



The Zoological Garden Newsletter



Lots of chicks and nestlings in the Zoological Garden

In our winter newsletter we wrote about the hatching of barn owl nestlings and nene chicks, and our hope that our Mandarin ducks, the newest inhabitants in the Garden, would also breed. To our delight, the breeding season is still at a peak: for the first time in many years a red-crested pochard chick has hatched and filled our hearts with joy (1); the little bitterns are nesting in the reeds beside the pool (2); the greyleg goose chicks are growing wonderfully (3); nene chicks have hatched in the incubator (4); chicken chicks are wandering around the Garden, close to their mothers (5); the yellow-legged gull fledglings are starting to discover the Garden on their own; the white storks have built a nest, laid eggs, and we are waiting for them to hatch; the Mandarin ducks have laid eggs from which their chicks have successfully hatched. And not only birds are breeding in our Garden: Caspian turtles have hatched in the thicket aviary and the fennec foxes have young cubs.





1. A red-crested pochard chick hatches from its egg, photo: Hadar Yosifon; 2. Nesting of little bitterns, photo: Hadar Yosifon; 3. Hadar and greyleg goose chicks, photo: Emanuel Bar; 4. A nene chick hatches in the incubator, photo: Hadar Yosifon; 5. A hen with chicks in the Zoological Garden, photo: Daphna Lev

**"Research, nature conservation, and education in zoos" course:
workshop, enrichment tools and more....**

During the present academic year the course "Research, nature conservation and education in zoos" was held for the second time. This year the course was in an annual format. Most of the lectures took place in the first semester and most of the practical work in the second semester. The majority of our students did not have any experience in the practical work that is needed for their projects, so we devoted a double lesson to a practical workshop in the Zoological Garden. In the workshop the students learned from Roni Michlin about the animal's food supply chain; Barak Levi showed the students around the room in which he grows insects as food for the Garden's



animals; Hadar Yosifon demonstrated how to build a water pond; and Ehud Katzir and Emanuel Bar worked with the students on building concrete items in cages and Ron Elazari-Volcani worked with them on metal and wood.



At the end of May and the beginning of June we had two meetings in which the students presented their projects. Each group presented what it had done so far and its plans for the rest of the projects. Now we are waiting to receive their final reports, and are hoping that some of the enrichment tools they



have planned, built, and implemented will be used by our keepers for many months to come. In the photo, Rona Eckert is presenting the apparatus planned for the ibexes, a project that she is carrying out with Kaspit Ishlach and Nicole Hinnawi.

In the summer newsletter we are planning to write more about the projects and the most successful enrichments, but for now we are happy to be able to share with you a photo from the project undertaken by the group that worked with the jungle cats: Mai Bonomo, Inbar Dahan, Shatha Kaidbay, and Edan Mortman. In the photo, taken by Shatha Kaidbay, one of the jungle cats enjoys a tray with wheat sprouts.





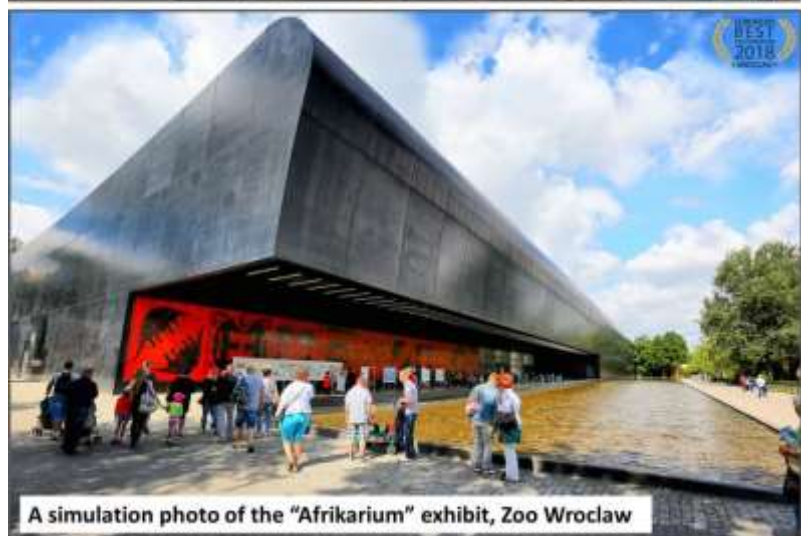
Zoo design conference, Wroclaw, Poland, 2019

