A renowned plantsman looks at the rich flora of this fabled land

by JIM ARCHIBALD

In a few parts of the world, circumstances of the remote past have combined to result in regional floras of incredible variety. As long as these are preserved, they will stimulate botanical investigation and provide a seemingly inexhaustible source of exciting plants for gardeners. Some such areas are California, Chile, southern Africa, and Turkey. All encompass many climates and have complicated land surfaces, which have not only enabled ancient plants to survive in specialized niches but have encouraged new ones to develop. Turkey is a center of diversity for many groups of horticultural interest—Arbutus (372 species), Cocos (323), Cyclemmen (10), Euphorbia (31), Elatia (38), Sylvia (86), Verbascum (228), and many attractive small genera such as Aethionema, Ebenus, Glaucom, and Hypericum. For several years, my wife, Jenny, and I spent most of our summers traveling through this friendly and beautiful land to search for some of its special plants, photograph them, press dried specimens, and collect seeds in the hope that more of them could be established in cultivation.
liege and short yellow spikes, it is one of the finest dry stone-wall plants. In nature, it is only known from the isolated hilltop ruins of Ternesus, a city Alexander the Great did not trouble to conquer on his eastward march. Last time I visited, I could find no trace of it. A desire to tidy this spectacular archaeological site had resulted in the enthusiastic use of herbicide. Fortunately, the Madonna lilies (Lilium candidum) had survived.

Moving along the Cilician Taurus, there is an increasingly Levantine influence until in the Arnavut Mountains, which turn south at right angles to the main range. Some plants are shared only with Syria and Lebanon. The elegant, glaucous yellow-green bells of Fritillaria affinis appear here, as does tiny, pale blue, bulbous Iris hisra, Sumptuous, magenta, chocolate-blotched Cyclamen pseuderichii only grows here. Among the oak scrub on the crests of the hills are colonies of the extraordinary, summer-dormant Helleborus virgatus. Unlike any other hellebore, this produces huge, inflated seed capsules that dry to fragile parchment balloons before they break off in the breeze, blowing up from the sea, to sail toward Gaizantep and the Syrian Desert.

NORTHERN TURKEY

In the north, Turkey borders the Black Sea. The climate here is wet. Trees and hazel nuts are grown on the terraced hillside, and the wild plants come from the north and west. Dense deciduous forests of beech (Fagus orientalis) with oaks, maples, asp, and sweet chestnut clothe the steep slopes of the Pontus foothills. There is often a luxuriant growth of cherry laurel (Prunus laurocerasus) and large-leaved ivy (Hedera helix), with evergreen Daphne pontica and many ferns, such as Peris ceratiz and Asplenium scolopendrium. A multitude of plants familiar to gardeners in moist, temperate areas grow here. In early spring, near the coast, there is purple Iris foetidissima with its clumps of broad, glossy foliage. Unlike its Mediterranean cousin, I. unguicularis, it loves the salty, acidic clay of our wet Welsh gardens and flowers all winter. On woodland banks there are primroses in lilac to magenta-pink shades (Primula vulgaris subsp. citreolus), carymne Cyclamen aureum, and snowdrops (Galanthus nivalis and G. parviflorus). The hellebores (Helleborus orientalis), ancestors of most of the garden hybrids, are usually green-fushed whites and creams, occasionally with a pinkish tinge. In the west the influence is Balkan, with speckled martagon lilies and purple Clematis viticella, but toward the east new plants occur. Porous blue Ophiopogon papyraceus grows along the woodland margins, and in a few places there is the distinctive relic, Primula neesianae. Many such species are shared with adjacent Georgia and Abkhazia.

This is the land of the Turkish rhododendrons and lilies, where the vegetation resembles that of the Pacific Northwest or southwestern China. It was the ancient kingdom of Colchis, from which Jason carried off the golden fleece and the princess Medea. It remains quite a remote area, where the brown bears roam through dense forests of spruce (Picea orientalis), fir (Abies nordmanniana), birch (Betula nana), and rowan (Sorbus sibrica). In fall, the hillsides flame briefly with the dying leaves of the deciduous yellow azalea (Rhododendron latum) and the magnificent, eight-foot-tall Vaccinium macrophyllum. The other Turkish rhododendrons are evergreen. In high, open sites or in frost pockets where the widespread, lower-altitude R. ponticum has been snared off by the cold, pink R. sibirica predominates. In the thick, soft, white felt that clothes its young shoots and lower leaf surfaces, it recalls R. jacobaeum. Also harder than R. ponticum is R. angustifolia, but this prefers more humid areas or more shade. Although these species produce natural hybrids, in its purest forms R. angustifolia is most distinct, with very large leaves, and trusses of broad, pure white berries produced after all the others in July. Growing well above the timberline, at up to 10,000 feet, creamy white R. caucasicum forms dense, low thickets.

