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## REGIONAL PROJECT FOR THE DEVELOPMENT OF MARINE AND COASTAL PROTECTED AREAS IN THE MEDITERRANEAN REGION (MEDMPA)

# RECOMMENDATIONS FOR THE ELABORATION OF A NATIONAL PLAN TO DEVELOP MARINE PROTECTED AREAS IN SYRIA



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# RECOMMENDATIONS FOR THE ELABORATION OF A NATIONAL PLAN TO DEVELOP MARINE PROTECTED AREAS IN SYRIA

## Proposals and perspectives

The proposals and recommendations that appear below are based on the reports made for the MedMPA programme by national and international experts (cf. documents consulted, in the annex).

They attempt to bear in mind the opinions expressed and the information available in December 2004.

Additional information necessary for the national reports that are developed at the end of the report should enable these proposals to be perfected in the medium term and a real national plan for potential marine protected areas in Syria to be built up.

Although it is difficult to elaborate this more perfect version in the time given, taking particular care that the suggestions are shared by the various actors, it is to be hoped that this initiative could be put into effect as part of the follow-up to the MedMPA programme in one form or another.

## Criteria of choice

The recommendations essentially start from two types of criteria:

- those linked to the interest of areas as regards marine biodiversity and underwater and coastal landscapes
- those linked to the feasibility of the MPA as regards the context of land use development and town planning

As to the first – and most important – criteria, certain suggestions made by national experts on marine areas to protect on the southern coast of Syria urgently require additional scientific information (cf. comments below).

The potential marine areas that have been located are identified over fairly large geographical sectors.

It would be helpful to define them in the light of the additional information available (especially as regards socio-economic data) since the boundaries of MPAs – land and sea – are particularly important stakes for a particular MPA's being accepted by decision-makers and local actors as well as for the future management of the protected areas.

This implies, in particular, having good land and sea maps so that the boundaries of the future protected areas can be clearly identified.

As a general rule, the 50-metre isobar is suggested as the high sea boundary of an MPA. However, if MPAs were proposed on the southern coasts of Syria, it would be appropriate to clearly define their high sea boundary according to the ecological criteria chosen.

It is important to note that the main aim of the national plan is still to identify priority sectors for preservation as marine areas to be protected and not to make management plans for each site; thus, each of the MPAs could have a different perimeter and zoning, with specific rules taking into account its richness in biodiversity as well as the human activities that are present.

### **Proposed Syrian Marine Protected Areas**

Three main sectors of the Syrian coast are being suggested as MPAs:

- the northern coast, dominated by Ras Samra
- the sector lying between Oum Toyour and Ras El Bassit
- the area lying between Ibn Hani and Borj Islam.

The map (in annex) shows the site of the suggested sectors.

## 1. THE NORTHERN SYRIAN COAST

This sector extends from Pigeons Island in the south through Ras Samra to the boundary of the Samra valley in the north; it is extremely interesting from the (both coastal and underwater) landscape, geomorphological, ecological, floral and faunal point of view.

It is a most striking site, the wildest of all the Syrian coastal and marine sites, where there is very little human activity of a terrestrial or maritime kind.

It should be noticed that the potential of a cross-border marine protected area in terms of biodiversity is very high, particularly as regards the monk seal, marine turtles and cetaceans.

There is also very great potential for developing an ecotourism based on the discovery of the shore and marine life. Lying so near the El Bassit tourist area, suitable zoning of the MPA would enable such activities to be highlighted and help local economic development, in the southern part, around Pigeons Island, for example.

There should be increased monitoring of a certain number of illegal fishing activities, especially trawling.

The fact that the site has the status of border and military zone is also an advantage for achieving correct maritime and coastal monitoring.



*The northern Syrian coast, from Ras Samra*

## 2. FROM OUM TOYOUR TO RAS EL BASSIT

This is one of the most interesting sectors from the biodiversity and underwater landscape point of view: many rocky cliffs start at about 30 metres down, underwater caves at under 50 metres, masses of underwater fallen rocks, rocky slabs, sandy areas, phanerogam meadows, coastal and underwater geomorphological diversity, presence of animal and plant species of heritage importance, such as the dusky grouper, the great cigale, the diadem urchin, the green turtle, etc.

