



# BBP in Brief

A NEWSLETTER OF THE BAHAMAS BIOCOMPLEXITY PROJECT

Produced by the American Museum of Natural History's Center for Biodiversity and Conservation (AMNH-CBC)

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## Welcome...

This is the newsletter of the Bahamas Biocomplexity Project, or "BBP," also available at <http://bbp.amnh.org/bbpinbrief>. Here you can learn about the activities and progress of the BBP team and its partners. We welcome your submissions about research progress, upcoming field plans, meetings, or any other information you feel would be of interest to project partners. Submissions for consideration in future newsletters may be made to Kate Holmes ([kholmes@amnh.org](mailto:kholmes@amnh.org)) or Christine Engels ([cengels@amnh.org](mailto:cengels@amnh.org)).

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## Science Alliance Conference: Sharing Scientific Knowledge of Andros and the Bahamian Environment

Larry A. Wiedman (University of St. Francis)

The 2005 Science Alliance Conference was held on February 4–5 at the "Love at First Sight" Resort on Andros Island, Bahamas. Over 150 scientists, officials, conservation practitioners, educators, students, and interested citizens attended to discuss and learn about scientific developments pertaining to Andros Island. The conference had many supporters including Forfar Field Station (International Field Studies, Nelsonville, Ohio), The Nature Conservancy, the Bahamas Sport-fishing & Conservation Association, the University of Saint Francis (Fort Wayne, Indiana), the University of Tampa (Tampa, Florida), and the Andros Conservancy and Trust.



Partial group of attendees of the Science Alliance on Andros. © L. Wiedman

Sixteen speakers presented on topics ranging from Androsian cultural preservation and sustainability studies of fishing and forestry to the current status of the new national parks in Central Andros. The conference was offered free of charge to all island residents with the cost being picked up by the researchers who attended as a "thank you" for the gracious hospitality, scientific assistance, wisdom, and historical help that has been so freely provided by Androsians. The special, symbiotic relationship between the people of Andros and the researchers was discussed throughout the presentations, including during the evening key note addresses by Ken Massie, the Bahamas Project Manager for the Caribbean Regional Environmental Programme; Chris Hamilton (Executive Director) and Eric Carey (Parks Partnership Project Coordinator) of the Bahamas National Trust; and Vincent Peet, Minister of Parliament for North Andros.

The three main outcomes of the conference were: (1) a renewed sense of cooperation between scientific, educational, governmental, and conservation groups that have interests in and around Andros; (2) a template for future conferences that highlights the uniqueness and concerns of Bahamian Islands with respect to scientifically-driven conservation and development issues; and (3) an exchange of information through presentations and side meetings among researchers, representatives of organizations, and local citizens. These results have certainly helped foster a sense of empowerment among the local people who attended. Proceedings of the conference are now being developed and will soon be available. Discussion of a follow-up conference to be held in three or four years has already begun. For further inquiries about the Andros Science Alliance meeting, contact Larry Wiedman at [docw@fwi.com](mailto:docw@fwi.com).

## Parks Partnership Project: Creating a Model for Developing Management Plans for Bahamian National Parks

Shenique Albury (Bahamas National Trust)

The Parks Partnership Project, led by the Bahamas National Trust (BNT), seeks to increase and improve the capacity of the BNT to manage the national park system of The Bahamas. This partnership has been made possible by the generous financial support of The Bacardi Family Foundation, which has a longstanding interest in the natural environment of The Bahamas, and by the technical and financial support of The Nature Conservancy (TNC).

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For one part of the project, the Partnership is working to create a model process for developing management plans for national parks in The Bahamas. The Exuma Cays Land and Sea Park (ECLSP) and the Central Andros National Parks System are the focal parks for this effort. The management planning team, comprised of BNT staff, park planning experts, and other stakeholders, completed the draft management plan for the ECLSP this past March. On March 31, a copy of the draft management plan was officially presented to Manuel Cutillias and Mr. Robert O'Brien (Bacardi Family Foundation), Eleanor Phillips (Director, Bahamas Country Program, TNC), and Colin Lightbourn (President, BNT).

