

Comprehensive ant keeping guide for anyone.

Here is a quick compilation of my notes over the last 5 years for future reference. While many who see this may not be from Utah, many of the underlying ideas from my notes could still be applied to any region.

Someday I plan to come back and go more in depth! Until then, this guide will provide you with at least the basics necessary to start ant keeping!

I've broken these notes into the following sections -

Locations of species in Utah

Nuptial flights in Utah

Founding setups

Formicariums

Colony and species care

Food sources

Read this for more - <https://www.formiculture.com/topic/220-ant-keeping-guide-for-beginners/>

Locations of species in Utah

The key to understanding what species of ants live where is to understand the underlying biomes and soil types. Low deserts will contain different species than alpine forests or grassy meadows. Below I have attached a graphic showing the different soil types of Utah, along with a purchased soil guide that I am sharing for informative purposes. Notice how regions of southern Utah differ from the Uinta region, the west desert and other broad regions. Each of these underlying soil types creates a different habitat for Utah species, and by discovering what species live in what soil types you can usually predict the distribution of species around Utah.

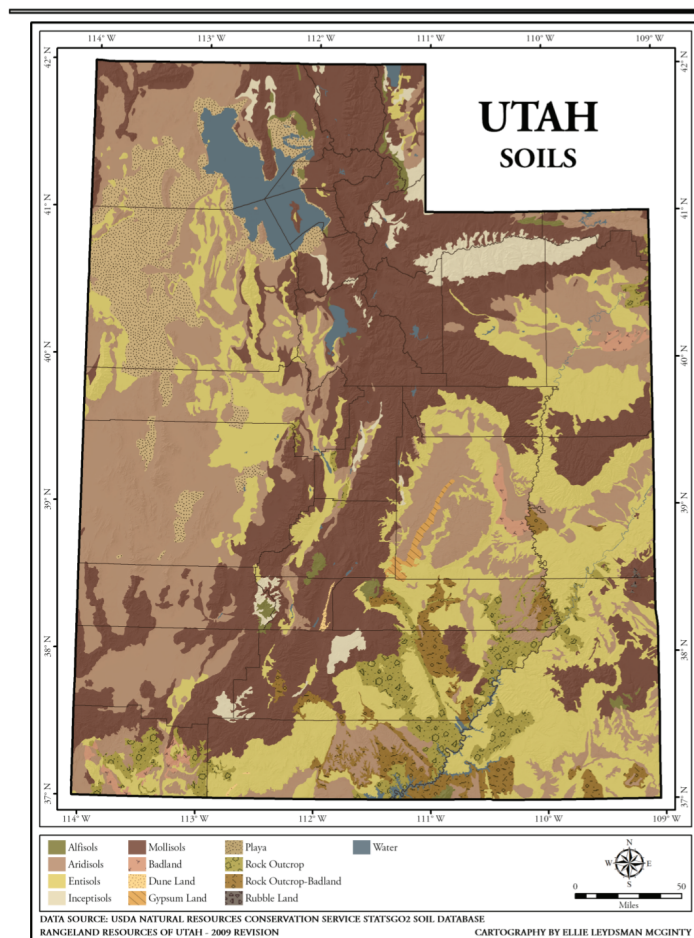


Figure 6.1. Primary soil orders and landforms in Utah.

I've listed a few biomes and regions below with a couple genera that can be commonly found in each:

Southeastern quarter of the state -

Pogonomyrmex
Camponotus
Pheidole
Dorymyrmex
Myrmecocystus
Formica
Solenopsis
Crematogaster

