

The Conservation of the Syrian Serin *Serinus syriacus* in the Al-Shouf  
Cedars Nature Reserve in Lebanon, 2005



Presented to: BP/CLP- Conservation Leadership Program  
Presented by: Soumar Dakdouk  
Khaled Hamdan  
Nina Jamal  
Grace Rachid

Soumar Dakdouk  
Deputy Executive Director, IndyACT  
Rmayl, Nahr Str, Jaara Bldg 4<sup>th</sup> Floor  
PO Box 14-5472  
Beirut, Lebanon  
Telephone: + 961 1 447192  
Mobile: + 961 3 848968  
Email: [soumard@gmail.com](mailto:soumard@gmail.com)  
[soumar@indyact.org](mailto:soumar@indyact.org)

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## **Abbreviations:**

AEWA – African Eurasian Waterbird Agreement

ARocha – ARocha Lebanon

B- Breeder

CMS – Convention of Migratory Species

GTB – Globally Threatened Specie

IBA – Important Bird Area

IndyYouth – The League of Independent Youth part of the IndyACT team

IndyACT – The League of Independent Activists

MAVA - MAVA Foundation pour la Nature

SHP- Sustainable Hunting Project

SPNL – Society for the Protection of Nature in Lebanon

SSP – Syrian Serin Project

SB - Summer Breeder

UNEP – United Nations Environment Program

W- Winter Visitor

## Abstract

*Serinus syriacus* is a restricted range bird species. It was uplisted in 2004, from Near Threatened to Vulnerable due to its rapid population decline (Birdlife 2004). Its global breeding range and migration patterns are not known in Syria and Lebanon; such studies however, have been made in Jordan and Palestine. This study aimed at characterizing the breeding and migration biology, as well as identifying the threats facing the Syrian Serin in the Al-Shouf Cedars Nature Reserve, where it has been recorded breeding (Birdlife 2003, Jaradi 2002). The unstable political situation in Lebanon, between 2005 and 2008, among other emergencies, deeply affected the proper progress of the study and led to modifications in objectives due to gaps in data collection. Despite such conditions, the project was successful in updating the species' data in the reserve and in Lebanon, ringing 33 individual birds, and launching an awareness bird conservation game, called KuKu. Additionally, and within the assessment of threats and gaps faced, the project was able to recommend future conservation measures to prevent the further decline of this species in Lebanon.

## Introduction

The *Serinus syriacus* belongs to the family Fringillidae. It is a sociable species that breeds in colonies and has a restricted Western 'Palearctic' distribution, favoring open, and semi-arid Mediterranean woodlands usually dominated by conifers; such as the mountains in Lebanon, Palestine, Jordan, and Syria (BirdLife 2004). "It is a tree-nester that feeds on the seeds of low annual and perennial grasses and herbs and requires daily access to drinking water" (Khoury 1998). The bird is considered a resident, passage-migrant and winter-visitor in Lebanon. The Al-Shouf Cedars Nature Reserve contains the largest remaining stand of cedar *Cedrus libani* forest in Lebanon (BirdLife 2003) providing a suitable breeding habitat for the Syrian Serins. Tohme' (1986) considered the highest densities of Syrian Serins in Lebanon to be in Qammouha, Bscharri, Ain Zhalta, Barouk and Masser El Shouf. While Jaradi (2002), in his study of four Lebanese reserves estimated the Syrian Serins breeding population to be 3,503 pairs with the lowest density being at Barouk Cedar forest.

The idea propelling this project emerged because general data on population size, migration, nesting, foraging and most other aspects of the Syrian Serin biology are lacking in Lebanon. A report by Convention of Migratory Species CMS/UNEP on the status of *Serinus syriacus* in the Middle East stressed the lack of and the urgent need for information on the breeding and wintering distribution of the Syrian Serin in Lebanon and Syria for its proper assessment and conservation (OSME, *Sandgrouse 21 (1): April 1999@* [www.osme.org/sand211/newsinfo.html](http://www.osme.org/sand211/newsinfo.html)). Birdlife International also iterates the need for information on the species; conservation measures proposed by the organization for the preservation of *Serinus syriacus* included 'carrying out baseline surveys of population size and distribution in Syria and Lebanon' (BirdLife 2004). These recommendations provided considerable support to the objectives of this study both from national and regional organizations. The "Society for the Protection of Nature in Lebanon" – SPNL, national Birdlife International partners hosted the project and

provided contacts and guidance, “A Rocha Lebanon” assisted in the field work, as well as added to our database through regional support from Jordan, and Palestine. IndyACT’s youth group, IndyYouth activists provided assistance in developing KuKu game content, and gathering participants to the numerous workshops held to test the game.

