DEFINING IMPORTANT PLANT AREAS IN THE MEDITERRANEAN REGION

IUCN Centre for Mediterranean Cooperation, Malaga, Spain
June 27th - 28th 2003

WORKSHOP REPORT

Compiled by Plantlife International and IUCN
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ANNEXES

ACKNOWLEDGEMENTS

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Thanks are also due to the IUCN Species Survival Commission for their technical input and guidance, which is to form an integral component of the IPA Programme development in the Mediterranean.

The participants to this workshop provided their time and expertise, and provided their insight for moving the IPA programme in Mediterranean countries forward. Their input was extremely valuable for achieving the intended results of the workshop, and their dedication will be an asset for further follow up initiatives that would promote the IPA programme in the region.

Last but not least, the organisers would wish to thank the Centro Andaluz de Emprendedores - Parque Tecnológico de Andalucía - for providing the workshop locale and all the necessary logistics that promoted a good working environment.

SUMMARY

The IUCN Centre for Mediterranean Cooperation and Plantlife International organised a two-day workshop in Malaga on June 26th and 27th 2003. These two organisations are working in partnership with Plantlife International, IUCN Species Survival Commission and Planta Europa to develop the Important Plant Areas programme in the Mediterranean region.

The main objectives of the workshop were:

- To introduce the IPA programme to key plant and fungus conservation scientists in the Mediterranean (national experts);
- To establish how IPA projects in the Mediterranean can be developed by examining current expertise and willingness to participate;
- To develop ideas for one or more project proposals for IPA projects;
- To draw up a list of potential funders to whom these proposals can be submitted.

The workshop involved 35 plant specialists from the Mediterranean who developed proposals for the identification of Important Plant Areas (IPAs) in the region, and provided their insight for moving the IPA programme in Mediterranean countries forward.

IPAs are intended to be areas of great botanical importance for threatened species, habitats and plant diversity in general, that can be identified, protected and managed as sites. The WWF/IUCN Centres of Plant Diversity project (1994) identified large regions of botanical importance, and the Mediterranean was among one of the major hotspots. This IPA programme is intended to build on this approach to identify areas that are appropriate for a site-based approach to conservation.

IPA identification provides the framework for governments to achieve Target 5 in the Convention on Biological Diversity's Global Strategy for Plant Conservation. IPA identification is also a tool intended to provide specific plant data that can inform other existing national, regional and global conservation programmes. IPA identification will also provide a foundation of sound data, set standards and act as a reference point linking science and policy, thus guiding relevant national legislation and providing a structured approach for future environmental impact assessments, compensation measures and further decision-making processes.

Participants presented and discussed current conservation initiatives in their countries: legislative, national strategies, *in situ* and *ex situ* initiatives and special country specific needs. The importance implementing an IPA programme that is fully integrated with existing initiatives was underlined. The Mediterranean has high levels of endemicity and is identified as a global biodiversity hotspot, but data and indicators relevant to the distribution of this endemicity within the different countries are in most cases insufficient or absent. Bryophytes and fungi have not been adequately considered in the region's conservation programmes. The importance of IPAs as a vital tool that would further guide national policy and conservation processes in this highly populated region was highlighted.

The next steps to be undertaken beyond this event are to be shared among the organisers and national experts. The experts would have to compile a summary of national actions and identify national partners who would be interested in the initiative. Moreover, and with technical support from IUCN and Plantlife, the experts will undertake the preparations of a national workshop that would launch the IPA process and outline the national priorities to be undertaken through a national IPA programme.

In addition, the organisers will contact all the governments in the Mediterranean to confirm their interest in the initiative, prepare a programme that would respond to the identified national priorities, and seek funding opportunities for its implementation. IUCN and Plantlife will be carrying this process forward, and more discussions on the Mediterranean IPA process will be taking place through a special event during the World Parks Congress in Durban (September 2003), which all Mediterranean participants will be urged to attend.

1.0 CONTEXT OF THE WORKSHOP

1.1 Rationale for the IPA programme

The Important Plant Areas Programme aims to identify and protect a network of the best sites for plant and fungus conservation throughout the World. This network of properly protected and managed sites, will help prevent the global loss of plant diversity, whilst safeguarding the role of plants as primary producers and providers of ecosystem infrastructure, products and services. In this way it is hoped that IPAs will help governments meet the World Summit on Sustainable Development target, agreed in Johannesburg in 2002, to significantly halt the decline in biodiversity by 2010. The Important Plant Areas programme provides a framework for Governments to implement target 5 of the CBD Global Strategy for Plant Conservation (April 2002). In October 2002 the Convention on Biological Diversity (CBD) Global Plant Expert group nominated IUCN and Plantlife International as lead institutions for this global target. The role of lead institutions is to drive forward the implementation of global targets involving all conservation stakeholders, including governments.

Plantlife International is currently coordinating the European IPA programme in collaboration with a range of partners including IUCN – Commonwealth of Independent States (IUCN CIS) and the Central and Eastern European Regional Environmental Centre (REC). The IUCN Mediterranean office is working in partnership with Plantlife International and Planta Europa (the network of plant conservation organisations working for plant conservation in Europe) to develop Important Plant Areas in the Mediterranean region. (For details of these partner organisations see Annex I).

The workshop was convened by IUCN and Plantlife International as the first step towards the development of an Important Plant Areas programme in the Mediterranean. It was designed to introduce the IPA concept to Mediterranean botanists, to discuss the desirability of starting an IPA programme in the region and to begin building a programme together with potential partners from interested countries. The programme should support existing plant conservation initiatives in the Mediterranean region whilst contributing to the implementation of the CBD Global Strategy for Plant Conservation.

Participants from fifteen Mediterranean countries were invited, and representatives of eleven countries were able to attend (see Annex II).

1.2 Workshop objectives

- To introduce the Important Plant Area (IPA) programme to Mediterranean plant and fungus conservationists
- Establish how IPA projects can be developed in the Mediterranean using existing expertise
- Develop ideas for project proposals
- Develop ideas for potential project funders

1.3 Expected workshop outputs

- Improved understanding of the objectives of IPA identification and the relationship of IPAs with the Global and European Strategies for Plant Conservation
- Improved understanding of the process of IPA identification
- List of names of key IPA contacts in countries where the project could focus

- List of preparatory activities necessary for an IPA project
- Outline funding proposal with possible timetable for interested countries
- List of potential funders for IPA projects
- Exchange of relevant national or regional documentation on status of plant and fungus conservation in the Mediterranean region

The full workshop programme can be found in Annex III.

2.0 INTRODUCTION TO THE IPA PROGRAMME

2.1 IPAs and the CBD Global Strategy for Plant Conservation target 5

At their sixth meeting held in the Hague, the Netherlands from 7 to 19 April 2002, the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) adopted the *Global Strategy for Plant Conservation*. This includes sixteen outcome-oriented targets to be achieved by all CBD Parties by 2010. For the first time the aims of the CBD in conserving biodiversity can be measured against targets, and the progress made in achieving them can be assessed. [1]

Target 5 of this strategy calls for the *protection of 50% of the most important areas for plant diversity by 2010*. The IPA programme developed by Plantlife International and the Planta Europa Network over the last 10 years, provides a framework for identifying and ultimately protecting those important areas for plants, thus contributes to the global objectives of the Strategy which are to be implemented according to national priorities and capacities and will take into account differences in plant diversity between countries.

The IPA programme is also an integral part of the 2002 European Plant Conservation Strategy, developed by the Planta Europa Network and the Council of Europe. This Strategy is recognised by the CBD as a contribution to the Global Strategy for Plant Conservation (UNEP/CBD/COP6/INF/22) and aims to complete the identification of IPAs in Europe by 2007.

