

# Important Bird Areas in Lebanon



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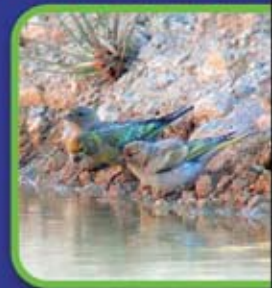
**Name:** Tannourine Cedars Nature Reserve • **Location:** In the north of the Mount Lebanon range, between the villages of Tannourine et-Tahta and Hadath ej-Joubbe. • **IBA Criteria met:** A1, A4iv • **Explanation:** **A1** A very high breeding density of Syrian Serins was reported here in 2001 and 2002. **A4iv** At least 15 species of soaring bird were seen migrating over the site in 2005 including large flocks of White Pelicans. The regionally scarce Blue Tit breeds here in small numbers, White-throated Robin was found to be breeding on the edge of the reserve, only the second breeding site to be discovered in Lebanon. • **Number of species observed:** 71 • **Habitat:** Mixed forest dominated by Cedar of Lebanon, with areas of scrub, rocky canyon and fast flowing stream. • **Other wildlife interest:** The reserve is part of the largest remaining cedar forest in Lebanon. The site supports a wide range of mammals including Persian Squirrel, Badger, Wild Boar and the rare Wolf. • **Threats:** Fire, hunting on edges of reserve. • **Current conservation measures & future plans:** Area is protected as a Nature Reserve with guards employed to prevent hunting and other unauthorized use of the site. Sign-boards and footpaths in place for education and awareness raising.



Blue Tit

## Tannourine Cedars Nature Reserve

**Name:** Upper Mountains of Akkar-Donnieh • **Location:** Located at the northern end of Mount Lebanon. This IBA stretches from Wadi Jouhannam to Qammouaa, including the villages of Mechmech and Fnaideq. Total area: 5270 ha. • **IBA Criteria met:** A1, A2, A3 • **Explanation:** **A1 & A2** Evidence of at least 28 pairs of Syrian Serin (regional endemic sp.), found only in the Middle-East. **A3** 13 Biome-restricted bird species breed here, mostly from the Irano-Turanian Biome (7 species), including White-throated Robin, Upcher's Warbler, Pale Rock Sparrow, Crimson-winged Finch, Syrian Serin and Black-headed Bunting. • **Number of species observed:** 134 • **Habitat:** Mountainous forest dominated by Turkey Oak, Fir, Cedar of Lebanon and Juniper, with Calabrian Pine found at lower altitudes. Open areas of grass-land and bushy scrub with small amounts of cultivation scattered around the site. At higher altitudes, rocky cliffs, and in Wadi Jouhannam fast flowing streams are evident. • **Other wildlife interest:** Great floral diversity (at least 500 species), in addition to the presence of the Persian Squirrel. • **Threats:** Hunting, over-grazing, uncontrolled wood-cutting, urban development and solid waste dumping. • **Current conservation measures & future plans:** awareness training in site monitoring and bird identification has been implemented. Discussions are on-going with local municipalities. Future – whole site is part of planned National Park and the MADA organization is implementing a major project working towards the conservation of the site with the local community.



Syrian Serin

## Upper Mountains of Akkar - Donnieh

To follow up this, the first ever, national assessment of sites important for bird conservation in Lebanon, the following actions are proposed:



- Publish simple basic educational and training materials for bird identification and training and IBA monitoring.
- Build up the national capacity for bird identification, research, and bird watching.
- Strengthen the scientific capacity of research staff at SPNL and A Rocha.
- Further review of potential IBA sites.
- Initiate conservation projects for the declared IBAs in collaboration with the local communities through the Hima concept.
- Monitor national development plans and advocate for the protection of the declared IBAs.

