



Department of Conservation & Recreation
CONSERVING VIRGINIA'S NATURAL AND RECREATIONAL RESOURCES

Virginia Natural Heritage E-News

Conserving Virginia's Biodiversity through Inventory, Protection and Stewardship **Spring 1999**

THREE NEW NATURAL AREA PRESERVES ESTABLISHED AT THE END OF 1998

The end of 1998 brought the establishment of three new Natural Area Preserves, bringing the Preserve System to 26 areas and 13,793 acres. Dr. Robert and Elizabeth Mueller were the first Virginians to dedicate their land into the Natural Area Preserve System. The Muellers retain ownership of the site, Folly Mills Creek Fen Natural Area Preserve, and have assured its protection in perpetuity through the dedication. Folly Mills Creek Fen is an exemplary example of a calcareous wetland supporting many rare plants. DCR acquired the 854 acre Grassy Hill Natural Area Preserve, Franklin County through a charitable sale from Judge Charles Carter Lee. Grassy Hill supports exemplary grassland communities and numerous rare plants. Dameron Marsh Natural Area Preserve, Northumberland County was acquired by DCR with the assistance of The Nature Conservancy, the Army Corps of Engineers, and the Northern Neck Audubon Foundation. This 316 acre natural area supports outstanding examples of Chesapeake Bay beach, marsh, and bird nesting habitats and a federally listed animal.

KANKAKEE GLOBE-MALLOW SURVEY COMPLETED

A report documenting the 1998 survey for the globally rare Kankakee globe-mallow (*Iliamna remota*) (G1QS1) in river-scoured habitat along the James River in Botetourt County was submitted to the Virginia Department of Agriculture and Consumer Services. This species, a member of the mallow family, has only been found at 1 site in Illinois, 2 sites in Indiana, and 11 sites in Virginia. All of the Virginia sites are associated with human-disturbances near the Jackson and James Rivers in western Virginia. The 1998 survey targeted riverine habitat more similar to what is

considered to be this species natural habitat in Illinois. Habitat along 40 miles of the James River between Glen Wilton and Arcadia, Botetourt County was surveyed. No occurrences of this species were found. Fourteen new locations for a state rare plant, common clammy weed (*Polanisia dodecandra* ssp. *dodecandra*) (G5S1), and 4 small occurrences of a rare Riverside Prairie vegetation community were found. This survey was funded by VDACS and the U.S. Fish and Wildlife Service.

PYRGUS WYANDOT WARRANTS IMMEDIATE CONSERVATION MONITORING

A final report entitled "Conservation Status Assessment for the Grizzled Skipper (*Pyrgus wyandot*) (G2S2) on National Forest Lands in Virginia" has been submitted to the U.S. Geological Survey, Biological Resources Division. Field surveys were completed by Natural Heritage zoologists in the early spring of 1997 and 1998 at 34 sites in eight counties. The Grizzled Skipper was reconfirmed at only two known localities, but no new populations were discovered. Since 1992, only three sites have had confirmed reports of the Grizzled Skipper. Given the few recent records and the apparent small population sizes, it is evident that *Pyrgus wyandot* warrants immediate conservation attention and monitoring.

MID-POINT OF QUANTICO MCB STUDIES

Natural Heritage Inventory scientists have completed the first year of a project to document Natural Heritage Resources at Quantico Marine Corp Base in Northern Virginia. The study is designed to 1) look for federally endangered small whorled pogonia in proposed timber harvest unit, 2) document the health of a population of the

federally endangered dwarf wedge mussel (*Alismadonta heterodon*), 3) survey the base for baseline information on the butterflies and moths, and 4) document the flora and vegetation of the annually-burned grasslands on the base. The study will be completed in early 2000.

MUSSEL STATUS SURVEY REPORTS COMPLETED

Separate reports concerning the status of two rare freshwater mussel species were prepared by Natural Heritage staff zoologist Steve Roble for the U.S. Fish and Wildlife Service. The first report concerned the green floater (*Lasmigona subviridis*) (G3S2) a species under consideration for possible listing as endangered or threatened by the Service. It is currently regarded as a "species of special concern" in Virginia, but the survey results indicate that most of the few remaining populations in the state are small and subject to declining water quality and other threats to their long-term survival. The second report concerned the brook floater (*Alasmidonta varicosa*) (G3S1) an endangered species in Virginia, and one of the rarest freshwater mussel species within the state. This species appears to be on the brink of extirpation in Virginia, but good populations remain in the northern portion of its range, particularly in New York and New England, such that it is unlikely to be listed as endangered or threatened by the Service in the near future.