## **Field work and Research**

The data presented below was collected by the Syrian Serin Team. Data from the Identification and Conservation of New Important Bird Areas Project was collected jointly with SPNL, and A Rocha Lebanon, as well as through incidental observations. The project was based initially in the I- Al-Shouf Cedars Nature Reserve; another site was added II- Kfar Zabad- Anjar site after records on the bird’s breeding in that site were confirmed.

### **I- Al-Shouf Cedars Nature Reserve**

The team divided the whole area of the reserve into 1X1 km<sup>2</sup> quadrants and conducted its couple first field visits in the lowest elevations within the reserve because in April it was still very cold. A total of 6 field visits have been conducted to different sites of the Al Shouf Cedars Natural Reserve. In each visit, the team members would survey the quadrants by car or on foot depending on the availability of roads. In all the visits, the Syrian serin was not observed nor heard. It is important to note that field visits have been conducted to sites where the Syrian serin was previously reported example Ain El-Leijee; Ana; Barouk; and AinZhalta but with no observation of the specie.

The Al-Shouf Cedars Nature Reserve (coordinates 33°17’ N 35°42’ E) was established by law No. 532 on 24/7/1996 and extends over an area of 15,600 ha and is best known for constituting the southernmost limit of *Cedrus libani* tree species in Jabal Niha (Satout E. & S. N. Talhouk). The reserve is reported to belong to the Mountainous Mediterranean Zone with altitudes ranging from 1200m – 1950m. The reserve spreads over eleven villages and is locally known by its forest sections in areas such as Ain Zhalta, Bomhari, Masser el Shouf, Barouk, Jabal Niha, Dalboune.

The reserve is located in the center of Mount Lebanon chain, and spreads from the eastern to the western slopes facing the Bekaa valley and the Mediterranean Sea respectively (Satout E. & S. N. Talhouk). The reserve’s western slopes are characterized by pure stands of the Lebanon Cedar in Barouk, Bomhari, and Masser el Shouf, whereby the eastern slopes are formed of two parts, the first one is characterized by the presence of dense Cedars forest, while the other part hosts very sparse cedars. Another forest, Ain Zhalta, includes a pine forest, and an artificial water source locally known as the Japanese Pond. The surrounding habitat is characterized by open land deprived of trees; however some dispersed shrubs cover the area. The Pond is surrounded by hills of moderate to steep slopes. “The east facing slopes harbor a very small remnant of the pure stand of *C.libani* facing the swamp of Ammiq” (Satout E. & S. N. Talhouk), a nearby spring is

located on that slope, locally known as Ain El-Leijee, whereby its habitat is very similar to that of the Japanese Pond, with the addition of the oak forest.

The sites visited in the reserve were selected based on the literature review which indicated that the bird has been sighted namely in Ain Zhalta, Barouk and Masser El Shouf (Tohme' 1986). In Ain Zhalta forest, the bird was observed in two areas: Ain El-Leijee (1561m), and Japanese Pond. It was also seen in other sections of the Ain Zhalta forest. In Barouk Forest and Masser El Shouf, the bird was not sighted, despite the use of calling machines. Other areas such as Bmohrai, a village on the outskirts of the reserve have been visited, as they provided a suitable habitat for the bird, however, no records were made in those areas.

Ain el Lijeh in July



Japanese Pond in September



Other side of the Japanese Pond



Small ponds used by birds and mammals



Syrian Serin family drinking from Ain El-Leijee



The field work was initiated in mid April 2005 in different sections of the reserve, but no Syrian Serins were recorded until the 2<sup>nd</sup> week of July in Ain El-Leijee and in the 1<sup>st</sup> week of August at the Japanese Pond. The bird was never recorded in Masser el Shouf, Bmohrai or the Barouk forest- sections of the Reserve.

Given the area to be covered was relatively vast compared to the number of team members, the team decided to concentrate on the two places where the Syrian Serin has been previously recorded. The data highlighted areas that the bird visited for regular access to drinking water (Khoury 1998), and that the bird is a breeder from late April – mid August in rocky mountain areas, mainly open cedar, pine, and fir forest and during post-breeding dispersal is commonly found above the tree-line. (Sandgrouse 1999, 2). The decision ensured focused and substantial observations.

Syrian Serin counts were conducted in two main areas 1) Ain El-Leijee, and 2) the Japanese Pond. In addition, data from across the country has been collected from different sources, with concentrated field visits between the months of April – Nov 2005. Numerous field visits were curtailed due to political tensions in the country.

Prior to field visits the assumption that the Syrian Serins are breeding at lower grounds and come to the pond to drink was made.

