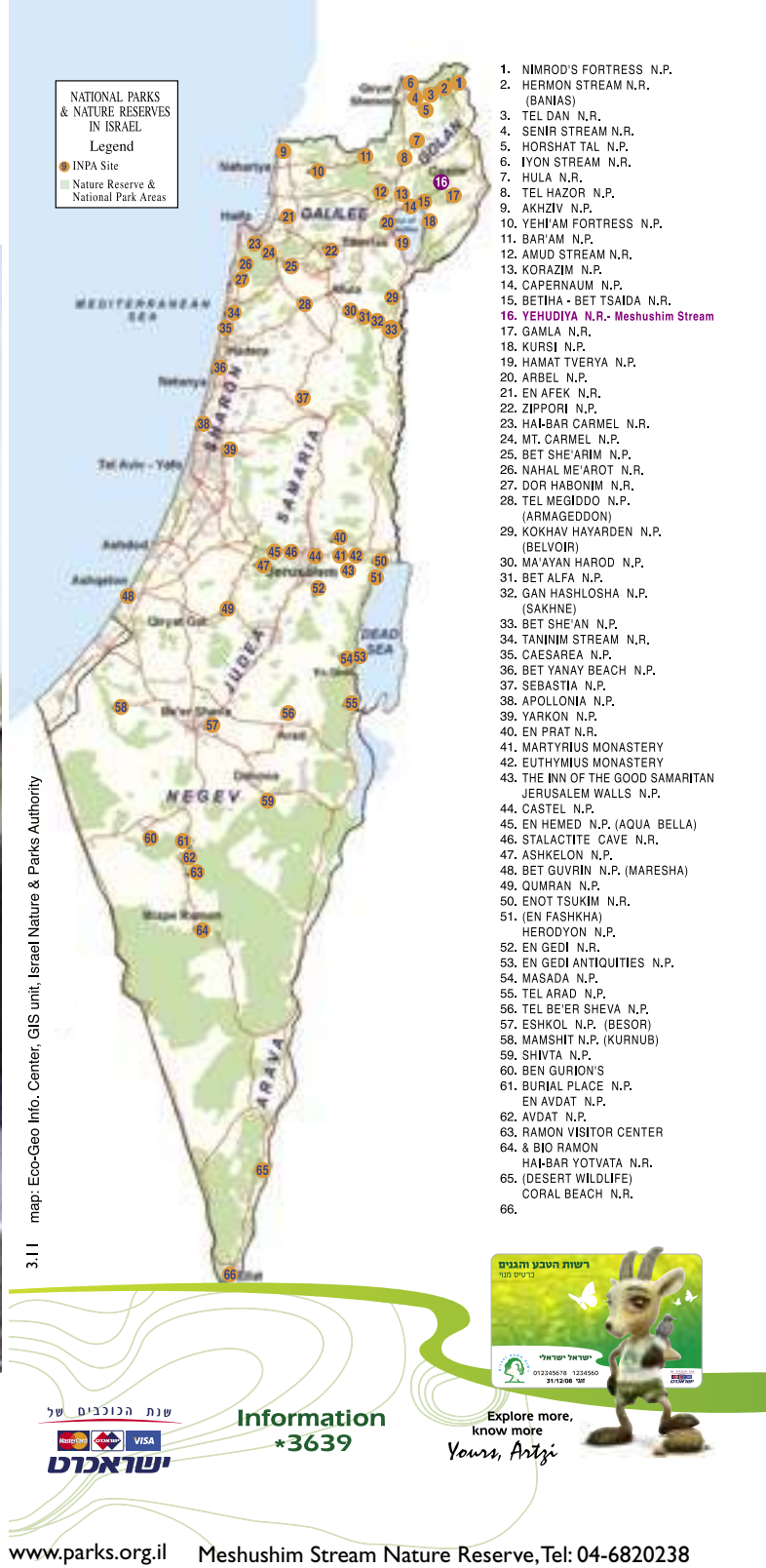


Meshushim Stream

Nature Reserve



Syrian ash at the Meshushim Pool (Maclaon syaica)



Common swallowtail butterfly

Services at Meshushim picnic and rest area

Information station, pamphlets, changing room, toilets, picnic tables, parking and shop

Hours

Winter: 08:00 –16:00

Daylight saving time: 08:–17:00

On Fridays and holiday eves the site closes one hour earlier.

