FOREST EDGE GARDEN

Many people envision the tropical rainforest as full of large leaved lush plants. When looking at a typical rainforest, it is surprising how few large leaved plants there are. The northern counterpart of a rainforest is the temperate hardwood forest and the lushest and most diverse part of it (as with a rainforest) is the forest edge. Here, sunlight penetrates to the ground. As a result, there are trees, shrubs, annuals, and perennials, bulbs and grasses.

One advantage to a forest edge garden is that you need not do any raking or cleaning up once the garden is established. Birds will enjoy poking around in the debris for insects, their eggs and pupae. Normal garden watering can be done here. Watering should be overhead to keep the foliage clean. Once every two weeks for an hour or two should do the job.

Boulders in this kind of landscape are not as important as in some others, but they can be used to great effect. The choice is yours, but if you're making a stream, then use them. A stream can easily exit from the "forest" and meander into the open. Still another choice is a small pool that doesn't go anywhere. As a boy, I have come upon such pools within the woods. Seldom more than two feet across, they were invariably deep and clear.

There are two disadvantages to this kind of garden. One, there aren't many trees that you can use with success in a small area. Two, you will have to be able to prune with the severity and delicacy of a Bonsai enthusiast. If you are good at the art of pruning, your choice of materials is expanded by that much.

You are not going to be able to create a forest, but you can suggest it. What is best is to pick an area where you can plant a few trees to represent the edge of the forest. To keep it from looking too rigid, put one or two trees off by themselves as if the forest were spreading.

The next thing is the shrubs, of which you will have a wide choice of both natives and exotics. Try to determine the ultimate growth of the shrubs and leave a space or two that will allow a view through the trunks of the trees. This will lend some depth. It's not necessary to remove the lower limbs of the trees to make room for the shrubs, since most trees have the ability to drop branches that are shaded and no longer useful. Some of the shrubs can be effectively scattered in more open areas.

In selecting woody plants for the garden, it is probably best to limit your choices to a few of the larger ones. Plants tend to grow in communities of a few species. You can get as wild as you like with annuals, perennials and bulbs.

Ferns and some moisture loving bulbs and perennials can be planted near the water. If the water is in the sunlight, groupings of native, Siberian and Japanese Iris will do very well. At the bases of the trees and shrubs, you can plant daffodils, hyacinths, snowdrops and the like. Be generous; most of them will bloom before the trees have leafed.

Deciduous Trees. Not many of these are easy to control and keep looking good.

Acer spp. Maples. The slowest growing and most easily controlled and most expensive is the Japanese Maple. Branches tend to be horizontal. Vine Maple (A. circinatum) of the Northwest has a similar growth habit in full sun. A larger tree from the Northeast is Swamp Maple (A. rubrum). This one would require severe pruning.

Betula spp. BIRCHES. Moderately fast growing, they tend to remain small and can be encouraged to do so with pruning. Seeds are eaten by a number of small finches. The white bark is particularly beautiful against dark evergreens. European Birch (B. pendula), sold as (B. alba), is available almost everywhere. Paperbark or Canoe Birch (B. papyrifera) is the most desirable but also the largest.

Evergreen Trees (Conifers). Most of these are slow growing and easy to keep withing bounds.

Juniperus spp. JUNIPERS. Chinese Juniper (J. chinensis) is a good subject for a woodland setting in its upright form. Two natives can also be used, but both Eastern Red Cedar (J. virginiana) and Western Red Cedar (J. scopularum) like drier soil. They should not be planted by a stream.

Pinus spp. PINES. The slow growing, almost fir-like Scotch Pine (P. sylvestris) is a beautiful addition to any setting, as is (P. nigra) the Austrian Black Pine. Mugo Pine (P. mugo) is a natural dwarf, but it spreads horizontally. Japanese Black Pine (P. thunbergii) stands pruning well.

NOTE: Do not prune pines closer to the trunk than where the needles grow. Dormant buds of pines are shortlived and will not break. At best, you will have ruined the shape of the tree; at worst, it will die. Take into consideration that these are meant to be forest trees and that the trunks should be straight, not twisted as they would be when exposed to mountain winds.

Shrubs. The list that follows contains both natives and exotics. Most of them have been chosen on the basis of flowers or fruits (or both) that would be of benefit to the birds.

 Berberis buxifolia nana, DWARF BARBERY. Evergreen shrub 15-18 inches high with small glossy-green leaves and yellow flowers in spring

 Berberis verruculosa, No common name. Another evergreen with dark leaves. Grows to 3 ft.

