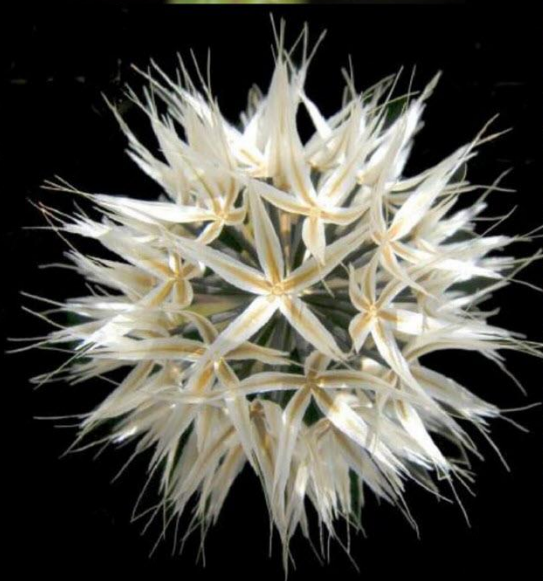


# Field Key to the San Francisco Peninsula Dandelion Tribe



# Introduction

The San Francisco Peninsula (San Francisco, San Mateo, Santa Clara and Santa Cruz counties) has 32 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.

To understand the terms I use, if you're not already an expert with asters, you might like to start with "What's a Dandelion?"

Have fun with it!

# Table of Contents

## What's a Dandelion?



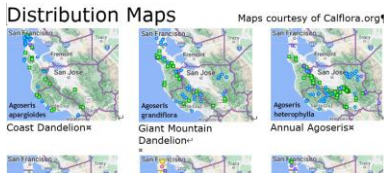
An introduction to dandelion parts, how they work and how dandelions relate to other asters.

## e-Field Key

- Bare Stems**
  - 10: Basal leaves **narrow**; pappus a **paperly starburst**.
  - 12: Basal leaves **narrow**; pappus a **fluffy sphere**.
  - 13: Basal leaves **ovalish**, in a **rosette**.
- Leafy/Branching Stems**
  - 16: Flower heads of a **few rays, along the stem**.
  - 18: Lots of **ovalish, prickly-bristly** stem leaves.
  - 20: Lots of **ovalish, not-prickly-bristly** stem leaves.
  - 21: Stem leaves **tiny**; stem sometimes **branched**, basal rosette.
  - 23: Few or no branches; **narrow, rising** leaves.

A simple-to-use key designed to take in the field on your phone or tablet

## Distribution Maps



## Terms Used in the Key

## Notes and Acknowledgments

Includes how to load this e-key on your phone or tablet.

## PlantID.net



If you have an internet connection, use [PlantID.net](http://PlantID.net) to learn more.

# What's a Dandelion?

## Dandelion Flower Heads

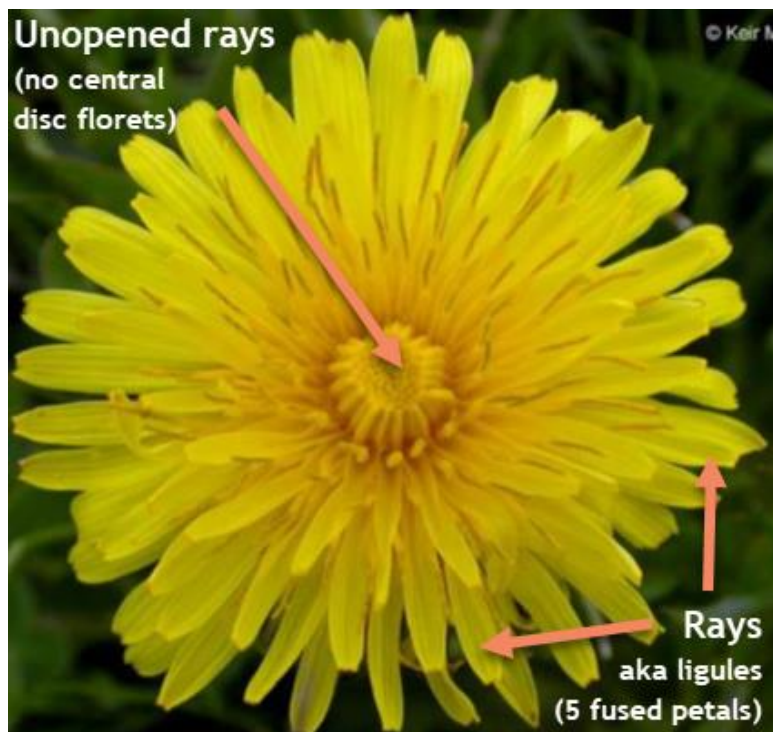
Dandelions are a tribe in the **Aster Family**. Aster blooms are organized in **flower heads** which hold many **florets**.

