

nps

newsletter

VOL. 7

NO. 10

National Parks Centennial Year

May 29, 1972

Sub-Tropical Biscayne



Superintendent Dale Engquist

By Jean Bullard



Ranger George Sites

"George Sites is the answer to a superintendent's dream in this type of area," said Dale Engquist, superintendent of newly established Biscayne National Monument in Florida.

Amphibious George had already headed for the deep where he knows intimately every wreck and coral reef in the monument. Moments later an arm holding a shining piece of a green platter rose suddenly above the surface, followed by the masked but grinning ranger.

"The Hubbard was an English merchantman wrecked here in the 1770's," George explained as he handed Dale the curved piece of dark green pottery with a beautiful wide

fluted edge. "Mendel Peterson, Chairman of the Armed Forces Division of The Smithsonian, told me that the Hubbard likely carried the largest shipment of salt glazed pottery sent to the New World." George adjusted his snorkel and mask and dove again bringing up a section of a blue and white pitcher, some reddish-brown brick and a piece of black wood.

"This charred wood shows that the vessel was either burned accidentally, or deliberately to avoid capture before it sank," said George. After examining and photographing the artifacts and discussing what each piece told about the history of the

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Sub-Tropical Biscayne

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Hubbard, they were tossed back in the ocean to settle in the white silt at the site of the wreck.

"This marvelous little area serves over 200,000 visitors a year right in Miami's back yard," said Dale. "Protection from developers and commercialization with resultant fill areas and highway causeways is one of the major advantages of becoming a part of the National Park System. It is an area that soon would have been lost to the dredging and filling that has taken over most of the Florida coast in this region."

Biscayne National Monument, a tropical marine park, was authorized by Congress on October 18, 1968, and established on June 16, 1970. The 96,300 acre monument (about nine by eleven miles) includes 92,000 acres of water. The keys, or islands, curve like an off-shore necklace along the southeastern shore of Florida. The keys of Biscayne Bay which lie three to seven miles from the mainland are the northernmost Florida keys. They divide the monument into an inner shallow bay, the nursery for a great variety of marine life, and the outer ocean area which includes acres of coral reefs. Access is entirely by boat.

"Protecting this area is a major problem with such a limited staff," commented Dale, "but we do the best we can. Visitors are constantly taking things from the wrecks. With only the four of us, George, Caretaker Howard Bouterse on Adams

Key, our secretary Mary Ella Headley, and myself, it is difficult to patrol.

"Actually the Florida state law against illegally removing submerged treasure is supposed to be enforced at the present time by state patrol boats but they are too few. We do not have jurisdiction of the submerged lands which have yet to be transferred to us from the State of Florida. Only last Tuesday several people at the marina told me of removal of a beautiful glazed Spanish pot in perfect condition."

The fragile coral reefs must also be protected from destruction by visitors who do not understand or do not care about saving these underwater gardens for others to enjoy. Careless swimmers and boaters litter the ocean floor with their debris, break off delicate coral or take away colorful tropical fish.

"Initially we need regulations and staffing to protect wrecks and to enforce existing state fishing regulations for sport and commercial fishing, and for taking lobsters and conch. Eventually we will need special regulations for spear fishing and tropical fish collecting.

"The complications of multiple use of the monument include concern for safety when there are power boats, snorkelers and water skiers using the same area," Dale added. "This area receives continual use.

"On Friday or Saturday nights the lights of scores of boats can be seen anchored in the bay for the weekend. On moonlight nights many people enjoy swimming in the shallow water with the light of the moon reflected from the white sand bottom. The shallow bay is well protected enabling small boats a safe recreation area.

"Most of our beaches are under water," explained Dale, "so people usually swim from their boats."

The various keys offer a wealth of interesting attractions which now will be protected for future generations to enjoy. Development—mostly stressing day use—will be kept to a minimum.

At present monument headquarters is in a trailer, but planned are a visitor center with office space, interpretive programs, an environmental study area, nature trails, a hike-bike trail system, guided boat

trips and some increased but limited concession facilities.