It is to be noted that no late brood or breeding displays have been recorded in those sites.

To enforce our findings, the team investigated the presence of the specie in other areas of Lebanon and especially those that were reported in the literature. To its surprise, SPNL & ARocha Lebanon who were compiling a national IBA research of bird species present in other protected areas reported no records of the specie even in its highest density reported site, the Reserve of Tannourine. At the same time, the team was able to visit Kfar Zabad area and Anjar Area where we observed the specie, in particular 5 pairs out of a total of 12 reported pairs, who seemed to be nesting there. In all, the team knew that there are currently only 12 reported Syrian serin pairs in Lebanon which were observed by bird ornithologists in Anjar and Kfar Zabad areas only. This knowledge is yet not enough evidence to solve the team's dilemma. As a result, the aim of the study was modified to mainly the threats, conditions, and potential factors that have led to the decline in the Syrian serin population in the Al Shouf Cedars Natural Reserve.

## **II- Kfar Zabad – Anjar**

The site had been previously studied by SPNL and A Rocha, as part of their identification of national Important Bird Areas- IBA in Lebanon. Visits by the Syrian Serin Project (SSP) have been made to further study the bird, especially that records of the bird were not made by our team in the reserve until very late in the field visits, post – breeding season.

The Kfar Zabad and Anjar area is a mixture of marshland, constant springs, riverside woodland and three pine woods. The presence of at least 15 pairs of breeding Syrian

Serins in spring 2005 justifies proposing the site as an IBA under category A1 criterion. The absence of this Middle Eastern endemic from two of its supposed breeding strongholds (Tannourine Cedars and Ehden forest) in spring and summer 2005 only further emphasizes the importance of this lower lying area. The Kfar Zabad marshes at the north end of the proposed IBA have in 2005 been put under protection by the local municipality, which maintains ownership of the land and where hunting has been banned. An ancient system of sustainable land management (Hima) is being revived in the area and the local community is gradually getting involved in other sustainable and supportive ways such as ecological tourism (bed and breakfast, marketing of local produce at site) (extracted from IBA Project Interim report).

### Kfar Zabad Wetland



In addition to the proposed IBA, Syrian Serin breeding was detected in 2005 in three sites outside this protected marshland section but within the area of Kfar Zabad-Anjar. They are:

1. An Armenian cemetery, which is naturally attractive for birds given its undisturbed and tranquil environment.
2. Riverside trees, trout farms and restaurants, are attractive for the birds due to shade and tranquility and because good water quality is maintained by people who utilize the area. These conditions have attracted wildlife, e.g., Otters are regular visitors to the site.
3. The archaeological site of Anjar ruins which is managed by the Ministry of Tourism. Visitors' access to the site is controlled by entrance fees rendering the site attractive to birds including the Syrian Serin. Limited entry to the site may protect it from hunting and ensures considerable tranquility in the area.

### Anjar ruins





All three sub-sites are therefore “managed”/ “maintained” in ways that benefit wildlife. Although the marshes have been badly degraded in previous years, IBA status would add further impetus to the process- already underway- in habitat restoration and protection.

### **Sites Analysis:**

Birds are also known to forage a few kilometers south of the Barouk Reserve near Kefraya winery, which is an unintentional sanctuary for the birds. Hunting in that area is indirectly eradicated as the grapes vineyards are not very attractive for hunters, given they prefer more discrete locations; further discouragement to hunt in the area can be linked to the fact that a Lebanese Army Base is stationed in the surroundings. We strongly suspected the presence of a nest at the very entrance of the winery, but it was not possible to verify this, as we were not allowed to access the area. The area adjacent to the winery-owner’s residence harbors a fairly sizeable deciduous forest where the Syrian Serin has been recorded as well. In Anjar, around 10km east, the Syrian Serin was found displaying nest-building activities; the observations were noted in May 2005. Observations by the team indicate that the Syrian Serins are nesting, either inside the area of the Anjar ruins or in the trees within the close vicinity of the ruins. Although it can be assumed that hunting would not occur in that area, it seemed to have occurred inside the ruins as some used bullet cartridges were found.

Both of the sites Kefraya and Anjar ruins have conifers and deciduous trees, and the land topography differs greatly from that of Ain El-Leijee where small shrubs and oak trees are prevalent.

The Syrian Serin has been observed as it visited Ain el Lijeh site with foraging birds. They were relatively scattered over the area and regularly observed in single or small groups, with few larger flocks. The maximum number of birds seen together was twenty five (25).