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:

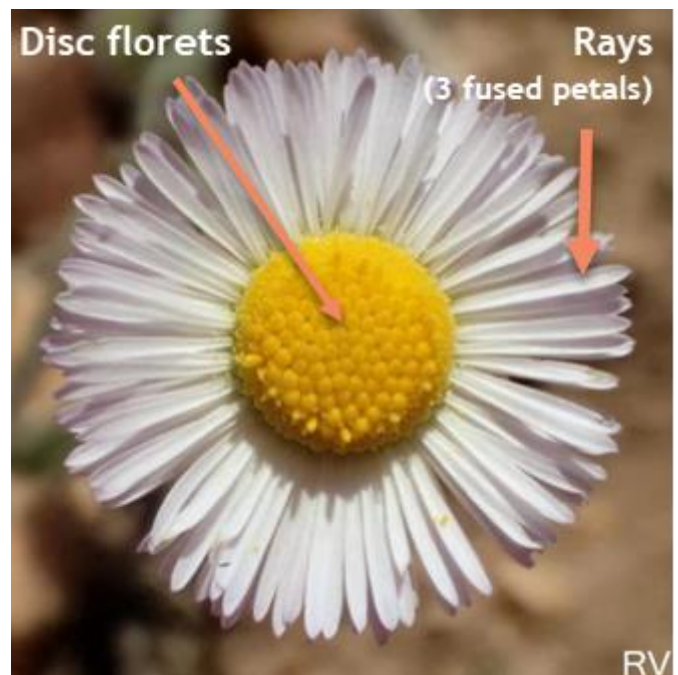
- Other Aster flower heads **always** have central **disc florets** in addition to possible ray florets. Disc florets are held in the center of the flower head and have no obvious petals. Dandelions **never** have central disc florets.
- Also, a dandelion ray floret has **5 fused petals**, called a **ligule**. Other aster rays have only 3 fused petals.

### Dandelion flower heads have no disc florets.



Common Dandelion – Keir Morse

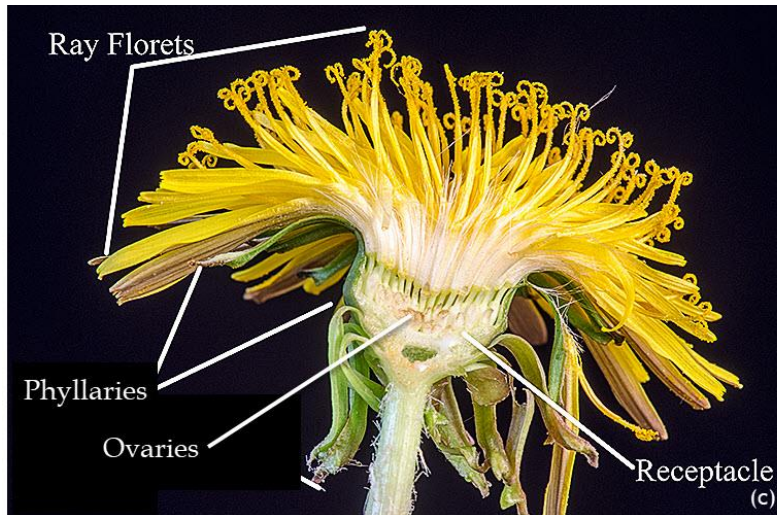
### Other aster flower heads have disc florets.



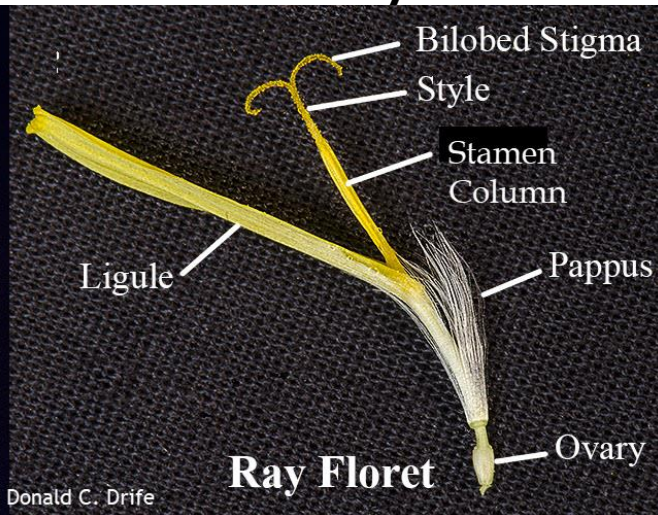
Diffuse Daisy – Ron Vanderhoff.  
This is not a dandelion.

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.

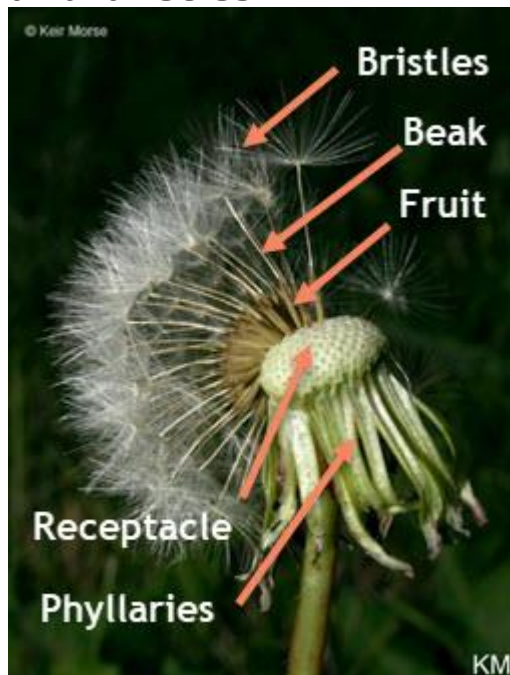
Growing up from the ovary is a hollow **column of 5 fused stamens** covered with male **pollen**. Inside the column, a female **style** grows, pushing pollen out as it extends beyond the **stamen column**. After the pollen is spent, the style opens up a receptive bi-lobed **stigma**, ready to receive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