Proposals include interpretive shuttlecraft to enable visitors who do not have their own boats to learn about the area with a naturalist, much as people now take the Shark Valley tram at Everglades National Park to visit areas where the wildlife would be disturbed if not protected from over use by visitors.

This sub-tropical wonderland is warmed by the Gulf Stream a few miles off shore, a location where trade winds warm the air in winter and cool it in summer. Vegetation differs on individual keys, including some West Indian species not present on the mainland.

Old Rhodes and Totten Keys have some large mahogany trees like those that once covered many parts of South Florida before shipbuilders harvested them over the past two hundred years.

Cormorants, ibis and a variety of wading birds nest on the Arsenicker Keys which will soon be transferred from the state of Florida to NPS.

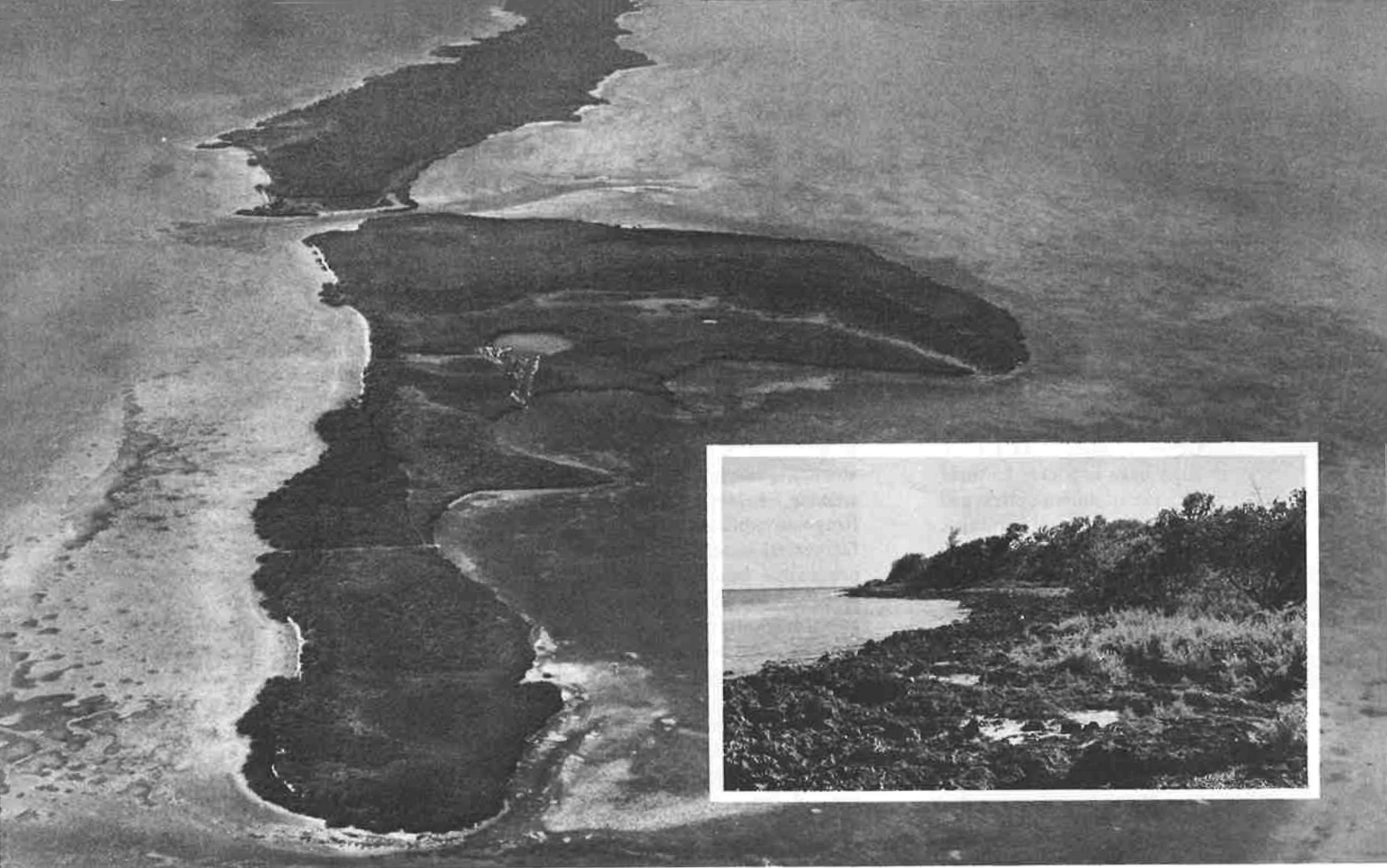
Most of the shoreline is rough coral rock fringed with mangroves. Key Largo limestone is fossil coral that is exceedingly hard. The coral reefs located on the Atlantic Ocean side of the keys caused many shipwrecks when the waters were uncharted, but pleasure boats today seldom have troubles.