## Future Plans

**Name:** Semi Deserts of Ras Baalbek • **Location:** This IBA is found at the extreme north end of the Bekaa Valley, in north-east Lebanon, extending up into the foothills of the Anti-Lebanon mountain range, in between the towns of Ras Baalbek and El Qad. Total area: 7,814 ha. • **IBA Criteria met:** A3

• **Explanation:** 10 biome-restricted species, mostly from the Sahara-Sindian Desert Biome breed here; Cream-coloured Courser, Bar-tailed Lark, Desert Lark, Temminck's Lark, Mourning Wheatear, Streaked Scrub Warbler, Trumpeter Finch, Western Rock Nuthatch, Pale Rock Sparrow and Spectacled Warbler. Of these species, 7 are rare or unknown as breeders elsewhere in Lebanon. Several other species breed here commonly which are also scarce or rare breeders elsewhere in the country such as Little Owl and Greater Short-toed Lark.

• **Number of species observed:** 50 • **Habitat:** Flat or gently undulating stony desert and semi-desert, rising up to a wide wadi extending eastwards into the Anti-Lebanon Range. A small proportion of the land is used for arable agriculture although the exact extent varies from year to year. • **Other wildlife interest:** Jackals breed and reptiles, scarce in other parts of Lebanon, are found here. • **Threats:** Excessive hunting, conversion to agriculture. Over-grazing is a potential problem but requires assessment. • **Current conservation measures & future plans:** Local people trained on site monitoring.



Mourning Wheatear

## Semi Deserts of Ras Baalbek

**Name:** Rim - Sannine Mountain • **Location:** North-west of the town of Zahle, on the southern flanks of Mount Sannine in the Mount Lebanon range. Total area: 244 ha. • **IBA Criteria met:** A3, A4iv • **Explanation:** **A3** At least six biome-restricted species breed on site – Black-eared Wheatear, Sardinian Warbler, Spectacled Warbler, Cretzchmar's Bunting, Black-headed Bunting and Western Rock Nuthatch. **A4iv** Records during both spring and fall in 2004 and 2005 indicate that more than 20,000 soaring birds pass over the site annually.

• **Number of species observed:** 64 • **Habitat:** It has mountain slopes and rocky valleys, snow lies from middle mountains and upwards until May, dry from May till October. characterized by scrubby bushes and trees, up to 60% bare earth and stones, with occasional rock outcrops. • **Threats:** Hunting, especially during fall migration season, overgrazing / over browsing, extraction industry, habitat degradation from 4WD vehicles, proposed tourism, a ski resort is proposed at the site. • **Current conservation measures & future plans:** much of the mountain is protected from hunting and grazing, some trees have been planted by the Rim water company that owns most of the site. Proposed conservation measures; discussions are still at an early stage with the Rim estate management.



Red-backed Shrike

## Rim - Sannine Mountain

**Name:** Shouf Cedar Nature Reserve • **Location:** Situated in the Shouf Mountains overlooking the Mediterranean Sea to the West and the length of the Bekaa valley to the east. Stretches from Dahr Al Baidar in the north to Niha Mountain in the south. Total area: 20,000 ha. • **IBA Criteria met:** A1, A2 • **Explanation:** The largest Nature reserve in Lebanon (approx. 5% of the Territory) encompassing the best remaining stand of cedar forests where over 160 bird species have been recorded including a number of globally threatened birds; such as the Greater Spotted Eagle, Imperial Eagle, Corncrake and Syrian Serin (A1, A2). • **Habitat:** Forest, grassland, shrubland. Brant's Oak forest on its northeastern slopes and Juniper and Oak on its southeastern slopes. Three cedar forests (some 2000 years old) in Maasser ech-Chouf, Barouk, and Ain-Zhaltah-Bmahray. • **Other wildlife interest:** Wolf (Globally threatened), Swamp Cat, Chameleon (globally threatened sp.), Mount Lebanon Rock Lizard (endemic), Levant Viper, Spur-thighed Tortoise. • **Threats:** No direct threats (tourism, recreational). • **Current conservation measures & future plans:** declared by law as nature reserve in 1996. A comprehensive and appropriate management plan exists that aims to maintain or improve the populations of qualifying bird species.