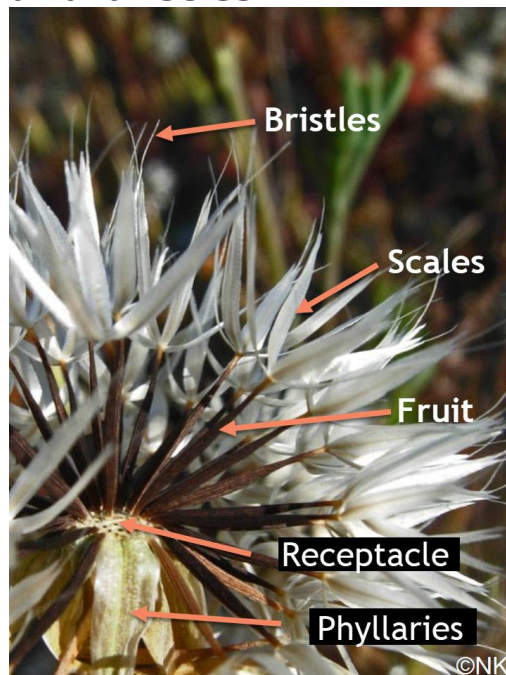
Also growing out of the top of each ovary, and outside the base of each floret's 5 fused petals, is **pappus**. It's made up of **bristles**, and sometimes **scales** as well. During flowering, pappus parts are small but once the floret is pollinated, pappus grows in species-specific patterns.

### Fruit, narrow beak and bristles



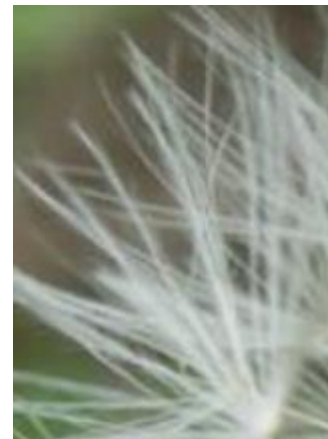
Common Dandelion – Keir Morse

### 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 inverted 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



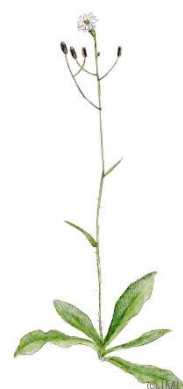
Douglas' Silverpuff



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 San Francisco Peninsula 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**.

## Leafy/Branched Stems

- 1 Flower heads of a **few rays, along the stem**.
  - 2 Lots of **ovalish, prickly-bristly** stem leaves.
  - 3 Lots of **ovalish, not-prickly-bristly** stem leaves.
  - 4 Stem leaves **tiny**; stem sometimes **branched**, basal rosette.
  - 5 Few or no branches; **narrow, rising** leaves.
-

# 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**.









California Dandelion



Douglas' Microseris



Annual Agoseris

	Flower Heads	Basal Leaves	Pappus
<b>Group 1: Basal leaves narrow; pappus a papery starburst.</b>			
<p><b>Coast Microseris</b> <i>Microseris bigelovii</i> SF, SM native</p> <p><b>Bare stem, 1/2-2'</b></p> <p><b>Medium Yellow/Orange</b> head. Found near the coast. Basal leaves <b>narrow, pinnate</b> with <b>blunt tips</b>.</p> <p><b>Pappus</b> a papery starburst.</p>	<p><b>Medium head (3/4").</b> <b>Yellow</b> or <b>orange rays</b> Two sets of purple-marked <b>phyllaries</b>. Minute scales on stem.</p> 	<p><b>Basal leaves medium, (4").</b> <b>Narrow, pinnate lobes</b> with <b>blunt tips</b>.</p> 	<p>Medium <b>papery starburst.</b> (1") Columnar <b>fruits</b> tipped w/ 5 <b>papery scales</b>, each tipped with a <b>bristle</b>.</p> 
<p><b>Douglas' Silverpuffs</b> <i>Microseris douglasii</i> <i>ssp. douglasii</i> <i>ssp. tenella</i> SF, SM, SCI native</p> <p><b>Bare stem, 1/2-2'.</b></p> <p><b>Small Yellow/White</b> head. Phyllary &lt; ray length. Basal leaves rising, narrow. Pappus varies by ssp.</p>	<p><b>Small head (1/2").</b> <b>Yellow</b> or <b>white rays</b>. Nodding in bud. Phyllary &lt; ray length. Minute scales on stem.</p> 	<p><b>Basal leaves long, (4-6").</b> Rising, narrow.</p> 	<p><b>Big Papery starburst</b> (1 1/4"). Columnar fruits w/ 5 <b>bristle-tipped papery scales</b>. <i>ssp. tenella</i> shorter (&lt;1") fruits, bristle but <b>no papery scales</b>.</p> 