Currently the plan is being circulated for public review and comment in hard copy and electronic formats. A public meeting was held in Nassau in late April and other meetings will be held in two Exuma Cays communities and George Town in May. During these meetings, stakeholders can talk with the planning team and submit written and oral comments. The specific dates and locations of public meetings will be announced through the BNT website and community announcements. Following review by stakeholders, the management planning team will make final revisions.

If you would like an electronic copy of the plan, visit <http://www.bahamasnationaltrust.com> and download a PDF version. Comments may be submitted by e-mail to Eric Carey, [ecarey@batelnet.bs](mailto:ecarey@batelnet.bs), mailed to P.O. Box N-4105, Nassau, The Bahamas or faxed to 242-393-4978. The Bahamas National Trust must receive comments by May 31, 2005 to consider incorporating your suggestions into a final copy.



Partnership management planning team meeting at BNT. © BNT

## Nassau Grouper Closed Season Campaign: Bahamians and Others Encouraged to Give Grouper a Break

Casuarina McKinney (BREEF)



Grouper postcard mailed to consumers in The Bahamas and abroad. C. McKinney © BREEF

This past winter saw the nationwide closure of the Nassau grouper season from December 16, 2004 through February 16, 2005. In addition, the spawning aggregation site off High Cay, Andros, was closed for the entire spawning season.

To promote awareness of the closed season, BREEF has been showing a public service announcement in local cinemas. BREEF and the Bahamas National Trust, along with other conservation organizations, have also been using outreach materials, such as postcards, email announcements, and leaflets to encourage consumers to support Bahamian fishermen through the choice of other fish during the grouper closed season. Alternatively, these groups suggest, through their self-interested spokesfish, "Eat Beef!"

Nassau groupers spend most of the year living on their own, but in the winter they swim hundreds of miles and group together by the thousands in order to spawn. Stocks of Nassau grouper in much of the Caribbean have been rendered commercially extinct as a result of fishermen targeting these spawning aggregations.

The Nassau grouper is now on the World Conservation Union's (IUCN) Red List of Endangered Species, and it is a candidate for the U.S. Endangered Species List. The Bahamas has some of the last remaining spawning stocks of the Nassau grouper in the wider Caribbean. Other countries are also now protecting their Nassau grouper stocks. Belize has legislated a four-month closed season, and has protected 11 aggregation sites within marine reserves. In December 2003 the Cayman Islands closed their grouper aggregations for the following eight years. Nassau groupers are completely protected in U.S. waters. This closed season protects the Nassau grouper at a critical point in their life cycle when they are most vulnerable. Allowing more fish to successfully spawn at this time means more fish for us to catch and eat later.

The Bahamian public, recognizing that Nassau grouper stocks are threatened and wanting to ensure that they have fish for future generations, have, for the most part, favorably received the closed season. It is critically important that we continue to improve our enforcement so that poachers (both domestic and foreign) are properly dealt with. In order to effectively protect our groupers, The Bahamas should extend the closed season to include at least three months of the spawning period, and this closure should be properly legislated. For further inquiries about BREEF's efforts in support of grouper closures, contact Casuarina McKinney at [casuarina@breef.org](mailto:casuarina@breef.org).

