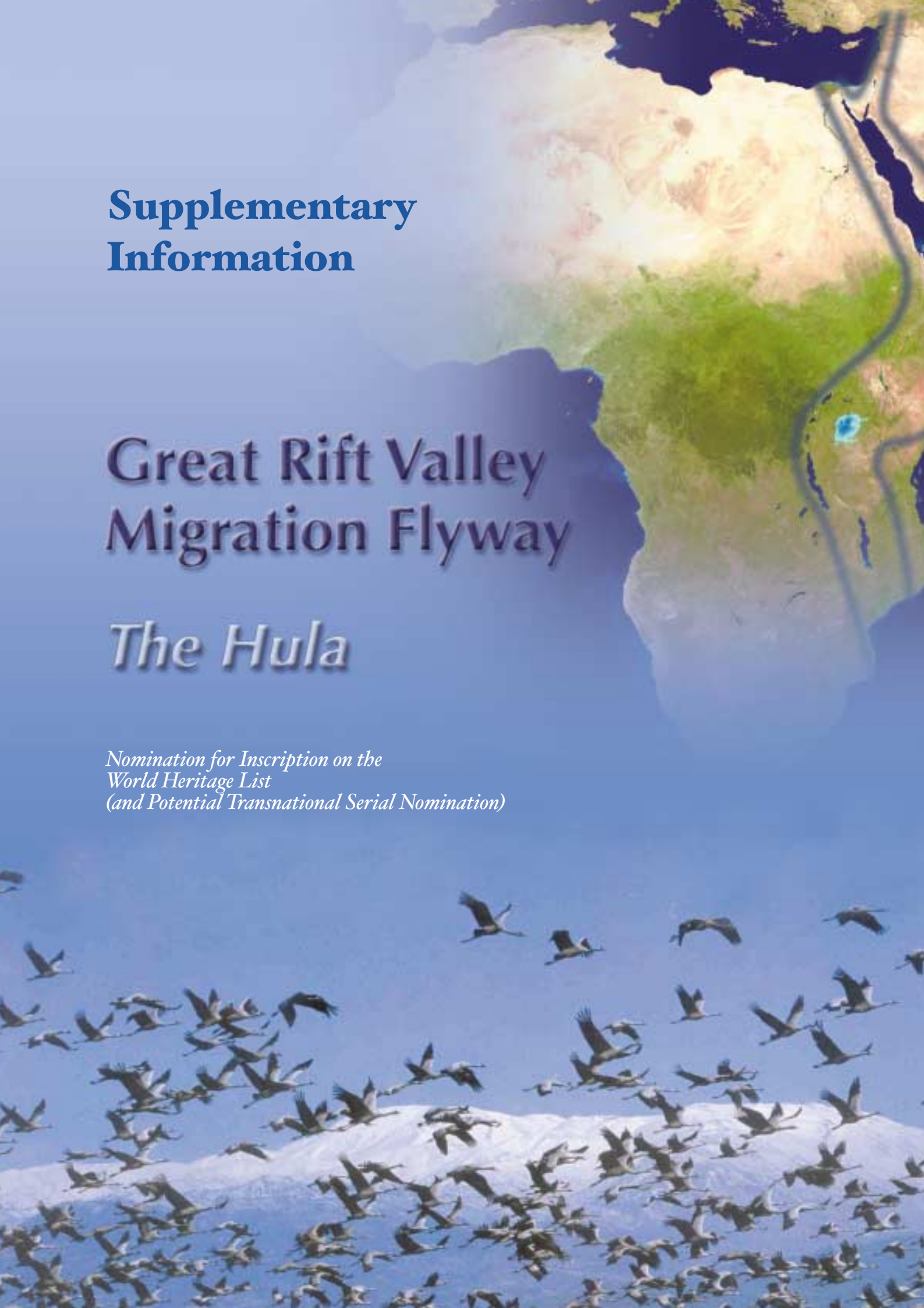
Supplementary Information

Great Rift Valley Migration Flyway

The Hula

Nomination for Inscription on the World Heritage List (and Potential Transnational Serial Nomination)



Great Rift Valley Migration Flyway

The Hula

Nomination for Inscription on the
World Heritage List
(and Potential Transnational Serial Nomination)

Supplementary Information

January 2006

Contents

David Sheppard
Head, Programme on Protected Areas
IUCN
Gland
Switzerland

4 January 2006

Re: **The Great Rift Valley – Migratory Flyway – the Hula**

Dear David,

We appreciate the open dialogue in the IUCN evaluation procedure and the efforts made to ensure that the relevant information for the nomination evaluation is readily available. The Israel World Heritage Committee sees in the World Heritage Convention processes that are essential to the increasing awareness for the conservation of cultural and natural heritage. Indeed, in the Hula Valley, as Dr Hamerlynck evidenced, the move towards eco-tourism is a manifestation of the changes of attitudes of the local communities.

As the preparation of material requested is part of the wider professional and academic research and monitoring activities of the Hula administration, attached is the documentation that addresses the issues that were raised in your letter. While some aspects are still being researched, we hope to have the opportunity of completing a further round by the 31 March 2006 in accordance with the new Operational Guidelines. This material would be added to any further elaborations requested based on questions raised by IUCN to the State Party by the end of January 2006.

The supplementary material includes the printing of the photographs of the site and its environs through the lens of Dr Hamerlynck together with an oblique aerial photograph of the Hula Valley to explain the position of the stop-over area within it. We recognize the ownership rights of the WHC/IUCN to this material and attach the hard copy to allow the IUCN to appreciate the aesthetic values and context of the site within the escarpments of the Great Rift Valley.

The material is presented according to the five points that you have elaborated:

1 Global comparison of migratory corridors and bottlenecks
2 Hula Valley as a wetland stop-over area
3 Criteria for natural phenomena
4 Potential serial nomination
5 Management framework for serial nomination

In addition a CD of the material is enclosed for your convenience.