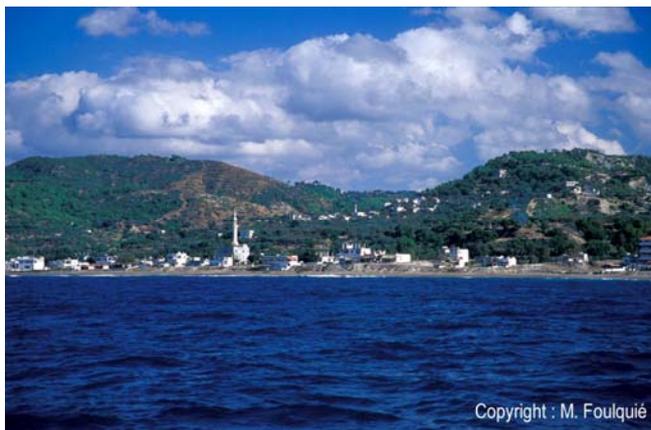
Originally planned to lie around the village of Oum Toyour alone, the results of medMPA missions added to the wishes expressed by the Syrian government have allowed a suggestion to be made that this MPA extend to north of Ras El Bassit, i.e. the El Midan cape, north of the military guard-house.

The southern sector, opposite the Oum Toyour village, is of limited interest only in terms of marine biodiversity. But this area has long been identified already and is of great landscape interest, its land sector – rich in animal and plant biodiversity – is already protected and there is real potential for turtle nesting beaches at certain places, so it is suggested that it be retained within the MPA under ecodevelopment area rules.

However, additional information on marine turtles' egg-laying in this sector is essential for this proposal to be defined. Special zoning could then be given to this sector.

There is a great deal of fishing activity, with many families getting their living from it, and there is great potential for developing ecotourism from Oum Toyour or El Bassit.

The management plan now being drafted takes into account the whole package of potential and constraint.



*The marine protected area of Oum Toyour*



*The zoning of the Oum Toyour-Ras El Bassit MPA*

### **3. AROUND BORJ ISLAND, FROM PIG CAPE TO IBN HANI**

The entire Ibn Hani coast up to Pig Cape (south of Oum Toyour) is of landscape, geomorphological and underwater interest.

The quality of the site lying around Borj Islam lies in the presence of underwater potato-shaped reefs with lots of cavities and of big rocky slabs. Its ecological richness is mainly in fish, with large numbers and numerous species. Information collected from fishermen also suggests that it is rich in heritage species such as manta rays and several shark species. However, this sector is near the littoral area where the presidential palace stands.

North of the already protected area of Ibn Hani (18 July 2000, 1,000 hectares), interesting for its meadows, its rocky cliffs rich in marine biodiversity and its marine turtles, the Chalets sector also offers underwater riches like dense *Penicillus* populations, cymodoceas and several *cystoseira* species.

The decision to create a MPA can thus be based on three scenarios:

- 1 – merely keeping the Ibn Hani MPA within its present limits
- 2 – from the cape lying at the south of Ibn Hani up to Pig Cape
- 3 – keeping the Ibn Hani MPA and creating another MPA from the Chalets area to the little port of Borj Islam.

Scenario no. 1 is the simplest and presents no problem, since the MPA already exists.

Scenario no. 2 is the most ambitious, but involves the sector lying between the southern point of Ibn Hani and Ras El Bassit being one single MPA; this is perhaps unrealistic in the light of the human activities carried on; however, correctly identified zoning and sharing with all the local actors could be outlined.

Scenario no. 3 is certainly an interesting compromise that would mean that the Borj Islam site, a site with unique underwater morphological features that are absent from the rest of the Syrian coast and with undeniable ichthyological riches, was not left out.

The rules that would apply there should bear in mind the presence of fishing activity with well-developed small crafts, of recognized pollution, and of illegal fishing and underwater hunting activities.

In any case, having the High Institute of Marine Research – with its Syrian scientists working on the marine environment – within the boundaries of a future Marine Protected Area is a considerable advantage.

Similarly, the presence of the chalets of the Lattakia coastal resort gives this MPA major ecotourism advantages.



*The Syrian coast south of Borj Islam*



*Potato-shaped reefs in Borj Islam*

#### 4. THE CASE OF ARWAD ISLAND

Field trips carried out in the MedMPA context enabled the underwater wealth of this island, the biggest on the Syrian coast, to be rapidly assessed.

The underwater landscapes are monotonous and the fauna scarce.

In this site, which is famous for its sponges, no commercial sponge species was identified during the scientific dives. This absence was confirmed by local fishermen's associations.

Moreover, the marine environment has clearly been damaged: there is macro-waste, with immense fields of floating plastic bags, terrestrial waste discharged directly into the sea, tankers passing by, etc.

The site's main interest lies in the presence of a large number of Lessepsian species (coming from the Red Sea via the Suez Canal) of flora and fauna. Some of these have just been described for the first time in Syria (*Neomeris annulata*). The 'tropicalization' of the Mediterranean is a reality in this area.

Thus, Arwad Island is a true hot spot for this kind of species and could be the subject of scientific monitoring at international level (Globalast programme...).



