

Lending Support

By Charles Marden Fitch

Branches, Logs, Plaques and Slabs Can Be Home to Orchids



ABOVE *Masdevallia infracta* 'Devine', CCM/AOS, still growing on the branch to which it was originally attached. For success, mist on sunny mornings, provide good air circulation and night temperatures of 55 to 60 F (13 to 16 C). This species is one of the successive-flowering members of the genus; do not cut the inflorescences off until they are dry. Grower: Kristine Cox.

ABOVE RIGHT These cork tree branches for sale at a nursery are among the many choices growers can use as mounts for orchids. Pieces of tree fern, osmunda and driftwood (leached of all salts) are other options.

OPPOSITE *Aerangis rhodosticta* 'Fox Den', JC/AOS, mounted on a log. This orchid, native to Africa, thrives with diffuse light, intermediate to warm nights of 65 to 68 F (18 to 20 C) and regular waterings on sunny mornings. It also grows well when attached directly to the trunk of a potted coffee tree. Grower: Phil and Ann Jesup.



“SUPPORT ME,” SHOUT THE orchids. “I’ll grow so well with the right support.”

Sometimes our plants may sound like demanding teenagers, yet providing a lifetime support is reasonable for epiphytic orchids. In the wild, many of our most attractive orchids thrive on tree branches, in clumps of sturdy shrubs, on rocks covered with moss or in a tree crotch filled with humus. In captivity, supports for orchids resemble natural arrangements in the wild.

CHOICES Basic supports include logs of suitable wood, especially hardwoods, and lighter poles of sturdy tree fern. Smaller orchids do well on chunks and slabs of tropical tree fern. Another fern product, osmunda, made from the roots of a species of temperate-zone swamp plant, can also be used as a hanging support. For years, chunks of osmunda were the preferred potting material for epiphytic orchids. Density of osmunda fern root varies from soft to almost hard and dense. The harder sections are best for hanging supports.

WOOD Sections of cork oak bark (*Quercus suber*), oak branches and

grape wood (*Vitis vinifera*) are good as orchid supports. Driftwood from freshwater lakes and rivers is an attractive support for epiphytic orchids, while that from the sea is beautiful but usually saturated with salts that harm orchid roots. Soaking in several changes of fresh water or a few months outdoors in the rain usually washes away enough of the sea salt to make saltwater driftwood safe as an orchid support.

Wood pruned from living hardwood trees is suitable for orchids after being dried for a few months. Orchid grower and frequent winner of AOS awards Dennis Dayan of Deal, New Jersey, grows many of his small orchids on wood supports. Dayan told me that seasoned (dried) fruitwood such as grape and apple is good, but he avoids using wood from fruit trees with hard pits (stones) — fruits such as cherry, peach and apricot. According to Dayan, the stone-fruitwood bark has a chemical that retards orchid root growth. Orchid expert Phil Jesup of Bristol, Connecticut, has success with orchids on sassafras (*Sassafras albidum*) logs.

Avoid using any type of wood that



has been pressure treated with wood preservatives. Generally, orchids do best on totally natural unpainted wood, be it branches, slabs or logs. Commercial orchid nurseries include various wood supports in the supplies section of catalogs. Cork bark is universally available at orchid nurseries in many parts of the world. Other wood-type supports vary according to region. For example, in Florida, cypress (*Taxodium distichum*) slabs and above-water wood “knees” are popular. In California, grapevine wood and cactus wood (skeletons) are offered. Lowland tropical regions, often near the sea, are rich in coconut husks and coconut shells (*Cocos*

nucifera), both useful as orchid supports). In temperate areas, hardwood such as apple (*Malus* sp.) and oak (*Quercus* spp.) are easily available.