Thanking you and seasonal greetings for the New Year.
Yours sincerely,

Professor Michael Turner
Chairman, Israel World Heritage Committee

Copies: HE David Kornbluth, Israel Ambassador to UNESCO
Daniel BarElli, Secretary-General, Israel National Commission for UNESCO
Yoav Sagi, IUCN - Israel
Francesco Bandarin, Director, World Heritage Centre

World Headquarters

Rue Mauverney 28

CH-1196 Gland

Switzerland

Tel.: +41|0|22 999 00 00/01
Fax: +41|0|22 999 00 02
E-mail: mail@hq.iucn.org
www: http://iucn.org/

IUCN
The World Conservation Union

H. E. Mr David Kornbluth
Ambassador Extraordinary and
Plenipotentiary,
Permanent Delegate
Embassy of Israel
3, rue Rabelais
75008 PARIS
France

15 December 2005

Your Excellency,

IUCN Evaluation of the Great Rift Valley Migration Flyway, the Hula (Israel) – nominated for inclusion on the World Heritage List

I refer to the IUCN World Heritage evaluation mission to the Great Rift Valley Migration Flyway, the Hula, which took place from 19-28 November 2005 and was conducted by Dr. Olivier Hamerlynck on behalf of IUCN. I understand that the mission went very well and Dr. Hamerlynck greatly appreciated the kind support and cooperation of all who were involved. I take this opportunity therefore to express our thanks to all those who participated in the mission under the excellent coordination of Mr. Michael Turner.

Dr. Hamerlynck has informed us of the discussions that took place during the mission and the key issues that arose, as well as the agreement of the State Party to prepare some supplementary information. In follow up, and based on subsequent discussions with Mr. Michael Turner, we kindly request the State Party to address the following points.

1. The nomination document provides a global comparison of major bird's migration corridors (Table 2.3, page 28). However IUCN considers that this table should be enhanced by assessing not only the annual count of birds but also numbers / diversity of species, with particular attention to threatened and endangered species.

2. IUCN acknowledges that the nomination is proposed mainly on ornithological grounds in the context of the GRV migratory flyway. In this regard IUCN notes that the suggested importance of the Hula goes beyond being an important wetland to its function as a critical stopover area. In this regard it would be appropriate to provide a comparison of the Hula Valley, and the agricultural areas associated to it, with other critical stopover and wintering sites worldwide and in the GRV. In other words, this comparison should not focus on the wetland values of the Hula but on its functional values as a staging post in this flyway.

3. The nomination, in justifying the case for Outstanding Universal Value, proposes applying criterion (iii) to the property. However, the comparative analysis does not sufficiently address the application of this criterion. Therefore, IUCN recommends that a global comparison of the Hula Valley is needed in relation to other properties listed under Criterion (iii), particularly those where concentration of birds have been an important factor (e.g. Pantanal, Brazil). We do recognize, however, that there are other properties that may have greater concentration of birds due to different biogeographical and ecological conditions. Therefore it would be useful to define in the context of assessing criterion (iii) what makes this region (GRV) unique and how the nominated property contributes to such uniqueness.

4. The nomination is proposed as a first property of a potential serial nomination that would include other important bottlenecks and/or stopover and wintering sites for birds along the GRV, covering 22 countries. A preliminary list of 17 Ramsar sites, IBA's and submitted or inscribed WH properties, which could become part of the GRV serial nomination is provided (pages 30-31). However, it would be useful if the State Party can provide updated information on the status of preparation of the nominations of other properties thus giving an indication on the different phases and the timing in which such a serial nomination would be completed.

5. Similarly, under section 5.1.C on justification of the serial approach, it is not clear whether or not an overall management framework exists, or is in the process to be prepared, for all the components of this serial nomination. Therefore IUCN would welcome an update from the State Party on the status of negotiation and implementation of possible mechanisms for the conservation and management of a serial transnational nomination.

In terms of timelines, the IUCN World Heritage Panel is due to meet from the 16-20 January 2006 to examine all the new nominations. It will therefore be helpful to receive any supplementary information by the **12 January 2006**, for experts to review in advance of the meeting. Following the meeting of the IUCN World Heritage Panel, IUCN may get in touch with you again, by the end of January, to clarify any issues raised by the Panel, so that any final additional information could be provided by 31 March, as per the Operational Guidelines. It should be noted, however, that while IUCN will take into consideration supplementary information submitted, it cannot properly evaluate a completely revised nomination submitted at the last minute.

Please note that supplementary information should be sent officially in three copies to the UNESCO World Heritage Centre in order for it to be registered as part of the nomination. An electronic copy to IUCN Headquarters would also be helpful.

Should you have any questions concerning these matters or have difficulty in providing the requested information by January, please do not hesitate to contact Ms. Georgina Peard (Tel: +41 22 999 0158, Fax: +41 22 999 0025, Email: georgina.peard@iucn.org).

Thank you again for your collaboration and support for the implementation of the World Heritage Convention.

Yours sincerely

David Sheppard
Head, Programme on Protected Areas

Cc. Mr. Daniel Bar-Eli, Secretary General, Israel National Commission for UNESCO
Mr. Michael Turner, Chairman, Israel World Heritage Committee
Mr. Tamas Marghescu, Regional Director, IUCN Regional Office for Europe
Mr. Jamie Skinner, Director, IUCN Centre for Mediterranean Cooperation
Mr. Yoav Sagi, IUCN National Committee for Israel
Mechtild Rössler and Alessandro Balsamo, UNESCO WH Centre

Response to IUCN Questions

1. Global Comparison of Migratory Corridors and Bottlenecks

We have enhanced the original comparative table of global soaring bird migration bottlenecks to include the total number of species and globally threatened species according to the IUCN Redlist (2004). The table below clearly shows the outstanding qualities of the GRV and the Hula in terms of bird migration. Only three other sites have more than a million soaring birds (Texas, Panama and Mexico) but with significantly fewer species and fewer threatened species. These sites also belong to a different zoogeographic entity (*Nearctic*) than that of the GRV (*Palearctic*) that are relatively isolated from one another ecologically.

