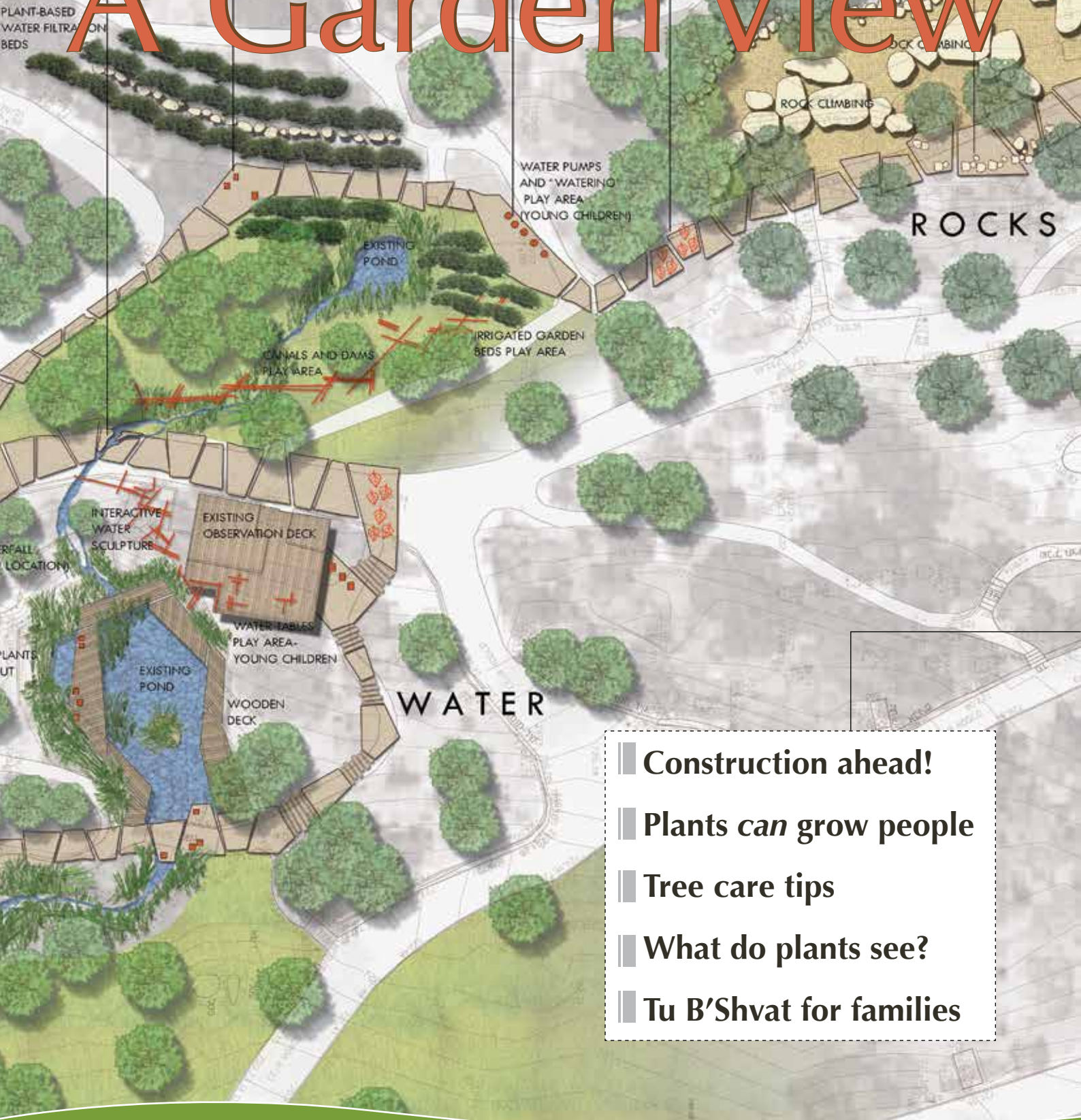


A Garden View



- Construction ahead!
- Plants *can* grow people
- Tree care tips
- What do plants see?
- Tu B'Shvat for families

Dear Readers,

We've come to the end of a busy and fruitful year and are now gearing up for a truly momentous year of new construction!

Ahead of us lie the creation of a Children's Discovery Path and the expansion of the Dworsky Tropical Conservatory. We hope that both projects will upgrade the visitor experience significantly and bring many more visitors to the Gardens.

