

VABCI Justification

Over the past two decades, the bird conservation community has undergone an unprecedented organizational transformation in creating networks of partners operating at various scales (international, national, regional and state) and working under common frameworks. One of the results has been an incredible amount of output in the form of conservation plans geared toward different avian taxonomic groups, and, more recently, toward integrated bird conservation transcending taxonomic boundaries. The state of Virginia itself has a long history of excellence in bird conservation implemented by a diverse community of organizations with programs dedicated to the conservation of natural resources. In many cases, geographic and project-based partnerships have been critical to the successful delivery of avian conservation within the state. What Virginia is currently missing is a state-level, partner-driven initiative to a) tie past, current and future avian conservation actions into a meaningful whole that is geared toward the accomplishment of mutually-agreed upon, clearly defined goals and objectives; b) link local avian conservation actions being implemented in Virginia to statewide, regional, national and international conservation actions and objectives, with the understanding that the Virginia avifauna is a resource that is shared across geopolitical borders; and c) create permanent partnerships that will facilitate information exchange and that will enable a synergistic approach to tackling the conservation challenges faced by Virginia's avifauna today and into the future. The Virginia Bird Conservation Initiative (VABCI) proposes to fill these roles.

VABCI Concept

- *VABCI vision:* VABCI is a voluntary, science-based, cooperative partner-based initiative with the goal of implementing all-bird conservation at the state level and across state borders to the following end:

** to restore Virginia populations of declining priority avian species (breeding, wintering and migrant) to self-sustaining and/or historic levels by providing the high quality habitat necessary to support their requirements, and by addressing other population limiting factors.*

- *All-bird conservation:* As an all-bird conservation initiative, VABCI will work toward integrating conservation actions geared toward multiple species groups. VABCI will identify and prioritize projects with the potential to benefit diverse taxa associated with similar habitats or management needs (ex. ducks, rails and other marsh birds using similar wetland habitats, early-successional passerines and upland game birds). As part of its inclusive view toward all birds, VABCI will strive to meet the needs of species across seasons, so that Virginia's breeding, wintering and migrant populations all receive due consideration. Such consideration may need to extend to geographic areas beyond state boundaries where a particular migratory species may breed or winter. There is a growing emphasis in the bird conservation community on addressing conservation challenges across geopolitical boundaries in working toward the restoration of migratory bird populations. VABCI will be cognizant of population and habitat issues on the wintering grounds of migratory birds breeding in Virginia, and on the breeding grounds of migratory birds wintering in Virginia. Studies on population limiting factors in these two seasonal stages of Virginia's bird populations will require assessment in order to guide VABCI involvement in conservation actions undertaken outside of Virginia. See p. 80 of the South Atlantic Migratory Bird Initiative Implementation Plan for examples of efforts to link to conservation occurring in Mexico.
- *Partnership as the foundation:* VABCI will operate as a partner-driven, cooperative initiative. VABCI acknowledges the critical contributions of individual partners and of existing partnerships

to the conservation of Virginia's avian resource. Therefore, VABCI is not intended to duplicate, replace, or present a burden to any existing vital programs. From the outset, VABCI is intended to be a service program. The intent is to facilitate progress by compiling the information needed by conservation partners and by providing a level of organization that is currently lacking. The entire program will be focused on drawing the partnership together to accomplish conservation goals. As such, participation in and partnership within the VABCI framework is entirely voluntary. No obligations or commitments are required nor implied through participation in VABCI partnerships. It is our belief that VABCI will function more effectively to deliver coordinated bird conservation to the state of Virginia through a voluntary partnership that is flexible and capable of acknowledging that resource limitations may affect the ability of different partners to participate.

- *A basis in implementation:* VABCI will operate as a flexible and dynamic, implementation-driven effort taking place within the context of a broad, conceptual framework. Following nearly two decades of planning, many of the national bird conservation initiatives are placing increasing emphasis on action-based implementation. It is fitting that this fledgling partnership in Virginia should also focus on implementation, while using the planning that has come before its inception to construct the framework within which to base implementation. The framework will provide a goal-oriented focus that will foster a uniform vision and approach to avian conservation within Virginia. The framework will enable the unification of past, present and future bird conservation plans and actions. VABCI will strive to coordinate present and future conservation actions within the context of the framework, so that partners may operate synergistically toward achieving mutually agreed-upon, clearly defined, measurable goals. Within this framework, individual conservation actions may be thought of as being analogous to pieces of a larger puzzle. In addition to serving the immediate needs of Virginia's avifauna, the emphasis on implementation will serve to energize and keep engaged the partners that form the foundation of the Initiative and that are critical to its success. The VABCI approach to implementation is a project-based approach, and it is critical that project-based action take place from the very beginning. Initial projects could be 'first-steps' that are relatively modest in scope, upon which work can begin immediately, and that can be later integrated into the framework.
- *Integration of conservation at different scales:* In the past two decades, planning within the bird conservation community at the national and regional levels has resulted in a number of initiatives and plans. Most recently, Virginia completed a Wildlife Action Plan (WAP) to help prioritize and guide wildlife conservation at the state level. While planning occurs at various scales, implementation of conservation actions occurs at the local level. Local initiatives are essential to any successful conservation strategy, but are most effective when they are part of a strategy operating at a larger geographic scale. As a state-level initiative, VABCI will serve to effectively integrate the local with the regional and national conservation perspective, simultaneously taking a *top-down* and a *bottom-up approach*. VABCI will accomplish this by translating national, regional and state conservation objectives into local management actions, while concurrently coordinating local actions so as to achieve state, regional and national objectives. In addition, VABCI will serve as the point of contact for regional Bird Conservation Region (BCR) coordinators (see Structure and Organization), and will foster partnerships across state lines for the implementation of conservation actions addressing issues of both state and regional concern.
 - The top-down approach will entail the following:
 - Construction of a conceptual framework through a synthesis of the salient features of the national plans and the regional plans/initiatives/working groups that are relevant to Virginia (see Appendix I for a list of plans and their URLs).

