

# A Rocha Lebanon Activity Report 1998 – 2004



**A ROCHA**

*Together, caring for God's creation*

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## A ROCHA LEBANON MISSION STATEMENT

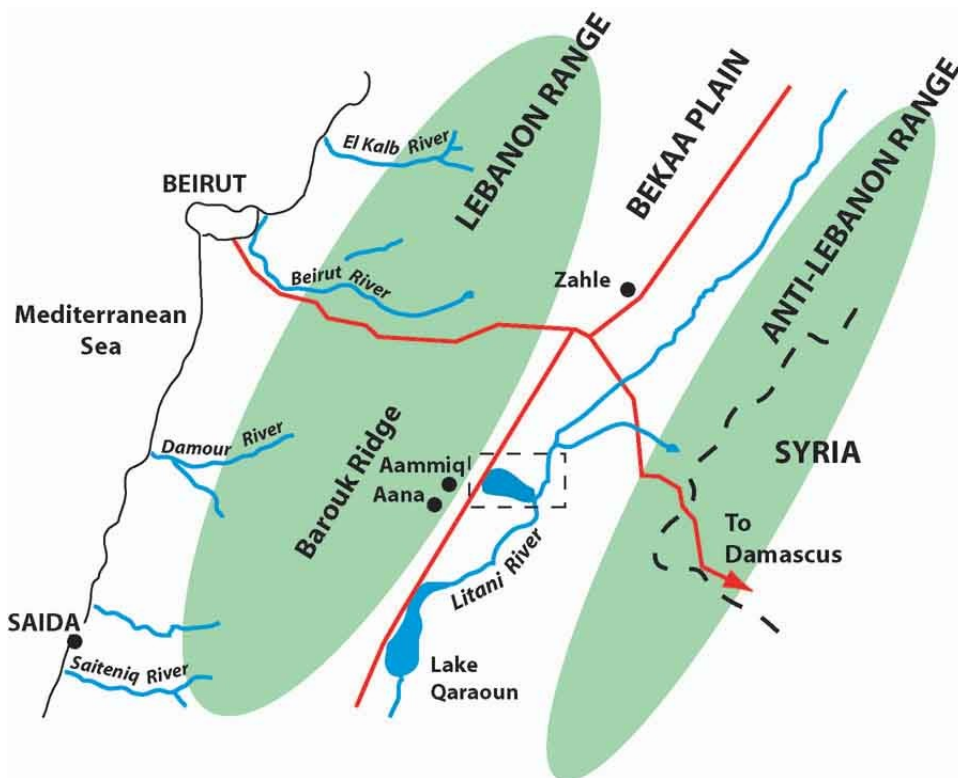
*A Rocha Lebanon is a non profit organization, linked with A Rocha International, working to show God's love and care for all creation in Lebanon. It works to encourage appreciation and protection of the environment through a variety of community based scientific and educational projects.*

### 1. INTRODUCTION

Since starting work in 1996 the work of A Rocha Lebanon has been intimately connected with the conservation of the Aammiq wetland in the West Bekaa. From a field studies centre close to the wetland, conservation work through scientific studies, public awareness, environmental education, advocacy and habitat restoration has transformed the Aammiq marshes from a badly degraded habitat, suffering intense hunting abuse, to a haven for local wildlife. Increasingly the efforts at Aammiq have served as a model, as the work of A Rocha Lebanon has become national with scientific studies and training courses throughout the country aimed at supporting emerging wildlife conservation initiatives.

## LEBANON'S LOCATION

**AAMMIQ MARSH** (33° 44' N, 35° 47' E) is situated in the Bekaa Valley, a fertile plain 10-30 km wide that stretches between the Lebanon and Anti-Lebanon mountain ranges at an altitude of 850-1100 m a.s.l. (see map). The two mountain ranges run parallel to each other in a NNE-SSW direction, rising steeply from the eastern shores of the Mediterranean Sea. The marsh (863-865 m a.s.l.) lies on the western side of the plain, at the foot of the Lebanon Range.