During the past year, we carried out several physical projects. We refurbished the Sunlight Pool (now home to endangered native water plants), as well as the main Cohen Family Lake, to which we added a grass amphitheater and a temporary performance stage used during our annual June concert series. We created a new exhibition area for our Bonsai collection, a picturesque seating area called Oak Walk along the Bible Path, and a landscaped bypass path for the handicapped. In addition, our gardeners replanted a number of botanical subsections. All these projects added to the regular work of our gardening and maintenance teams, and I thank them for their commitment.

Our marketing, sales and education departments ensured that the Gardens function as a hub for human, as well as biological, diversity. Last year saw a dizzying array of festivals, exhibitions and activities and the launch of new social action programs to add to our successful Jewish-Arab coexistence program for schools (see page 12).

Our science team has meanwhile been busy working on our advanced database, expanding our collection of rare and endangered species, and carrying out or hosting research projects.

See you at the Gardens!

Oren Ben-Yosef
Director General

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The Gardens and the community
Thank you to our 2012 donors

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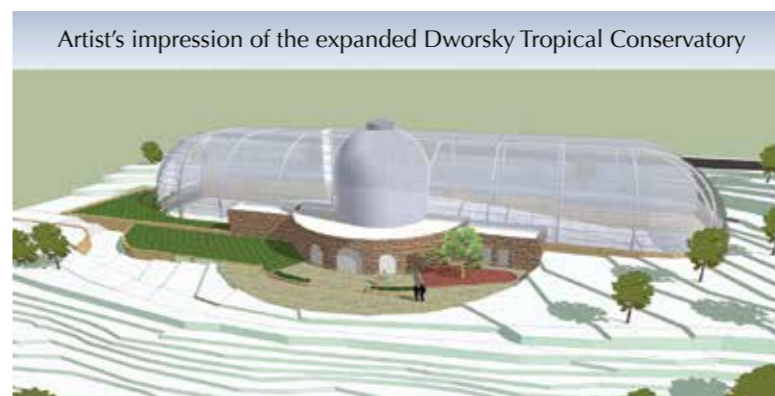


Major construction ahead!

We are excited to announce that construction will begin shortly on two flagship projects which, when completed, will cement the Gardens' place on the national map of 'must see' attractions!

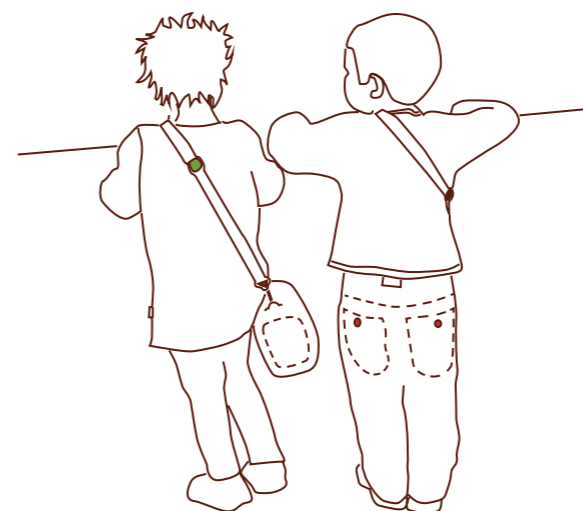
Encouraging children to let nature enchant them is the idea behind the **Children's Discovery Path**, described in the last issue of A Garden View. The interactive path will run through JBG's North American and Australian sections, providing stations along the way that will encourage discovery through play. The stations will highlight the remarkable way in which plants have adapted to different environments and will convey how important they are in the web of life.

The **Dworsky Tropical Conservatory** is already closed to the public in advance of major expansion and renovation and its plants are being moved to temporary accommodation.



Artist's impression of the expanded Dworsky Tropical Conservatory

Building work is always messy. While we will try to keep disruption to a minimum, we advise visitors to check our website before visiting to avoid disappointment. Various areas of the Gardens will be closed at different times and there will be changes to our usual program of activities.



Plants from the Balkans and the Caucasus will soon adorn a new bypass path for the disabled between the Garden's Lake and entrance area and the main section of the Gardens. The project has been funded by the Spitzer family of New York, via the Jerusalem Foundation, with additional support from the Israel National Insurance Institute and the Government Tourist Authority.

The Bonsai exhibit has been given a major physical and conceptual facelift, thanks to a gift from the Japanese Agon Shu. The new exhibit includes a path that winds between the Japanese cherry trees, a symbolic stone and water display and a greenhouse which will exhibit cold-sensitive trees and provide space for bonsai workshops.

