

BULLETIN

October 16, 1978

Vol. I, No. 2

Editor's Note:

Thank you for your responses to the MAB Bulletin. This news sheet seems to serve, as we'd hoped, to stimulate contact among the widening circle of those involved in US MAB.

There have been a number of questions from Bulletin recipients as to the basic structure of MAB. To provide this background information, we have enclosed the basic brochure on MAB with this issue of the Bulletin.

One contact isn't enough: please keep us posted on:

1. your changes of name/address;
2. recommendations for additions to the mailing list;
3. progress of activities in each Project Area;
4. developing ideas for MAB-related projects;
5. changes in personnel;
6. new MAB publications;
7. upcoming meetings, conferences, etc.;
8. special reports.

The Bulletin will be published every six weeks; the next one will come out November 30th. Please try to have your reports in to us five days prior to publication date.

We look forward to hearing from you.

MAB Bulletin
Department of State IO/UCS
Washington, D.C. 20520

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I. Research on U.S. Biosphere Reserves

The purpose of designating a piece of land as a Biosphere Reserve, is to draw it into an international network of areas that are used for (1) conservation of genetic diversity, and/or (2) environmental research and monitoring, and/or (3) educational activities related to basic science and resource management.

The following is a listing of U.S. Biosphere Reserves, with a brief description of the research conducted on each Reserve. Space does not allow an exhaustive catalogue of research on Biosphere Reserves; instead, we have listed the name of the person most closely responsible for research on each Reserve, as contact for further information.

1. Aleutian Islands National Wildlife Refuge: most of the islands in the Aleutian chain that extends in an arc westerly from the Alaska Peninsula about 1100 miles.

John Martin
Aleutian Islands National Wildlife Refuge
P.O. Box 5251
Adak, Alaska 98791

Research projects have been going on in the Aleutians for many years. There is probably more base data available for Amchitka Island than any other area of equivalent size. The potential for future research is unlimited, especially when the amount of base data for Amchitka is considered.

The nature of the Aleutians makes logistic support of research projects very difficult. The Refuge has a support vessel, but its use is greatly hampered by weather and sea conditions. Lack of landing strips hampers aerial logistic support.

2. Beaver Creek Watershed: 50 km south of Flagstaff, Arizona.

D. Ross Carder, Project Leader
Multi-resource Management Research
Rocky Mountain Forest & Range Experiment Station
Forestry Sciences Laboratory
Northern Arizona University
Flagstaff, Arizona 86001

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Research on the Beaver Creek Watersheds began in 1962 after several years of preliminary work and construction of stream gaging stations. Research is conducted on management treatments including clearcutting, severe thinning, strip cutting, spot cutting to favor wildlife, and shelterwood cutting to facilitate maximum sustained timber production. Pilot watersheds ranging from 27 to 820 hectares were instrumented to facilitate the work. Two larger watersheds were instrumented to test treatments on an operational scale. Impacts of the treatments were measured on a wide range of ecosystem parameters, including hydrologic response, timber and forage yields, soil erosion and sediment production, water quality, scenic beauty, and the dynamics of insect, bird, small animal and big game populations. Much of the

early research was summarized in two state-of-the-art publications.

Several small "homogenous" watersheds were instrumented within the larger pilot research watersheds. Their purpose is to provide data for ecosystem model testing.

Ecosystem simulation models are being designed, developed, and tested for use by forest managers in estimating commodity production and in evaluating impacts of alternative forest and natural resource-management problems on many facets of the ecosystem. The models are being designed to have broad application to forest and range lands. Some will apply to areas similar to those of the southwestern U.S., while others will apply to comparable areas throughout the world.

Most of the Beaver Creek watersheds are readily accessible by motor vehicle.

3. Big Bend National Park: in west Texas, bounded by the Rio Grande and Mexico.

Mike Warren, Resource Management Specialist
Big Bend National Park
Texas 79834

(915) 477-2251

Big Bend National Park comprises a prime example of Chihuahuan desert, with accompanying plant and animal communities. Short-term research projects on plants and animals, and geologic surveys are an on-going process at Big Bend. Current research includes a fire history and ecology study. There are two research stations located within the park, and a small library and study collections are available for use at Park Headquarters.

