

BRIM BULLETIN

Biosphere Reserve Integrated Monitoring

May 1998

NEW DEVELOPMENTS

MABFauna/MABFlora Now available in Windows 95

The Information Center for the Environment at the University of California, Davis, which hosts the MABFauna database, has recently completed the conversion of the MABFauna software programs to Windows 95. This versions will now be distributed to all interested parties and will replace the earlier DOS versions.

Persons and institutions interested in utilizing the new Windows 95 version should contact the BRIM Secretariat at US. MAB. Soon this new version can be downloaded from our MAB website (<http://www.mabnet.org>) or from the Information Center for the Environment (<http://ice.ucdavis.edu>).

The Quickstart manuals for the Windows 95 versions of MABFauna, 10 pages each, can now be downloaded from <http://www.mabnet.org>.

We are working to make these available in several languages. Initial efforts are concentrating on translations in Spanish, French, and Russian. As funding permits, and demand grows, we will work with country MAB programs to add additional language versions.

MABFlora Now Available for Four Regions

US and Canada, Europe, Russia and East Africa.

The East African Herbarium/National Museums of Kenya have graciously agreed to allow BRIM to incorporate the List of East African Plants (LEAP), a database listing over 13,000 species of vascular plants, into the MABFlora software. Thus, a user friendly software program for the biological inventory of East African vascular plants will exist for the first time.

MABFish? Please Be Patient

As those who have entered fauna data into MABFauna know, the master fish list in the earlier DOS versions were minimal and incomplete. Current efforts are underway to obtain a complete and universal master fish checklist. As soon as it is obtained and verified, it will be incorporated into future versions of MABFauna.

A Question of Attribution and Referencing

Currently the computer programmers are working to ensure that in future editions, all inquiries to the MABFauna On-Line Query Systems which request species inventories for particular sites, will also display the reference(s) for those species lists. Although this information is available on copies of the MABFauna program, it is not currently provided on the On-Line Query System over the Internet.

We will strive to make this attribution and referencing more accessible in the near future. Perhaps we will even be able to coordinate with UNESCO and have this listed on

the individual home pages for each biosphere reserve and have an inter-linkage between the MAB On-Line Query System and the UNESCO home pages for each biosphere reserve.

MABFlora Database To Be Posted Soon

We anticipate that the MAB species inventory database at the University of California Davis will soon start to post available species lists of vascular plants at biosphere reserves and other protected areas. As noted above, flora lists can only be posted for sites in North America, Europe, Russia and those for which the List of East African Plants is an appropriate master list for standardization purposes. If any of our readers are aware of efforts to electronically produce master species check lists of tropical vascular plants, please contact the BRIM secretariat at the address on the letterhead. We recognize that in the rapidly developing world of discovery of tropical vascular plants, that any such list will be immediately out of date when it is produced. However, the urgency of the tropical conservation situation and the utility of at least starting such a database demands serious action as soon as possible.

Biosphere Reserves and Other Protected Areas

Not all of the participating protected areas listed in the MABFauna Database system are UNESCO recognized biosphere reserves. BRIM/MABFauna/Flora is a MAB initiative and biosphere reserves form an integral part of the MAB program worldwide. The 370+ biosphere reserve sites worldwide are a representative sample of the world's ecological regions. However, they are only a small sample of the >10,000 protected areas. Some biogeographic areas and ecosystems, such as those in central Europe are most adequately represented by biosphere reserves. However, there are also vast terrestrial areas of the globe, such as the northern realms in Canada and Russia as well as the tropics in Brazil and Southern Africa, that are not (yet?) represent-

ed by biosphere reserves. Nevertheless these other areas should, and must, be included in BRIM to enable the MABFauna Species Database to be more useful for macro regional and global analysis.

Neither U.S. MAB nor our colleagues in EuroMAB which initiated the BRIM concept, have the resources to maintain a global database of 10,000 sites across all vertebrate taxa and vascular flora plus ten metadata descriptors for each species. We will, however, within the limitations of our resources and capacities, include species information and metadata of non-biosphere reserves sites. Regional coordinators who assist sites to adopt the MABFauna/MABFlora programs will continue to give first priority to assisting biosphere reserves. We hope that one way biosphere reserves within each country can serve as models for other nationally protected areas is to assist other parks, etc. to adopt and utilize MABFauna/Flora.

Roger E. Soles
Executive Director, U.S. MAB

The Brim Bulletin is issued by the U.S. MAB Program Secretariat in its role as BRIM Secretariat on behalf of the Biosphere Reserve Integrated Monitoring (BRIM) Project.