Two new scholars—Katy Elton and Toby Bull – have begun working at JBG, thanks to support from JBG's UK Friends. Australian scholar Natalie Simmons returned home, having created a superb collection of JBG plant photographs for our developing database. Ozzie Trevor Seppings stayed on until December. His help in identifying eucalyptus and other Australian species at JBG was invaluable.

More than 110 people packed the Gardens' auditorium for a one-day seminar on oaks, which included a tour of the Gardens' important oak collection.

The Chicago Botanic Garden's laboratory staff is helping JBG Head Scientist Dr Ori-Fragman Sapir with molecular analysis of the rare and endangered Vartan's Iris. Named after the doctor who found it more than a century ago, this mountain-loving plant grows only in Israel. The Vartan family of England is funding research into this species at JBG, with the aim of ensuring its preservation.

Vartan's Iris איריס הסרגל



Common Cyclamen The National Plant of Israel

By Dr Ori Fragman-Sapir

Translated by Dr Susan Hattis Rolef

The Common Cyclamen (*Cyclamen persicum*) is Israel's national flower – one of 20 species in a genus represented mainly around the Mediterranean basin. One species managed to penetrate the Alps and reach southern Germany, several species are common up to the Caucasus, and a single species grows in Sudan.

The wild Common Cyclamen is the progenitor (parent) of most cultivated cyclamen varieties, the most common of which is *Cyclamen persicum* var. *giganteum*. Cultivars have been developed by selecting and cross-breeding plants with desired traits, and by multiplying genetic material in the cell several times over to create large flowers.

Cyclamen has many horticultural advantages; beautiful, plentiful flowers, varied foliage, a long flowering period (October to May), and - crucially - the ability to flower in the shade.

In recent years, nurseries have been selling wild Common Cyclamen tubers. Unlike the cultivated varieties, these flower every year. Low maintenance, water-wise and suitable for all conditions, from total shade to full sun, they will do best with a little extra watering from fall to May, during breaks in the winter rain. Keep tubers dry in summer.

Both the Common Cyclamen and its rare native cousin, the Round-Leaved Cyclamen (*Cyclamen coum*), are protected in Israel. The latter is an endangered species found in the Upper Galilee, the Golan and Mt Hermon.

The name Cyclamen derives from the Greek *kyklos*, meaning circle. It refers to the way the fruit stalks coil around the fruit after flowering is over, although in the case of *Cyclamen persicum*, the stalks arch instead of coil.

Cyclamen flowers points downwards to protect the stamens and stigma from rain drops. Each stamen is shaped like a drain pipe, with a narrow opening. The literature describes this as an adaptation to buzz pollination, during which an insect hangs beneath the flower and moves its stomach and chest (to create a buzzing sound) to shake the flower's throat to release the pollen. The insect feeds on the pollen (Cyclamen does not produce nectar) and pollinates the flower at the same time. Dr. Racheli Schwartz-Zachor of Ramat Hanadiv has observed small moths and bees pollinating the Common Cyclamen.

The Common Cyclamen was already growing as a wild plant in the area designated for the Jerusalem Botanical Gardens (JBG). The original population has since been boosted by plants from various places, including city building sites.



The fall-blooming Ivy-leaved Cyclamen (*Cyclamen hederifolium*) from the northern Mediterranean basin blooms in the Mediterranean section of the Gardens. The Hebrew and Latin names for this species derive from the shape of the leaves, which resemble ivy leaves. The flowers have warts and appear before the leaves.

One rare and special Cyclamen in the Mediterranean section is *Cyclamen ruhlfsianum*, which originates in Libya. *Cyclamen cilicicum*, *Cyclamen graecum*, albino *Cyclamen hederifolium* and other species are already grown at the Gardens. Updates on their progress will appear on our website and Facebook page.

JBG has begun to establish a Cyclamen collection, drawing mainly on Mediterranean species, to provide a primary source for the selection of local varieties. For further information about Cyclamen, visit <http://www.cyclamen.org>.

Tips for tree care in hilly regions

By Eli Becker

Trees provide the framework for our gardens, parks and nature sites. They may look strong, resistant and able to stand up to almost anything. In fact, they are extremely sensitive to environmental conditions and will respond to them, sometimes at shocking speed.

The Botanical Gardens' professional staff has to cope with thousands of trees that have come from all over the world and from a variety of climatic and geological regions.

Below are some important tips of the trade to help you look after your own trees and to get the best out of them where shape, flowering and other factors are concerned.

