



DE WAP Kickoff Partner Workshop



Breakout Group Notes – Compiled by
DE WAP Revision & Development Team
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St Jones NERR, Dover, DE



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ELEMENT 1 – SPECIES OF GREATEST CONSERVATION NEED

Compiled by Matt Sarver

I. Species Criteria and Ranking

Taxon Plans:

BCR 30 Good – consider looking at BCR 29 as well (recently updated)
Incorporate PIF, Shorebird Plan, etc. as informational – be able to view plan status for each species
Southern species at Northern edge of range – review any SE Regional plans
Seaducks JV, Northwest Atlantic Marine Bird Conservation Cooperative

CC and SLR Vulnerability important

Disease as element to trigger GCN (e.g. Wood Frog) – discussed this as fitting into Criterion #9 – the scientific evidence and expert consensus criterion

Possibility of “watchlist” species

Consider representative species for habitats
e.g. ACJV and NALCC working on indicator species or representative species for each habitat

Look at impact on permitting – both positive and negative in terms of list length

Data gaps / Research needs – important to highlight, based on species and habitats

Insects are important, esp. b/c not in RSGCN list – Kitt

Atlantic Sturgeon recently ESA Listed
Sand Tiger Shark – not on RSGCN list
Least shrew – Data needed
Southern Bog Lemming – may be in Delaware

II. Threats & Actions as related to Species

Pull in recovery plan status and actions for ESA species

Concern that State Endangered Species law does not have “teeth” relative to Environmental Review – regulatory implications of WAP?



iMapinvasives / EDDMaps – better invasive tracking a possible action to be undertaken by DE Invasive Species Council

Include:

Offshore wind bird & bat impacts
Solar impacts
Sonic disturbance – marine environment

Specific Threats:

Balloon Releases, plastic bag, trash impacts
Feral cats as threat for small mammals, birds
Glass strike as threat

Precision of Action Targeting:

Local problems within state for some species e.g. Phragmites is primary problem for Diamondback Terrapin in north (Peachhouse Ditch as example) but primary concern in south is auto kills. Target actions more precisely. Different threats by region

Extraregional Concerns

Migratory species – how to implement actions outside of DE
e.g. Weakfish – subject to harvest-related threats in Carolinas more than Delaware (different size restrictions)

Address this in rankings?
How to compensate for threats outside region

Interregional / International cooperation

III. Partner Resources

Comprehensive Conservation Plan (CCP) – USFWS

DNREC Wetland Program has been monitoring bird use of wetlands and has data (Mark Biddle)

Partnership for Delaware Estuary – Mussel Surveys, Habitat Assessments for Mussels

Private Utility survey data could potentially be shared

DDA: Bee Survey Data



DDA Forest Service Data

DNREC Radar study of migratory bird habitat

Monitoring Info DEOS <http://www.deos.udel.edu/>

IV. What Partners Want to See in Product

For each species, include summary of reasons for listing (discussion)

Several users want to see trend Information in web-enabled product (maybe link to trends like IUCN, BBA, BBS, etc)

Incorporate PIF, Shorebird, etc. as informational – be able to view status in various plans for each species

Life history elements that would be useful in web viewer: Seasonality, breeding status and habitat in DE

Possible polygon query tool to pull up GCNs by location – both actual occurrence and based on veg community map

Restoration Checklist for a given site – SLR, Potential Habitats, Current Vegetation, etc. Would require linking degraded current veg type (e.g. Reed Marsh) to potential / historic restored habitat

Incorporate Flood maps in addition to SLR maps –
<http://www.dnrec.delaware.gov/swc/drainage/pages/flooding.aspx>

Area sensitivity info for species – habitat suitability Rick McCorkle

Data gaps / Research needs – important to highlight, based on species and habitats



ELEMENT 2 – KEY HABITATS

Compiled by Kevin Kalasz

I. Key Habitats Criteria, Ranking, and Concerns

What is there and what needs to be done. BMPs (link)

What species are there?