Table 1. Table showing soaring bird migration data for major bottleneck sites worldwide (enhanced from Table 2.3, page 28 of the Nomination).

Route	Country	Annual Count	Number Species	Threatened Species (IUCN)
Nearctic Birds				
Central America	Veracruz, Mexico	3 –5 million	29	1
	Pana ma	2-3 million	15	1
Central North America	US (Texas)	1 million	28	1
	US (Michigan)	200,000	21	1
Palearctic Birds				
Northern Rift Valley	Israel	1 million	47	5
	Suez (Egypt)	500,000	17	2
Central Rift Valley	Djibouti (Africa)	500,000	26	2
Eastern Europe	Bosphorus (Turkey)	300,000	25	3
Western Europe	Strait of Gibraltar (Spain)	300,000	35	6

Sources: Nearctic migration from www.Hawkwatch.org, Palearctic migration: www.birdlife.org, www.osme.org, www.iucn.org, http://ims.wcmc.org.uk, http://www.gonhs.org/StraitofGibraltarBirdObservatory.htm

2. Hula Valley as a Wetland Stop-Over Area

The Hula Property and surrounding Buffer Zone support critical habitat for migrating birds, which is of outstanding universal value. Migratory birds require stopover areas along their migration routes in order to rest and refuel (food and/or water, depending on the species and their physical condition). Wetlands tend to provide most of these functions for a majority of bird species. However, well-managed agricultural areas that are kept wet and green can also provide critical functions to many species of migrants. Furthermore, the Hula property is flanked by predominantly native grassland and woodland mountain ranges that provide additional habitat breadth and diversity.

In order to compare the Hula to other important migratory bird sites around the world one must first understand two important aspects that contribute to the functional uniqueness of the Hula: 1) A wetland within a dry region, and 2) located along a major migration bottleneck (Fig. 1; see also pages 28-29 in the nomination statement).

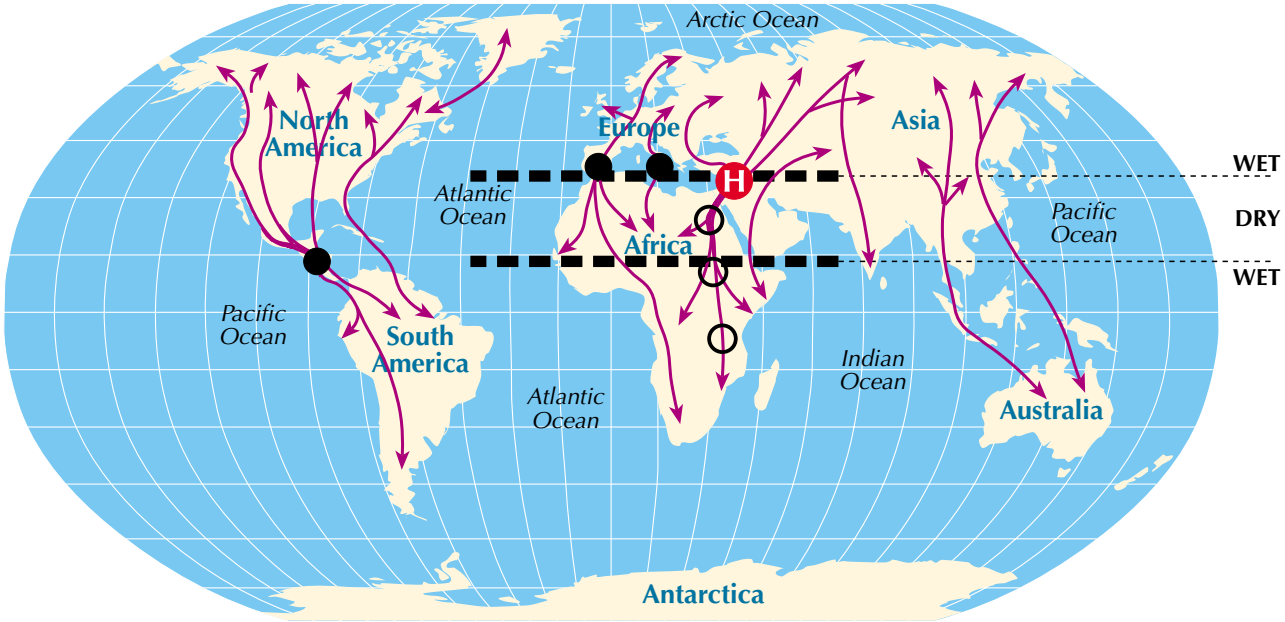


Fig. 1. Major soaring bird migration flyways and bottlenecks throughout the world. The unique geographic placement of the Hula within the arid zone and major migration bottleneck is shown schematically.

- H Hula
- ● Bottleneck
- ○ Great Rift Valley sites

(i) The Hula is an arid-zone wetland (or, a wetland embedded in a arid region). The Ramsar and the CBD conventions, as well as the recently launched "Millennium Ecosystem Assessment" highlighted the rarity and significance of wetlands in drylands, especially with respect to conserving the biodiversity of "Dry and Sub-humid Lands" (a recently promoted CBD program) and with respect to combating global desertification (CCD, the Convention to Combat Desertification). The Hula Valley is within the global belt of semiarid drylands, following UNEP and CCD definitions, hence it is a wetland embedded in drylands.

In global terms, the semiarid belt that traverses Israel is quite narrow, and it serves as a transition belt between the wide arid (desert) regions in the south and east, and the wide humid regions in the north. The Hula is a globally very rare example of a wetland positioned in such a transition belt; the whole transitional terrestrial region is not that unique, but the few wetlands within it are. This transition belt serves as a periphery for the geographical distribution of many species, such that within this semiarid belt most species are represented by their peripheral populations, which are expected to be genetically unique as compared to the populations of these species located at the core of their distribution area, and away from the periphery. Furthermore, several biogeographically distinct biotas meet within this region– Mediterranean, Euro-Siberian, Asian and Ethiopian. Thus, the biological community structure at the Hula is markedly different than in wetlands residing well within each of these bio-geographic regions.

