

The Traveling Beekeeper



Bee Botany Begins at Home



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*A season of flowers honey bees liked to visit—
Flowering plants observed while traveling around the country and in my backyard.*

Over the past few years I have been able to visit some great botanical gardens in my search for nectar and pollen plants. Many beekeepers overlook—or say they are too busy—visits to regional botanical collections. As a student at Michigan State University a visit to the Beal Gardens was a great stress releaser unless part of a Botany assignment. Bee clubs do not use these resources, and yet they are in most parts of the country, and quite often they are free to visit, supported by universities, city park departments and private foundations (although these need to charge to cover operating costs). Here are a few plant groups we all need to consider, certainly in temperate parts of the country, as plants to grow and promote as plants beneficial to bees and butterflies.

PINCUSHION FLOWER,
Scabiosa caucasica and *S. columbaria*,
Butterfly Blue
Dipsacaceae Family
Native to Europe and Western Asia

This is a perennial that grows best in well drained soil and in full or nearly full sun. These plants have pastel blue flowers with pincushion like centers. The petals are ruffled. The flowers are excellent for cutting. Annual varieties are also available. The pincushion flowers are a large group, with many colors and types. Plants are dense at the base, forming a 12-inch mat of vegetation. Above that the flowers cover an area up to two feet.

Plant in the front or edges of flowerbeds,

where the attractive flowers are framed against the rest of the flowers in the bed. I managed to get three plants into pots where they still grow as I write this, but I hope to get them into the ground before snow falls.



Dark honey bee on pincushion flower. April 2008, Fort Worth Texas. There are many varieties of pincushion flowers. This one is attractive to both bees and butterflies, and blooms all season with minimal care.

Insect visitors: The flowers were, as advertised, very popular with several butterfly species, and to several *Halictus* spp bees. The honey bees were seen on the flowers, as were bumble bees.

My impression of this plant is very favorable; since it bloomed in my backyard in Kalamazoo from the time I found the plants in a box store in May past the first late October freeze. Winter bloom has been observed in warmer areas. The flowers are attractive to many pollinators, and the honey bees found them attractive for nectar. Honey bees were working these actively in April at the Botanic Garden maintained by the Fort Worth Park and Recreation Department in Fort Worth, Texas. The park is open to the public and there is no admission charge. Certainly not a huge food source for honey bees, their merit is in the long blooming period, easy care, and a bonus of butterflies.

**INDIAN BLANKET OR FIREWHEEL
(ALSO INDIAN BLANKETFLOWER
OR SUNDANCE),**
Gaillardia pulchella Foug.
Asteraceae (Aster) Family
Native to the United States

This is an annual plant, easily grown from seed. It is hardy, and drought tolerant. It has a large native range from Texas to central Canada and extends through the Southwest. It grows 1-2 ft. tall. It has hairy stems that are branched; the stem becomes woody by the end of

TICKSEED (COREOPSIS)
Asteracea (Family)

Perhaps one of the best plants native to North, Central and South America for use in the garden, the tickseed or *Coreopsis* include over 100 species growing as herbs, perennials or annuals. The annuals bloom in the summer, while the perennials bloom later in the season. Plant growth ranges from several inches high, but spreading, to showy 2 feet high plants, with the flowers on long slender stalks. Most species tolerate sun well, and accept general soils. The blooming period is long, and the flowers may be used as cut flowers. The plants may be used in naturalization and wetland applications. Propagate from seeds, cuttings and divisions.

Varieties to sample include:

- Lanceleaf *Coreopsis*, *Coreopsis lanceolata*—showy plant, does best in rich soils.
- *C. auriculata*—about two feet tall, with a spreading growth pattern, rich yellow flowers blooming in the fall.
- *C. rosea*—neat and pretty
- *C. verticillata*—has feathery foliage and yellow-gold blossoms from summer until fall. Does best in the front of a bed of flowers.