2.2 IPAs in the Mediterranean

The aim of an Important Plant Areas (IPAs) programme in the Mediterranean would be to identify and protect a network of the best sites for wild plant conservation throughout the Mediterranean region, using complementary criteria, by 2007. In addition to the protection this will offer to threatened habitats and species (higher and lower plants and fungi), IPAs will also offer protection to a wide range of species including medicinal plants, relatives of crop plants, veteran trees and many common but declining species.

The Mediterranean programme for IPAs will build on the projects currently underway within Europe, using the IPA methodology, database and approach to site selection developed by Plantlife International and the Planta Europa Network (1995 – 2002) that is already being applied through its Central and Eastern European project, thus providing considerable economies of scale.

The IPA project will be valuable for plant conservation in those countries within the European Union and those beyond it. The role of IPAs in EU countries is discussed in detail in section 2.3. In those Mediterranean countries beyond the EU the IPA programme provides the first regional opportunity to build up a central inventory of all the sites that contain the most threatened plants and habitats or areas, identified using globally and regionally consistent criteria. IPA identication provides the opportunity to further integrate existing conservation efforts within global plant conservation policy, to provide a basis for creating priority conservation areas and for targeting future funding to these areas. The process of drawing

[1] While in its sixth decision the COP 6 "… invite(s) the organizations involved, and other organizations, in collaboration with the Executive Secretary, to contribute to the further development, implementation and monitoring of the Strategy (i.e. Global Strategy for Plant Conservation; COP decision VI/9 – 11), the Plant Conservation Programme of the IUCN Species Survival Commission has been identified as one of the existing relevant activities under way necessary to reach targets of the Global Strategy for Plant Conservation (COP6, annex VI/9 – D).

together experts and developing national networks will assist with training of individuals and build capacity for conservation in those countries that lack a strong conservation infrastructure.

2.3 IPAs, the EC Habitats and Species Directive and Natura 2000

The predominant conservation legislation in the European Union is the EC Habitat and Species Directive (1992); this requires governments to designate and protect a national network of sites (Special Areas of Conservation) of European importance that, with Special Protection Areas identified through the EC Birds Directive, will form the European wide Natura 2000 network.

IPA methodology provides data to support, inform and underpin the EC Habitat and Species Directive. The guidance for IPA selection explains that the presence of Annex I habitats and Annex II species qualifies a site to be included in the country IPA inventory and IPAs identified in this way would qualify as Special Areas of Conservation. Indeed for those countries where SAC selection is complete, those sites already designated for plant species and habitats will automatically qualify as IPAs. The application of IPA methodology provides an opportunity for existing EU members to cross check that all appropriate sites have been included in the Natura network and for accession countries to collate and record data that can be used directly to identify Special Areas of Conservation for the Natura 2000 network as and when they enter the European Union. In addition IPA methodology provides a tool for all European countries to identify the best sites for the so-called 'lower plants' (bryophytes and lichens) and fungi that are underrepresented in the EC Habitat and Species Directive, and thus to highlight the conservation needs of these special groups of organisms. Finally, IPA identification highlights European sites of exceptional plant and habitat richness not only those of high endemism.

In time, the IPA database will help inform the development of the Habitats and Species Directive and other protected area mechanisms to ensure the most important areas of plant diversity are appropriately protected and managed. IPAs are not therefore a new designation to compete with existing legislation, but a tool to use alongside it, to help prioritise site based plant conservation activities across the whole of Europe. Other regional and global programmes that IPA identification will support are summarised in table 1.

Table 1: IPA s in Existing Global and European Conservation Programmes

Legislation/Programme	IPA Target & Notes
Global	
CBD (Convention on Biological Diversity)	IPAs help to implement **Articles 6,7, 8** on biodiversity strategies and *in situ* conservation, and **Articles 12 & 13** on national and international cooperation
CBD - Global Plant Conservation Strategy (GSPC)	Adopted at COP 6, The Hague April 2002 **Target 5** of the GSPC is for the protection of 50% of the world's most important areas for plant diversity by 2010
IUCN Species Survival Commission, Global Plant Conservation Programme	IPAs are a stated priority
IUCN Parks for Life Programme	In **Priority Project 6** the importance of IPAs is recognised in **Article 4.3.5** for higher plants, and in **Article 4.3.6** for lower plants
The Ramsar Convention on Wetlands of International Importance	IPAs will help to identify sites which qualify under the new group A and B criteria for threatened species and ecological communities
European	
EU Habitats and Species Directive (Natura 2000)	IPAs can contribute plant information for Natura 2000 sites, particularly Criteria A & C
Bern Convention (Emerald Network)	IPAs can contribute specific plant information for implementing the Emerald Network, particularly Criteria A & C
European Plant Conservation Strategy (EPCS) (Plantlife nominated lead partner on IPA targets)	**Target 1.4** IPA inventory of Europe by 2007 **Target 1.5** Research to assess effectiveness of IPAs **Target 2.14** Promotion of IPAs to underpin international protected area networks
PEBLDS through the implementation of PEEN (Pan-European Ecological Network)	IPAs can contribute to PEEN by providing plant data for the identification of a network of sites that reduce threats to and increase resilience of Europe's biological and landscape diversity, through coherent European programmes and public involvement in the process

2.4 Definition and IPA criteria

IPAs are areas of great botanical importance for threatened species, habitats and plant diversity in general, that can be identified, protected and managed as specific sites.

> *" Important Plant Areas are natural or semi-natural sites exhibiting exceptional botanical richness and/or supporting an outstanding assemblage of rare, threatened and/or endemic species and/or vegetation of high botanic value."*

The WWF/IUCN Centres of Plant Diversity project (1994) identified large regions of botanical importance, of which the Mediterranean is one. However, the IPA programme is intended to build on this approach to identify areas that are appropriate for a site-based approach to conservation.

IPAs are identified using **three broad criteria** that can be applied globally:

A – The site holds significant populations of **species** of **global or regional concern** (presence of threatened species)

B – The site has **exceptionally rich flora** in a regional context in relation to its **biogeographic zone** (species richness)

C – The site is an **outstanding example** of a **habitat type** of **global or regional importance** (presence of threatened habitats)

Sites can qualify if they satisfy one, two or all three criteria

In Europe these criteria have been further developed; the species that qualify for criterion A, the habitats that qualify for criterion C, a mechanism for identifying the richest sites (using the EUNIS habitat types) for criterion B, and thresholds for each criterion have been fully defined. These definitions have been published in the IPA Site Selection Manual for Europe (Anderson 2002) with detailed guidelines on site selection. The full manual is available in English, Spanish and Russian from Plantlife International; a French summary is also available (contact details see Annex II).

3.0 CURRENT KNOWLEDGE OF THE FLORA IN MEDITERRANEAN COUNTRIES

All participants completed a questionnaire before the workshop to establish the baseline for the current levels of knowledge of the Mediterranean flora. A summary of the completed questionnaires is given below.

3.1 Overview of botanical and mycological diversity data available

Within the Mediterranean region, there are some 25,000 plant species, (30,000 including sub species), 35% of which are endemic. There are a number of centres of endemism and diversity and these are shown below:

The Iberian peninsula
- Baetic and Sub-baetic Mountains
- Pyrenees and Catalonia
- Cantabric Range
- Massifs of Gudar and Javalambre
- Balearic Islands

South Central Europe
- Maritime Alps
- Apennines, Abruzzo, Calabria, Apuane and Liguarian Alps
- Tyrrhenian Islands (Co, Sa, Si..)

