



Virginia Seaside Eastern Shore
Avian Partnership Management Plan¹
January 23, 2008 DRAFT

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The Virginia Coastal Avian Partnership (VCAP) developed the initial goals, objectives and tasks in this plan during a retreat in February 2007. Subsequent edits and refinements by Partners were made following the retreat. Portions of this *Management Plan* with general (non-avian) relevance were also incorporated into the Virginia’s Eastern Shore *Seaside Management Plan*.

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A. Research and Monitoring

Goal A1. Assess and continue current avian monitoring programs to collect additional data on trends for colonial (long-legged waders) waterbirds and others (see list below). In all monitoring activities, make note of the presence of rare Virginia nesting species and report findings to the Department of Conservation and Recreation Division of Natural Heritage (maintains comprehensive state rare species database and assigns state rarity ranks) and to the Virginia Society of Ornithology and the VA Department of Game and Inland Fisheries. Also connect findings with the Virginia Breeding Bird Atlas. Care must also be taken to evaluate the most appropriate monitoring scheme. If there are BBS routes (or CBC circles) being run in the same area as other more intensive species monitoring schemes, then the independent results need to be compared.

Objective A1-1: Determine priorities for monitoring.

Tasks:

- 1) Develop a plan for how the Partnership will determine its priorities for birds to add to the list of species that need to be monitored (or have research directed) on a more intensive (more frequent) basis. This should acknowledge that there are species that agencies are required to monitor as well as those that should be monitored based on partnership priorities.
- 2) Use the process outlined above to add species to the priority monitoring list. Initial species that should be considered for this status include migrating shore birds with emphasis on red knots and whimbrels and wintering woodcocks.

Objective A1-2: Implement a long term monitoring program for all colonial nesting waterbirds that, at a minimum, includes comprehensive coast-wide breeding surveys to be conducted every five years.

Tasks:

- 1) Continue to conduct annual breeding and nesting surveys for piping plovers, oyster catchers, black ducks and Wilson's plovers.
- 2) Initiate status surveys and baseline monitoring for breeding season and for winter and summer for black rails.
- 3) Conduct an intensive three-year study of numbers and productivity of long legged-wading birds.
- 4) Initiate breeding status surveys and concurrent productivity studies on long-legged wading birds over a period of three consecutive years.

Objective A1-3: Develop and implement status surveys and monitoring programs and/or research for avian groups listed under the following categories (not in any priority order):

N = Nesting, M = Migration, W = Winter

- Colonial waterbirds - N

- Solitary beach nesters - N
- Marsh birds (Henslow's sparrow, saltmarsh sharp-tailed sparrow) – N, W (saltmarsh sharp-tailed sparrow)
- Raptors (bald eagle, peregrine falcon, barn owl) – N, M (CVWO – Kiptopeke long term data set)
- American black duck – N, M
- Common nighthawk - N
- Chuck-will's-widow – N, M
- Neotropical songbirds - M
- Seabirds and seaducks (marine) – M, W (offshore and inshore and other marine species, e.g. the Gannet common loon)
- Shorebirds (red knot, whimbrel, ruddy turnstone) - M
- American oystercatcher - W
- Waterfowl - W
- American woodcock - W
- Shorebirds - W
- Passerines (Ipswich sparrow) - W

Potential problem species

- Double-crested cormorant
- Canada geese
- Great black-backed gulls
- Herring gulls

Objective A1-4: Coordinate monitoring activities with Maryland and consult and coordinate with other regional and national bird monitoring initiatives.

Goal A2: Protect productivity of priority species such as the piping plover (federally listed and state listed as threatened), the Wilson's plover (state listed as endangered), the American oyster catchers, gull-billed tern (state listed as threatened), black skimmer, black rail (existing date from VDGIF is very old), black ducks, and least terns.

Objective A2-1: Conduct research that evaluates the productivity of priority species (and possibly survival estimates also) such as the piping plover (federally listed and state listed as threatened), the Wilson's plover (state listed as endangered), the American oyster catchers, gull-billed tern (state listed as threatened), black skimmer, black rail (existing date from VDGIF is very old), black ducks, least terns.