Map showing the position of the Aammiq wetland.

The wetland is well known as an important area for migrating birds lying as it does on the “Rift Valley migration flyway.” In the spring and autumn, internationally significant numbers of storks, cranes, pelicans and birds of prey together with huge numbers of song birds use the wetland as a staging post or pass overhead. The surrounding mountain sides, agricultural fields and fallow land also provide refuge for a wide cross section of Lebanon’s flora and fauna.

## **2. A ROCHA'S WORK AT AAMMIQ**

### **CONSERVATION WORKING THROUGH A MANAGEMENT PLAN AND AN MOU WITH THE LANDOWNERS**

A Rocha has provided the environmental coordination for the Aammiq marshes and the Skaff estate since 1996. A prime role has been to advise and oversee land management issues as they relate to the Aammiq marshes on the Skaff estate.

This coordination operates through regular meetings with all local stake holders, particularly with the Skaff family, other land owners of the Hajj Chahine estate, the MedWet Coast project and the local village council.

The operation of the A Rocha project and its liaison with the Skaff estate has been defined and incorporated into a management plan for the Aammiq wetland and a memorandum of understanding between the two parties. The management plan, identifying four broad objectives, sets out policies currently being executed by the A Rocha team and employees of the Skaff estate concerning the following land management issues:

- The maintenance of optimum possible water levels for wildlife benefit.
- The implementation of a sustainable grazing regime for sheep, goats, and latterly domestic water buffalo.
- The control of fire to maintain the character of the wetland while eliminating the undesirable consequences of accidental fire.
- The monitoring of variables in relation to hydrological function and key species using the marshes.
- Security and the prevention of hunting.
- The access of members of the general public through the A Rocha public awareness program.

With the appointment of Miss Mayya Aboud (the MedWet Coast site manager for Aammiq) at the start of 2003, the A Rocha team has given full support to the MedWet Coast efforts to further involve the Hajj Chahine family in conservation initiatives at Aammiq.

## **3. HABITAT RESTORATION AT AAMMIQ**

### **HABITATS RESTORED, THE WETLAND INCREASED BY 20%.**

Due to the degraded state of habitats within and around the wetland at the start of the project a series of direct interventions were necessary to define, protect and restore key areas. Between 1996 and 2000 A Rocha coordinated and executed with the Skaff estate the following:

- Various drainage ditches that had been cut into the marsh were closed.

- Areas of agricultural land taken from the marsh in the recent past (three years or less) were taken out of agricultural production and allowed to return to marshland habitat.
- Two further areas of land were also added to the core zone in the autumn of '99. This increased the total marshland area on the Skaff estate by 58 hectares or approximately 28% in three years. This represents an increase of approximately 20% of the whole wetland.

Three pools were created along the old line of the large closed drainage ditch at the northern edge of the reed bed.

- 50 iron poles were set in place around the perimeter of the wetland habitat, defining the core zone on the ground. This made clear to all parties where agricultural activity was permitted and where it was not. These poles have been moved on two occasions to enlarge the core zone.
- In the autumn of the year 2000 a further pool was dug to increase the permanent water found in the area. This was dug to the north east of the core zone and has proved to be a useful additional pool, particularly in the summer months.
- Following negotiations with tenant farmers, a rolling programme has been undertaken to restrict access to the most sensitive areas of the estate by construction of barriers, small gate houses, and the digging of small ditches. This has greatly reduced both hunting and disturbance from 4WD vehicles in the area.
- The number of goats on the estate has been greatly reduced and a grazing regime instigated to sustainably use the wetland.

#### **4. SCIENTIFIC RESEARCH AT AAMMIQ**

##### **A HYDROLOGICAL STUDY AND SIX BASE LINE SURVEYS**

The aim of the A Rocha scientific research program at Aammiq is to better understand the functioning of the wetland system for three major reasons:

- To inform the land management activities through the operation of the management plan for optimal benefit to wildlife
- To highlight the importance of the Aammiq wetland biodiversity at a national and international level to better advocate for its conservation.
- To provide accurate data concerning Lebanese biodiversity for the national and international scientific community.

