Introduction to Keeping New World Arboreal Tarantulas:
New World arboreals are easy to maintain in just about any container that affords the specimens security, height (2x their leg span measured on one side, from the tip of LEG I to the tip of LEG IV), can be easily misted and contain a water bowl, provide good ventilation and air flow, and such a container will hopefully be clear as to afford the keeper the joy of observing his/her specimens in captivity.

Below, each particular topic involved in the keeping of New World arboreals will be briefly discussed and future information added as it is discovered by keepers such as each of you that use this web site. The main thing in maintaining these splendid tarantulas is to enjoy them, their behaviors, and their uniqueness. But, most of all have fun!

Other Furnishings for An Arboreal Container/Vivarium:
We’ve already covered two of the more important topics in keeping and maintaining arboreals: containers and substrates. Now, we’ll discuss additional furnishings in the arboreal set up and debunk a few myths pertaining to these amazing tarantulas.

Bark/Cork Bark:
The primary thing to remember with arboreals is that the majority of specimens will prefer to be off the ground situated in a shelter they’ve constructed out of their webbing. Be it a tube web or a modified funnel web, they’ll need an attachment point and a place to hide that’ll offer them security in their artificial environment.

The number one choice of hobbyists the world over that keep arboreals is a piece of bark, braced against an inner vivarium wall or placed in a far corner of the vivarium. The preferred choice is almost always cork bark.

Cork bark is pleasing to the eye and lightweight adding no weight to a vivarium set up. It is virtually indestructible, easy to cut to your cage or vivariums dimensions, and can have holes placed in it to hold artificial plants and vines. It can be glued with "hot-glue" to keep it in place or partially buried in the substrate to prevent it from falling and harming your specimen.
Other factors in using cork bark is that it is readily available in both, “flats” and “tubes” and is impervious to mold and other fungi and will contain no foreign "visitors" as tree bark taken from your backyard might.

Although, another favorite bark type of mine is the thin, usually tubular pieces of White Birch commonly found throughout the US. It’s thin, lightweight, and very easy to use. I especially like to use it with smaller spiderlings up to the 1.5" size as most pieces keep their tubular shape from the limb they came from. This bark really goes well in the container of Heteroscodra maculata as they blend right in together!

When using bark pieces a good rule of thumb to use is to place a piece within your container that is at least 2" below the lid of your container. The bark should be as wide as the leg span of your specimen (tip of Leg I to tip of Leg IV). With the addition of an artificial plant, glued to the top of the bark piece to partially conceal the opening, you’ve created a secure shelter for your specimen.

Also, place some extra substrate behind a "flat" of bark, as many specimens will use this extra substrate to camouflage their shelters. Remember that you’re trying to provide everything your specimen needs to construct a secure shelter in which it can rest and live without suffering unnecessary stress.

Cork bark and other bark types are usually recommended to use in your vivarium as shelter. Many other keepers have used such diverse materials as cardboard tubes to clay flowerpots to small wooden birdhouses for their arboreals. So, be imaginative and constructive and have some fun setting up a secure shelter for your arboreal(s).

**Artificial Plants and Other Decorations:**
The addition of a few artificial plants can really bring your specimen’s container to life. Just remember to be frugal but creative when using artificial plants as the more you have, the harder it will be for your specimen to locate its prey.

The best place to use your plants is around your specimen’s shelter and the rear, inner wall of the container. I use "hot-glue" to attach vines and plants to the upper rim of the rear lip of the container and allow them to hang down within 2" of the substrate.

Another use of the plants is to collect droplets of water when the container has been misted, as many specimens will readily drink water from the plants leaves and they will assist in humidity retention to a minor degree by trapping water from a misting.

Just make sure that all plants are firmly glued to a surface to prevent any accidents from occurring as your specimen is climbing about the plants.

Another thing to consider if you’re planning on maintaining any species, in which the majority of specimens may be "aggressive" such as Avicularia pulchra, Psalmopoeus irminia, Stromatopelma calceatum, and heteroscodra maculata, is to look within the plants to make sure your specimen is not hiding within the plants. Avicularia laeta love to lie behind such plants and I’ve been surprised a few times!

