

An Environmental Survey
of the
Ras el Ain Wadi, Qab Elias,
carried out by the Aammiq Project
Of
A Rocha International
January 1999

The Scope of this Report

A Rocha, Lebanon was asked by Dr. Touma of the Qab Elias Baladiyya to carry out a brief environmental survey of the wadi behind the town of Qab Elias known as “Ras El Ain”. In Particular attention was to be taken of wildlife value, scenic attraction and archaeological interest. The reason for the timing of the survey, carried running into the wadi on its northern side. As a result attention was focussed on the northern sector of the wadi and recommendation follow with this possible development in mind.

The survey took the form of six site visits by Chris Naylor, A Rocha Lebanon field director during the period mentioned, together with Jihad Kiame (architect), Dr Fadlo Touma (engineer), Assad Serhal (Arz Echouf Society) and volunteers with the Aammiq project of A Rocha Lebanon on different occasions. As well as information gathered on these occasions. As well as information gathered on these occasions, records were used, particularly of bird species, from the A Rocha Lebanon database, from visits going back over the past three years. With the absence of detailed maps of the area, this report refers to areas and sites within the wadi in relation to well known landmarks or by reference to photographs.

The Importance of Ras el Ain, Qab Elias

The Baladiyya of Qab Elias is wise in their cautious approach to any development of the Ras el Ain wadi, as the town of Qab Elias is extremely fortunate in a national and regional context to have such a prolific water source and scenic attraction as close to the town. Within it s estimated nationally that 70-80% of water sources are significantly polluted (World Bank1996). Indeed so acute are water pollution problems within Lebanon that the government has issued a new decreed to protect

rivers from development projects, creating zones of protection 500m and 1500m to either side of a national water way (Daily Star Dec 12 1998). From a Science and wildlife point of view, it is a unique area of importance being the only undeveloped wadi with year round flowing water in the western Bekaa.

Description of the Ras el Ain wadi

The wadi of Ras el Ain, at the time of writing, is an area of outstanding natural beauty and of immense importance due to its provision of clean water to the town of Qab Elias. Although there has been some building on the southern side, some distance above the river, it offers relatively unspoiled views from the town in the region of the Deir to the crags on the south and northern slopes and to the vicinity of Daher El Baida to the west what follows is a description by habitat of the area with reference to its importance for various plant and animal groups, together with notes on point of archaeological interest.

Fast flowing mountain stream:

From the site of the highest spring (a pool at the mouth of the gorge) to where the river enters the town, Qab Elias has a mountain spring of high quality and of great importance to the town's people and wildlife alike. The water itself being well oxygenated and clean has large invertebrate populations including caddis-fly larvae, dragon and damselfly larvae, gammarid shrimps and the freshwater crab. These are the food for a unique assortment of birds typical of the habitat including Grey Wagtail, White Wagtail, Little ringed Plover and the Dipper (see Appendix 1). The Dipper is unique to Lebanon within the Middle East region and is a nationally threatened bird. At Least one pair is known to breed in this wadi. As well as being the town's water source the stream is an important water source for the mammals from a side area, including the nearby Arz Echouf reserve come to drink at the stream. It is of particular importance in this regard in the driest months of the summer when water is scarce on the hills and when snow falls in the winter causing the mammals to descend from the peak around. Mammals that have been seen using the river include fox, wild cats, stone martens, jackals, and porcupines. Undoubtedly it is an important drinking site for many other species.

River Bank with mainly deciduous trees:

For a distance of some 10-50m on either side of the river mixed undergrowth of deciduous trees and bushes has grown up. At other points the riverbanks are more open with grassy and/or rocky patches. Throughout the summer months this area is popular with picnickers as proximity to the running water and shade give the ideal picnic conditions. The area also provides an excellent habitat for animals, birds and flowers. Amongst the bird species found regularly here are the Water Rail, Graceful Prinia, Cettis Warbler, Collared, spotted and Redbreasted Flycatchers and many more (see Appendix 1). The damp conditions and isolated pools also boast a healthy amphibian population, the fire Bellied Salamander, the Tree Frog and the toad *Bufo viridis* all having been seen.

Mixed grassy and rocky slopes/abandoned terraces:

Above the stream and its fringing vegetation the slopes become less vegetated as you move away from the water source. Here the vegetation cover reflects the slope, the underlying rocks and their proximity to the surface and the history of terracing. Hence

some areas can be sparsely vegetated whereas other areas boast clumps of trees and bushes. Throughout the area however, except on the steepest slopes, there is a profusion of flowering plants (see Appendix2).

This mixed community of plants owes its existence to the limestone soil which hosts the richest plant communities, and the undisturbed nature of the area, in particular the lack of building and use of agrochemicals.

Although meter by meter not as productive as the land by the water the slopes of the wadi have their own community of animals including tortoise and chameleons amongst the reptiles and Black Redstarts, Chaffinches, Goldfinches, Masked Shrikes, Black Eared Wheatears and Long Legged Buzzards amongst the birds.

It is also on the slopes of the wadi that Qab Elias holds the riches of its past. There are a number of caves and niches demonstrating long use by man with pre-Roman burial platforms and squared off man made entrances. Clearly a number of Qab Elias residents know the value of the slopes judging by the regular signs of digging! In addition just before the entrance to the gorge there is the near complete Assyrian stele of a standing figure.

The Gorge:

The fourth distinct habitat within the area is the steep sided rocky gorge to the western end of the wadi. Above the pool where the highest perennial spring is flowing this part of the valley is dry except winter months when rain and snow melt from a torrent that over the millennia have carved the rocks into a hundred different forms. Here are deep pools, waterfalls, natural arches and caves truly a wealth of science beauty. It is also the home to quiet a distinct community of plants with many alpine forms such as aubretia clinging cushion-like to the rocks. The birds too are different here, it is being the home to the Blue Rock Thrush, the Rock Thrush, and the Rock Nuthatch, their very names giving away something of the habitats.