The water is turquoise where it is 10 to 15 feet deep. In the shallow waters of Biscayne Bay between the keys and the mainland the water is brownish tinged where meadows of turtle grass shelter young fish and shellfish.

The only major public development within the monument at present is Elliott Key Park which will be transferred to NPS from the Dade County Park Department on July 1. This small 90-acre area has docking facilities, tent sites and picnic tables. Use is limited by the shallow bay which only accommodates small boats and the fact that there is no fresh water provided for visitors. It is primarily a day use area which serves about 80,000 people a year. Future plans for Elliott Key call for the improvement or replacement of existing facilities and the addition of some new visitor services.

Research Biologist
Gary Davis pre-
pares for a dive.





Aerial view of Sands Key and Elliot Key, Biscayne National Monument. Left are coral reefs and the blue Atlantic. Right are darker protected waters of Biscayne Bay where Presi-

dent Nixon has a house north of the monument. Florida mainland is seven miles to the right. Insert shows the rough black coral shore and mangrove trees of Elliot Key.

Land on some of the keys is still in private ownership but eventually will become a part of the monument.

Research has been going on in Biscayne Bay for several years primarily to monitor pollution generated by a power plant located on the mainland adjacent to the monument.

Environmental monitoring is still required and a major program is now beginning under the local direction of Lee Purkerson, a marine biologist recently transferred to NPS from the Environmental Protection Agency.

Biological research has been a major activity for several years in the area. Gary Davis, NPS marine biologist stationed at Everglades National Park, assisted by Ranger George Sites, has been doing extensive coral reef population studies and also studies of the lobster and queen conch.

Last month the EDALHAB II undersea habitat was located in the monument and Gary and George

worked with the numerous scientists. They compared natural and artificial reefs and studied the effects of the human community on reefs, the geology and chemistry of the reefs, and the reaction of fish to traps.

Biscayne and Fort Jefferson National Monuments have the only coral reefs in NPS areas in Continental United States. There is much concern about the fact that coral reefs are dying. This death is being accelerated by adverse environmental influences of human population and the resultant siltation and pollution. Information gathered will, it is hoped, provide additional knowledge which may help solve some of the complex environmental problems now facing the rare and fragile reefs.

A major visitor activity is snorkeling or scuba diving to view bright colored tropical fish and other marine life of the fascinating coral reefs.

On July 1 Elliot Key Park will be turned over to NPS from Dade County Park System.



HOW GREEN WAS MY CITY?

By Maurice Sullivan

Yellowstone National Park once was a source of pure, unpolluted air used by researchers for comparison purposes. That area is now polluted. Air in Yellowstone is no longer pure even in winter because of trucks, cars, snowmobiles and various other sources of pollution.

No matter where you are, you cannot escape air pollution. There is probably no pure air left anywhere on earth.

There are lead and DDT in both the Arctic and Antarctic—and in between.

Death Valley has experienced smog from Los Angeles, hundreds of miles away. Ponderosa pines and citrus trees are damaged and prob-

ably many other organisms far beyond the famous Los Angeles smog factory.

The earth has always had some pollution from volcanoes, dust storms, prairie fires, forest fires, cooking, heating and lightning fires—as well as other oxidation, fermentation, and various natural processes beyond man's control. However, the gross amount of such gases and solids has been low enough that their presence was not long-lasting and was within the tolerance limits of most plants and animals.

