



BULLETIN

SEPTEMBER 1983

Volume 6, Number 1

U. S. MAB MOVES:

On the basis of a Memorandum of Understanding signed by James L. Malone, Assistant Secretary of State, Bureau of Oceans and International Environmental and Scientific Affairs (OES) and Gregory J. Newell, Assistant Secretary of State, Bureau of International Organization Affairs (IO), the Secretariat of the U.S. MAB Program was transferred to the OES Bureau effective July 1, 1983. Under the terms of the memorandum, OES will provide a part-time Executive Director, secretarial assistance and office space for the Secretariat staff. IO will provide support for the MAB Conference Officer for a period of one year. Dr. Roger E. Soles, who recently joined the OES Bureau as the Food and Agriculture Advisor, has been named Executive Director.

The transfer of MAB to OES was triggered by a cut within the IO Bureau's budget for UNESCO support. This placed in jeopardy the continuation of the U.S. MAB Program which the OES Bureau views as meeting United States principal criteria for international science programs--cost effectiveness, contribution to important U.S. goals and significant private sector involvement. An even broader base of support for MAB, from all entities, can help insure the successful continuation of the MAB Program.

Brooke C. Holmes of the IO Bureau, who served most effectively as Acting Executive Director during the past year, has been assigned as the U.S. Consul General in Ottawa, Canada. We all wish Brooke well in his new assignment and greatly appreciate his able leadership in guiding the MAB Secretariat through a difficult period.

Dr. Brian R. Payne of the U.S. Forest Service continues as the part-time Program Coordinator and will handle future Research Consortia and special projects. Phylis N. Rubin also continues with us in her position of Conference Officer, and publications and administrative staffer on a 4-day per week basis.

Although the actual move to the State Department building has not yet taken place, the official mailing address will now be:

U.S. Man and the Biosphere Program
OES/ENR/MAB - Room 4535
Department of State
Washington, D.C. 20520

The current staff and telephone numbers are:

Roger E. Soles	(202) 632-2786/632-6527
Brian R. Payne	" 632-7571/447-5748
Phylis N. Rubin	" 632-2816/632-7573

PAUL BAKER APPOINTED CHAIRMAN, U.S. NATIONAL COMMITTEE FOR MAB;

Dr. Paul T. Baker, Professor and Head, Department of Anthropology, The Pennsylvania State University, has been appointed Chairman of the U.S. National Committee for the Man and the Biosphere Program.

Dr. Baker received his B.A. from the University of New Mexico, and his Ph.D. from Harvard University. He is a former Fulbright lecturer (Brazil), and research scholar (Peru). He is a Member, National Institute of Health Behavioral Science Fellows' Reviewing Committee; NATO Senior Science Fellow, Oxford University, and Member, U.S. Executive Committee, International Biological Program. He has been a Member of the International Council of Scientific Unions, and consultant for UNESCO and for the National Institute of Child Health and Human Development, and has received honors and awards in Social Science. He is a member of the American Association for the Advancement of Science and the American Association of Physical Anthropologists.

Dr. Baker was appointed Chairman of the U.S. National Committee for MAB by Dr. James B. Holderman, Chairman of the U.S. National Commission for UNESCO. Dr. Baker, a member of the Commission, is a founding father of the U.S. MAB Program and has served as Directorate Chairman of the MAB-12 project, Demographic Changes, and is currently a member of that Directorate.

COMMENTS BY THE CHAIRMAN:

As many of you know, I was asked in February, 1983, to take over the role as Chairman of the U.S. Man and the Biosphere Program. I accepted the nomination with some hesitation because at the time there was a real danger that funding for the functioning of the Secretariat would terminate on September 30 of this year. Fortunately this danger has been avoided by moving the Secretariat to the OES Bureau of the State Department. The officials of the U.S. National Commission for UNESCO, the IO Bureau and OES were all quite helpful in making this transition possible. In particular the former U.S. MAB Acting Executive Director, Brooke Holmes, and Bill Long of OES, are to be thanked for their efforts.