Clearly, with this rationale, the priority for research studies has been to conduct hydrological studies, base line surveys and monitoring programs of key groups of plants and animals. It has also been important to disseminate this information as widely as possible and so both scientific articles in peer reviewed journals and guides to Aammiq wildlife have been published. See section 9.

The following studies have been completed or are ongoing:

- The two year hydrology and hydrogeology study of the marsh was completed in February 2004. The study was designed to answer fundamental questions of hydrology with direct management implications. As well as answering several questions directly, it has formed the basis for the setting up of the hydrological monitoring programme designed by Drs. Storey and Walley of A Rocha, Mr. Leake of Hafren Water and the MedWet Coast team. The infrastructure for the survey was installed by A Rocha between September and December of 2003 and Miss Aboud of MedWet Coast has been collecting data since that time. Following a two year period of data collection and analysis it is planned that a water management plan will be drawn up.
- Systematic bird monitoring and bird ringing programmes for the wetland and surrounding habitats. After a long series of negotiations the project re-launched bird ringing in the country after a gap of 25 years. The scheme is linked internationally via the South East European Network. To date over 3200 birds have been ringed with 559 retraps, 14 controls and of 75 different species. These and all other records have been compiled into a *Ringling at Aammiq* data base and include 8 new species for Lebanon.
- Breeding bird surveys for the agricultural habitats (2004) and the reedbed (2000)
- Freshwater invertebrate survey of the wetland (2002 to 2004) (in write up)
- Amphibian survey of the wetland (2004)
- Dragonfly and damselfly survey of the wetland (2002 to 2004)
- Small mammal survey of the Aammiq estate (2001 to 2002)
- Plants of the wetland and surrounding habitats (2001)

## **5. PUBLIC AWARENESS & ENVIRONMENTAL EDUCATION AT AAMMIQ**

5000 SCHOOL STUDENTS HAVE TAKEN PART IN THE ENVIRONMENTAL EDUCATION PROGRAM.

ENVIRONMENTAL ARTS & CRAFT INITIATIVE.

- Since the A Rocha Aammiq education programme started in 1998 over 5000 school pupils, university students and scouts have participated in day visits to the wetland. The programme offered provides “hands on” activities designed to encourage respect for the wetland and has been fully integrated with the Lebanese national curriculum. A typical visit starts with a slide presentation in the A Rocha classroom facility at Houch Aammiq, close to the wetland, followed by field work activities such as bird watching, insect collecting and “pond dipping.”
- Local community, national and international groups such as local council representatives, delegations from embassies, local women’s groups, exchange visiting programmes etc. have

been hosted at the A Rocha facilities. Over 700 participants have taken part in these day activities.

- During the winter period of 2002 and 2003 the A Rocha education officer visited the four most local schools initiating an environmental sensitization campaign for protection of the wetland and training local teachers in environmental education.
- In addition to the schools and community visits, the local population has been targeted through three summer camps for children based around the wetland, with over 150 children attending. An arts initiative entitled “Celebrating Creation” has also been designed and run in all the most local villages (5 villages, 200 participants). The scheme has been specifically designed to reach members of the local community usually unreached by traditional public awareness programmes by linking environmental themes with art and craft activities aimed at village women. The manual has been written up for publication and distributed to 25 other interested groups in Lebanon and abroad.
- Due to a combination of the guards employed by the Skaff estate, the A Rocha public awareness programme, and restrictions to public access the amount of hunting on the Skaff estate and in the wetland has been drastically reduced. Indeed unusually in Lebanon birds can be observed at close quarters as they roost in trees or feed on the open water and habitats of the marsh. The rich avifauna never ceases to impress the many visitors who come to the wetland.