The team made some observations from areas around Ain El-Leijee and Kefraya. Ammiq wetland that falls within few kilometers from both sites has been visited along with the mountains in front of it. The area is mainly covered with oakland and small shrubs, no Syrian serins were recorded in the visits, the fact that they might be coming to drink in the wetland should not be dismissed, however, no records have been made. No pond or water source has been identified in Kefraya, however it is normal for farmers to dig ditches to water the crops, so an assumption that the birds are drinking from there can be made.

While the Syrian Serin was not confirmed to breed in the Al-Shouf Cedar Nature Reserve, it was confirmed to breed in another area Anjar – Kfar Zabad, where site monitoring has been done by SPNL and A Rocha under their joint project on “Identification of Important Birds Areas in Lebanon”. The organizations confirmed that at least 15 pairs of Syrian Serins have been recorded to breed there. In Anjar Marshes, Graveyards, Kfar Zabad and in Anjar Ruins sightings of the Syrian Serin have been made

whereby in the latter they were seen with breeding displays (May 2005) and were assumed to be nesting if not inside the Anjar Ruins then in the trees within the close vicinity of the ruins. The population was unintentionally protected in the Anjar ruins given it is a tourist site; the safety of the birds cannot be confirmed in that location though given there was evidence of hunting since old cartridges were found.

The Syrian Serin was also identified to forage a few kilometers south of the Barouk reserve near Kfraya winery, unintentionally a sanctuary for the birds as there are Lebanese Army Base there, therefore hunting is not allowed, also hunting is not usual among the grapes vineyards, as they are rather exposed, and hunters usually prefer more secretive locations, probably with tall reed beds or thick shrubs. We strongly suspected that a nest was established at the very entrance of the winery, an area with fairly sizeable deciduous forest where the Syrian Serin has been recorded as well, but it was not possible to verify.

Both of the sites have conifers and deciduous trees, and the land topography differs greatly from that of Ain El-Lejje where we have small shrubs and oak trees.

*Other sites:*

Through the national IBA monitoring survey the Syrian Serin was recorded in Ebel el Saki. Unfortunately no field visits were made by the Syrian Serin Project team to see if any color rings have been observed; birders that went there didn't report such observations either.

With the good number of bird watchers, especially expatriates in the country, and through the team members several field trips around Lebanon; we were able to identify other Syrian Serin colonies in the North of Lebanon aside from Tannourine Reserve, where they have been seen in Mishmesh. A national study to know more about the different places that the Syrian Serins are found should be conducted in able to do a Species Action plan to protect this red list specie.

**Field Data:**

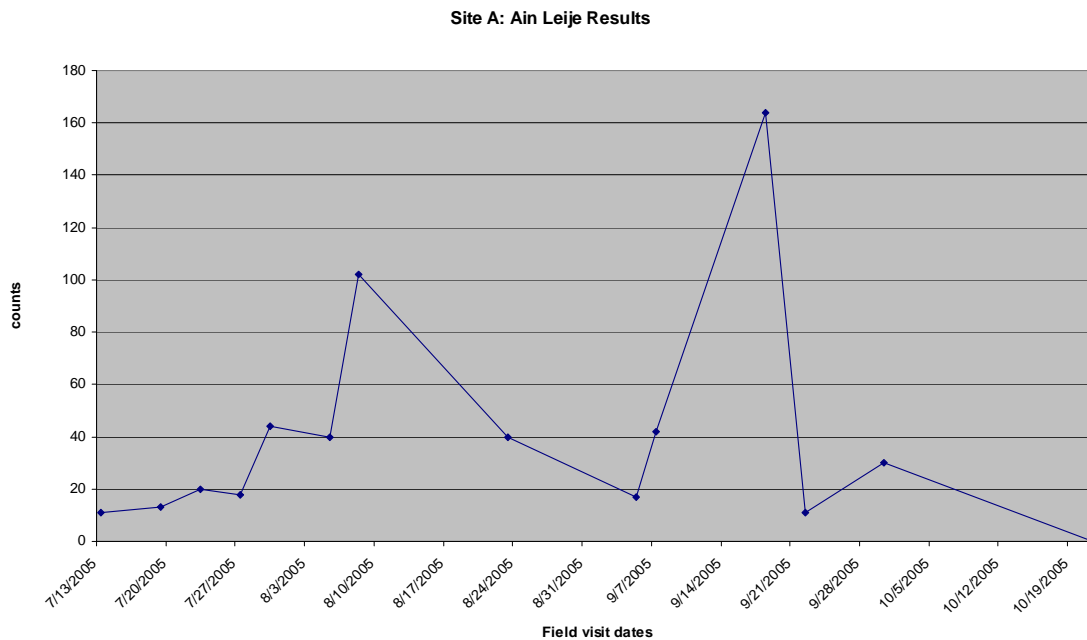
***Field Visits:*** (refer to Annex for further details)

Two sites: Ain El Leije (1561m) and Japanese Pond  
Field visits: March 2005 till May 2006.