4. Cascade Head Experimental Forest: on Pacific coast of Oregon, 90 km southwest of Portland.

Jerry Franklin
Forestry Sciences Laboratory
3200 Jefferson Way
Corvallis, Oregon 97331

FTS: 420-4362
(503) 757-4362

Most intensively studied area of Picea sitchensis - Tsuga heterophylla forest in biogeographical province. Includes work on growth and yield of forests, cutting methods and regeneration of trees, and nutrient cycling, including effects of Alnus on the nitrogen regime. Potential very high for environmental baseline monitoring (coastal location), research on estuarine and salt marshes (including restoration), and ecology and management of Picea-Tsuga and Alnus forests.

5. Central Plains Experimental Range (CPER): in western Central Great Plains, 40 km south of Cheyenne, Wyoming.

Dr. William Laycock, Research Leader*
Science & Education Administration
Crops Research Laboratory
Colorado State University
Fort Collins, Colorado 80523

FTS: 323-5227
(303) 484-8777

*for questions on
research unit

(Central Plains, cont.)

Marvin Shoop, Officer-in-Charge *
Central Plains Experimental Range
Colorado State University
Fort Collins, Colorado 80523

*for questions on
on-site research

From 1939 to 1954 the U.S. Forest Service, and from 1954 to the present the Agricultural Research Service (ARS), have conducted ecological, revegetation, range improvement, grazing management, and related range research on the CPER. Since 1968, the Grasslands Biome of the U.S. International Biological Program (IBP) and its successor, the Natural Resource Ecology Laboratory (NREL) of Colorado State University, have conducted research on the fundamental structural and functional characteristics of the ecosystems and the modelling of the data. There are numerous two-acre grazing enclosures and a set of pastures grazed since 1939 at light, moderate, and heavy intensities. Grazing history of most pastures is known. Detailed weather-related data are collected and a network of rain gauges are monitored. NREL maintains several microwatersheds and a soil lysimeter. In 1978, ARS was changed to the Science and Education Administration - Agricultural Research. The SEA is continuing a full research program on the physiology, ecology, and grazing management of the dominant grass species blue grama and associated species. Both NREL and SEA maintain field headquarters.

6. Channel Islands National Monument: Anacapa and Santa Barbara Islands, off the coast of southern California.

Nicholas Whelan, Resource Management Specialist
Channel Islands National Monument
1699 Anchors Way Drive
Ventura, California 93003

FTS: 798-2000
(805) 644-8157

Since the islands have been administered by the National Park Service, several short-term research projects have been undertaken, as well as considerable specimen collecting by various institutions. Current emphasis is on: plant ecology, terrestrial biology, exotic and endangered species. Much of this research effort is geared toward returning the islands to a more natural state. The Park Service is interested in cooperating with legitimate researchers however it can, and the local administration aids with logistics for approved research groups as it is able.

7. Coram Experimental Forest (including Coram Natural Area): in Flathead National Forest, 8 miles south of the west entrance of Glacier National Park.

(Coram, cont.)

Wyman Schmidt
Forestry Sciences Lab
Intermountain Forest & Range
Experiment Station
P.O. Box 1376
Bozeman, Montana 59715
FTS: 585-4242

Raymond Schearer
Forestry Sciences Lab
Intermountain Forest &
Range Experiment Station
Missoula, Montana 59806
FTS: 585-3533
(406) 329-3533

The Coram Experimental Forest (a Western Larch - Douglas Fir forest) is included in the initial proposed network of Experimental Ecological Reserves. The site quality is excellent for purposes of ecological research; limited facilities are available. The representation of different biotic components on the site includes a variety of age classes and forest associations. An excellent opportunity is available for comparative experimental research. The Coram Natural Area as a control is a positive feature of this site. Applied research programs are currently extensive but additional use of this control area can be made if basic ecological studies were incorporated into the management plan.

8. Coweeta Hydrologic Laboratory: in southern Appalachian Mountains of western North Carolina.

Wayne Swank
Coweeta Hydrologic Laboratory
P.O. Box 601
Franklin, N.C. 28734

(704) 524-2128

Measurements of streamflow and precipitation began in 1934; about 1,000 gage-years of streamflow records and 2,000 gage-years of precipitation records have been collected. Data are routinely summarized into standard formats that characterize streamflow and precipitation. Other climatological data have been continuously collected and summarized. Vegetation and fauna surveys are also available. Streamflow and precipitation chemistry have been measured for about six years.