DO NOT USE ROCKS! Many arboreals are accomplished jumpers. As such, stay away from using any type of rocks in their container(s). A fall or missed leap upon a rock could result in a ruptured abdomen or a broken leg! Always keep the safety of your tarantula in mind before adding any cage decorations.

**Humidity, Misting, and Water Bowls:**
Here we will discuss one of the most debated issues in maintaining arboreals: Do arboreals require high humidity in their containers? We’ll also look at the various ways to introduce humidity into your specimen’s container(s) and to provide for its need to have water.

Do arboreals need high humidity to strive in captivity? The answer is plainly NO! I believe that the addition of too much humidity is the cause for the arboreals to have a reputation as a "hard to keep and delicate" group of tarantulas. There is nothing farther from the truth!
When arboreals first started appearing in the tarantula keeping community, keepers and dealers believed that due to the rainforest environments in which most species lived, that they needed to be maintained in hot and highly humid environments. This misconception/misinformation drove many keepers into trying all sorts of outlandish set ups to provide this "steamy-jungle" environment for their arboreal tarantulas including one set up in which substrate was not used but, the container was filled with 1" to 2" of water!

Of course, this idea was quickly abandoned as standing water stagnates. As does the prey that falls into the water, drowns, and decomposes. Not the aroma of mom's home cooking let me assure you!

The fact is that due to an arboreal existence above ground, humidity levels are not as intense the further up one goes. Air circulating through the trees also help to keep humidity levels lower in the arboreals world. In captivity, one should seek to maintain a humidity range of 70% to 75% with the highest upward limit being 80%. Spiderlings and smaller immature specimens should be kept at the 75% to 80% range as smaller tarantulas have a greater need for humidity as they will desiccate much easier than their larger counter parts.

The easiest way to provide your arboreal with the proper humidity is to include a large water dish in its container kept filled with distilled water. Even for spiderlings of 3⁄4" to 2" kept in smaller containers, a lid off of a 20oz pop bottle will work well until your specimen graduates to a larger container.

The main thing to remember is to keep the water dish filled! And, keep it near to the base of their retreat or shelter. This will help in your specimen being able to find it when it needs it. Also, after feeding, check the water dish for boluses and drowned prey. Do not let the prey/remains remain in the water bowl!

Two other ways to retain humidity is by restricting the open area of a container’s lid and by regularly misting the container. Restriction of the lid has been previously discussed.

Regularly misting your specimen(s) container(s) will provide for a temporary humidity rise that may not last longer than 24 hours depending on the “dryness” of your home or location. Misting is not designed to provide for a source of constant humidity but, along with a water dish, will add to the overall humidity of a container. ALWAYS provide a water dish! And remember when misting your specimen(s) always mist the spiderlings more times per week than your larger captives. My spiderlings are misted 2 to 3 times per week depending on the humidity in my home and the humidity outdoors. All my larger tarantulas are moderately misted 1 time per week.

Another good practice that I use is that every 3 months I allow all my specimens cages to dry out thoroughly for 2 weeks. This prevents any unwanted denizens from setting up home permanently in my specimen’s homes!

Just remember that it may have been all those past keepers maintaining arboreals at high humidity levels that allowed the “too-frail” myth to perpetuate itself in the hobby today.

**Hygrometers:**
These are used to display the humidity level in a specimen’s container. I never use them! I rely on my tarantulas to let me know when the humidity is too low by their constant appearance over the water dish. Another factor that may be an indicator of improper humidity levels is when your specimen spends all of its time in its shelter and/or webs itself in to its retreat. Its good to have one hygrometer to use to measure the humidity levels of a container when the above occurs. Of course, such an occurrence could imply its time to molt at which time, its best to raise the humidity level up by 5% to 10% anyway. This behavior could well be an indicator of too high a humidity level but may also indicate one that is too low. Keep at least 1 hygrometer around.