## **6. THE FUTURE AT AAMMIQ**

### **PLANS FOR A VISITORS’ CENTRE FOR THE WETLAND**

A Rocha Lebanon is committed to continue its conservation work at Aammiq, working through the Memorandum of Understanding with the Skaff estate and by implementing the Management plan. Looking into the future it is also seeking:

- With the MedWet Coast project, to extend the area of conservation to the wetland areas adjacent to the Skaff estate, by engaging other land owners.
- With the MedWet Coast project, refine the management plan to incorporate new areas of conservation and monitoring.
- With the Skaff estate, to develop eco tourism opportunities and controlled public access by the development of a visitors centre and tourist facilities at Tell il Kirdan and the wetland.

## **7. WORK OUTSIDE AAMMIQ**

### **BIODIVERSITY RESEARCH PROGRAMS ACROSS THE COUNTRY**

With the A Rocha field studies centre in Aana as a base and using lessons learnt at Aammiq, scientific research and training are increasingly conducted at a national level with the aim of supporting emerging conservation initiatives. Over the past five years the following research programs have been conducted:

- An environmental survey of the Ras el Ain Wadi, Qab Elias, Bekaa 1999
- Autumn routes of migrating raptors and other soaring birds in Lebanon 2000
- The breeding ecology of the pale rock sparrow 2000 and 2001
- National wintering wildfowl counts for the Wetlands International Census winter 2000 and 2001
- Base line survey of the birds of Mlikh forest, Jabal Rihan, 2002 / 3
- Intensive bird research programmes were also conducted each autumn and spring in 2002, 2003 and 2004 in the Bekaa valley and Mount Lebanon as part of the effort to identify new sites of importance for bird conservation. In the spring of 2004 the team was joined by a group of four international birdwatchers.

In addition the scientific officers of the major protected areas have been trained by attending the 5 day residential A Rocha bird identification course (with a total of 17 participants).

The same course was run for local young people at Ebel Is Saqi, Southern Lebanon as part of the SPNL / Mercy Corps development of eco tourist opportunities in this “hotspot” for birds.

## **8. THE SPNL / A ROCHA IMPORTANT BIRD AREA PROGRAMME**

**THE GOAL: THROUGH FIELD RESEARCH TO IDENTIFY AND DECLARE NEW IMPORTANT BIRD AREAS IN LEBANON AND TO PROTECT THEM THROUGH LOCALLY LED CONSERVATION INITIATIVES.**

As a natural extension of A Rocha’s national research and training programme and its partnership with SPNL, Lebanon’s national Birdlife partner, the key Important Bird Area research and conservation project has been developed. The first phase is scheduled to run for 3 years from January 2005.

What has been developed is a research and conservation strategy to both identify and protect new IBAs in Lebanon. Following the Birdlife International IBA strategy, the conservation approach relies on the formation for each site of a site support group made up of local people. It is believed that the most sustainable approach to effective conservation of sites is the involvement of the local people who are in the best position, with training, to monitor the site and mitigate threats. Thus the project strategy employed here is:

- To research and designate new IBAs;
- To identify and train key local people who will form a site support group for each new IBA, ensuring that the site receives maximum protection from existing laws and carrying out basic monitoring and conservation advocacy.

## 9. PUBLICATIONS

### 2 STUDIES FOR MEDWET COAST

- Pre Feasibility Study Wetlands and Coastal Areas in Lebanon, Will Simonson, November 1996
- Aammiq Wetlands : the case for conservation, Chris Naylor, February 1998

### 4 ARTICLES IN SCIENTIFIC JOURNALS

- Birding in the Bekaa Valley, C. & A. Walley, Sandgrouse : Volume 20 (1) Spring 1998
- Notes on the Birds of Lebanon Autumn / Winter 1999, C.M.Beale, Sandgrouse : Volume 22 (2) Autumn 2000
- Autumn routes of migrating raptors and other soaring birds in Lebanon, C.M. Beale and G. Ramadan Jaradi, Sandgrouse : Volume 23 (2) Autumn 2001
- Breeding habitat of the Pale Rock Sparrow in the Mount Lebanon range, C.C. Knight and C.M. Beale, Sandgrouse : Volume 26 (2) Autumn 2004