CORK The bark of cork oaks (*Quercus suber*) comes mainly from commercial plantations in southern Europe, especially Spain and Portugal. Cultivated cork oaks also grow in California and a few Southwestern states. Cork is the outer bark, usually 1/2 to 1 inch (1.3 to 1.5 cm) thick, removed from living trees. Sturdy cork oaks live well over 100 years, easily producing cork every eight or nine years. Only the dead outer bark is carefully removed without injury to the

living inner bark. Older trees also offer cork from thick branches. Cork slabs sold for orchid growing are priced according to weight or measured size. I find that cork slabs last at least 10 years. Usually the orchid outgrows the slab before cork bark deteriorates. (In contrast, I find ground cork used as potting mix needs replacement every two years.) Corks from wine bottles are useful as slabs for tiny orchids and as potting material, especially as wedges to push rampant rhizomes back into a container. While most growers use pieces of cork as vertical slabs, a few place the piece of cork horizontally and attach the orchid to the “raft.” Equitant oncidiums and *Psycmorchis pusilla* are

Materials on Which to Mount Orchids



- 1 Dense or hard osmunda fiber is recommended for plants that require a constant supply of moisture such as miniature phalaenopsis and pleurothallids.
- 2 Cork oak bark slabs have a rough surface that orchid roots grip tightly while still offering quick drainage and long life. Cork slabs can be used vertically as seen here, or hung as a horizontal support similar to the log seen in photograph 5 on page 187.

- 3 Tree-fern log section cut from a 3-foot- (1-m-) long pole. Tree-fern poles are dense, hold moisture several days, and are suitable for many epiphytic genera.
- 4 Smaller chunks of tree fern are useful for equitant oncidiums. In the wild, these Caribbean species grow on twigs in bright light.
- 5 Soft osmunda is good to stuff a plastic mesh bag or other hanging support for small orchids that do better when the roots can grow into a mount. Smaller

- pseudobulbous epidendrums and brassias thrive when attached to a mesh bag filled with soft osmunda hung in a bright location.
- 6 Redwood bark chips are common as a potting material but may also be stuffed in mesh bags to create hanging supports or used around the base of a mounted orchid set in a clay pot for support.
- 7 Ground tree fern is used mainly in potting mixes.

small enough to grow on a wine cork, as are companion tillandsias, sometimes splitting the corks to grip the plant base. Tiny orchids do better on traditional wine cork stoppers because the surface is more porous and natural cork holds moisture, unlike the plastic corks now on the market. However, the synthetic stoppers can be used in orchid containers.

INDOOR LIVING SUPPORTS

Indoors, potted tropical trees are suitable living supports for orchids. Small species from the genera *Oncidium*, *Epidendrum* and *Aerangis* are good choices to fasten directly on tree bark or branches. Of course, chunks of tree fern or cork holding orchids can also be hung on the tree branches. This method permits easy moving of the orchids.

Favorite indoor tropical trees for both orchids and gardeners are: coffee (*Coffea* spp.), tea (*Camellia sinensis*) and citrus trees (*Citrus* spp.) including fragrant flowered Meyer lemon (*Citrus limon*) and calamondin (*Citrofortunella mitis*). Citrus trees have sweetly perfumed flowers. In my sunny photo studio in New York state, a single flowering citrus shrub perfumes the whole room. Grow these indoor trees in bright light with night temperatures of 50 to 65 F (10 to 18 C), a good temperature range for many orchids. A sunroom, warmed bright porch, greenhouse or sunny southeast-facing window are all good locations for these charming indoor trees.

If you grow trees in a lightweight peat-based potting mix, the containers are easily moved outdoors in summer months, where trees and orchids will thrive with rain, sun and increased fresh air. Large potted specimens can be rolled outdoors on wooden dolly bases, but take care when moving them over a door jam or up a grade.

Tree foliage protects the orchids from hot sun in a natural dappled light manner. The selections listed above can be pruned to mature in 12- to 20-inch (30- to 50-cm) pots so, although technically trees, the plants are cultivated indoors as well-pruned shrubs. Even my coffee trees, grown from seed, get pruned from their usual 10- to 15-foot (3- to 4-m) height down to a more comfortable 5 to 6 feet (1.5 to 1.8 m) without setback.

OUTDOOR EXOTIC SUPPORTS

In tropical regions, many orchids will thrive outdoors on living trees and shrubs. Favorite supports in garden



PHOTOGRAPHS BY CHARLES MARDEN FITCH

TOP LEFT This miniature Brazilian species, *Barbosella cogniauxiana* 'Meredith Moore', CCM/AOS, is mounted on a slab of cork. Grower: Dennis Dayan.

TOP RIGHT *Amesiella philippinensis*, a warm-growing orchid, responds well to 60 to 65 F (16 to 18 C) nights, diffuse light and moist conditions. Grower: J&L Orchids.

ABOVE LEFT *Oncidium longipes* flowers from spring into early summer. Winter nights of 60 to 65 F (16 to 18 C) with days

10 to 15 F (5 to 8 C) warmer are ideal.