- Elucidation of Virginia's role within the national/regional context through an integration of the national plans, BCR regional plans and the PIF Physiographic Plans to the state level (and/or ecoregion level within the state), including:
 - the stepping-down of national and regional population and habitat goals to the state level and beyond, including coordination with national and regional initiative leaders to implement this process
 - the identification of conservation actions identified at the regional level which are relevant and appropriate for Virginia
- The bottom-up approach will entail the following:
 - Identifying past and ongoing monitoring and research projects, as well as habitat data, models and analyses as the first step in working toward a potential integration of data resources. A VABCI website hosted by VDGIF would serve to distribute this information to VABCI partners.
 - Assessing the effect that past, present, and proposed conservation actions have in working toward accomplishing VABCI goals – includes accomplishment tracking.
 - Stepping-up state population and habitat goals to the regional and national level, and reconciling these with the stepped-down goals. Because state-level goals will be related to the availability of on-the-ground habitat and to the population numbers that such habitat can support, they will be valuable in helping to refine larger-scale goals.
- *Coordination with initiatives for other taxonomic groups:* the potential exists for coordination of VABCI's bird conservation activities with conservation for other taxonomic groups. This stems from the expected hiring of a WAP Implementation Coordinator by VDGIF. This position will be responsible for coordinating the implementation of conservation actions identified in the Virginia WAP through an interagency partner network. Both the Implementation Coordinator and the VABCI Coordinator (see below) are VDGIF-funded positions based in Richmond. This administrative and geographic proximity will create the potential for frequent contact between the two, and may foster collaborative opportunities.

VABCI Structure and Organization

VABCI will benefit from a relatively loose organizational structure: at least initially, charters and memoranda of agreement are deemed unnecessary to the effective performance of the Initiative. The absence of such documents, and of the planning effort necessary for their creation, allows for an unencumbered approach and to a relatively rapid deployment of the Initiative. The VABCI partnership is to be organized into three working groups established to correspond to Virginia's physiographic regions (Coastal Plain, Piedmont, Ridge and Valley), and one state-level VABCI Committee to promote communication and coordination between the regional groups. A VABCI website will serve to promote partner representation, and as a portal for the dissemination of information among partners.

- The *Regional Working Groups* are the basic unit of organization for the delivery of bird conservation within the VABCI framework. They will serve both as a means of information exchange among partners, and to identify and implement conservation actions and projects within the context of the Initiative's conceptual framework. The groups were established as a consortium of partners with an intrastate regional focus during the Virginia All-Bird Conservation Workshop hosted by VDGIF in 2004. Their core membership is already in place and a communication infrastructure (e-mail lists) has been established and is currently in use. The

physiographic areas within which the working groups operate roughly correspond to the Virginia boundaries of the BCRs. This allows for an effective integration of the working group goals and objectives with the goals and objectives of the corresponding BCR initiatives. The regional organization of the groups also enables effective meeting logistics, and allows for the integration of core functional aspects of the Initiative (see Framework section) within each group. Each working group will be responsible for self-organizing and creating sub-working groups as deemed necessary by the partners. Communication, coordination, planning and implementation by the partners will take place as needed through working group meetings, conference calls, and via e-mail (e-mail lists may be converted into listserves). Each working group will be composed of a chair, perhaps a co-chair, the VABCI coordinator, and a broad array of interested and active partners in the region. The role of each is described below:

- *Chair*: helps to steer and guide the direction, development and operation of VABCI at the intrastate (regional) level. Helps to communicate state- and regional-level context/priorities to group, and to steer group within this context and within the VABCI framework. This will be a ‘big-picture, putting it all together, eye on the ultimate goals’ position.
- *VABCI Coordinator*: with the Chair, helps to steer and guide the direction, development and operation of VABCI at the intrastate (regional) level. The Coordinator will be involved in all aspects of regional working group structure and function, from big-picture thinking to execution of detailed projects, as well as day-to-day operation. The Coordinator bears the responsibility of ensuring and maintaining the viability of the initiative.
- *Partners*: partners form the foundation of the Initiative, and will be the primary force driving the success of VABCI. Partner input will be critical to the organization and all aspects of the operation of each working group; to the construction of the VABCI framework; and to project-based planning and implementation taking place within the framework.
- The *VABCI Committee* will serve to steer the Initiative at the state level. The Committee will aid in coordinating and translating the actions and decisions of the Regional Working Groups to the state and regional (interstate) level. The Committee will be responsible for establishing lines of communication among the working groups, so that relevant information may be exchanged between them in a timely manner. The Committee will be composed of the Chairs of the regional working groups and of the VABCI coordinator.
 - *Chair and VABCI-Coordinator*: as member of this committee, help to steer and guide the structure, direction, development and operation of VABCI at the state level. This includes helping to lay the foundations of the initiative, dealing with project prioritization among regions, and ensuring consistency between groups in mission, goals and implementation. The Chairs and the VABCI Coordinator will represent their regional working groups in discussions pertaining to state-level issues, actions and planning. The Chairs and the VABCI Coordinator will serve as points of contact for BCR coordinators and for state-level coordinators from neighboring states.
- The *VABCI website* will serve multiple roles as outlined below:
 - Serve as a proxy for a more formal organizational structure by linking the regional working group partners to the Initiative at the state level.