The Pool Trail closes two hours before the site closes.

Entrance tickets to the Meshushim Stream Nature Reserve are also valid for the Yehudiya reserve, but only on day of purchase.

The Yehudiya campground offers overnight camping with toilets and showers.

Tel: 04-6962817



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Meshushim Stream



The Meshushim Pool

Yehudiya Forest Nature Reserve

The Meshushim Stream is part of the Yehudiya Forest Nature Reserve, which, at 134 sq km, is the largest reserve in the Golan Heights. The area is scored with deep streambeds through which water flows year-round. The ground slopes from about 600 m above sea level to 200 m below sea level, a considerable height differential that has created the reserve's high waterfalls.

The contrast between the flat plateau and canyon-like streambeds is one of the reserve's most salient landscape characteristics. Another is the park-forest that covers about a quarter of the reserve. The city of Katsrin is located north of the reserve, between the Zavitan and the Meshushim streams.

The Meshushim Stream is the northernmost of the five streams flowing through the Yehudiya reserve. South of the Meshushim, in the following order, are the Zavitan, the Yehudiya, the Batra and the Daliyot streams and their tributaries.

The antiquities in the reserve include remnants of Jewish and Christian villages from the Byzantine period (the fourth to the seventh centuries CE). The best known is Gamla, a city that revolted against the Romans in the first century CE. Dolmens – large stone markers placed over tombs and dating from the Early Bronze Age and the Middle Bronze Age I (3300–2000 BCE) – are also scattered through the area.

The reserve is named after the village of Yehudiya, where Jews lived during the period of the Mishna and the Talmud.

Flora and Fauna

Fauna

The Yehudiya Forest extends over approximately 35 sq km on the plateau and the slopes of the streambeds that cross it. It is a park-forest – a forest where trees grow at quite some distance from each other. The dominant species is the Mount Tabor oak (*Quercus ithaburensis*). The park-forest also features Atlantic pistachio (*Pistacia atlantica*), official storax (*Styrax officinalis*), Christ's thorn jujube (*Ziziphus spina-christi*) and lotus jujube (*Ziziphus lotus*).



Park-forest

The trees in the park-forest often sprout from heaps of stones. One reason for this might be that in the open, the acorns of the oak are eaten by animals and birds, whereas if an acorn falls among rocks, it is better protected. The heaps of rocks also hold more moisture in the ground, making it easier for young saplings to develop. The rocks also protect saplings from fire, a common threat here in the summer.

Herbaceous plants flourish among the trees, including many grasses such as bulbous barley (*Hordeum bulbosum*), wild barley (*Hordeum spontaneum*) and wild oat (*Avena sterilis*). Other species include clover (*Trifolium*) and medick (*Medicago*), on all of which cattle happily graze. Emmer wheat (wild wheat) (*Triticum diccoccum*), which also grows here, is a very important species because it preserves genes that could be essential for enhancing domesticated wheat, which nourishes hundreds of millions of people worldwide.



Hermon iris



Persian buttercup



Persian cyclamen

March is the height of the blooming season, when crown anemones (*Anemone corona*) appear in various colors, along with hairy pink flax (*Linum pubescens*), purple viper's bugloss (*Echium plantagineum*), and woody spurge (*Euphorbia hierosolymitana*). In September the sea squill (*Urginea maritima*) flowers; in October, various species of crocus bloom; November brings colchicum-flowered sternbergia



Wild boar



Golden jackal

(*Sternbergia colchiciflora*) and in December common narcissus (*Narcissus tazetta*) – near the Meshushim pool – and Persian cyclamens (*Cyclamen persicum*) appear, flowering until February. At winter's end, Persian buttercups (*Ranunculus asiaticus*) paint the slopes of the reserve red, accented by pink Egyptian honesty (*Ricotia lunaria*). The grandest of the reserve's flowers is the Hermon (Golan) iris (*Iris hermona*), whose two-tone blooms reign from February to April.