## BBP Meeting Plans for this Year

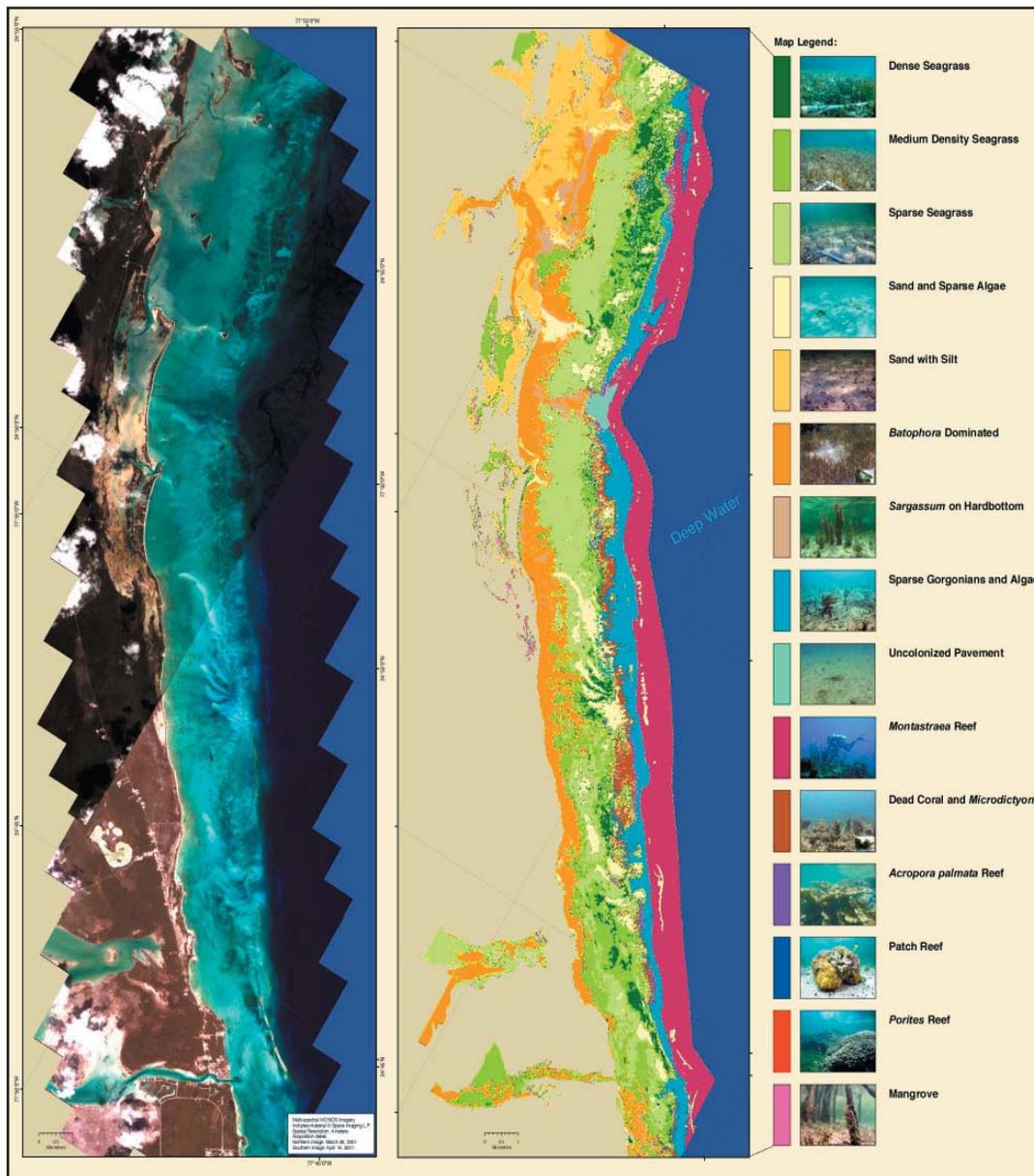
Dan Brumbaugh (AMNH-CBC)

The various research components of the Bahamas Biocomplexity Project (BBP) are reaching the exciting stage where we will focus on integrating our findings across working groups and disciplines. Thus, instead of the large, general meeting in Nassau or Miami as in previous years, there will be a series of smaller meetings within and among the BBP working groups that will be devoted to specific analytical and integrative research, as well as the writing of results. Further information about these work sessions will be announced via email as they are planned over the coming months.

Until we have the opportunity to meet as a large group again, please remember that there are a number of ways to stay connected with the overall project. The *BBP in Brief* newsletters (also available at <http://bbp.amnh.org/bbpinbrief>), produced biannually, provide coverage of various parts of the project as well as other relevant activities in The Bahamas. We're entering a phase where we need to be as interactive and productive as possible to achieve our collective goals, so I encourage you to pick up the phone or email me or other BBP collaborators with your questions, concerns, and suggestions: [brumba@amnh.org](mailto:brumba@amnh.org), (831) 420-3963.

## Benthic Habitat Maps from BBP Surveys

Kate Holmes (AMNH-CBC)



The Habitat Working Group of the BBP is in the process of developing a series of detailed benthic (or sea floor) habitat maps for the areas in The Bahamas where we have conducted underwater surveys. The maps are being made into large posters, each with a high-resolution IKONOS satellite image of the region, a colored map depicting the various marine habitats, and a detailed legend with photos and descriptions of each of the habitats we are using. The posters will be made available to conservation organizations, schools, and other interested groups.