**Lighting:**
Think about this for awhile and maybe you’ll realize why this topic will not be discussed here in depth. Artificial lighting has no place in an arboreal set up nor, do I advocate its use in maintaining terrestrials either! I’ve tried using all types of lighting with my tarantulas and have found nothing that I would consider proof that it benefits them in any way at all. However, many specimens of various Avicularia species and specimens of Iridopelma hirsuta seem to not be bothered by a lighted room as much as other arboreals and terrestrials I maintain.
Until there is scientific proof presented on this subject, I’ll keep maintaining my arboreals without the use of lights.

**Substrates/Cage Decorations:**
One of the most debated topics in arachnoculture is which substrate is best for maintaining tarantulas? Unfortunately, there is no easy answer to this question as there are many hobbyists that advocate the use of almost all substrates available on the market.

Fortunately, keepers of arboreal species do not have to worry as much about the different substrates as those maintaining terrestrials from many areas of the world. As a keeper of arboreals, you’ll mainly have to decide between potting soil/top soil and peat and its various mixes such as peat and sphagnum moss, etc.

When keeping arboreals in captivity, the main concern regarding substrate choice is water retention to maintain humidity levels in the container and aesthetic appeal.

Here we will only look at a few choice substrates and examine their uses in an arboreal set up.

**Peat/Peat & Sphagnum Moss Mixes:**
Seemingly the perfect substrate as it is lightweight, easy to work with, and gives one the impression of a rainforest floor. And yet, for all of its advantages, it has one major disadvantage. Water retention!

But, in light of the water retention problem, Peat and its various mixes found in gardening supply centers is a great choice of substrate for maintaining arboreal tarantulas as long as the keeper doesn’t mind keeping an eye on the "wetness" of the substrate.

Before using peat or its various mixes in an arboreal set up, it must first be water conditioned. Select an amount appropriate for use in your container. Generally, only a 1"-2" layer is needed to house most arboreal species of tarantulas unless you plan on maintaining members of the Genus Psalmopoeus and Tapinauchenius which may incorporate shallow to moderate depth burrows and scrapes into their overall shelter design. A deeper substrate will also be needed if you plan on using live plants in your container(s). I personally do not use live plants in any of my set ups and will not discuss their use here. For those that are interested in using live plants in their set up, see Sam Marshall’s excellent book, “Tarantulas and Other Arachnids”. Published by Barrons. On page 29, Sam gives details on using live plants in a vivarium. More on the relationship of certain arboreals to the substrate will be more thoroughly discussed in another section.

After you’ve determined the amount you need for your container(s), you’ll need to add water to the peat so it will be able to retain moisture. How moist should the peat be to use it in a container? A good rule of thumb to follow is that if you take a hand full and squeeze it in your hand and when your hand is opened, the peat just barely crumbles then, its moist enough for use.

Now, for the “disadvantages” of using peat and its various mixes in containers and vivariums. As peat and its various mixes are hard to moisten, once you initially moisten it, you’ll have to check it periodically and make sure it doesn’t dry out. If it does dry out, you must re-moisten it thereby repeating the initial moistening procedure above. The problem here lies in the fact that you’ll have to mix it in the container creating stress on the occupant and a certain degree of mess for yourself! However, it is easy to monitor the degree of moisture in the peat as it lightens in color as it dries.

Another disadvantage to peat is that due to its "quickness" in drying out, I DO NOT advocate its use in containers housing spiderlings. As spiderlings require higher moisture in their containers than adults peat should never be used as a substrate in containers that house spiderlings.

And finally, one last debatable topic in the use of peat in the vivarium. Many keepers believe that peat has a higher propensity for introducing mites into the vivarium than other substrates. To date, I have had mite out breaks in vivariums and containers with various substrates and have found no greater or more concentrated numbers of mites.
in containers containing peat as a substrate then potting soil.

Overall, peat is a good choice for those keepers that do not mind the extra maintenance involved in constantly checking its moisture level and do not plan on using it in containers used to house spiderlings.

Topsoil/Potting Soil:
My personal substrate of choice in all my containers and vivariums.