(b) The importance of this unique geographical placement (an arid-zone wetland next to a desert) becomes of outstanding universal value when placed within one of the world's major bird migration bottlenecks. The Hula is a staging and stopover site for migrants prior to their Saharo-Arabian desert crossing in their autumn migration. In this respect it has dual significance. First, it is critical in maintaining the process of trans-desert Palearctic migration that is so important not only for the birds themselves, but for the functioning of European, Asian and African ecosystems of which they are part. Second, in view of global climate change and its potential effect on the trans-Sahara migration process, and the way current evolutionary processes already mould this migration, the careful and climate change-attentive management of the Hula may become a critical factor in the overall future of this migration system. The case of the White Pelicans in the Hula is an excellent example of how management can affect not only species existence, but also the conservation of an endangered

ecological phenomenon and process (see nomination pages 63-64). The relative importance of the Hula is further heightened given the loss of other major wetlands within the region: Lake Amik-Antiochia in southern Turkey, and the El-Azraq Wetlands in Jordan. The impact from the loss of these wetlands on Palearctic bird migration is well documented by S. Ashkenazi (2004; Wetland drainage in the Levant (Lake Hula, Amik Golu, and el-Azraq Oasis): Impact on avian fauna. Chapter XII in: Human Paleoecology in the Levantine Corridor, eds. Doren-Inbar, N. & Speth, J.D., Oxbow Books, Oxford).

Given this background, we feel that global comparisons must focus on important migration stopover sites located within migration bottlenecks and within or adjacent to large dry expanses of desert. As mentioned earlier, these major bottlenecks occur only in Central America and around the Mediterranean. General comparative data of sites and their bird attributes are presented below (Table 2).

Due to geographic differences, the major bottleneck areas of Central America occur along tropical and semitropical forests that afford an abundance of habitats for resting and refueling. Thus, migrating birds are not concentrated within specific areas. The less concentrated migration flyways that cross the arid southwest of North America depend primarily on extensive coastal wetlands along California (Pacific Ocean) and Texas (Gulf of Mexico). The San Bernard National Wildlife Refuge in southern Texas provides important coastal wetlands to migrating Nearctic birds. The Texas coast lies at the edge of the arid grasslands to the north and semi-desert to the west and is therefore similar in location to the Hula. However, fewer species of birds and fewer threatened species use these wetlands compared to the Hula (Table 2).

Table 2. Comparison of wetland sites along migration corridors that are important stopover and wintering sites for migrating birds.

Site	Flyway	Size (Ha)	No. Species	IUCN Species	Site Status	Comments
Hula-Israel	**East Palearctic**	**869 (5,227)**	**351**	**20**	**Ramsar, IBA**	**Freshwater marsh (agricultural buffer zone)**
Lake Barullus, Bardawil-Egypt	East Palearctic	59,000	244	10	Ramsar, IBA	Brackish, coastal wetland
Ammiq Wetland	East Palearctic	280	?	5	IBA	Freshwater wetland
Merja Zerga-Morocco	West Palearctic	7,300	100	3	Ramsar	Brackish water lagoon on Atlantic coast
Ichkeul National Park-Tunisia	Mid Palearctic	12,600	185	3	Ramsar, IBA	Brackish water lake
Göksu delta-Turkey	East Palearctic	14,480	332	9	IBA	Brackish marsh delta
Sabkhat al-Jabbul Nature Reserve - Syria	East Palearctic	10,000	?	4	Ramsar, IBA	Salt marsh
Sudd (Bahr-el-Jebel system)- Sudan	East Palearctic	5,500,000	400	4	IBA	Freshwater marsh
San Bernard National Wildlife Refuge-Texas	West Nearctic	9,900	123	2?		Brackish coastal marsh
Doñana WHS/Guadalquivir marshes	West Palearctic	50,720	365	6	IBA	Freshwater, brackish marsh, forests, riverine.
Pantano de El Hondo (El Hondo wetland) - Spain	West Palearctic	2,387	?	?	Ramsar, IBA	Freshwater reservoirs and wetlands

Within the arid zone of the Palearctic migration routes the main stopover areas tend to be spread out along coastlines and not concentrated at particular "hotspots". The four main stopover sites in terms of overall size and bird use within this more arid zone are Doñanas (Spain), Göksu (Turkey), Lake Barullus (Egypt) and the Sudd (Sudan). Of these only the Sudd marsh is an inland wetland in contrast to the other three coastal deltas. The Sudd swamps of southern Sudan are among the most important and extensive wetlands for birds in Africa and has been proposed by IUCN to be included on the WH list. However, as can be seen above in the table, data on birds and use by migrants is very limited. The other three sites are coastal wetlands and thus fundamentally different than the Hula. They are extremely important to migrating and wintering birds along the western and eastern Palearctic Flyway. Although the Hula is smaller in size it supports a similar diversity of birds and even a larger number of threatened species. This again is due to its geographic placement in combination with varied habitats. In fact, the Hula is quite astounding if one compares bird numbers and species per hectare to any of the other sites listed here. Furthermore, when comparing inland wetlands within these flyways, the Hula is even more outstanding.

3. Criteria for Natural Phenomena

Criterion (iii) is applied to the Hula nomination on the basis of the world-renowned phenomenon of massive, concentrated bird migration. As shown in Table 1 above there are very few areas worldwide where migration bottlenecks occur. The two main areas are in Central America and along the eastern Mediterranean. The highest concentrations for Palearctic birds occur within the Jordan Valley. The aesthetic value of this superlative natural pheromenon for this criterion is found in the combination of viewing large numbers of migrating birds within condensed time and space. The visual impact of observing the passage of tens of thousands of large soaring birds within a few hours is awe-inspiring. The patterns of migration are such that each species have peak days in which 10-50 % of their seasonal total pass in a few days. Thus, one can view from 100,000 to over 200,000 birds during one day's passage when the peak migration days of several species overlap. Peak days have included phenomenal numbers: 45,000 Lesser Spotted Eagles (over 50% of population), 40,000 Levant Sparrowhawks, 102,000 White Storks in 5 hours, and an amazing 242,000 Honey Buzzards on 10-11 September 1982 (75% of total Honey Buzzards counted during the entire season). This phenomenon viewed together with the scenic backdrop of the Naftali Mountain range and Mount Hermon is simply breathtaking.