During the summer, place the plant outdoors in a protected location.

ABOVE RIGHT *Barkeria spectabilis* 'Gail Steiner', CCM/AOS, has slender growths that are well suited to growing on a tree-fern pole or log. It thrives in bright light and 55 to 60 F nights (13 to 16 C). Misting regularly with a fertilizer solution encourages flowering. Grower: Dr. Steven Steiner.



settings are palm trunks, coffee bushes (*Coffea* spp.) and big chunks of driftwood. Living tree ferns are popular for *Zygo. maxillare* in Brazilian mountain gardens such as the Cloud Forest Garden in Rio State. Rock supports, especially porous lava stone or well seasoned nonsalty chunks of coral can also be used. At the American Orchid Society Visitors Center and Botanical Garden in subtropical Delray Beach, Florida, various genera thrive outdoors on palms, cypress (*Taxodium distichum*), live oaks (*Quercus virginiana*), tabebuias and other compatible supports. This South Florida area, near the Everglades, is habitat to several well-known showy epiphytic orchids

including the honey-scented *Encyclia tampensis* (syn. *Epidendrum tampense*), *Cyrtopodium punctatum*, *Encyclia cochleata* (syn. *Prosthechea*) and *Brassia caudata*.

Some Asian genera such as *Dendrobium* and *Vanda* also do well on trees in the AOS garden. If you are one of the fortunate people who have an outdoor tropical garden, have fun experimenting with different artistic growing arrangements for orchids outdoors. The plants usually do well on trees once they escape their pots.

HOW TO ATTACH Attach orchids to supports with plastic-coated wire such as that sold on spools for garden use, or thin bell wire sold in hardware

stores. Grower Dayan likes to use black bell wire for his mounted orchids. Small orchids can also be attached with u-shaped staples, which are commonly used to attach wire fencing. Thin clear monofilament fishing line is almost invisible and lasts for years, but it is not easy to work with.

Larger orchids can be attached with thin strips of pantyhose (a choice of colors) or fine plastic mesh available from recycled produce bags. For example, many fruits and vegetables come in plastic mesh bags that can be easily washed in the dishwasher or sink. Strips or pads of this mesh, stapled to cork or other supports, are a quick way to attach plants. The plastic



PHOTOGRAPHS BY CHARLES MARDEN FITCH

can be cut away in a year, once roots have established on the support.

An alternative is the adhesive Liquid Nails, which is sold at hardware stores. Also look for support materials such as buttonwood chunks (*Conocarpus erectus*), on which epiphytes grow in South Florida; California grapewood; cedar slabs; Cholla cactus skeleton wood and the cork oak bark.

PADDING Some orchid growers put a small wad of moist sphagnum moss between the support and orchid roots. This acts as a reserve for moisture, important in dry areas.

In warm central Thailand, Khun Yudhna Tanavigasit grows cattleyas and dendrobiums on many of the palm

OPPOSITE LEFT Installing a vertical piece of wire mesh in a greenhouse provides ample room for hanging mounted orchids.

OPPOSITE TOP RIGHT A dendrobium in a coconut husk attached to a *Borassus palm* (ton tan) at a seaside garden in Chonburi province, Thailand. In cooler climes, small epiphytes can be attached directly onto coffee and citrus trees indoors, or the mounted specimens can be suspended on their branches.

OPPOSITE ABOVE RIGHT *Oncidium pulchellum* 'Skippy', FCC-CCM/AOS, is also known under the name *Tolumnia pulchella*. It thrives with bright light, 60 to 65 F (16 to 18 C) nights, and soakings on

bright mornings. In their island habitats, plants of this species live on scrubby trees and may receive enough direct sun to induce a maroon cast to the foliage.

Grower: Benjamin Berliner, MD.

TOP LEFT *Oberonia merrillii* 'Piping Rock', CCM-CHM/AOS, on a cork slab.

Grower: Piping Rock Orchids.

ABOVE LEFT *Ornithocephalus inflexus*, growing on a slab of tree fern, benefits from diffuse light. Grower: J&L Orchids.

ABOVE *Doritaenopsis Anna-Larat* Soekardi 'Maria Teresa', HCC/AOS (*Doritis pulcherrima* × *Phalaenopsis parishii*), is a primary hybrid. This specimen is on a cork slab. Grower: Carlos Fighetti.