A year ago, an initial version of a poster depicting a stretch of Andros – the eastern coastal area three kilometers north of Stafford Creek to just south of Fresh Creek – was distributed to various conservation and environmental groups in Andros. Since then, we have adjusted the general design and added clearer descriptions in various habitats, including notes about some of the important species. We hope to soon distribute maps from Andros, Northern San Salvador, and Elbow Cay of Abaco, and are in the early stages of developing maps for portions of the Exumas and South Caicos. If you would like to review the maps and provide comments that would help us improve their usefulness to you and others, please contact Kate Holmes at [kholmes@amnh.org](mailto:kholmes@amnh.org).

Excerpt from the BBP's Andros Benthic Habitat map, featuring images of the east coast of Central Andros, The Bahamas and an accompanying legend (simplified here). The depicted area ranges from 3 kilometers north of Stafford Creek to just south of Fresh Creek. K. Holmes © AMNH- CBC

## Digital Library Training at the American Museum of Natural History

Shananda Miller (College of The Bahamas)

In October 2004, I had the opportunity to train with fellow librarians at the Library of the American Museum of Natural History, New York, USA. The Museum has been developing “digital libraries,” and this was a chance for me to learn some of the approaches needed to develop appropriate and useful digital resources for the College of The Bahamas (COB). The definition of “digital library” varies tremendously but, simply put, it includes the use of computer technology to copy, store, share, and preserve library materials in electronic (or “digital”) format.

The training, although short, was a fantastic learning experience. The staff was very hospitable and helpful. On Monday morning, Barbara Mathe, Museum Archivist and the Head of Special Collections, gave me a quick tour of the Museum Library. I later met with Tom Moritz, Director of Library Services and with Anthony Troncale, Assistant Director of Digital and Special Collections. We discussed my goal to increase the knowledge and expertise to develop digital resources in The Bahamas in a responsible, sustainable, and systematic manner that could then be integrated with other library procedures and workflow. In addition, I wanted to determine a good starting point that the COB Library can take to digitize a portion of our collection.

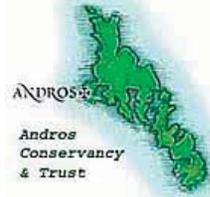
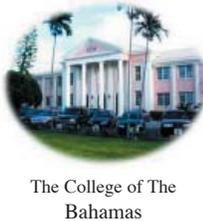
I learned that the digitization process should begin with careful thought regarding target audience, and should include wide consultation with reference librarians, collection development specialists, preservation experts, information technician specialists, and representative users. It not only involves scanning, but cataloging and organizing the resources. The inner “wheel” of the whole process should include the users and the collection. The middle wheel should consist of staff, funds, and technical and physical infrastructure. Finally, the outer wheel should comprise selecting, benchmarking, digitizing, setting and observing quality control, creating metadata (descriptive information or “data about data”), processing images, system building, access, preservation, and management. It is important to be aware of the formats within the collection and the types of digitization formats. In addition, strategies must be devised to capture the data.

This training experience was very informative and has peaked my interest in digitization and being a part of building a digital library. Moreover, being significantly involved in building a digital library, in particular one of our own, has now become a focus of my long-term goals.



Photos, such as this one taken at the Lerner Marine Lab in Bimini in 1952, can be incorporated into digital libraries. © AMNH

## BBP Collaborators and Partners



## What is BBP?

The Bahamas Biocomplexity Project (BBP) is a five-year initiative funded primarily by the National Science Foundation to investigate the complex environmental and social factors that affect the design, management, and effectiveness of networks of marine protected areas (MPAs). Researchers involved in the project include oceanographers, biologists, and social scientists from nine institutions working in collaboration with various governmental and non-governmental groups in The Bahamas.

Ultimately, the primary goal of the project is to integrate studies of natural and human processes, leading to a more sophisticated understanding of how individual MPAs work, and how they could work as part of a network throughout The Bahamas and in other coral reef ecosystems. Other important goals include the integration of this research with education and decision-making.

The BBP is funded primarily by the National Science Foundation's Biocomplexity in the Environment Program (NSF-BE). This newsletter is made possible through funding from the National Aeronautics and Space Administration (NASA).

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