BRIM seeks to improve biodiversity inventory and monitoring through the promotion of standardized information management systems.

More information about BRIM can be found at <http://www.mabnet.org>. The MAB On-Line Data Query System of the species inventories collected to date can be viewed at <http://ice.ucdavis.edu/mab>

The purpose of this newsletter is to keep the MAB family and others interested in preserving the biological diversity of the planet up to date on the progress of BRIM.

BRIM Secretariat
U.S. MAB Program
United States Department of State
OES/ETC/MAB
Washington, D.C. 20522-4401
Tel: 202-776-8318; Fax: 202-776-8367
E-Mail: usmab@state.gov WWW:
<http://www.mabnet.org>

EUROMAB

BRIM Regional Data Coordinator:

Andrea Wuest

Tel: [1] (202) 776-8314

E-mail: BRIMEUROM@AOL.COM

GERMANY: 10 von 13

Biosphaerenreservaten sind dabei

The dedication to international cooperation of biosphere reserve managers and scientists in Germany is evident as ten of the 13 biosphere reserves have already sent in fauna data to be entered into the MABFauna Species Database On-Line Query System. Andrea Wuest, BRIM Data Coordinator for Europe reports that she has received excellent cooperation from the many managers and scientists associated with Germany's biosphere reserves. All ten biosphere reserves have completed their bird and mammal inventories and seven of the German Biosphere Reserves have entered inventories in all five vertebrate taxa. The BRIM Secretariat is currently working with seven of these sites to include and enter the metadata components on the species inventories as well.

Russia

Россия: 90% сведений внесено в базы данных «MABFauna» биосферных заповедников к западу от Урала.

Now 90% of the biosphere reserves west of the Ural Mountains in Russia have completed the MABFauna inventories and metadata standards for all of the vertebrate taxa (except fish) through assistance from the Civilian Research and Development Foundation (CRDF), U.S. MAB and Russia MAB. A workshop will be held in Moscow in May for managers and scientists from the participating biosphere reserves to introduce the new Windows version of MABFlora which contains a species checklist for vascular plants which was made available to the BRIM project by Dr. Dmitry V. Geltman of the Komarov Botanical Institute of the Russian Academy of Sciences.

U.S. MAB and Russia MAB have secured partial funding for and expansion of the project to the biosphere reserve sites East of the Urals. Russian MAB is currently seeking essential complementary funding. Because of the immense land distances/ biogeographic diversities involved, the new Windows 95 version of MABFlora as well as MABFauna will also contain space for entry of species information for all of the 80+ zapovednics throughout Russia —of which 20 have been recognized as biosphere reserves by UNESCO.

Canada — E-MAN, the Niagara Escarpment + others

BRIM Country Coordinator:

Antoinette Condo

Tel: [1] (202) 776-8316

E-mail: ACONDO@STATE.GOV

Ms. Antoinette Condo, BRIM coordinator for Canada participated in the Fourth National Science Meeting of The Ecological Monitoring and Assessment Network (EMAN) in Quebec January 22, 1998. There she held a technical training workshop for more than 15 participants to learn the MABFauna and MABFlora programs.

Since that time several Canadian sites have added information to the MABFauna database. The BRIM Secretariat has just received both flora and fauna inventories for both the Waterton Lakes and the Niagara Escarpment Biosphere Reserves. The Niagara Escarpment covers 115 individual sites along essentially a north-south transect covering 725 kilometers in Ontario. Ms. Condo is also working with a number of non-biosphere reserves sites in central and northern Canada to further extend the geographic coverage (and utility) of the MABFauna On-Line Query System.

USA

BRIM Data Coordinators:

James Quinn/Robert Meese
Tel: [1] (530) 752-1768
E-mail: JFQUINN@UCDAVIS.EDU
RJMEESE@UCDAVIS.EDU

As shown on the MABFauna On-Line Query System, 18 of the 22 U.S. National Parks which have biosphere reserve status have provided their fauna species inventories. The University of California, Davis, is coordinating the gathering and standardization of this information.

During the remainder of 1998 and into 1999 the UC-Davis personnel intend to work with appropriate personnel of the USDA Forest Service to enter the fauna and flora data from their 16 U.S. Biosphere Reserves. So far the Hubbard Brook, Coram and Beaver Creek National Experimental Forests have entered their data.