I planted a single plant in my garden this summer and it thrived in spite of extensive neglect while I was traveling. The flowers continued well into the fall. Early in the summer the dominate pollinators included bumble bees, *Halictus*, a wide range of skippers and a few leaf cutting bees. In the fall the honey bees dominated, apparently finding the



The blue flowers of the pincushion flowers attract a wide range of butterflies as well as bees. Here two work side by side.

flowers more attractive relative to other flora, or the other pollinators had moved on in their life cycle. This is a group I plan to try as many kinds as I can find, both here in town and on the farm. This is a plant I would recommend to anyone interested establishing in a wildflower mix for an area to go "native". Since most varieties are from North America, the eco-purists should not object. There are hybrid varieties, so check carefully to see if they produce pollen and nectar and viable seeds. I plan to stick to the unimproved types until I have more experience.

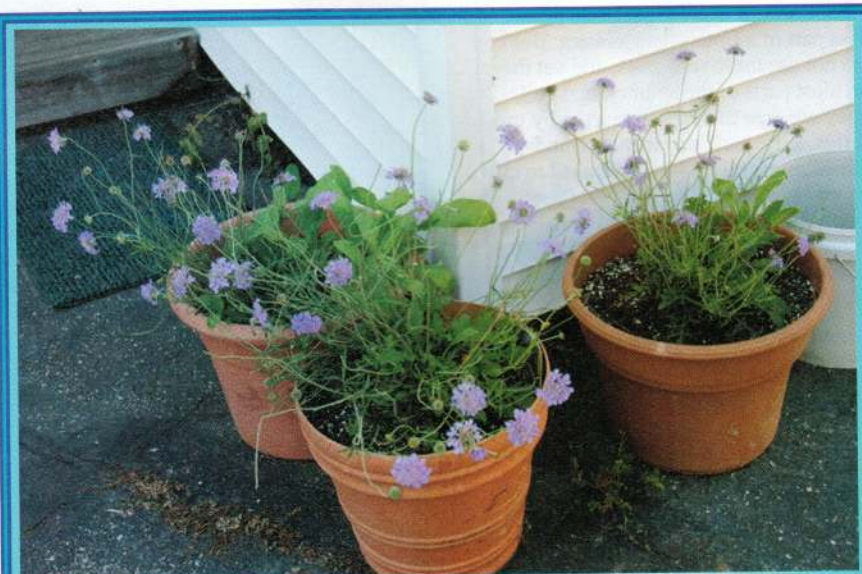


Italian-type worker bee on pincushion flower in Fort Worth, TX, April 2008.

the season. The flowers are showy, 2-3 inches across, and often red petals at the base and tipped with yellow. In some areas the rays are solid orange or yellow. The disk flowers at the center of the flower become brownish red. The plants are seen along roadsides and vacant fields, and are a valuable food source for honey bees and other pollinators. It is also used in sand dunes as a method of holding the soil. The use of the plant is recommended for drainage areas, seeded at the rate of 10 pounds of seed per acre. There is a perennial cousin *Gaillardia aristata*.

My experience with this plant started in North Central Texas several years ago when I visited in June for several meetings. The blanket flowers were growing in apparently abandoned fields where they grew well and filled the fields. In Central Idaho I photographed native pollinators (especially a metallic green *Halictus* species) on the flowers, working beside honey bees. This plant is recommended for planting by beekeepers, and I think that this plant has a huge potential as a vacant field planting, keeping in mind that it requires warm soil temperatures for seed germination. These make great cut flowers, and could be spread around the neighborhood by the enterprising beekeeper-gardener. Since it seems easy to grow and produces a thick mat of branched stems, it has a potential for a bedding plant in urban and periurban areas. I planted one plant from a greenhouse this past spring and it grew wildly, larger than I expected. It bloomed all season, well into fall. The Carder bees also enjoyed these flowers. Other bee species included leaf cutter bees, bumble bees and several species of *Halictus*.

It is the state wildflower of Oklahoma, a suitable choice.