Comparing the use of criterion (iii) for other WH Sites is difficult in that each site's justification is usually based on several contributing factors. However, for most of the 160 natural WHS the criterion is based on the aesthetics of large expanses of land that appear natural and unaltered by humans. Within many of these areas the abundant wildlife is described as contributing to the aesthetic phenomenon. Bird diversity and abundance are mentioned in support of criteria iii mainly for 23 Natural WHS containing major wetlands such as the Pantanal Conservation Area (Brazil), Doñana National Park (Spain), Everglades (USA), and Danube Delta (Romania and Ukraine). For all of these sites however birds are spread out over time and space, which limits a visitor's ability to view more than a few tens of thousands of birds at any one time.

Few sites state bird concentration as the major aspect of criteria iii. Three major sites that are based on bird concentrations are: Djuodj National Bird Sanctuary (Senegal), Keoladeo (India) and St. Kilda (UK). None of these is based on strictly migrating concentrations but rather breeding and wintering. The Djoudj originally reported up to 1.5 million waterbirds wintering within its 16,000 ha wetlands. Now numbers have dropped drastically and the site is on the WH list for Endangered Sites. Keoladeo wetlands reports high concentrations of breeding waterbirds especially heron rookeries within a relatively small area. Here the comparisons with the Hula are similar as far as species per hectare. Another exceptional breeding site is St. Kilda. Here again the criterion (iii) is based on large concentrations of breeding seabirds (2 million on an 853 ha island). In fact, these are the largest concentrations of breeding Gannets and Fulmars in the world. However, if one were to compare the number of birds that can be viewed within a limited time and space the Hula would be outstanding.

Neither these nor any WH Sites have cited massive bird migration as a major phenomenon mainly because no WH Sites are currently located within a migration bottleneck such as the Hula. A similar such phenomenon is the mass migration of large ungulate mammals of which Serengeti National Park (United Republic of Tanzania) is famous and based its justification of criteria iii. Here again the numbers of animals that can be viewed within a limited time and space would be comparable to birds viewed within the Hula.

4. Potential Serial Nomination

Points 4 and 5 relate to the issues of the proposed serial transnational nomination as indicated in Section IIIC of the Operational Guidelines.

> **139.** Serial nominations, whether from one State Party or multiple States, may be submitted for evaluation over several nomination cycles, provided that the first property nominated is of outstanding universal value in its own right. States Parties planning serial nominations phased over several nomination cycles are encouraged to inform the Committee of their intention in order to ensure better planning.

Whereas Israel is submitting this nomination as a 'stand-alone' site, we recognize that the Migratory Flyway of the Great Rift Valley is of Outstanding Universal Value, and that many other properties might have OUV in their own right. Based on this premise, Israel is nominating the Hula as the first property of a potential serial transnational nomination on the basis of OUV in its own right. Israel is also active in the preparation of the serial nomination in cooperation with other States Parties and the relevant professional bodies including Bird Life International. This will be elaborated in the following paragraphs.

The Experts' Meeting that was held at the Dead Sea in October 2002 recognized the Great Rift Valley as a unique formation of natural and cultural significance. This provided a basis for further action according to the recommendations adopted at this meeting. These recommendations are in the Appendix of the original nomination dossier.

Since then decisions have been taken at the following meetings:

- Vth IUCN World Parks Congress in Durban, South Africa (8–17 September 2003)
- The World Conservation Congress at its 3rd Session in Bangkok, Thailand, (17–25 November 2004);
- UNEP General Assembly meeting, Nairobi, 2005 and
- World Heritage Centre Cultural Landscapes Experts' Meeting, Malawi (November 2005).

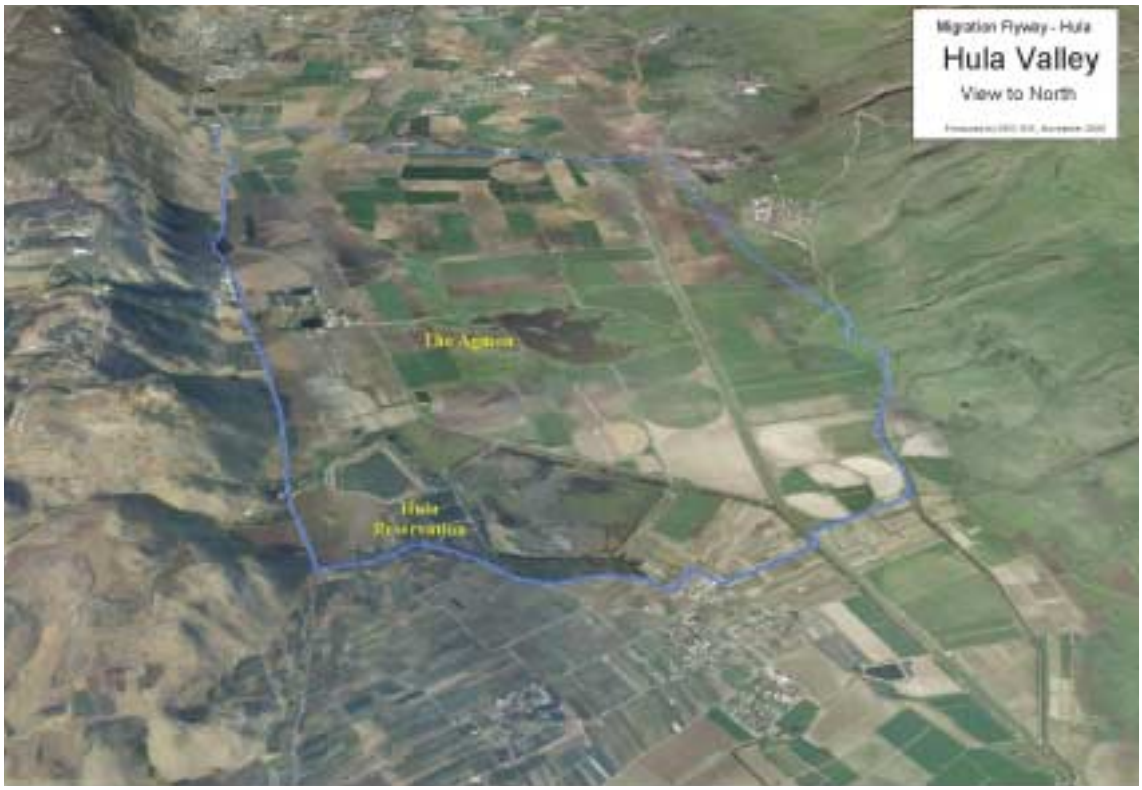
The relevant decisions are provided as an appendix to this document.