- Promote partner representation by identifying and acknowledging VABCI partners. The website will feature partner logos, links to partner websites, and acknowledgement of the participation of the various partners as critical to the success of the Initiative.
- Serve as portal for exchange of information among partners (see Framework).

VABCI Framework

As described above, the VABCI framework will provide a broad, conceptual context within which project-based implementation can be organized and coordinated. The conceptual goals and processes that form its foundation are drawn from existing national and regional bird conservation plans. Individual plans are referenced throughout this section, and will be further used to identify broad conservation actions and needs that are appropriate for Virginia.

Framework Goals

VABCI will work toward accomplishing the stated goal of priority species population restoration by establishing a set of measurable objectives upon which to base planning and implementation. In addition, these objectives will provide a means of gauging progress toward the overall goal. The VABCI framework is organized to address four broad categories relating to the establishment and implementation of these objectives: 1) *establishment of population goals*, 2) *establishment of habitat goals*, 3) *conservation design*, and 4) *establishment and implementation of strategies for meeting population, habitat and conservation design goals*. Although organized differently in different plans, these categories form the common framework upon which both national and regional bird conservation goals are based. As such, they represent the agreed-upon approaches upon which the bird conservation community is collectively acting. Each of the categories is interrelated and interdependent, and activities within each will likely take place concurrently. Work within each category will focus on priority species, which at least initially can be based on the state WAP list of Species of Greatest Conservation Need. The WAP list is based on an analysis of the following factors for each species: population size, population trend, and Virginia Area Importance (the conservation importance of the Virginia population of a species as a measure of that species' current or historical abundance in Virginia relative to its abundance in other portions of its range). The list was approved by the WAP's Avian Technical Committee, which included participants from VDGIF and USGS Patuxent, as well as members of academia. The 95 species on the list were categorized into four tiers representing relative levels of endangerment of their breeding, wintering or migrant populations in Virginia; VABCI can devote initial attention to the top three tiers of the list, comprising 41 species. Although the priority species list will draw the focus on a subset of Virginia's avifauna, the list is by no means meant to diminish the importance of past, current or future work targeting species not on the list. Conservation actions geared toward either set of species (those on or not on the list) will benefit other species which share their habitat and management requirements.

- *Establishment of population goals for priority species*: this will involve estimation of state-level population sizes, trends and distribution, and, where necessary, collection of demographic data, for Virginia's priority species. This leg of the framework will encompass all conservation actions necessary to the accomplishment of this goal, including: inventory of existing data; identification of data gaps; surveys, monitoring and research, including avian community inventories and targeted species surveys; population viability analysis; and population modeling. Stepping-down of national and regional population goals from the various plans can serve as a guide to establishing such goals for Virginia, although state-level objectives are going to ultimately be determined by habitat availability and the population numbers that such habitat can support.
 - *Approach*: a methodical approach to the goal entails identifying the relevant available data that has been collected to date in Virginia for each priority species/species-habitat

suite. Organizing this information in a meaningful matrix would allow VABCI partners to identify data gaps and to mobilize effort toward addressing them. Because organizing the information by species may prove problematic for data associated with parcel-specific inventories, a species-habitat suite approach can be taken in these cases. Information on available data can be presented to partners in a variety of ways: long-term vs. short-term projects, species-specific, agency/entity specific, etc. The information can be made available to partners through a VABCI website hosted by VDGIF.