In April I had the opportunity to meet with the Directorate Chairmen and discuss future directions for U.S. MAB. This meeting was in conjunction with the Congressional hearing on U.S. MAB chaired by Congressman Buddy MacKay (D-Florida). We welcomed the opportunity to testify and I believe that the witnesses provided a highly accurate synopsis of both our accomplishments and problems. Congressman MacKay later indicated to me that he, like many of us, believes that U.S. MAB is filling an important role in regard to the problems of human interaction with the environment and would make every effort to help the program obtain the federal funds it needs to produce a well-balanced program. As a private citizen I shall certainly continue to urge an expanded congressional support for the program and hope that those of you with similar belief in the need for an expanded U.S. MAB program will also seek such support.

As a final item let me note that the MAB committee structure is being reorganized. We hope in this way to be able to broaden the base of support and advice. As a first step an executive committee has been formed, a list of the members is noted below. As indicated on the list, we welcome a new Executive Director who along with the executive committee met with me in May.

After a hesitant beginning I now feel optimistic about the future of our MAB efforts and urge you to let me know of any way you feel I can improve the program during my tenure as Chairman.

U.S. National Committee for MAB

Paul T. Baker, Chairman

Dr. Edward A. Fernald
Chairman, MAB-5a (Fresh Water Resources)
Florida State University

Dr. Michael A. Little
Department of Anthropology
State University of New York

Mr. William S. Beller
Chairman, MAB-7b (Island Ecosystems)
U.S. Environmental Protection Agency
Dr. William P. Gregg
Co-Chairman, MAB-8, (Biosphere Reserves)
National Park Service

(List continued)

U.S. National Committee for MAB (Continued)

Mr. Bill Long
Director, Office of Food and
Natural Resources
Department of State

Dr. Samuel McKee
National Academy of Sciences

Dr. Otto Solbrig
Director, Gray Arboretum
Harvard University

Ex-Officio Members:

Dr. Roger E. Soles
Executive Director
U.S. MAB Program

Dr. Brian Payne
MAB Program Coordinator (Forest
Service)
U.S. MAB Program

THREE NEW RESERVES ACCEPTED BY MAB:

Three new nominations for World Biosphere Reserves in the United States have been accepted by the Man and the Biosphere Bureau, UNESCO, Paris, according to Bill Gregg, Co-chairman of MAB-8 (Biosphere Reserves), Washington, D.C.

The new Reserves followed the multiple site approach, whereby ecologically and functionally complementary sites are included within a biosphere reserve which bears the name of a biogeographic region. The sites and their components are:

California Coast Ranges Biosphere Reserve (Oregonian Biogeographic Province) comprised of Redwoods National Park, three California state parks (Jedediah Smith Redwoods, Del Norte Coast Redwoods, and Prairie Creek Redwoods), the U.S. Forest Service Redwood Experimental Forest and Western Slopes of Cone Peak. The Nature Conservancy's Northern California Coast Range Preserve, the Bureau of Land Management Northern California Coast Range Preserve Research Natural Area, and the University of California's Landels-Hill Big Creek Preserve

South Atlantic Coastal Plain Biosphere Reserve (Eastern Forest Biogeographic Province), comprised of Pinelands National Reserve in the New Jersey Pine Barrens and the Congaree Swamp National Monument; and

Central Gulf Coastal Plain Biosphere Reserve (Austro-riparian Biogeographic Province), consisting of the Lower Apalachicola River Basin in Florida.

CONGRESSIONAL HEARING ON MAB:

On April 5, 1983, the Subcommittee on Natural Resources, Agriculture Research and Environment of the House Committee on Science and Technology convened an oversight hearing on the U.S. MAB Program. Originally scheduled for December, 1982, as a briefing to accompany the MAB Exhibit on display in the rotunda of the Cannon House Office Building, the hearing was chaired by Congressman Buddy MacKay (D-Florida) and heard 9 witnesses. In announcing the hearing, subcommittee chairman James H. Scheuer (D-N.Y.) had asked whether the elimination of the U.S. MAB Program in the administration's FY 1984 budget request was justified.