Israel is committed to achieving a better representation of sites in the World Heritage List and sees in this nomination the potential for the inscription of other sites from Turkey to Mozambique including many from Africa. To this end a nomination statement is in process of preparation and a draft version is expected to be ready by 31 March 2006 and which can be submitted to IUCN for review. In parallel this draft is to be circulated to each of the relevant States Parties for their consideration. We believe that the African section of the Great Rift Valley from Southern Africa to the Horn of Africa could be submitted in two phases over the next four years.

5. Management Framework for Serial Nomination

Considering the existing institutions, the management of such a nomination could be prepared by Bird Life International, who has agreed to take an active part in this proposal. The African office of BLI would take on a coordinating role as to be outlined in the forthcoming serial nomination statement. Funds might be forthcoming, if this nomination is recognized by the IUCN and the World Heritage Committee and is subsequently inscribed on the World Heritage List, as indicated by the UN Foundation.

Migration Flyway-Hula, Hula Valley and Sea of Galilee



Migration Flyway-Hula, View to North

Pictures of the Proposed Great Rift Valley, Hula World Heritage Site, Northern Israel

21-23 November 2005

Printed with the permission of

the IUCN Evaluator
Dr. Olivier Hamerlynck

Overviews

Mt. Hermon: Taken from the southwestern edge of the Hula Valley looking towards the north-northeast. It shows the spectacular backdrop to the property of snowcapped Mount Hermon and the general openness and 'naturalness' of the wider area of land surrounding the property. The 'Founder's Grove' Eucalyptus stand which demarcates the southern edge of the property is visible at the bottom left of the picture.

Agmon Lake I: taken towards the East from the lookout on the limestone Naftali Mountains to the west of the property. Virtually the entire western flank of the rift is under protection under various designations that guarantee the maintenance of its

'open' or 'natural' area characteristics, national park, forest reserve, etc. with tourist trails and low intensity use (cattle grazing) to reduce fire hazard.

In the forefront are brownish fields that are kept moist as a strategy for soil and water quality conservation. The yellowish fields in front of the lake are grasslands managed for birds. During the mission tens of thousands of cranes would congregate there in the afternoon before flying to their roost in the lake. The main lake with its islands of varying size was artificially created in the subsiding peatsoils that had lost their agricultural productivity. A dust plume generated by the plowing of a field behind the most easterly branch of the Jordan River demonstrates the fragile nature of the peat soils and the need for continued management (irrigation, high groundwater table, vegetation cover year round) that is 'incidentally' favourable to the birds. The eastern edge of the valley is formed by the basaltic foothills of the Golan which are also to remain open area under various levels of protection (most strongly around the Wadis that feed into the Jordan river).

Agmon Lake II: a similar view from the same vantage point as the former one but showing in the foreground the Mediterranean scrub and evergreen oak woodland characteristic of the Naftali range. The rectangular basin in the right hand part of the picture is the reservoir where the drainage water from the peatlands is collected and from there pumped to irrigate orchards in the mountain range. It is used as a deepwater roost by pelicans and gulls.

Connection between Wetlands: a similar view put looking to the southeast shows the agricultural lands between the Lake Agmon (on the left) and the Hula Reserve (on the right). The farmers of this area have recently entered into an agreement with the Hula project to allow ecological enrichment of the non-cultivated 'corners' of the fields and the areas that are becoming waterlogged. Through landscaping, small permanent and temporary wetlands and some woodland plots will be created in these zones. There is a 'constant effort' ringing station in the wooded area on the edge of the reserve, which provides information on songbird population dynamics. In the right hand lower corner one can see the Einan Reservoir and some remaining fish ponds (aquaculture in the area has been phasing out from 1800 ha in the 1970s to about 400 ha currently) between the reserve and the reservoir. Formerly the reservoir, which collected polluted waters from the town of Kiryat Shmona and the fishponds, was used to provide the water to the reserve. Currently, a large proportion of the water supply to the reserve, the quantity of which has also been increased and is now guaranteed by law even in drought situations, comes from the high quality Jordan River. To the left of the reservoir is the corridor that connects the main part of the reserve to the Einan springs.

Hula Reserve I: a similar view looking even more to the south, showing, behind the Einan Reservoir and the fishponds, the entire reserve with the Founders Grove on the far right. The different basins of the reserve have variable water management regimes and grazing pressure by the 3 large herbivores (Water Buffalo, Baladi cattle and Fallow Deer) is also varied. Since the improved water supply and very careful management of summer levels the breeding population of Marbled Teal has jumped up from about 3-5 pairs to 21 successful broods with 140 fledged in 2005.

Landscapes

Jordan River I: The ancient (pre-drainage) meandering riverbed of the Jordan has been restored and it now supplies high quality water in sufficient quantities to the Lake Agmon and the surrounding agricultural land. Through landscaping and planting a high diversity of wetland, grassland and woodland habitats have been created. During the mission dozens of Pygmy Cormorants, Marsh Harriers, Glossy Ibis and Lapwings (and the occasional Sociable Plover) made use of the area.

