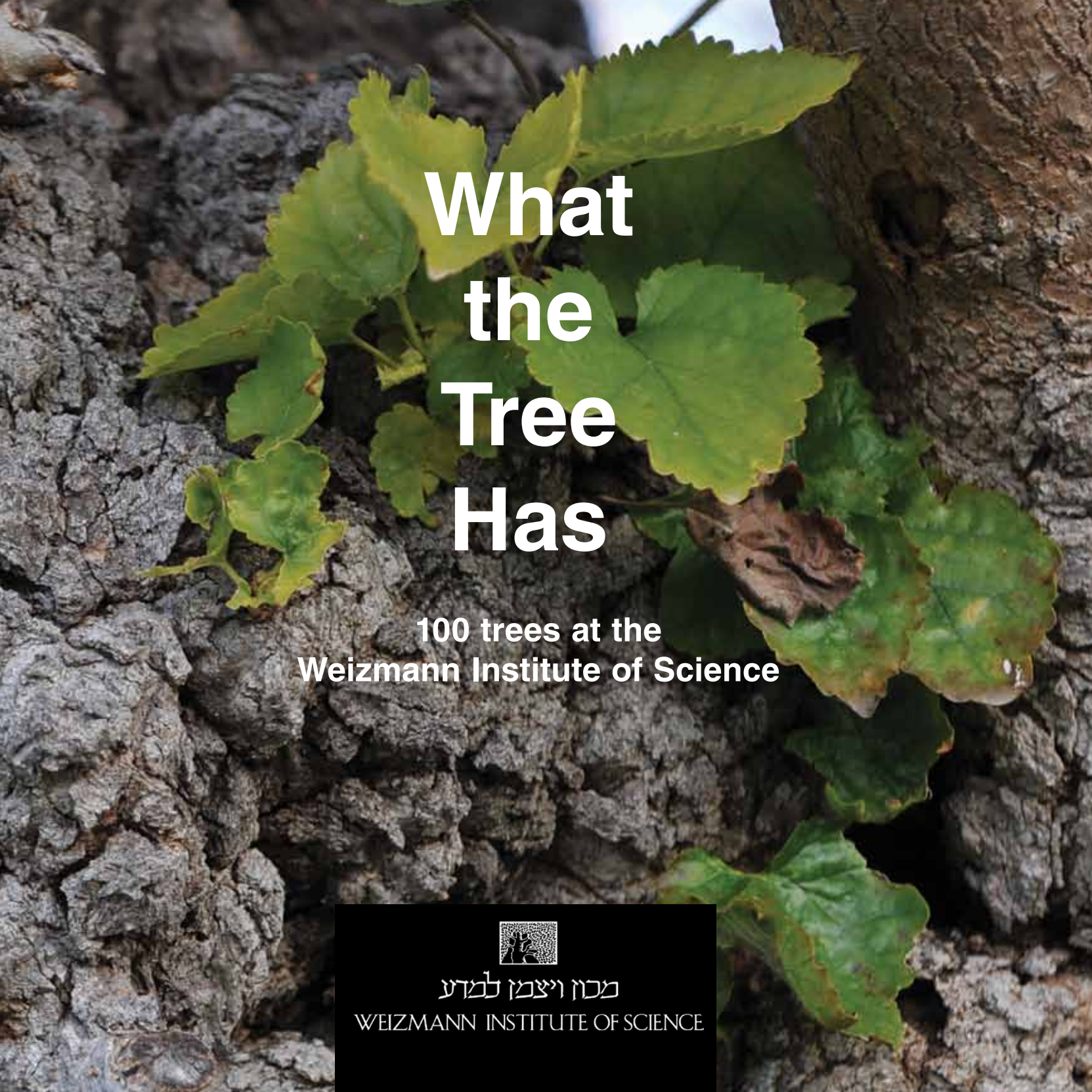


What the Tree Has

100 trees at the Weizmann Institute of Science

מכון ויצמן למדע

WEIZMANN INSTITUTE OF SCIENCE

מכון ויצמן למדע
WEIZMANN INSTITUTE OF SCIENCE

What the Tree Has

100 trees at the
Weizmann Institute of Science

"…there was not a tree or blade of grass to adorn the vast courtyard … and I had before my eyes the green lawns of English and American universities and scientific academies, and thought that we would be showing a lamentable lack of aesthetic feeling if we merely planked down the buildings and did nothing with the surroundings."

Dr. Chaim Weizmann on the plans for the Daniel Sieff Research Institute,1933, from his autobiography *Trial and Error*

See the map and index at the end for locations of the trees. The colored squares at the top of pages refer to the locations of trees with explanatory signs.

