

Bee Block Volunteer Manual

The Oregon Bee Atlas

Although we estimate there are 500 species of bees in Oregon, there has never been a concerted survey of the state's bees. Without even a checklist of species, it is very difficult to know whether the health of Oregon bees is improving or declining. The Oregon Bee Atlas represents the first steps towards confronting the gulf in our knowledge about the bees of Oregon.

The success of the Oregon Bee Atlas rests on the shoulders of committed volunteers like you. The Oregon Bee Atlas' four year mission (2018-2021) is to train volunteers to explore Oregon Counties, to seek out new native bee records for the state, to boldly go where no amateur melittologist has gone before! These new specimen records will be added to newly digitized historic records from the [Oregon State Arthropod Collection](#) to build the first comprehensive account of the native bee fauna of Oregon. Volunteers are also assisting with new survey initiatives, notably the new [Pacific Northwest Bumble Bee Atlas](#) led by the [Xerces Society](#).

The Atlas is an initiative of Oregon Department of Agriculture, Oregon State University Pollinator Health Program and Oregon State Arthropod Collection and is currently supported by generous contributions from the [FFAR Pollinator Health Fund](#), [GloryBee](#), Central Oregon Seeds, and the [Oregon State Beekeepers Association](#).



How do the Bee Blocks Fit into the Oregon Bee Atlas?

We estimate that around 100 species of Oregon bees nesting in tunnels in wood or stems. We can survey for these bees using pre-existing holes, like the ones in your blocks. Solitary mated female bees will discover these holes during the summer, and start building a nest. The female will typically line the nest with material scavenged from the surrounding environment, typically mud, leaf material or resin and stock cells with a ball of pollen and nectar (see below). She lays an egg on this ball and, seals the cell up and then starts another cell and continues to do this until she dies (she typically lives 4-6 weeks).



Mason bee (*Osmia* spp.) nesting in a wood block. Photo credit Ron Spendal

Where to Hang Your Block?

The most important things are that you mount the block securely so it won't move in the wind and you keep the block in the same spot for the entire monitoring season. Bees use visual cues to locate their nest hole and may not be able to find the block again if you move it:

- **Support:** You may choose to hang your block on a tree, fence, sign, building, or other secure structure. You are more likely to have bees use your nesting block if you mount it on a dead tree, post, or building. If you are not the landowner, make sure you ask for permission before adding any new nails.
- **Height:** 3-5 feet off the ground – any height that is easy for you to retrieve.
- **Direction:** Facing south, east, or somewhere in between. It is thought that these directions allow early morning sun to warm up nests and bees so they can get an early start on their day and be more productive.
- **Surrounding vegetation:** Different bees will prefer different vegetation types but make sure there will be opportunities for bees to forage near your block. Be careful that the entrance to the block will not be blocked by tall vegetation.



How to Hang Your Block?

You got two black colored zip straps per block. To install, (A) place two straps under two of the white block banding strap on the side of the block opposite the label; (B) secure the straps tightly around a fence post, tree, pole etc.; (C) tuck in the excess black strapping.



Register Your Block?

Step 1. Take a picture of your block with the ID number showing, record the GPS coordinates (decimal system – to four decimal places - is preferred e.g., 45.1648, -123.1838)

Step 2. Email the picture(s) and GPS coordinates to Andony.Melathopoulos@oregonstate.edu with subject heading '2018 Bee Block'.

Taking Blocks Down and Getting Blocks Back

Take the blocks down in September before it rains. Blocks can be stored undercover outside until they can be transported to OSU or to your local Extension office. We begin emerging the bees in Corvallis in late February.

Got Questions? Contact Andony Melathopoulos (OSU) – his info is on the blocks. (541 452 3038).