- A) Point counts
- B) Ringing

Field visits	Observed period	Birds encountered per day
April 2005 – May 2006	<b>A:</b> July 13 – October 21, 2005 <b>B:</b> August 8 - September 9, 2005 (JL)	30.95 individuals <b>Range:</b> 2 – 164 Total days seen: 25

'Birds encountered per day': an estimate of the average number encountered on each day observed



### Ringling:

The ringing sessions were all conducted under the supervision of A Rocha Lebanon, who has experienced certified ringers, and since none of the team members had a ringing license. Also a team of experienced ringers visited A Rocha Lebanon and assisted the SSP to color ring the Syrian Serin. Within that session, the color ringing method used was performed for the first time in Lebanon for a globally threatened species.

Group of international ringers



A Rocha Team with SSP



### Training SSP to ring



The records given to us by A Rocha on the Syrian Serins that were ringed on June 12, 2001 at Ain El-Leijee were the only source of known records. These records led us to assume that the Serins have come around during the same time in 2005, however, according to our observations; the Serins had visited the Ain El-Leijee site, in July, one month later.

The birds in Anjar, Kfar Zabad were checked for rings but nothing was found. More research should be conducted to conclude that two colonies are found Anjar, KZ and one in Aammiq.

The birds seen in Kefraya were also checked for rings but no rings were found.

In previous records from A Rocha, Syrian Serins have been ringed in Ain El-Leijee on 14- June – 2001, while during our field visits in 2005 we haven't been able to spot the bird before mid-July.

Five ringing sessions were done:

- total of 143 *Serinus syriacus* were ringed
- 30 were also colored ringed
- 3 recaptured

The avian influenza had halted our work in 2005, especially after an “announcement” by the government that anyone handling any wild bird would be subjected to criminal charges.

In 2006 field visits were conducted to check for ringed birds but none were spotted during the visits.

Other pictures from the field especially about ringing techniques please check Annex III

## **Education Component (refer to Annex for pictures)**

The outreach objective of the conducted study aimed to heighten consciousness about this special species (and other such restricted-range and globally threatened species) among the local community and more widely in Lebanon. Such consciousness is very desirable in a region where conservation is usually awarded a low priority in national development plans, and where the general populace receives very little information about their own environment via formal education and where local environmental stories in the media are scarce.

The execution of a national or at least local awareness campaign specifically for the Syrian Serin as specified in the proposal was impossible due to several reasons. Namely, the year that the fund was granted, 2005, was the year of the assassination of the former Lebanese Prime Minister the assassination was soon followed by the withdrawal of Syrian Army withdrawal from the Lebanon following local pressure. With this background, the name “Syrian” Serin became a taboo, so the SSP couldn’t raise awareness for the name itself and prepare flyers or awareness kits. The only confirmed breeding site of the bird happened to be in the village where the Syrian Intelligence headquarters was, so it was not possible to do local community awareness on the Syrian serin so other workshops were conducted on birds in general through SPNL.

The contingency plan was first to design a set of awareness material and concentrate on the bird itself without the name, but that turned out to be a bad idea since in the same sites that the bird have been found breeding a very similar bird Greenfinch is known to be resident and individuals/bird watchers would have to be a experienced birders to differentiate between the two without a binoculars, also twice each year the European Serin *Serinus serinus* migrates over and lingers in Lebanon for a while, making it all more confusing for the normal hunters or locals to differentiate between the species. So plans C and D were devised.

**Plan C** was to collaborate with an already existing project in Lebanon that was concentrating on hunting so in collaboration with Sustainable Hunting Project (SHP) funded by EC Life and EuroNatur, SSP aided in:

- Conducting 5 three-day ‘training of trainers’ workshops to school teachers
- Preparation of the “Education Manual on Birds” for school children

The total number of participants in the ToT workshops was 117 from 78 different schools and organizations. Participants came from diverse backgrounds: private and public schools, Red Cross, civil society, and schools for children with special needs. A special highlight was done in the workshop sessions on globally threatened species especially the Syrian Serin. As for the bird manual, that was also part of the hunting project with Bird Life partner in Lebanon, the Syrian Serin and GTB were strongly evident in the sessions.

Also through the SHP collaboration with one of the team member, who was later hired as staff, several workshops have been conducted for law enforcement officers and the

opportunity was taken to highlight on the Syrian Serin and other globally threatened species.