Give Me What the Tree Has
Natan Zach

Give me what the tree has and what it won't lose
and give me the power to lose what the tree has.
The faint tracings the wind makes in the darkness of a summer night
and the darkness which has neither trace nor shape.
Give me the figures I once had and have no more
the strength to think that they've been lost. Give me
an eye stronger than what it sees and a hand
harder than what it seeks. Let me inherit
you without receiving anything that's not past
the moment I receive it. Give me the power to come near,
without fear, precisely to what I'm not meant
to hold dear, let me come near.

Signs
5–2
5–13

AFRICAN TULIP TREE

Common name: African Tulip Tree,
Flame of the Forest, Fountain Tree
Hebrew name: מתחלית פעמונית matchalit pa'amonit
Scientific name: *Spathodea campanulata*
Arabic name: شبيط جرسي
Family: *Bignoniaceae*

A tropical tree notable for its magnificent bloom. It is medium-sized in Israeli conditions, but in its native tropical Africa, it attains much greater heights. The trunk is straight and tall, and the leaves of the round crown tend to concentrate at the top. The bark is brown and somewhat lumpy to the touch, and the soft wood serves as a home for many birds that dig out holes. The leaves are pinnate with large, deep green leaflets.

In its native region, the African tulip tree is evergreen, but in Israel it sheds at least some of its leaves in winter. In its natural habitat, the tree is in bloom all year long, while in Israel the tree is in bloom primarily from late spring until autumn, though here too it may bloom in other seasons. Before the flower opens, the petals are closed inside a curved spathe-like cup (hence the scientific name), resembling a boat or horn. After opening, the bell-shaped flowers collect rainwater, which attracts birds. The fruits develop with pod-like capsules.

Signs
3–12
3–16

Common name: Alexandra Palm
Hebrew name: ארכי–תמר אלכסנדרה archi-tamar alexandra
Scientific name: *Archontophoenix alexandrae*
Arabic name: نخل الكسندر (الحلقات)
Family: *Arecaceae (Palmae)*

ALEXANDRA PALM

An upright tropical palm of noble appearance. The graceful pattern of rings encircling its smooth, straight trunk attests to fronds that have fallen. The base of the fronds, situated in the upper part of the trunk, resembles a tall, narrow, smooth green jug, and can reach up to one meter long. This part of the tree is referred to as the crownshaft, and out of it grow a relatively small number of large, curved pinnate fronds composed of numerous ribbon-like leaflets.

In the autumn, long, curved, divergent blossoming branches grow downward from two paper-like bracts beneath the crownshaft. These bear numerous white flowers, some of which are female and the rest male. The flowers are followed by the development of distinctive round red fruit, each of which contains one seed.

The genus *Archontophoenix* comprises six species of palm, all from eastern Australia. They are sensitive to cold and strong winds; therefore, they tend to be planted in inner courtyards or protected gardens. Their elegant appearance has made these palms popular ornamental trees.

Signs
4–8

Common name: American Arborvitae
Hebrew name: תויה מערבית tuya ma'aravit
Scientific name: *Thuja occidentalis*
Arabic name: عفص غربي
Family: *Cupressaceae*

AMERICAN ARBORVITAE

A small coniferous cypress-like tree. Its bark is brown and fissured in strips, and its flat branches distinguish it from the cypress. The leaves are small and scaly and produce a characteristic scent. Small flowers, male and female, appear at the branch ends. The female flowers develop into small, elongated cones that turn brown.

The American arborvitae is native to eastern North America. It grows in mixed coniferous forests and thrives in such harsh environments as swamplands and rocky cliffs. Its foliage is a favorite food of deer, which is one of the reasons it prefers growing in inaccessible habitats. The American arborvitae can be a very long-lived tree: Some wild specimens are known to be hundreds of years old.

From the original tree, hundreds of cultivars have been developed for ornamental purposes, some of them shrub-like or even dwarf, which have become common around the world. In Israel the original form is rare, but the varieties that were developed from it, including the *smaragd* (emerald green), are familiar and popular in many gardens.

Signs
4–24

Common name: American Persimmon, Possumwood
Hebrew name: אפרסמון אמריקני afarsemon amerikani
Scientific name: *Diospyros virginiana*
Arabic name: كاكي امريكي (افرسسمون امريكي)
Family: *Ebenaceae*

AMERICAN PERSIMMON

A small- to medium-sized deciduous fruit tree. Its bark is gray and deeply fissured, and its wood is dark and hard, as in other species of the persimmon family. Its oval leaves are medium-sized with pointed tips, deep green tops and pale undersides. In autumn, the leaves turn bright orange.