## Bare Stems

### Flower Head

### Basal Leaves

### Pappus

**Continued:** Basal leaves **narrow**; pappus a **papery starburst**.

#### Grassland Silverpuffs

*Stebbinsoseris heterocarpa*

SM, SCI, SCr native

**Bare stem, 1/2-2'.**

**Small Yellow/White** head.

**Phyllary = ray** length.

**Long**, narrow, rising basal leaves.

Pappus a **papery starburst**.

**Small head (1/2")**

**Yellow** or **white** rays.

**Phyllary = ray** length.



**Basal leaves long**

(6-10")

Rising, narrow.

Not hairy.



**Big papery starburst** (1 1/4")

Columnar fruits tipped w/ **5 papery scales** with a **notched tip**. A **bristle** extends from the notch.



#### Santa Cruz Microseris

*Stebbinsoseris decipiens*

SCr native

**Bare stem, 1/2-2'**

**Yellow rays**

Narrow, rising basal leaves.

Pappus a papery starburst.

**Coastal Bay Area,**  
Rare.

**Small head (1/2")**

**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**.



#### Silverpuffs

*Uropappus lindleyi*

All counties native

**1/2-2' tall.**

**Small, yellow** head nestled in **long green** phyllaries.

Narrow leaves **soft hair**.

Pappus a big, bright **papery starburst**.

**Small head (1/2").**

Many **yellow rays**.

**~8 Phyllaries >> rays.**



**Basal leaves medium**

(4-6").

**Rising, narrow.**

**Soft hairy.**



**Biggest Papery starburst** (2").

Columnar fruit tipped w/ **5 papery scales**.



## Bare Stems

### Flower Head

### Basal Leaves

### Pappus

## Group 2: Basal leaves **narrow**; pappus a **fluffy sphere**.

### Mountain Dandelion

*Agoseris grandiflora*  
*var. grandiflora*

All counties native

**Tall, bare stem, 2-3'.**

**Big, yellow head.**

Phyllaries can be hairy, and/or marked.

Rising, narrow basal leaves.

Pappus a big fluffy sphere.

**Big head (1½").**

Many **yellow rays**.

Several rows of large phyllaries.

Green phyllaries with rose-colored centers.



SSM

**Basal leaves long (8")**

Narrow, rising leaves.

Narrow, **pinnate lobes**.

Stem hairy near base.



SSM

**Big fluffy sphere**

(1-2")

Many **long beaks** (½"), each tipped with dozens of **bristles**.



SSM

### Annual Agoseris

*Agoseris heterophylla*

SM, SCl, SCr native

**Bare stem 1'.**

**Yellow head.**

Annual, slender taproot.

Rising, narrow basal leaves.

Pappus a fluffy sphere.

**Small head (⅓") var.**

*heterophylla*, or

**Big head (1") var.**

*cryptopleura*.

Many **yellow rays**.



**Basal leaves med (4")**

**Rising, narrow.**

Hairy, smooth edges.



©DDA

**Fluffy sphere (1").**

>100 **beaks** (⅓"), each tipped with **2 or 3 sets of bristles**.



ZAB

### Spear Leaved Agoseris

*Agoseris retrorsa*

SCl native

**Bare stem, 1-2'.**

**Big, yellow head.**

Sometimes **woolly** phyllaries and leaves.

Narrow basal leaves with pinnate, linear, **back-pointing lobes**.

Pappus a big fluffy sphere.

**Big head (1")**

**Yellow rays**

Several ranks of phyllaries, hairy and often purple near the base.



**Basal leaves long (8").**

Narrow, back-pointing pinnate **lobes**.

Sometimes woolly.



**Big fluffy sphere (2")**

Short fruit tapers abruptly to a **long beak** (½"), which is tipped with dozens of **bristles**.



ZAB

## Bare Stems

### Flower Head

### Basal Leaves

### Pappus

### Group 3: Basal leaves **ovalish**, in a **rosette**;

**Coast Dandelion**  
*Agoseris apargioides*  
SF, SM, SCr 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**, wavy margins.



**Dense sphere**  
~**125 short fruits**, no beaks, tipped w/ ¼" white bristles.



**Hairy Hawkbit**  
*Leontodon saxatilis*  
*ssp. saxatilis*  
SF, SM, SCr not 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.



**Common Dandelion**  
*Taraxacum officinale*  
All counties not native

**Short, bare stem < 1'.**  
**Big, yellow head.**  
The dandelion we all know.  
Dense rosette, lobes pointing backwards, **not hairy.**  
Large, fluffy pappus.  
Common/widespread.

**Big head (1½").**  
Many **yellow rays.**  
Often, stamen columns are **darker yellow** and **ray backsides** are **pale brown** up the middle.