Rally for Nature consisted of teams competing in the Shouf Cedar Nature Reserve (IBA) along a set trail, where they were asked about the Syrian Serin since it is a globally threatened species along with other birds that are found in the reserve. Over 4 different days 15 teams of 10 students each went over a trail with 5 stations where questions related to birds determined the successful team. More than 20 schools participated in the rally that took place in May- June 2006.

One of the interesting notes on these events is that some of the students in the rally were those of the teachers that have been trained in the ToT, and since a lot of questions were on the Syrian Serin in specific those students in particular had advantage and were able to win since their teachers taught them all about it, and even the team was able to inspire the teachers a lot to a point that the students send the SSP framed pictures of the Syrian Serin.



**Plan D** was the design of the Kuku Game:

Kuku game is a board game that can be played from 2-6 players. It concentrates on the importance of team work to protect the environment. The players are a park ranger, a bird watcher, an activist, a hunter, a villager, an ecologist. The questions all revolve around birds, globally threatened birds, environmental/ecological problems and of course the Syrian Serin in specific and the winning players are the ones who know how to answer all the questions.

The team contracted Polypod, a local graphic design company, to assist in the creative part of the game. IndyACT's youth team, Indyyouth assisted in the numerous workshops that were crucial to figure out all the loopholes of the board game.

A picture from one of the numerous workshops conducted to test the game.



The game is then going to be distributed to public schools, which are not as privileged as private ones and lack extra curricular activities, also the team will help teachers prepare and conduct monthly environmental awareness sessions through the environmental clubs in the schools. As for private schools the team will try to sell the board game in order to print more copies to be donated to public schools, which are much more important since they are mostly outside Beirut and closer to green areas.

## Threats

- Weak forest management plan
- Disturbance of birds
- Unsustainable exploitation
- Visitor over carrying capacity
- Habitat loss: decrease in number of water resources in reserve
- Illegal grazing
- Construction activities (huts; brick bird hides)



- Illegal and excessive hunting

In Ain El-Leijee site fresh cartridges were also seen, leading us to think that hunters have entered the reserve undetected. Given the vast area that the reserve covers hunting can occur unnoticed. No evidence indicated that Syrian Serins may have been hunted; nevertheless, Syrian Serins may be at risk because they are among the most common birds to visit the water source in Ain El-Leijee to drink at that time of the year between July and September.

Cartridges found next to the pond in Ain El-Leijee



## **Limitations**

- Discrepancy faced in literature review
- Low number of team members, and turnover due to country's situation
- Delay in arrival of equipment
- Avian Influenza concern leading to halting ringing activities
- The political situation in Lebanon and the sensitivity to the specie's name
- Access to sites
- Shifting in methodology leading to gaps in data

## **Conclusion**

- Specie first seen in first week of July and last seen by end of October 2005
- Strong evidence of important migration of SS through the Al-Shouf Reserve
- No indication where birds are going to and coming from
- Birds only seen near water sources
- Almost all flocks were post-breeding birds
- Juveniles were mostly observed => successful breeding season yet none was verified within the reserve, probable breeding within a radius of 5 km.
- Summer (S) visitor in Arz El Shouf Protected Area and SB in Lebanon

## **Recommendations**

- Enactment of a clear hunting policy regarding endangered species
- Enactment of a national ringing policy and establishment of a database center
- Intensive field studies to identify breeding behavior, numbers, time frames, and locations of nesting sites, breeding population size and proportion of breeding successes on a national and regional level
- Establishing a network between neighboring countries

## **Ideas for the future:**

- Contact the winery and ask if we can make a special Syrian Serin edition of their season's wine ( we already approached them but due to war connection was halted)
- Better hunting laws
- Sign cites project so that the Syrian Serin and other red list species wont be captured / killed for trade or food



- A better understanding of the bird in other areas such as Meshmish, where they have been also recorded breeding (check the email of Mike and Karen)

## **Project Members**

Name: Soumar Dakdouk

Age: 25

Experience: BSc in Environmental Sciences, minor in Public Health at the American University of Beirut (AUB). Deputy Executive Director – League of Independent Activists – IndyACT, Beirut Lebanon.

Name: Grace Rachid

Age: 25

Experience: MSc in Ecosystem Management and BSc in Environmental Health at the American University of Beirut (AUB). Environmental Specialist, Ministry of Environment, Lebanon.

Name: Nina Jamal

Age: 25

Experience: MSc in Environmental Policy Planning at the American University of Beirut (AUB), volunteered in several environmental projects and campaigns in Green Line (environmental NGO), co-founder of the League of Independent Activists- IndyACT.