Lead witness J. Dan Phillips, Director of the Office of Communication and UNESCO Affairs in the State Department, described efforts to relocate the MAB Secretariat within the State Department, and he characterized the loss of funds as an unintentional result of the elimination of funds for the Secretariat of the U.S. National Commission for UNESCO. Congressman MacKay asked whether MAB wasn't a little bit like the piano player: the unintended victim of a stray bullet.

Paul Baker, newly appointed chairman of the U.S. MAB National Committee, described his efforts to evaluate the program and to chart possible new directions for the future, particularly including stronger links with the U.S. scientific community. MacKay asked to be kept informed of progress.

Congressional Hearing on MAB (Continued)

Other speakers representing the MAB Program included:

Dr. Edward A. Fernald
Florida State University
Chairman, MAB-5a, Fresh Water
Resources

Mr. William S. Beller
U.S. Environmental Protection Agency
Chairman, MAB-7b, Caribbean Island
Ecosystems

Dr. F. Bryan Clark
USDA Forest Service
Former Co-chairman, MAB-8, Biosphere
Reserves

Dr. William P. Gregg
National Park Service
Co-chairman, MAB-8, Biosphere
Reserves

Dr. C. Bruce Wiersma
Idaho National Engineering Laboratory
Chairman, MAB-14, Pollution

Other witnesses included Bruce Rich of the Natural Resources Defense Council and Barbara Bramble of the National Wildlife Federation. They praised MAB as a cost-effective program, addressing urgent international environmental and natural resources problems and one which deserved far greater financial support from the U.S. government.

Questions and comments from Congressman MacKay throughout the hearing indicated his understanding of the problems and opportunities facing MAB and his willingness to help. Subsequent discussions with the subcommittee staff have dealt with appropriate sources, amounts, and uses of program funds for MAB. Although there are no possibilities for appropriated funds in FY 1984, discussions will continue for fiscal year 1985.

The printed record of the hearing is expected to be available by the end of this summer. Instructions for ordering copies will be included in the next issue of the MAB Bulletin.

ECOLOGY IN ACTION - MAB POSTER EXHIBIT:

Many of you have heard about the 36-poster MAB exhibit first shown in Paris in September-October 1981 in conjunction with the International Scientific Conference 'Ecology in Practice' and the seventh session of the International Coordinating Council of the MAB Program which marked ten years of the Man and the Biosphere Program. Some of you have seen the exhibit at a number of conferences and meetings around the country where the Secretariat's set has been utilized. The reception to these showings has been very enthusiastic.

The colorful, visually appealing and scientifically informative posters are organized into five main themes: 10 posters on research for land use planning; 7 posters on the tropical forest; 7 posters on marginal lands; 7 posters on urban ecosystems; and 5 posters on conservation. The project was undertaken jointly by the MAB Paris Secretariat and a Paris-based communications firm, Etudes et planification des communications, to take stock and evaluate what has been accomplished by the MAB Program's first ten years, 1971-1981, and in addition to its debut at the above mentioned ICC meeting, it was also shown, in French language version, in a larger exhibit, The World in Your Hands, at the city Hall of Paris and visitors were asked to evaluate the posters. From the results of the evaluations, improvements and modifications have been made in the texts and a final printing of 1,000 copies (in three languages---English, French and Spanish) is underway.

The Secretariat has on order two sets of the 36-poster series as well as one set "on the road". If you would be interested in displaying the entire set, or one or two themes as outlined above, we will try to accommodate your requests once the additional sets have arrived. Meanwhile, we can provide brochures which describe the poster series to help you decide if you want to consider using them for your meetings, etc. Send your requests and questions to address on first page of the Bulletin.