AfriNet

BRIM Regional Coordinator:

Karl Stromayer
Tel: [1] (202) 776-8315
E-mail: BRIMAFRIM@AOL.COM

Kenya 5 of 5 Participate

Mr. Joseph Mburugu, Government Liaison Officer for the Kenya Wildlife Service has been of major assistance to The BRIM Project. In November Dr. Stromayer and Mburugu worked with staff of the KWS and National Museums of Kenya (NMK) emphasizing the training of staff at both institutions in the use of the MABFauna software. Vertebrate species lists were assembled for all five Kenyan Biosphere Reserves, and considerable progress was made getting plant species lists, as well. This task was greatly facilitated by NMK staff, including Dr. Rashid Aman, Dr. Ernest Obunga, Damaris Rotich, Pious Namachanja Barasa, Dr. Issa Aggundey, and Benny Bytebier.

In March, Dr. Stromayer returned to Kenya and assisted NMK and KWS staff in the installation and use of the new Windows 95 versions of MABFlora for East Africa, and MABFauna. Mburugu and Stromayer also met with David Western, Director of KWS, and discuss BRIM and the ongoing country-wide biological inventory of Kenya.

Tanzania 4th BRAFF Symposium

Arusha was the site of the 4th Biosphere Reserves in Anglophone Africa (BRAAF) symposium, and Karl Stromayer presented a briefing on the BRIM program as well as a thorough demonstration of the MABFlora/Fauna software programs. BRAAF delegates from Ghana, Kenya, Nigeria, Tanzania, and Uganda, and observers from South Africa participated in the meeting.

U.S. MAB thanks Thomas Schaaf at UNESCO and Frederick C. N. Rugiga of the National Environment Management Council (Tanzania) for inviting BRIM to participate in the meeting. At Tanzania National Parks, BRAAF participants Alfred P. Kikoti and William S. Mwakilema were identified as contacts for the updating and completion of species inventories from the Serengeti, and Lake Manyara Biosphere Reserves, Tanzania, respectively.

Cote D'Ivoire

At the invitation of Mr. Duhy of the Project Autonome pour la Conservation du Parc National de Taï (PACPNT), Dr. Stromayer conducted a 2-day MABFauna workshop at San Pedro, the PACPNT headquarters. New information for mammals, reptiles, and amphibians were completed during a 2-day MABFauna workshop in which 5 participants were trained in the use of the software. In Abidjan, the MAB team met with Mr. Kouame Amani Denis, Director of the Ministry of Nature Protection in Cote D'Ivoire, who graciously provided species lists for the Comoe Biosphere Reserve.

Benin

At the invitation of MAB Benin and accompanied by Dr. Bonaventure Guedegbe, Dr. Stromayer traveled from Cotonou to the Reserve de la Pendjari on a fact finding mission. A 1 1/2 day MABFauna workshop was held in Cotonou, attended by 10 participants from such varied ministries/programs as the Direction des Forêts et Ressources Naturelles, Agence Béninoise pour l'Environnement, and the Programme for Integrated Development of Artisanal Fisheries in West Africa. New information concerning mammal and bird species and accompanying metadata was added to the Benin records.

Sudan

Dr. Salwaa Mansour Abdel Hameed of the Wildlife Research Center (P.O. Box 16, Elmourada, Omdurman) has provided bird, mammal, and plant species lists for the Dinder and Radon Biosphere Reserves.

Uganda

The Lake Victoria Biosphere Reserve Staff of the Uganda Wildlife Authority have provided comprehensive lists of 400 bird species and 50 mammals from the reserve.

MABNetAmericas

BRIM Regional Coordinator:
Elizabeth Martín
Tel: [1] (202) 776-8327
E-Mail:BRIMMNAMER@AOL.COM

Argentina and Chile

Ms. Martin has been invited to provide training on MABFauna at The University of Buenos Aires, Pozuelos and Mar Chiquito Biosphere Reserves in Argentina, and Torres del Paine and Laguna San Rafael Biosphere Reserves in Chile. She will be traveling in the region in May and June.

Guatemala

In March 1998 Ms. Martin attended a National Workshop on Biodiversity Information sponsored by the Regional Information Center of the Commission Centroamericana de Ambiente y Desarrollo (CCAD) in Guatemala. She also visited the Sierra de las Minas Biosphere Reserve to demonstrate MABFauna. Currently the MABFauna Species Database system lists the bird species of the Maya Biosphere Reserve.

México 5 Más Participan

Alto Golfo de California, El Vizcaino, La Michilia, Mapimi and Sian Ka'an Biosphere Reserves recently placed species information in the MABFauna inventory system. The MABNetAmericas Coordinator, Ms. Elizabeth Martin held technical training workshops at these biosphere reserve sites during the month of March. All of these sites submitted complete bird, mammal and reptile species list which are now available on the MABFauna On-Line Query System. Seven (7) of the eleven (11) biosphere reserves in Mexico are participating in the MABNetAmericas BRIM program. Ms. Martin will be attending a tri-national (Mexico, Belize and Guatemala) conference of biosphere reserve managers and scientists in San Cristobal de las Casas in June.