### CHAPTER COMMISSIONED BY IUCN

- *Commissioned by IUCN for the IUCN Mediterranean Center's Resource book on Environmental Flow Concepts, Methods and Case Studies: Aammiq Wetland Case Study*, R. Storey, October 2003 (can be viewed at <http://iucn.org/places/medoffice/authors.htm>)

### 4 BIODIVERSITY GUIDES

- The Birds of the Aammiq Area: 57 pages, 246 species described, 37 color plates plus B&W illustrations. English with Arabic & French names. C.M. Beale & A.Sprenger 2001
- The Butterflies of the Aammiq Area: 15 pages, 53 species described, 53 color plates plus B&W illustrations. English and Arabic editions. C.M. Beale 2002
- The Mammals of the Aammiq Area: 20 pages, 22 species described, B&W illustrations. English and Arabic editions. A. Sprenger 2002
- The Dragonflies of the Aammiq Area: 18 pages, 24 species described, 28 color photos, B&W illustrations. English with French names. R. Storey 2004

## COMMERCIAL PUBLICATIONS

- Celebrating Creation Coloring Book. 11 pages, color and B&W, Arabic. C.Cousins, Clarion Publishing House, 2003

## NUMEROUS POSTERS

- A Rocha bird images and text have also been used in joint projects with Arz el Shouf Nature reserve, Tyre Beach nature reserve, the MedWet Coast project and SPNL to produce high quality posters and visitor interpretive material.

## 10. CONFERENCES

### 2 POSTER PRESENTATIONS AT INTERNATIONAL CONFERENCES

The work of A Rocha Lebanon at Aammq has been presented by poster presentations at:

- the Ramsar Cop 8 meeting, Valencia, November 2002
- the World Water Forum, Kyoto, Japan, March 2003.

## 11. A ROCHA DISTINCTIVES

A Rocha Lebanon is part of the wider family of A Rocha projects world wide.

A Rocha is a Christian nature conservation organisation, the name coming from the Portuguese for "the Rock", as the first initiative was a field study centre near the Alvor Estuary in Portugal.

As Christians all over the world have recognised the urgent need to protect and restore important habitats, A Rocha has become a family of projects working in Europe, the Middle East, Africa, North and South America, and Asia.

A Rocha projects are frequently cross-cultural in character, and share a community emphasis, with a focus on science and research, practical conservation and environmental education.

*International Council of Reference:* The International Council of Reference is a group of eminent professionals who support and promote A Rocha in their life and work.

*International Committee and International Team:* The International Committee is responsible for guarding the vision and integrity of A Rocha world-wide. They direct the International Team which supports all the national teams, co-ordinating their activities, providing resources for their use and fostering the emergence of new initiatives.

*National Committees and National Teams:* Each National Team is guided by a National Committee that brings a wide range of expertise to the developing projects. Each team usually works on a community-based conservation project, such as the field study centres that have been established in Portugal, France and Kenya. In Lebanon the team is divided between Beirut and the Bekaa Valley, where team members live close to the study site and visitor facilities. The newer teams are planning facilities that will best suit their varied objectives.

## 12. A ROCHA LEBANON CONTACTS

**Chairman of the Board:** Rev. Dr. Riad Kassis,\* Executive Director, Johann Ludwig Schneller Institute, Khirbet Khanafar, West Bekaa

### **Board members:**

- Rev. George Attieh\*, Pastor of Savior Baptist Church, National Director, Path Of Light
- Rev. Nabil Maamarbashi, leader of the Boarding for older boys department, Anjar Evangelical School; pastor, the Armenian Church of Damascus
- Rev. Joy Mallouh\*, Director Clarion Publishing; Pastor, Church of God, Ashrafieh
- Miss Terese Naim, Science Teacher, Schneller School, Khirbet Khanafar.
- Mrs. Rima Nasrallah,\* Youth coordinator, National Evangelical Church, Riad el Solh

**Director :** Mr. Chris Naylor \*

\* Member of the founding committee.

**Founded 1998**

**Registration number: 6385/4/2004**

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