Succession

Structure/Age class

NWI

Prioritize areas - opportunistic

Soils

Plants

Important habitat

- Prioritized

- Screening for regional products/decisions

Incorporate mapping of PSUU

Freshwater Tidal Habitat

Restoration sites/COAs

Open space vs. habitat

- Teach communities

- CC vulnerable areas and strategic retreat

Invasive Species (DISC)

Management guidelines for habitats

Mitigation sites

- COAs

Scalable prioritization

Forest and Farm land preservation

Parcel search map

II. Partner Resources

SLR & Flood maps

DNERR Mapping

HCC's > Review and Revise

Benthic Maps

NMFS – Essential Fish Habitat

DATABASE:

- Bibliography of reports and BMPs

DE Forest Service

- Forest cover dataset



ELEMENT 3 – THREATS

Compiled by Shannon Alexander

I. Threats (assure that all of these are included/addressed in the Plan)

New threats – and potential threats – must be included

Short-term solutions don't line up with long-term goals

Capture DOT projects as threat/action item

Ground water extraction (irrigation, hydrology)

- Salt intrusion

- Fresh water discharge is currently highly managed, but this will change with CC

- Exacerbated by climate change

- Agricultural irrigation use

Agricultural drainage

Development drainage

- i.e. Sussex

Non tidal wetland – only state in Mid-Atlantic Region without special program

- Lack of comment at taskforce

Climate Change

- How it will exacerbate existing threats

- Habitat loss

- Vernal pool elimination/changes

- Precipitation changes (drought, etc.)

- Salinity changes (already happening)

- Coastal/Tidal wetland loss (fringe species)

 - Marsh migration

- Thermo microhabitat (mussels)

 - Marine species northern migration and starting already

- SLR and dams

- Seasonal/Interannual changes

 - Disrupted migration patterns

 - Changes in food and habitat availability

- Native southern species moving north

 - Managing as invasive species

- Freshwater temperature changes

 - Water quality effects

- Increased precipitation



Increased erosion rates

SLR

How habitats will change/diminish with these alterations

Species Ranges changes/moving (often shifting north)

Spike grass (*juncus rivierus*)

Highest rate of disappearance

Blocked on 2 sides, unable to migrate with SLR, salt intrusion

Lack of coordination between organizations, agencies, large land owners, large business owners

Beach/Bay front community – wildlife depends on habitats behind the southeast

Buy outs versus supporting protection (contributes to money/budget drainage)

Action: prioritize land purchase(s)

Increases in shipping activity (current trends and projected increases)

Chemical Use

Mosquito control

Herbicides

Pesticides

Chiton inhibitors, invert (terrestrial and aquatic) negative effects

Precision Ag technologies

Emerging chemicals

Pharmaceutical

Medicines

Pesticides

Specifically effects on bees

Public unlimited use of chemicals – available at chain stores

More targeted/integrated pest management

Bats, etc.

Gypsy moss/mosquito control – find BMPS

Misuse of Rodenticides

Sticky traps - associated 'by catch'

Education

Limit public access

Ex. Banning some in California

Nutrient management

New Development in high concentration mosquito areas

i.e. Developing wetlands

Zoning

Planning with the WAP in mind

Local politics



Tool for townships to utilize (database access)

Population trend changes - Land planning

Politics/Bureaucracy

Education for legislators

Public/Business/Industry Education/Information management

Lack of awareness and education as threat

Disease Vectors/Insect Pests

Pest control 'alternate' management techniques

Storm water changes/improvements in Dover

Bat population support (bat houses)

Diseases

Oak, etc.