Name: Khaled Hamdan

Age: 26

Experience: MSc in Ecosystem Management at the American University of Beirut (AUB), candidate for Phd at Simon Fraser Grad School in Canada.

Other members that helped us through the project but couldn't stay till the final stage for several reasons were:

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Taher Khadra (transportation officer, and field assistant)

Walid Dakdouk (field visits)

Noura Nasser

Al -Shouf Cedar Society – Wissam Abou Daher, Nizar Hani

Houssam Eid (Reserve guide)

Tarek Zebian (maps)

Karim Makdisi

Sameh Darwish

Fares Khoury

Farah Salka

Wael Hmaidan

Sarine Karajerjian

Ghada Kalash

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Hadi Inja

Ryan and Yara

Carolynn Haddad

Nouhad Soubra

Ziad Dallal

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## Annexes

### Annex I:

#### Tannourine Cedar Forest Nature Reserve

The Tannourine Cedars area is a Lebanese Nature Reserve, forming part of the largest remaining cedar forest in the country. A previous study into Syrian Serin breeding populations in Lebanon (Ramadan-Jaradi & Ramadan-Jaradi 2002) concluded that the forest had the highest density of breeding Syrian Serins among the four sites studied in 2001/2. Although the species did not breed at Tannourine in 2005 the site presumably should **qualify from this data alone under category A1**. Our observation of two flocks of White Pelicans, totaling 900 birds, low over the site on 14 November 2005 emphasizes the importance of the Reserve for congregations of migratory soaring birds, also supported by our sightings of raptors upon other visits in 2005 (see list below) supporting the proposal for **IBA status under category**

#### **Habitat improvement for Syrian Serin**

Despite the suitable trees for nesting and weedy slopes nearby for feeding, there is no water, flowing or still, in the reserve from late spring onwards. Indeed, even in early spring the streams down in the valley floor are the only water source, these are probably too distant to support breeding Syrian Serin, which is known to be particularly water-dependant.

Recommended action: Create a pond in the forest and ensure it contains water permanently

### **Anjar/ Kfar Zabad**

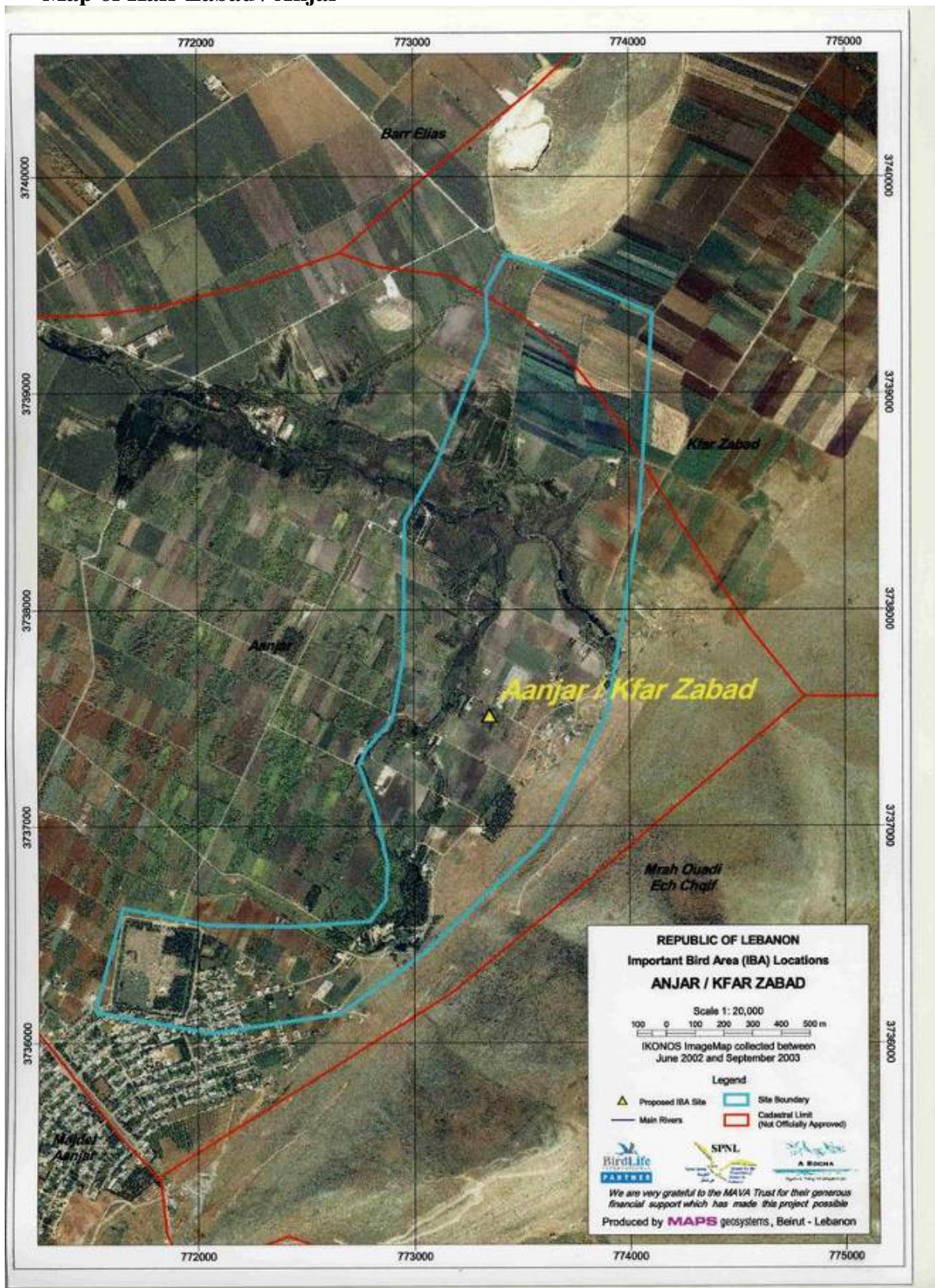
#### **Importance of site for birdlife and biodiversity**