- Gentle thinning of evergreen tree canopies is recommended in the fall to prevent branches from breaking under the weight of winter snow.

- Pruning of deciduous trees should be carried out towards winter's end. Pruning requires expertise, so choose professionals to do it. Incorrect pruning can harm trees and allow diseases and pests to penetrate. However, failure to prune will allow the number of weak points along the branches to increase.

- It is especially important to prune young trees so as to shape the structure and canopy and avoid problems in the future.

- Trees such as almonds and the Judas tree, whose flowers bloom on the previous year's branches, should not be pruned until flowering has ended to ensure their proper bloom.

- Wood chip mulching in the fall will prevent winter weeds and will limit the need to weed later on in the year. Mulching also maintains moisture in the soil near the trees for an additional month or more into the spring. This means irrigation can be delayed for longer and water use and costs kept down. Remember that wood chip mulch has to be replaced every two years.

- The timing for tree planting is important and sometimes even critical for success. Deciduous trees from temperate (cold) regions of the world should be planted in late winter, when they are bare of leaves and will not succumb to frost. This period is also suitable for planting conifers. Other trees should be planted in early spring after the cold spell has ended, but no later than this. Young plants need time to establish themselves before the hot, dry season sets in.

- Small gardens often have too many trees, with the result that one tree shades out another and none will develop properly. It is important to plan the number of trees according to the size they will reach at maturity.

- Young trees will benefit from fertilizer administered at the point in early spring when new leaves start to appear.



New plants

New drought-resistant plants at the Gardens

By Dr Ori Fragman-Sapir and Eli Becker

Each year, the Jerusalem Botanical Gardens grow tens of species that are not known in Israel. We test their performance in our climate and in different conditions and recommend some for ornamental gardening and/or conservation.

The plants described below are good candidates for commercial growers as they suit a range of conditions and can be grown either in dry conditions, with relatively little irrigation, or in a well-watered bed.

Spiny-head Mat-rush *Lomandra longifolia*

This perennial grass from Australia develops dense, bright green clumps of leaves, which look good all year round. Related to the Grass Tree (*Xanthorrhoea*), which grows in our Fink Australian Display Garden, it belongs to the *Xanthorrhoeaceae* family. (See picture on p.7 Hebrew).

We grew this species in the Gardens' nursery and were rewarded with impressive plants in one liter pots within a year. Specimens that were subsequently planted 60cm apart in the Fink Family Display Garden grew to 80cm high in less than a year and broadened out to fill the entire bed. They performed well with light and heavy watering and in complete shade as well as full sun. We plan to grow and test other *Lomandra* species and cultivars.



Shubby Ptilostemon ארנין ההרים

Shubby Ptilostemon *Ptilostemon chamaepeuce*

This plant is one of the rarest plants in Israel. It reaches its southernmost point of distribution in the north of the country, where it is only found along the Hazuri and Lyon rivers. This evergreen dwarf shrub has a tangled appearance and needle-like leaves. During the summer, the tips of its branches carry pretty pink flowering heads.

We are pleased to see that the Shubby Ptilostemon can suit a water-wise Mediterranean garden as well as an irrigated bed which features less water-wise plants.

The plants can be seen in the Gardens growing close to the Lebanon Cedars at the top of the Mediterranean section.

Scholars

Last year saw the start of a new Australian horticultural scholarship scheme, run on similar lines to the UK Friends program which has been operating for the past 30 years. The Australian scheme is being managed by the Jewish National Fund, Melbourne. Natalie Simmons and Trevor Seppings talk about their experiences.

Natalie Simmons writes: "Fresh out of horticultural college, after a career change, I was extremely lucky to start at the Jerusalem Botanical Gardens.

"The staff encouraged me to combine my previous, artistic experience with my new career by photographing many plants and by designing and creating a new garden and seating area for the School of Horticulture. In parallel, I propagated seeds in the nursery, curated the geophyte collection and worked with the gardening team. The variety of experiences clarified for me the direction I wanted to take when I returned to Australia."

Three years ago, Trevor Seppings swapped 25 years as a chef and restaurateur to study and work in horticulture.