Jordan River II: In the foreground the flowing river Jordan in its restored bed. The variable width of the flow channel creates environments with different water speeds and at constricted sites 'natural' weirs with rocks have been created, raising groundwater level and offering habitat for Trichopterans and other 'cascading' water fauna. On the right hand side in the middle of the picture the tops of cattails can be seen. These occur in oxbow branches and provide habitat for Crakes, Rails, some of the smaller herons and songbirds.

Main Lake Edge: Lake Agmon is the largest open water body of the property. It is shallow and its edges have very gentle slopes that expose mudflats, favourable for waders, even when water level fluctuations are minimal (on this day there was just a strong easterly wind).

Farmland: In between and around the two wetland reserve areas (Hula and Agmon) there is farmland on the former lake and marsh bottom soils. Most of it is peatland which requires careful maintenance to prevent harmful substances (such as sulfates) to leach out into the Lake Kinneret watershed, the main source of drinking water in the country. The crop residues after the harvest, such as groundnuts, the high abundance of rodents and their predictable appearance at the surface (during irrigation) provide an important food source for (respectively) the migrating and wintering cranes, storks and raptors. It can be expected that in spite of the care some areas will become waterlogged and unproductive and will expand the wetland habitat. This is already the case immediately to the Northeast of the Lake Agmon reserve and in some of the fields between the two reserves. The steep Naftali range on the western edge of the property is visible in the background.

Hula Reserve Marsh: View towards the southern edge of the Hula Reserve with a nice gradient from very shallow open water with waders and herons to the grasslands grazed by Water Buffalo (and used by cranes and eagles). During the mission two Jungle Cats *Felis chaus* were observed in the area. In the background first the maturing woodland along the canal and water supply creeks favoured during the day by the reintroduced White-tailed Eagles and secondly the Eucalyptus stand of the 'Founder's Grove' where the White-tailed Eagles have built nests but not raised successful broods yet. During the mission numerous raptors and about a hundred Black Storks came to roost in the Grove.

Hula Reserve Reedbeds: Image from the central hide in the public area of the reserve looking east towards the Golan. The southern edge of the main lake of the reserve is visible on the left. During the mission the vast reedbeds were used for roosting by dozens of harriers (mainly Marsh and Hen Harrier). The occasional tree attracted dozens of Merlins whose sunset hunting (and play) is quite a spectacle.

Hula Reserve Papyrus: Image of the papyrus belt between the reedbeds of the former picture and the open water, taken from the wooden walkway that winds trough the public area of the reserve. It evokes the feeling of the pre-drainage swamp.

Cranes – Hula Reserve: Huge flocks of cranes are continuously moving between various parts of the property and provide a continuous visual and sound spectacle. Here a (small fragment of a) flock over the Hula reserve.

Founder's Grove: the picture is slightly blurred but shows the unexpected richness of the undergrowth in the Eucalyptus stand of the Founder's Grove (usually soils under Eucalyptus are barren). Possibly this has to do with the age of the stand (established in the 1890s) and also explains its importance for roosting and breeding birds (and mammals such as bats).

Cranes

Cranes – Agmon Woodland: At sunset the cranes from the entire valley congregate in the grasslands around the Lake Agmon. In the picture a group on the main island in the lake where the (planted) woodland is already quite mature.

Cranes – Agmon Grassland: From the crane hide on the western side of Lake Agmon (tens of) thousands of cranes can be seen.

Mobile Hide: A local farmer who initially provided the corn for the wintering cranes and found that his tractor was largely ignored by the birds thought up a mobile hide. After some initial experiments with smaller and closed versions, he developed this large 'open' version, which seats about 50 (a typical busload of tourists). Towards sunset he takes them on a very close encounter of the cranes in the grasslands and subsequently stops on the edge of the Lake Agmon where (tens of) thousands of pelicans and (tens of) thousands of cranes come to roost, flying in very close to the hide. Impressive.

Cranes – Lake Agmon Field: Close-up of a very small proportion of the cranes around Lake Agmon looking south towards the northern edge of the Hula Reserve.

Other Species

Greater Spotted Eagle: With a wintering population of 60-80 individuals of Greater Spotted Eagle, out of an estimated world population of about 1000 breeding pairs (and declining), the GRV, Hula, is definitely a critical habitat for this endangered species. Moreover, detailed ecological and population studies, including age structure and satellite tracking are being conducted in the area. These are likely to yield, over the next 4-5 years, vital information on the movements, staging posts, breeding grounds and population dynamics of this species (as well as on the much rarer Imperial Eagle of which about 20-30 individuals winter in the Hula).

Fallow Deer: This species *Dama mesopotamica* (or subspecies), photographed in riparian woodland of the eastern section of the Hula Reserve, used to occur from Tunisia to the Red Sea and from Syria to Iran but was thought to be extinct by the 1950s. A small population was then found on the Karkeh River close to the border between Iran and Irak, later to become a battlefield. It was introduced in the Hula reserve and seems to thrive.

Appendix:

Recent decisions by relevant organizations refering
to the Great Rift Valley Trans-national Serial Nomination

Vth IUCN World Parks Congress in Durban, South Africa

8–17 September 2003

WPC Recommendation V.4: Building Comprehensive and Effective Protected Area Systems

Therefore, PARTICIPANTS in the Workshop Stream on Building Comprehensive Protected Area Systems at the Vth IUCN World Parks Congress in Durban, South Africa (817 September 2003):

> 11. CALL on parties to the World Heritage Convention to encourage the nomination of global physiographic, natural and cultural phenomena as large-scale multi-state, serial World Heritage Routes to serve as frameworks for local and transboundary World Heritage sites and protected areas;

WPC Recommendation V.21: The World Heritage Convention

6. CALL on the World Heritage Committee, the States Parties, the UNESCO World Heritage Centre, IUCN (and the other Advisory Bodies, the International Council on Monuments and Sites and the International Centre for the Study of the Preservation and Restoration of Cultural Property, as appropriate) to:

   e. PROMOTE the identification, nomination and protection of World Heritage serial and transboundary sites and large biological corridors, Biosphere Reserves or other bioregional scale initiatives to include World Heritage areas;

8. CALL on UNESCO, secretariats of other multilateral environmental agreements and IUCN, to seek further international, regional and national synergies and integration between the work of the World Heritage Convention and other regional and international conventions dealing with terrestrial and marine biodiversity and protected areas, in particular the Convention on Biological Diversity, the UN Framework Convention on Climate Change and the Ramsar Convention on Wetlands. Possibilities for joint work programmes to benefit World Heritage conservation should be explored.