- *Establishment of habitat goals for priority species:* habitat goals will be based on population goals in conjunction with identification of habitat needs for species/species-habitat suites; habitat availability and distribution; landscape carrying capacity; species-specific habitat limiting factors, etc. Conservation actions necessary to establishing these goals may include: inventory of existing habitat data; identification of data gaps; habitat surveys and assessment; habitat modeling; and habitat-use evaluation. Stepping-down of national and regional population goals from the various plans can serve as a guide to establishing such goals for Virginia, although state-level objectives will ultimately be determined by habitat availability. Although population goals will provide the basis for the formulation of habitat goals, they will in turn be affected by the carrying capacity of the Virginia (and for some species, regional) landscape. The processes of setting population and habitat goals are therefore interdependent, and each will serve to refine the other.
 - *Approach:* a methodical approach to the goal entails identifying the relevant available data that has been collected to date in Virginia for priority species habitats. Organizing this information in a meaningful matrix would allow VABCI partners to identify data gaps and to mobilize effort toward addressing the gaps. Information can be organized by general habitat type and on a species-habitat basis (for ex., where species-specific habitat limiting factors are identified in Virginia). The information can be made available to partners through a VABCI website hosted by VDGIF.
- *Conservation Design for priority species:* conservation design entails landscape-level identification of the specific lands within Virginia where priority conservation actions may be implemented in order to achieve population and habitat goals. Conservation design allows for the integration of goals associated with diverse species/species-habitat suites, and for the resolution of species conflicts relating to the distribution and prioritization of species and habitats across the landscape. Much has been written about conservation design, including the processes that it entails and its associated needs and challenges.
 - *Approach:* although intended for use at a much larger scale, the Atlantic Coast Joint Venture's approach to conservation design is outlined in the South Atlantic Migratory Bird Initiative's Implementation Plan (pages 61-65), and can serve as a template for a conservation design project in Virginia. A proposal for a regional-level conservation design project for the Mid-Atlantic Coastal Plain BCR has been created by the Center for Conservation Biology.
- *Establishment and implementation of strategies for meeting population, habitat and conservation design goals:* whereas the three previous categories relate to actions associated with the establishment of goals, this catch-all category deals directly with the actions necessary to accomplishing these goals. All actions within this category can be classified as relating to three core functions: research and monitoring, conservation and management, and education and outreach. Within the category falls any project relating to on-the-ground reversal of declining population trends; to habitat enhancement, restoration or protection; and to increasing public/professional awareness, reducing negative impacts, and promoting positive impacts to

avian wildlife. The category therefore encompasses many past and present implementation-based projects. The category also includes actions that address population limiting factors that are not habitat related. Although their impact on populations at different scales is not yet well understood, factors which act as direct agents of bird mortality or that depress reproductive potential may affect bird populations at the local level and above. These include communication towers, wind power development, lighted buildings in migration corridors, fisheries by-catch, aquaculture operations, environmental contaminants, prey-base depression, etc. Strategies for addressing these and other factors are an important component of a comprehensive conservation approach to meeting the overarching VABCI goal of *restoring populations of priority species, and will be addressed within this leg of the framework.

- *Approach:* implementation of conservation actions will take an integrated approach, where the overlapping habitat and management needs of multiple species are combined as part of an overall strategy for conservation of all birds using similar habitats at the landscape scale. Conservation strategies relating to habitat protection, restoration, management and enhancement, as well as policy and legislation, are outlined in a number of the national and regional plans (ex. see pages 29-31 of United States Shorebird Conservation Plan, and pages 65-68 of South Atlantic Migratory Initiative Implementation Plan). Conservation actions specific to Virginia have been identified by partners within the regional working groups established through the Virginia All-Bird Conservation Workshop of 2004 (see Appendix II). A number of species- and habitat-specific conservation actions have been identified in the Virginia WAP.

Framework Processes

Accomplishment of the goals and objectives outlined above will rely on a number of processes.

- *Partnership building:* VABCI partners will be drawn both from 1) the traditional avian conservation community and 2) from agencies and entities which may not have a specific avian conservation mandate/agenda, but which are vital to successful conservation within the state and are not current VABCI conservation partners (ex. Department of Forestry, private forestry operations, corporations, large private landholders, etc.). VABCI will work to expand the current core membership of each of the regional working groups. This will be accomplished by 1) inviting chairs and current working group members to identify new partners, 2) identifying new partners opportunistically through project-specific planning, and 3) if necessary, identifying new partners through a methodical process tied to the goals and objectives outlined in the Framework.
- *Information management:* one of the main benefits that VABCI can provide to partners is that of facilitating the organization and exchange of information. As outlined above, the VABCI website will be used as a central repository to catalogue available information on sources of Virginia bird and habitat data. The maintenance and organization of this information can fall upon the VABCI Coordinator, who has extensive data management experience. Working group meetings, conference calls and e-mail lists will also facilitate information exchange. As VABCI makes progress toward its goals, the need will inevitably arise to address a potential integration of data resources. This will likely occur initially on a project-by-project basis, but will require a much larger-scale effort for a proper evaluation of the Virginia landscape through conservation design.
- *Adaptive evaluation:* like many of the plans from which it draws, VABCI subscribes to the concept of adaptive evaluation. Such a process is a means of gauging progress toward stated goals and objectives and making appropriate adjustments in strategy and direction. Progress evaluation will be facilitated by the creation of matrices relating to the establishment of population and habitat goals (see above); and by the tracking of accomplishments of individual

partners and collaborative projects. A formal evaluation process can take place annually or as needed.

- *Funding:*
 - *Administrative support:* administrative support of VABCI is being provided by VDGIF in the form of funding for a VABCI Coordinator position and for the VABCI website.
 - *Project support:* One of the initial VABCI products will be a list of funding sources collected in a comprehensive matrix to be made available to partners. Funding for projects developed by VABCI partners may fall within one of three categories.
 - Many of the conservation activities that will be integrated under the VABCI framework already take place through the actions of individual partners operating within the scope of their daily or seasonal duties (ex. Wildlife Management Area and National Wildlife Refuge breeding bird surveys). Such activities will not require additional financial resources beyond what is already dedicated to their execution.
 - New local projects proposals pertaining exclusively to the state of Virginia may be developed by individual partners or through joint partnerships.
 - New projects that are regional (interstate) in scope will address bird conservation issues that cross geopolitical boundaries and will involve partnerships with agencies and entities in neighboring states. Projects of regional importance will benefit from the assistance of BCR and other regional initiative coordinators. The coordinators will be in a position to aid in identifying sources of funding, organizing multi-state partnerships, and creating and submitting proposals.