Tasks:

- 1) Resolve whether or not to add royal terns to this list as the population may have stabilized.
- 2) To update this list, utilize existing protocols from State Wildlife Plan and bird conservation plans and Natural Heritage data to ensure consistency in choosing species to evaluate. Consider upland birds such as bobwhite quail.
- 3) Tie findings from research conducted on barrier island nesters back to mammal removal programs to determine if there is a correlation between these removal programs and increases of a particular species.

Objective A2-2: Apply an adaptive management approach in order to change management strategies if objectives are not being met. DOES THIS REALLY BELONG HERE?

Goal A3: Understand the linkages between and among at-risk avian species and environmental factors that threaten them.

Objective A3-1: Assess the feasibility and the effectiveness of alternative mammalian predator management methods as a means of enhancing avian recruitment.

Tasks:

1) Studies may including the following methods:

- Estrogen avoidance – a two-year study is being conducted beginning in 2006.
- Avian predation - conduct additional research documenting the actual impacts of avian predators, followed by studies of the effectiveness of various management techniques on avian predators.
- Deployment of mammalian contraceptives - collect and disseminate literature on the subject and discuss the practicality of such an approach in Virginia.

Objective A3-2: Determine methods and efficacy of habitat restoration and/or creation of islands within the Chesapeake Bay and also of upland habitat for neotropical species.

Tasks:

1) Obtain data from the Virginia Institute of Marine Science on the impacts of SAV restoration on wintering waterfowl and effects of restoring oyster populations since they are a food source.

Objective A3-3: Conduct research to establish trophic linkages among specific prey species and the avian species that depend on them in order to establish a bioindicator framework.

Tasks:

1) Focus trophic studies on red knots, whimbrel, oyster catchers, sea ducks, wading birds and ospreys.

2) Determine whether the decline in osprey populations on the seaside represents a true decline in the statewide population is simply a shift in distribution from the seaside to the Chesapeake Bay and its tidal tributaries (this has not been studied since the 1980s).

3) Assess the degree to which fisheries changes may be explaining the distributional shifts and population changes in the region of brown pelicans, royal terns, double-crested cormorants.

Objective A3-4: Conduct research on linkages between terrestrial and estuarine systems.

Tasks:

1) Study the following issues:

- Raccoon migration patterns for the southern islands. Very little is known about the movement patterns and colonization rates of mammalian predators, such as raccoons and red foxes, on Virginia's barrier islands, especially the on the northern islands which support over 80 percent of Virginia's piping plover breeding population. This issue is becoming

increasingly important to address given the amount of resources that have been dedicated to predator removal in recent years. A better understanding of source populations, post-removal colonization rates, and migration pathways will greatly enhance future predator management efforts.

- Pesticide effects from upland farms on avian foraging activity.
- Avian foraging dependence on agricultural lands.
- Land use changes and linkages to water quality (utilize the long term environmental research program (LTER) which has just begun a new six year cycle.
- Bird impacts on seed dispersal patterns, island vegetation dynamics and SAV colonization and distribution (especially waterfowl such as Brant ducks and *Zostera* beds. In late 2007 the relationship between songbird seed dispersal and island vegetation will be studied by LTER.

Objective A3-5: Conduct basic research on the ecology of invasive species related to presence, abundance, impacts and control.

Tasks:

1) Identify the presence of previously undocumented alien species at habitat sites and work with other avian partners and researchers to determine the invasive potential (a new species may be present but may not be spreading or causing damage).

Objective A3-6: Monitor potential impacts on foraging birds from industries.

Tasks:

1) Study the following issues:

- Aquaculture industry (including trash, increased oyster cages encroaching on bird habitats, harm from netting, localized increases in fecal coliform production, lost or ghost gear encroachment on bird habitats).
- Poultry Industry (as it relates to avian diseases and serving an alternative food source for increasing populations of predatory gulls).
- Tomato plasti-culture and row crop production (i.e., pesticide runoff and increased impervious surfaces).