Balkan peninsula, Aegean and Cyprus
- Mount Olympus, Thrace
- Mountains of Southern and Central Greece
- Crete
- Troodos mountains, Cyprus

North Africa
- Al Jabal al Akhdar (Libya)
- Atlas Mountains, Macronesian Region, Rif, Kabylia

Near East
- Isaurain, Lycaonian and Cilician Taurus Mountains (Turkey)
- South West Anatolia
- Levantine Uplands (Turkey, Syria, Lebanon, Jordan and Israel)
- Anti-Taurus mountains and Upper Euphrates (Turkey)
- Tuz Lake (Turkey)
- Mountains of South East Turkey, north west Iran and north Iraq
- North east Anataolia
- Uludag (Turkey)

Species and habitat data
Most Mediterranean countries have checklists available for vascular plant species and some countries (predominantly the northern Mediterranean countries) have checklists or preliminary checklists for the so-called 'lower plants' (bryophytes and lichens) and fungi. All countries have some data on vascular plant endemism but this is only available for lower plants and fungi in northern Mediterranean countries. Seven countries have an IUCN Red List for vascular plants.

In Europe the best known and most often used threatened habitats list is the EU Species and Habitats Directive Annex I and also the Bern Convention threatened habitat list (these habitats are based on the Corine classification) which can be aligned to the former Annex I list. All EU and some EU accession countries have available data for the extent of these habitats in their countries. These threatened habitat lists fit into the broader EUNIS habitat classification which classifies all European habitat types (including non-threatened habitats). There are also a variety of national habitat and/or vegetation classification systems that operate on a national level.

North African countries do not have a regional habitat classification or a recognised list of regionally threatened habitats.

Strategies and legislation
All countries have a complete or near complete national biodiversity strategy and all national governments are aware of the CBD Global Strategy for Plant Conservation.

All countries have some national legislation to protect plants or particular groups of plants (e.g. forests) but the effectiveness of this legislation varies considerably between nations.

3.2 Common priority needs for plant and fungus conservation in the Mediterranean

Through a facilitated process using small working groups, participants identified key topics for conservation in the Mediterranean region. Then, and through further discussions in plenary, the participants decided to group all the priorities that were generated from the discussions into 5 broad categories – in no particular order

- Engagement
- Tools
- Knowledge
- Coordination
- Awareness

Action is needed in all of these areas to improve plant conservation in the region – some examples the priority actions discussed at the workshop, that are common throughout the region are included in Annex IV.

4.0 CURRENT IPA PROJECTS

4.1 Progress across Europe to date

National IPA projects are now underway in Belarus, Czech Republic, Estonia, Poland, Romania, Slovakia and Slovenia with the financial support of the Dutch Ministry of Agriculture and Nature Management through their PIN MATRA programme. The IPA Secretariat is based at Plantlife International and provides technical support, advice and regional coordination. A Central and Eastern European coordinator is based in Slovakia (hosted by SOVS – the BirdLife Slovakia partner) and he liaises with each of the seven national teams through a country coordinator. The organisation hosting the country coordinator is normally the main partner in the project. Teams are made up of conservation stakeholders from many types of organisations: institutes, universities, NGOs, botanic gardens, governments, state nature departments, national park managers etc.

Preliminary IPA projects have carried out in Croatia, Bulgaria, Montenegro, and Macedonia. In addition the IUCN CIS office in Moscow is working with Plantlife International to develop national projects in European Russia and the Ukraine. A national IPA project is also underway in the UK and in Finland work has begun on the compilation of a list of important sites for fungi. The Turkish IPA project carried out by Doğal Hayatı Koruma Derneği (DHKD) (now WWF Turkey), Fauna and Flora International (FFI) and the University of Istanbul was completed in 2002 (published 2003) and provides a model for how IPAs can be identified in the region. (For details of the IPA case studies from Turkey and Croatia that were presented at the workshop, see Annex V)

Other countries across Europe are interested in the programme but have not yet secured the funds to begin.

Plantlife and IUCN now hope to develop an IPA programme in the Mediterranean region with interested partner countries, which will build on existing plant conservation initiatives and help to develop in country plant conservation capacity where it is limited. Countries such as Spain, Portugal, Greece, Italy, Cyprus and France have good knowledge of wild plant areas of high importance even if not formalised through an IPA process. For European Union Member States protection for many plant species and habitats (primarily for vascular plants) is already underway through the Natura 2000 process, other protected area mechanisms, or in some cases through specific micro-reserves for threatened flora (e.g. Spain). IPA identification will strengthen, not duplicate, existing national efforts.

5.0 THE IMPORTANT BIRD AREAS MODEL – *Guven Eken BirdLife International*

Why Important Bird Areas?

"To identify, protect and manage a network of sites that are important for the long-term viability of naturally occurring bird populations, across the geographical range of those bird species for which a site-based approach is appropriate"

Characteristics of IBAs:

- Places of international significance for conservation at the global, regional or subregional level identified nationally
- Practical tools for conservation
- Chosen using standardised and simple criteria applied with common sense
- They must, whereever possible, be large enough to support self-sustaining populations of those species for which they are important
- They should form part of a wider, integrated approach to conservation that embraces sites, species and landscapes

Criteria:

Designed in a hierarchy to identify sites of global, regional or subregional significance (A, B and C levels). The criteria embrace four main categories:

i) Threatened species
ii) Restricted-range species
iii) Biome-restricted assemblages
iv) Congregatory species

Each category has an associated list of eligible species

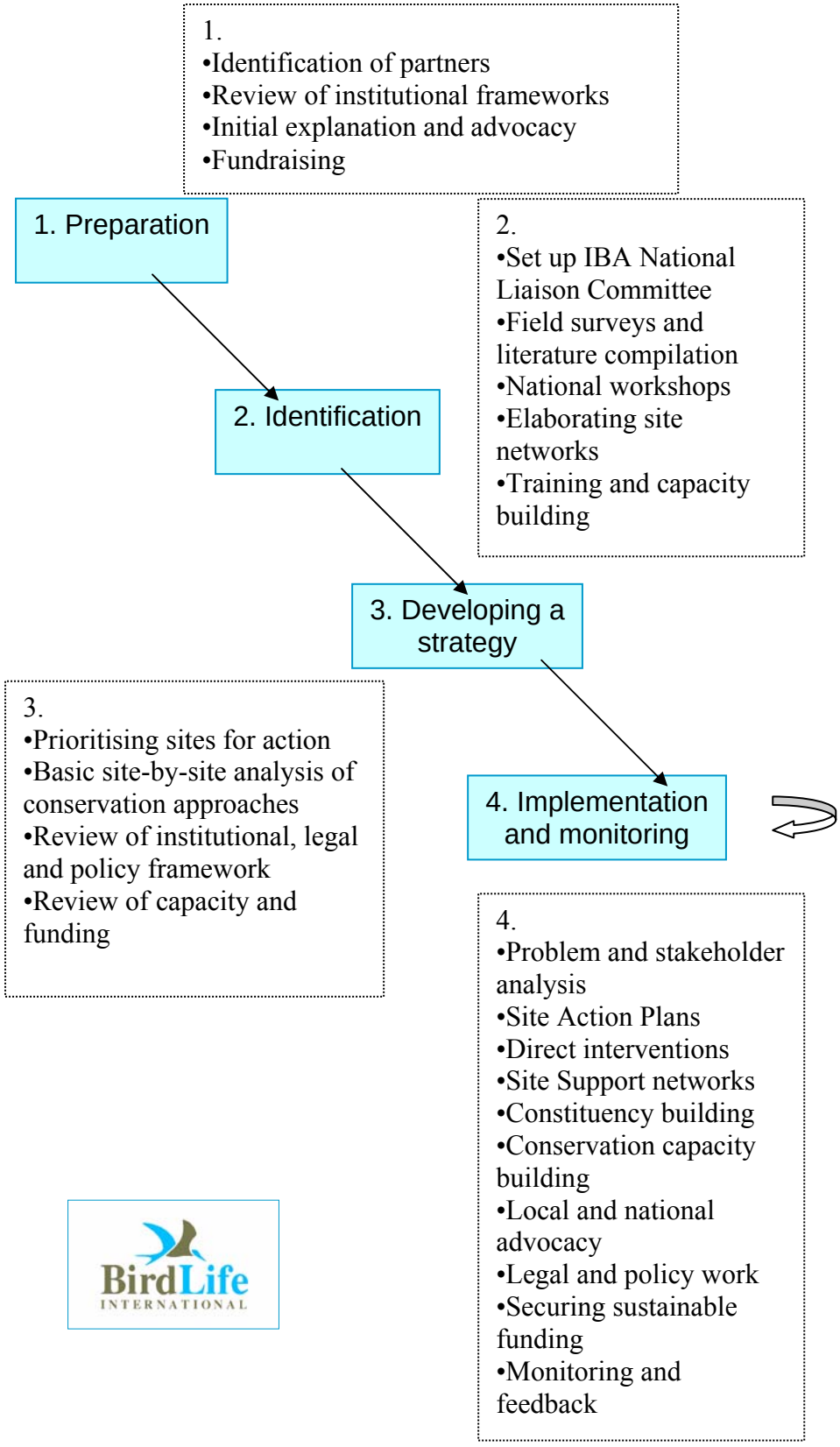
The IBA programme has four stages: Preparation; Identification; Developing a Strategy; Implementation and Monitoring – the tasks associated with each stage are show in the model overleaf.

