
Group 2: Lots of **ovalish**, **prickly-bristly leaves**.			
Bristly Ox Tongue *Helminthotheca echioides* Not CA Native **Distinctive white bumps** on leaves**.** **3-7′ tall.** Stout stem. **Bristles throughout.** **Big, triangular phyllaries** make a cup below the flower head.	**Big (1¼″)** **Many yellow rays** **Big triangular phyllaries** Outer rays often purple underneath. 	**Basal leaves** med (4″) **Obvious white bumps.** **Bristly.** Smaller leaves ascending the stem. 	**Fluffy sphere** (1″) **¼″ beaks,** each tipped with **dozens** of **¼″ plumose bristles.** 

Leafy/Branched Stems

	Flower Head	Leaves	Pappus
Continued: Lots of **ovalish, prickly-bristly leaves**.			
Spiny Sow Thistle Sonchus asper *ssp. asper* Not CA Native **Large spiny leaves.** **1-4′ tall.** Many **yellow rays**. Stem **not hairy.** Leaves clasp stem w/ rounded, curling ends.	**Medium (¾″)** **Many yellow rays (>100)** Vase profile 	**Long leaves** (6-9″) **Lobes/teeth soft spined.** Clasp stem; curling tip. 	**Dense sphere** **No beaks.** Fruits flat, topped by many bristles. Not plumose. 
Prickly Lettuce Lactuca *serriola* Not CA Native **Small yellow heads** on short branches near the top. **Leafy below.** **3-5′ tall. Stiff**, thick stem. Heads with a **handful** of wide, yellow rays. **No basal leaves.** Sometimes prickly-bristly near stem base.	**Small (⅓″)** **Yellow rays (~15)**, wide at tip. Heads on branching stalks. Yellow stamen columns. 	**No** basal leaves. Stem leaves are **large**, irregularly **lobed**, and have fine **bristles**. Clasp stem; pointed tip 	**Open sphere** **~15 beaks (¼″),** each tipped with whitish bristles. 
Poison Wild Lettuce Lactuca *virosa* Not CA Native **Small yellow heads** on short branches near the top. **Leafy below.** **3-6′ tall. Stiff**, thick stem. Heads with a **handful** of wide, yellow rays. **Persistent basal leaves** in a **rosette.** Sometimes prickly-bristly near stem base.	**Small (⅓″)** **Yellow rays (~15),** wide at tip. **Branching stalks.** Yellow stamen columns. 	**Basal leaves in a rosette** Wide, toothed stem leaves w/ prickly vein.  	**Open sphere** **~15 beaks (¼″),** each tipped with whitish bristles. 

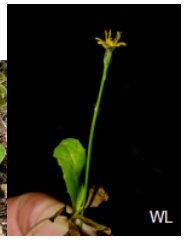
Leafy/Branched Stems

	Flower Head	Leaves	Pappus
Group 3: Lots of **ovalish**, **not-prickly-bristly** leaves.			
Common Sow Thistle *Sonchus oleraceus* Not CA Native **Large leaves,** not bristly, clasping. 1-4′ **tall.** Thick stem. **Many yellow/white rays.** Vase-shaped head. Not hairy.	**Large (1″)** **Yellow or white rays** (>100) Clusters on short stalks. Bulge at base of head. 	**Basal and stem leaves long** (6-9″) **Big lobes.** Leaves **clasp stem** w/ **flat, pointed tip.** 	**Dense sphere** **No beaks.** Many bristles grow from the end of each fruit. Bristles not plumose. 
California Chicory *Rafinesquia californica* CA Native **Big, white heads** on short branches near the top**.** **2-4′ tall,** erect, **leafy below.** Phyllaries narrow and long. Stem leaves clasping. Not hairy.	**Big (1″)** **White rays (~20)** Long, narrow, pointed inner phyllaries. Often, a yellow-tinged center 	**Basal leaves** med (4″) **Pinnate lobed** **Stem leaves clasping** **Smaller higher up** 	**Open sphere** (1″) **~20 beaks (¼″),** each tipped with **¼″ plumose bristles.** 
Common Nipplewort Lapsana communis Not CA Native An **airy display** of **small yellow heads above** a dense cluster of **wide stem leaves**. **2-4′ tall**; erect. Leaves **not clasping**. No pappus (unusual). Sometimes soft hairy.	**Small (⅓″)** **Yellow rays (~15)** **Many heads on long stalks** **Phyllaries smooth and narrow.** 	**No basal leaves** Stem **leaves almost round** with a pair of lobes at their base. **Not clasping.** 	**No pappus** Whole plant view: 