He writes of his scholarship experience: **"I have learned so much about so many things and the experience has - I hope - put me on the road to a more botanically-oriented career when I get back to Australia. I worked on the rare plants conservation project; I collected seeds and learned about cataloguing and curating; and I spent a lot of time in the Australian section. Here, I identified (or corrected the identity of) many plants belonging to the Myrtaceae, Proteaceae and Fabaceae families and put together a self-guided tour of the whole Australian section. I extended my stay here and have had a wonderful time."**

Natalie and Trevor add: **"Our thanks to Ori Fragman-Sapir and the Israeli Friends of JBG for the marvelous field trips; to the staff, many of whom have become wonderful friends; and to the donors who gave us the opportunity to experience the Gardens, to explore Israel and to immerse ourselves in its culture."**



Trevor and Natalie at the Gardens

From our volunteers

Interview with Zmira Ofir

By Hannah Cohen

If there is one person who is inseparably identified with the Jerusalem Botanical Gardens and the Friends of the Gardens, it is, without a doubt, Zmira Ofir, who has filled her life with an intoxicating bouquet of passions: for her family and life partner Asher; for Jerusalem; for the country's landscapes, its trails and flora; for literature, poetry, theater, lectures; and - how could I forget - her love for all things in the Gardens!

How did your love of plants first develop?

My fascination with plants was right from birth. My father kept a large garden outside our house and I would help him. I remember that during the War of Independence, we would water the garden with washing and laundry water...I always went out hiking. When I was in the army, I would go with Sara (Adar) to nurseries...and later we kept a garden together.

How did your romance with the Gardens first start?

A friend at the University asked me if I liked plants and invited me on a day trip with the Botanical Gardens to Zichron Ya'acov. During the journey there, Nehama Ben-Ze'ev (the Israeli Friends' founder) saw that I could identify the various plants, sat next to me, and suggested that I volunteer at the Gardens. I told her that I would be sure to volunteer once I retired... but it happened much faster than that...!

I started working in the nursery and supervised the high-school students who volunteered at the Gardens as part of their schools' social action programs. When Zvi Rafaeli, who was in charge of the Gardens' volunteers, went on vacation, I took his place for a year. When he left, I took charge of the Gardens' volunteers and have been doing that for the past 14 years.

How do you see this job?

I see it as supremely important! After getting to know the volunteer, I assign him or her to a suitable job. Volunteers can sometimes work in the sun or wind, or in challenging conditions. It is important that they know that someone appreciates their work; that they are not working in a vacuum, and that there is always someone who is attentive to their needs. I look after them and try to solve any logistical or other problems that they may have. I make it a point to meet with them and keep in constant touch.

How do you 'recruit' volunteers?

People come by word of mouth, with one person bringing another.

What characteristic is shared by most volunteers?

These are people who love nature and horticulture and want to contribute; people for whom 'volunteer work'



is not taboo, but is seen as a way of contributing to the community and to themselves. Most volunteers come in once a week, but they are always available if we need help organizing a particular event.

In what areas do people volunteer?

Collecting seeds during seed season and looking after the seeds; working in the various sections of the Gardens, in the tropical conservatory and the nursery; providing guided tours; creating and preparing items for sale in the gift shop; administrative work; and helping to put together the newsletter and magazine.

Until recently and for many years, the Exhibition Committee (which included a curator) would put together exhibitions in the Visitors' Center. Over time, work groups developed, close friendships were forged, and we enjoyed experiences together through the activities organized by the Friends of the Gardens, such as the Coffee Club, the volunteers' field trip on Friends of the Gardens Day, professional tours of the Gardens, Jerusalem and its immediate surroundings during the week, discounts on the Gardens' courses and activities, etc. All these are 'rewards' for the work put in by our volunteers, and everybody wins!

How do you see the Gardens' development over the years?

For many years, the JBG was not well-known, except by horticulturalists and ardent nature buffs; there weren't even any signs. Like other botanical gardens around the world, the JBG was meticulously planned and planted, with great care taken to arrange plants by their continents of origin. Now, Oren Ben-Yosef, the Gardens' current director general, is devoting his efforts and skills to moving the Gardens forward and we are seeing the Gardens change before our very eyes. We're now well-known - in Jerusalem and throughout the country!

Flora Palaestina goes online!

Great news for all lovers of Israeli flora – *Flora Palaestina* is going online! The original, monumental work, covering all known plant species in the Land of Israel (Israel, the Palestinian territories and Jordan), was authored by the late professors Michael Zohary and Naomi Feinbrun and published in four volumes between 1966 and 1986.

The new, second edition is being put together by a team of botanists, working voluntarily, that includes Prof. Avinoam Danin, Dr Ori Fragman-Sapir (JBG Head Scientist), David Heller, Prof. Mordechai Kislev, Hagar Leschner and Prof. Uzi Plitmann.