The mission of Forest Service research the past forty years has been to study the effects of forest management practices on the quantity, timing, and quality of streamflow, and to develop methods and procedures for predicting and mitigating impacts. Current emphasis is on parameters of water quality. Coweeta has a history of cooperative research and has participated in numerous international programs, including the IBP. Taken collectively, past Forest Service and cooperative research provide a unique and valuable opportunity to examine ecosystem processes at different levels of complexity and to integrate findings within the framework of watershed response. Sufficient areas are available to retain undisturbed watersheds while applying manipulation to other watersheds to test hypotheses.

9. Desert Experimental Range: near the center of the Great Basin, between Milford and Garrison, Utah.

Ralph Holmgren, Range Scientist
Shrub Sciences Laboratory
735 North 500 East
Provo, Utah 84601

FTS: 584-0218
(801) 377-5717 (at lab)
(801) 387-2685 (at range)

has been protected and utilized in experimental grazing programs for more than forty years. Meets the criteria for an Experimental Ecological Reserve. Long-term records of range use, vegetal change, and climate are available. The area has been covered by a soils survey. Has considerable potential for ecological research and development of an understanding of how the ecosystem functions.

10. Everglades National Park (including Ft. Jefferson National Monument): southernmost part of Florida peninsula.

Dr. Gary Henrix, Research Director
South Florida Research Center
Everglades National Park
P O. Box 279
Homestead, Florida 33030

(305) 245-5266
FTS: 350-4653

Although there has been extensive documented research on the natural resources of the Everglades, there are still several areas of critical resource management requiring study. Water management manipulations especially may be having extensive effects upon animal and plant populations, fire behavior, and the estuarine fisheries. Everglades National Park immediately adjoins a large metropolitan area so must develop resource management techniques that alleviate pressures caused by urban growth. A research staff of 58 scientists and technicians work on programs in hydrology, wildlife and endangered species management, fire ecology, plant ecology, and fisheries. Research facilities are housed at the South Florida Research Center, located in the park. A computerized data/information system is being developed to handle extensive bibliographic and scientific information on the Everglades system.

11. Fraser Experimental Forest: on west side of Continental Divide, 8 km southwest from the town of Fraser, Colorado.

Robert Alexander, Project Leader
Rocky Mountain Forest & Range Experiment Station
240 West Prospect Street
Fort Collins, Colorado 80521

(303) 221-4390
FTS: 323-1250

The Experimental Forest was established in 1937 to carry out research in timber and watershed management. Since 1965 wildlife management research has been part of the program. Special management problems that need further investigation include: the integrated effect of timber harvesting on (1) water yield, water quality, nutrient cycling, and sedimentation; (2) game animal and non-game forage production, and (3) windfall,

natural regeneration, seed production and yield. The Fraser Forest will be permanently maintained as a site for both basic and applied research, education, training, and demonstration of land-use management. Since the area is managed for research and demonstration of land-use management problems, it is not intended that it remain in a natural state; however, nearly one-half of the area is essentially in this category and will remain so. The research station has facilities to accommodate about 10-12 people in addition to the permanent staff.

12. Glacier National Park: northwest Montana, northern Rocky Mountains to the Canadian border.

Clifford Martinka, Research Biologist
Glacier National Park
West Glacier, Montana 59936

(406) 888-5441 ext 8
FTS: 585-5011

The park has been maintained as a relatively undisturbed natural area. A variety of basic studies are carried on relating to description and function of park ecosystems. Current projects include research on ungulates, grizzly bears, vegetation, visitor use, wildlife and aquatic ecosystems.