Leafy/Branched Stems

	Flower Head	Leaves	Pappus
Continued: Lots of **ovalish**, **not-prickly-bristly** leaves.			
Marsh Microseris *Microseris paludosa* CA Native **1-2′ tall.** **Yellow/Orange rays** Moist grasslands or woods. Large leaves near bottom of stem. Pappus a papery starburst. See other Microseris in Bare Stems section.	**Yellow/orange rays (~50)** One head at the top of each stem. Stem nods in bud.  	**Leaves and branches near bottom of stem.** Leaves to 6-12″. Shorter leaves higher up. 	**Papery starburst** Columnar fruits tipped w/ **5-10 short papery scales**, each tipped with a long **bristle**. 
Crete Weed *Hedypnois rhagadioloides* Not CA Native **Prostrate stems to 1′.** **Small yellow head.** Distinctive rough pappus and woody, incurred phyllaries.	**Small (½″)** **Yellow rays (~30)** **Heads on stalks at top and in leaf axils.** 	**Basal leaves** med (3″) Shallow lobes, scattered hairs. **Stem leaves clasping** 	**Brush shape** **No beaks** Short, bristle-tipped scales Mature phyllaries are incurved and woody. 

Leafy/Branched Stems

	Flower Head	Leaves	Pappus
Group 4: Stem leaves **tiny**; stem often **branched**; basal leaves **ovalish**.			
White Flowered Hawkweed *Hieracium albiflorum* CA Native An open cluster of **small, white heads**. **1-4′ tall;** erect. **Coarse hairy.** Smooth-edged basal leaves.	**Small (⅓″)** **White rays (~25)** **~20 heads** in cluster at the top. Yellow stamen columns. 	**Basal leaves** med (4″) **Coarse hairs** **Smooth margin** **Small, narrow leaves on the lower stem.** 	**Brush shape** **No beaks.** Bristles form a brush at the end of the fruit. 
Smooth Cat's Ear Hypochaeris glabra Not CA Native Basal leaves **smooth-edged,** like a cat's ear. **1-2′ tall;** erect. Stem often **branched.** **Small yellow head** (⅓″) with ~30 rays. Stem leaves **not obvious.** Not hairy.	**Small (⅓″)** **Yellow rays (~30)** 	**Small basal leaves** (2-3″) in a **rosette,** often shallowly lobed. **Stem leaves not obvious, scale-like.**  	**Fluffy sphere (1″)** **~20 beaks** on inner fruits, bristle tipped. Outer fruits no beaks. 
Hairy Cats Ear *Hypochaeris radicata* Not CA Native Basal leaves have **large, uneven "bites"** taken out of them, like a cat after a fight. **1-2′ tall;** erect **Big yellow head** (1¼″) with ~25 rays. Short, coarse hairs. Stem leaves **not obvious.**	**Big (1¼″)** **Yellow rays (~25)** 	**Big basal leaves** (3-6″) in a **rosette** with **deep, pinnate lobes.** **Stem leaves not obvious, scale-like.** 	**Fluffy sphere (1″)** **~25 beaks** (¼″), each tipped w/ ~12 bristles. 

Leafy/Branched Stems

	Flower Head	Leaves	Pappus
Continued: Stem leaves **tiny**; stem often **branched**; basal leaves **ovalish**.			
European Milkwort Tolpis barbata Not CA Native Only Marin dandelion w/ a **red center.** **1-2′ tall** Persistent, long, narrow, spreading phyllaries.	**Small (½″)** **Yellow rays (~40)** **Often red** on **center rays.** 	**Basal leaves** med(3″) **Small, linear stem leaves.** 	**Medium dense sphere.** **No beaks** 
Group 5: Narrow, rising leaves; **phyllaries much longer** than rays**.**			
Silver Puffs Uropappus lindleyi CA Native **Small, yellow** head nestled in **long green** phyllaries. **½-2′ tall.** Stem may be branched and leafy. **Yellow rays** Grass-like basal leaves. Pappus a big **papery starburst**	**Small (½″)** **Many yellow rays (>100)** **~8 Phyllaries >> rays** 	**Basal leaves medium (4-6″)** **Narrow, pointing up.** **Soft hairy.** 	**Papery starburst** Bigger scales than others. 5 papery scales, each tipped with a bristle. 
Salsify *Tragopogon porrifolius* Not CA native **Big, purple** head nestled in **long green** phyllaries. **1-3′ tall;** erect. Not Hairy. Pappus a **fluffy sphere**, **bigger** than other dandelions (3″).	**Big (2″)** **Purple rays (~50)** **Bulge at bottom** **~8 phyllaries >> rays** Phyllaries green, narrow, pointed. 	**No basal leaves.** **Stem leaves long (8″), grass-like,** clasping stem. 	**Very big** fluffy sphere **(3″)** **~50 long beaks (1″),** each tipped with **dozens of plumose bristles.** 

Distribution Maps

Maps courtesy of Calflora.org

Seaside Dandelion

Giant Mtn Dandelion

Mountain Dandelion

Woolly Goat Chicory

Chicory

Crete Weed

Bristly Ox-Tongue

White Hawkweed

Smooth Cat's Ear

Hairy Cat's Ear

Willow Lettuce

Prickly Lettuce

Poison Wild Lettuce

Common Nipplewort

Hairy Hawkbit

Coast Microseris

Douglas' Silverpuffs

Marsh Microseris

California Chicory

Spiny Sowthistle

Sow Thistle

Santa Cruz Microseris

Grassland Silverpuffs

Santa Barbara Wirelettuce

Rod Wirelettuce

Common Dandelion

European Milkwort

Salsify

Silver Puffs

Terms Used in the Key

Bare stem (scapose) – Flower stalks are separate from the rest of the plant. The stalks have no leaves or branch and arise from near the ground. These plants have only basal leaves.