The new version will include many species and taxa discovered in recent years, as well as updated information on everything from evolution, systematics and species distribution to biological behavior and usefulness to humans. Entries include the original botanical drawings by painters such as Esther Huber, Ruth Koppel and Katty Torn and, in some cases, new illustrations and photographs.

The new edition will eventually be available in print as well as online.

The first part of the updated edition can be found at <http://www.tropicos.org/Project/Palaestina>.



Ephedra transitoia by Esther Huber

What a Plant Knows:

A Field Guide to the Senses, by Daniel Chamovitz, Scientific American\Farrar Straus and Giroux, New York, 2012.

If you think that talking to your plants will help them to grow, then think again – plants are probably deaf. They will, however, know if you're wearing a blue or red shirt.

These and other insights come from What A Plant Knows, a highly readable probe of the parallels between plant and human 'senses', written in English, by Daniel Chamovitz, director of the Manna Center for Plant Biosciences at Tel Aviv University.

So what does a plant know? Take sight. Plant vision, Chamovitz explains, is more complex than human sight (as far as perception is concerned) – logical, given that for plants, light means food and survival. We humans have four types of photoreceptors in our eyes. The *Arabidopsis thaliana* plant, a laboratory favorite, has at least eleven! These tell the plant when to germinate, bend to the light and flower; when it's nighttime, and how much light is hitting it.

Blue light induces plants to bend towards light. Different waves of red light tell it when to 'sleep' and when to 'awake.' Plants even suffer the equivalent of human jet lag if their light-dark cycle is disturbed.

Chamovitz presents fascinating examples of genes which both plants and animals inherited from their common, single-celled ancestors.

The *Arabidopsis* plant, for example, contains four genes which, if mutated, are known to cause deafness in humans. One affects the development of hairs in the inner ear. In plants, it helps determine the growth of root hairs through which the plant can absorb water and minerals.

Arabidopsis also shares genes implicated in human hereditary breast cancer. When mutated in humans, these genes cause cells to divide too often, which can lead to cancer. When mutated in the *Arabidopsis* plant, the stem cells divide more than normal cells, and the whole plant becomes hypersensitive to radiation.

"I ask you that you humor me while I use terminology ...usually reserved for human experience," Chamovitz says right at the start. "When I explore what a plant sees or what it smells, I am not claiming that plants have eyes or noses (or a brain that colors all sensory input with emotion). But I believe this terminology will help challenge us to think in new ways about sight, smell, what a plant is, and ultimately what we are."

Subscription Renewal: To renew your subscriptions, either visit the Friends' office, or mail them your card, check and a filled-out form. Subscriptions can also be renewed by telephone. We ask you to give an email address to the Friends to save paper and postage costs!

The Gift Shop continues to add new products to its sales line! With Chanukah approaching, check out our new windowsill organic gardening kits! Consider a weather station or a nature book, or stationary printed with the beautiful leaf art of Lorenzo Duran, whose works are still on show at the Gardens' Visitors' Center. Remember: Profits from the sale of Friends' products directly benefit the Gardens!



Gardening advice: Yechiel Baras is available to take your questions about plant care, on Mondays, from 9:00 to 10:00, on 02-6791715.

Tai Chi: Anat Errel teaches Tai Chi in the Gardens. For a free, trial lesson, contact Anat on 054-5705110 or by mail: anaterrel@gmail.com.

Birthday parties in the heart of nature! Come celebrate a birthday party with a difference at the Gardens! The program is available on weekdays. The Gardens' abundant lawns and variety of plants and trees also form a wonderful setting for graduation parties. For more information, please contact the sales team on 073-2438914.

Young Researcher: A Young Researcher backpack containing special activities for children can be borrowed from the ticket office, at no extra cost, on provision of a parents' ID card.

Reciprocal membership: Thanks to reciprocal membership schemes, subscribers to the Jerusalem Botanical Gardens, Chicago Botanic Garden and San Diego Botanic Garden can visit each other for free!

Adopt an Endangered Plant Campaign

As many of you will know, the Gardens are campaigning for funds to safeguard the future of 414 native plant species in danger of extinction in Israel.

By the end of last year (2012), 124 species were at various stages of growth at JBG. They joined 86 plants that are at risk in particular areas. All have found safe refuge at JBG.

Some of these species will be returned to the wild to strengthen dwindling populations. Those with ornamental value are often promoted to growers, nurseries and public institutions such as municipalities.

It costs NIS 10,000 to identify, collect and cultivate one at-risk species for five years. **Please help us to save species before it is too late!** Contact tal@botanic.co.il.