ASIA

BRIM Regional Coordinator:
John Sheerin
Tel: [1] (202) 776-8511
E-mail: JSHEERIN@STATE.GOV

Thailand

Complete species inventories for all five vertebrate taxa have been entered for Sakaerat and Mae Sa-Kog Ma Biosphere Reserves in Thailand. The Sakaerat Environmental Research Station, a mountainous monsoon forest in East-Central Thailand, is rich in vertebrate species. An extensive bib-

liography is represented within the Sakaerat metadata references. While Sakaerat is closed to tourists, it lies adjacent to Thailand's most spectacular and popular national park, Khaw Yai. The mountainous monsoon forest of Mae Sa-Kog Ma Reserve in northern Thailand is not only rich in vertebrate species, but is host to several ethnic groups. Parts of the reserve closer to the city of Chiang Mai attract both international tourists and local residents.

Philippines

Similarly the Palawan Biosphere Reserve in the Philippines has also entered its information for all the vertebrate taxa. Both of these countries were assisted by Dr. John Sheerin of the U.S. MAB/BRIM secretariat, who specializes, among his other duties, in assisting Asian biosphere reserves adopt the MABFauna/Flora programs to their specific reserves.

MABFauna: By the Numbers

Number of Countries: 75
 Number of Participating Sites: 270
 Number of Species Inventories: 780
 Number of Unique Bird Species registered at sites: 4,875
 Number of Unique Mammal Species registered at sites: 1,203
 Number of Unique Amphibian Species registered at sites: 174
 Number of Users ("Hits") per Month: > 3,000

RECOMMENDED READING:

"A Strategy for Measuring Landscape Biodiversity" by Dr. Gonzalo Halffter, (Chairman, MAB Mexico) in Biology International, February 1998, No. 36

"Survival Test for Kenya's Wildlife," Michael McRae, Science, vol. 280, 510-512, 24 April 1998

Partial Listing: Biosphere Reserves + Other Protected Areas Participating in BRIM as of May 1998

ALGERIA
Parc National du Tassili

ARGENTINA
Reserva de la Biosfera de Pozuelos

AUSTRALIA
Bookmark Biosphere Reserve
Fitzgerald River National Park
Uluru (Ayers Rock-Mount Olga) National Park

BELARUS
Berezinskiy Zapovednik

BENIN
Reserve de la Biosphere de la Pendjari

BOLIVIA
Estacion Biologica Beni 6

BULGARIA
Parc National Steneto

BURKINA FASO
Foret Classee de la Mare aux hippopotames

CAMEROON
Parc National de Waza
Parc National de la Benoué
Reserve Forestiere et de Faune du Dja

CANADA
Algonquin (Ont.) Provincial Park
Banff National Park
Forillon National Park
Glacier National Park
Grasslands National Park
Gros Mome National Park
Jasper National Park
Kootenay National Park
Long Point Biosphere Reserve
Mount Revelstoke National Park
Niagara Escarpment Biosphere Reserve
Polar Bear (Ont.) Provincial Park
Rondeau (Ont.) Provincial Park
Waterton Lakes Biosphere Reserve
Yoho National Park

CENTRAL AFRICAN REPUBLIC
Bamingui-Bangoran Conservation Area
Basse-Lobaye Forest

CHILE
Parque Nacional Laguna San Rafael
Parque Nacional Torres del Paine
Reserva Nacional Lauca

CHINA
Boghdad Mountain Biosphere Reserve

Changbai Mountain Nature Reserve

COSTA RICA

Cordillera Volcánica Central
Corcovada National Park

COTE D'IVOIRE

Parc National de Tai
Parc National de la Comoé

CZECH REPUBLIC

Krivoklatsko Protected Landscape Area
Krkonoše
Palava Protected Landscape Area
Sumava Biosphere Reserve
Trebson Basin Protected Landscape Area
Krkonoše/Karkonosze

DENMARK

North-east Greenland National Park

ECUADOR

Reserva de la Biosfera de Yasuni

FRANCE

Guadeloupe Archipelago
Reserve National de Camargue Biosphere Reserve
Reserve de la Biosphere d'Iroise
Reserve de la Biosphere des Vosges du Nord