U.S. MAB PROJECTS/ACTIVITIES:

The following examples of recently supported MAB activities are included for your information:

MAB-1	For preparation of a Peace Corps/MAB manual on reforestation in Latin America, in the Spanish language; the manual is in final draft stage at this time.	\$ 3,000
	For Second Meeting of Caribbean Foresters which includes preparation of a comprehensive watershed management program for the foresters, tentatively set for the island of St. Vincent	10,000
	For three comprehensive review papers on "Management of Secondary Forests Growing on Degraded Lands," "Indigenous Models of Tropical Agriculture and Forest Management," and "Review of the Literature Concerning Dry and Seasonal Tropical Forests"	6,000
MAB-2	For administrative expenses in connection with MAB-2 Directorate meeting late-1983, and toward publication of proceedings of MAB-2 Symposium, "Management of Outlying Forests for Metropolitan Populations," held in Milwaukee this summer.	3,500
MAB-5a	For preparation of a water atlas model which would include sections on: information organization; design features; cartographics; expertise areas; relationships, processes; budget considerations; audience considerations	6,000
MAB-7b	For planning and design of a workshop and conference on "Small Islands Development: Opportunities and Constraints," and a Caribbean Workshop on Pollution from Land-Based Sources.	10,000
MAB-8	For administrative costs to convene several multidisciplinary panels for the selection of biosphere reserves in individual biogeographic provinces or subregions. Candidate areas include the Lake Forest (new province in Udvardy's 1983 revision) and Californian biogeographic provinces.	5,000
	For administrative expenses in connection with U.S. participation in the First International Biosphere Reserve Congress, Minsk, U.S.S.R.	6,900
	For portion of food and lodging expenses of four Soviet environmental specialists conducting biological and pollutant monitoring in Sequoia and Isle Royale National Parks Biosphere Reserves and at Douglas Lake, Michigan. This work carried out under auspices of Project 02.05-41 (Biosphere Reserves) of the US/USSR Environmental Agreement	1,680
MAB-8 & MAB-14	For U.S. prototype for global environmental monitoring program--planning and design of the monitoring program for a U.S. Biosphere Reserve as the initial site for inclusion in the GEMS-WMO-MAB network.	3,500
MAB-13	For publication of Perception of Environment Newsletter by the University of Arizona	1,000
MAB-14	For administrative costs and preparation of book chapter on trace metals in the atmosphere of biosphere reserves (Advances in Environmental Sciences by John Wiley and Sons)	2,200

FIRST INTERNATIONAL BIOSPHERE RESERVE CONGRESS:

A multidisciplinary U.S. delegation of 18 scientists and resource managers will travel to Minsk, U.S.S.R. for the First International Biosphere Reserve Congress sponsored by UNESCO and the United Nations Environmental Program, scheduled from September 26 to October 2, 1983. The U.S. delegation includes three MAB Directorate Chairmen, as well as two other MAB Directorate members. The conference will bring together resource authorities to develop an action plan for the growing network of biosphere reserves, which now contains 226 protected units located in 62 of the 101 nations participating in the Man and the Biosphere Program. The Congress will present a unique opportunity for expanding international understanding of the biosphere reserve concept, and for developing the multiple roles of biosphere reserves as centers for research, demonstration, training, and environmental education. It should also increase the impact of biosphere reserves as sites for international cooperation to solve significant environmental and resource management problems of common interest.

VIRGIN ISLANDS BIOSPHERE RESERVE MAB PROJECTS:

In collaboration with the National Park Service, the U.S. MAB Program is coordinating a multidisciplinary international research project to provide the scientific basis for protecting and managing marine ecosystems within, and in the vicinity of, the Virgin Islands Biosphere Reserve (dedicated on May 12, 1983). The project will involve scientists from agencies and institutions in the region, including the National Park Service, the Virgin Islands Division of Fish and Wildlife, the College of the Virgin Islands (CVI), the West Indies Laboratory, Island Resources Foundation, the Caribbean Fishery Management Council and the Eastern Caribbean Natural Area Management Program. Overall coordination will be provided by the CVI on behalf of the Virgin Islands Resource Management Cooperative which was established in 1982 to bring together government agencies and research institutions for developing the perspective needed to address environmental and resource problems facing its reserve and its region. A total of \$190,000 has been transferred to MAB by the National Park Service for carrying out the project. Upon conclusion of the studies, regional workshops will be held to discuss the findings in the context of the resource problems and priorities of the Lesser Antillean region, and pursue opportunities for cooperative initiatives for the protection and sustainable development of marine ecosystems.