In addition to common reed-bed birds such as Moorhens, European Reed, Great-reed, Moustached and Savi's Warblers and Little Bitterns, the wetland also holds one of only two known breeding locations of Penduline Tit and Clamorous Warblers in Lebanon.

The woods surrounding the wetland hold good numbers of breeding **Syrian Serins**, (a Vulnerable species. **In 2005 at least 15 pairs bred here, hence the proposal of the site as an IBA under category A1.**

In addition, Otters (*Lutra lutra*) are reportedly regular visitors to the fish farms at the southern end of the area, wildcats, foxes, field mice, shrews, a species of fresh water fish, and a vast number of reptiles and amphibian species are known to inhabit this site.

# Map of Kafr Zabad / Anjar



## Annex II (extract from Mava Report)

Three sites where breeding Syrian Serins were detected in 2005 lie outside this protected marshland section of the proposed IBA, they are respectively:

4. An Armenian cemetery, undisturbed (naturally!)
5. Riverside trees, trout farms and restaurants (the people have a vested interest in continued good water quality, shade and tranquility, all to the benefit of wildlife, eg., Otter is regular at the site) where incidentally in 2005 only the second breeding site for Penduline Tit in Lebanon was discovered.
6. The archaeological site of Anjar ruins, where access is by paying an entrance fee thus protecting it from hunting etc.

Syrian Serin (Serinus syriacus)	Aanjar Marshes (Bekaa Valley)	23/03/2005 12:00	6	At the springs
Syrian Serin (Serinus syriacus)	Aanjar Marshes (Bekaa Valley)	05/04/2005 11:45	32	15 pairs seen at 3 different points
Syrian Serin (Serinus syriacus)	Aanjar Marshes (Bekaa Valley)	16/04/2005 06:40	23	At least 9 singing males
Syrian Serin (Serinus syriacus)	Aanjar Marshes (Bekaa Valley)	02/05/2005	9	Pair collecting nest material and flying to cypress tree
Syrian Serin (Serinus syriacus)	Aanjar Marshes (Bekaa Valley)	03/05/2005	10	3 at cemetery, 5 around springs, 2 in village gardens and orchards
Syrian Serin (Serinus syriacus)	Aanjar Marshes (Bekaa Valley)	25/05/2005 08:00	7	At cemetery, springs and ruins
Syrian Serin (Serinus syriacus)	Aanjar Marshes (Bekaa Valley)	14/07/2005 16:00	2	At the ruins

### Sightings of Syrian Serin (Serinus syriacus) at Aanjar/Kfar Zabad potential IBA in 2005

Number of species observed: 69

Number of visits: 11

Dates : 24<sup>th</sup> February, 23<sup>rd</sup> March, 5<sup>th</sup> April, 16<sup>th</sup> April, 20<sup>th</sup> April, 2<sup>nd</sup> May, 3<sup>rd</sup> May, 25<sup>th</sup> May, 14<sup>th</sup> July, 16<sup>th</sup> July, 27<sup>th</sup> September

### Annex III

Comparing plumage



Color ringed Syrian Serin



Measuring wing length



Regular Ringing



Ain el Lijeh during ringing



Different color ringing combinations



Different color combinations





Thank you CLP from a juvenile Syrian Serin & us