Within BirdLife's global programme the preparation stage is virtually complete, identification is progressing well but developing strategies and implementing and monitoring are still very much in development.

Current IBA statistics in Europe:

- In 2000 BirdLife International published the second pan-European IBA inventory covering 3619 sites in 51 countries
- 40% of European IBAs have international protection
- 54% of European IBAs are SPAs (Special Protected Areas)
- From 1998 to 1999 the percentage of IBAs protected as Ramsar sites rose from 22% to 29% and the percentage of IBAs protected as SPAs rose from 30% to 54%
- There are 20 full time, 10 part time, and 7 volunteer IBA coordinators
- Many European countries have teams of volunteers who work together in IBA caretaker networks

Four stages of National IBA programmes



6.0 DEVELOPING AN IPA PROGRAMME IN THE MEDITERRANEAN

6.1 First principles for an IPA Mediterranean Programme

These principles were developed at the workshop after in-depth discussions including the setting of national priorities, identification of gaps, constraints and opportunities that could promote the IPA process. The main principles for an IPA Mediterranean Programme are summarised as follows:

1. It should be pragmatic and flexible – national projects can be started and supported without waiting for all the necessary information for all criteria to be available.
2. Countries should work within the existing criteria (A, B and C) and with the guidelines developed for Europe, using the national information and tools available.
3. Equivalent (thresholds and criteria measures) can be developed where necessary.
4. Gaps and inconsistencies within current data and initiatives should be identified.
5. Define national projects as the 'ideal tool' which can be worked towards.
6. Ensure international harmonisation between countries giving a 'standard'.

6.2 Considerations for the arid land countries (North Africa and the Middle East) – recognising the challenges that will accompany the next steps

Available and/or detailed data in the arid lands are fewer than elsewhere in the Mediterranean not only for lower plants but also for vascular plants. For example in Lebanon there is not yet an IUCN Red List for vascular plants. *Principles 1* and *5* apply strongly here. There is a recognised need to promote updating the existing systems in these countries.

Countries will need to develop a list of national priorities for the project and agree how the criteria can be applied with existing data, whilst identifying the further work that is needed to achieve the ideal. *Principles 2, 3, 4* and *5*. It may be possible to consider the criteria for selected areas in each country first.

In arid lands where there is often great pressure on the land. It is of real importance that the benefits (particularly the economic benefits) of the project are understood and made relevant to both the governments of these countries and, most importantly to the people. This must be thought about at the beginning of the project and some incentives will be needed to ensure that these sites are ultimately protected.

It is recognised that in many countries the scientists already know where the best places are for plants are and cataloguing IPAs may not be perceived as a priority. However it is important that this information is collated so it is not lost, and in a way that can benefit plant conservation – it will be particularly important to demonstrate the globally consistent approach. *Principle 6.*

In many of the arid lands the vegetation/plant formations cannot be easily classified within existing habitat classifications such as EUNIS which are Euro centric. It will be possible to work within the existing criteria but it will be necessary to look at existing habitat classifications for the region to see how they can be integrated with the EUNIS model. This will require considerable effort involving both national and regional North African coordination with help from the regional IPA coordination body and possibly a regional workshop. *Principles 2* and *3*.

Beginning national IPA projects will start the process of bringing people together and building capacity for plant conservation in these countries.

6.3 Tasks for national IPA co-ordination

The following tasks were identified by the workshop participants as central to the next phase of developing national IPA projects – they can be categorised under the broad priority areas for plant conservation in the Mediterranean:

Engagement

- Secure political support by ensuring **Government** (including **CBD focal point)** is involved in process
- Convene **workshop** of all interested stakeholders
- Identify and secure strategic partners with regional perspective (e.g. BIONET, OPTIMA, IUCN SSC, Plantlife International, GTI etc)

Coordination

- Appoint a **Country Co-ordinator** to act as liaison point for Med Programme Manager and to deal with contractual issues
- Select an **IPA team** whose collective skills reflect the needs of the project (i.e. to include representatives from academia, government, NGOs and to ensure that all plant and fungus groups are represented and include international experts as required)
- Develop an **IPA contact list** and keep informed

Knowledge

- Find out what necessary **background information for IPA selection is available** (e.g. collate existing data)
- Agree country criterion A **species list** and criterion C **habitat list**, and define approach for **criterion B interpretation**
- Identify further **research needs**
- Co-ordinate **new surveys** as funds allow
- **Validate** IPA selection by field survey

Tools

- **Apply IPA criteria** to existing information to select sites and apply thresholds
- Input data onto **IPA database**

Awareness

- **Publish and distribute** IPA inventory

Some of these tasks can be undertaken immediately whilst for others there will be some problems to overcome which will need further action by the national IPA teams and/or the regional IPA coordination body. At the workshop each participating country outlined the problems they expected to encounter in the next phase of the project and suggested potential solutions to these problems. A summary of these results (by country) presented by the participants at the workshop, has been collated in the Annex VI, *these tables contain preliminary opinions of workshop participants, in each case it was noted that further consultation would be needed within the full national IPA team to develop these ideas.*

As a result of the discussions that took place to develop these tables, the next steps for the Mediterranean IPA programme were elaborated (section 7.0). Participants requested IUCN to write to relevant government focal points and actors, enclosing the workshop report, to seek their support and endorsement of this process.