The flowers are dioecious, male and female flowers developing after the new leaf growth, usually on separate trees. The male flowers grow in clusters of two or three, while the female flowers grow individually. In the wild, as in most of the cultivated varieties, male and female trees must grow in close proximity to facilitate successful fertilization, but some cultivars are asexual and thus produce seedless fruits. The fruits are small round berries.

The American persimmon is native to the eastern and southern United States, where it has been grown by Native Americans since ancient times. It was imported to Israel mostly to be used as root stock for its succulent Japanese cousin. Every once in a while, one will grow up in an orchard of Japanese persimmons, where it towers above the rest of the trees.

Signs
4–16

Common name: Atemoya
Hebrew name: אנונת הכלאיים annonat hakilayim
Scientific name: *Annona atemoya*
Arabic name: قشطه مهجنه
Family: *Annonaceae*

ATEMOYA

A small- to medium-sized fruit tree that is evergreen except for a short period in the spring when it replaces its leaves. Its long branches grow in all directions, occasionally reaching the ground. The leaves are large and thick, arranged in two rows along the branches.

In summer, the yellowish-greenish flowers characteristic of the *Annona* genus appear: Three fleshy exterior petals envelop three additional tiny petals, along with the stamen and pistil. The stigma of the pistil matures before the stamen, and then the flower is said to be in its female phase. Then the stigma wilts, the pollen in the stamen matures and the flower enters its male phase. The different maturation times almost entirely exclude the possibility of self-pollination, forcing growers to pollinate the tree by hand.

There are over 100 species in the *Annona* genus – most from the American tropics and a minority from Africa. The atemoya is a hybrid developed in the early 20th century by crossing the sugar-apple (*Annona squamosa*) and the cherimoya (*A. cherimola*). In Israel, commercial orchards have been planted along the coastal plain, and the fruits are seasonal, appearing in winter.

Signs
9–8

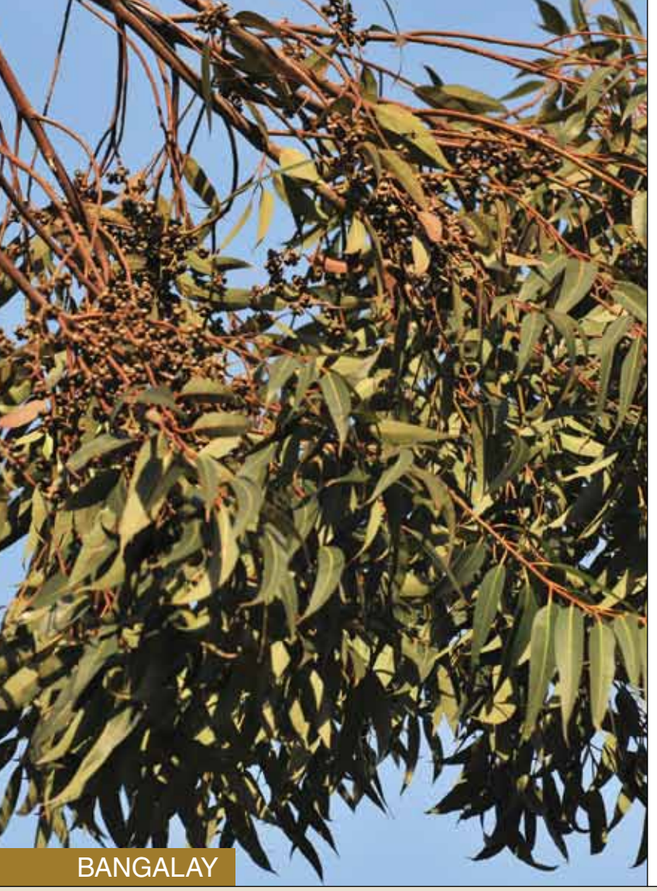
Common name: Bald Cypress, Swamp Cypress
Hebrew name: טקסודיון דו-טורי taxodion du-turi
Scientific name: *Taxodium distichum*
Arabic name: تكسوديوم اقرع
Family: *Taxodiaceae*

BALD CYPRESS

A tall, broad conifer, known for its weeping foliage. Its trunk is straight and, in mature specimens, its base widens greatly with thick abutments that branch out laterally into horizontal roots. In swampy ground, its natural habitat, it also has vertical aerial roots growing up from the ground. Its main branches spread out horizontally while the secondary branches hang downwards, creating a "weeping" appearance. The small, narrow leaves are arranged in two rows (hence the name of the species) on small branchlets that fall off before winter.

In spring, with the renewed leaf growth, separate male and female inflorescences (flower clusters) appear. The male flowers droop down, adding to the weeping look of the tree, while the female flowers turn into globular wrinkled cones. The winged seeds are distributed by squirrels and running water.