Cretzchmars Bunting

## Shouf Cedar Nature Reserve

**Name:** Lake Qaraoun • **Location:** Lake Qaraoun is the largest freshwater body, by far, in Lebanon, lying at the Southern end of the Bekaa valley, which is a continuation of the Rift valley itself, a well – documented flyway for raptors and other soaring birds, The Lake was formed by the damming of the Litani River flowing south. Total area: 1190 ha. • **IBA**

**Criteria met:** A4iv • **Explanation:** Observations suggest that over 20,000 raptors, Storks, Pelicans and other soaring birds pass over the lake annually. Several species of conservation concern have been recorded here in past years such as Sociable Plover and Ferruginous Duck. Also the most important site in Lebanon for wintering ducks. • **Number of species observed:** 110 • **Habitat:** Man made, largest freshwater lake surrounded by agricultural land, scrub and woodland. • **Other wildlife interest:** Swamp Cat, Spur-thighed Tortoise and Chameleon. • **Threats:** Hunting, water pollution, over-grazing, disturbance of birds. • **Current conservation measures & future plans:** Local people trained in site monitoring. Ongoing efforts with interested municipalities.



Little Egret

## Lake Qaraoun

**Name:** Palm Islands Nature Reserve • **Location:** The three islands lie approximately 5.5 km north-west of the city of Tripoli. Total area: 500 ha. • **IBA Criteria met:** A1 • **Explanation:** A1 Several globally threatened bird species such as Audouin's Gull, Dalmatian Pelican, and Corncrake can be observed here. The reserve has been designated a "Mediterranean Specially Protected Area" under the Barcelona convention, as well as a "Wetland of Special International Importance" (Ramsar - 2001). Resting place for 156 species of migratory birds (including many rare and endangered species). Rich in medicinal plants, fish species, sea sponges and other sea life. • **Habitat:** The islands represent an eastern Mediterranean marine ecosystem made up of three flat, rocky islands of eroded limestone substratum rising to 6m above sea level. There is a freshwater well in the reserve, as well as some half-built concrete buildings and some ruins from antiquity. • **Other wildlife interest:** The sandy beaches of the islands are of global importance as a nesting site for endangered Green and Loggerhead turtles. • **Threats:** Hunting, tourism / recreation, pollution. • **Current conservation measures & future plans:** declared by law as a nature reserve in 1992. Managed by Palm Islands Nature Reserve committee under the supervision of the Ministry of Environment. A management plan exists but needs updating based on current developments and assessments.



Black-headed Gull

## Palm Islands Nature Reserve

**Name:** Ramlieh Valley • **Location:** In the Shouf region of the Mt. Lebanon range, south of the towns of Saoufar and Bhamdoun, and about 17km south-east of Beirut. The River Safa runs through the valley. Total area: 928 ha. • **IBA Criteria met:** B1iv • **Explanation:** There is an estimate annual fall passage of birds of prey exceeding 3000, including Levant Sparrowhawk, Common Buzzard, 183 Lesser-spotted Eagle, and over 680 White Storks. There are four biome-restricted species for which breeding is confirmed at Ramlieh; Black-eared Wheatear, Sardinian Warbler and Masked Shrike, from the Mediterranean Biome, and Western Rock Nuthatch, from the Irano-Turanian Biome. • **Number of species observed:** 47 • **Habitat:** A wide valley (the valley of the River Safa, which becomes the Damour River closer to the coast) containing pine woodland, terraced orchards, low scrub and some bare rocky cliffs. The village of Ramlieh falls entirely within the site. • **Other wildlife interest:** Many butterflies, reptiles and amphibians, as well as mammals including Red Fox. • **Threats:** Fire, over-grazing in more open areas, uncontrolled quarrying, hunting, urban development. • **Current conservation measures & future plans:** Currently unprotected although the Association for Forest Development and Conservation have carried out various community based projects aimed at the conservation and restoration of the natural habitats in the area, and are also encouraging the development of eco-tourism in the area.