Today the number of kinds of pollutants and the quantity exceed that which natural forces can eliminate, destroy, or neutralize. The varieties of pollutants run into the hundreds and are of a type to which the present plants and animals have not had a chance to adapt.

Green Plants Help

Green plants help purify the air by absorbing pollutants, give off oxygen and, from air, water and minerals, furnish food for all life.

Some plants are more sensitive to air pollutants than most animals, including man. Certain plants, such

as tobacco and white petunias, are used as pollution indicators instead of or supplementing complicated chemical and physical monitoring equipment.

Green plants in our NPS areas should no longer be considered solely as objects of beauty or things useful for preventing soil erosion, but also as a vital factor in our very existence.

An NPS Study

At the NPS Ecological Services Laboratory at Washington, D.C., Horace V. Wester and I, both NPS research biologists, have been studying the effects of air pollution upon the plants in and around the NPS areas of Washington, D.C.

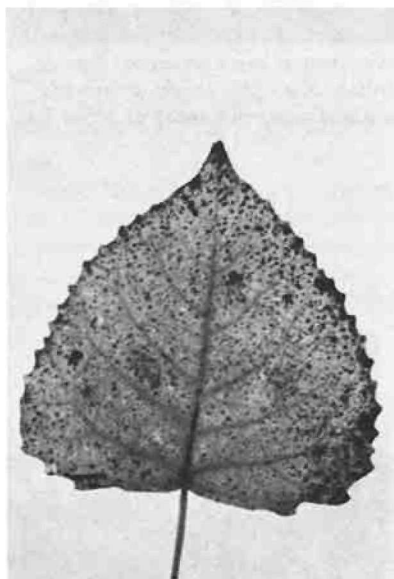
Major smog episodes occurred there during 1970 and 1971. A number of areas were studied; wind directions correlated with areas of damage; and the species affected carefully recorded by photographing the symptoms.

Records were obtained from three air monitoring stations in Virginia and one in Washington, D.C. The sources of pollution were identified as 1) National Airport, 2) Potomac River Powerplant, 3) Arlington, Va. incinerator, and 4) automobiles.

In most cities, and especially in Washington, D.C., automobiles contribute much more than half the pollutants. Wherever automobiles are in operation, there is a problem of air pollution.

Parking areas, driveways, street and road intersections—or any place else where automobiles stop or concentrate—are danger points for vegetation.

When vegetation is damaged, man and other animals may also be affected. All animals depend upon plants to manufacture food and release oxygen. Even when plants show no external symptoms, their efficiency can be reduced.



Single leaf of cottonwood above, with air pollution symptoms. Cells containing chlorophyll have been killed except in dark spots.



Leaf of white mulberry, right, with dark areas still not killed by pollution. Note difference in response by mulberry and cottonwood leaves.

This has been shown at the USDA Plant Industry Station at Beltsville, Md., where potato plants in greenhouses with filtered air produced many more pounds of potatoes than similar plants growing in another room that had unfiltered outside air with its usual pollution.

Who knows how much less wood our forests are producing, or how much less corn, wheat, rice, soy beans, vegetables, melons etc. our crop plants are producing, or how many fewer months each person will live because of air pollution?

Suburbs More Polluted

In the National Capital area serious plant damage was found at Mount Vernon, at Friendship Airport in Baltimore and in Washington, D.C. itself.

Damage in the suburbs was greater than in the District. Over most cities, a thermal draft carries gases upward where the hydrocarbons from automobiles mix with the nitrogen oxides from electric generating plants, airplanes and incinerators.



White pine is highly susceptible to air pollution. Note partial defoliation, especially on lower branches and right side.

The time factor necessary for these reactions to occur in the atmospheric mixing bowl helps keep the inner city from being as highly polluted as the suburbs.

Wind direction and speed are important factors regulating the areas affected and the degree of pollution. A strong wind will dissipate the gases so that smog does not build up into damaging concentrations.