The genus *Taxodium* includes two or three species that grow in swamps and along rivers and streams in southern North America. The bald cypress is the state tree of Louisiana, where groves of it grow in the swamps. Its waterproof timber is used to make wooden roof shingles.



Signs
5–20

Common name: Bangalay, Southern Mahogany
Hebrew name: איקליפטוס אשכולי eikalyptus eshkoli
Scientific name: *Eucalyptus botryoides*
Arabic name: اوكاليبتوس عنقودي (كينا)
Family: *Myrtaceae*

BANGALAY

A large, tall evergreen tree with an upright trunk. Its bark is dark brown and fissured at its base, becoming smoother and paler higher up in the crown. Its main limbs branch out horizontally and at an upward angle; these bear pointed, stiff leaves that are characteristic of the genus *Eucalyptus*. These leaves – the tree's most prominent identifying feature – are dark and glossy above and paler on the underside, and their horizontal veins are oblique in relation to the midrib.

The flowers, each with many stamens, are arranged in groups, and they develop within a characteristic feature, called an operculum, that has a domed, slightly pointed cap. Afterwards, clusters of cup-shaped fruits develop that later become brown and woody.

The bangalay grows wild along the southeastern Australian coast, where the coastal winds "mow" its crown, giving it a bushy shape. Inland, it grows tall, and it is known as a shade tree able to survive in difficult conditions. In Israel, where it is uncommon, it is sometimes misidentified. Among the places it has been planted, it was grown by Dr. Israel Gindel in the Agricultural Research Station's experimental plot – now on the grounds of the Weizmann Institute of Science.

Signs
3–13
9–10
9–12
9–14

Common name: Benjamin Tree, Benjamin Fig, Weeping Fig
Hebrew name: פיקוס בנימינה ficus binyamina
Scientific name: *Ficus benjamina*
Arabic name: فيكوس بنيامينا
Family: *Moraceae*

BENJAMIN TREE

An evergreen tree with abundant, dense foliage and a delicate appearance. Its trunk is thin in comparison to other *Ficus* species, and its bark is quite smooth. This leafy, round, wide tree may grow to huge dimensions in the appropriate tropical conditions. Its drooping branches and the aerial roots that sometimes grow from them give the tree a "weeping" appearance. Its leaves have a long, characteristic point and appear glossy even from a distance. The tree's flowers develop inside small, globular, unripe figs that have not become a nuisance in Israel, as they do not turn juicy here.

The Benjamin tree is native to India, Malaysia, Indonesia, the Philippines and the northern, tropical edge of Australia.

It is the official tree of Bangkok, the capital of Thailand. Due to its attractive appearance, resilience and fast growth, the Benjamin tree has become a principal garden tree in tropical and subtropical countries. It is easily pruned and shaped, which has turned it into a much-loved tree for topiary and planting in pots.

Signs
10–8

Common name: Brazilian Coral Tree
Hebrew name: אלמוגן חרמשי almogan chermeshi
Scientific name: *Erythrina falcata*
Arabic name: مرجان منجلي
Family: *Fabaceae (Papilionaceae)*

BRAZILIAN CORAL TREE

A rare tree with an upright form. It is semi-deciduous; in hot areas its cycle is that of an evergreen. Its bark and branches are brown, and its green leaves are composed of three large leaflets with pointed tips.

The tree blooms only when mature, which can be many years after planting. Its closed, flat flowers are curved (like a sickle). The flowers develop in late winter or spring in terminal clusters. Their red color attracts birds. The fruit pods normally contain black seeds, but in Israel the tree does not produce seeds.

The Brazilian coral tree is native to Atlantic rain forests – primarily in Brazil, but also Argentina and Paraguay – where it is used to produce timber for carpentry. It is now grown in other warm countries for ornamental purposes, but in Israel it is particularly rare: The Brazilian coral tree that grows in the Weizmann Institute is the only known mature specimen in Israel. Just a few years ago, decades after it was planted, this tree flowered for the first time.

Signs
10–5

Common name: Brazilian Pepper Tree, Florida Holly
Hebrew name: פלפלון דמוי–אלה pilpelon d'mui-ela
Scientific name: *Schinus terebinthifolius*
Arabic name: شكينوس بطمي الورق
Family: *Anacardiaceae*

BRAZILIAN PEPPER TREE

A small evergreen tree with a shrub-like, sometimes canopied appearance. Its brown trunk has a fissured bark and long, curved branches that tend to intertwine. Older trees may develop an exceptional sculpted appearance, with twisted trunk and branches. The dark, stiff, pinnate leaves have elongated, elliptical leaflets reminiscent of the leaves of its relative, the terebinth – *Pistacia terebinthus* – hence its scientific and Hebrew names.

In spring, male and female flowers develop on separate trees. On female trees, dense clusters of round, hard, red fruit with a peppery odor appear in autumn and winter, hence the common name (even though there is no botanical connection to the pepper plant).