GERMANY

Berchtesgaden Alps
Middle Elbe
Oberlausitzer Heide-und Teichlandschaft
Rhön
Schorfheide-Chorin
Spreewald
Vessertal-Thüringen Forest
Waddensea of Hamburg
Waddensea of Lower Saxony
Waddensea of Schleswig-Holstein

GHANA

Bia National Park

GUATEMALA

Maya

GUINEA

Reserve de la Biosphere des Mont Nimba

HUNGARY

Aggtelek
Hortobágy National Park
Kiskunság Biosphere Reserve

INDIA

Sunderbans Tiger Reserve
Kanha Tiger Reserve

INDONESIA

Komodo Proposed National Park
Lore Lindu Proposed National Park
Tanjung Puting Proposed National Park

IRELAND

Killamey National Park
North Bull Island

ITALY

Collemeluccio-Montedimezzo
Foret Domaniale du Circeo
Miramare

KENYA

Amboseli National Park
Kiunga Marine National Reserve
Malindi-Watamu
Mount Kenya
Mount Kulal

MALI

Parc National de la Boucle du Baoulé

MEXICO

Alto Golfo de California y Delta del Rio Colorado
Montes Azules
Reserva de Mapimi
Reserva de la Biosfera "El Cielo"
Reserva de la Biosfera "El Vizcaino"
Reserva de la Biosfera de Sian Ka'an
Reserva de la Michilia

NIGERIA

Omo Biosphere Reserve

PAKISTAN

Lal Suhanra National Park

PANAMA

Barro Colorado Island

PERU

Reserva del Manu
Reserva del Noroeste

PHILIPPINES

Palawan

POLAND

Babia Gora National Park
Bialowieza National Park
Eastern Beskid
Karkonosze
Lukajno Lake Reserve
Slowinski National Park
Tatra Mountains

PORTUGAL

Paul do Boquilobo

ROMANIA

Danube Delta

RUSSIA

Astrakhanskiy
Chernye Zemli
Commodore Islands
Lake Baikal: Barguzinskiy
Laplandskiy
Oka River Valley: Okskiy
Oka River Valley: Prioksko-Terrasny
Pechoro-Ilychskiy
Sikhote-Alinskiy

Tsentral'no-Chernozemny
Tsentral'no-Lesnoy
Voronezhskiy

SUDAN
Dinder National Park
Radon National Park

SENEGAL
Delta du Saloum
Foret Classee de Samba Dia

SLOVAK REPUBLIC
Polana
Slovensky Kras Protected Landscape Area
Tatry

SPAIN
Reserva de Grazalema
Reserva de Ordesa-Viñamala
Reserva de la Biosfera Sierra Nevada
Reserva de la Biosfera de Doñana
Reserva de la Biosfera de Urdaibai

SWEDEN
Lake Torne Area

TANZANIA
Lake Manyara National Park
Serengeti-Ngorongoro

THAILAND
Mae Sa-Kog Ma Reserve
Sakaerat Environmental Research Station

TURKMENISTAN
Repetek Biosphere Reserve

UGANDA
Queen Elizabeth (Rwenzori) National Park

UKRAINE
Carpathian

UNITED KINGDOM
Beinn Eighe
Braunton Burrows
Caerlawaerock
Cairnsmore of Fleet
Dyfi National
Isle of Rhum
Moor House-Upper Teesdale

North Norfolk Coast
St. Kilda
Taynish

UNITED STATES OF AMERICA
Aleutian Islands
Beaver Creek
Big Bend
Big Thicket
California Coast Ranges
Carolinian-South Atlantic
Central Plains
Champlain-Adirondack
Channel Islands
Channel Islands National Marine Sanctuary
Channel Islands National Park
Coram National Forest
Death Valley National Park
Denali
Everglades
Glacier
Golden Gate
Golden Gate National Recreation Area
Hawaiian Islands
Hubbard Brook National Forest
Isle Royale
USA (Continued)
Joshua Tree National Park
Konza Prairie
Land Between The Lakes
Landels-Hill Big Creek Reserve
Mammoth Cave Area Cooperative
Mojave and Colorado Deserts
Mount Tamalpais State Park
Noatak National Preserve
Olympic
Organ Pipe Cactus
Point Reyes National Seashore
Redwood National Park
Rocky Mountain
Samuel P. Taylor State Park
San Francisco Peninsular Watershed
San Joaquin
Sequoia and Kings Canyon
South Atlantic Coastal Plain
Southern Appalachian
Tomales Bay State Park
Yellowstone

URUGUAY
Bañados del Este

Department of State, U.S.A.
Washington, DC 20522-4401

Official Business
Penalty for Private Use, \$300

Place Label Here