MAB MEETINGS - HIGHLIGHTS:

Dr. Edward Fernald, Chairman, MAB-5a (Fresh Water Resources), will present a paper entitled "State of the Art in Land Use Strategies in Flood Plains and Wetlands" at the UNESCO/MAB-5 workshop on Land Use Impacts on Aquatic Systems, in Budapest, Hungary, mid-October 1983.

Dr. Jack D. Johnson, former Chairman of MAB-4 (Arid and Semi-Arid Ecosystems), is Chairman of an International Arid Lands Conference to be held in Tucson, Arizona in October, 1985. The conference will mark the centennial of the University of Arizona and the 25th anniversary of UNESCO's Arid Lands Major Project, and will be co-supported by UNESCO/MAB, Paris.

Upcoming MAB Directorate meetings:

MAB-7b (Island Ecosystems - Caribbean) will meet in Santurce, Puerto Rico at the office of the Environmental Quality Board on October 26, 1983.

MAB-11 (Urban Ecosystems) will meet in Philadelphia in late October/early November, 1983 to work out next phase of its project on Ecological Approaches to Urban Development Issues.

MAB-4 (Arid & Semi-Arid Ecosystems) will meet in January, 1984 in Tucson, and MAB-2 (Temperate Forests) is scheduling a meeting for its group in late September, 1983.

MAB PUBLICATIONS INFORMATION:

- Last call for surplus publications - MAB will soon move to smaller quarters in the State Department and will lose space to store large quantities of publications. We encourage you to order what you need now while supplies are still available. Use check list below. Please send a self-addressed mailing sticker with your order. (Items listed below are free.)

- Guidelines for the Selection of Biosphere Reserves, An Interim Report and Key.
- Understanding Marine Ecosystems in the Gulf of Mexico.
- Interim Guidelines for Identification and Selection of Coastal Biosphere Reserves.
- Pollution Assessment: A Training Manual.
- Diarrheal Disease Correlated with Season, Age and Sex of Patient, Hospital Behrhorst, Chimaltenango, Guatemala.
- Fire and Fuel Management in Mediterranean-climate Ecosystems: Research Priorities and Programmes.
- The Man and the Biosphere Program in Grazing Lands.
- MAB 13 - Perception of Environmental Quality - Purpose and Program.
- Social Sciences, Interdisciplinary Research and the U.S. Man and the Biosphere Program
- Effects of Air Pollutants on Mediterranean and Temperate Forest Ecosystems.
- IUFRO/MAB Conference: Research on Multiple Use of Forest Resources.
- Biological and Sociological Basis for a Rational Use of Forest Resources for Energy and Organics.
- Conference on Environmental Management and Economic Growth in the Smaller Caribbean Islands.
- Selection, Management and Utilization of Biosphere Reserves.
- U.S. Strategy Conference on Tropical Deforestation.
- U.S. Strategy Conference on Biological Diversity.
- U.S. Strategy Conference on Pesticide Management.
- Ecology in Action: An Exhibit.
- MAB 8 Communication Plan.
- Man and the Biosphere Program (International).
- Man and the Biosphere - The United States Program.
- Man and his Environment.
- No Deposit--No Return. Man and his Environment: A View toward Survival.
- The Biosphere Reserve Program in the United States.
- The Biosphere Reserve and its Relationship to other Protected Areas.
- Mountain Research and Development.
- Land Use Impacts on Lake and Reservoir Ecosystems.