Long Legged Buzzard

## Ramlieh Valley

**Name:** Ehden Forest Nature Reserve • **Location:** Situated between 1200-2000 m elevation on the upper northwestern slopes of Mount Lebanon. Total area: 140 ha. • **IBA Criteria met:** A1, A2

• **Explanation:** Most balanced Mediterranean forest ecosystem in Lebanon. A1 & A2 migration stop over site for a number of threatened bird species such as Imperial Eagle, Lesser Kestrel and Syrian Serin. • **Total number of bird species:** 148 • **Habitat:** Mediterranean forest ecosystem, cedars, firs, junipers, oak mixed with fire colored maples. The site contains the country's last protected community of wild apple trees (Crabapple), and a multitude of rare and endemic plants. • **Other wildlife interest:** Over 1058 plant species (40 % of the plant species in Lebanon), 212 species are rare and 126 are threatened, 115 endemic to Lebanon and 10 endemic to Horsh Ehden, 78 medicinal plants. More than 27 mammals (10 of them are rare or threatened). Wolf, Wild cat, Porcupine, Hyena, Badger, and Weasel. Wild Orchids, Fire Salamander and mushrooms. • **Threats:** Hunting, wood cutting, fires, over grazing (outside of the nature reserve). • **Current conservation measures & future plans:** declared by law as nature reserve in 1992. A management plan exists but needs to be updated. It is managed by the Horsh Ehden Nature Reserve Committee under the supervision of the Ministry of Environment.



Great-spotted Cuckoo

## Ehden Forest Nature Reserve

**Name:** Hima Anjar - Kfar Zabad • **Location:** Eastern Bekaa, at foot of the Anti-Lebanon mountain range, in the municipalities of Anjar and Kfar Zabad. Total area: 326 ha.

• **IBA Criteria met:** A1 • **Explanation:** At least fifteen breeding pairs of Syrian Serins were present at the site in spring 2005, plus Lebanon's second only record of Bearded Tit. • **Number of species observed:** 69 • **Habitat:** Freshwater wetland, agriculture / cultivation, woodland / forest. • **Other wildlife interest:** Otter, Wild Cat, reptiles and amphibians. • **Threats:** Hunting, disturbance of birds, water abstraction, diversion of water / canalization, irrigation, agricultural intensification, grazing. • **Current conservation measures & future plans:** Declaration of Hima at Kfar Zabad, including hunting ban, access restriction, habitat creation / restoration. Current – declaration of Hima at Anjar from the mountain slopes along the riverside. Future – extension of Hima conservation approach to the entire site.



Squaco Heron

## Hima Anjar - Kfar Zabad

**Name:** Hima Ebel es-Saqi • **Location:** Southern Lebanon between Marjayoun and Hasbaya, west of the Hasbani River. Village lies on the Rift valley flyway, well documented for migratory raptors and soaring birds. Total area: 219 ha. • **IBA Criteria met:** A1, A3, and A4iv • **Explanation:** **A1** Presence of globally and regionally threatened soaring bird species in Lebanon such as Dalmatian Pelican, Greater Spotted Eagle, Egyptian Vulture, Pallid Harrier, Imperial Eagle, Lesser Kestrel, and Corncrake stress the importance of this area on an international scale. **A3** Evidence of 5 biome restricted species breeding: Masked Shrike, Upcher's Warbler, Sardinian Warbler, Cretzchmar's Bunting and Black-headed Bunting. **A4iv** Very large numbers of migrating soaring birds in spring and fall, including at least 17 species. 60,000 Common Crane witnessed on one day in February 2005 sufficient alone to ensure IBA status. Large numbers of Honey-Buzzard, White Stork, and White Pelican have been seen in fall. • **Habitat:** Scrubland, olive groves, conifer plantation, agriculture / cultivation and river corridor. • **Other wildlife interest:** Bat, Rock Hyrax, Wild Cat, Red Fox, Jackal, possible Otter, Wild Boar, freshwater fish, Spur-thighed Tortoise, Chameleon, lizards, amphibians, and scorpions. • **Threats:** Hunting, agricultural intensification, over-grazing, uncontrolled development, domestic garbage dumping • **Current conservation measures & future plans:** Declared as Hima by municipality – hunting banned, grazing restricted, management plan put in place, Site Support Group and SPNL chapter initiated for conservation and awareness issues.