HARDY TURKISH PERENNIALS

Gardeners in the Northeast, where cold winters and humid summers restrict plant choice, might find inspiration in some entirely natural plant associations in the mountain woodlands of the core of Turkey. In shade, the early-flowering, big-leaved borages—lilac-blue Trachymenium orientalis, sky-blue and pink Sympetrum asperum, and rich blue Brunnera macrophylla—create a solidly impressive groundcover. The leafy, three-foot sages, violet Salvia farinacea and pale yellow S. glutinosa, might gently etch the summer. In woodland openings and subalpine meadows, the massed, soft lavender blues of Campanula lactiflora back black-eyed, intense magenta Gentiana palaestina and occasional blue-and-white corydalis (Aquilegia olympica). Along streams, the huge, long-rayed, brassy yellow daisies of Todeka speciosa jut bol
with the imperial purple bells of Campanula latifolia. The lilies grow at these middle altitudes. Here and there in the woods above Trabzon are purple-centered, yellow Lilium ciliatum and sweetly scented, sulphur L. monadelphum var. armenum. Up near the Georgian border is the stunning, creamy L. kesredingianum. Smaller L. ponticum, varying from speckled butter yellow to orange, occasionally almost all suffused with chocolate, is most numerous above the timberline. Often it grows in the steep, deep-cutting gullies to be backbreakingly scythed by teams of men in late summer. The hay is a rich herbaceous mixture with white anemones (Anemone narcissiflora), pink biotors (Paeonia bistorta subsp. carnea) and masterwort (Astrantia maxima), lavender-blue scabious (Scabiosa caucasica), and rich violet-blue cornflowers (Centaurea cyanus). After the hay is cut, the big, rosy purple goblets of Calochortus species push through.

FROM DIFFICULT TO EASY
Some of the plants of the alpine turf are difficult to grow anywhere. Few gardeners have cultivated creamy white Daphne gnidium, egg-yolk yellow, autumn-flowering Crocus sativus, or tiny pink Cyclamen purpuratum. The white-powdered, cool lavender-blue, high alpine Primula longipes vereg on the impossible. On the cold cliffs and on tussocks in the meltwater streams of a few mountaintops, it grows with its roots in freezing water to remind it of the last ice age, when perhaps it and the other arctic-nival primroses were more numerous than today. Maybe a gardener in Alaska might grow them one day. Its companion, the red-purple to violet oslip, P. amena, is more growable in cool climates. Of course, not all the local plants are difficult. The dainty orange poppy Papaver leuconoe, though restricted in nature, is an easy garden perennial. More widespread on drier slopes, ivy Campanula latifolia and spiny, silvery Eryngium giganteum can almost be considered aggressive in some gardens.

THE CORUH VALLEY RIVER
Abridged all this luxuriance, there is a Mediterranean enclave in the deep, dry valley of the Coruh River. Here, the valley bottom and there are smoke bushes (Corokia corymbosa) on the slopes. Originum rutabuliforum, an excellent garden plant with heads of drooping, greenish cream bracts, grows here and there in a collection of beautiful white campanulas, centered on C. betulifolia, exclusive to the indigenous cliffs of the Coruh Drainage. Campanula trachelium has flat, wide-open flowers and grayish toothed leaves, which are shared by C. corinthis, whose bright-blue flowers are more conventionally bell-shaped. Here is the last outpost of the hardy Paeonia endlicheriana, whose flowers have two large, butterfly-like, cuneiform petals. This is widespread across central Anatolia, but the larger, kurdish P. bartlettii grows only among the oaks of the southeastern. Their nearest relatives grow thousands of miles away in the Cape of South Africa.