So-called Rheumatism Weed (*Trachomitum venetum*) is a delicate water-loving plant, now at risk because so many streams and ponds in Israel have dried up or become polluted. The Gardens are growing this plant and hope to return it to Ein Ovdat, a spring in the Negev desert, where it has apparently become extinct.



Jan

- 1 Tue 15:00 **Walking Tour The South African Section dresses up for the New Year**
- 8 Tue 15:00 **Walking Tour Changing seasons in the Mediterranean Section**
- 13 Sun 14:30 **Botanical Tour Winter at the Gardens**
- 15 Tue 15:00 **Walking Tour For Hebrew and Russian speakers: Blossoms of the Southern Hemisphere**
- 17 Thu 07:00 **Hiking Club Outing to the southern Galilee:** Karnei Hittin (3 km) and Ein Poriya (5 km).
Guide: Hagar Leschner
- 22 Tue 15:00 **Tu B'Shvat Festival: "The trees campaign for your vote!"**
- 23 Wed 07:00 **Volunteers' Field Trip** Gvaot Alonim-Shfar'am, Bethlehem of Galilee, the Spice Farm, Sarid cyclamens. Guide: Hagar Leschner
- 27 Sun 16:00 **Friends' Day and Memorial for Nehama Ben Ze'ev:** Reception and refreshments, plus a lecture by Dr. Michael Avishai: **'Flowers with Central Heating'**
- 29 Tue 15:00 **Walking Tour The Australian and 'Upper Australian' Section**

Feb

- 4 Mon 15:00 **Tour in memory of Nehama Ben Ze'ev: Almond Trees in Ein Karem.** Guide: Hagar Leschner
- 5 Tue 15:00 **Walking Tour The Bible Path: Spring and blossoms in the Bible and Jewish sources**
- 12 Tue 15:00 **Walking Tour The Mediterranean Section via the Australian Section**
- 12 Tue 16:00 **Coffee Club Invasive Plants in Israel:** Lecture by Dr Jean-Marc Dufour-Dror, an expert in ecology
- 18 Mon 14:30 **Botanical Tour Late Winter, Signs of Spring**
- 19 Tue 15:00 **Walking Tour Rosaceae flowers in the Central Asia Section**
- 26 Tue 07:00 **Hiking Club Field trip to the Jordan Valley - Sartaba, Qasr el-Yahud**
Guide: Dr. Ori Fragman-Sapir
- 26 Tue 15:00 **Walking Tour A cross-section of the Gardens - Europe, North America and South Africa**

Mar

- 5 Tue 15:00 **Walking Tour To the Central Asia Section via the Herb and Medicinal Plant Garden**
- 5 Tue 16:00 **Coffee Club The Educational Recycling Park in Kfar Saba.** Lecturer: Idan Berger, director of the Kfar Saba Municipal Parks Gardening Department
- 8-9 Weekend Departure: 07:00 **Hiking Club Negev Field Trip Friday: Shivta, Agur sand dunes, Hamukei Nitzana, Azuz.** Saturday: Depends on the weather. Guide: Hagar Leschner
- 12 Tue 15:00 **Walking Tour Flowers of the New World**
- 18 Mon 14:30 **Botanical Tour The Height of Spring**
- 19 Tue 15:00 **Walking Tour From Europe, as it awakens, to the Canary Islands**
- 27 Wed **Passover in the Gardens: Fun for the Whole Family**
- 28 Thu **Passover in the Gardens: Fun for the Whole Family**
- 29 Fri **Passover in the Gardens: Fun for the Whole Family**

All tours depart from the Visitors' Center | The Coffee Club takes place in the Visitors' Center Auditorium | Botanical tours are guided by the Gardens' science staff or outside experts | Walking tours are organized by the Israeli Friends of the Botanical Gardens | Gardens tours last around 90 minutes | For further information, call: Ilana - 02-6480049 or Liora - 02-6794012 | Tours are cancelled if it rains.