MAB PUBLICATIONS INFORMATION (Continued)

- MAB Library - MAB maintains a library of reference books, pamphlets, etc. for loan. You are invited to drop in, browse and borrow volumes which interest you. We do not have a list of library contents.
- Slide/tapes - The following slide/tapes are available (deposit required):
 - Beaver Creek/La Michilia Biosphere Reserves:
 - Man and the Humid Tropics: 74 color slides; 23 minute cassette and booklet containing script and instructions
 - Grazing Lands & Man: 23 color slides; 3:00 minute cassette (short version)
 - Grazing Lands & Man: 49 color slides; 8:30 minute cassette (longer version)
 - Biosphere Reserves: 49 color slides
 - Biosphere Reserves: 80 color slides
- AID/MAB Environmental Profiles - Although no longer available from the MAB Secretariat, environmental profiles (approximately 50 from Bangladesh and Belize to Zambia and Zimbabwe) can be obtained, at cost, from:

The Arid Lands Information Center
University of Arizona
845 N. Park
Tucson, Arizona 84719

- Publications for Sale - Great Smoky Mountains Biosphere Reserve: A Bibliography of Scientific Studies. U.S. MAB Report No. 4. NTIS Accession No. PB82-226192. Paper copy \$9.00; microfiche \$4.00 and, Great Smoky Mountains Biosphere Reserve: History of Scientific Study. U.S. MAB Report No. 5. NTIS Accession No. PB82-226200. Paper copy \$22.50; microfiche \$4.00.

When referring requests to the National Technical Information Service (NTIS), please make all checks payable to NTIS and include the accession number with the request(s) and mail to: U.S. Department of Commerce, National Technical Information Service, Springfield, Virginia 22161.

- A limited number of the following more recent publications are available at no cost from the Secretariat on a first-come, first-served basis:

Forestry in the Caribbean, U.S. MAB Report No. 7. Proceedings of the First Workshop of Caribbean Foresters held in Castries, Saint Lucia, May 24-28, 1982.

Caribbean Island Resource Management. An annotated Bibliography. U.S. MAB Miscellaneous Publication No. 2.

Range Improvements--Today and Tomorrow. Presentations at a symposium sponsored by the Grazing Land Committee of the U.S. MAB Program at the Thirty-Sixth Annual Meeting of the Society for Range Management, Albuquerque, New Mexico, February 15, 1983.

Backgrounder: the MAB Programme (UNESCO)

Communicating Information on the Environment: Between Emotions and Hard Data. A special report by Francesco di Castri, Malcolm Hadley and Jeanne Damlamian, The Man and the Biosphere Program (MAB) UNESCO

Vol. 32, No. 3 of IMPACT of Science on Society: Climate - Chemistry and Physics of the Atmosphere

List of National Committees, MAB (UNESCO)

MAB after 10 Years. Ecology in practice: Insights from the Programme on Man and the Biosphere (MAB) (UNESCO)

Directory of Scientists Participating in MAB Research (UNESCO)

MAB Information System. MAB Field Projects (Phase II) (UNESCO)

MAB PUBLICATIONS INFORMATION (Continued)

Copies of the following MAB report series (often referred to as the "green books") can still be obtained from the Secretariat; however, we do not have a large supply of many of them--especially the earliest issues--so they will be mailed out, at no cost, on a first-come, first-served basis. Please do not request entire sets, only those issues of interest to you.