In May, the second conference on zoo design was held in Wroclaw, Poland. About 180 people attended the conference, among them leading landscape architects who specialized in designing zoos and exhibits, zoo managers, curators, zoologists, educators, and animal keepers from zoos around the world. Ehud Katzir, Hadar Yosifon, and Daphna Lev from the Zoological Garden also

attended the conference. This year the main conference subject was "Exhibits as habitats"; in other words, how to plan an exhibit so that it will be as close as possible to the natural habitat of its

inhabitants. Two main themes reappeared in all the lectures: mixed species exhibits and aviary or walk-through exhibits – two leading themes in modern perceptions of zoos in recent years. The first speaker at the conference was Radoslaw Ratajszczak, head of Zoo Wroclaw, which had hosted the conference. The title of his talk

was "Cheap doesn't need to be bad". It was a very significant talk, especially following our visit to the huge "Afrikarium" exhibit that had been built about three years ago in Zoo Wroclaw, at a cost of around 50 million euros. From Radoslaw's talk, as well as from other talks at the conference, we learned that while it is indeed possible to build spectacular and expensive exhibits, it is also possible to improve dramatically the existing exhibits and animal welfare using very modest means. There is no doubt that we learned a lot and we hope to implement some of the things we have learned in our own Zoological Garden.





Zoological Garden flash news

- ✚ **Spring cleaning:** as preparation for the summer, our turtle pond and the big pond on the main grass have been cleaned: the water was pumped out, the soil at the bottom was treated, and fresh water was poured into the ponds.



Cleaning the lake, photo: Lior Twig



The turtle pond after cleaning, photo: Ilil Pratt

- ✚ **Massive growth of mealworms and crickets in the Garden:** the animals in the Zoological Garden enjoy a constant supply of fresh food – mealworms and crickets – thanks to the devoted work of Barak Levy, one of our animal keepers. Mealworm and cricket growth is intense, thus demanding daily care and extra precautions. It is a great advantage for us to use food that is produced here in the Garden, as this enables us to control the quality of the food and makes us independent of outside sources. We are probably the only place in



The mealworm and cricket room, photo: Barak Levy

Israel that grows so many mealworms and crickets, and we thank Barak for his hard and dedicated work.



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A new name for the Botanic Garden

The recent meeting of Tel Aviv University's Board of Trustees was concluded with a festive event in the Botanic Garden, which received its new name: "The Yehuda Naftali Botanic Garden". The event took place in mid-May, in the presence of former TAU president, Prof. Yosef Klafter, and Mr. Yehuda Naftali, for



The renovated entrance to the Botanical Garden, photo: Gavri Sion

whom the Garden was named in recognition of his generous donation for the development and promotion of the Garden. The ceremony in Mr. Naftali's honor constituted a first step in the project for the future development of the Botanic Garden. To commemorate the event, an *Acacia raddiana* tree was planted at the entrance to the garden, where other native Israeli trees are also planted.



Relocation of the blue water lily

Blue water lily plants (*Nymphaea nauchali*) that had originated in the Botanic Garden were again relocated last March to the pond in Tel Afek. The blue water lily, which had disappeared from the Yarkon sources decades ago, has been reintroduced into the national park by the [Yarqon River Authority](#) team, thanks to several specimens that had been kept and cultivated in the Botanic Garden of Tel Aviv University and planted in an artificial pond. The rehabilitation project began about a decade ago and currently continues with the transfer of plants to additional ponds in the Yarkon national park. The Tel Afek pond, which was designed to reconstruct the once characteristic landscape of the Yarkon sources, is currently a refuge for several endangered species. [A short video](#) presents the water lily



rehabilitation project.

Spring planting – extinct sage and other rare species

Several new sage species have been planted in recent months along the entrance to the Garden. Some of these are very rare species and one has even become extinct in the wild and can be found in Israel only in botanical gardens. More than 20 sage species, belonging to the mint family (Lamiaceae), are found in Israel. Eight of these are classified as 'red' (i.e., endangered) species.