I prefer to use premium grades of either soil type mainly because I like the darker color of soil in my containers, it retains moisture well, and its easier to locate prey remains due to their lighter color.

Its also a good choice of substrate if you plan on maintaining members of Genera Psalmopoeus and Tapinauchenius as specimens of several species within these two genera incorporate both, burrows and scrapes into their shelters. The soils retain burrow shape better than peat and its many mixes do. The main draw back to using soil is the increased weight over peat. This is especially noticeable in glass vivaria.

The best soils to use are those that contain NO additives such as perlite, Styrofoam, and/or vermiculite. The soils listed as "premium" are the best as they are very dark and this aids in the detection of prey remains and mites (if this ever occurs!).

Another topic that is occasionally mentioned in arachnocultural circles is the need to heat soil to sterilize it and kill off all kinds of unwanted beasties, molds, and fungi.

I find this to be no more than a good way to stink up your house! The very second the soil cools down, all the things you sterilized it against have already taken up residence again in the soil due to the fact that you took the soil out into an unsterilized atmosphere! Another thing to consider regarding wee beasties such as mites is that with the addition of the first cricket into your container, the odds are that it entered with mites upon it!

The best way to insure against mites, molds, phorid flies, and fungus is to use a little preventative maintenance (clean up all boluses and dead prey from the container), limit humidity levels to fall within a range of 70% to 75%, and make sure there is adequate airflow into your container. This will prevent infestations of all but the hardiest of invaders.

Aside from its greater weight, I can find no other disadvantages in using soils in a container used to house arboreals. I've been using it as my substrate of choice with tarantulas for over 10 years now and have never had a problem with its use in any of my containers.

Finally, a few words of caution concerning, other types of substrates in housing arboreals.

First, substrates such as sand, gravel, cat litter, and Astroturf has no place in an arboreal set up! Sand and gravel both, have no water retention properties and food remains are hard to find in sand and gravel. Cat litter will cover your container and your arboreal in a fine dust that I can only imagine, is not appreciated by your tarantula. And, finally, arboreals can and will get their claws stuck in the fibers of this artificial substrate material.

Another substrate to use with caution is vermiculite, as many arboreals DO NOT like to walk upon it thereby limiting their access to ground level prey and their water bowls. And, it is good advice given to never use it with arboreal spiderlings as,

A great many arboreal spiderlings will spend a great deal of time on the substrate and spiderlings of A. huriana and A. minatrix will "disappear" against the color of the vermiculite as their body colors match that of the vermiculite itself!

However, as there are many debates over which substrate is the "best", the above listed substrates are those that I
have found to work the best in maintaining arboreals in captivity and are not designed to present the last word on substrate use.

Unfortunately, I think this debate will continue as long as we keep maintaining tarantulas in captivity!

**Containers/Vivariums:**
Here, we will discuss some of the containers and vivariums used by keepers the World over to house their NW arboreals.

**Spiderlings:**
For those of you, who enjoy watching the growth of your tarantulas throughout the many stages of their lives, spiderlings afford such a chance. The best container for housing spiderlings is the clear, plastic vials with snap-on lids that most dealers house spiderlings in for sale to the public or shipping.

These containers are lightweight, clear, and are easy to access via their soft plastic -lids, to mist, feed, or remove prey remains. These vials also have the advantage of taking up little room. The only modification to these vials is to make sure that there are sufficient air holes in the lid for proper airflow. If not, using a 4-tine fork, reinsert the tines through the small holes that the dealer/breeder previously placed in the lid. Do not open these vent holes up too much. Spiderlings of both, Psalmopoeus and Tapinauchenius are highly adept at finding escape exits in your best set up!

I typically keep a large supply of these vials in two sizes. The 20-dram size for spiderlings from 1/4" to 3/4" in leg span and the larger 40-dram size for specimens from 1" to 1.75". At the 2" mark, the spiderlings are then transferred to larger containers.

**Large Spiderlings and Juveniles:**
The magical 2" mark! This is the point in a tarantula’s life where its particular temperament will begin to show. It’s also at this size that they tend to explore their environment more, create outstanding web shelters, and begin to seek out prey. Although many will remain the "sit and wait" predators, many such as Avicularia huriana, when ready to feed will go on expeditions in search of food.