13. Great Smoky Mountains National Park: at the southern end of the Appalachian Range.

Susan Bratton, Director
Uplands Field Research Laboratory
Great Smoky Mountains National Park
Gatlinburg, Tennessee 37738

(615) 436-7120

Much of the management effort in the Great Smokies is now directed at keeping human impacts at as low a level as possible. Research efforts funded by the National Park Service are directed primarily at monitoring such impacts, and at developing methods for reducing, eliminating, or compensating for them. A great deal of other research is done in the Park, though, by scientists whose interests don't relate so clearly to NPS management concerns, but who are supported by funds from other sources. All research in the Park is coordinated through the Uplands Field Research Laboratory. Included among research projects are: (1) studies of the dynamics of the Park's exotic wild boar population and the means of bringing it under control; (2) the influence of certain exotic plants; (3) the influence of the balsam woolly aphid; (4) the impacts of hiking, horseback riding, and camping on Park ecosystems; (5) methods by which certain communities (grassy balds) may be held at a seral stage deemed desirable because of their unique qualities; and (6) the dynamics of the Park's native brook trout population as it relates to human activities and the effects of two exotic species of trout. The Smokies is also the site of the MAB pollutant monitoring project, described in the notes from the MAB-8 Directorate meeting, page 15.

14. H.J. Andrews Experimental Forest: on western slopes of Cascade Range, 65 km east of Eugene, Oregon.

Dr. Jerry Franklin
Pacific Northwest Forest & Range Experiment Station
USDA Forest Service
Forestry Sciences Lab
Corvallis, Oregon 97330

FTS: 420-4362; (503) 757-4362

(H J .Andrews, cont.)

Most intensively studied area in its forest type. Long-term studies of effects of forest cutting on water quality and quantity and on regeneration and growth of young forests has been underway since 1948. Intensive carbon, water, and nutrient cycling studies since 1968. Current emphasis is on: structure and function of forest ecosystems along successional and environmental gradients; structure and function of stream ecosystems along size gradient; effects of stresses on carbon, water, and nutrient cycles; forest canopy subsystems; and geomorphic processes and erosion. Substantial research facilities present, good access.

15. Hubbard Brook Experimental Forest: in the White Mountain National Forest, New Hampshire.

Robert Pierce, Project Leader
Northeastern Forest Experiment Station
P O. Box 640, Durham, New Hampshire 03824

FTS: 834-0797

During the last 21 years the Forest Service has established eight stationary stream-gaging stations and a network of 21 precipitation-climatological stations on experimental watersheds ranging in size from about 12 to 76 hectares. There is a field laboratory building on site. Since 1963 cooperative research programs have been and are being conducted on the forest, including such fields as soils, ecology, meteorology, hydrology, forestry, geology, plant physiology, entomology, sociology, limnology, mammalogy, ornithology, pathology, and others. Most of these have involved in one way or another the cycling of water, energy and nutrients through the forest ecosystem.

16. Jornada Experimental Range: southwestern New Mexico.

Dr. Carlton Herbel, Location Leader
Jornada Experimental Range
P.O. Box 698
Las Cruces, New Mexico 88001

FTS: 572-0254

The Jornada Experimental Range has been the site of research activity since 1914. Unbroken climatic records extend from this date, as do vegetation and grazing use records. Detailed studies have been many and varied. This was one of the Grassland Biome study sites under the IBP. Recently accelerated research efforts are directed at: (a) defining the structure and function of range ecosystems, and determining the morphological, physiological, and abiotic factors that govern establishment, growth, reproduction, and persistence of range plants; (b) developing range improvement practices for revegetating disturbed and deteriorated rangelands, stabilizing soils, improving watermanagement and controlling pests to increase productivity of range ecosystems; and (c) developing improved grazing strategies to convert range forage to animal products consistent with conservation and multiple use of range ecosystems. On-site research facilities and equipment are available and the site is readily accessible from Las Cruces, New Mexico, where New Mexico State University provides additional research facilities and a stimulating intellectual environment.

17. Luxquillo Experimental Forest (Caribbean National Forest):
in the Luxquillo Mountains of eastern Puerto Rico, 35 km east of San Juan.

Dr. Frank H. Wadsworth, Director
Institute of Tropical Forestry
P.O. Box AQ
Rio Piedras, Puerto Rico 00928

The US Forest Service has conducted research within the Forest since 1932. Other significant research includes the Atomic Energy Commission (now Department of Energy) and the Nuclear Center of the University of Puerto Rico program of ecological research begun in 1963 and including the El Verue radio-biology project. A modified program continues with emphasis on hydrologic research. Research in the dwarf forest has been conducted. Research in the natural forest includes: studies of productivity, stand development, impacts of timber harvest on residual stands and recovery of stands following harvest, and ecological life histories of tree species. The El Verde Field Station provides a permanent base with easy access for research in the Luxquillo Mountains.