1. *International Co-ordinating Council of the Programme on Man and the Biosphere. First session. Paris, 9-19 November, 1971.*
2. *Expert panel on the role of systems analysis and modelling approaches in the Programme on Man and the Biosphere (MAB). Paris, 18-20 April, 1972.*
4. *Expert panel on Project 12: Interactions between environmental transformations and genetic and demographic changes. Paris, 23-25 May, 1972.*
5. *Expert panel on Project 5: Ecological effects of human activities on the value and resources of lakes, marshes, rivers, deltas, estuaries and coastal zones. London, 19-22 September, 1972.*
7. *Expert panel on educational activities under the Man and the Biosphere Programme (MAB). Paris, 5-8 December, 1972.*
8. *Expert panel on Project 6: Impact of human activities on mountain ecosystems. Salzburg, 29 January-4 February, 1973.*
9. *Expert panel on Project 13: Perception of environmental quality. Paris, 26-29 March, 1973.*
11. *Expert panel on Project 7: Ecology and rational use of island ecosystems. Paris, 26-28 June, 1973.*
12. *Expert panel on Project 3: Conservation of natural areas and of the genetic material they contain. Morges, 25-27 September, 1973.*
14. *Working group on Project 6: Impact of human activities on mountain and tundra ecosystems. Lillehammer, 20-23 November, 1973.*
15. *Consultative group on Project 9: Ecological assessment of pest management and fertilizer use on terrestrial and aquatic ecosystems (Part on fertilizers). Rome, 7-9 January, 1974.*
17. *Task force on the contribution of the social sciences to the MAB Programme. Paris, 28 February-2 March, 1974.*
18. *Regional meeting on integrated ecological research and training needs in the Sahelian region. Niamey, 9-15 March, 1974.*
19. *Expert panel on Project 2: Ecological effects of different land use and management practices on temperate and mediterranean forest landscapes. Paris, 16-19 April, 1974.*
21. *International working group on Project 5: Ecological effects of human activities on the value and resources of lakes, marshes, rivers, deltas, estuaries and coastal zones. Paris, 13-17 May, 1974.*
22. *Task force on criteria and guidelines for the choice and establishment of biosphere reserves. Paris, 20-24 May, 1974.*
23. *Regional meeting on integrated ecological research and training needs in the Andean region. La Paz, 10-15 June, 1974.*
24. *Expert consultations on Project 9: Ecological assessment of pest management and fertilizer use on terrestrial and aquatic ecosystems (Part on pesticides).*
27. *International Co-ordinating Council of the Programme on Man and the Biosphere. Third session. Washington, D.C., 17-23 September, 1974.*
28. *Regional meeting on integrated ecological research and training needs in Latin America, with emphasis on tropical and subtropical forest ecosystems. Mexico City, 30 September-5 October, 1974.*
30. *Regional meeting on the establishment of co-operative programmes of interdisciplinary ecological research, training and rangeland management for arid and semi-arid zones of Northern Africa. Sfax, 3-12 April, 1975.*
32. *Task force on Project 14: Research on environmental pollution and its effects on the biosphere. Ottawa, 5-8 August, 1975.*
33. *Regional meeting on integrated ecological research and training needs in the humid tropics of West and Central Africa. Kinshasa, 29 August-5 September, 1975.*
34. *Regional meeting on integrated ecological research and training needs in the southern Asian mountain systems, particularly the Hindu Kush-Himalayas. Kathmandu, 26 September-2 October, 1975.*
35. *Regional meeting on integrated ecological research and training needs in tropical deciduous and semi-deciduous forest ecosystems of South Asia. Varanasi, 5-11 October, 1975.*
36. *Regional meeting on integrated ecological research and conservation activities in the northern Mediterranean countries. Potenza, 27-31 October, 1975.*
37. *Expert consultations on Project 10: Effects on man and his environment of major engineering works.*
38. *International Co-ordinating Council of the Programme on Man and the Biosphere. Fourth session. Paris, 18-26 November, 1975.*
39. *Regional planning meeting of the MAB National Committees of Andean countries, with particular attention to Project 6. Lima, 2-5 December, 1975.*
40. *Regional meeting on integrated ecological research and training needs in North East Africa and in the Near and Middle East, with emphasis on the ecological effects of irrigation derived from large river basins. Alexandria, 24-27 February, 1976.*
41. *Regional meeting on integrated ecological research in temperate zones of the northern hemisphere, in the framework of Project 2. Brno, 24-29 April, 1976.*
42. *Planning meeting for Project 11, with emphasis on industrialized settlements. Amsterdam, 8-12 June, 1976.*
43. *MAB Mediterranean Scientific Conference. Regional meeting for MAB National Committees of countries bordering the Mediterranean Sea. Montpellier, 26 September-2 October, 1976.*
44. *International workshop on tropical rainforest ecosystems. Hamburg-Reinbek, 12-17 May, 1977.*
45. *Workshop on biosphere reserves in the Mediterranean region: development of a conceptual basis and a plan for the establishment of a regional network. Side, 6-11 June, 1977.*
46. *International Co-ordinating Council of the Programme on Man and the Biosphere. Fifth session. Vienna, 24 October-1 November, 1977.*
47. *Expert consultations on Project 7: Ecology and rational use of island ecosystems. Khabarovsk, 24 August 1979.*
48. *International Co-ordinating Council of the Programme on Man and the Biosphere. Sixth session. Paris, 19-23 November, 1979.*