At this stage in their lives, its time to move them into a more spacious container that they can call home up to the 3" to 3.5" leg span mark.

The best container to use for NW arboreals at this stage is the 16oz. Clear deli cups with clear lids. The first thing to do before transferring your specimen into its new home is to wash the containers in warm water with 1 tablespoon of Hydrogen Peroxide and 1 teaspoon of mild dish detergent to one-gallon of water. This will remove any residue from the container and most bacteria as well. Rinse thoroughly in running water then dry each container well with a paper towel.

To provide proper air flow, punch out 5 to 6 holes with a paper punch (designed to punch holes in paper for small ring binders), 1" down from the lip of the container then, add 2 to 4 vent holes in the lid. This will create cross-ventilation to provide proper airflow for your specimen(s), will allow a slow rate of humidity loss, and help to prohibit the growth of mites, fungi, and molds in the container.

**Sub-Adults/Adults:**
This category of containers will be based as follows: 50% on the specimen’s needs and 50% on the keeper’s preferences! When selecting a container for 4" to 6'+ specimens, the options are many and are only limited by the keeper’s imagination.

Here, I will only discuss the most commonly used containers for arboreal tarantulas at this size: One-gallon (3.7L) glass & plastic jars. Primarily used by many keepers in maintaining the smaller NW arboreal species. Those that rarely attain a leg span over 4" such as Avicularia minatrix, Avicularia velutina, Avicularia sp. "Red-Bristle", Tapinauchenius gigas, and Tapinauchenius plumipes.
Plastic vivaria, such as the "Pen Pal" containers in the medium to large sizes and finally, glass vivaria (aquariums) in the 2.5 (9.25L) to 5.5 (20.3L) gallon sizes.

**One-gallon glass/plastic jars:**
These containers offer few advantages in housing and keeping tarantulas unless one is specializing in keeping diminutive species only or is keeping only a couple specimens. The glass jars are heavy, cannot be safely stacked, and are harder to warm than the plastic varieties. Again, the plastic jars cannot be safely stacked to afford valuable room as your interest and collection grows. Another factor to consider is if the jar(s) have metal lids, creating air holes. I have tried all kinds of techniques to puncture, drill, cut, and drive holes through these lids. All were in my opinion, unsuitable as all techniques I've tried to date produce sharp edges that may be unsafe to the keeper and the kept. **Note** If anyone has any suggestions or advice in providing satisfactory ventilation in metal lids, please email me as I am very interested.

**Plastic vivariums:**
These are truly one of the best things to happen to keepers of all tarantula types except for those tarantula species that require deep substrate. These plastic vivaria offer ease of opening via a snap on lid and a plastic door built into the center of the lid to facilitate ease of feeding and misting. Lightweight construction in a clear container makes this a great choice in housing for all New World arboreal species.

The only draw back to these containers is that the lid is totally ventilated allowing great humidity loss in a minimal of time. I modify the lids using "hot-glue" and heavy plastic. I glue the heavy plastic sheeting to the inner ceiling of the lid and to the two, long inner sides of the lid thereby decreasing air flow into the vivarium allowing a greater degree of humidity to be retained within. Remember to cut an opening for the lids center door if you will use this feature. Just remember to glue the edges of the plastic around the center-door opening to prevent an arboreal from establishing a home within the plastic ceiling. Another great feature of these plastic vivariums is the ease of safe stacking as the "legs" of each container are restricted from movement by the "lip" of the lower containers lid. Also, there is a 1/4" space between the upper cages base and the lower cages lid that provides an even greater humidity retention and still provides adequate air flow into the vivaria when stacked.

Although these containers are absolutely great for providing inexpensive, lightweight housing for tarantulas, they do offer several drawbacks. They scratch easily and lose transparency with age and many washes. But, for the person with a medium to large collection, these containers are the number one choice.