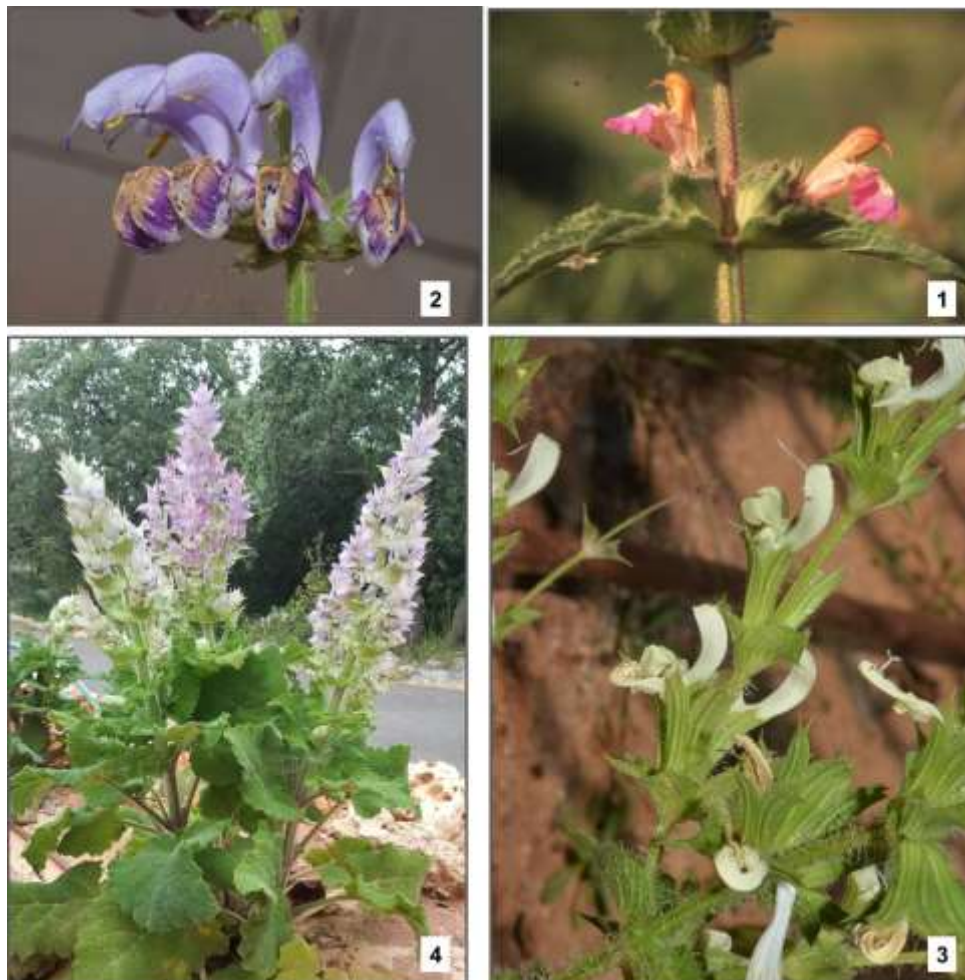
Three specimens of the sage *Salvia bracteata* were planted last winter and began flowering toward the end of spring. *S. bracteata* is a pink-flowered perennial herb that grows in dry



Mediterranean scrublands. In the past, this species had occurred at isolated sites in the Judaeen Mountains, but became extinct in those localities in 1995. In the early 1990s,

several sage specimens were transferred to the Jerusalem Botanical Gardens in Giv'at Ram, where they were cultivated and then transferred to other refuge gardens. Attempts to rehabilitate the plants at wild sites in the Judaeen Mountains have so far been unsuccessful. Another rare sage that was planted together with *S. bracteata* is clary (*Salvia sclarea*). This sage is found in the wild along the Naftali ridge and is classified as a red (endangered) species. Those visiting our Botanic Garden in spring would have been probably impressed by the plant's beautiful mauve flowers and large leaves. *S. sclarea* is also a medicinal plant and a herb, providing an important source of Omega 3. Seven additional sage species were planted along with *S. bracteata* and *S. sclarea*, most of which are endangered or threatened in the wild.

You are welcome to visit our sages at the flowerbeds adjacent the Steinhardt Natural History museum.





1. *S. bracteata*, photo: Yuval Sapir; 2. *S. indica*, photo: Gavri Sion;
3. *S. spinosa*, photo: Gavri Sion; 4. *S. sclarea*, photo: Moshe Peri

Note this plant!

A new medicinal plant – Foxglove (*Digitalis purpurea*) was added last spring to the Menashe collection of medicinal plants. This short-lived plant belongs to the plantain family (Plantaginaceae). In past times compounds were extracted from it for the treatment of heart diseases; but, due to its high toxicity, other, safer medicines are used nowadays. The foxglove seedlings were planted in circles in the middle of the medicinal plant section, in the shade of the laurel-leaf snailseed (*Cocculus laurifolius*), which aids in cases of hypertension and chronic pain. The foxglove seedlings are developing impressively well and we hope they will flower next spring.



Guy Dan, in charge of cultivating the medicinal plant section, presents the foxglove bed, photo: Tal Levanony

"The lab" – Gill Markowitz's radio program on "Kan Tarbut"

At the end of April, Dr. Yuval Sapir, director of the Botanic Garden, participated in the recording of new episodes for the radio show "The lab". This is a daily program broadcast by the "Kan Tarbut" station of Israeli radio, edited and moderated by Gill Markovitz. The four episodes in which Dr. Sapir participated focused on botanical and ecological topics,



with an emphasis on the main research topics in Dr. Sapir's lab, which is situated in the Botanic Garden. Among the questions discussed in the show were: How is a species

defined? How are species created? And, how does reproductive isolation keep them discrete? We will update you once these episodes air, and in the meantime invite you to listen to other scientific topics discussed daily in the show.



Dr. Yuval Sapir and Gill Markovitz in the radio show "The lab"

We want to thank Dr. Netta Dorchin for her great help in translating the news.

Garden news are also available at our [website](#)



Tel Aviv University Botanical Garden activity is sponsored by the Ministry of Agriculture & Rural Development, through the Botanical Gardens council

