

How to paint *Osmia lignaria*
Blue Orchard Mason Bee or Blue Orchard Bee
AKA, “B. O. B.”

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Image pulled from blueorchardmasonbees.yolasite.com

Some Fun Facts!

- BOBs are solitary bees – no hive, no honey, no swarms. Each female makes a nest in a wooden cavity or hollow stem, lines it with mud, and provides food for her own offspring, which she lays in “nest cells” which she provisions with a years’ supply of pollen and nectar.
- Highly efficient pollinators – in a good year, a single female may visit over 65,000 flowers in the course of her adult life span...a period of about 6 weeks.
- This bee is used in apple and almond orchards in addition to or instead of honeybees
- The Blue Orchard Bee (and all her relatives in the bee family Megachilidae) collect pollen not on their legs, but in special hairs on the underside of their abdomens
- Farmers who use BOBs can trick the bees into emerging at the time their orchards are blooming by cycling the nests through warming and cooling cycles, fooling the bees into thinking it is springtime.

Things to remember in the Painting Process:

- Does the painting look good close up AND far away? Remember that the mural will be first seen at a distance.
- Don’t forget to sign your name (subtly) on your painting

Step 1:



Figure 1 Transfer your design. If you make a goof, like I did, use thinned paint to sketch over the correct line work. This is the ideal time to make corrections to anatomy, or use your image references to get clarifications about different shapes on the bee's body.

Draw your design on your support. This can be done in pencil (though it is not easily erasable from Poly-tab or canvas), charcoal, pen, or paint. If you have been provided with a pre-traced design, skip this step. Otherwise, use this step to learn the anatomy of your subject – the shape and number of the segments, the proportions of the body. See Reference Images at the end of this tutorial, or look for references online or in books. Or, use your imagination!

Step 3:



Figure 2 Drop in dark areas of the bee's form. Because this bee is metallic, we will be building layers that are sequentially lighter in color, so instead of filling in lighter areas with bright color, fill them in with one of your darker pre-mixed mid-tones.

Block in areas of light and dark color on top of your design. Make sure that you leave your design visible.

Alternately, add water to your paint, and build up washes of color. With enough water, your paint will be translucent enough that your design will show through for at least a couple layers. If layering thinned paint, be certain that you build up enough layers to get strong, solid darks.

Either way, block in colors using a reference image to determine where your darks and lights should go.

Step 4



Figure 3 Examine your reference images to get a good idea of where the highlights are on the different sections of the bee's body. Estimate the size, shape, and placement of these lighter areas. How many mid-tones exist between the darkest darks and lightest lights? Don't worry about getting them exact, you can adjust them later if need be – I mean, if need be.

Keep layering in shapes in lighter and dark values. This builds up a sense of three-dimensionality, and if done well, will also lend the illusion of a metallic surface. This part can be especially challenging; check your Blue Orchard Bee reference images (included at the end) to see the kinds of shapes made by different colors and values over the bee's body.

Step 4:



Figure 4 lay in brightest high-lights. This artist noticed some anatomical inconsistencies, and has taken steps (using a light color) to sketch in corrections, even over previously painted areas.

Keep adding lights and darks. Start to address the wings. A translucent wash of color can help give the illusion of a transparent wing. Alternately, build up layers of light highlights in the wings while maintaining the dark color of the body showing through for a bright, dimensional appearance of the wing.

Step 5:



Figure 5 Because "All blues and greens" can be a very cold looking color palette, use warmer colors (toned to the same or similar value of your darks) to increase the vibrancy of the colors. This artist has chosen to use purples in the dark areas, and has begun to bring pale yellows into the wings and highlights. Utilize complementary colors and tri-chromatic relationships to your advantage!

Warm up your palette (and look like Color Theory wizard) by mixing some warmer colors into your darkest blacks and lightest highlights. This artist has chosen to add reds and purples to their black so that the lighter-value blues and greens next to them appear more luminous and vibrant.

Step 5 Continued...



Figure 6 This artist got pretty excited about the lightest mid-tone color. Did they overdo it? Is it just right? Notice that they brought the color into the hindwing as well as the body of the bee.

The artist painting this example found that they had overworked one of their mid-tones and lost some important darks and lights. However, this was not a bad thing! Anything created once can likely be created again. Also, the mid-tone in question was a beautiful mid-value blue-green, and the artist chose to bring some of that color into the forewing to help tie the appearance of the wings into the appearance of the bee's body.

Step 6:



Figure 7 Looks like the artist decided that it was too much light blue. However, instead of painting over everything, they have chosen to thin their dark, pre-mixed blue with water, and have used it as a glaze layer. This way, the effort and nuance of the previous layers aren't lost, but the over value of the abdomen of the bee is made darker to the artist's satisfaction. The artist has also used mid- and light-tone colors to show the shapes of leg segments, added light-colored hairs (notice the use of different values to describe what are actually white hairs), details in the compound eye, and clarified the venation of the wings.