Basal leaves emerge from the root area at the base of the plant, as opposed to stem leaves. A **rosette** is basal leaves forming a circle (pointing in all directions), running along the ground. Other basal leaves point upward from the ground – a useful distinction when identifying a plant.

Beak – a narrow neck that grows at the top of a pollinated fruit. The beak extends the reach of the pappus, making a bigger parachute to catch the wind.

Bristle – a hair-like growth. Pappus is often made up of many bristles.

Flower Head – All asters, including dandelions, have their florets arranged in flower heads. When you look at what looks like a many-petalled dandelion flower, you're actually looking at a collection of many florets, each pointing outward, gathered into a flower head.

Fruit – When an ovary is fertilized by a pollen grain, it starts to grow as a fruit. The fruit changes in shape and grows a skin around a single seed. In some cases, the fruit grows a narrow beak at its outer tip.

Hairy is used when a plant is obviously hairy, either on the stem, leaves or flower head. If a species varies in hairiness, hairiness isn't mentioned.

Hybridize – In general, plants reproduce sexually with members of their own species. However, some plants are also able to hybridize - reproducing with members of one or a few other species. If the resulting hybrids are fertile, they form a new species. Our two *Stebbinsoseris* dandelions are hybrid species.

Leafy/branched stem – Flower heads don't have separate ground-based stalks but are connected to the main plant stem.

Lobe – a protruding shape at the side of a leaf. The lobes in this picture are **pinnate**, typical of dandelion leaves, with a series of lobes on both sides of the central leaf vein.

Bigflower Dandelion

Med – abbreviation for medium.

Narrow & Ovalish – Narrow leaves are generally more than 10 times as long as they are wide, ignoring any side lobes. Ovalish leaves are the traditional dandelion shape, often with lobes or teeth along the margins.

Ovary – Located at the base of a floret, the ovary contains female genetic material. The ovary is pollinated if a grain of pollen reaches it. The genetic material of the pollen and ovary combine to create a new individual, which starts growing as a fruit.

Pappus - bristles and scales at the top of a fruit/seed that will catch the wind and carry it to a new location. The key refers to overall pappus looks. Here are links that describe them:

- Fluffy Sphere
- Dense Sphere
- Brush Shape
- Papery Starburst

Persistent – a part that stays on the plant a long time, such as persistent phyllaries or leaves that stay on the plant when it goes to seed.

Phyllaries – green bracts that surround the base of an aster flower head. They often form 2 or more layers, with the inner phyllaries longer. Each bract is called a phyllary.

Prostrate – Lying along the ground.

Ray – a single floret of a dandelion, consisting of 5 fused petals (a ligule) and reproductive parts, connected to the flower head base.

Scale – a scale is flat. In pappus, scales have a narrow triangular shape, are often white, and have a papery texture. Generally, 5 scales will attach to the end of a fruit, each with a bristle coming out of its other end.

Scapose – describes a leafless flower stalk that arises from near the base of the plant.

Stamen Columns –5 fused stamens form a column rising from the ovary. Inside, a pistil grows and emerges after the stamens are finished dispensing pollen, to receive pollen from other plants.

Wiry – smooth, stiff and slender – the look of a Wirelettuce stem.

Notes on This Key

Thanks to the many artists and photographers that have contributed images to this key. Cover paintings and pictures are by John Muir Laws, Keir Morse, Wild Legard and Zoya Akulova-Barlow.

This is intended to be a complete list of dandelions you're likely to find in Marin County. If you're a super sleuth, you might also try to find:

- *Agoseris retorsa* is a fire follower and was once found by Doreen Smith in sandstone soil chaparral growing out by Pine Mountain.
- *Crepis capillaris* was once found by Doreen in Mill Valley, growing in a bit of wasteland near the creek.

Nature almost never completely cooperates with the lines we draw in keys. My first criteria – bare stems vs. leafy – runs into trouble with Silver Puffs, *Uropappus lindleyi*, which sometimes shows leaves on the stem and sometimes doesn't. I put it in both sections.

If you see any stem leaves at all, even just

scales, or there are stem branches, look for your plant in the Leafy/Branched stem section.

I've designed this key to show you the best ways to distinguish these plants in the field:

- It displays well on a phone or tablet (assuming you're wearing glasses), or you can print it out.

- The characters I present are easily observed and the most useful I've found for distinguishing between similar plants.

If you know of a good character I've left out, please write me at bruce@plantid.net. I'll republish the key with your improvement.

Although an internet connection is not required, if you're lucky enough to have one, you can learn much more about each plant by linking to its PlantID.net page.

Have fun with this! Please let me know how it works for you.