7.0 NEXT STEPS FOR AN IPA PROGRAMME IN THE MEDITERRANEAN

At a **regional** level acting as the Mediterranean IPA coordination body, IUCN Centre for Mediterranean Cooperation and Plantlife International will undertake the following:

- Compile a workshop report including a summary of the national actions (July 2003)
- Draft (consult participants) and send letter introducing the IPA programme to States/CBD Focal points as appropriate, requesting support for national IPA projects and, where appropriate, delegation of the national coordination body (July/August 2003)
- Attend national workshops (e.g. Lebanon, Cyprus) as and when they are convened
- Circulate additional information on the EUNIS habitat classification – its links to the EU Habitat Directive and Bern Convention habitats and any extension of this system to include North African Mediterranean habitats (Sept 2003)
- Draft a skeleton project proposal for a national IPA project with regional inputs as a template for fundraising (Sept 2003)
- Write articles for networks e.g. OPTIMA, Plant Talk, Planta Europa, Plantlife and other associated newsletters (July – Oct 2003)
- Promote the IPA programme in the Mediterranean (and Europe) at the CBD Global Strategy target 5 stakeholder meeting on September 10th 2003 at the IUCN World Parks Congress in Durban

Following positive government feedback for national projects IUCN and Plantlife will:

- Continue the ongoing search for funds to support regional coordination
- Assist with the search for funds for national IPA projects
- Work with national coordinators to define the projects
- Consider holding a Red Listing (application of criteria) workshop at the Planta Europa conference 17 –21 September 2004 in Valencia
- Develop an IPA Mediterranean web site (with resource materials and links)
- Ensure the incorporation of Mediterranean IPA (site) data into the IPA global database held by Plantlife International

ANNEXES

Annex I: Partner organisations

PLANTLIFE

- Plantlife International is an NGO working to save wild plants and fungi and their habitats
- Plantlife's conservation programmes include: Important Plant Areas; species and habitat recovery programmes, land management, botanical surveying and campaigning.
- Plantlife's work covers vascular plants bryophytes and fungi
- Plantlife executes plant conservation in the UK, facilitates plant conservation in Europe and advocates plant conservation worldwide
- Plantlife wishes to build partnerships across the world with other organisations who wish to carry out the identification and ultimately the protection of Important Plant Areas

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IUCN
The World Conservation Union

IUCN Centre for Mediterranean Cooperation

- One of the 42 regional programme offices of IUCN – The World Conservation Union – the largest global network of conservation organisations
- Established in October 2001
- Core funds from Ministerio de Medio Ambiente and Junta de Andalucia
- The Centre's programme covers Biodiversity Conservation, Sustainable Use, Water, Desertification and Mediterranean Islands

Mediterranean IPA contact : Rami Abu Salman, Programme Coordinator,
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PLANTA·EUROPA

- The Network of organisations working for plant conservation throughout Europe
- The Network's programme is the European Plant Conservation Strategy (2002) a recognised contribution to the CBD Global Strategy for Plant Conservation
- Plantlife International is a member of Planta Europa & hosts the Planta Europa secretariat

Contact: The Planta Europa Secretariat at Plantlife International see above

IUCN Species Survival Commission (Plants Programme)

The Species Survival Commission is the largest of the six Commissions of IUCN-The World Conservation Union. SSC serves as the main source of advice to the Union and its members on the technical aspects of species conservation. SSC has 32 SSC Plant Specialist Groups. Their tasks are broad-ranging but main activities include assessing the conservation status of plant species for possible inclusion in the IUCN Red List of threatened species, and compiling information for the development of Action plans.

Acknowledgement of the extinction crisis as a global problem is a primary goal of the Plants Programme, along with the reduction of the current rate of species loss.
The Plants Programme **objectives** seek to ensure that:
· Sound interdisciplinary scientific information underpins decisions and policies affecting plant diversity;
· Collaboration and strategic alliances, including local and national organisations outside the SSC, are increasingly used within the plant conservation community to achieve plant conservation success;
· Modes of production and consumption that result in the conservation and restoration of plant diversity are adopted by users of plant resources;
· SSC's plants policy recommendations, guidelines, and advice are valued, adopted, and implemented by relevant audiences; and
· Capacity to provide long-lasting, practical solutions to plant conservation problems is markedly increased.

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Unable to attend but interested in the IPA programme:

Baltasar Cabezudo Artero: University of Málaga, Spain
Pedro Ivo Arriegas: Institute for Nature, Portugal
Salima Benhouhou: Institut National Agronomique d'El Harrach, Algeria
Francois Boillot: Conservatoire Botanique Nationale Mediterrannean de Porquerolles, France
Spyros Dafis: University of Thessaloniki and Greek Biotope/Wetland Center (EKBY), Greece
Lincoln Fishpool: BirdLife International
Jaime Güemes: Jardín Botánico, University of Valencia, Spain
Borja Heredia: Subd Gral Conservación de la Biodiversidad, Spain
Costas Kadis: ENALION, Cyprus
Juan Rita Larrucea: Universitat Illes Balears, Spain
Pedro Regato : WWF Mediterranean Programme Office, Spain (Gap Analaysis Programme)
Darrin Stevens: Malta Environment and Planning Authority, Malta

Annex III: Workshop programme

Defining Important Plant Areas in the Mediterranean Region
UICN Centre for Mediterranean Cooperation, Malaga, Spain
June 27th -28th 2003

Day 1:
Chair: Claudia Perini

9.30 **Introduction:** Welcome and Workshop Objectives

9.45 **Tools for Mediterranean plant conservation - how Important Plant Areas fit in** - *Jane Smart*

10.15 - 11.30 **Session I: Focussing on Mediterranean countries**

- Current state of knowledge of the flora in Mediterranean countries – the questionnaire information
  Bertrand de Montmollin
- Plant conservation priorities in the Mediterranean region
  Facilitated by Liz Radford

11.30 **Coffee break**

12.00-13.00 **Session II: IPA programme and related initiatives**

- Important Bird Areas (IBAs) BirdLife - *Guven Eken*
- Top 50 Mediterranean plant project and IPAs - *Bertrand de Montmollin*
- Current IPA projects in Europe – *Plantlife International*

13.00 –13.45 **Session III: Questions and answers on IPA criteria -** *Plantlife*

- Short introduction of the IPA criteria in Europe A, B and C
- Different approaches for data rich and data poor groups

13.45 **Lunch**

15.00 – 16.15 **Session III cont: Questions and answers on Important Plant Areas**

- Case study: Example of the application of criteria in Croatia
  Toni Nikolic
- Case study: Example of application of criteria in Turkey
  Sema Atay
- Question, Concerns and Solutions for IPAs – discussion groups

16.15 Coffee break

17.00 – 18.00 Discussion group continued

18.00 **Report back - concerns and solutions** *Facilitator Jamie Skinner*

Day 2 Agenda

Chair Jamie Skinner

09.30 Overview of the day

09.45 Report back from arid country working group and discussion of findings

10.30 Reminder/Recap of outputs from Day 1

10.45 Coffee

11.15 Project planning for national IPA projects in the Mediterranean
- What are the problems which need to be overcome to enable national IPA projects to begin?
- What practical regional support is needed?

(Work in country groups)

12.45 Report back from each country

13.30 Lunch

14.30 Towards project proposals: Summary of next steps

16.00 Close

Annex IV: Priority Actions for Mediterranean Plant Conservation

	Engagement	Tools	Coordination	Knowledge	Awareness
REGIONALLY COMMON PRIORITIES	Improve political actions	Develop management approaches	Communication, coordination and harmonization, nationally and regionally	Applied and pure research activities	Enhancing public awareness
	Improve public participation	Building network of protected areas	Involving cryptogamists in action	Improved knowledge on plant and fungi	Education popularising knowledge
		Update and harmonize red lists	Establish IUCN national initiatives	More information on lower plants	
		Establish or update national red lists			
		Develop botanic gardens			
NATIONAL PRIORITIES	Law Enforcement	Habitat management (control of exotic species)	Improved North African coordination	Find all the grey (hidden) literature	Use of knowledge for conservation
	Mechanism for scientific public and private participation and compliance	Develop financial and professional incentives for conservation	Network of ex situ facilities	Develop list of threatened habitats	People awareness
		Data collection and management	Organising botanic gardens	Compile list of endangered habitats and species	Discourage unnecessary expansion of road network in wild nature
		Develop national policy on plant conservation		More research on lower plants and fungi	Discourage over grazing
		Monitoring plant populations		Completion of Natura 2000 project	Support of conservation educational tools
		Field work to obtain recent population data		Updating list of threatened plant species	Public awareness & support of conservation principles
		Financial support for good quality taxonomical studies		Research for checklists, flora atlases and mapping	
		Application of grid system			
		Support of ex situ conservation (herbaria botanic gardens, gene banks)			

Annex V: Case studies for IPA Identification in the Mediterranean Region

How Important Plant Areas were identified in Turkey - Sema Atay WWF Turkey (formerly Doğal Hayatı Koruma Derneği - DHKD)

Partners:

The Turkish project was carried out whilst the IPA criteria for Europe were being further refined – the Turkish experience was extremely useful in informing that process.