Indian crested porcupine



Carnivore grasshopper

Fauna

The relatively large area of the Yehudiya reserve and its surrounding open spaces provide suitable conditions, unique in Israel, for a stable population of wild animals. Among the many species of mammals inhabiting the reserve are mountain gazelle (*Gazella gazella*), wild boar (*Sus scrofa*), golden jackal (*Canis aureus*), red fox (*Vulpes vulpes*), hyrax (*Procavia capensis syraica*), social vole (*Microtus socialis*), Indian crested porcupine (*Hystrix indica*) and Cairo spiny mouse (*Acomys cahirinus*).

Many species of raptors are at home in the Yehudiya reserve, including the common



Griffon vulture

Rules of Behavior at the Meshushim Stream

These rules are designed not so visitors have less fun, but to better protect human life and nature. Going off marked trails; littering; starting fires; rappelling and cliff-climbing where prohibited; and overnight stays in the reserve all damage flora, fauna, inanimate objects and landscape, endanger lives, and are also against the law.

Please obey the following rules

- Carry 3 liters of water per person per day. Do not depend on natural water sources for drinking (do not drink stream water). Wear good walking shoes and a hat.

- Walk only on marked trails, and use caution even on these trails.

- Motor vehicles and bicycles are allowed only on the road along the western bank of the Meshushim Stream (marked in green and red).

- Do not harm flora, fauna or inanimate objects. No fishing!

- Do not start fires, including barbecues.

- Leashed dogs only are allowed in the reserve.

- No rappelling or cliff-climbing.

- The water in the pool is cold and deep. Swim at your own risk. Do not jump into the water!

- Plan your visit so that it ends before closing time.

kestrel (*Falco tinnunculus*) and the short-toed eagle (*Circaetus gallicus*). The reserve is the largest raptor nesting site in Israel; several species nest here that have become extinct in most of Israel's Mediterranean region. Among the latter are Bonelli's eagle (*Hieraetus fasciatus*), Egyptian vulture (*Neophron percnopterus*) and Griffon vulture (*Cyyps fulvus*). Songbirds and other avians also live in the reserve.

Among the most common insects in the reserve is the carnivore grasshopper (*Saga ephippigera*), which can grow to as long as 10 cm.

The Meshushim Stream

The 35-km-long Meshushim Stream (Wadi el-Hawa) is the longest flowing stream in the Golan, its springs emerging at the foot of Mount Avital and the Bashanit Ridge. The stream begins in a shallow channel, known as a *massil*. En Neshut, about two km north of Katsrin, and other springs, give the stream a powerful boost. It deepens as it flows, and by the time it reaches the reserve, it has created a beautiful canyon with waterfalls and pools, among them the famous Meshushim Pool.

The Meshushim Stream flows into the Sea of Galilee from the Bethsaida Valley. The moderate incline at the stream's estuary there has created the Meshushim and Zaki lagoons, with meadowland and wetland habitats that are rare in Israel.

The Meshushim Stream has a large drainage basin covering 160 sq km. The stream may take on huge amounts of water during rainstorms – therefore, do not enter the streambed in the rain. This is the only stream in the Golan whose water has not been impounded in reservoirs.

Nature Conservation

Fire is the most serious problem in the Yehudiya reserve. Adult trees usually survive fire, although it compromises their vitality and severely harms other plants and animals. Military exercises in the part of the reserve between the Yehudiya and Daliyot streams sometimes start fires. But fires also break out due to negligent visitors. Please be careful with fire!

Reserve officials also deal with the issues of conservation of carnivores in a region where cattle are raised and of finding the golden mean between impounding flowing water and nature's right to it.



Short-toed eagle

Touring Routes in the Meshushim Stream area

Four loop trails begin at the Meshushim visitors center. The Lookout Trail and the Dolmen Trail are very short; the Lookout Trail is suitable for strollers and wheelchair-users. The two other trails – the Pool Trail and the Stream Trail – are intended for fit walkers.