**Long (7") .**  
**Lobes generally point backwards.**  
**Not hairy.**  
Tangled rosette.



**Fluffy sphere >1" dia.**  
Many **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
<b>Group 1: Flower heads of a few rays, along the stem.</b>			
<p><b>Tall Stephanomeria</b> <i>Stephanomeria virgata</i> <i>ssp. pleurocarpa</i> SM, SCr, SCI native</p> <p><b>2-6' tall.</b></p> <p><b>Medium pink/white heads.</b></p> <p><b>Wirelettuce look</b> – flower heads of <b>few rays</b> along a <b>mostly bare, wiry</b> stem.</p> <p>Phyllaries, in two series, lie <b>flat</b>.</p>	<p><b>Medium head (3/4").</b> <b>~7 Pink or white rays.</b> <b>Heads along stem.</b></p> <p>Phyllaries, in two series, lie <b>flat</b>.</p> 	<p><b>Basal leaves short (2") and narrow.</b> <b>Stem leaves tiny.</b></p> 	<p><b>Brush shape.</b> <b>~7 fruits, each tipped with plumose bristles.</b></p> 
<p><b>Santa Barbara Wirelettuce</b> <i>Stephanomeria elata</i> SCI, SCr native</p> <p><b>Wirelettuce look</b> – flower heads of few rays along a mostly bare, wiry stem.</p> <p><b>2-3' tall. Erect. Few leaves.</b></p> <p><b>A handful of pink rays.</b> Phyllaries <b>reflexed</b>.</p>	<p><b>Medium (3/4") Pink rays (~6)</b> <b>Heads along stem.</b></p> <p>Phyllaries reflexed from head.</p> 	<p><b>Basal leaves short (2") and narrow</b> <b>Stem leaves tiny.</b></p> 	<p><b>~6 fruits, each tipped with plumose bristles.</b></p> 

## Leafy/Branched Stems

**Flower Head**

**Leaves**

**Pappus**

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

**Willow Lettuce**

*Lactuca saligna*

All counties not native

**1-3' tall.**

**Medium, yellow** heads of **few rays** along a **mostly bare** stem.

Long narrow leaves clasp stem.

**Medium head (3/4").**

**Yellow rays (6-12).**

**Heads along stem.**



AF

**Lower leaves large and lobed, narrow above,** sometimes prickly-bristly.



WL

**Brush shape.**

**~9 fruits** each tipped with white **bristles.**



ZAB

**Skeleton Weed**

*Chondrilla juncea*

SF, SM, SCI not native

**To 4' tall,** w/ branches.

**Big, yellow** heads of **few rays** on short stalks along a **mostly bare** stem.

**Downward pointing bristles** at stem bottom.

Pappus soft brush shape

**Big head (1").**

**9-12 yellow rays.**

Head base columnar.

Narrow, green phyllaries.



ZAB

**Basal leaves** medium (4").

Lobes highly variable.

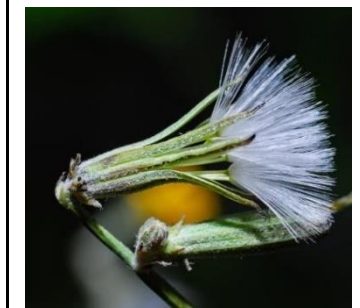
Stem leaves smaller.



MB

**Brush shape.**

Short fruit, **long beak** (1/2"), each tipped with dozens of white **bristles.**



**Chicory**

*Cichorium intybus*

All counties not native

**2-6' tall.** Erect.

**Big, blue heads** of about a **dozen rays** along the stem are distinctive.

Many large, ovalish, clasping stem leaves.

**Big head (1 1/4").**

**Blue rays (~15).**

**Heads along stem.**



KM

**Long leaves below,** smaller higher up.

Variably lobed, hairy.



WL

**No noticeable pappus.**

Whole plant:



AT

## Leafy/Branched Stems

### Flower Head

### Leaves

### Pappus

**Group 2:** Lots of **ovalish, prickly-bristly** stem leaves.

**Bristly Ox Tongue**  
*Helminthotheca echioides*  
 All counties not native

**3-7' tall.** Stout stem.  
**Big, yellow** heads.  
**Distinctive white bumps** on leaves.  
**Bristles throughout.**  
**Big, triangular phyllaries** make a cup below the flower head.  
 Common/widespread.

**Big head (1¼").**  
 Many **yellow rays**.  
**Big triangular phyllaries.**  
 Outer rays are often purple underneath.



**Basal leaves medium (~4").**  
**Obvious white bumps.**  
**Bristly.**  
 Stem leaves smaller higher up the stem.



**Fluffy sphere (1").**  
 ¼" **beaks**, each tipped with **dozens of ¼" plumose bristles.**



**Prickly Sow Thistle**  
*Sonchus asper ssp. asper*  
 All counties not native

**1-4' tall.**  
**Medium, yellow** heads of many rays.  
**Fat stem, not hairy.**  
**Large clasping leaves** have **long, spiny teeth.**  
 Common/widespread.