After adding back in the obscured darks and lights, this last step calls for sharpening the details, adding hairs, and committing to a style of wing venation. This artist has chosen to stylize the wing venation, but still base it on the true venation seen on the wings of this species (see below for examples). The artist has also added hair to the belly (that is where this bee collects pollen), as well as to the face and thorax.

The artist has maintained the transparency of the wing, and painted in a background.

If you are painting your bee on Poly-tab for a mural, you do NOT need to paint in a background. If you are painting on Poly-tab for a mural, when your design is finished, carefully cut out the full bee.

When cutting out antenna, hairs, and legs that are too thin to cut easily, simply trim them off. If they are too thin to cut easily, then they are too thin to install easily too.

Advice for painting metallic objects:

Metallic objects tend to have very bright highlights and very dark other regions, with two to three mid-tones. These areas will typically not have entirely smoothed transitions from one to another, unless the object is textured. When drawing a metallic object from observation, look closely to identify the types of colors that are present, and what shapes they make.

Reference images below:

Reference Images

There are over one thousand species of native bees in the California. These reference images can be a starting point for you, or you could also go exploring to find out what different kinds of bees look like, or use your imagination. These images are a resource, not an obligation.



Osmia. lignaria on *Collinsia*; the soft focus of the camera can help the artist gauge where different colors should be placed.



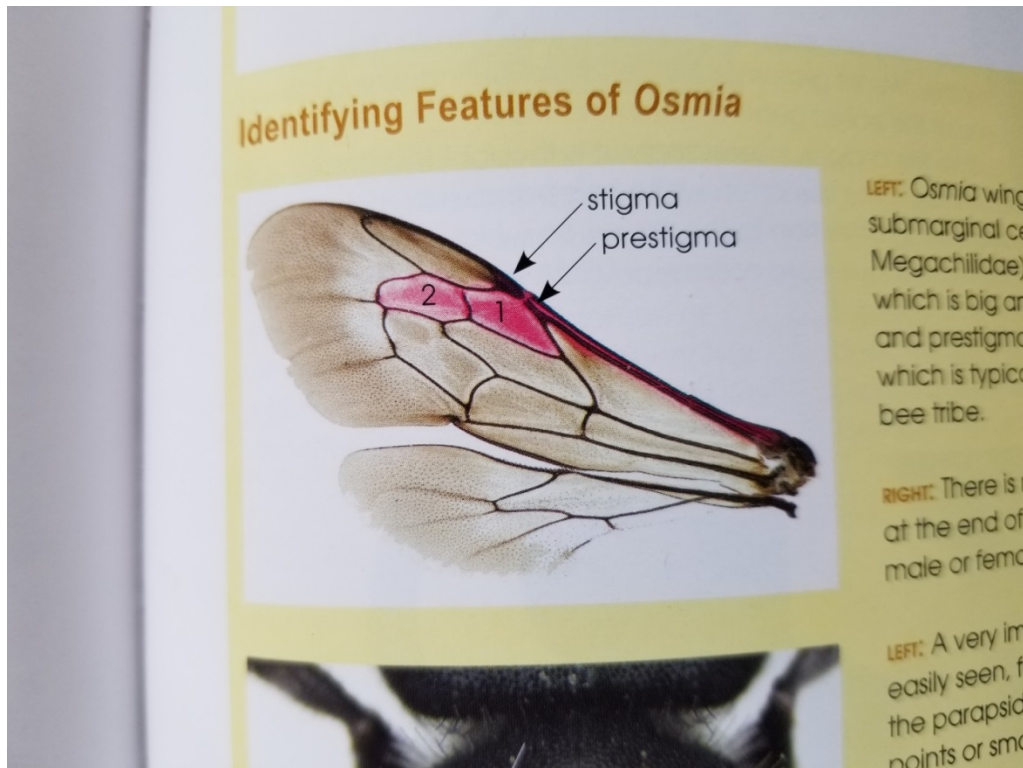
Osmia lignaria. Lighting, as much as individual variation, can affect the color of this bee. What kind of lighting is your bee in? Look at the absence of hairs or corbicula on the hind legs... These bees instead use the hairy ventral sides of their abdomens to collect pollen. This bee has groomed most of the pollen off her body, but you can still see a few yellow specks.



Osmia Lignaria: These bees are pretty fuzzy, even on their faces. These bees also have really strong jaws for their size, which are used to building their nests.



So Shiny! This photo gives us a look at how pollen clings to a bees body, as well as where this bees hair shows up, and where.



Wing venation is a key part of identifying bees. This diagram of the wing venation of the genus *Osmia* shows the shapes of the two sub-marginal cells (highlighted in pink), a key characteristic. Diagram from *Bees in Your Backyard*, by Joseph S. Willson & Olivia Messenger Carril, Copyright 2016

Wing venation is a Big Deal to people who study bees. The genus *Osmia* has only two, rather than the more common three, sub-marginal cells.

Use this information as much or as little as you, the artist, see fit. These resources are at your disposal but do not indicate an obligation to scientific accuracy.