A fifth trail starts out at the Meshushim Stream visitors center and ends at the Yehudiya campground or at one of the points continuing to the Zavitan Stream. This is a long trail, intended for experienced and fit hikers only; visitors wishing to hike this trail must arrange to do so at the reserve information station.

The starting point for all the trails is the main plaza, near the visitors center, where you will find directional signs.

1. Lookout Trail

Length: 300 m

Time: About 10–15 minutes

Type of trail: Loop, very easy; suitable for strollers and wheelchair-users.

The route

From the main plaza, follow the signs to the Lookout Trail. The trail quickly and easily comes to an observation plaza (the southern plaza) with a spectacular view of the Yehudiya reserve and the Meshushim and Zavitan streams, flowing about 100 m below.

From here you get a good view of the Yehudiya park-forest, with its widely spaced trees and many grasses. Most of the trees are deciduous, which exposes the ground to the sunlight that helps the grasses flourish.

The observation plaza has a view of the top of Mount Hermon and the Golan's volcanic peaks – Bental, Avital, Yosifon, Shifon and Peres, and the Bashanit Ridge, along which the cease-fire line with Syria runs.

The trail continues along the slope above the stream bank, reaching another lookout (the northern plaza) and returning to the starting point.

2. The Dolmen Trail

Length: 700 m

Time: About 20 minutes

Type of trail: Easy loop

The route

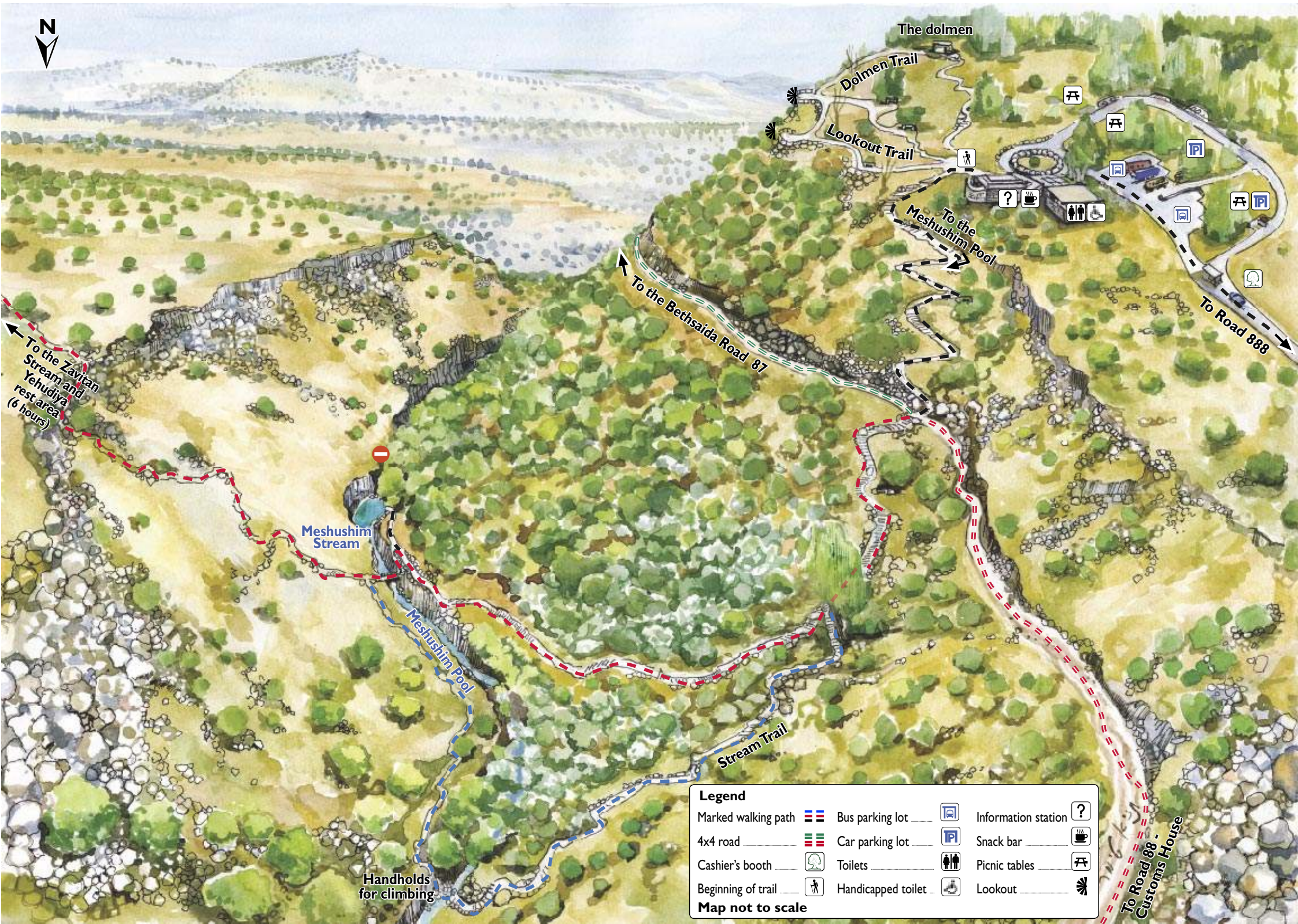
From the main plaza, take the trail going south following the signs to the Dolmen Trail. The route follows a dirt path, passes a picnic area shaded by eucalyptus trees, and turns left (east) in an open field among heaps of stones. At the end of the field, in a small eucalyptus grove is a small structure consisting of a large, rough basalt boulder placed like a giant tabletop over smaller stones, creating an opening on the south. This is a dolmen – a large burial monument built by the ancient residents of the Golan, hundreds of which are scattered across the northern and central Golan. The name dolmen comes from the ancient Breton language; *dol* means “table” and *men* means “stone.” In Brittany, in northwestern France, prehistoric structures were found that resemble the dolmens in the Golan.