St. George Region -

Pogonomyrmex
Camponotus
Pheidole
Dorymyrmex
Myrmecocystus

West Desert Region (including surrounding mountains) -

Pogonomyrmex
Camponotus
Pheidole
Myrmecocystus
Crematogaster
Formica

Utah and Salt Lake Valley -

Tetramorium

Pogonomyrmex

Formica

Lasius

Monomorium

Camponotus

Crematogaster

Uintas -

Formica

Lasius

Aphaenogaster

Camponotus

Monomorium

Crematogaster

Vernal region -

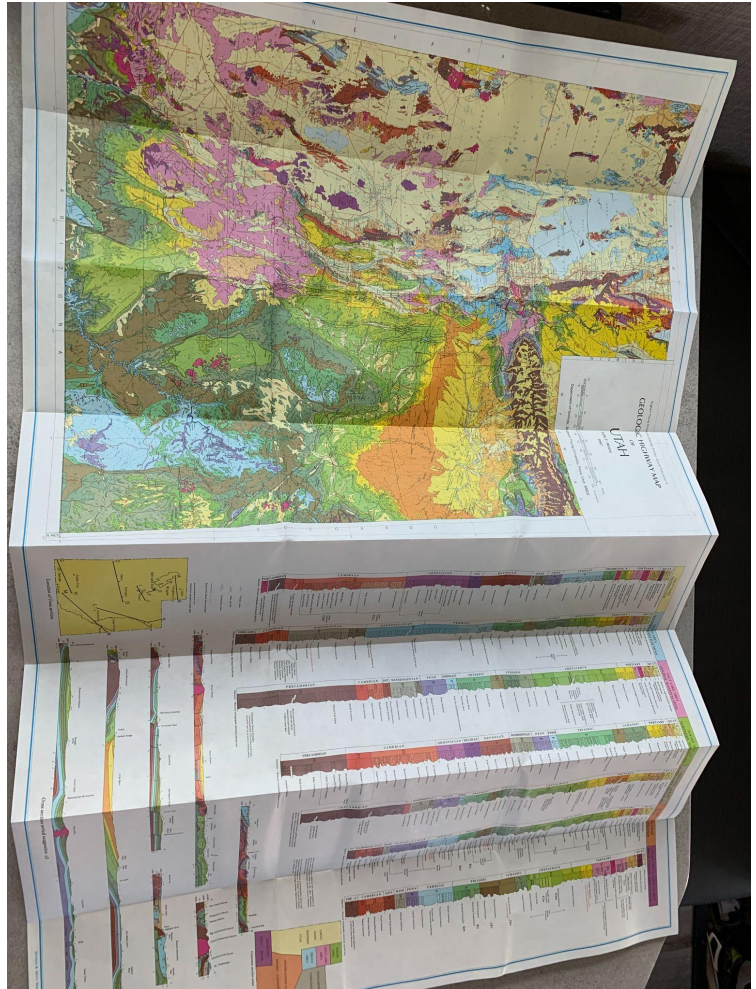
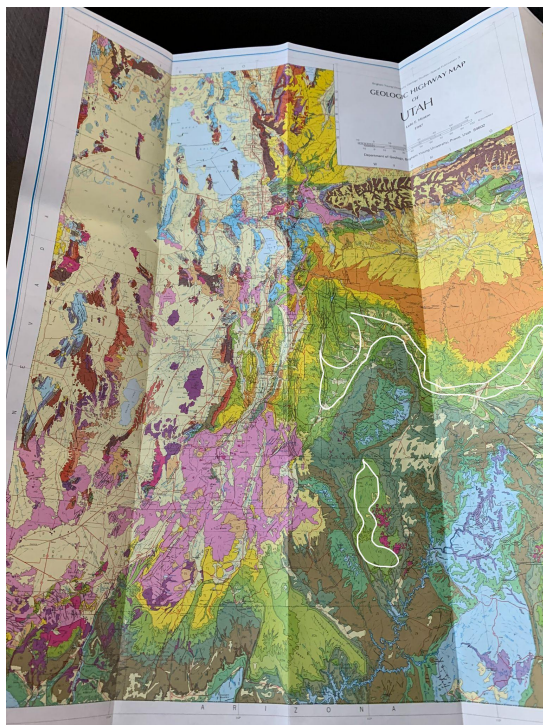
Camponotus

Myrmecocystus?

Pogonomyrmex?

Formica

Soil types -



For example:

When looking for desert species (including *Myrmecocystus*) I like to look in the K2 areas (white outline), as the soil found in these areas is usually the right type for Honey-pot and Harvester nests. In general all the light green areas have good diversity of desert species. The west desert also has cool species close to Utah and Salt lake valley!

Nuptial flights in Utah

Each genus and even species of ant has a different time of day and year it flies. For some species, heat is the trigger (think *Camponotus vicinus*). For others rain is the trigger (such as *Pogonomyrmex occidentalis*). The categorization of each species's yearly flight time has already been done for North America by fellow hobbyists on the ant keeping forum. They have compiled hundreds of sightings for you. This handy spreadsheet is the result:

<https://formiculture.com/ant-mating-chart-north-america.htm>

<https://www.formiculture.com/topic/181-queen-ant-spottingmating-chart/>

Utah flight sighting thread -

<https://www.formiculture.com/topic/15654-utah-ants-keepers-flights-and-other-resources/>

As a rule of thumb, species that fly during the spring months (April or May) will often fly when the temperature reaches at least 80 degrees during the day, and then fly that night.

Species that fly during the summer and fall months of June-September will fly after rain fall, either same day, that night, or the next day.

Here are some tips to help you pinpoint the exact flight time depending on genus -

Desert species:

For *Pogonomyrmex*, look after a 24 hour interval has passed from the last of the recorded rainfall during the day.

For *Pheidole*, *Dorymyrmex* and *Myrmecocystus*, look during the first evening/night after the rain storm.

For *Crematogaster* look on warm evenings.

For *Solenopsis*, look right after the rain storm if possible.

Alpine and valley species:

For *Tetramorium*, look during the day after a rainstorm. Exact flights in Utah valley begin around the 20th of June every year.