Black Stork

## Hima Ebel es-Saqi

**Name:** Aammiaq Wetland • **Location:** West Bekaa at the foot of Mount Lebanon and stretching across to the Litani River at 865m. Total area: 280 ha. approx. • **IBA Criteria met:** A1, A4i, A4iv • **Explanation:** A1 The wetland is an important stop-over site for 2 globally threatened spring migrants, Corncrake and Great Snipe and holds small numbers of another near threatened species, the Ferruginous Duck, in winter. A4i More than 5,000 White Stork are thought to fly over the site during spring / fall migration seasons. A4iv In excess of 20,000 soaring birds pass over the marsh in both spring and fall, including White Stork, White Pelican, Common Crane, and at least 31 species of raptor. Also, over 45 species of bird associated with wetlands use the site, of which at least 15 breed. • **Number of species recorded:** 256 • **Habitat:** The largest natural freshwater wetland in Lebanon. The marsh includes open water, reed bed and seasonally flooded grazing meadows. • **Other wildlife interest:** Mammals including the Otter, Swamp Cat, Jackal and Wild Boar are found here with abundant amphibians and reptiles. • **Threats:** Hunting, over-grazing, water abstraction, diversion of water/canalization, irrigation, agricultural intensification • **Current conservation measures & future plans:** A Rocha Lebanon together with the landowners implement a management plan for approximately 2/3 of the site. This includes a hunting ban and controlled grazing. An eco-tourism project is planned.



White Stork

## Aammiaq Wetland

**Name:** Beirut River Valley • **Location:** The site consists mainly of the Beirut River water shed, extending 20km west from Falougha, where the river rises, to the outskirts of Hazmeih, just east of Beirut. Total area: 8096 ha. • **IBA Criteria met:** A4iv • **Explanation:** In spring, large numbers of White Stork and White Pelican pass over, while in fall 2006 over 70,000 birds of prey were seen migrating south, including 51,000 Honey Buzzard and over 5000 each of Levant Sparrowhawk, Common Buzzard and Lesser Spotted Eagle. Total number of soaring birds seen in fall (71,910) far exceeds the 5,000 needed to satisfy category A4iv. • **Number of species observed:** 41 • **Habitat:** Fast-flowing river, flowing westwards in a deep valley, with pine woodland dominating the northern slopes while the southern slopes are mostly scrub and cultivated land with scattered villages. High rocky cliffs are found at the eastern end of the valley and the river is lined with tall deciduous trees and dense undergrowth. • **Other wildlife interest:** Many mammal species including Egyptian Fruit-Bat, Rock Hyrax, Porcupine, Persian Squirrel, Jackal, Wild Boar, Red Fox, and Badger in the densely forested, less disturbed rocky slopes. • **Threats:** Hunting, fire, urban development, deforestation, water pollution, sewage pollution & solid waste dumping, over-grazing • **Current conservation measures & future plans:** Current – none. Future – work with municipalities and NGOs to reduce habitat degradation, fires and hunting.



Honey Buzzard

## Beirut River Valley

**Name:** Bentaal Forest Nature Reserve • **Location:** In the hills just east of the town of Jbail, on the coast north of Beirut. Total area: 150 ha. • **IBA Criteria met:** B1iv • **Explanation:** There is an estimate annual fall passage of soaring birds exceeding 3000, including White Pelican, Common Crane, Honey Buzzard and Levant Sparrowhawk. • **Number of species observed:** 62 • **Habitat:** A steep sided valley, mostly covered with dense woodland (Oak, Pine), and Strawberry Tree with some steep cliffs and caves. • **Other wildlife interest:** Mammals including Wild Boar, Persian Squirrel, Red Fox and Porcupine. • **Threats:** Deliberate persecution of birds, garbage dumping, loss of habitat / development, deforestation and fire in areas of the forest which fall outside the reserve. • **Current conservation measures & future plans:** Northern side of the valley is protected as the "Bentaal Forest Nature Reserve" – hunting and garbage dumping banned, foot access in the nature reserve is limited to designated trails.

