

CBD Submission from the United States, Decision X/44 -- Incentive Measures

U.S. Department of Agriculture's Biodiversity-Related Incentive Measures

| Program Name | USDA Contact | Program Description | Website (if applicable) |
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| Soil and Water Resources Conservation Act (RCA) Data Viewer | Dan Mullarkey, NRCS RCA Coordinator at (301) 504-2344 or E-Mail RCA@wdc.usda.gov | The Soil and Water Resources Conservation Act (RCA) authorizes USDA to report on the condition of natural resources, and to analyze conservation programs and opportunities. This site supports the RCA by providing data from a variety of sources, including data on the status and trends of natural resources, conservation efforts (funding and conservation practices applied), and the agricultural sector. Reports are available at the State, Regional (either USDA Farm Production Region, or CEAP Region) and National levels. | http://soils.usda.gov/survey/rca/viewer/ http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/nra/rca |
| Web Soil Survey (WSS) | NRCS, SSD, NSSC Lincoln NE, 402-437-4000 | Web Soil Survey (WSS) provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world. NRCS has soil maps and data available online for more than 95 percent of the nation's counties and anticipates having 100 percent in the near future. The site is updated and maintained online as the single authoritative source of soil survey information. | http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm |
| Soil Quality, Soil Health | Dr. Susan Andrews, NRCS NSSC, Lincoln NE 402-437-5687; Ray Archuleta, NRCS, ENTSC, Greensboro, NC 336-370-3360 | The National Soil Health and Sustainability Team located at the East National Technology Support Center in Greensboro, NC, specializes in technology transfer and training to improve soil health, productivity, and air and water quality. The interdisciplinary staff conducts soil health training for NRCS employees, conservation partners, farm groups, and producers; | http://soils.usda.gov/sqi/ http://soils.usda.gov/sqi/concepts/soil_biology/biology.html |

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| | | <p>develops educational materials and demonstrations to highlight conservation practices that improve soil health; and works with state soil quality/soil health specialists to incorporate soil health concepts into conservation planning and programs. This staff coordinates and instructs "Soil Health and Sustainability for Field Staff" training offered by the NRCS National Employee Development Center (NRCS-NEDC-000050).</p> <p>The National Soil Quality and Ecosystems Branch located at the National Soil Survey Center in Lincoln, NE, specializes in technology development and technical assistance for soil quality assessment and inventory. The interdisciplinary staff develops new tools and decision support aids for assessment; interpretations of dynamic soil properties; standards for inventory; new methods for field recording; as well as innovative data storage and retrieval systems. This staff offers training and assistance for in-field soil quality assessment, dynamic soil properties inventory, ecological site description (ESD) development and related topics upon request.</p> | |
| PLANTS Database | NRCS PLANTS Team plants@ftc.usda.gov | The PLANTS Database provides standardized information about the vascular plants, mosses, liverworts, hornworts, and lichens of the U.S. and its territories. | http://plants.usda.gov/java/ |
| The Migratory Bird Habitat Initiative (MBHI) | L. Pete Heard NRCS, Director 601-607-3131 pete.heard@ms.usda.gov | Under the NRCS Migratory Bird Habitat Initiative (MBHI) more than 470,000 acres are set aside for restoration and enhancement. Projects provide food and critical habitat for bird populations; much-needed water during drought; support for local economies by attracting hunters and bird watchers; and new opportunities to improve wildlife management. Participating states are: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, and Texas. NRCS helps partners deliver MBHI through its Wetlands Reserve | http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/national/home/?&cid=steldevb1027669#Contacts |

National Park Service Biodiversity Discovery Programs and Activities

The diversity of native species of plants and animals and the genetic material they contain (biodiversity) is declining globally at a historically unprecedented rate. National park lands and waters are considered refuges of biodiversity due to their relatively undisturbed state; however estimates indicate that 80-90 percent of park species are still undiscovered, including many invertebrates, non-vascular plants, fungi, and microorganisms. This lack of knowledge makes it impossible to preserve living resources from threats such as invasive species, disease, population pressure, and climate change.

The National Park Service (NPS) is working to preserve biodiversity more broadly by restoring ecosystems, controlling invasive species, practicing integrated pest management, and through other conservation measures. Preserving biodiversity—from the beetle to the grizzly bear—allows us to ensure genetic diversity, understand how the pieces of an intact ecosystem fit together, and detect long-term changes in our environment. In preserving biodiversity we also ensure that our future citizens, artists, and explorers of science experience our lands as the founders of the parks did long ago.

Understanding and building nature's resilience is vital to reducing impacts on people and nature, through strategic approaches. These impacts include habitat loss and fragmentation, climate change, deforestation, ocean acidification (coral reef bleaching), invasive species, diseases, obstacles to migration and other wildlife movement, , alternative energy development including wind turbine and wave energy development, transmission lines, herbicides and pesticides, marine debris and others - just some of the factors that must be included in strategies for increasing resilience in wildlife species and habitats in order to preserve and retain biodiversity on a national and international basis.