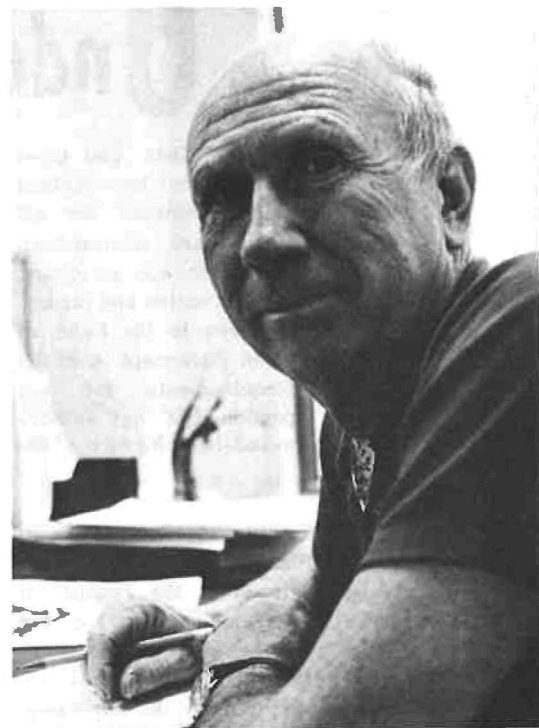
The 1970 report indicates that mostly trees were damaged. The accompanying photographs show some examples of symptoms.

It was discovered that not all individuals of the same species necessarily exhibited the same sensitivity. Some of the Oriental cherry trees near the Jefferson Memorial, for example, showed leaf damage, but other cherry trees of the same variety growing nearby showed no visible damage.

When leaves are severely damaged, they die and drop off. Because green leaves are necessary for food production, their loss reduces the vigor of the tree, makes it more susceptible to insects and disease, and reduces the floral display the following year.

One of the purposes of the study was to locate resistant individuals and propagate them vegetatively in the Ecological Services Laboratory nursery. Many factors are involved besides resistance to air pollution. Among the trees showing considerable smog tolerance were silver maple, several species of oaks and the lindens or basswoods.

The best solution to the problem of plants in the city is to eliminate the air pollution that harms them. Before this goal can be accomplished it may simply be necessary to find plants that can survive or even thrive in this environment. Until air pollution is controlled, this may be the only method we can use to make the cities more like the living parks they should be.



"Air pollution occurs inside NPS offices as well as outdoors in NPS areas," says author Maurice Sullivan. "According to the American Cancer Society, smokers reduce their life span by about 6 minutes for every cigarette smoked--a minute of life for a minute of smoking. Non-smokers are also harmed when subjected to the smoke."

"Sully" as he is known to most people, is currently a member of the Environmental Education Task Force. Results of the air pollution research that he did with Horace Wester were publicized on national TV, in local newspapers and in the "New York Times."

Most of Sully's years of government service has been with NPS. He started as a wildlife technician in the CCC program at Shenandoah and Great Smoky Mountains National Parks.

Sully spent many years as a naturalist in the southwest and northeast and recently was a research biologist at the Ecological Service Laboratory in Washington, D.C.

Under our hat

STANDARDS REVISED: The Civil Service Commission has revised the basic requirements for all grades of the park management series, GS-025, to add sociology, business administration and the behavioral sciences to the fields of study listed in Paragraph A of the "Basic Requirements for All Grades" portion. CSC has authorized a pen-and-ink change of the standard.

VOLUNTEERS WITH SPECIALIZED ENVIRONMENTAL SKILLS are being assigned at the request of some 25 developing countries for individual scientific and conservation work in an environmental program sponsored by the Smithsonian Institution and the Peace Corps. Primary emphasis to date has been on ecological research, wildlife conservation, management of national parks, forestry, fisheries and environmental pollution. For additional information, write to Robert K. Poole, Office of Ecology, Smithsonian Institution, Washington, DC 20560.

HISTORIC PHOTOS OF YELLOWSTONE: Biologists in Yellowstone NP are studying changes in the park's vegetation by comparing historic with recent photographs. They are interested in photos of un-forested areas of the park taken prior to 1940, and particularly during the drought of the 1930's. Former Yellowstone employees and others interested in the study and having such photos are asked to contact the Biologists' Office, Box 168, Yellowstone National Park, Wyoming 82190.