"BIG SURVEY" - WYTHE COUNTY

Field zoologist Chris Hobson completed the final report for the "Big Survey" Natural Heritage Inventory. The "Big Survey" is a large, privately owned tract of land in Wythe County, Virginia, just south of the town of Wytheville. In 1997, the DCR was contracted by the Western Virginia Land Trust, in cooperation with the private landowners and the town of Wytheville, to conduct a Natural Heritage Inventory of the area. Highlights of the project include a record for the herodias underwing moth (*Catocala herodias*) (G3S1), and several watchlist animal species. No rare plants or exemplary natural communities were

documented during the inventory, although several good examples of acid cove forest, a scrub oak - pine forest, and acidic seepage habitats with round-leafed sundew (*Drosera rotundifolia*) and abundant sphagnum were noted.

KERR RESERVOIR NATURAL HERITAGE RESOURCE SURVEY COMPLETED

The US Army Corps of Engineers' Kerr Reservoir is located on the Roanoke River and straddles Virginia and North Carolina. The Virginia and North Carolina Natural Heritage Programs conducted a two year survey at Kerr Reservoir for significant natural communities and rare plants and animals. A total of 107 natural heritage element occurrences (rare species and natural communities) were found, including 51 significant natural communities representing 18 community types or subtypes, 42 rare plant occurrences of 23 taxa, and 14 animal occurrences of 12 taxa. One federally listed and state listed species, the Bald Eagle, was found to nest on Kerr Reservoir property. The Virginia Natural Heritage Program is now embarking on another two year project, the collecting of vascular plant species found at Kerr Reservoir in order to produce a complete floral checklist.

TWO STATE RECORD MOTHS CAPTURED ON NATURAL AREA PRESERVE

Staff Zoologist Steve Roble was joined by Drs. Tim McCabe and Charles Sheviak of the New York State Museum for a night of moth sampling at the Antioch Pines Natural Area Preserve, Isle of Wight County and adjoining Blackwater Ecologic Preserve (latter owned by Old Dominion University). Two species of moths that had not been previously documented in Virginia were captured at the Antioch Pines Natural Area Preserve that evening. The cypress sphinx (*Isoparce cupressi*), was until recently known to range only as far north as South Carolina; however, it was captured in the past year or two in a cypress swamp in Maryland and

thus expected to turn up eventually in Virginia. One adult of this cypress-feeding species was captured. In addition, a single specimen of the large necklace moth (*Hysoropha monilis*) was captured on the preserve. This persimmon feeder was previously recorded as far north as North Carolina and Kentucky.

RARE AMPHIPOD DISCOVERED ON NATURAL AREA PRESERVE

Staff Zoologist Steve Roble and Chesapeake Bay Region Natural Area Steward Jenn Allen discovered a population of the globally rare Tidewater amphipod (*Stygobromus indentatus*) G2G3/S2 on the Hughlett Point Natural Area Preserve. This eyeless, albinistic species of shrimp-like crustacean inhabits groundwater areas from northeastern North Carolina to eastern Maryland. The amphipods are typically found in headwater seepages and springs, habitats that are lacking on the preserve.

TWO RARE SPECIES OF DRAGONFLIES FOUND ON DRAGON RUN

Field Zoologist Chris Hobson, Field Botanist Allen Belden, and Dave Rhodes with Friends of Dragon Run surveyed a portion of Dragon Run on April 14. Among the many species of birds (35 + species), abundant plant life, and various insects were two rare dragonfly species. Both species have restricted ranges in Virginia. The robust baskettail (*Epiptera spinosa*) (G3G4/S2) was extremely abundant in the area (150 + individuals), while the Selys' sunfly (*Helocordulia selysii*) (G4S2) was observed only once. Featherfoil (*Hottonia inflata*) (G4S2), a rare plant, was present in great numbers, and Great Blue Heron, Red-winged Blackbird, Prothonotary Warbler, and Northern Parula Warbler were among the bird species typifying the avifauna of the magnificent cypress-tupelo bottomlands found along "The Dragon."

NATURAL HERITAGE DATA MANAGEMENT SYSTEM ACTIVITY DECEMBER - APRIL

Over the winter 519 rare plant, animal and exemplary natural community records were

added to the Natural Heritage Data Management System, and 1,008 records were revised. During this same time period we responded to 1,090 requests for natural heritage resource information. Some 1,100 visitors logged onto the Natural Heritage Web Site between December and April.

SPECIAL BIOLOGICAL AREAS ON THE JEFFERSON NATIONAL FOREST

Natural Heritage and George Washington & Jefferson National Forest staff met on April 15 to discuss Special Biological Areas on the Jefferson National Forest. At this meeting, 40 new areas in addition to 47 sites previously identified were nominated for Special Interest Area and Research Natural Area designation. The 87 sites have been identified through field surveys conducted by NH field scientists and cooperators. Boundary and biological significance of each of the areas was discussed. Protection of these areas is being pursued by Natural Heritage and Forest Service staff as part of the Jefferson National Forest planning effort.

