A Fruitful Cooperation between the Gardens

Plants from the Botanical Garden in the Zoological Garden's turtle pond

A turtle pond has been built in the eastern part of the Zoological Garden. After the work was completed, a variety of water and lakeshore plants from the water plant section in the Botanical Garden were planted along the pond banks. Among the planted plants: lesser bulrush (Typha domingensis), cow pea (Vigna luteola), lakeshore bulrush (Scirpus lacustris), and white and blue water lilies (Nymphaea alba, Nymphaea nouchali). All the plants are acclimatizing in their new home and starting to flourish.

Fruit bats from a research colony in the Zoological Garden forage in the Botanical Garden

The Egyptian fruit bat (Rousettus aegyptiacus) uses its keen senses to collect information from its surroundings as part of its decision-making process. In an urban environment, foraging-related decisions, like what to eat, where to eat, how long to stay, or when to leave a food
patch, become even more complex due to the rich and varied food sources available in the city and in private gardens.

A study being carried out by Lee Harten and Michal Handal, from Dr Yossi Yovel's research lab in the Zoology Department, examines the use of bats' individual knowledge in foraging-related decision-making by the Egyptian fruit bat. Why do bats prefer a specific kind of tree? Why does a bat choose to visit regularly a specific tree? Why does it stop visiting it? This research is attempting to answer these and others questions.

Yossi Yovel's lab has established a bat colony in the Zoological Garden that simulates a natural colony, in which the bats sleep during the day and are free to fly out to forage every night. The bats are on a 24/7 surveillance regime. Tiny GPSs attached to their backs allow the researchers to follow their flight paths and to identify the food patches that the bats visited during the night.

The Botanical Garden is a preferred foraging site for the bats, thanks to the large variety of fruit trees on which they feed. During the current season the colony of bats is feeding mainly off the fruit of the Indian laurel (*Ficus microcarpa*). For example, the bat named Fin visits the Botanical Garden every night and feeds on the fruit of the false sycamore fig (*Ficus sycomorus*) and on the sweet fruit of the Indian mango (*Mangifera Indica*) that have ripened recently.
Two young hares have arrived at the Garden

Four weeks ago two young hares, about a month old, arrived at the Zoological Garden. They were discovered by a farmer while working in an agricultural field in the area of Gedera. Occasionally, people discover what they think are "deserted" hare young hiding in the grass and pick them up; but these young are not deserted at all! The young hares (leverets) are precocial and their mother leaves them in the field and returns to suckle them several times a day. These young hares were simply waiting for their mother to come back…

The hares are currently housed in a very spacious cage that was a research cage in the past and is now being modified as an exhibition aviary. It's about 200 square meters and is filled with soil and a variety of plants, but the hares prefer to spend a great deal of their time on the concrete step that encircles the cage, hidden beneath the jute sheet adjacent to the fence. The hares are not yet on display to visitors but will be so after they begin to feel at home here.
A new research system: rock hyraxes and the Leishmania parasite

Cutaneous leishmaniasis is caused by a parasite of the genus *Leishmania*. The parasite is transferred to human beings via blood-sucking sand flies that sting mammals. One of the natural reservoir hosts of *Leishmania* in Israel is the rock hyrax. In recent years the disease has been spreading in the country, reaching new areas. The aim of the research to be conducted in the Zoological Garden is to examine the efficacy of the insecticide Piperonyl in reducing the sand fly population. This research is part of the MSc thesis of Bentzi Horwitz, supervised by Prof. Alon Warburg from the Hebrew University of Jerusalem, who studies diseases transferred by blood-sucking insects. The research system will be set-up in the cage next to the northern side of the ibex cage; and, as a first step, it will be inhabited by four hyraxes. Following a period of acclimation the hyraxes will receive rodent pellets that contain Piperonyl. The research hypothesis is that the Piperonyl in the hyraxes' blood will be lethal to the female flies that bite the hyrax. Moreover, the hyrax droppings will also contain Piperonyl, which will prevent the development of the fly maggots that feed on the droppings.

Transplanting intestinal bacteria into white-eyed gull chicks

The Zoological Garden hosts a breeding colony of white-eyed gulls, an endangered species. The breeding season of this species takes place at the beginning of summer. At the beginning of August, the end of the breeding season, the animal keepers found two deserted eggs in their cage. The eggs were removed from the cage, incubated in an incubator, and hatched successfully.
In nature the gulls feed their chicks by regurgitating food. In doing so, they transfer intestinal bacteria and digestion fluids to their chicks, which help them to digest their food. The chicks that have hatched in the incubator are not fed by their parents, so naturally they are not receiving these substances. To solve this problem the stomach content of an adult gull was siphoned out and inserted into the young chicks' stomach. The chicks' food is based on fish, and their keepers make sure that each of their meals will include three essential ingredients: fish flesh, bones, and intestines. In addition, the chicks receive digestive enzymes specifically for youngsters.

Two new jungle cat cubs

At the beginning of June our female jungle cat gave birth to two cubs. After the cubs grow up and stop suckling, they will be transferred, in cooperation with the Israel Nature and Parks Authority, to "Gan Hai" – a mini-zoo in Park Ra’anana. We are sure that the two will find a warm and loving home there.
Common duckweed from the turtle pond – a delicacy for the Nene geese

The water surface of the turtle pond is covered with common duckweed (*Lemna minor*), due to its very fast growth rate. In order to clear the water, the animal keepers are removing some of the weeds and using them to feed the Nene geese. Thus, we achieve two goals: enriching the Nene geese's menu and removing excessive organic matter from the pond. As expected from the plant's name – duckweed, our geese see the new food item as a delicacy and meticulously come to the pond each day at precisely the right hour.

Hyena recreation time in the Jacuzzi

Our hyena is very old and spends a large part of the day lying down. In an attempt to find ways to get it to be more active and thus enrich its day and diversify its daily routine, its keeper occasionally offers it special treats, like the "Jacuzzi", that it likes to go into on hot summer days.

Zoological Garden news are also available at our [website](#)
Schneider's skinks are breeding

Until recently, our Schneider's skinks, males and females, were kept separately. As a result of the decision to bring them together, four eggs have being laid. The conditions in the skinks' cage, however, are not suitable for incubation: the sand is not deep enough to dig a burrow and the keepers can't control the temperature and moisture. The eggs were therefore collected and incubated in a temperature-controlled room, placed in sand, kept under the right temperature and moisture regimes, and hatched after about 30 days.

Zoological Garden newsflash

Another part of the Garden's path is being renovated – now it's the southern path's turn. Large rocks have been placed along the new path's edges in order to emphasize the natural look.
The eggs of the spur-thighed tortoises began hatching at the beginning of August.

The European turtle-doves and the laughing doves, which until recently shared their cage with the Eurasian collared-doves (near the pigeon cage, in the northern part of the Garden), have been relocated to the western glass-fronted cage in the bat building. Now they share a cage with a Syrian woodpecker, a cuckoo, and a Namaqua dove. The reason for the change: it seemed that the Eurasian collared-doves were harassing the others for some unknown reason. We now hope to have established good neighbour relations.

Our Nubian ibex are in the midst of shedding their coats. This is why their fur is hanging raggedly off them, as you can see in the photo.

This year, the sea squills started to bloom quite early, with those at the entrance to the Garden blooming at the end of June.