Objective A3-7: Analyze landscape changes, sea level rise and changes in spatial and temporal patterns of nesting birds resulting from global climate change.

Tasks:

1) Focus on impacts to availability of barrier and marsh island habitats and develop methods to increase forecasting ability related to the rate at which habitats will change.

2) Work with LTER and other groups to add to sampling universe of marshes being monitored. Relate most vulnerable areas for sea-level rise to use by waterbirds in coastal VA.

3) Use remote sensing to identify long term changes in abundance and distribution of marsh, upland habitats and land area of Accomack County islands as well as impacts on bird use of embayments. A key need is to determine whether the rate of loss of habitat due to sea level rise will be faster than the rate at which new habitat is created.

Objective A3-8: Monitor the prevalence and importance of avian diseases.

Tasks:

1) Utilize data from the U.S. Department of Agriculture, APHIS, the Centers for Disease Control and the U.S. Geological Survey's National Wildlife Health Laboratory.

Objective A3-9: Prepare baseline information in preparation for potential offshore energy development.

Tasks:

- 1) Prioritize research and monitoring efforts that will fill this information gap.
- 2) Recommend research on seabirds.
- 3) Monitor energy development activities, pelagic bird migration.
- 4) Map marine shoals (investigate whether there is a link between migration and shoals).
- 5) Consider resources and logistics for offshore – those can be prohibitive.

B. Education

Goal B1: Promote general public awareness of the sensitivity of barrier island avian communities.

Objective B1-1: Maintain a coordinated approach to development, implementation and maintenance of signage highlighting the fragility of the barrier island avian communities to be posted at Seaside Water Trail docks, public boat ramps and other public access points. Maintenance includes physical care and protection from deterioration as well as keeping information current.

Tasks:

- 1) The Shorekeeper will monitor usage and conditions, keep sites clean and perform minor preventative maintenance until long-term solutions are in place.
- 2) Engage NGO's and volunteer organizations to "Adopt a ramp/sign" to supplement maintenance.

What about development of signage?

Objective B1-2: Maintain funding for educational brochures highlighting the sensitivities of the barrier island avian communities, especially nesting birds and their critical habitats.

Tasks:

- 1) Coordinate distribution of copies among partners,
- 2) Work cooperatively to ensure brochures are distributed to appropriate parties and locations shorewide.

Objective B1-2: Develop a multi-media marketing public service announcement campaign.

Tasks:

- 1) Provide written material with a boating license or game regulations booklet.

2) Use newspaper articles, online material, and television as vehicles for this campaign.

Goal B2: Engage researchers in educating residents and members of the general public.

Objective B2-1: Continue development and coordination of conservation education programs and mentoring by field staff and researchers for local Eastern Shore students and teachers and for the Eastern Shore community at large.

Tasks:

- 1) Promote more specificity to avian issues and extend to non-shore users visiting the Eastern Shore.
- 2) Add a focus on educating local officials.

Objective B2-2: Translate and disseminate research knowledge related to avian issues to the public.

Tasks:

- 1) Develop a weekly/monthly insert.
- 2) Institute summaries of educational seminars authored by presenters or volunteers in the local newspaper.

Objective B2-3: Evaluate the effectiveness of science-based education efforts.

Tasks:

- 1) Design and conduct an evaluation that includes who were the intended and actual recipients of the educational messages, who was left out, message effectiveness and resonance and whether the effort resulted in changed or improved actions.

Goal B3: Engage economic development interests to promote protective economic activities.

Objective B3-1: Work proactively with sustainable business and ecotourism development initiatives on the Eastern Shore to promote and protect its natural resources, habitats, and the avian communities that depend on them.

Tasks:

- 1) Target industrial poultry operations, corporate farms, local government, ecotourism, energy development, aquaculture, and The Nature Conservancy and large landowning agencies.

Objective B3-2: Work proactively with corporate farmers, private landowners and local land trusts to promote existing land conservation programs that protect natural resources, habitats, and the avian communities that depend on them.