For *Formica*, look during the morning or afternoon on warm days or after a rainstorm.

For *Camponotus*, look at night on warm evenings, or the first night after a rainstorm.

For *Aphaenogaster*, look at night.

For *Lasius* look the evening after a rainstorm as the sun goes down.

For *Solenopsis*, look the night after a rainstorm.

For *Monomorium* look during the day after a rainstorm.

Another great resource: <https://www.formiculture.com/topic/2282-how-to-find-and-catch-queen-ants/>

Founding setups

Once you have collected a fertile queen, place her into a suitable founding setup. For fully claustral species that don't need food, a simple water test tube works very well for this purpose. Place her in a dark, warm room or box and forget about her for a month. For semi-claustral species a test tube can still work but you will need to place food in the tube every week or so. A dirt setup can also be used for any type of queen, and dirt setups often out-perform test tubes when housing desert species of ants.

Simple dirt setup -

<https://www.formiculture.com/topic/19313-using-simple-dirt-containers-to-found-harvester-colonies-best-method/>

A tubs and tubes is a great way to expand once first workers arrive, or for some larger semi-claustral species -

<https://www.youtube.com/watch?v=8edRYbn65Oo>

Formicariums

Formicariums can come in all shapes and sizes. What usually matters most is what the nest itself is made of. Below are a couple of the larger companies I know of.

Casted/Cement formicariums

Tar Heel ants - <https://tarheelants.com/>

Wood formicariums

Foranto -

https://foranto.eu/?gclid=CjwKCAjwloynBhBbEiwAGY25dFY_m26PVCLTtbsSvXs3oJrZvyOAjXjzqYyzSxn7jMowhTXSbe4UhoCFZYQAvD_BwE

Plastic based - 3D printed, acrylic, etc.

Aus ants nests - <https://ausants.net/acrylic-nests>

Ants canada - <https://www.antscanada.com/>

Aesthetic ants - <https://www.estheticants.com/>

Dirt formicarium

Dirt box -

<https://www.formiculture.com/topic/816-dspdrewn-formicarium-09-research-and-design-updated-10-29-2017/>

Traditional ant farm style

-or-

Try DIY! Cheap, fun and perfectly customizable!

Pictures from other hobbyists -

<https://www.formiculture.com/topic/118-pictures-of-formicariums-and-outworlds/?hl=%20diy%20%20formicarium>

Vivarium -

<https://www.youtube.com/watch?v=8S8NGb1Kyu8>

Horizontal nests -

https://www.youtube.com/watch?v=_cza88nAM_I

<https://www.formiculture.com/index.php/topic/1108-how-to-build-a-horizontal-sand-formicarium/>

<https://www.formiculture.com/topic/16823-diy-sandclay-molded-gypsum-formicarium-guides/>

AAC -

<https://www.youtube.com/watch?v=Agp8E1w-6Vo>

My picture thread-

<https://www.formiculture.com/topic/15128-utahants-formicariums-and-outworlds/?hl=%20diy%20%20formicarium>

And a couple guides of mine -

Adobe -

<https://www.formiculture.com/topic/20078-dome-formicarium-tutorial-using-the-individual-layer-method/#entry228138>

Vertical levels -

<https://www.formiculture.com/topic/19370-diy-layered-vertical-formicarium-guide/>

Firebrick (**not** the best option out there) -

<https://www.formiculture.com/topic/17189-firebrick-diy-formicaria/>

Colony and species care

Care sheet list - <https://www.formiculture.com/forum/27-ant-care-sheets/>

Some common species and their respective care guides -

Tetramorium immigrans -

<https://www.formiculture.com/topic/4435-care-sheet-tetramorium-immigrans/>

Camponotus novaeboracensis -

<https://www.formiculture.com/topic/3078-care-sheet-camponotus-novaeboracensis/>

In general, ants will need three things - shelter, food, and water. Always provide a drinking source in the outworld if your formicarium does not come with a water source. A proper formicarium catered to your species provides the shelter. Food is a mix of proteins and sugars - see below.

Food sources

Protein can be anything that the ants can feed to larvae. Most species prefer other insects, termites, and spiders, however a select few can also take seeds, and some specialize in other more obscure sources like spider eggs and ant brood. Check the care sheets for what your ants will need. Always remember to boil any insects before feeding.

Sugars can be anything sugary. I use a mix of sugar water (3:1 of water to sugar), washed fruit slices (peel the skins off), or sunburst and perky hummingbird nectar. I prefer hummingbird nectar, however diversity of foods is a good way to keep your colony healthy and growing.

Other general resources -

<https://www.formiculture.com/topic/220-ant-keeping-guide-for-beginners/>

Utah thread - <https://www.formiculture.com/topic/15654-utah-ants-keepers-flights-and-other-resources/>