JUNE 16 IS NATIONAL Keystone Medallion Day, reports Carole Scanlon, Servicewide coordinator for the Centennial Women's Program. On that day women who are participating in the program will sell Keystone (Yellowstone) medallions in their parks. Ten percent of the profits raised from the sale will be returned to each participating women's group. For further information contact Carole at the Centennial office, WASO. Phone: 202-282-7001.



THE NATION'S BOLO TIE CAPITAL? That's what they call Santa Fe at the Southwest Regional Office. For proof, and to show their Centennial spirit, employees fashioned bolo ties from their Centennial buttons. Shown from the left are Charles Stebbins, Cecilia Lujan, Volney Westley, Bob Bendt, Tom Lubbert and Tom Ela. In front is Monte Fitch.

BLUE-COLLAR PAY ADJUSTMENTS PROPOSED: The Civil Service Commission has submitted an Administration proposal asking Congress to approve legislation to remove inequities in the effective dates of pay increases for Federal blue-collar employees whose pay adjustments were affected by the August 15-November 14 freeze, or by the 6-months deferral of wage surveys which was subsequently rescinded.

Approximately 214,000 workers would receive retroactive pay adjustments for periods ranging from two weeks to three months if the proposal is enacted.

The proposed bill provides that whether the wage increases were held up by the freeze itself or by the deferment of surveys, pay adjustments would be made retroactive to their normal effective dates.

EEO STRENGTHENED: A new law gives the Civil Service Commission a stronger role, including additional enforcement powers, in assuring equal opportunity in all aspects of Federal employment.

Signed by President Nixon on March 24, Public Law 92-261 includes Federal employees and agencies under the equal employment opportunity provisions of the Civil Rights Act of 1964 for the first time. It gives the Civil Service Commission direct authority to see that all personnel actions in Government are free from discrimination.

Civil service regulations which will place the Federal provisions of the law into effect are being drafted and are expected to be issued shortly.

EMPLOYEES WHO ARE ELIGIBLE to retire optionally on or before June 30 should keep in touch with their personnel offices if they wish to take advantage of the next cost of living increase, expected if the Consumer Price Index remains 3 percent above the base month. The results were 3.3 percent in February and 3.5 percent in March. If the trend continues for April, everyone who is on the retirement rolls on July 1, 1972 may expect a cost of living increase in annuities of at least 4.5 percent payable August 1, 1972. Data on the April figures were released by the CSC on May 25.

CENTENNIAL CALENDAR

June 4-18

NEW CHAIRMAN of the NP Centennial Commission is Edmund B. Thornton, president of the Ottawa Silica Co., of Ottawa, Ill. He was appointed by President Nixon to succeed Laurence W. Lane, Jr., who recently resigned. Active in many conservation and historical organizations, he is a member of the Board of Advisors of the National Trust for Historic Preservation.

CRAFTS GROUP HELPS NPS: The American Crafts Council, Inc., has entered a three-year cooperative agreement with NPS to provide craft exhibitions, conferences and workshops in the National Park System. American Crafts is to advise the NPS director regarding arrangements for the presentation of programs involving crafts and activities. Planned are exhibitions of regional work, music and photographs of the artists in their environment, actual crafts objects and the work of folk, ethnic and contemporary craftsmen.

Conferences, workshops, seminars and training in the crafts will be conducted in the park system. Such activities as glass-blowing, raku kiln building, vegetable dyeing, weaving and forging are projected. The council will also provide films and slides and set up concessions for the sale of craft objects.

"TAKE STOCK IN AMERICA", this year's U.S. Savings Bond Campaign, is in full swing. Servicewide coordinator is Ray O'Dell, procurement analyst in the Division of Property Management and General Services. "We sometimes lose sight of the fact that the Savings Bond Campaigns are important to the individual and are not an attempt by the office to build some sort of record for contributions," Ray said.