The tree is native to southern Brazil, northern Argentina and Paraguay, where its fruits are eaten dried or pickled. Because it is strong and adaptable, and its seeds are easily carried by birds, the tree has become invasive in a range of natural environments.

Signs
5–4

Common name: Cabbage Palm, Cabbage Palmetto
Hebrew name: סבל פלמטו sabal palmetto
Scientific name: *Sabal palmetto*
Arabic name: سبال نخلي
Family: *Arecaceae (Palmae)*

CABBAGE PALM

A slow-growing palm tree with large fan-shaped, thornless fronds. The trunk is covered by a characteristic basketweave of the crisscrossed remnants of petiole (leafstalk) bases. Most specimens remain short for a long time, while a few develop a tall trunk and shed these petiole remnants. Branched inflorescences (clusters) of small yellowish-white flowers grow out from among the leaves. Each black berry contains a single seed.

The cabbage palm is one of approximately 15 *Sabal* species that grow on both sides of the Caribbean. The cabbage palm is native to Cuba, the Bahamas and also the southeastern United States, where it grows in swamplands and along the coast. It is the state tree of both South Carolina and Florida. The tree is resilient to cold, heat and salty coastal winds, and is also considered to be hurricane-resistant.

The heart of the upper part of the cabbage palm trunk is edible, and it is one of the species grown for heart-of-palm production. In many parts of the world, including Israel, the cabbage palm is grown as an ornamental tree.

Signs
2–11
7–4
7–5
7–8
10–4
10–12

Common name: Calabrian Pine
Hebrew name: אורן קפריסאי oren cafrisa'i
Scientific name: *Pinus brutia*
Arabic name: صنوبر قبرصي
Family: *Pinaceae*

CALABRIAN PINE

A large, tall coniferous tree. The trunk is covered in fissured bark; trunks of the mature trees are free of branches up to a considerable height. Younger trees have a symmetrical, pyramid shape that rounds out as the tree matures. The needles are arranged in pairs and the large, heavy cones sit on the branches. They ripen for two years, after which they open to release winged seeds. The cones remain on the tree even after they ripen.

The Calabrian pine is very similar to the familiar Aleppo pine, but its trunk is straighter and more erect, its bark is somewhat different and its cones face in different directions (whereas the Aleppo pine's cones all face downwards). The Calabrian pine grows wild in the Middle East and in the Balkans; in Turkey it is the dominant forest tree. The red-breasted nuthatch feeds on its seeds, and the bird's range fully overlaps that of the tree. The Calabrian pine has been in Israel for a long time; it has often been planted in municipal gardens and groves. Because of its resilience to pests, its use in afforestation has increased of late.

Signs
4–22
5–8

Common name: Canary Island Date Palm
Hebrew name: תמר קנרי tamar kanary
Scientific name: *Phoenix canariensis*
Arabic name: نخيل جزر الكناري
Family: *Arecaceae (Palmae)*

CANARY ISLAND DATE PALM

A hardy palm tree, magnificent when mature. The trunk is brown or gray, thick and straight, with characteristic diamond-shaped scars, which are the remains of old leaf bases. At the top of the trunk is a crown of dense foliage with a domed contour, rather than the spherical shape of the common date palm. The green pinnate fronds are long and stiff, and each leaflet has a stiff point.

Male and female trees produce separate yellowish male or female inflorescences (flower clusters). On female trees, long clusters of round orange fruits appear; each fruit contains a large seed covered by a thin pulp. The fruits are edible, and they are relished by birds.

The Canary Island date palm is endemic to the Canary Islands and, together with the wild canary bird, is the official symbol of the islands.

The Canary Island date palm is a typical element of the Mediterranean garden and is used on elegant boulevards in Mediterranean cities – such a boulevard adorns the Rishon LeZion City Park.

Palm Tree
Rabindranath Tagore

Palm-tree: single-legged giant,
topping other trees,
peering at the firmament –
It longs to pierce the black cloud-ceiling
and fly away, away,
if only it had wings.

The tree seems to express its wish
in the tossing of its head:
its fronds heave and swish –
It thinks, Maybe my leaves are feathers,
and nothing stops me now
from rising on their flutter.

All day the fronds the windblown tree
soar and flap and shudder
as though it thinks it can fly,
As though it wanders in the skies,
travelling who knows where,
wheeling past the stars –

And then as soon as the wind dies down,
the fronds subside, subside:
the mind of the tree returns.
To earth, recalls that earth is its mother:
and then it likes once more
its earthly corner.