Further Reading
The Explorer’s Garden
Daniel J. Hinkley
Timber Press, 1999

The Plant Hunter’s Garden
Bethany J. West
Timber Press, 2004
(See review on page 76)

Naturalist in Western China
E. H. Wilson
Everyman Publisher, 1987

Plants from the Edge of the World
Mark Ratcliff and Tony Kirkham
Timber Press, 2005

Growing Bulbs
Merton Rix
Timber Press, 1989

Finding inspiration in the plants of Turkey is easy enough; finding the plants themselves can be more of a challenge. But it’s simply a matter of knowing where to look. Most plant societies keep seed lists of unusual plants, or one of the benefits of membership is access to the society’s yearly seed exchange. The North American Rock Garden Society is a good source of Turkish plants, and their seed list is available for review at their website: www.nARGS.org. Plant hunters themselves are also a good source for hard-to-find plants, and, happily, many maintain catalogs. Web sites, and mailing lists. For instance, Jim Archibald himself keeps a seed catalog: www.JamesNerious.com. For those willing to look around a bit— it’s no hike through the Taurus— the plants of Turkey are there for the taking— Megan Lynch.

For more suggestions of specialty seed and bulb catalogs, visit www.hortmag.com.

The second and concluding part of this article will appear in the May/June 2008 issue.
Treasures of Turkey

by JIM ARCHIBALD

Turkey is a country rich in specialized environments that offer homes to an equally rich array of plants. Last month Horticulture explored a number of these botanical kingdoms; here we pick up where we left off, with Anatolia, the heart of the country and by far its largest geographic division.

The second in a two-part series

IN THE STATES

While experienced and knowledgeable steppe-gardeners are still few and plants not always easy to get, I’ve convinced that a greater understanding and use of these valuable species is bound to come. There are many to choose from. A number have already been introduced to Colorado, Arizona, and New Mexico. In the Denver area, the enthusiasm of Panayoty Kealidis of the Denver Botanic Gardens can be credited with the presence of the west Anatolian Salvia hyptoporia in the garden center trade. Its wheels of lavender blue flowers rise on two-foot stems above neat clumps of gray felt-like leaves. Tall campanulas are available, too, including the free-seeding Michauxia campanuloides, lilylike in its branching stems of white flowers. Prostrate, azure blue Veronica insana and its dwarfer cut-leaved cousin V. alpina, both wispy denizens of basalt crevices, have proved to grow so vigorously in Colorado that they can be used as a groundcover.

And there are more. Verbascum wiedemannii, another plant of very limited distribution in north Anatolia, will grow readily in northern New Mexico, while the commercial forms of pink Tulipa humilis, a local plant in southern Turkey often sold as T. pulchella and T. violacea, set seed and naturalized freely in a garden in Llanthony, Colorado. And an old friend of mine grew the notorious recalcitrant Onoclea stephie rises in the chaparral of his Arizona ranch.

WELL-ADAPTED PLANTS

Many steppe plants have developed a distinctive low-mounded habit and sharp, stiff leaves, partly in response to the climate and partly to protect themselves against the countless sheep and goats grazing the near-barren country sides. The pink-flowered anacnthemone—the spiny thistles—are among the more numerous of these hedgehog-hummocks. Many Astragalus adopt the same habit; I am particularly fond of members of the Hymenostegia Section, with dense, oblong, downy heads of purple, pink, or yellow flowers. Some of the genus Echium have similar silky heads of brilliant purple-pink flowers.

Most dwarf shrubs and perennials are not so well armed. Among the numerous sages, I especially like a woody, cut-leaved group that ranges from Salvia petrotiifolia in the southwest to S. rufolaxis near the Georgian border. Most are very local and almost all found only in Turkey. They vary in height, from mat-forming, lilac to pale yellow S. carpatica to five-foot, shrubby S. helichrysum, which boasts rich purple-blue flowers. Some of these are setting into cultivation. So too is S. multiflora, a mat-forming sage whose stems are wheeled with big calyces tinted the same purple as its small flowers. Large, bell-shaped, almost spurge-like greenish-yellow calyces are a feature of the spectacular S. kroenneri. Borages contribute greatly to the rich plant life of the steppe. Onomyces are everywhere, many of them yellow-flowered biennials, while some of the perennial species can range into pinks and blues.
Gardenworthy Plants of Turkey

The following Turkish plants have proven themselves first-rate garden performers. All are hardy to at least USDA Zone 5, except where noted.