18. Mount McKinley National Park: south central Alaska, in the Alaska Range which separates the coastal lowland and Alaska's northern interior.

Bill Truesdell, Chief Naturalist
Mount McKinley National Park
P.O. Box 9
McKinley Park, Alaska

Principal research being conducted in 1974 (we weren't able to contact the park for an update) included: (1) impact of road use on wildlife behavior, numbers, and distribution; (2) grizzly bear-human interactions; (3) wolf denning, pack social structures, and evaluation of human back-country use as it relates to same; general biological studies of major mammals.

19. Noatak National Arctic Range: northwestern Alaska, about 450 air miles west and north of Fairbanks.

Dr. Dale Hoffman
Bureau of Land Management
Denver Service Center
Federal Center Building 50
Denver, Colorado 80225

FIS: 234-2239

Very little specific detail is known about the resources of the Noatak. A full range of studies and research will be needed.

20. Olympic National Park: northwestern corner of US on Olympic Peninsula in Washington state.

Bruce Moorhead, Research Biologist
Olympic National Park
600 Park Avenue
Port Angeles, Washington 98362

(206) 452-8153
(206) 452-9238

(Olympic, cont.)

The core of the Olympic Mountains, the highest in the Coastal Range bounding the Pacific Ocean, is still largely undisturbed mountains and forest. Also occurring in the park are sixty alpine glaciers.

Since 1971, management-oriented studies by the park staff have extensively investigated human recreational impact and its mitigation in back-country camping areas. Other research projects include: (1) baseline surveys of all major biotic subsystems, terrestrial and aquatic, as benchmarks for sound management strategy; (2) the ecological role and appropriate management of wildfire; (3) population ecology and protection of Cervus canadensis roosevelti and its role as consumer in forest communities; (4) status and protective measures needed for native stocks of anadromous fish species; (5) status and protection of alpine plant endemics with increasing recreational use and presence of Oreamnos americanus; (6) an ecosystem benchmark study of rain forests.

21. Organ Pipe Cactus National Monument: in southern Arizona, bounded by Mexico and the Ajo Mountains

Kay Martinez, Superintendent
Organ Pipe Cactus National Monument
c/o Southern Arizona Group
National Park Service
1115 North First Street
Phoenix, Arizona 85004

(602) 261-4956

An opportunity exists to study flora and fauna typical of the Sonoran Desert region and found primarily in Mexico, but reaching its northernmost limits within the southern boundaries of the US. Ongoing local research is generally coordinated by the Cooperative Research Unit sponsored by NPS and the University of Arizona on the University campus. The Unit Leader is Warren Steenbergh, CPSU, 211 Biological Sciences East, University of Arizona, Tucson, Arizona 85721; (602) 884-1176, FTS: 762-6680.

22. Rocky Mountain National Park: Front Range of the Rockies along the Continental Divide, Colorado.

David R. Stevens, Research Biologist
Rocky Mountain National Park
Estes Park, Colorado 80517

(303) 586-2371 ext 211

Three Research Natural Areas have been designated in which no overnight use or livestock use is permitted by the public. Major studies have been conducted or are in progress on the geology, alpine tundra ecology, Cervus canauensis ecology, range use and population dynamics, Lagopus leucurus ecology and life history, Colorado tick fever, forest composition and dynamics, Ovis canauensis ecology, natural fire ecology, and visitor impacts. Work is also being done on predator-prey relationships of coyote, bobcat and bear to determine their population status; monitoring the status of the endangered greenback trout; and reintroducing river otters and peregrine falcons. Many of these studies are carried out through cooperative research arrangements. There are three major universities in the area.

23. San Dimas Experimental Forest: in the San Gabriel Mountain foothills, 80 km northeast of Los Angeles International Airport.