Signs
2–5
3–1

Common name: Canary Island Pine
Hebrew name: אורן קנרי oren kanary
Scientific name: *Pinus canariensis*
Arabic name: صنوبر الكناري
Family: *Pinaceae*

CANARY ISLAND PINE

A tall, narrow pine known for its foliage of long, soft needles. Its axial trunk extends all the way up to its crown, with secondary branches branching out horizontally. The needles, arranged in bundles of three, hang downwards. The contrast between its upright profile and its soft, drooping foliage distinguishes the Canary Island pine from other pine species and gives it its characteristic shape.

The Canary Island pine is exclusively endemic to the Canary Islands, where it is uniquely adapted to a climate with variable precipitation patterns. It traps moist ocean air in its foliage, and its drooping needles direct the drops of condensation to the ground below. Hence, it plays a significant role in maintaining the water balance of its habitat.

The Canary Island pine is valued in carpentry, and, due to its ability to grow quickly and its tolerance to heat and drought, it has become a preferred species for afforestation in many countries. This tree is one of the few pines that can regenerate after a fire or being cut down. Due to its vulnerability to caterpillars of the pine processionary moth, however, it is not widely used in Israel.

Signs
1–2
7–9
10–21

Common name: Carrotwood, Tuckeroo
Hebrew name: קופניון אנקרדי kupanion anacardi
Scientific name: *Cupaniopsis anacardioides*
Arabic name: كوبنيون خروبي
Family: *Sapindaceae*

CARROTWOOD

A medium-sized evergreen tree, known for its shiny foliage. It resembles a more compact, shiny version of the carob. The carrotwood has a smooth trunk and a symmetrical, tidy appearance, especially when young. The pinnate leaves have thick, hard, glossy, deep green elliptical leaflets.

Clusters of small green and yellow flowers hang from the tree in winter, followed by clusters of pleasant orange fruits in spring. Each fruit opens into three valves and contains three seeds. The fruit yield and cycle vary from tree to tree.

The genus *Cupaniopsis* includes dozens of species of trees and shrubs. The carrotwood is native to eastern and northern Australia, as well as New Guinea. The species name *anacardioides* comes from its leaves' outward resemblance to those of the cashew tree (*Anacardium occidentale*), which is distant both botanically and geographically from the carrotwood. As an ornamental tree, the carrotwood is common in California; in Israel its use in landscaping has become more widespread in recent decades.

Signs
1–12
8–4

Common name: Chinese Flame Tree
Hebrew name: פנסית דו-נוצתית panassit du-notzatit
Scientific name: *Koelreuteria bipinnata*
Arabic name: ظرو ثنائي الريش
Family: *Sapindaceae*

CHINESE FLAME TREE

A small to medium-sized tree especially notable for its display of colorful fruit in autumn. The shape of the tree tends to widen into a canopy; its trunk is gray and finely fissured, and its foliage is a slightly yellowish green. The bipinnate (twice-compound) leaves have serrated leaflets that resemble the leaflets of the *Melia azedarach* (chinaberry tree or bead-tree).

In late summer, panicles (branched clusters) of small yellow flowers develop on the crown. The flowers are pleasant but modest and are quickly replaced by very decorative, colorful fruits. The fruit is a three-lobed, hanging inflated capsule with thin papery walls, resembling little Chinese paper lanterns. This display is a distinctive pink-orange color during the entire autumn. Afterwards, the fruits fade to brown and are scattered by the winter winds.

The genus *Koelreuteria* contains three similar species – from China, Korea and Japan. The Chinese flame tree is native to China. In Israel, in just three decades, it has become one of the most common landscaping trees. It is often used on streets and in gardens. At the Weizmann Institute, it appears in groups along Marcus Sieff Boulevard.

Signs
3–4

Common name: Chinese Weeping Cypress,
Mourning Cypress
Hebrew name: ברוש בכות brosh bechut
Scientific name: *Cupressus funebris*
Arabic name: السرو الباكي
Family: *Cupressaceae*

CHINESE WEEPING CYPRESS

A delicate-looking conifer known for its "weeping" foliage. In other countries it grows large, but in Israel this tree remains relatively small. Its trunk is upright and its bark is brown, fissured and split. The foliage is pale green, almost yellowish. The secondary branches hang down and the flattened, dangling branchlets bear tiny, scale-like leaves.

Like other species of cypress, the Chinese weeping cypress has separate male and female flowers. The male flowers are arranged in small cones and release their pollen in spring. The female flowers develop into small, brown, globular cones, which ripen within about two years and only then open and release their seeds.

The Chinese weeping cypress is native to southwestern and central China. It was cultivated there as an ornamental tree in antiquity and, due to its unique appearance, was planted in the gardens of monasteries and palaces. In the past, the Chinese weeping cypress was planted in various locations in Israel, but it was mainly successful in the cooler regions. Today it is a rare, lesser-known tree, but a few specimens still adorn some older gardens.