KARST RESOURCE PROTECTION ORDINANCES

Rockbridge, Tazewell, and Page Counties are the latest to request assistance with the development of local sinkhole and karst resource protection ordinances. Terri Brown, Natural Heritage Karst Protection Specialist is working with the Virginia Cave Board and other partners to develop ordinance writing workshops in these areas later this year.

NEW RESOURCE MANAGEMENT PLAN FOR HUGHLETT POINT NATURAL AREA PRESERVE

Natural Heritage Conservation Planner Sandra Erdle recently completed a comprehensive planning and writing project that culminated with the printing of a new Resource Management Plan for Hughlett Point NAP, Northumberland County. The plan describes the resources located at the preserve, defines DCR's goals and objectives for the property, and explains the rationale for the management

approach that will be taken in the long-term stewardship of this significant natural area on the western Chesapeake Bay shoreline.

PINNACLE NATURAL AREA PRESERVE CLEAN-UP AND FIELD TRIP

Southwest Virginia Region Natural Area Steward, Claiborne Woodall and Hungry Mother State Park's Forest Atwood hosted a group of "Spring Breaking" students from Miami International University on March 28th at the Pinnacle Natural Area Preserve, Russell County. They picked up a heaping pickup-truck load of litter and bulk trash (car parts, etc) along Big Cedar Creek from the suspension bridge to the Big Falls. During lunch, Claiborne spoke about the Natural Heritage Program, Pinnacle NAP, and The Nature Conservancy's Clinch Valley Bioreserve. After lunch, the group broke into two groups - each getting a chance to see the overlook above the Pinnacle rock and the sinkhole cave on the Baker Farm.

NEW DCR PUBLICATION ON MANAGING INVASIVE PLANTS

Stewardship Biologist Kevin Heffernan is the author of a new DCR publication entitled "Managing Invasive Alien Plants in Natural Areas, Parks, and Small Woodlands." The project was made possible by a NOAA grant administered through DEQ's Virginia Coastal Program. This product is best characterized as a management guide, written to help landowners and land managers to evaluate and deal effectively with a variety of invasive plant infestations. The focus of the guide is to encourage effective management through a process of problem severity evaluation,

prioritization, and control strategy selection. This publication, like other NH Stewardship materials, are available either on the DCR web site or in hard copy on request from the Division of Natural Heritage.

NEW NATURAL HERITAGE STAFF AND RESOURCES

The 1998 and 1999 General Assemblies and Governor Gilmore have provided DCR's Natural Heritage Program with 26 new full time staff and \$1,000,000 in general funds to better meet our goal of conserving Virginia's biodiversity through inventory, protection and stewardship. New positions funded by the General Assembly and Governor Gilmore include four Regional Natural Area Stewards, Jennifer Allen, Claiborne Woodall, Craig Young and Paul Clarke; Natural Area Fire Manager - under recruitment; Stewardship Specialist Rebecca Wilson, Natural Area Vegetation Ecologist Phil Coulling, and Information Specialist Cathy Milholen. New positions which the Natural Heritage Program will fund with grants and contracts we receive are Field Ecologists Kathleen McCoy and Dean Walton, Field Botanist Nancy VanAlstine, Field Zoologist Anne Chazal, GIS Planner Joe Weber, Locality Liaison Robbie Barbuto, Fire Management Specialist Jim Rudnicky, and a Karst Specialist to be hired. Additional unfunded positions will be filled as grant and contract funds are secured. In addition, eight of the 26 new positions will be available on July 1, 1999 for Natural Area operations, protection and inventory. We are all extremely grateful for these much need resources to further the efforts of conserving Virginia's natural heritage.

STAFF

Thomas Smith, Division Director
Jennifer Allen, Chesapeake Bay Region Steward
Robbie Barbuto, Locality Liason
Allen Belden, Field Botanist
Lesa Berlinghoff, Project Review Coordinator
Terri Brown, Karst Protection Specialist
Steve Carter-Lovejoy, Information Manager
Anne Chazal, Field Zoologist
Paul Clarke, Mountain Region Steward
Phil Coulling, Vegetation Ecologist
Sandra Erdle, Conservation Planner
Gary Fleming, Ecologist
Amber Foster, Zoology Intern
Kevin Heffernan, Stewardship Biologist
Chris Hobson, Field Zoologist
Monika Huddleston, Program Support Technician
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Faye McKinney, Administrative Assistant
Cathy Milholen, Data Management Specialist
Rick Myers, Stewardship Manager
Steve Roble, Zoologist
Megan Rollins, Database Manager
Jim Rudnicky, Fire Management Specialist
Larry Smith, Natural Areas Protection Manager
Nancy VanAlstine, Field Botanist
Joe Weber, GIS Project Manager
Irv Wilson, Stewardship Technician
Dean Walton, Field Ecologist
Rebecca Wilson, Stewardship Specialist
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