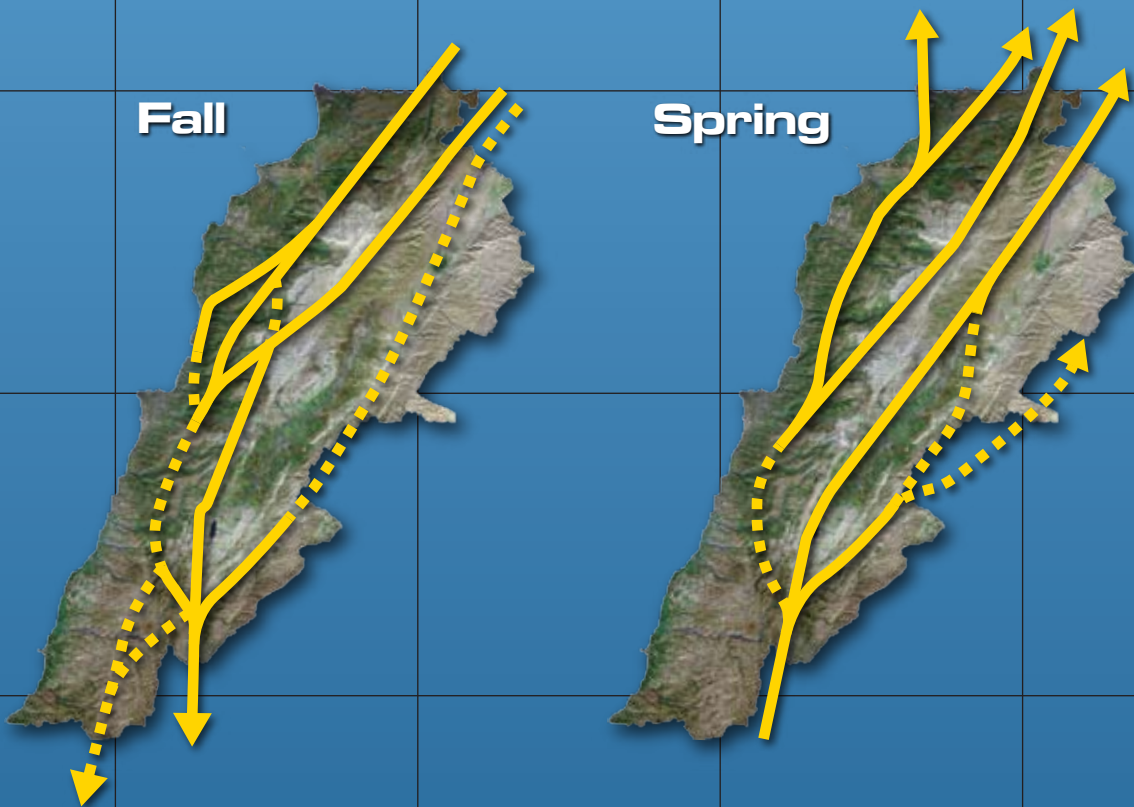


White Pelican

## Bentaal Forest Nature Reserve

# Soaring Bird Flyways Through Lebanon

Although soaring birds (including Pelicans, Cranes, Storks and many birds of prey) can be found on migration almost anywhere in Lebanon during the spring and fall seasons, research has shown that certain routes are preferred over others. However, these routes are not exactly the same for all species, or in the two seasons, as is shown on the two maps. The solid yellow lines show routes that have been established through research. The routes indicated by the dotted lines have been extrapolated and need further research to be confirmed.



## Spring

In spring, the major route used by soaring birds migrating north through Lebanon is along the Eastern flanks of the Mount Lebanon Range and the western half of the Bekaa. This includes Cranes, Pelicans, birds of prey such as Common Buzzard and Lesser Spotted Eagle, and many thousands of White Storks.