The key campaign workers in each region are: Lois Vandercreek, Midwest; Eugene Deao, Northeast; Victor Dahlberg, Pacific Northwest; James Bainbridge, Southeast; Barbara Jones, West; Jack Kozel, Denver Service Center; Marc Sagan, Harpers Ferry Center; Posey Howell, Jr., National Capital Parks; and Vernon Gibson, Southwest.

DATE	LOCATION	NATIONAL PARKS CENTENNIAL (NPC)
June 1-30	Ft. Bliss Replica Museum, El Paso, Tex.	NPC Exhibit "National Parks and the U.S. Army"
June 4	Bent's Old Fort NHS	Dedication of Blacksmith Shop (Living History Program)
June 4-25	Fine Arts Museum, El Paso, Tex.	NPC Art Exhibit--"Artists in the Parks"
June 9-11	Harpers Ferry Center	NPC Mountain Heritage Arts & Crafts Festival
June 10	Gateway Arch, Jefferson NEM	NPC Concert--St. Louis Symphony
June 11	Fort McHenry NM and HS	Flag Day Ceremony and Salute to NPC
June 11	Glacier NP	NPC Open House and Art Exhibit
June 11-12	George Washington Carver NM	NPC Bike-In
June 12	Big Bend NP	Celebration of NPC Anniversary of Establishment
June 14	San Juan Island NHP	United States and British Flags to Fly Jointly
June 15	Great Smoky Mountains NP	NPC Celebration, 38th Anniversary of Establishment Dedication of Country Store at John P. Cable Mill
June 15	Mount Rushmore NM	Celebration of 30 Millionth Visitor and Anniversary of Establishment
June 15	Fire Island NS	Dedication of Environmental Study Area Salute to NPC
June 16	Wolf Trap Farm Park	Salute to NPC, Opening of Season--Philadelphia Orchestra Concert
June 17	El Morro NM	NPC Ramah Day Open House
June 17	Navajo NM	NPC Open House--Goat Roast
June 17	Ozark National Scenic Riverways	Park Establishment Ceremony
June 17-18	Billings-Gardiner, Mont.	NPC Special Train to and from Billings
June 18	American Association of Museums, Mexico City	Premiere--Documentary Film "A Most Singular Country"
June 18	Gardiner, Mont.	Stage Coach Rides--Parade--NPC Barbecue
June 18	Devils Tower NM	NPC Old Settlers Picnic
June 18	Booker T. Washington NM	Celebration of NPC, 15th Anniversary of Establishment (Living History Program)
June 18	Watergate Theatre, National Capital Parks	Salute to NPC, Opening of Watergate Concert Series
June 18	Sylvan Theatre, National Capital Parks	Salute to NPC, Summer in the Parks, Fathers Day Celebration



Dear Editor:

Regarding the "From Yellowstone to Tomorrow" production that was seen on National boob-tube April 11th. We were all beautiful in the film and I have heard many good things and favorable comments about the presentation.

Perhaps the neatest thing about the program was the scheduling. At least here in the Northeast, the National Park Service Special appeared right after "Charlie Brown" and "Dr. Seuss". Was there some sort of a message in that?

John C. Benjamin
Seasonal Naturalist
Dinosaur National Monument

People On The Move New Faces

ATKINSON, Clifford R., to Accounting Tech, Asst Dir Finance & Control, Denver
BRYAN, Richard D., to Maintenance Worker, Pipestone NM
DENTON, Fred W., to Admin Trainee, Off of Fin & Mgmt Control, SERO
DOTY, Donna G., to Personnel Clk, Off of Organ Devel & Manpower, PNRO
GRANT, Juanita, to Mail and File Clk, Off of Fin & Mgmt Control, PNRO
HOLLAND, Margaret A., to Clk Typist, Yellowstone NP
JACKSON, Mary C., to Realty Spec, Div of Land Acquis, WASO
KOTECKI, Lawrence F., to Civil Engin, Plan & Design Services, Denver
MARQUARDT, Charlotte Kay, to Clk-Typist, Joshua Tree NM
MCCOLLISTER, Dan T., to Off Services Supervisor, Off of Fin & Mgmt Control, SERO
OTT, Martin C., to Pk Ranger, Fire Island NS
PECORARO, Jennie E., to Clk Steno, Statue of Liberty NM & Ellis Island
PRETZEL, Isabella L., to Accounting Tehn, Off of Fin & Mgmt Cptrol, PNRO