C. Management

Goal C1: Support and supplement current policies and programs that prevent further degradation and loss of habitat.

Objective C1-1: Work with existing state and local governments to implement protective policies.

Tasks:

- 1) Work with local governments and state agencies on habitat protection policies and natural resource laws.
- 2) Work with VA Marine Resources Commission (VMRC) to designate the ungranted state lands on the seaside as a Western Hemisphere Shorebird Reserve Network (WHSRN) site.

Objective C1-2: Use posting and seasonal closure of critical habitat for species of concern.

Tasks:

- 1) Work with private landowners to post their lands.
- 2) Develop consistent nesting and closure signage, both in appearance and language, for all landowners (agencies and organizations). Additional signs with agency logos, local restrictions and ownership can supplement closure signs. All signs should accurately reflect lawful penalty information, if included in text.
- 3) Work cooperatively to maximize enforcement of area restrictions and to assess the need for additional enforcement capacity.

Goal C2: Continue to update coordinated management plans for protection and recovery of target species.

*Objective C2-1: Continue existing management, recovery, and restoration plans for species of high conservation priority that occur on the Eastern Shore including but not limited to Piping Plover (PIPL), Wilson's Plover (WIPL) and nesting and wintering American Black Duck (ABDU) and PEFE **What Is PEFE?**.*

Tasks:

- 1) Incorporate additional avian species of conservation priority that occur on the Eastern Shore into active management, recovery and restoration plans for the Eastern Shore using recommendations in the State Wildlife Action Plan and existing national and regional bird conservation plans (e.g., North American Waterfowl Management Plan, Natural Heritage Rare Bird list, State Wildlife Action Plans, Shorebird Plan, Waterbirds Plan, etc.).

Objective C2-2: Further develop and implement a cooperative plan for avian and mammalian predator management measures for the benefit of nesting birds.

Tasks:

- 1) Secure long-term funding.

- 2) Continue current focus on mammalian predators and create a landscape level avian predator management plan
- 3) Encourage a state plan on gull management.
- 4) Compile and review existing information on predator management on a national and international level in order to assess if more local research is needed.

Objective C2-3: Continue coordination and communicate guidelines for conducting scientific research, military maneuvers, and channel dredging activity. Guidelines for scientific research are complete at the agency level. Coordination on avian disease is especially important.

Tasks:

- 1) Develop a central database as a repository for partners' research. This database should limit information about the location of certain species.
- 2) Continue cooperation with military (the control their own guidelines).
- 3) Coordinate with the Corps of Engineers (they control their own guidelines).
- 4) Develop reference guidelines among all partners; Using the Southern Tip Partners' MOU as a template, VCAP could develop other reference guidelines to provide guidance to the COE and the military as to what best management practices they should be using respectively for channel dredging and military maneuvers in order to best support protection and enhancement of bird habitat.

Goal C3: Protect and augment nesting and foraging habitat by encouraging natural barrier island processes.

Objective C3-1: Prioritize restoration/enhancement and land protection efforts.

Tasks:

- 1) Use Important Bird Areas (IBAs) as first screen to prioritize restoration sites.
- 2) Clarify who's doing what and maximize augmentation efforts to serve multiple purposes/goals.

Objective C3-2: Support land protection, restoration and enhancement efforts.

Tasks:

- 1) Promote the following tools:
 - Acquisitions, easements, Purchase of Development Rights (PDRs)
 - Restoring native vegetation
 - Restoring hydrology
 - Restoring SAV and oyster reefs
 - Supplementing selected manmade placement sites islands with dredge material
 - Augmenting sand deposition on dredge spoil piles

Goal C4: Eradicate the most harmful invasive species.

Objective C4-1: Develop a cooperative invasive species plan.

Tasks:

- 1) Invasive plant species and their effect on habitat.
- 2) Invasive animal species and how they effect avian populations. **THESE ARE NOT TASKS.**

**Appendix
VCAP Partners**

UPDATE VCAP PARTNERS?

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