Courses

January-March 2013

- Professional Gardeners' course 1** (312 hours), Wednesdays, 8.30-15.30, from January 2013
- Professional Gardeners' course 2** (360 hours), Mondays, 8.30-15.30, from February 2013
- The Art of Bonsai** (8 meetings), Tuesdays, 18.00-20.00, from January 2013
- Advanced Orchid Cultivation** (10 meetings), Mondays, 17.00-19.00, from March 2013
- Getting to know Ornamental Plants (New!!)** (20 meetings), Tuesdays, 13.00-17.00, from January 2013
- Beginners' Flower Arranging** (9 meetings)
- Morning course:** Sundays, 10.00-12.30, from January 2013
- Evening course:** Wednesdays, 18.30-20.30, from February 2013

Information and registration: 073-2438942 | atad@botanic.co.il | www.en.botanic.co.il

* Changes are possible
* Courses are in Hebrew



ט"ו בשבט Tu B'Shvat

תפוזות

Quiz

Questions:

1. Today, Tu B'Shvat is known as the New Year for Trees. What function did it have in ancient times?
2. Where is Tu B'Shvat first mentioned in Jewish sources?
3. Why do Jews traditionally eat dried fruit on Tu B'Shvat?

1. Tu B'Shvat marked the start of the new 'tax' year for fruits. The Bible commanded the Israelites to pay a form of tax to the community, called a tithe, to help the poor and to remunerate those who worked in the Temple. Temple workers were not allowed to hold land, which meant they could not produce their own food. This tithe was paid in the form of crops and animals.
2. It first appears in the *Mishna*, which translates the written *Torah* (the first five books of Moses) into a guide for everyday Jewish religious practice.
3. During this period in Israel, there is no fresh fruit on the trees. The ancient farmer would only have had dried fruits in his kitchen, clearly taxable for the 'financial' year that had just ended.

Answers for the quiz

ו	ו	י	נ	ע	ס	ג	א	ס	נ	ת	א
ס	ש	ת	ק	צ	ל	י	ת	ש	ס	ב	ג
ד	ה	ג	ר	ח	ל	ש	ת	ע	י	נ	ס
ר	ל	ט	ס	נ	פ	ג	ו	ה	ו	נ	ד
ה	א	צ	ע	ט	א	נ	י	ר	צ	ו	א
ח	ט	פ	נ	י	ט	ב	צ	ה	ב	ע	י
ג	א	ה	ר	ע	י	ז	ו	ס	י	מ	ת
א	ו	ז	י	ו	י	נ	ה	כ	ה	ח	ס
ו	ד	ר	ס	ת	ק	י	נ	ו	ס	י	ר
ר	ל	צ	א	ק	ר	ר	ס	ו	ע	ט	צ
נ	י	נ	ט	ש	נ	צ	ב	ל	א	ה	ל
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PLANTS CAN GROW PEOPLE!

By Sue Surkes

"It's opened up a whole new world. Working in the open gives them a sense of physical freedom and being in nature relaxes them." So says Hadas Margalio, coordinator of a new project for autistic adults, which began at the Gardens this fall. The partnership with ALUT – the Israeli Society for Autistic Children – involves an initial four young men, in their 20s and 30s, all of whom live in ALUT homes in the community, and who have been identified as having the potential to work in the community as well.

The men come to the Gardens five days a week for a program that combines learning with training for work. In the classroom, they practise social skills such as communication and reinforce their letter, number and symbol recognition. Outdoors, they work alongside the gardening team. So far, they have swept leaves, moved plants from the tropical conservatory and prepared beds for planting. "We chose the Gardens because they welcomed us with such open arms," says Hadas. "And the benefits are already apparent."

The ALUT program joins others at JBG that are geared to special needs groups. Traumatized Israel Defense Forces veterans come weekly for horticultural therapy. Several individuals with special needs are part of JBG's staff.

"I am convinced that botanical gardens can make a real difference to people," says JBG director general Oren Ben-Yosef. "A botanical garden cannot be a museum and these days, it cannot afford to be a museum. It exists in a community and should be a living resource for it and a force for positive social change."

Also in the spirit of promoting positive social change, the Gardens last year expanded a Jewish-Arab coexistence program. This harnesses plants to bring Jewish and Arab youngsters together who ordinarily study in separate schools.

Some 1,200 Arab and Jewish children meanwhile come weekly to the School for Agricultural and Environmental Education, located at JBG and funded by the Israeli Education Ministry.

In another direction, the Gardens are developing a relationship with the ultra-orthodox Jewish community. This community has its own ultra-orthodox schools where boys, in particular, focus on religious texts and are less exposed to subjects such as science than their less observant peers.



"The Gardens' motto is 'Plants Grow People' and we see this playing itself out nearly every day."

Oren Ben-Yosef

Yet another JBG initiative is providing leadership tools and environmental know-how to the Green Team - a group of teenagers training to spread the environmental message in their schools and communities.

All these projects depend on support to continue and expand. To find out how you can help with these and other projects, please see Support Us on www.en.botanic.co.il