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Appendix I. List of Bird Conservation Plans/Initiatives upon which to base VABCI framework

National Plans/Initiatives

- North American Waterfowl Management Plan: 2004 Strategic Guidance <http://www.fws.gov/birdhabitat/NAWMP/images/NAWMP2004.pdf>
- North American Waterfowl Management Plan: 2004 Implementation Framework <http://www.fws.gov/birdhabitat/NAWMP/images/ImplementationFramework.pdf>
- Waterbird Conservation for the Americas (North American Waterbird Conservation Plan v. 1) <http://www.waterbirdconservation.org/pubs/ContinentalPlan.cfm>
- United States Shorebird Conservation Plan <http://www.fws.gov/shorebirdplan/USShorebird/PlanDocuments.htm>
- PIF North American Landbird Conservation Plan http://www.partnersinflight.org/cont_plan/default.htm
- Northern Bobwhite Conservation Initiative <http://www.qu.org/seqsg/nbci/nbci.cfm>

Regional Plans/Initiatives

- Atlantic Coast Joint Venture Strategic Plan http://www.acjv.org/documents/acjv_strategic_plan.pdf
- South Atlantic Migratory Bird Initiative Implementation Plan http://www.acjv.org/documents/sambi_plan.pdf
- Mid-Atlantic Bird Conservation Initiative Vision Document Document not available online
- Appalachian Mountains Bird Conservation Initiative Concept Plan http://www.acjv.org/documents/bcr28_concept_plan.pdf
- Northern Atlantic Regional Shorebird Plan <http://www.fws.gov/shorebirdplan/RegionalShorebird/RegionalPlans.htm>
- Southeastern Coastal Plain/Caribbean Region Report for U.S. Shorebird Conservation Plan http://www.acjv.org/documents/shorebird_plan_se_car.pdf
- Mid-Atlantic/New England/Maritimes Waterbird Working Group <http://www.fws.gov/birds/waterbirds/manem/index.html>
- SE United States Region Waterbird Conservation Plan <http://www.fws.gov/birds/waterbirds/southeastus/>
- PIF Physiographic Area Plans:
 - Mid-Atlantic Coastal Plain (phys area 44) http://www.blm.gov/wildlife/plan/pl_44_10.pdf
 - South Atlantic Coastal Plain (phys area 3) http://www.blm.gov/wildlife/plan/pl_03_10.pdf
 - Mid-Atlantic Piedmont (phys area 10) http://www.blm.gov/wildlife/plan/pl_10_10.pdf
 - Mid-Atlantic Ridge and Valley (phys area 12) http://www.blm.gov/wildlife/plan/pl_12_10.pdf
 - Northern Cumberland Plateau (phys area 21) <http://www.blm.gov/wildlife/plan/status21.htm>
 - Ohio Hills (phys area 22) http://www.blm.gov/wildlife/plan/pl_22_10.pdf
 - Southern Blue Ridge (phys area 23) http://www.blm.gov/wildlife/plan/pl_23_10.pdf

State Plans

- Virginia Wildlife Action Plan

<http://www.vawildlifestrategies.org/draft.html>

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Appendix II. Regional Working Group Breakout Notes from 2004 VA All-bird Conservation Workshop

**Results of Virginia Coastal Plain
Breakout Session and Discussion Group
Virginia All-bird Conservation Workshop, March 30-31, 2004**

What more needs to be done within the habitat types or within the Coastal Plain in general?

Barrier Islands

I.

Predator Island needs lasting source of funds.

Invest in a long-term solution for predator control

More work on avian predator/avian competitor effects in specific sites?

Ruth Beck has infrared night-films that show predation

Philosophical: when to control “bad” birds?

Make sure the ad hoc USFWS Region 5 emergency removal team is in the loop

Invest in up-front PR to educate public (draw on the successes of others)

USDA doing an environmental assessment

IMBD product this year touches on predator removal

II.

American Oystercatcher productivity work needs to be expanded to Wilson’s, colonial waterbirds and all beach-nesters

III

Need research on the high marsh nesters

IV.

Continue to improve sharing of data and recommendations.

VA Avian Coastal Partnership has formed and meets.

The Gateways Program provides a network

The National Wildlife Refuge System is planning to create a biological resources database.

V.

More work on foraging habitat (not well understood, probably not being considered adequately?)

Pine Savannah

I.

Need to burn. Especially maritime Pine Savannahs. A strategy to build support is to form a landowner collective interested in pine rotation, burning management, plantation practices, etc. and set up demonstration sites.

II.

Remove downed salvage wood from Isabel hurricane.

III.

Continue Red-cockaded Woodpecker translocations from SC to Piney Grove.