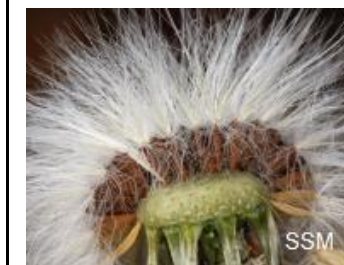
**Medium head (¾").**  
 Many **yellow rays (>100)**.  
 Stem not hairy.  
 Vase profile.



**Long leaves (6-9").**  
 Margins with **long, spiny teeth.**  
 Leaves **clasp stem w/ rounded, curling tip.**



**Dense sphere.**  
**No beaks.**  
 Fruits are **flat.**  
 Bristles 3x fruit length.



**Common Sow Thistle**  
*Sonchus oleraceus*  
 All counties not native

**1-4' tall.** Thick stem.  
**Big, yellow/white** heads.  
**Fat stem, not hairy.**  
 Large **clasping** leaves are **not long-spined.**  
 Common/widespread.

**Big head (1").**  
 Many **yellow or white rays (>100).**  
**Vase-shaped** head.



**Big leaves (3-9").**  
 Margins with no bristles or **tiny bristles.**  
 Leaves **clasp stem w/ flat, pointed tip.**



**Dense sphere.**  
**No beaks.**  
 Fruits are **flat.**  
 Bristles 2x fruit length.





## Leafy/Branched Stems

### Flower Head

### Leaves

### Pappus

**Continued:** Lots of **ovalish, prickly-bristly** stem leaves.

#### Prickly Lettuce

*Lactuca serriola*

All counties not native

**1-4' tall. Stiff, thick stem, prickly-bristly.**

**Small yellow heads.**

A **handful** of **wide** rays.

**No** basal leaves.

Sometimes prickly-bristly near stem base.

Common/widespread.

**Small head (1/3").**

**Yellow rays (~15), wide at tip.**

Heads on branching stalks.



**No** basal leaves.

**Leaf** margins are **prickly-bristly**, as well as the central vein.

Clasp stem, pointed tip.



**Open sphere.**

**~15 beaks (1/4"),** each tipped with whitish bristles.



#### Bristly Tail Seed

*Urospermum picroides*

All counties not native

**1-2' tall. Stem and head base covered with long, slender bristles.**

**Many narrow rays.**

Uncommon, in disturbed places.

**Medium head (3/4").**

Many narrow **yellow rays (>100)**.

Head profile **vase shaped, with prominent bristles.**



Leaf shapes **variable.**

Leaves may not show spines found on the rest of the plant.

Clasping; pointed tip.



**Fluffy sphere.**

**Fruits twisted and oddly shaped, like a tail.**

Beaks and bristles.



#### Poison Wild Lettuce

*Lactuca virosa*

SM, SCr, SCl not native

**3-6' tall. Stiff, thick stem.**

**Many small yellow heads.**

A **handful** of rays.

**Basal leaves** in a **persistent rosette.**

Sometimes prickly-bristly near stem base.

**Small head (1/3")**

**Pale yellow rays (~15), wide at tip.**

Many heads in a cluster at the top.



**Large, unlobed basal leaves** in a persistent rosette.

Many wide, toothed, broadly-clasping stem leaves with a prickly vein.



**Open sphere**

**~15 black fruits,** each with white **beaks (1/4")** tipped with whitish bristles.



## Leafy/Branched Stems

**Flower Head**

**Leaves**

**Pappus**

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

**Common Sow Thistle**

*Sonchus oleraceus*

All counties not native

1-4' **tall**. Thick stem.

**Big, yellow/white** heads.

**Fat stem, not hairy.**

Large **clasp**ing leaves are **not long-spined**.

Common/widespread.

**Big head (1") .**

Many **yellow** or **white** rays (**>100**).

**Vase-shaped** head.



**Big leaves (3-9") .**

Margins with no bristles or **tiny bristles**.

Leaves **clasp stem** w/ **flat, pointed tip**.



**Dense sphere.**

**No beaks.**

Fruits are **flat**.

Bristles 2x fruit length.



**Common Nipplewort**

*Lapsana communis*

SM, SCI, SCr not native

An **airy display** of **small yellow heads** above a dense cluster of **wide stem leaves**.

**2-4' tall**; erect.

Leaves **not clasp**ing.

No pappus (unusual).

Sometimes soft hairy.

**Small (1/3")**

**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 clasp**ing.



**No pappus**

Whole plant view:



**California Chicory**

*Rafinesquia californica*

SM, SCI, SCr native

**2-4' tall**, erect.

**Big, white heads** in an array near the top.

Often rose-tinged.

Involucre a long narrow cylinder (1/2" or more).

Stem leaves clasp

ing.

Not hairy.

**Big head (1")**

**White rays (~20)**

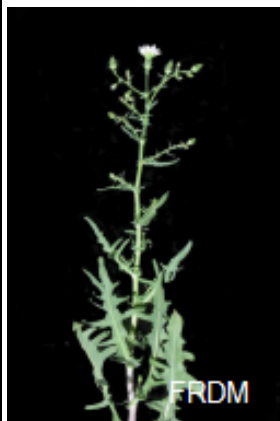
Long, narrow phyllaries + short, recurving ones.