C. Eugene Conrad, Project Leader
San Dimas Experimental Forest
110 North Wabash Avenue
Glendora, CA 91740

Charles G. Colver, Forestry
Technician
San Dimas Experimental Forest
(on-site contact)

(213) 963-5936

The San Dimas Experimental Forest is a relatively natural biological unit provided with the most complete hydrologically monitored background of any chaparral ecosystem in California. Some watersheds have been monitored for 40 years. Numerous hydrologic studies have established (1) soil-water-plant standards for chaparral and related ecosystems; (2) erosion hazard potential related to fire and chaparral modification; (3) water yield from natural and modified chaparral watersheds, and (4) rainfall distribution related to topographic features. Some studies have also been done on chaparral phenology and post-fire secondary succession.

Current research emphasis is on coordinated multidisciplinary systems analysis. Research has begun on management of chaparral and related ecosystems in southern California considering the impact of fire; the erosion hazard that is typically severe following wildfire; and intensive human impact, resulting in air pollution, demand for maximum water yield; and demand for extensive recreational opportunities. Other research areas include: studies of chaparral fauna; microbiology; soil-plant nutrient budget, chaparral and chaparral-woodland physiology; site biotic potential; physiological ecology of riparian and other woodland communities; techniques and impacts of prescribed fire; and the unique problems of this densely populated, air pollution-prone area of southern California.

24. San Joaquin Experimental Range: in the foothills of the western slopes of the central Sierra Nevada, 25 miles north of Fresno, California.

Don A. Duncan
Pacific Southwest Forest & Range Experiment Station
1130 "O" Street, room 2003
Fresno, CA 93721

FIS: 467-5194

In 1934 the US Forest Service established the San Joaquin Experimental Range to investigate resource and animal husbandry problems associated with maintaining a commercial cattle herd on a year-round basis on the foothill rangelands. Investigations on the Experimental Range has resulted in almost 300 publications. Comprehensive reports are available of: objectives of early animal husbandry research on the Range; beef cattle investigations; and annual forage production and methods of maintaining or improving production. Zoological studies on the Experimental Range have dealt chiefly with life histories of rodents, their impacts on range forage, food habits of quail, and food habits of predators. There are checklists of vertebrate fauna on the San Joaquin Experimental Range. Because of ongoing research, this area will serve as a benchmark to determine the long-term grazing and habitat manipulation on density and distribution of game and nongame wildlife species should also be investigated.

25. Sequoia and Kings Canyon National Parks: southern Sierra Nevada, California.

David J. Parsons, Research Biologist
Sequoia and Kings Canyon National Parks
Three Rivers, California 93271

(209) 565-3341 ext 35

(Sequoia, cont.)

Areas of past and present research include: (1) the ecology of Sequoiadendron giganteum; (2) recreational carrying capacity of high elevation systems; (3) human impact in meadows; (4) the ecology and behavior of Ovis canadensis californiana and Ursus americanus; and (5) the role of fire in Park ecosystems. Additionally, Whitaker's Forest, administered jointly with the University of California, provides accommodations for about twenty researchers. Limited facilities are also available at Park headquarters.

26. Stanislaus-Tuolumne Experimental Forest: middle western slope of the central Sierra Nevada, approximately 14 km northwest of Yosemite National Park

Douglass Roy
Pacific Southwest Forest & Range Experiment Station
2400 Washington Avenue
Redding, CA 96001

FIS: 461-5455

Early research included studies on reproduction, planting, pruning, slash disposal, and lumber recovery. More recent studies involved climate, insects, mistletoe, harvest cuttings, site preparation, herbicides, and root rots.

Trees in Tract 2 (526 hectares) have been inventoried by stand condition classes within one-hectare divisions, providing an excellent data base. Several plantations, areas of natural young-growth, and large blocks of diverse species and age classes which are virtually uncut, provide great potential for silvicultural and ecological research in an important, complex timber type.

The Experimental Forest is readily accessible.

27. Three Sisters Wilderness: astride the summit of the Cascade Range, 80 km east of Eugene, Oregon

Donald H. Pederson
USDA Forest Service
McKenzie Ranger District
McKenzie Bridge, Oregon 97401

FIS: 425-6533
(503) 687-6533

Paired with H.J. Andrews Experimental Forest, Three Sisters functions as a large control area and conservation reserve. There has been extensive research on the geology of the region; some of the forests and meadows have been studied as to plant community composition and structure.