At the same time, millions of visitors come to parks each year, eager to assist and become involved. By partnering a pressing need with a plentiful resource, NPS units are engaging in "Biodiversity Discovery" initiatives, a term which refers to a variety of efforts to discover living organisms through public involvement. Examples include multi-year All Taxa Biodiversity Inventories (ATBIs) that aim to document all species in a geographic area and short term "bioblitzes" that search for species within a limited time frame. Because Biodiversity Discovery activities often require only excited minds and willing hands, they appeal to children and non-scientists as much as to subject matter experts, with many participants becoming avid supporters of parks and biodiversity conservation.

The NPS is assuming a national leadership role in biodiversity conservation and serves as a model for natural areas throughout the nation and world:

- The NPS “*Call to Action*” includes a “Next Generation Stewards” strategy which envisions creating a new generation of citizen scientists and future stewards by conducting Biodiversity Discovery activities of varying levels in at least 100 national parks by 2016. The action seeks to involve participation by diverse audiences, especially children, develop ongoing and new partnerships with multiple stakeholders, and incorporate citizen science into NPS management practices and programs.
- During the past 10 years, and over 40 individual NPS units have participated in Biodiversity Discovery activities. These efforts have involved more than 22,000 volunteers and resulted in the discovery of more than 19,000 species new to parks and 1,050 species new to science.
- Great Smoky Mountains National Park and their non-profit partner, Discover Life in America, have pioneered a comprehensive ATBI since 1997. Thousands of volunteers have participated and ATBI findings have been integrated into park management and interpretation.
- Boston Harbor Islands National Recreation Area began an ATBI program in 2004 with help from Dr. E. O. Wilson and invertebrate experts at the Harvard Museum of Comparative Zoology. They have translated findings into educational products, including a curriculum for grades 5–8 that involves local fifth graders in the ATBI.
- A project to model the distribution of bee species in parks and examine possible effects of climate change on pollination began in 2010. In 2011, 46 parks across the country participated, resulting in collection of about 8,000 specimens. Identification to date has revealed 36 genera. So far, 21 bumblebee species have been identified from 10 parks.
- Large bioblitzes are exemplified by the National Geographic Society/National Park Service partnership, in which one bioblitz per year is executed in an NPS unit for the ten years leading up to NPS Centennial in 2016. The events engage urban audiences and are high in profile. The 2011 bioblitz occurred in Saguaro NP: 5,500 participants discovered approximately 900 species in a 24 hour time period.
- Biodiversity conservation and restoration are being encouraged for emphasis in park planning documents
- Biodiversity inventory, monitoring, and preservation are being addressed in the NPS at the national and international level.
- NPS Natural Resource Stewardship and Science and Office of International Affairs staff serve on the US Delegation to the Biodiversity Work Group of the Council for Environmental Cooperation and the TriNational Committee
- Conserving North American Grasslands: Building Capacity for Grasslands and Biodiversity Conservation in Northern Mexico and US southwest borderlands
- The NPS is actively involved in international efforts to support existing and develop new protected areas and to protect biodiversity through programs of technical assistance, staff training and exchanges, twinning of “sister” protected areas, promoting natural World Heritage sites, and other initiatives.
- Protecting priority areas from invasive alien species

- Conserving the Monarch butterfly flyways and habitats as well as other migrating invertebrate species
- Conserving marine species and their habitats
- Working with partners on a national and international basis to identify and protect pollinator corridors
- Working collaboratively with state, federal, tribal and NGO partners to identify and map wildlife corridors through the NPS Call to Action, America's Great Outdoors (Design Resiliency Networks: biological corridors, seamless networks, flyways), and implementing the 2009 Joint Secretarial MOU on collaborative efforts to identify, map and establish wildlife movement corridors between states and countries
- Increase Capacity to for species and habitats to recover (design early detection tools, monitoring protocols, others)
- Implement Species Repatriation (Species of Concern, keeping common species common, species at risk and T&E)
- Enhance protected core areas such as national parks, monuments, refuges and marine protected areas and reserves that strengthen resiliency, which in turn will help ensure the security of millions of people utilizing healthy lands: Healthy People, Healthy Parks Initiative
- Promote and expand protection of healthy reefs, mangroves and coastal wetlands that can minimize damage to coastal communities by buffering them against increasingly frequent and intense storms;
- NPS units are available to the research community for conducting small scale research projects under terms of a Scientific Research and Collecting Permit. The research community gains access to parks and provides annual accomplishment reports through the Research Permit and Reporting System (<https://science.nature.nps.gov/research>). Parks provide mechanisms for researchers to conduct research in parks and sometimes provide in-park assistance to the researchers such as temporary quarters.
- Protect and restore forests within and adjacent to national park units that can reduce soil erosion and mudslides brought on by changing weather patterns and catastrophic events;
- Maintain Healthy, connected, genetically diverse wildlife populations and habitats

Also see: <http://www.nature.nps.gov/biology/biodiversity/biodiversitydiscovery.cfm>,
<http://www.nature.nps.gov/biology/migratoryspecies/>

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