Three pincushion plants in pots at the corner of the house. They grew slowly over the summer and kept blooming well into October with a minimum of care. I did water the plants (but not the lawn), and fed them twice with a general plant fertilizer. This is a hot, sunny spot and they did really well in the sun. There were constant bee and butterfly visitors. The small *Halictus* bees worked the flowers, as did some common skippers.



(l) Indian Blanket is a plant native to large parts of the Central and Southwestern United States. It is now common in the flower magazines and the landscape stores. The large attractive flowers draw in a large number of bee species, including honey bees. This is the plant I purchased last spring. It grew wildly, and bloomed all summer with erratic watering. The bumblebees, metallic green and banded Halictus and the Carder bees were frequent visitors. I did not see as many honey bees on the plant I had as compared to other plantings. Only the tip of the petals are yellow in this plant. (r) Ground-nesting Halictus (with bands on the abdomen) and bumble bee (*Bombus*) on a blanket flower with center red and the edges of the petals yellow. These plants grow well in dry areas and require a minimum of soil moisture, making them common in the central and southwestern part of North America. This photo was taken in Challis, Idaho in June, 2006.

GERANIUM OR CRANESBILL, *Geranium* spp.
(Don't confuse these with garden geranium or *pelargonium*)
Geraniaceae Family

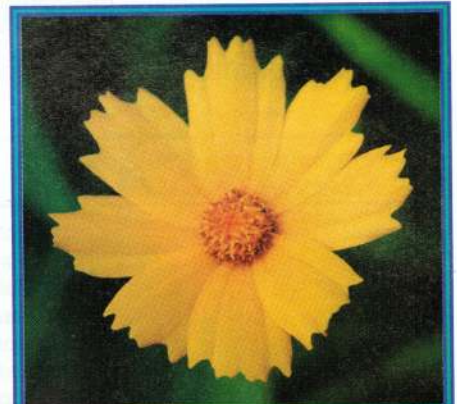
This is a large (over 400 species) of plants found in temperate growth regions around the world. The name cranesbill comes from the appearance of the seed-heads, that have the shape of the bird's



Wild Geranium (*Geranium maculatum*) is found in woods, thickets and meadows and grows in many parts of Eastern North America. If you look closely, you can see the future cranesbill that is a common name for the flowers. Several dozen species are found around the country. Photographed in an abandoned corn field in Central Connecticut, June 2006.

bill. The leaves are long, palmate, and broadly circular. The flowers range from rose, pink, blue and white. They have five petals. The plants may be annual, biennial or perennial. They may be propagated by seed, fall or spring division, or by cuttings in the summer. A variety of butterfly larvae feed on the plants. Many of the varieties create dense carpet-like plants. The flowers are cup shaped and attract a wide range of bees and butterflies. They are reported to be deer resistant, whatever that means. Many start to bloom in mid spring and will continue to fall, but may benefit from some pruning to bring them back during the summer months.

One June I experienced large fields of wild geraniums in Connecticut, but was familiar with the growth type from the farm in Michigan. One plant purchased this spring has grown nicely, kept low to the ground, and has generated an abundant supply of bloom well into the fall. Everything seemed to visit the flowers over the season, and I can see the use of the plants in native planting projects. The fields in Connecticut were those planted the previous season to field corn and were left idle. They created a near solid mass of plants, growing with mustards and some clovers. This is a classic formal garden plant, but it certainly fit well into my random plan. Give them some room to expand when you set them out, as mine certainly did. Try collecting the seed pods (cranes bills) and propagate that way. Be careful to avoid the hybrid varieties, since the seed may not be viable. This would be a fun plant



Lance-leaved tickseed

to collect seed from on a fall walk in the open fields.

This is just a start as we will, from time to time, look at plants that benefit both our gardens and our bees.

The newest book from Wicwas Press is a reprint of the 1889 classic, first printed by this magazine, *Scientific Queen Rearing* by G.M. Doolittle. Dr. Connor reset the text and added Table of Contents, lacking in the original. The book is available now from the Wicwas Press website www.wicwas.com. Contact Dr. Connor for quantity discounts at LJConnor@aol.com.