Smaller numbers of birds, dominated by White Pelicans and White Storks pass up the western side of the country where they can sometimes be seen in large flocks at sites such as Bhamdoun in the Beirut River Valley.

## Fall

In the fall, when birds are returning south to spend the winter in Africa, most soaring birds pass down the eastern flanks of the Lebanon Mountains while some travel higher up on both sides of the ridge. These streams converge about halfway down the mountain chain, with most of the birds, particularly the large birds of prey passing together over the upper portion of the Beirut River Valley.

Unlike in the spring, White Storks are seen in much lower numbers in most autumns, with the majority passing further east over Syria and Jordan.

# IBA Program

Important Bird Areas-IBAs are among the world's key sites for the conservation of biodiversity. They are identified nationally using data gathered locally, and compared with internationally adopted criteria. The program recognizes that sites can be conserved in many different ways, ranging from strict protection to community based management.

## Criteria for Selection

A site is declared as an IBA if it satisfies one or more of the following criteria:

### A: Important Bird Areas - Global importance

- A1: Species of global conservation concern:** site supporting globally threatened species, or other species of global conservation concern.
- A2: Restricted-range species:** site is known or thought to hold restricted-range species whose world range distribution is 50,000 km<sup>2</sup> or less.
- A3: Biome-restricted species:** site is known or thought to hold biome-restricted species whose breeding distributions are largely or wholly confined to one biome.
- A4: Congregations:**
- The site is known or thought to hold, on a regular basis,  $\geq 1\%$  of a biogeographic population of a congregatory waterbird species.
  - The site is known or thought to hold, on a regular basis,  $\geq 1\%$  of the global population of a congregatory seabird or terrestrial species.
  - The site is known or thought to hold, on a regular basis,  $\geq 20,000$  waterbirds or  $\geq 10,000$  pairs of seabird of one or more species.
  - The site is known or thought to be a 'bottleneck' site where at least 20,000 storks (Ciconiidae), raptors (Accipitriformes and Falconiformes) or cranes (Gruidae) regularly pass during spring or fall migration.

### B: Important Bird Areas - Middle Eastern importance

#### B1: Regionally important congregations:

- The site is known or thought to hold  $\geq 1\%$  of a flyway or other distinct population of a waterbird species.
- The site is known or thought to hold  $\geq 1\%$  of a distinct population of a seabird species.
- The site is a 'bottleneck' site where over 5,000 storks, or over 3,000 raptors or cranes regularly pass on spring or fall migration.

#### B2: Species with an unfavourable conservation status in the Middle East:

The site is one of the five most important sites in the country / territory for a species with an unfavourable conservation status in the Middle East.

#### B3: Species with a favourable conservation status but concentrated in the Middle East:

The site is one of the five most important sites in the country/territory for a species with a favourable conservation status in the Middle East but with its global range concentrated in the Middle East.

## Importance to conservation

The map & coordinates of suspected IBA sites under study were given to the Ministry of Environment to ensure that they were excluded from zoning for quarry activity in a ministerial study during the 1st year of the project.

## IBA research project

SPNL-BirdLife partner in Lebanon and A Rocha Lebanon implemented a three year survey (2005 – 2008) funded by the MAVA Foundation. The survey aimed to identify new IBAs in Lebanon that together would provide a more comprehensive reflection of its varied habitats and biodiversity. 42 sites were proposed for study, out of which 31 were surveyed and 11 cancelled due to security issues. As a result of the study, in addition to the 4 sites declared in 1994, 10 new sites have been identified and declared by BirdLife International.

## Hima definition

The main aim of the IBA program is the conservation of these key biodiversity sites. Complimentary to the strict legal system of nature reserves, SPNL is reviving the Hima approach - community based conservation for the protection of these sites.

Hima is a traditional community based approach for the conservation of natural resources that prevailed in the Arabic region for more than 1500 years.



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