**Basal leaves med (4")**

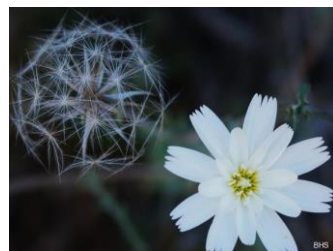
**Stem leaves clasp**ing

Smaller higher up.



**Open sphere (1") .**

**~20 beaks (1/4")**, each tipped with a cone of 1/4" plumose **bristles**.



## Leafy/Branched Stems

**Flower Head**

**Leaves**

**Pappus**

**Continued:** Lots of **ovalish, not-prickly-bristly** stem leaves.

**Marsh Microseris**

*Microseris paludosa*

SM, SCr Native

**1-2' tall.**

**Yellow/Orange rays**

Moist grasslands or woods.

Large leaves near bottom of stem.

Rare, Endangered.

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 (3/4")**

Columnar fruits tipped w/ **5-10 short papery scales**, each tipped with a long **bristle**.



**Crete Weed**

*Hedypnois rhagadioloides*

SF, SM, SCI not native

**Prostrate stems to 1'.**

**Small yellow heads.**

Distinctive rough pappus with woody, incurved phyllaries.

Disturbed, sandy spots.

**Small head (1/2").**

**Yellow rays (~30).**

**Heads on stalks** near top and in leaf axils.



**Basal leaves medium (3").**

Shallow lobes, scattered hairs.

**Stem leaves claspng**



**Brush shape.**

**No beaks.**

Mature phyllaries are incurved and woody.



**Group 4:** Stem leaves **tiny**; stem sometimes **branched**, basal rosette.

**White Hawkweed**

*Hieracium albiflorum*

SM, SCI, SCr native

**1-4' tall; erect.**

Taller than others in this group.

**Small, white** heads in an open cluster.

**Coarse hairy.**

Smooth-edged basal leaves.

**Small head (1/3").**

**White rays (~25).**

Heads form an open cluster at the top of the stem.



**Basal leaves med (4")**

Smooth margin.

Coarse hairs.

**Small, narrow leaves** on the lower stem.



**Brush shape.**

**No beaks.**

Bristles form a brush at the end of the fruit.



## Leafy/Branched Stems

### Flower Head

### Leaves

### Pappus

**Continued:** Stem leaves **tiny**; stem sometimes **branched**, basal rosette.

**Woolly Malacothrix**  
*Malacothrix floccifera*  
SM, SCI native

**To 18"** tall. Stem **not hairy**.

**Small white (yellow)** heads, often lavender-striped behind.

**Malacothrix look** –outer rays ~1/4" longer, outer fruits no pappus.

**Woolly** basal rosette.

**Small head (1/2")**  
**~30 white (yellow) rays.** Outer 1/4" longer.  
Phyllaries narrow in 2 rows.



**Basal rosette**  
Small stem leaves don't wrap.  
White hair tufts on lobes.



**Small sphere (1/2").**  
Tiny fruit, no pappus on outer ring of fruits.



**Smooth Cat's Ear**  
*Hypochaeris glabra*  
All counties not native

**1-2'** tall, often branched

**Small yellow** heads with about 30 rays.

**Scale-like** stem leaves.

**Small** basal leaves are **smooth-edged**, like a cat's ear.

**Not hairy.**

Common/widespread.

**Small head (1/3").**  
**Yellow rays (~30).**  
Bumps along stem.



**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, each tipped with about 12 bristles.  
Outer fruits no beaks.



**Hairy Cats Ear**  
*Hypochaeris radicata*  
All counties not native

**1-2'** tall, often branched

**Big yellow heads (1 1/4")** with ~25 rays.

**Scale-like** stem leaves.

**Big** basal leaves have **large, uneven "bites"** taken out of them, like a cat after a fight.

Short, **coarse hairs**.

**Big head (1 1/4").**  
**Yellow rays (~25).**  
Common/widespread.



**Big basal leaves (3-6")** in a **rosette** with **deep, pinnate lobes**.

**Stem leaves not obvious**, scale-like.



**Fluffy sphere (1").**  
**~25 beaks (1/4")**, each tipped w/ ~12 bristles.



## Leafy/Branched Stems

### Flower Head

### Leaves

### Pappus

**Continued:** Stem leaves **tiny**; stem sometimes **branched**, basal rosette.

#### **Beaked Hawksbeard**

*Crepis vesicaria* ssp.  
*taraxacifolia*  
SM, SCI, SCr not native

**1-4' tall**, many branches.

Stem **hollow, ribbed**.

Sometimes hairy.

Large lower leaves, deeply and irregularly lobed.

**Medium head (3/4").**

Many **yellow rays**.

**Many branches**, tipped with flower heads.



**Long basal leaves (to 14")** have deep, irregular lobes, the largest at the tip.

Leaves diminish rising up the stem.



**Fluffy sphere.**

Short fruit = **short beak** (1/8"), tipped with an inverted cone of white bristles.