The World Conservation Congress at its 3rd Session in Bangkok, Thailand

17–25 November 2004

Nomination of large-scale multi-state serial World Heritage Routes

RECALLING Recommendation V.4 Building Comprehensive and Effective Protected Area Systems noted by the Vth IUCN World Parks Congress (Durban, 2003), which calls on States Parties to the UNESCO World Heritage Convention "to encourage the nomination of global physiographic, natural and cultural phenomena as large-scale multi-state serial World Heritage Routes to serve as frameworks for local and transboundary World Heritage sites and protected areas";

RECOGNIZING the significance of large-scale physiographic phenomena (also referred to as 'mega phenomena'), which occur throughout the world, for the world's biodiversity and natural and cultural heritage;

FURTHER RECOGNIZING the contribution of such phenomena to the holistic approach of conservation, essential for maintaining the interconnection between natural and cultural resources;

UNDERLINING the value of these phenomena for the formation of transboundary protected areas and corridors, which are of extreme importance for biodiversity conservation;

EMPHASIZING specifically the global significance of these phenomena as potential multi-state serial World Heritage Routes such as the Great Rift Valley and the Gran Ruta Inca as mega phenomena which encompass many valuable resources;

SERIOUSLY CONCERNED by the loss of precious habitats and sites along these routes which threaten the very interconnection between the routes' phenomena; and

NOTING that the adoption of this motion by IUCN members does not compromise the IUCN Secretariat's advisory role to provide independent technical evaluation of nominated sites for World Heritage listing;

The World Conservation Congress at its 3rd Session in Bangkok, Thailand, 17–25 November 2004:

1. RECOGNIZES Recommendation V.4 noted by the Vth IUCN World Parks Congress, which calls on States Parties to the UNESCO World Heritage Convention "to encourage the nomination of global physiographic, natural and cultural phenomena as large-scale multi-state serial World Heritage Routes to serve as frameworks for local and trans-boundary World Heritage sites and protected areas";

2. INVITES the Committee of the UNESCO World Heritage Convention to:
   (a) encourage the concept of large-scale multi-state serial World Heritage nominations as one means for implementing the World Heritage Convention;
   (b) consider examining specifically the concept of selected large-scale multi-state serial World Heritage nominations, as part of the emerging global strategy, by providing support for regional experts' meetings to be held in order to consider, and if appropriate develop and promote, the implementation of initiatives such as those for the Great Rift Valley and Gran Ruta Inca; and
   (c) consider providing international assistance to relevant State Parties so that they may prepare tentative lists of sites that may merit inscription in the World Heritage list and their subsequent nomination;

3. CALLS UPON the States Parties to promote the identification and establishment of protected areas along these Routes and to nominate those that have potential for World Heritage listing; and

4. CALLS UPON IUCN, national and international non-governmental organizations and foundations to play a full part in regional expert meetings, and to provide support for the development of tentative lists and for promoting coordinated management of the protected areas, identified during such regional expert meetings, that have potential for World Heritage listing.

The Department of State, United States, provided the following statement for the record: State and agency members United States abstained during the vote on this motion.

UNEP
General Assembly Meeting, Nairobi, Kenya

February 2005

Representations worldwide including 45 government ministers officially opted to support efforts to nominate the Great Rift Valley Migration Flyway Transnational Serial Nomination. A special event was organized with UNEP Director Klaus Topfer and muscician Paul Winter played part of his Flyways composition.

International and Regional Workshop on the World Heritage Convention and the Conservation of African Cultural Landscapes, Malawi

November 2005

Dr. Gorge H. O. Abungu, Kenya

After deliberations on the Great Rift Valley the participants recognized and appreciated the international aspect of it, and also note earlier efforts in recognizing this phenomenon; the participants therefore recommend that the issue of cooperation leading to nomination be reconsidered.

UNEP

United Nations Environment Programme

برنامج الامم المتحدة للبيئة

PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT · PROGRAMA DE LAS NACIONES UNIDAS PARA EL MEDIO AMBIENTE

Our Ref: Kenya/ROA/**(OED 1192-05)/ST-do** 8 July 2005

Dear Ms. Brachya,

I refer to your letter to the Kenya Minister for Environment and Natural Resources, Hon. Stephen Kalonzo Musyoka which was copied to me, regarding the need to promote the recognition of the value of the Great Rift Valley.

I share your thoughts on promoting the Great Rift Valley as a way of bringing communities together through the recognition of its values especially in the context of the environment and sustainable development. As you are aware, the Great Rift Valley is a unique and important geological feature that has a wide variety of ecosystems that need to be conserved and showcased. I am pleased to note that efforts are being made towards achieving this vision and convey UNEP's full support towards these efforts.

I have, therefore, requested Mr. Nehemiah Rotich, Senior Programme Officer, UNEP's Regional Office for Africa, to initiate consultations with your office on UNEP's participation and the way forward as regards this initiative. He can be reached on telephone number 254-20-624630 / 624285 or e-mail: Nghemiah.Rotich@unep.org

Yours sincerely,

Klaus Töpfer
Executive Director

Ms. Valerie Brachya
Senior Deputy Director General
Ministry of the Environment
5 Kanfei Nesharim
P.O Box 34033
Jerusalem 95464
State of Israel

Fax: 972 2 655 3853

OFFICE OF THE EXECUTIVE DIRECTOR
P.O. Box 30552, Nairobi, Kenya • Tel: [254 20] 623416 / 623652 / 623386
• Fax: [254 20] 624275
E-mail: Agnes.Abaya@unep.org