 Carissa grandiflora, NATAL PLUM. All of the varieties of this plant have spines and ovate glossy leaves. Most of them flower and fruit as well. The fruit is edible.

C. g. nana compacta is low and dense to 3-4 ft.

C. g. albes grows to 5 ft.

C. g. prostrata grows along the ground to about 1 ft.

 Cotoneaster spp., COTONEASTER; The genus contains plants that grow from 6 inches to 15 ft. The deciduous kinds can be grown almost anywhere; the evergreens only in the warmer sections of the country. All of them have berries, some favored by birds, others ignored.

C. dammeri, prostrates to 6 inches.

C. decoras, prostrates to 3 ft.

C. adpressas, spreading 3 ft and 1 ft tall.

C. microphyllas, spreading to 3 ft and 2 ft tall.

C. horizontalis, to 3 ft tall.

C. diversicolor, grows to 6 ft.

C. Apiculata, another 6 footer.

C. glaucophyllas, compact to 7 ft.

Gaultheria shallon, SALAL. This native of the West Coast is related to Blueberries. The leaves are used by florists as "lemon leaves". In shade it will need heavy pruning; in sun (with adequate water) it is more controlled. Berries are edible and somewhat larger than Blueberries.

Gaylussacia baccata, HUCKLEBERRY. A woodland shrub that grows 3-4 ft. The berries lack the bloom of Blueberries and have more seeds.

Hysandra quercifolia, OAKLEAF HYDRANGEA. To 6 ft. with deeply lobed 8 inch leaves. If cut to the ground each spring, it will only grow to about 3 ft., but will be dense. Needs shade or part shade.

Juniperus spp., JUNIPERS. There are prostrate and low growing kinds of Junipers. When buying, try to determine maturity height and spread of the plants. Most of them are slow growing and easily controlled, but if you want to keep pruning to a minimum, buy those that meet your requirements.

Kalmia latifolia, MOUNTAIN LAUREL. This is a slow growing shrub that eventually reaches 8 ft. I include it here because it is so characteristic of hardwood forests. It is evergreen and has pink flowers in clusters in spring. This is a rather
A coarse shrub and would be best in large aviaries.

*Ligustrum* spp., PRIVET. There are a number of evergreen and deciduous Privets that are adaptable to small places, most of which are hardy. This relative of the Olive bears medium sized purple berries that are much liked by a wide variety of birds.

*Myrica* spp., WAXMYRTLE. The eastern form (*M. carolinensis*) has white berries and the western form (*M. californica*) has purplish ones. The berries were formerly boiled to make candle wax. Many birds are fond of them.

*Myrtus communis*, MYRTLE. A fine textured, rounded shrub 3-5 ft. The glossy, green leaves are aromatic when crushed. Usually pruned as a hedge, it has a restrained growth habit when left alone. *M. compacta* is much smaller. Both of these do well in warm or cool climates; check with your nursery for climate adaptability in the North.

*Neillia longiracemosa*, No common name. 6-7 ft. shrub with bright green leaves. Flowers are pink in clusters that may cause the branches to bend downward.

*Pieris floribunda*, PIERIS. Dark-green leaves are displayed in radial clusters. Urn-shaped flowers in spikes in spring. Give same treatment as Azalias. 4-6 ft.

*Rosa* spp., ROSES (WILD). Many roses are native to various parts of the country. All of them have simple flowers that are usually heavily scented. Aside from the insects they attract, the hips they produce are much liked by many birds. Plant in full sun.

*Rhododendron* spp., AZALEAS AND RHODODENDRONS. This is a very large genus of Asian and North American shrubs. Asian Azaleas are generally evergreen and native species are most often deciduous. The principle value of these shrubs is their flowers, although Japanese gardeners use them as much for their leaf texture. The majority of plants in this group require partial shade. The removal of these shrubs from the wild is an offense in most states, and they are extremely difficult to transplant. Nursery stock has a more fibrous root system and transplanting is easy.

*Spirea* spp., BRIDLEWREATH. Several Spireas are ideal for a small space, forms range from as little as 3 ft. to as tall as 6 ft. Flower color varies, but as the common name suggests, they are abundant.
Some are fragrant, others not. The berries are edible; European Cranberry is a viburnum. Check with your nursery for those best adapted to your climate and your needs.

**Perennials.** Aside from perennials that you would commonly grow in your area, there are a few that should have special mention.