Dolmen

When were the Golan dolmens built? That question has preoccupied scholars, but no single answer has emerged. Most scholars believe that they were built in the Early Bronze Age (the third millennium BCE) or in the Middle Bronze Age I (the beginning of the second millennium BCE). But everyone agrees that they were used for burial. Dolmens of various types have been found in the Golan; some are relatively small and consist of only three stones, while others are huge, with burial chambers measuring 1.5–2.5 m long.

The trail continues from the dolmen eastward to the slope of the Meshushim Stream and from there northward, with a wonderful view of the Yehudiya Nature Reserve. At the southern plaza, the Dolmen Trail joins the Lookout Trail and returns to the central plaza.



3. Pool Trail

Length: 2 km

Time: About 20 minutes down the slope to the Meshushim Pool and about 30 minutes back up. Take into account the time you will want to spend at the pool (up to one hour before closing).

Type of trail: For fit hikers. The trail, which consists of switchbacks down to the pool, is the same trail you will take back up to the visitors center.

Please note:

1. In summer, bring sufficient drinking water.
2. In winter, inquire at the reserve visitors center about flood risk.

The route

From the central plaza, follow the signs to the Meshushim Pool (marked in black). The trail goes down through Mount Tabor oaks. On the way, you will see a bench in the shade of a Christ's thorn jujube tree; you may want to rest there on the way back.

The trail reaches a broad, unpaved road (the “Syrian road”). This poor road, suitable for off-road vehicles only, follows the western bank of the Meshushim Stream. The Pool Trail crosses this road and continues down the slope. Beyond the road, the trail markings change from black to red. A little farther along, the trail crosses the Stream Trail (which turns left; see Trail 4), and ends at the Meshushim Pool. This is a magical place: a large pool with a wall of hexagonal basalt pillars on the east. Shady Syrian ash trees and Mount Tabor oats grow on the edges of pool.

Before you reach the edge of the pool, follow the red trail markings upstream toward a bridge with a view of the flowing stream and the pool. Do not continue past the bridge.