MAB PUBLICATIONS INFORMATION (Continued)

- Additional copies of the following two publications have been made available to the MAB Secretariat and are available at no cost:

MAN AND THE BIOSPHERE, U.S. Information Synthesis Project, MAB-8
Biosphere Reserves (a nicely illustrated synthesis of the first 27 U.S. Biosphere Reserve areas) by Paul Risser and Kathy Cornelison

- Proceedings of the US/USSR symposium, Successional Research and Environmental Pollution Monitoring Associated with Biosphere Reserves, Everglades

The following publication is still available, at a cost of \$30.00 (U.S.):

Deer Biology, Habitat Requirements, and Management in Western North America, P.F. Ffolliott and S. Gallina (editors), 238 pages, 1981

Send order and check or postal money order to the Instituto de Ecología, A.C., Att: Patricia Reidl, Apartado Postal 18-845, Delegación Miguel Hidalgo, 11800 México D.F.

LIST OF U.S. MAB
DIRECTORATE CHAIRMEN

As of: July 1, 1983

MAB-1 (Tropical Forests)

Dr. Ariel Lugo, Director
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Río Piedras, Puerto Rico 00928
(809) 763-3939

MAB-2 (Temperate Forests)

Dr. Peter F. Ffolliott
School of Renewable Natural Resources
University of Arizona
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(602) 621-7276

MAB-3 (Grazing Lands)

Dr. A. J. Dye
TA/OICD, Room 104 Plaza West
U.S. Department of Agriculture
1735 N. Lynn Street
Arlington, Virginia 22209
(703) 235-2283

MAB-4 (Arid & Semi-Arid Ecosystems)

Dr. Henry Caulfield
Dept. of Political Science
Colorado State University
Fort Collins, Colorado 80523
(303) 491-6806 (Lv.Msgs. on X5156)

MAB-5a (Fresh Water Resources)

Dr. Edward A. Fernald
Institute of Science & Public
Affairs
Resource Analysis Center
The Florida State University
Tallahassee, Florida 32306
(904) 644-2008

MAB-5b (Coastal Zone Resources)
INACTIVE DIRECTORATE

MAB-6a (Mountains and Tundra)
INACTIVE DIRECTORATE

MAB-6b (Arctic)

Dr. Charles N. Slaughter
Principal Watershed Scientist &
Affiliate Professor of Water
Resources
Institute of Northern Forestry
U.S. Dept. of Agriculture
Fairbanks, Alaska 99701
(907) 474-7443

MAB-7a (Island Ecosystems - Pacific)
INACTIVE DIRECTORATE

MAB-7b (Island Ecosystems - Caribbean)

Mr. William S. Beller, Chief
Ocean Programs Branch WH-548
U.S. Environmental Protection Agency
Washington, D.C. 20460
(202) 245-3154

MAB-8 (Biosphere Reserves/Conservation
of Natural Areas & of the Genetic
Material they Contain)

Dr. William P. Gregg (Co-Chairman)
Office of Science and Technology
U.S. Dept. of the Interior
National Park Service (484)
Washington, D.C. 20240
(202) 343-8115

Dr. Stanley Krugman (Co-Chairman)
Director, Timber Management Research
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