MOUNTED ORCHIDS Photographed by Charles Marden Fitch



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trunks at his Bangsai Gardens display nursery. Tanavigasit finds that these orchids establish best when mounted directly on the trees during the rainy season, June into September. In drier seasons, the plants are slow to establish, even with pads of moist moss or coconut husk. In my greenhouse collection, I most recently mounted plants until new roots extend several inches onto the new support. To encourage growth, I add 1/2 teaspoon of Super Thrive liquid to each gallon (1.2 ml to 3.8 l) of fertilizer solution.

EXPERIENCES In my own collection, I have had success with small-growing angraecoids such as *Aerangis* on coffee tree trunks and several compact *Oncidium* species on tree fern slabs. My *Oncidium longipes* thrives on a 1-inch- (2.5-cm-) thick slab of tree fern, growing in the greenhouse during cold weather, and outdoors from

June into September. The same routine works for hybrids of *Encyclia cordigera* (syn. *Epidendrum atropurpureum*).

One of these pseudobulbous leathery-leaved hybrids began growing on a plaque of oak wood then grew off the top after a few years. I attached a chunk of compressed coconut fiber to the oak plaque. Now the orchid has grown off the oak onto the coconut fiber chunk. *Oncidium nanum* grew well, flowering regularly when grown on a thick slab of tree fern. Tree-fern slabs retain moisture for several days after being soaked.

Inside, mounted orchids will do well with regular applications of a balanced water-soluble fertilizer. I mix the fertilizer at one half the rate listed on the package, but apply at least every three waterings when plants are making new growths. Regular watering and fertilizer is important for orchids grown on supports.

Unlike orchids in pots, they have no reserve of moisture or nutrients around the roots.

FINDING SUPPORTS You will find cork slabs and tree-fern poles at most garden supply centers. Orchid growers with catalogs also offer these in the back of the catalogs. Several orchid supply firms advertise in *Orchids* magazine so it is easy for you to find a supplier for the orchid supports you want. When you visit orchid shows and commercial nurseries, you are likely to find some of the smaller orchids already established on hanging slabs, plaques and logs.

Charles Marden Fitch was awarded the American Orchid Society's highest honor, the Gold Medal of Achievement, on September 30, 1995. 1120 Cove Road, Mamaroneck, New York 10543 (e-mail c.mardenfitch@worldnet.att.net).



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LINKS

<http://faq.gardenweb.com/faq/lists/orchids/2003024815005219.html>

The Orchid FAQs section of GardenWeb offers a concise overview that covers the methods and materials used to mount orchids.

<http://vivi orchids.com/orc nr-42.html>

In "Treasures in Your South Florida Garden," Vivian of Vivi's Orchid Corner offers great advice about mounting orchids outdoors in tropical and subtropical climates, including sun-tolerant genera, orchids well suited to bedding plantings, which trees make better mounts and more.

- 1 Oncidium (syn. Psychopsiella) limminghei 'Fox Den', CCM/AOS, on a log. Grower: Phil Jesup.
- 2 Epidendrum porpax 'Kathy', CCM/AOS, on tree fern, hung from a rafter. Grower: Kathy Paroubek.
- 3 Angraecum didieri 'Mallory Barge', AM/AOS, mounted on apple wood. Grower: Dennis Dayan.
- 4 Aerangis rhodosticta growing on a coffee tree in a greenhouse.
- 5 Sophronitella violacea 'Fox Den', CCM/AOS. Grower: Phil and Ann Jesup.
- 6 Masdevallia floribunda 'Willow Pond', AM/AOS, on grape wood. Grower: Dennis Dayan.
- 7 Drymoanthus minutus 'Maiké', CBR/AOS, on a tree-fern slab. Grower: Fred Gordon.
- 8 Brassavola flagellaris 'Professor Dorothy Schweitzer', CCM/AOS, on tree fern. Grower: Lawrence Schweitzer.
- 9 Epidendrum parkinsonianum 'Avalanche', CCM/AOS, on cork. Grower: Lawrence Schweitzer.
- 10 Cattleya walkeriana 'Marge Soule', CCM/AOS, on a red-oak slab. Grower: Lee Soule.
- 11 Oncidium dayanum 'Greentree', CCM-CHM/AOS. Grower: Don Richardson for John Hay Whitney.