One restriction I would suggest in the use of these containers is that they not be used to house arboreal species that are quick and in which the majority of specimens tend to possess "aggressive" temperaments. Species of the Genera Heteroscodra, Poecilotheria, Psalmopoeus, and Stromatopelma should in my opinion be housed solely in glass vivaria with screened lids to prevent escape. I have had both, Psalmopoeus pulcher and Heteroscodra maculata dash out the vivariums lid center door at speeds that were truly incredible! A 6' tall, 215 lb. man lending chase to a 4" Psalmopoeus pulcher with a taste of freedom, I was told at the time, was a hilarious sight to behold indeed!

**Glass vivaria (aquariums/terrariums):**
Although they weigh much more than a plastic vivarium of comparable size, these "beasts" offer mental security when housing tarantula species you DO NOT want to wake up to in the bed beside you! They also offer a greater choice in sizes for those that do wish to replicate a piece of a specimen's native environment in their enclosure. These glass "tanks" also offer the added luxury of being able to be inverted for those keepers that do wish to maintain their arboreals with a little extra height. The extra height is unnecessary and may even prevent certain arboreals from attaining proper growth as fast as other members kept in shorter vivaria? More discussion on this topic later. However, inverted glass vivariums do provide for some great interior decorating with limbs, vines, and artificial plants! And, I must admit that I use inverted glass vivaria for all my Poecilotheria specimens.

Disadvantages to using glass vivaria center about their inability to be stacked safely and in their weight. Fill a 5.5-gallon glass vivarium with a few inches/centimeters of substrate, a large water dish, and a bark lean-to and you have a fairly hefty piece of furniture there!
Now, how do I keep my arboreals in a glass vivarium? I’ve heard that the “screened” lids are unsafe because tarantulas get their claws caught in the mesh? Good questions with fairly simple answers. First, purchase the “screened” lid. Now, purchase some 1/4” hardware cloth or 1/8” Plexiglas to fit the inner dimensions of the lid you purchased. Both can be purchased and cut to size at a local hardware store or do it yourself center. While there, pick up a tube of aquarium sealant.

Remove the factory installed screening then, place the hardware cloth or Plexiglas you had cut for your project where the former screen reposed and seal it with liberal amounts of aquarium sealant. With the hardware cloth, make the bead real liberal. Allow the sealant to dry for 24-36 hours and you now have a safe lid for your vivarium. If using Plexiglas, you’ll need to provide vent holes via a trusty drill and 1/8” drill bit. I generally drill 10-12 holes at each end of the Plexiglas as this provides enough airflow to keep any Avicularia happy and allows for a great degree of moisture retention. If you decide to use the hardware cloth, you’ll have to cover at least 2/3 of the lid’s surface with heavy plastic to provide some adequate humidity retention.

Overall, glass vivariums do offer a greater choice in sizes and the ability to be inverted if the keeper so chooses to do so and provides a greater degree of mental confidence to many that house such arboreals of the Genera Psalmopoeus, Heteroscodra, Stromatopelma, and Poecilotheria.

Regardless of your container choice, seek to provide an environment that provides safety and promotes well being in your specimens. Also, be creative in your set up but, do not overdue it as the more items you have in your set up the easier it will be for prey to elude your tarantula. Also, additional “decorative” items will also increase the amount of time that you must search out dead prey remains or dead prey. A good set up will promote well being and a lack of noticeable stress in your specimen and make maintenance easy on you, the keeper.

**Thermometers/Thermometer Strips:**
Used to provide a reading of the temperature within your specimen’s vivarium. I use the thermometer strips on all my larger containers but decided a long time ago as they basically reflect the same or close-to temperature displayed on the thermostat in my home, I’d not use them anymore and save a few bucks to buy more tarantulas!

**There you Have It:**
Now that we’ve discussed everything you need to maintain arboreal tarantulas in captivity, it’s your turn to set up your new arboreals home. Be creative, imaginative, practical, and most of all, enjoy it! Just be sure to provide an environment that will offer your specimen security and well being.

Also at this time, let me mention a few more items that are not necessary for an arboreal set up but may be of interest to various keepers.

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