28. Virgin Islands National Park: on the island of St. John, US Virgin Islands, 88 km east of Puerto Rico.

William Webb, Superintendent
Virgin Islands National Park
P.O. Box 806, Charlotte Amalie
St. Thomas, Virgin Islands 00801

(809) 775-2050

(Virgin Islands, cont.)

St. John has been the scene of much research; best known is the Tektite underwater program. Research has slacked off during the past few years; however a cooperative agreement now exists between the College of the Virgin Islands and the National Park Service. Future research will be geared toward solving resource management problems.

29. Yellowstone National Park: in southern portion of the Northern Rocky Mountains, the northwest corner of the state of Wyoming and adjacent Montana and Idaho.

Don G. Despain, Research Biologist
P.O. Box 168
Yellowstone National Park
Wyoming 82190

FTS: 585-0257

A resident research staff presently consisting of three Park Service and five Fish & Wildlife Service people are conducting mission-oriented research largely concerning the large ungulates, fisheries, and the vegetation of the park. Fire-related topics are also being researched. More than 100 independent researchers are presently working within the park. Housing within the developed areas is available on a limited basis. Laboratory space is meager, but two mobile laboratories are available. Research projects requiring a natural environment or oriented to management problems are given preference. Research requiring modification of the biota or environment is not permitted. The park's large area where natural processes, including fire, are allowed to operate make the park an excellent area for research on natural processes.

II. The report of the Information Synthesis Project on Biosphere Reserves is in the process of being printed. Copies may be obtained from:

MAB Bulletin
Department of State
IO/UCS
Washington, D.C. 20520

III. In another effort to consolidate information on the physical characteristics of Biosphere Reserves, Charles Robinove, MAB-8 Directorate member, has arranged for a series of reports, one for each Biosphere Reserve in the United States, to be prepared by the U.S. Geological Survey, EROS Program Office. These reports contain computer listings of all spacecraft images and aircraft photos that are available from the EROS Data Center. The reports also contain brief descriptions of each type of data and ordering instructions.

At the present time, the report on the Organ Pipe Cactus National

USGS report, cont.)

Monument is available through the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, Virginia 22161; (703) 321-8543. The order number is PB276550/AS. It is available in paper copy for \$6.00 and microfiche for \$3.00.

Three more reports have received the Director's approval and will be released through NTIS within the next few weeks. They are Glacier National Park, Great Smoky Mountains National Park, and Big Bend National Park.

All of the other reports are being compiled now and will be released hopefully by the first of the year.

IV. Notes from Recent MAB Project Area Directorate Meetings

[We felt that this might be a useful way of keeping the Bulletin readership caught up on the activities of the various Project Directorates, rather than trying for a complete catalog of activities of all Project Areas in each Bulletin. Your comments on this approach are invited.]

MAB-3: The MAB-3 Directorate met briefly during the International Rangeland Congress (of which MAB was a cosponsor), August 14-18, at Denver, Colorado.

1. Report on the First International Rangeland Congress (IRC): there were about 725 registrants, including 250 foreign participants. The proceedings will be released at the first of the year, with 202 papers from 39 countries. The IRC has a continuing committee of 14; it was thought that the next Congress would be held in 1982 or '83. MAB-3's participation in this first IRC was felt to be valuable, and they were asked to continue their involvement.

The papers from the MAB-3 session of the IRC will be published under the MAB cover, possibly with support from MAB Headquarters in Paris, early in 1979.

2. The Directory of Social Scientists for Rangeland Peoples, compiled by Ted Downing and Robert Sayers of the MAB-3 Directorate, was distributed at the IRC. It is available from the US MAB Secretariat.

3. General support was expressed for developing a workshop-tour for mid-level representatives from developing countries. The program should be a self-sufficient program. There was discussion of the possibility of coordinating with an agricultural research program held at Columbia, Missouri, and of funding with PL 480 monies. A.J.Dye and Oscar Olson will be working together on the possibility of such a project.

4. The group discussed the possibility of holding a workshop to "shed light on western rangeland controversies, and methods to resolve such conflicts". Discussion centered on exactly what would be the result of such a workshop, and who would benefit. James Clawson agreed to write a prospectus that would contain some specificity.

5. The next MAB-3 Directorate meeting will be held in late winter or early spring, in Tucson, Arizona.

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