Introduction:
The diversity of the vegetation and richness of the flora of Turkey is legendary. Turkey has the richest flora of any country in Europe, the Middle East and North Africa, both in terms of overall plant diversity and levels of endemism. There are 8897 vascular plant species, 3022 endemics and therefore a 34.4 percentage endemism within the flora.

Feasibility of IPAs in Turkey:
Eight centres of botanical diversity were recognised in WWF/IUCN Centres of Plant Diversity (1994). To take the Centres of Plant Diversity philosophy one stage further (to locate specific and manageable important plant sites within Turkey) the IPA programme in Turkey was launched in 1994 modelled on the Important Bird Areas (IBA) programme. A pilot survey was undertaken to determine whether or not an Important Plant Areas programme was feasible in Turkey, a country with:

- A flora of over 10,000 taxa of native plants;
- Over 4500 nationally rare species listed to the two national red data books;
- A land surface covering approximately 800,000 sq. km;
- A very high percentage of natural or semi natural vegetation.

Methodology:
The proposal to produce an IPA inventory was introduced to the botanical community in an IPA workshop held in Istanbul in 1998. At this meeting:

- The concept and draft criteria were outlined;
- A brainstorming exercise was undertaken to identify 'missing' candidate IPAs, and to draw together a provisional listing of sites;
- Botanists were asked to adopt individual sites, for which they would undertake survey work, background literature research, and write the final site account for inclusion in this IPA inventory

Data sources for the project:
The principle source of data for this inventory has been the intimate knowledge of the botanical network that provided the site accounts reproduced in the IPA book. Considerable additional information is often available in the form of theses, reports and papers, many funded by TÜBİTAK, the scientific research council in Turkey. In total, approximately 40 botanists have contributed site accounts to this listing, largely representing expertise from 20 universities across the whole of Turkey.

Applying the Criteria in Turkey:
Criterion A - Turkish species that were threatened (Original categories: Endangered or Vulnerable, New categories (1999): Critically Endangered, Endangered or Vulnerable) on the IUCN global Red

Lists, that were present on the Habitat Directive Annex IIb and IVb or on the Bern Convention and species that were threatened on Turkish national Red Lists, were included in the criterion A site selection list. In addition Turkish botanists included indeterminate species on their criterion A site selection list.

Criterion B - Turkey used a slightly different methodology than that outlined for Europe in the Site Selection Manual. Turkey falls within three biogeographic zones, namely:

- The Euro-Siberian zone, comprising of Marmara and the Black Sea political regions
- The Mediterranean zone, comprising of Aegean and the Mediterranen political regions
- The Irano-Turanian zone, comprising of Central Anatolia, East Anatolia and South-east Anatolia political regions

In selecting sites within each of the three biogeographic zones the IPA site selection methodology sought to identify the most floristically rich examples from each habitat category.

Up to three best examples of each generic habitat within each of the seven Turkish regions were selected.

Criterion C – No list of habitat types of global or European importance has yet been devised, so for the purposes of this volume this criterion was not utilised in the site selection procedure. Habitat types of European importance were defined as those on Annex I of the Habitats Directive and on the Bern Convention habitats list. Up to three best examples of each generic habitat within each of the seven Turkish regions were selected.

The Turkish national IPA inventory was published in 2003 with an associated CD ROM.

Preliminary report on Identifying Important Plant Areas (IPAs) in Croatia - Toni Nikolic University of Zagreb

Notes on the Croatian flora:
Croatia has one of the richest flora per square km in Europe with 5347 taxa of vascular plants from 184 plant families, there are 323 endemic vascular plant species. There are four distinct topographic regions: lowland (in the north and east), highland (central), coastal and insular Mediterranean (south and west) and the Adriatic Sea. 44% of the total land area is forest with 95% of forest components showing natural composition.

The first red data book of Croatia for vascular plants was published in 1994 with an additional Red list produced as part of a checklist in 1994-2000. In 2002 a new red data book was published using to the new IUCN categories of threat.

Applying the criteria in Croatia:
So far in Croatia a thorough analysis of existing data available for the three criteria has been carried out and 88 IPAS have been identified. Mapping has been used to overlay existing available species distribution data to locate IPAs. The grid system used in Croatia is MTB squares - based on the German grid system. It is now hoped that additional funding will be secured to carry out the necessary field investigation and analysis to fill in the gaps in existing data and to update Red List publications as appropriate. It will be particularly important to concentrate on gaining protection and management agreements for those IPAs that are located outside existing protected areas.

Analysis of the criteria in a Croatian context:
Criterion A: The site holds significant populations of one or more species that are of global or European concern

A(i) Site contains globally threatened species - This criterion was classed as 'Inappropriate' for Croatia; only 6 taxa from the IUCN Global Red Data List (1997) and 4 taxa from the IUCN 2000 list are located in Croatia the 1997 book contains at least 70 taxa that can be found inside national borders (these lists need updating for Croatia).

A(ii) Site contains regionally (European) threatened species - Data on these species are 'partially available' in Croatia which has 29 species from the Habitat Directive Annexes and 33 from the Bern Convention appendices though distribution maps for all taxa are not available. Data for fungi, lichens and bryophytes are not available.

A(iii) Site contains national endemic species not covered by Ai or Aii - Data for this criterion are 'available' there are 2 threatened endemic taxa. Data for fungi, bryophytes and lichens are not available.