Finding another recovery site

Dismal Swamp is in preparation, maybe Zuni.

Standards are developed to identify appropriate sites.

Consider not only woodpeckers, but also associated species such as Bachman's sparrow.
Beginning planning for translocations if natural colonization does not occur?

Salt Marsh

I.

Sea level rise....what to do?

II.

Identify patches, perform inventory and monitoring of what's out there, not only bird resources but opportunities for recovery and management, potential threats like phragmites

III.

Agency relationship-building.

Examples:

VA Marine Resources Commission (aquaculture and harvest interests) manage seaside salt marshes. Need to make links with them. Build relationships. Work with Coastal Program to reach MRC.

Fairfax County has a wetlands board. Chair is Glenda Booth. Reviews permits and would like to see more detail out of VIMS.

IV.

Management of phragmites.

Support and share research on potential controls, and also on magnitude of threats (eg., a study showing phragmites may hurt amphibians.)

Education about preventing invasion...clearing practices, competition planting

Vigilance for phragmites, other invasives (often a result of disturbance upgradient...must consider land use.)

Fresh/Brackish Marsh

I.

See above for salt marsh.

II.

More investigation of bird communities...breeding and migrants. Examine parameters for use and abundance, including salinity, size of marsh, etc.

III.

Restoration of wetlands needs long-term monitoring (mitigation has 5 years monitoring, voluntarily restored sites aren't monitored at all) to make sure successful, free of invasives, etc.

MARSHES GENERALLY: Need "bodies" to do monitoring. Even if volunteers used, need a coordinator.

General Question: BCR boundary change in Virginia? Officially change takes international NABCI meeting. But can go ahead with planning assuming shift.

General Question: How to keep in communication after this meeting? A network (a database of emails is just a start.

**Results of Virginia Piedmont
Breakout Session and Discussion Group
Virginia All-bird Conservation Workshop, March 30-31, 2004**

DECIDUOUS AND MIXED FOREST

There are clearly many high priority bird species in this habitat type.

The oldest forests in the Piedmont tend to be riparian corridors that were not farmed or otherwise cleared. There is no existing protection for these forests in most counties. Some counties draining to the Chesapeake Bay have Riparian Protection Areas; some have better zoning to assist maintenance of riparian habitat. More counties should be encouraged to do this sort of thing (perhaps a topic for discussion with PEC). Tax credits for retention of riparian zones exist and should be promoted – forest consultants should know more about this.

The average wood lot in the Piedmont is young – in the 40 to 50 year old range, and most are overstocked. Thinning would help many stands. Large wood lots are, of course, better for birds than small ones. 100 acres or more is probably useful. Cowbirds do not seem to be much of a problem in the Piedmont (yet, at least).

Better guidance for subdivision development would be good – move zoning to favor cluster development and low density housing (as in MD).

Better silviculture would help many lots. Most cutting seems to be high grading. Good hardwood management, with shelterwoods, would be advantageous.

People should be encouraged to leave more dead stuff on the ground and to retain snags.

Conversion to pine plantations is a problem – we should work with DOF on this.

SHRUB – EARLY SUCCESSIONAL

There is a long list of high priority birds in this habitat type, most still common but many in steady population decline.

Question – What is the historical trend in quantity of shrub habitat? How was it maintained and in what quantity? This has at least some impact on the degree of concern for the birds. Are the declines merely a return to historical conditions?

A preference was expressed for maintaining existing early successional habitat rather than creating new. There are some questions as to how to accomplish this, however. Maintaining such habitat in a spot would require expensive bulldozing and chopping on about a 5-7 year cycle. A “rule of thirds” could be applied, and work should be done in winter. Matrix management of some type is preferred – shelterwood cuts could help achieve this.

Clear cuts are the means by which most early successional habitat is created (this of course is done at the expense of forest habitat). Post-clear cut habitat is good for these birds, and we should strive to create an improved public attitude toward clear cutting. Post-cut site prep could be improved, in that prescribed

fire is generally much better for birds than is use of chemicals. A positive dialogue with the forest products industry could be very productive (Wesvaco, International Paper, Smurfit Stone, Georgia Pacific, Bear Island, Gladfelder, Wachovia, and Hancock all own and manage land in Virginia).

Patterns of clear cuts – complex patterns with an interspersion of patches are preferred.

A problem in regenerating second growth is *Ailanthus* (tree of heaven), a very aggressive exotic throughout the Piedmont.

The biggest problem we face in maintaining early successional habitat is development – owners of homes on 5 or 10 acre lots rarely encourage this type of habitat.

WETLANDS

The group disagrees with an assertion that there are not many important wetlands in the Piedmont. Beaver swamps and headwaters of low gradient streams are relatively common. Much has been drained over time – there is a large quantity of prior converted wetlands in the area.

Birds using wetlands include Green and Great Blue Herons, Tree Swallows, breeding Wood Duck and wintering waterfowl.

There are many opportunities for wetland restoration.

Education is an issue – there is a lack of appreciation for wetlands. This is aggravated by fears over West Nile Virus.

Wetland protection regulations exist, but are regularly ignored or circumvented. Regulatory authority rests with the Corps, NRCS, and VA DEQ.

Purple loosestrife is an aggressive wetland exotic that needs to be controlled.

