Everyman's Guide to The Common Groups of Bees

Scientific Name: Osmia (OZ-me-uh)

Common Names: for a few of the species – Mason Bees, Orchard Bees (*Osmia lignaria*), Hornfaced Bees (2 imported Asian species)

Approximate Number of Species in Canada: 56
Approximate Number of Species East of the Rockies: 37
Approximate Number of Species West of the Rockies: 128
Approximate Number of Species in Mexico: 14 (Many more likely to be found with more work in northern Mexico)

General Abundance in Eastern Gardens: Regular

General Abundance in Western Gardens: Regular outside of warm deserts

Time of Year: Almost entirely restricted to spring and early summer, but a few species extend their season into June and July; generally more species and more abundant in the north and in the mountains than the Deep South and the warm deserts.

General Look and Feel: Most about the size of a small House Fly up to that of a honeybee; most dark metallic blue (often appearing black out-of-doors), some common (in the Mid-Atlantic areas particularly), introduced hornfaced bees are brown and about the size of honeybees. Many western species are brilliant metallic green or blue, among the most beautiful bees in the US; all females have ranks of even-length long hairs under their abdomen that they use to carry pollen (noticeable with a pollen load); all are relatively large-headed, short and chunky in shape; all but the fuzzy introduced species have +sparse body hairs (for a bee). Can be confused with several other genera.

Nesting Site: Variable. Some species nest shallowly underground, others in hollow twigs or old beetle burrows in dead wood, a few make free-standing

nests against rock surfaces; most species build with masticated leaf pulp; a few mix in sand or mud, or use it exclusively (such as the blue orchard bee).

Overwintering Site: All remain in their larval nest cells as dormant adults.

Stinging: Little to no concern; *Osmia* do not defend their nests; nesting materials can be set up safely in any public space.

Favorite Flowers: Often associated with blooming trees and shrubs and perennial wildflowers, in gardens they are attracted to all of the northern fruit trees and brambles, but found as well on the wild members of the family such as cherry, plum, and rose, plus many other spring blooming plants such as redbud (*Cercis*), tulip poplar (*Liriodendron*), oak (*Quercus*), ash (*Fraxinus*), Manzanita (*Arctostaphylos*), spring wildflowers of the pea family, composites, penstemons, blueberries (*Vaccinium*) and more; most are not narrow floral specialists.

Interesting Osmia Facts:

Several species are now used commercially to pollinate fruit and berry crops, with more species under development.

Several species nest in abandoned snail shells, more in Europe than here.

Mud or leaf pulp is carried as a ball using the mandibles or facial horns. Where abundant, mud-collecting species may be found quarrying mud together.

How to Attract: Planting of native and orchard spring flowering shrubs and brambles is important and a wide variety of spring wildflowers will provide additional pollen and nectar sources; there are plans on the Internet (see USDA web site above) for how to create nesting structures, but general process is simple: drill deep, small holes in whatever wooden surfaces you can, drill bits from 1/8th in to π" are suitable, the longer the bit the better, porch and fence posts are ideal; providing a site in your yard with accessible damp clay will help the species that plug their nests with mud. Some species

will also use cut reeds or cut twigs with hollow centers (e.g. large forsythia cuttings or dead sumac (*Rhus*) twigs). Do not reuse nesting materials for more than a few years, as diseases and parasites will accumulate.

Web Sites and Technical ID Guides:
http://www.discoverlife.org/mp/20q?guide=Osmia_male
http://www.greatsunflower.org/en/osmia-leaf-cutter-bees
http://bugguide.net/node/view/14967/tree
http://wildblueberries.maine.edu/factsheets/Production/301.html
http://www.ars.usda.gov/Services/Services.htm?modecode=54-28-05-00

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