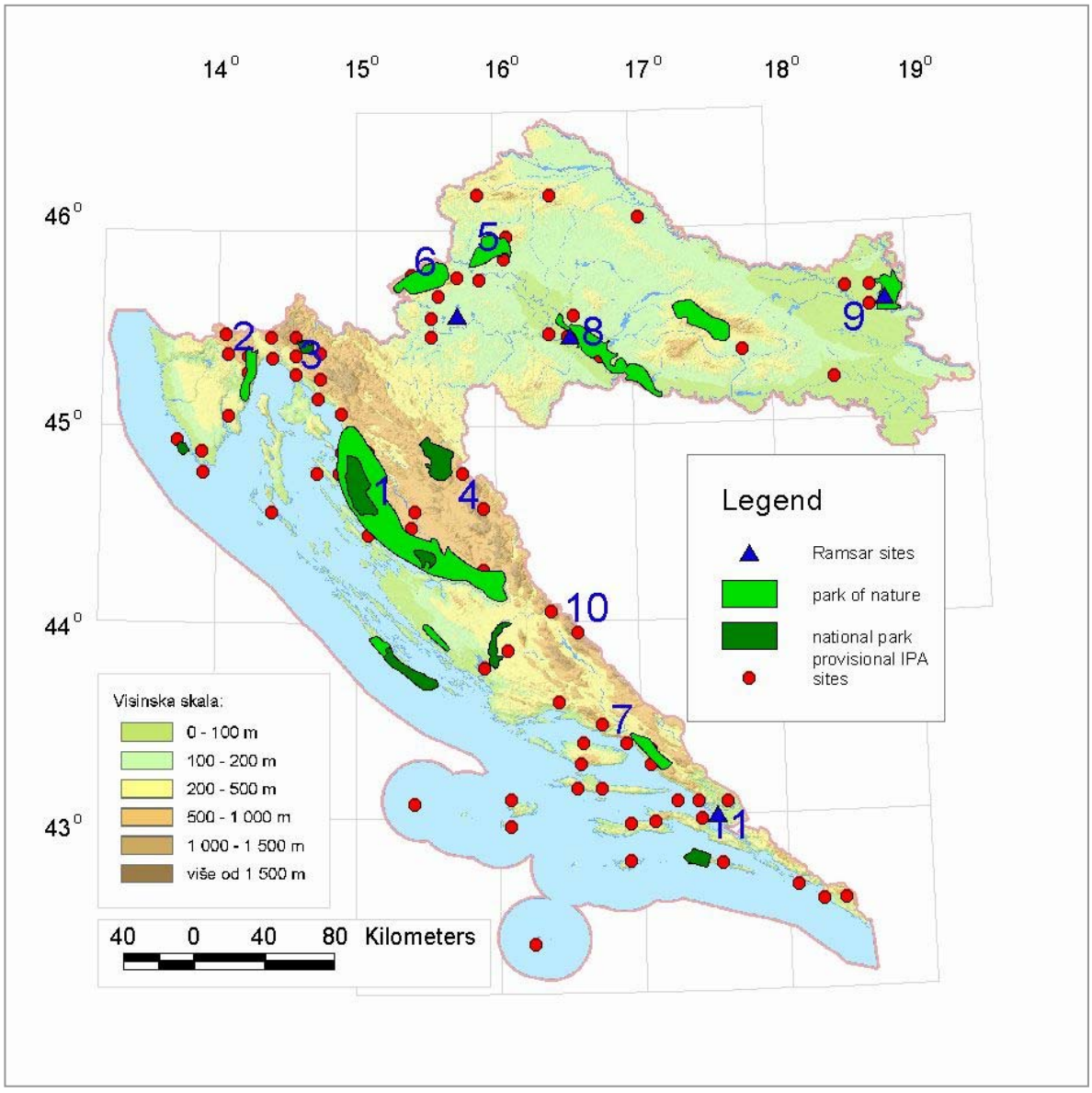
A(iv) Site contains near endemic or limited range species not covered above - Data 'available partially' 33 taxa qualify and distribution maps are available for 14 of those. Data for fungi, lichens and bryophytes are not available.

Criterion B: Site has an exceptionally rich flora in relation to its biogeographic zone.
Data for this criterion is 'partially available' in Croatia. Habitat types are documented for taxa in the Red Book so the total 236 were used as indicator species. Endemic and rare taxa (326) were used as indicators of habitat types.

Criterion C: The site is an outstanding example of habitat type of global or European conservation andbotanical importance
Ci Priority habitats – data 'partially available'

Cii Threatened habitats – data 'partially available'
Croatian habitat types are currently being mapped this data will be available later in the year.

88 IPAs have been located so far from existing data, 6 of these are cross border IPAs. Most of them can be justified using more than one of the three broad criteria. There are a total of 352 protected areas of some kind in Croatia these include 8 national parks, 10 parks of nature and 4 Ramsar sites. Many of the identified IPAs lie outside of these existing protected areas and these should be the focus for future conservation effort.



Provisional map of IPAs in Croatia – Toni Nikolic

Threats to the Croatian flora:

An analysis of threats (classified according to the IUCN SSC threats authority file) has been completed. 61% of threats is due to habitat loss, and within this category 31% is due to melioration/irrigation of wetlands/coast, 18 % to shifting agriculture and 11% each for human settlement and infrastructure development.

Scrub and grassland habitat in Croatia contains the largest number of threatened taxa of vascular flora in Croatia at 36 % followed by bogs and marshes with 17%. Conservation measures (SSC authority file) that are key priorities are research actions, habitat and site based actions and policy based actions.

Weaknesses in the project:

- More data is needed particularly for lichens, bryophytes and fungi and publications need to be brought up to date.
- More than 70 % of the data is greater than 50 years old.
- There is an uneven distribution of spatial data (for example the north east of the country is under recorded and needs further investigation)
- Some of the data is inexact therefore difficult to map

Main tasks are to resolve limitations and redefine the list of IPAs. Then to focus on IPAs that are outside protected areas. Funding will be needed before more work can be carried out to address these weaknesses.

Annex VI: Problems and Solutions for National Teams Undertaking an IPA Project

These tables are the preliminary ideas of the workshop participants only– all participants noted that they would wish to develop these ideas with all relevant colleagues in the course of planning national IPA programmes.

CROATIA

TASK	PROBLEMS	SOLUTIONS	
		Action for country	**Action from regional co-ordinator**
ENGAGEMENT • **Government support** • **Convene workshop** • **Identify and secure strategic partners**	• Some sensitivity • Funding for workshop	• Fundraising	• Support needed later on in process • Fundraising
CO-ORDINATION • **Country Co-ordinator** • **Select an IPA team** • **Develop an IPA contact list**	• Lack of lower plant and fungi experts for IPA team	• Import experts from abroad	• Support with raising funds for these experts
KNOWLEDGE • **What information is available** • **Agree criterion A species list, criterion C habitat list, and define approach for criterion B** • **Identify research needs** • **Co-ordinate new surveys** • **Validate IPA selection**	• Problems with the application of A and c because of lack of incorporation of new data into the relevant lists. • Lack of money to allow new survey for areas with poor data	• Generate suggestions to help application of A and C. • Fundraising	• Promote the challenges of the Bern Convention and Habitat Directive • Fundraising

CYPRUS

TASK	PROBLEMS	SOLUTIONS	
		Action for country	**Action from regional co-ordinator**
ENGAGEMENT • **Government support** • **Convene workshop** • **Identify and secure strategic partners**	• Funding for workshop	• No problem for Government support	• IUCN should inform Government • IUCN to convene workshop with Ministry of Agriculture • Funding for workshop?
CO-ORDINATION • **Country Co-ordinator** • **Select an IPA team** • **Develop an IPA contact list**	• Some funding • Need to locate lower pant and fungi experts for team	• Coordinator : the Environment Service of the Ministry of Agriculture • Team: Forestry Dept.; Agric. Research Inst; University of Athens (Greek Natura group) • Government could provide salaries and transport costs • Cyprus Research promotion Organisation - cover equipt, materials and travel abroad	• Help with funding Univerity people from Athens • Help with experts to work on lower plants and fungi in the future
KNOWLEDGE • **What information is available** • **Agree crit. A species list, C habitat list, define approach for criterion B** • **Identify research needs** • **Co-ordinate new surveys** • **Validate IPA selection**	• Need information about lower plants and fungi (but shouldn't delay project starting)	• Good info for vascular plants • Red book complete by 2005	• International expertise may help with lower plant and fungi needs

EGYPT

TASK	PROBLEMS	SOLUTIONS	
		Action for country	**Action from regional co-ordinator**
ENGAGEMENT • **Government support** • **Convene workshop** • **Identify and secure strategic partners**	• Need help with securing Government support • Funding for workshop	• Contact key authorities and scientists • Provide logistic support	• Letter from IUCN and Plantlife in Arabic • Representation at workshop from IUCN and Plantlife • International project support
CO-ORDINATION • **Country Co-ordinator** • **Select an IPA team** • **Develop an IPA contact list**		• Interim coordinator – representative at this workshop • Coordinator to select team and develop contact list	• Letter (in Arabic, see above) should ask for nomination of national coordinator
KNOWLEDGE • **What information is available** • **Agree criterion A species list, criterion C habitat list, and define approach for criterion B** • **Identify research needs** • **Co-ordinate new surveys** • **Validate IPA selection**		• Data collation and identifying of gaps to be done by national IPA team • Workshop organisation for expert group meeting to revise the quantity and quality of data needed	• Elaboration of guidelines for sub Mediterranean countries (in Arabic) – through the IPA system to include an introduction to the EUNIS system