Signs
5–12

Common name: Christ's Thorn Jujube
Hebrew name: שיזף מצוי sheizaf matzu'i
Scientific name: *Ziziphus spina-christi*
Arabic name: السدر
Family: *Rhamnaceae*

CHRIST'S THORN JUJUBE

A medium-sized, semi-deciduous tree that sometimes grows on several trunks. The trunk splits low down into branches; and the bark is brown and lightly fissured. The long, curving branches descend almost to the ground, which gives the tree a somewhat weeping appearance. Two thorns grow at the base of each leaf; the leaves may fall during a cold winter or a dry season.

The small, yellowish-cream flowers are arranged in clusters, and they contain nectar that attracts honeybees. The flowers and the sweet fruit, which are eaten by animals and humans, appear in several waves throughout the year.

The tree is native to the savannahs of eastern Africa, and from there it spread to our region. In Israel it grows wild in hot, low-lying areas, and it is drought-tolerant. The Arabs raised older trees to a sacred status and called the tree *sidr* or *dom*, which became *etz hadomim* in Hebrew. According to Christian tradition, the crown of thorns that was placed upon Jesus' head was made of this tree's branches, hence its name in various languages.

Signs
11–7

Common name: Cockspur Coral Tree
Hebrew name: אלמוגן כרבולתי almogan karbolti
Scientific name: *Erythrina crista-galli*
Arabic name: اريترينا العرف
Family: *Fabaceae (Papilionaceae)*

COCKSPUR CORAL TREE

A small and unusual tree, with a wide, rounded crown and a prominent bloom. The trunk is brown and fissured, and leaves are medium-sized, composed of three oval leaflets. It sometimes has thorns growing from its trunk, branches and the petioles (leafstalks) of its leaves.

Clusters of deep red flowers develop in waves from the beginning to the end of the summer. The flowers are papilionaceous (butterfly-like) and their parts resemble boats: a large "sail" that looks like a cockscomb, out of which grows a narrow, horn-shaped "keel," with small, barely visible "oars" on the sides. The flowers are followed by bean-like pods with dark seeds inside.

The cockspur coral tree grows wild near streams and in boggy soils in South America. Its flower is the national flower of both Argentina and Uruguay. In its native region, it is an evergreen, but in Israel, it sheds its leaves in winter and sprouts new growth in the spring. New branches grow in groups that look like straw brooms from the tips of the main branches in the spring. The yearly cycle of drying out and renewal limits the tree's size.

Signs
8–15

Common name: Common Bamboo, Golden Bamboo
Hebrew name: חיזרן מצוי hizran matzu'i
Scientific name: *Bambusa vulgaris*
Arabic name: خيزران
Family: *Poaceae (Gramineae)*

COMMON BAMBOO

A large tree-like grass with woody stalks. These stalks grow in dense bunches that open out like fans, curving upwards to a significant height. The stalk's hollow segments are connected by prominent, ring-shaped joints. The yellow-green stalks reach a diameter of about 10 centimeters. They grow very quickly and are constantly replaced by new growth. Thin branches with graceful arrangements of leaves, resembling fingers or forks, extend from the upper joints of the stalk.

The golden bamboo rarely blooms, and never in Israel. Its flowers are grain-like stalks. In places where it does bloom – sometimes only once every few decades – the flowers develop all at once, in perfect orchestration over large areas of land.

The golden bamboo is native to eastern Asia, where it is planted in great numbers to prevent soil erosion. Its hardy stalks are used to build houses, boats, furniture, musical instruments and even bridges. Its young shoots are eaten cooked or preserved. In the forests of southern China, bamboo leaves are the pandas' only source of food.

Signs
1–17

Common name: Common Screwpine
Hebrew name: פנדנוס תועלתי pandanus to'alti
Scientific name: *Pandanus utilis*
Arabic name: كاذي مدغشقر
Family: *Pandanaceae*

COMMON SCREWPINE

A sculptural plant with an upright, cylindrical trunk that is "scarred" with signs of leaves that have fallen off. Prop roots grow out of the trunk, creating a wreath of "crutches" that help the tree support its weight. Its branches, which normally grow in opposite pairs, create a candelabrum-like structure. At the top of the trunk is a dense crown of leaves arranged in a kind of spiral.

Male and female flowers develop on separate trees. Large, tough, edible fruits that resemble pineapples or large pinecones develop from the female flowers. These woody fruits remain on the tree for a long time before dropping, and they can easily float from island to island.

The genus *Pandanus* includes several hundred species. The common screwpine grows wild on the islands of Madagascar, Mauritius, Reunion and the Seychelles – all east of Africa. There, natives use the leaves for roofing, weaving ropes and fishing nets, mats, baskets and hats. Thus the species name *utilis*: useful.