AGRICULTURAL GRASSLANDS

There are not a lot of high priority breeding birds in Piedmont grasslands. Upland Sandpiper, Henslow's Sparrow, and Bobolink are marginal here, leaving Grasshopper Sparrow and Eastern Meadowlark as common breeders, and not particularly high priority birds. Wintering Northern Harrier and Short-eared Owl, however, are important, and better grassland habitat could ultimately attract some of those other priority breeders.

The history of grasslands in the Piedmont is unclear – surely any present in pre-European times must have been maintained by fire. What was the role of Native Americans in this? Were savannahs more common than open grasslands? There is some pertinent fire literature on nearby areas (Cecil Frost and others). One historical event has been the loss of switchcane from the southern Piedmont.

This is the most common habitat type here, at least in the northern Piedmont. Even without high priority birds, the opportunity to improve management is very high. Best Management Practices need to be put in the hands of potentially cooperative landowners. Work with PEC and the VOF on this.

Gas and utility right-of-ways have some potential for bird use, but summer mowing should be discouraged and use of native grasses encouraged. There is a Virginia Power program for wildlife that should be investigated.

Work with NRCS and Soil and Water Conservation Districts.

The National Park Service is doing some outstanding grassland management on some of its properties, including Manassas and Fredericksburg.

Work with DOF on facilitating the use of prescribed burning.

PINE PLANTATIONS AND PINE SAVANNAH

The term “Pine Barrens” used in the PIF plan does not apply to Virginia. We were not able to discuss this habitat type in the time allotted.

DRAFT

**Results of Virginia Ridge and Valley
Breakout Session and Discussion Group
Virginia All-bird Conservation Workshop, March 30-31, 2004**

Virginia's Ridge and Valley Physiographic Region is a geo-political unit of the Appalachian Bird Conservation Region (BCR 28). The discussion group that assembled during the workshop included a broad set of federal and state agencies, and NGO's that could provide support for regional scale coordination within this BCR 28 subset. The group focused the discussion to list what the current monitoring and research activities are in the sub-region and to prioritize monitoring and research needs. The group also identified a number of significant threats to bird populations in this physiographic region and discussed quickly what actions may be taken to alleviate these threats. Since time was limited, this represents only a quick representation of activities and actions. Discussion and work are expected to be ongoing as with organization of actions.

I. Current Activities

Appalachian BCR Coordination

There is an ongoing effort to build a coordinated partnership for planning, implementing and evaluation of bird conservation in BCR 28. This partnership would be coordinated by a staff person of the Atlantic Coast Joint Venture and receive direction from a steering committee and a technical committee of partners. A number of agencies and NGO's within BCR 28 has pledged funding and this effort should be organized in the coming months.

Monitoring and Research

This list is organized by agency

United States Forest Service (GW & Jefferson National Forests)

- Bird community and population monitoring through a network of 700+ permanent point count stations
- Appalachian Yellow-bellied Sapsucker and Northern Saw-whet Owl surveys – coordinated with the North Carolina Museum of Natural History
- Deer exclosure study – cooperative research with the Smithsonian National Zoological Park to investigate the effect of deer browsing on avian habitats
- The determination of fire frequencies and plant communities – cooperative study (participants unknown)

National Park Service (Shenandoah National Park)

- Breeding Bird Survey Routes – currently 4 routes that are positioned end to end along the Blue Ridge Parkway – data could be used as a control site to compare population changes in the remaining landscape.
- Cerulean Warbler surveys – directed surveys to examine habitat use and population size
- Previous Monitoring Avian Productivity and Survivorship data collected – 2003 last year of effort without continued funding
- Cliff Nesting bird surveys – aerial surveys designed to collect data on Peregrine Falcon eyries, Raven nest sites, etc.
- Peregrine Falcon translocation (hacking) – efforts to establish resident pairs of Peregrines (in cooperation with VDGIF, and the Center for Conservation Biology)

Department of Game and Inland Fisheries

- Point count network on WMAs – designed to collect information on population sizes, habitat associations, responses to silviculture, loss of hemlock, and to parameterize a larger scale population abundance model.
- Grassland Bird Nesting Study – investigated grassland bird productivity (cooperative study with DGIF and Conservation Management Institute (VT))
- Rare Bird Database – geographic-based collection of sightings of rare VA birds
- Wildlife and Bridges – investigation into the use of bridges by birds and other taxa
- Game bird surveys – ongoing surveys of woodcock, grouse, turkey
- Peregrine Falcon hacking and surveys – aerial surveys of historic locations, coordinated study with Center for Conservation Biology and NPS, translocation efforts.
- Vegetation Mapping on WMAs – coordinated by DGIF Wildlife Division
- Birding and Wildlife Trail – encourage local communities to conserve habitats through economical opportunities of ecotourism, also the collection of data along predetermined sites
- Coordination of Virginia BBS

II. Research / Monitoring Needs

Habitat Assessment

As we transition from the needs of conservation planning to conservation implementation we begin to focus on a number of new paradigms and approaches to assess and evaluate our efficacy in meeting our population goals and habitat objectives. Habitat assessments provide an interactive tool to monitor our progress and to help orchestrate local actions of regional goals. A habitat assessment program will allow us to determine the fundamental conservation actions needs (e.g., protect existing habitat, improve habitat, create new habitat) by evaluating how much habitat is on the ground, what bird populations do we currently support, and where we need to implement actions to inflict population changes. Information needed to fulfill the assessment of what actions to pursue include but not limited to:

- Three-dimensional, patch-based, landcover data with resolution to the sub-habitat level (i.e., some information on microhabitat condition).
- Assessment of species responses to management and limiting factors.
- Expected bird densities and bird community types at a corresponding sub-habitat level.