<table>
<thead>
<tr>
<th>Name</th>
<th>Bloom Time</th>
<th>Bloom Color</th>
<th>Height</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dactylorhiza spp.</td>
<td>May-June</td>
<td>Shades of violet and purple</td>
<td>2-3 ft.</td>
<td>Requires a deep, rich, acid soil; may be harder than expected, Zone 7</td>
</tr>
<tr>
<td>Fritillaria micrantha</td>
<td>May-June</td>
<td>Dark reddish purple with yellow tips</td>
<td>4-8 in.</td>
<td>This lovely plant is excellent in the rock garden or as a pot in a sunny position.</td>
</tr>
<tr>
<td>Muscari armeniacum</td>
<td>April-May</td>
<td>Deep purple blue with white rim</td>
<td>6-8 in.</td>
<td>A great cut flower with a subtle scent; many available cultivars from which to choose.</td>
</tr>
<tr>
<td>Pulsatilla vulgaris</td>
<td>April-June</td>
<td>Pale blue with dark blue stripe</td>
<td>4-8 in.</td>
<td>Easy to grow in good, well-drained sites, best planted in large drifts.</td>
</tr>
<tr>
<td>Scilla bifolia</td>
<td>March</td>
<td>Bright blue</td>
<td>4-8 in.</td>
<td>Great plant for the woodland, prefers a cool location and filtered light.</td>
</tr>
<tr>
<td>Scilla siberica subsp. argelina</td>
<td>April-May</td>
<td>Dark purplish blue</td>
<td>6-8 in.</td>
<td>This hardy species does not do well with hot summers, but when happy makes a great cut of blue.</td>
</tr>
<tr>
<td>Tulipa humilis</td>
<td>April-June</td>
<td>Pink, purple to crimson</td>
<td>4 in.</td>
<td>This petite tulip is best grown in well-drained soil.</td>
</tr>
</tbody>
</table>

BULBS DIFFICULT AND EASY

Turkey has long been known for its bulb plants, and some of the most exciting flowers of the Anatolian plateau remain those that escape the summer heat by retreating into underground bulbs, corms, rhizomes, and tubers. Few plants can match the effect of the immense clusters and ivory blossoms of the dwarf Oncocyclus iria L. iberiaca subsp. elegans, or the strawberries of another Oncocyclus, L. paradisiacus var. chiosi, with its small, still black velvet falls below huge white lilac-covered standards. They are plants for the specialist; breeders have not succeeded in transmitting their extraordinary characteristics to hybrid offspring. The same applies to the juniper irises, among the first of the bulbs to flower. An intricate jewel-like translucency is typical of the variable blossoms of L. persica and L. galatica, violet-blue to yellow phlox, and yellow l. anatolica.

Yet some bulbous plants are as easy to grow as these are difficult. In their native place, thousands of pale Puschkinia scilloides and deep-blue scillas (Scilla bifolia and S. siberica subsp. armeniacum) follow the snow patches up the mountains. Moisture drains from the hills into seasonally marshy hay meadows that are sometimes washed blue with Muscari armeniacum and later with red-purple orchids (Dactylorhiza spp.) and Gladiolus kotschyanus. Just because plants grow together at the same altitude, incidentally, does not mean that they are equally cultivatable. The beautiful pink Fritillaria alborum is exceptionally difficult, but the yellow-tipped, mahogany-purple F. michailovii has taken to cultivation with enthusiasm.

A particular group of species is found in the Kars and north, where nomads pitch their tents in the mountains to graze their herds on the highest slopes. Some of these plants are limited to

(this corner of Turkey, others shared with neighbouring Iran and Iraq. They include two races of Fritillaria ceratophylla, F. carpathica and F. sibirica, whose fat bells come in yellow-greens and browns. Tall orange-crowned imperials (F. imperialis) and tiny Tulipa biflora white with yellow, yellow-centered blossoms can be found here. The steep, stony slopes are also home to the yellow bells of E. miniata, apricot to red-brown E. minuta, and purple-pink Celmisia kischingii. All these plants depend on water from melting snows high on the great mountains to the south of Lake Van, or the sea beyond the sun, as it was called by the ancient Assyrians.)

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