The common screwpine is resilient in the face of wind and ocean spray. There are only a few specimens in Israel, but they attract attention. The well-developed common screwpine growing in the Weizmann Institute's garden is one of the most magnificent examples in the country.

Signs
9–3
9–7
9–16

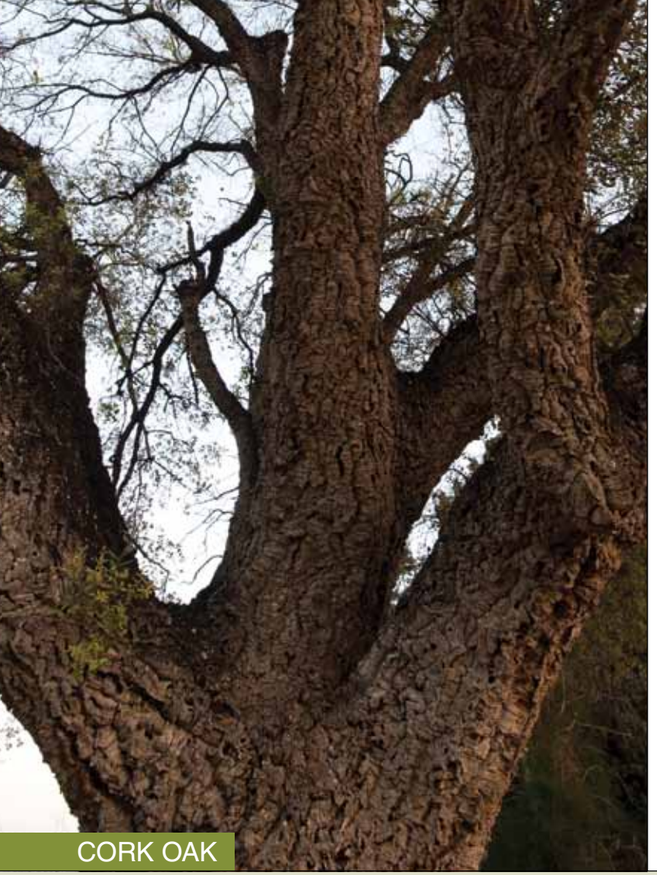
Common name: Coral Tree
Hebrew name: אלמוגן רחב-עלים almogan rechav alim
Scientific name: *Erythrina corallodendrum*
Arabic name: مرجان عريض الأوراق
Family: *Fabaceae (Papilionaceae)*

CORAL TREE

A medium-sized deciduous tree with abundant red blossoms reminiscent of coral. One of the loveliest ornamentals, this is the most common and best-known of the coral tree species in Israel. The short, wide trunk has a yellowish-brown bark with thorns, which also develop on the branches and petioles (leafstalks). The tree has a round silhouette, and its dense foliage is bright green. Its leaves are made of three wide, rhomboid leaflets with long, pointed tips, and they turn yellow before they fall.

In late winter and in spring, while still bare, the tree is covered with clusters of red flowers. It is then that the expressive, sculptural structure of the trunk and branches is revealed. The flowers have their "sails" folded – almost closed – enveloping the "keel" inside. Long pods that open to reveal red seeds with a black spot appear after the blooms fade.

There are 130 species of *Erythrina* in tropical and sub-tropical regions around the world. This species is native to Central America and the Caribbean.



Signs
10–10

Common name: Cork Oak
Hebrew name: אלון השעם alon hasha'am
Scientific name: *Quercus suber*
Arabic name: بلوط الفلين
Family: *Fagaceae*

CORK OAK

An evergreen tree with a broad crown whose trunk and branches are covered with a thick, fissured layer of cork. This cork layer protects the tree and helps it recover quickly from forest fires. The foliage is not dense, and from a distance it appears grayish. The leaves are stiff, relatively small and egg-shaped, and they have slightly serrated edges. Both male and female flowers are small and hang like greenish earrings. The acorns develop half sunk into a cupule (cup) that has short, bent protrusions.

The cork oak is native to the Iberian Peninsula and North Africa, where logging them is illegal.

The primary source of commercial cork in the world, the outer bark is harvested from this tree manually with a hatchet. The first cutting ("virgin cork") takes place when the tree is 25 years old, and it can be harvested once a decade thereafter. After the cutting, the unusual yet attractive inner red bark is exposed. Harvesting the cork does not harm the tree, and a new layer of cork is gradually regenerated.

The cork oak is used as an ornamental tree in many places, though it is not widespread in Israel. Mature specimens are known to exist in a few gardens in the country, including the splendid ones on the Weizmann estate.