The Wadi as a Whole:

Although the area can be divided into different habitats in many ways it functions as a whole. Firstly, scenically there is no area within the wadi that could be described as "less important". The rare thing about the area is that it has so far escaped significant development and is something of a "wild park" so close to the heart of the town. Although the town clings to the southern ridge it has not significantly encroached into the wadi itself and so it still holds the opportunity to "get away from it all" for the residents of Qab Elias. Secondly, although certain birds and animals are restricted to one of the habitat zones, far more move freely between them. This is supremely true of the wild mammals using the stream for drinking and migrating bird. In the spring an autumn Qab Elias has the spectacle of literally thousands of migrating birds of prey and storks passing over it. The Bekaa is part of the Great Rift Valley migration route that runs from southern Turkey to the Great Lakes in Africa. The wadi at Qab Elias is quiet a significant part of that most ancient of flyways as countless numbers of Eagles, Kites, Hawks and Storks use it as the easiest way to cross the Lebanese mountains. On a March or October day huge flocks containing five different species of Eagles (see Appendix1) Black Storks, White Storks, and countless number smaller birds of prey can be seen wheeling to gain height over the town before they make their way up the wadi towards Daher el Bayda and from there to the Coast.

Recommendations:

It is the recommendation of A Rocha Lebanon that the wadi be developed as a natural park for the town of Qab Elias. The concept would be to maintain and enhance the uniqueness of the area, in terms of its natural beauty and wildlife potential, and to encourage development around it but not in it – thereby preserving the wadi itself. This would leave the water source pure, the recreational value of the area enhanced and the scenic and archeological significance of the area intact. In addition, land value around the park would be increased with access roads put in place from above and/or to the north of the wadi while the new properties would have pedestrian to an area of outstanding natural beauty.

In particular the following are suggested:-

- The road along the northern side of the wadi is not improved but left as a footpath only.
- A trail is constructed to encourage walkers from Qab Elias and beyond to enjoy the scenery and wildlife of the wadi.
- Certain disused building pipes that are currently an eyesore are removed.
- Rubbish is cleared up, particularly from the area known as the Jews Waterfall.
- Picnic facilities with signs and rubbish bins are put in certain designated sites.
- Housing development is encouraged behind the skyline on the northern side of the wadi with new access road created from either the Damascus highway or from the main road in Qab Elias. A series of panoramic photographs show this skyline as it would be seen while walking through the wadi. See Appendix 3.
- Further development on the southern side of the wadi is strictly controlled.
- Restaurant/snack bar facilities could overlook the area but not be built in it, a possible site being under the orange cliff visible in the panorama in Appendix 3. There could be a footpath from any restaurant to the nature trail.
- Any development on either side of the wadi leaves “wildlife corridors” of undeveloped land to allow access for the regions mammals to the stream.
- Certain areas of the terraced slopes could be replanted with native tree species to enhance wildlife and scenic interest.
- The area should be declared a “no hunting” area to encourage the breeding of Lebanon’s birds.

Appendix 1

Birds recorded at Ras al Ain, Qab Elias

Water rail	Collared Flycatcher	Stonechat
Little ringed plover	Spotted Flycatcher	Redstart
Woodcock	Red Breasted Flycatcher	Black Redstart
Kestrel	Alpine Swift	Black Eared Wheatear
Hobby	Common Swift	Isabelline Wheatear
Peregrine Falcon	Cuckoo	Graceful Prinia
Honey Buzzard	Bee-eater	Cetti's Warbler
Black Kite	Masked Shrike	Chiffchaff
Sparrowhawk	Syrian Woodpecker	Olivaceous Warbler
Golden Eagle	Wren	Lesser Whitethroat
Booted Eagle	Dipper	Blackcap
Short-toed-Eagle	Rock Nuthatch	Great Tit
Lesser Spotted Eagle	Robin	Chaffinch
Steppe Eagle	Grey Wagtail	Rock Bunting
Steppe Buzzard	White Wagtail	Greenfinch
Long Legged Buzzard	Rock Thrust	House Sparrow
Black Stork	Blue Rock Thrust	House Martin
White Stork	Swallow	

Total 53 Species

Appendix 2

Flowering plants of Ras el Ain, Qab Elias

The following is a small sample of the plants to be found in the wadi. As the study period was during November and December there was little opportunity to identify flowers and so what follows relies heavily on occasional past records.

Echinops viscosus	Linum pubescens	Ixiolirion tataricum
Campanula peregrina	Spartuim junceum	Muscari comosum
Ecballium elaterium	Anemone coronaria	Asphodoline lutea
Orbanche nana	Dianthus multipunctatus	Asphodelus microcarpus
Cyclamen persicum	Iris histrio	Arum dioscorides
Alcea setosa	Iris sisyrynchium	

Appendix 3

The 3 following panoramas reveal the skyline as you travel from the eastern end of the Wadi towards the west. They have been taken from or just below the track on the northern side of the wadi. It is recommended that to keep the wadi “intact” any development is done behind this skyline.

The View west from just after the last house on the northern track.

Panorama 1

The view west taken from the far corner of the track visible in panorama 1

Panorama 2

Panorama 3

The view from just below the track looking back east to the far corner of the track visible in panorama 2 and then west to the abandoned store building near the mouth of the gorge.

Note: At the left hand of the panorama the red cliff is visible that is referred to in the recommendations as a possible site for development of a restaurant.