*Cypripedium* spp., LADY'S SLIPPER. These native orchids can be had from some nurseries. Like Azaleas, they are protected almost impossible to transplant from the wild. In the Northeast the Pink Lady's Slipper (*C. acaule*) grows in moist woods. The South and West have yellow flowered forms (*C. calceolaria*) for example. In the Northcentral parts of the country is a pink and white form (*C. regina*). Commercial orchid growers don't bother with our native, but do grow the related genera *Paphiopedilum* and *Cypripedium*. Some of these are hardy enough in Florida and Southern California.

**FERNS.** When using ferns, try to stick to those that remain in scale and are not invasive. Boston Fern is one that will quickly get out of control, so avoid it.

*Viola* spp., VIOLETS, JOHNNY-JUMP-ETS, ETC. Don't forget these favorites for shade, semi-shade or full sun.

*Columbine* spp., COLUMBINE. Many kinds of Columbine are perfect at the edge of the forest. Lots of birds relish the seeds.

I would recommend bluegrass for a ground cover in the open since it rarely becomes too tall and will permit the planting of many annuals and perennials within it. Bluegrass needs some babying in the rest of the country.

In the open, the seeds of both annuals and perennials can be scattered among the grasses. You don't have to be a purist so you can include such plants as daisies, dandelion, zinnias, marigolds, larkspur and delphiniums, lupine, poppies, asters, calendulas, phlox, rannunculus, etc.

Generally speaking, the care of such a garden can be limited to watering and some pruning. The years growth of annuals, perennials and grasses will be levelled by the elements and this refuse will act as a kind of nursery for newly emerging seedlings. Much of it will be prized by the birds for the next seasons nesting materials.

**BIRDS.** The list of birds for this kind of aviary is extensive.

Almost any thrush, most of the Old World warblers, small lorikeets, hanging parrots, most of the babblers (including Pekin Robins), titmice, Old and New World flycatchers, sunbirds, serins, linnets, wattle-eyes, kingfishers, rosefinches, antbirds, ovenbirds, pittas, etc.

The first thing you might observe when you go to purchase a book is the category into which it falls - expensive, or not expensive. The following factors have a bearing on a book's worth: 1) supply and demand; 2) qualification and authority of the writer; 3) quality of the physical volume, i.e., binding, paper, color plates, etc.; 4) practicality of the contents - can you actually use the information in the book?

The right combination of the above factors will produce a very valuable book. Most books fall down in several areas and never acquire much worth.

The reason that first editions are usually more valuable than reprints is supply and demand. Dr. William Beebe's *A Monograph of the Pheasants* was first published in just six hundred sets. Thousands of people want them now but there are still just six hundred sets. And many of those are on the shelves of libraries and universities, hence forever lost to the public market. Each set was worth well over $2000.00 in late 1974. Books that have limited editions generally have a greater chance for appreciation than those published for the book trade.

A book that is not a first edition can still gain much value if its author was a person highly respected in the subject he writes of. A bird book by Dr. Jean Delacour has more value than one by Danny Dimwitt.

And, of course, a book that is printed on vellum, bound in gilt calfskin, and containing many exquisite hand-colored plates is expensive no matter who wrote it or how many editions there are.

Lastly, if a book contains information that is accurate, clearly written, and usable, it is a valuable book if you want that information.

Condition is a factor when considering old books. A book that you can shuffle like a loose deck of cards is really a book no longer. Its value decreases with each injury. On the other hand some books (Audubon's Elephant Folio for example) are so valuable that each leaf has its own value when separated from the book itself.

A well known bibliophile summed up the whole of book collecting when he defined a rare book as "... a book I want but can't find."

With the above thoughts in mind, let's consider a recent bird book that I feel is a valuable addition to any ornithological library. It is *Curassows and Related Birds* by Jean Delacour and Dean Amadon.

Many of you know Dr. Jean Delacour, long considered the world's leading aviculturist. He maintains a fine collection of birds at Cleres, France. Dr. Delacour has written many books including a four volume work on the birds of Indo-China and monographs on pheasants and waterfowl. He is a former Director of the Los Angeles County Museum and is a Research Associate of the American Museum of Natural History.

Dr. Dean Amadon is also an eminently qualified ornithologist. He is the Lamont Curator of Birds and Chairman of the Department of Ornithology at the American Museum of Natural History. He is co-author of *Eagles, Hawks, and Falcons of the World*. The credentials of both authors are impeccable.

Drawings of Curassows by Al Gilbert