Individual Species Surveys

A number of species were identified that require species-specific surveys because of their irregular abundance or distribution. These are:

- Appalachian Yellow-bellied Sapsucker
- Appalachian Winter Wren
- Appalachian Bewick's Wren
- Golden-winged Warbler
- Blue-winged Warbler
- Cerulean Warbler

Specific needs of these species not being covered. Resolutions included.

- Appalachian Yellow-bellied Sapsucker – distribution most likely restricted to USFS land. Currently surveyed but needs more work on responses to management and winter distribution.

- Appalachian Bewick's Wren – status in VA unknown. Possibly extirpated. Some survey work by DGIF being conducted, needs more work.
- Appalachian Winter Wren – subspecies that is included in the suite of birds that depends on high-island habitats. Currently no species-specific work identified. Needs action.
- Golden-winged Warbler – The Cornell Laboratory of Ornithology is in the last survey year of the Golden-winged Warbler Atlas. This atlas is designed to collect information on population abundance, distribution, and habitat use of Golden-wings and hybridization with Blue-winged Warblers. This atlas effort is in desperate need of volunteers and other participants in Virginia. A coordinated effort for Golden-wings would provide the most up-to-date information needed.
- Cerulean Warbler – need to identify distribution, responses to habitat management and alteration. DGIF and NPS surveys are being designed to answer some of these questions. Cornell's CERW Atlas project provides some additional data. Needs more work. CERW cooperative and multi-state study identified as a need. This project could potentially take place within the Clinch Ranger District.

Responses to Forest Management and Forest Health

Data on intrinsic and extrinsic changes in forest condition are lacking, particularly at higher elevations. Specific needs identified include:

- Avian responses to large and fine scale hemlock mortality. Also need to assess the long-term risks and bio-control of the hemlock beetle parasite, the woolly adelgid.
- Response to invasive plant species – no known studies or monitoring. Because of the pervasive nature of exotic invasives, this item needs immediate response.
- Response to forest management – e.g., removal of poplar. Monitoring information can be collected to examine pre-and-post conditions of forest management. Directed studies are needed.
- Avian distribution in unique microhabitats such as rhododendron thickets / balds

Cornell's Bird in Forested Landscapes is a project designed to collect data on bird community and individual species patterns. The project is in need of volunteers and other participants in Virginia. Specific objectives are:

- How much habitat do different forest-dwelling bird species require for successful breeding?
- How are habitat requirements affected by land uses in the surrounding landscape, such as human development, forestry, and agriculture?
- How do the habitat requirements of a species vary across its range?

Geographic Historical Bird Database

Virginia has a long history of ornithology that exists as both published and non-published (field notes) accounts on the distribution of many bird species of concern. Information on the historical accounts of these species needs to be collected and arranged to establish avian conservation benchmarks.

Winter Population Surveys

More information is needed on winter bird communities

III. Significant Threats within the Ridge and Valley

Habitat Loss

Over the last two centuries, habitat loss due to development in this physiographic region has typically been associated with the valleys. More recently, development has been encroaching up mountain slopes at an alarming rate. The group identified that policies directed at eliminating high elevation and low elevation development are needed. The group identified specific places on the Blue-Ridge that have been developed with high income housing in the last two years that coincide with losses of Cerulean Warbler habitat. Much of the development is located near the megalopolis of Washington D.C and Northern Virginia.

Habitat Alteration

Plant communities within the ridge and valley are still rebounding from large-scale silvicultural activities and deforestation at the turn of the century. More information is needed on reducing limiting factors associated with stand regeneration and lack of suitable management (fire, thinning, etc.) with the broad array of forest types. Some of the most dangerous threats are the alteration of habitats at high elevations. Fortunately, much of the latter forest types are on public conservation lands. We need better assessment of existing high elevation habitats.

Plant parasites

We are quickly developing a longer and longer list of parasites that inflict high mortality on plant types and shift the structure and composition of ecological communities.

Globalization of the Pulpwood Industry

This threat has the potential to effect bird populations both statewide and nationwide. It may be one of the greatest short-term threats we face. As pulpwood prices continue to decline, it is becoming more economical for the timber industry to develop land or sell their land to developers rather than try to compete in a global pulpwood industry. Because of this, we are faced with one of the most significant threats to permanently lose much of the “green space” that exists on private land in the shortest amount of time.

The acquisition of private land, both timber and mining land, is both a one-time opportunity and the one of the highest priorities within the region.

Over browsing by deer populations

Overpopulated deer herds continue to pose a significant threat to understory bird communities.

Mountain Top Mining

Acid Mine Drainage

Continued discussion will be focused on creating a list of resolutions to defer these threats.