**Group 5:** Few or no branches; **narrow, rising** leaves.

#### **Silverpuffs**

*Uropappus lindleyi*  
All counties native

**1/2-2' tall**. Stem may be branched and leafy.

**Small, yellow** head nestled in **long green phyllaries**.

Narrow leaves w/ soft **hair**.

Pappus a big, bright, **papery starburst**

**Small head (1/2").**

Many **yellow rays**.

**Phyllaries >> rays**

Phyllaries green, narrow, pointed.



**Basal leaves medium (4-6").**

**Narrow stem leaves.**

**Soft, hairy.**



**Papery starburst.**

5 big, papery scales, each notched and tipped with a bristle.



#### **Salsify**

*Tragopogon porrifolius*  
All counties not native

**1-3' tall**; erect.

**Big, purple** head nestled in **long green** phyllaries.

Not Hairy.

Pappus a **fluffy sphere**, **bigger** than other dandelions (3").

**Big head (2").**

**Purple rays (~50).**

Stem bulge below head.

**Phyllaries >> rays, 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



Coast Dandelion



Giant Mountain Dandelion



Annual Agoseris



Spear Leaved Agoseris



Skeleton Weed



Chicory



Beaked Hawksbeard



Crete Weed



Bristly Ox Tongue



White Flowered Hawkweed



Smooth Cat's Ear

Observation Types	
simple point	◆
obscured point	■
line/polygon	○
survey/checklist	■
quad	■
specimen	◆
potential habitat	○
zero plants	◇
questionable	✖

Observation Types



Hairy Cat's Ear



Willow Lettuce



Prickly Lettuce



Poison Wild Lettuce



Common Nipplewort



Hawkbit



Woolly Malacothrix



Coast Microseris



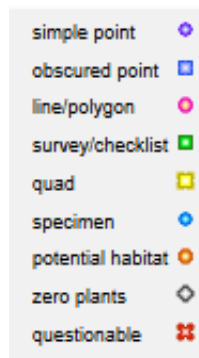
Douglas' Microseris



Marsh Microseris



California chicory



Observation Types



Spiny Sowthistle



Sow Thistle



Santa Cruz Microseris



Grassland Stebbinsoseris



Santa Barbara Microseris



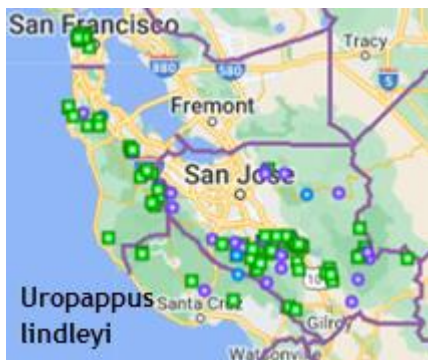
Tall Stephanomeria



Common Dandelion



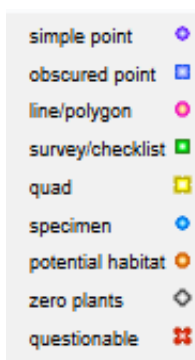
Salsify



Silver Puffs



Prickly Goldenfleece



Observation Types



# Terms Used in the Key

> - greater than

>> - much greater than

**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. *Stebbinsoseris* and some *Microseris* dandelions are hybrid species.

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

**Linear** – a shape that's very narrow, compared to its length, like a line.

**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 becomes receptive to receive pollen after this plant's pollen is dispersed.



**Waif** – Individual plants, unlikely to permanently naturalize in the wild.

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

# Notes on This Key

This key is designed to be used on your phone or tablet. Once downloaded, you won't need an internet connection to use it. You can pull it out of your pocket whenever you have a dandelion ID opportunity.

From your Apple phone or tablet:

- Open the book at <https://classic.PlantID.net/LinkArticles/SFPenDandelions.pdf>
- Click the  share icon.
- Scroll through options to click the  Books icon.
- You'll be able to find it among your books after that.

Or, from your Android phone or tablet:

- Install Adobe Acrobat Reader on your Android device
- Open the book at <https://classic.PlantID.net/LinkArticles/SFPenDandelions.pdf>
- Click Download
- If prompted, ask to use Acrobat to view the book.
- You can then access the book any time from the Acrobat icon on the homepage.

This is intended to be a complete list of members of the Dandelion Tribe found on the San Francisco peninsula (San Francisco, San Mateo, Santa Clara and Santa Cruz counties). However, I've excluded a couple of species that you're unlikely to encounter:

- *Agoseris hirsuta* has only 4 observations since 1990.
- *Crepis occidentalis* has observations only from 1903 and before.

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.

I also put Common Sow Thistle in both the spiny leaves and not-spiny leaves section, since it sometimes has short spines at the tip of margin teeth.

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.

The ID characters I present are easily observed and the most useful I've found for distinguishing between similar plants. If you know of a good ID character I've left out, please write me at [bruce@plantid.net](mailto: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](http://PlantID.net) page.

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

## Acknowledgments

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You can find a printed version of this booklet at [pubs.PlantID.net](http://pubs.PlantID.net).