A view of the hexagons

The Meshushim Pool

The spectacularly beautiful Meshushim Pool is fed by the Meshushim Stream, which reaches it via a gentle waterfall. This large pool (approximately 30 x 20 m) lies at the foot of an upright basalt cliff made of numerous basalt columns in the form of hexagons (*meshushim* in Hebrew).

Basalt comes from molten lava. After the lava comes into contact with air, it cools, shrinks and cracks. The rock cooled as hexagons because the circumference of a hexagon is smaller than that of a triangle or a rectangle and therefore, less energy is needed to form it. Hence, it is more likely that the rock will form a hexagon when it cools.

The Meshushim Pool also features columns with five, four and even seven sides. Nature, it seems, also has its problems...

A closer look at the columns reveals that they are bent. That is because the lava cools and hardens on the outside first, while the inside stays in liquid form for a while longer and continues to “flow” a little, bending the column. The direction in which the column bends shows the direction of the lava flow before it hardened.

4. The Stream Trail

Length: 3 km

Time: About 45 minutes to the Meshushim Pool and about 30 minutes back up to the parking lot.

Type of trail: For fit walkers

Please note:

1. In summer, bring sufficient drinking water.
2. In winter, inquire at the reserve visitors center about flood risk.

The route

The Stream Trail is for visitors who want to see more on their way to the Meshushim Pool. The trail goes down to the “Syrian road,” crossing it just like the Meshushim Pool Trail (Trail 3). About 100 m after it crosses the “Syrian road,” near a tall eucalyptus tree, the trail, marked in blue, turns left (north), goes through an olive grove and then continues down to the Meshushim Stream at a point where a number of tall Syrian ash trees are growing.

The trail crosses the stream; handholds and footholds in the rock face will help you descend a three-meter cliff on the way. From there, continue on the eastern bank of the stream; the canyon gets deeper as you go. After you pass two large Mount Tabor oaks, you will reach an intersection with the “red” trail. Turn right at that point, cross the Meshushim Stream via the bridge and head down to the Meshushim Pool. After enjoying the pool, return via the Pool Trail to the visitors center, as described in Trail 3.

Syrian ash

Syrian ash trees grow in Israel in the Hula Valley and the Golan, always near water. This deciduous species can be identified by its three to four pairs of pointed, serrated leaves. The fruit has one seed within a slender “wing” that can be windborne.



Syrian ash

5. From the Meshushim Stream to the Zavitan Stream and the Yehudiya campground

Length: 8 km

Time: About 6 hours

Type of trail: Difficult; includes steep descents and ascents; suitable for very fit hikers only.

Please note:

1. In summer, bring sufficient drinking water and be aware of the heat stress index.
2. In winter, inquire at the reserve visitors center about flood risk.
3. Do not start out from the visitors center on this trail after 11 a.m. and without coordinating with reserve staff. You will need a vehicle to pick you up at the Yehudiya campground.

The route

The trail leads to the Meshushim Pool (see Trail 3). From there, continue on the “red” trail to the bridge near the pool. The bridge crosses the Meshushim Stream and the trail ascends steeply east to the ridge between the Meshushim and the Zavitan streams. After crossing the ridge, in the heart of a beautiful Mount Tabor oak forest, the trail descends steeply to the bed of the lower Zavitan Stream. A bit farther on, upstream, is En Netef, which creates a lovely curtain of trickling water.

The next stop is where the streambed crosses the trail marked in black. At that point you have two possibilities:

- a. Continue on the “red” trail up the steep slope to the eastern bank of the Zavitan Stream. About one km farther on, the “red” trail meets the “green” trail, which ends at the Yehudiya campground.
- b. If you feel like hiking for another two hours, you can continue on the “black” trail, which goes up the Zavitan Stream via more pools with hexagon walls. This trail also ascends the eastern bank of the Zavitan Stream and meets the “red” trail. At that meeting point, turn south (right), walk another approximately 800 m to the “green” trail, and continue east to the Yehudiya campground.