GREECE

TASK	PROBLEMS	SOLUTIONS	
		Action for country	**Action from regional co-ordinator**
ENGAGEMENT • **Government support** • **Convene workshop** • **Identify and secure strategic partners**	• Potential difficulty to secure Government support following the Natura 2000 process (250 sites notified 20 of Greece) • Funding for the workshop	• Potential partners: Goulandris Natural History Museum; Biotope Wetland Centre; Biodiversity Center	Support letter from IUCN useful
CO-ORDINATION • **Country Co-ordinator** • **Select an IPA team** • **Develop an IPA contact list**	• Money for the administration and personnel for the coordination	• Suggest University of Patras • No problem to set up IPA team	
KNOWLEDGE • **What information is available** • **Agree criterion A species list, criterion C habitat list, and define approach for criterion B** • **Identify research needs** • **Co-ordinate new surveys** • **Validate IPA selection**	• Gaps include: Incomplete flora, list not updated due to lack of funds • Additional field work would be required (funding needed	• Good: Natura 2000, Habitat Knowledge project • Red Data Book	

ITALY

TASK	PROBLEMS	SOLUTIONS	
		Action for country	**Action from regional co-ordinator**
ENGAGEMENT • **Government support** • **Convene workshop** • **Identify and secure strategic partners**	• The Ministry should be made aware of the project before the work starts in Italy • Funds needed for national workshop	• The SBI (Italian Botanical Society) could invite experts, government organisations and non government organisations who are interested to a national workshop	• IUCN letter of support
CO-ORDINATION • **Country Co-ordinator** • **Select an IPA team** • **Develop an IPA contact list**	• May not wish to participate	• Contact the Ministry should be established through the SBI	
KNOWLEDGE • **What information is available** • **Agree criterion A species list, criterion C habitat list, and define approach for criterion B** • **Identify research needs** • **Co-ordinate new surveys** • **Validate IPA selection**	• Access to existing data - not all is published • Difficulties for some taxonomic groups • New surveys require funds • Validation of IPA selection could prove difficult needs pressure on authorities need specific legislation for IPAs	• Improve discussions on criteria inside the working groups of the SBI (Country coordinator to facilitate this) • Consider possible suggestions and changes coming from the Regional coordinator • Concentrate research on under investigated areas and/or taxonomic groups • Coordinate new surveys	

LEBANON

TASK	PROBLEMS	SOLUTIONS	
		Action for country	**Action from regional co-ordinator**
ENGAGEMENT • **Government support** • **Convene workshop** • **Identify and secure strategic partners**	• Many national initiatives in Lebanon - need to rally national engagement • Convince SC of relevance (NGOs and the community • Reluctance of SC to participate	• Must place IPA in context for Lebanon – make it relevant • Current local capacity is satisfactory to start • Must send message that IPA is a tool – candidates for future protection and also the economic value of sites • Funds available for local support for workshop • Ensure full representation of sc	• Help with setting context and links with exiting activities • Must be proactive about Red List, habitat classification, encourage information exchange and information release- LNCSR and Ministry of Environment • Web based information exchange system • Research and propose options for IPA value to local economies • Provide regional technical support for workshop • Provide financial /sc incentives to promote active engagement

Continued overleaf

LEBANON *continued*

CO-ORDINATION • **Country Co-ordinator** • **Select an IPA team** • **Develop an IPA contact list**	• Funding for coordinator • Funds for consultation on B and C? • Fees needed for specific tasks	• Contact list can be development by Country Coordinator and the workshop participants	• Coordinator should be linked with (CBD) Focal Point and selected by Ministry of Environment , IUCN and Plantlife competitive process within the Ministry of Environment • Provision of funding for country coordinator
KNOWLEDGE • **What information is available** • **Agree criterion A species list, criterion C habitat list, and define approach for criterion B** • **Identify research needs** • **Co-ordinate new surveys** • **Validate IPA selection**	• Information needed is scattered •	• Consolidate and conduct individual interviews with contacts to find out what is in their heads, provide incentive/ consult scheme for hidden knowledge • Confine research needs to a priority list and timetable related to IPA project • Develop guidelines for IPA protection and management with region • (Long term look at new surveys and validation)	• Review and help align knowledge with existing guidelines and selection criteria • Align proposed research priorities with IPAs • Develop guidelines and policies for IPA protection and management with the country

MOROCCO

TASK	PROBLEMS	SOLUTIONS	
		Action for country	**Action from regional co-ordinator**
ENGAGEMENT • **Government support** • **Convene workshop** • **Identify and secure strategic partners**	• Need help to gain support from Government • Funding for national workshop		• Letter from IUCN to Government to help gain support • Provide support material for workshop
CO-ORDINATION • **Country Co-ordinator** • **Select an IPA team** • **Develop an IPA contact list**	• Several organisations are involved: the Ministry of Forests, the Ministry of Environment and the Universities	• Coordinator to be designated by authority and/or by workshop • IPA team selected by authority or by a workshop process	
KNOWLEDGE • **What information is available** • **Agree criterion A species list, criterion C habitat list, and define approach for criterion B** • **Identify research needs** • **Co-ordinate new surveys** • **Validate IPA selection**	• Lack information on lichens, bryophytes and fungi • Lack of human and material resources to carryout research needs and to collect information • Insufficient coordination with other southern Mediterranean countries • Difficulty in applying criteria A, B and C	• Training and recruitment of botanists for vascular plants, bryophytes, algae, fungi • More research materials for field work and laboratory work • Coordination and adoption of criteria by all approaching as much as possible those utilised around the world	• Help with Southern Mediterranean coordination – will be needed for criteria • And study of geographical distribution of species

SPAIN

TASK	PROBLEMS	SOLUTIONS	
		Action for country	**Action from regional co-ordinator**
ENGAGEMENT • **Government support** • **Convene workshop** • **Identify and secure strategic partners**	• Government motivation • Potential partners do not have knowledge of the IPA project	• Flora societies letter of support • No problem to arrange a workshop • Distribute manual in Spain by email and write articles in magazines –Flora NGOs secretariat and staff are key audience	• UICN, Plantlife, Planta Europa, letters of support
CO-ORDINATION • **Country Co-ordinator** • **Select an IPA team** • **Develop an IPA contact list**	• Financial support for coordinator and IPa team	• Ideal should involve the Ministry of Environment (MMA) • Involve specialists of all groups • Coordinator to develop contact lists	• Support letter helpful to involve MMA
KNOWLEDGE • **What information is available** • **Agree criterion A species list, criterion C habitat list, and define approach for criterion B** • **Identify research needs** • **Co-ordinate new surveys** • **Validate IPA selection**	• Lack of knowledge on cryptogamic groups • (good for vascular plants because of the new Atlas (AFA) and Natura 2000 data)	• Compile cryptogamic database • Identify research needs in relation to cryptogams • Future development and validation no problem – is and IPA team task	•

TUNISIA

TASK	PROBLEMS	SOLUTIONS	
		Action for country	**Action from regional co-ordinator**
ENGAGEMENT • **Government support** • **Convene workshop** • **Identify and secure strategic partners**	• Funding needed for workshop	• Convene national workshop to establish team, assess needs, develop proposals to overcome scientific gaps	• Official letter from IUCN to CBD focal point ask for nomination of national IPA coordination
CO-ORDINATION • **Country Co-ordinator** • **Select an IPA team** • **Develop an IPA contact list**	• Funding for coordinator and team	• National team can be established at workshop	
KNOWLEDGE • **What information is available** • **Agree criterion A species list, criterion C habitat list, and define approach for criterion B** • **Identify research needs** • **Co-ordinate new surveys** • **Validate IPA selection**		• Species status is available. • National team to develop proposals to overcome gaps for e.g. with fungi and bryophytes • Prioritise IPAs according to national and regional (Mediterranean) priorities	