*Arwad Island*



*Lessepsian and Mediterranean Species*

So in this context it appears difficult to create a MPA on Arwad.

For all that, local fishermen's interest in these problems of pollution and their difficulty in living off their draft mean that solutions must be found in another context (e.g., that of the integrated, sustainable management of coastal areas) to improve Arwad's environmental situation.

It should be noted that additional information should be gained and scientific field trips done on the nearby, little known Lebhas Islands.

## 5. THE CASE OF THE SECTOR BETWEEN AL SANAWOHAR AND JEBLEH

This site is basically sandy and its main interest is the supposed presence of green (*Chelonia mydas*) and loggerhead (*Caretta caretta*) turtle egg-laying areas.

Green turtles have been said by Rees and Saad to have been sighted nesting in 2004 in this sector; additional, precise data is needed before establishing any proposal for protecting the area.

Other species such as the sea bass (*Dicentrarchus labrax*) are indicated in this sector as endangered species, but this status remains to be checked.

Once it is recognized that green or loggerhead turtles nest on Jebleh, that could justify the creation of a MPA, but it should be remembered that this is a very built up coastal area.



photo : Mathieu Foulquié  
*Green turtle (Chelonia mydas)*

## 6. THE CASE OF THE SOUTHERN SYRIAN COAST (SYRIA'S BORDER WITH LEBANON)

The marine part of the southern Syrian coast up to the border is uninteresting from a biodiversity point of view, with a basically sandy sea bed and sandy or rocky beaches that are very much damaged by macro-waste pollution.

However, some spots where marine turtles seem to be nesting, and the protection of certain species of sea-perch mentioned by some scientists, are still to be confirmed.

Unless recent data confirms the presence of these species of nesting turtle, it seems difficult to want to create a MPA – and thus a protected area that directly concerns the marine environment – in this area.

On the other hand, it would appear that the coastal wetland of the Nahr Al Kabir Aljenouby estuary is interesting, in that the soft-shelled Nile turtle (*Trionyx triunguis*), a species listed in Annex II of the SPA Protocol living in fresh or slightly brackish water, is mentioned there.



*Trionyx triunguis*

Additional scientific data should be sought (precise status of *Trionyx triunguis*, batrachians, birds, insects, flora etc.) and the creation of a MPA could then be justified, but at coastal wetland level (Ramsar status, for example, if the eligibility criteria were satisfied).



*The Syrian Southern frontier*

## RECOMMENDATIONS FOR GOING AHEAD WITH ELABORATING THE NATIONAL PLAN

The final completion of the national plan for developing marine protected areas in Syria requires additional evidence and reflection in the following fields:

### *In terms of marine biodiversity*

- Additional underwater evidence on the Lebhas Islands sector
- Additional underwater evidence on the Borj Islam sector
- Search for information (or study campaign) on the marine turtles of the southern border sector, the Jebleh sector, the sector in the far north (along with possible data in the adjacent territorial waters, a potentially important site)

### *In terms of human activity*

- Analysis of the fishing effort over the whole of the sites located, with a detailed socio-economic study of this activity: this point is vital, before elaborating any action plan or management plan for future MPAs
- Search for studies done on marine pollution hot spots, particularly where waste is discharged into the sea near towns (Lattakia)
- On-shore identification of all the major sites of uncontrolled discharge and waste likely to harm the quality of the marine environment: determining and ranking of macro-waste sites (particularly the Borj Islam, Jebleh and Al Hamidaye sector)
- Inventorying of tourist projects planned along the coast (between Lattakia and Pig Cape, in particular), with a road map and figures for site frequentation (number of tourists, period, origin, etc.)
- Identification of town planning projects for each site

# ANNEX

## Documents consulted

- \* Field missions relating to the development of marine protected areas on Syrian coasts, 2002-2003. PNUE/RAC-SPA MedMPA project– ATEN, 41 p.
- \* Detailed recommendations for the management of the marine areas of Oum Touyour and Ras el Bassit, 2003, PNUE/RAC-SPA MedMPA project – NAUTILUS, 13 p.
- \* Ras Al Bassit / Oum Toyour protected area, 2004, Izdihar Ammar, Osama Al Nouri  
Project for development of marine protected areas on Syrian coasts, 2004, PNUE/RAC-SPA MedMPA project, Adib Saad, 11p + annexes
- \* The management plan of the marine protected area of Oum Al Toyour-Ras Al Bassit, October 2004, PNUE/RAC-SPA MedMPA project, Amir Ibrahim

**MAP OF THE PROPOSED MARINE PROTECTED AREAS IN SYRIA  
(and other sites need of further information circles)**