SIMMONS, Lawrence R., to Maintenance Worker, Andersonville NHS
SMITH, Robert B., to Appraiser, Asst Dir Oper, MWRO
SOUZA, Herbert H., to Personnel Mgmt Spec, Cape Cod NS
WEST, Jo Ann M., to Legis Staff Tech, Div of Legis, WASO

New Places

ANTOSCA, Joseph N., from Pk Mgr, NCP North, to same, Wolf Trap Farm Park
BARBEE, Robert D., from Pk Mgr, Cape Lookout NS, to same, Cape Hatteras NS
DELASHMUTT, Harry A. III, from Supv Pk Ranger, Great Smoky Mountains NP, to same, Mount Rainier NP
GINGERY, Marshall A., from Conser Center Dir, Mammoth Cave NP, to Reg Coord, Asst Dir Oper, SERO
HILL, Dennis L., from Roads and Trails Foreman, Grand Canyon NP, to Maintenance Supv, Fire Island NS
KELLEY, Joseph B., from Pk Tech, Fredericksburg & Spotsylvania Btld Mem NMP, to Pk Ranger, Everglades NP
KOWSKI, Wyatt F., from Pk Tech, Olympic NP, to same, Shadow Mountain NRA
LUSK, H. Gilbert, from Pk Mgr Supt, Wolf Trap Farm Park, to Supv Pk Ranger, Blue Ridge Parkway
MC HENRY, Douglas B., from Supv Pk Ranger, Shenandoah NP, to same, Everglades NP
MILLER, Bruce J., from Pk Mgr, Asst Dir Coop Act, NERO, to same, Florida-Caribbean District
NASH, Lawrence A., from Pk Tech, Independence NHP, to Pk Ranger, Hopewell Village NHS
ROBERTS, Bertrum C., from Pk Mgr, Cape Hatteras NS, to Supv Pk Ranger, Off of Oper Eval, SERO

TIPTON, Paul F., from Pk Ranger, Cape Hatteras NS, to same, Natchez Trace Parkway
VIEIRA, Walter L., from Supply Tech, Navajo Lands Group, to Procurement & Prop Mgmt Asst, Mesa Verde NP
WALTERS, William D., from Admin Off, Virgin Islands NP, to Gen Supply Off, Great Smoky Mountains NP
WHISTLER, Robert G., from Supv Pk Ranger, NCP North, to same, Padre Island NS

Out of the Traces

BIANCO, John R., from Eng Equipment Operator, Joshua Tree NM
BIERCE, Shirley M., from Sec Steno, Home of Franklin D Roosevelt NHS
CHILES, Mary Ruth, from Sec Steno, Great Smoky Mountains NP
EILERT, Ervine F., from Admin Off, Rocky Mountain NP
FITZGERALD, James R., from Pk Tech, Castillo De San Marcos NM
HAMM, Celia N., from Project Clk, Plan & Design Mgr, WRO
HIGGINS, Barbara K., from Supv Pk Guide, Mesa Verde NP
LESSEM, Harold I., from Pk Ranger, Asst Dir Coop Act, NERO
MARCROFT, Leroy E., from Chief, Div of Procurement Contracting, Off of Oper Eval, WRO
MENDLEN, Ruth L., from Pk Tech, Everglades NP
MICHENER, Guy L., from Pk Naturalist, Everglades NP
PACE, Weldon W., from Carpenter Gen Foreman, Capital Area Maintenance (Brentwood)
PIERCE, John L., from Appraiser, Asso Dir Prof Sup, SERO



NPS NEWSLETTER

U.S. Department of the Interior National Park Service



Issued biweekly by the office of the Director as a communication medium for Service personnel. Edited and published by the Division of State and Private Assistance.

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