Hypoxalyn canker (Oak)

Increases in disease from climate change

ID new diseases as they enter the system and address rapidly

Bacterial leaf scorch

Increase in disease possibility from changes in mosquito populations

Invasive Species

Bradford Pear

Autumn Olive

Cedar Swamp

Wineberry

Ashborer

Walnut twig beetle (AKA 1,000 Cankers)

Phragmites

Specifically in isolated fresh water wetlands & interdunal swells

Firefly species

Sale and availability of invasive species (mostly plants)

Nuisance wildlife

Canada goose (resident)

Cats

Turkey vulture

Cormorant

Population booms; changes in population dynamics

Exacerbated by climate change

Outdoor cats

ABC plans, etc.

Fragmentation – from development or ANY cause (i.e. SLR, etc.)



Funding problems

- Cuts/lack-off

- Relying on Game species income to manage non-game species

 - Duck stamp equivalent

 - Legislative issue

Extirpation

- Causes, SLR, etc.

- Anthropogenic

Snow dump from plows

- Cinder/salt runs right into Bay/River

Offshore Energy

- Plan in the works for identifying species/possible effects

 - Marine/Terrestrial habitats have different threats/considerations

Oil spills

Nuclear power plants

- Minor leak

- In-take (filter effects on organisms)

- Hot water out put

Fracking

Dredging

Fisheries impacts

- Inshore (rivers and bays)

- Offshore

 - Drags, gill nets, etc.

Recreational and Commercial consumptive use (fishing and hunting)

- Over-use

- Pollution factor (hooks, plastic bags, etc.)

Upstream pollution

- DE River influx from other states ends up in DE bay

II. General WAP Concerns & Suggestions

Emergency action plans for disease and invasive species (DE Dept of Ag)

TRAINING FOR ALL (for database use)

Delmarva oriented plan (i.e. MD, VA, working together)



Include/Explain habitats important for humans NOT just SGCN

- Ecosystem services

Non Game wildlife viewing; \$30 million economy

- A way to tap this as financial resource 'fee'/license for use

- First must evaluate/determine value

General public access: 'open up'/pull out relevant threats/actions to use for education

- Link threats to educational program development

Resources/Data

- Raptor injury/deaths causes

- Tristate bird rescue

- Average flight heights

- Electric and wind power interference

User ethics education

- How to use a resource

- ABA – Birding book of ethics

Publicity for WAP

- Mention in interpretive materials

- More user friendly WAP - For NGO, NPO, GO, and general public

DEC resources for DE, Regional, National



ELEMENT 4 – ACTIONS AND MONITORING

Compiled by Jonathan Mawdsley

I. Actions and Monitoring

Public outreach and engagement in all actions and monitoring

A. Actions

Activities that you can't do for political/cost reasons

Recommend having a stand-alone chapter – actions that the public can do

Value of Citizen Science Programs

Team Captain – training important for citizen science programs

Need to be able to demonstrate economic impact of conservation actions

Generate jobs

Water quality improves

Hunting/fishing opportunities

Why should developers care about specific habitats? There is a benefit to developers in taking action

Improve regulations so state can actually *do* something when development actions threaten a state-listed species

No connection in state between monitoring activities, habitat management

Programs are “siloed” in Delaware – monitoring versus management

Why don't we do or recommend doing things that we know can be done e.g. head-starting bog turtles?

Identify new regions/areas – self-sustaining clusters of sites

Have to tell legislators “why” to protect land

State is acquiring more land but not hiring more people to manage/monitor

Challenge – what to conserve? 5 miles of coastline vs. 10 acres of seasonal wetlands?

Seasonal wetlands very important for amphibians



Seasonal wetlands available for purchase & development & could be wiped out in next wave of real estate development. No state or federal regs would prohibit this. Need state and/or federal protection of these wetlands.

Prioritize conservation sites adjacent to protected sites

BUT there are lots of isolated sites that have high value for conservation!
Prime Hook started as an isolated site.

B. Monitoring

Where is the place for the general public in this plan?

Bird counts

Spring round-up counts

Museums, DNS, incorporate action/monitoring into their work

Need actions for the everyday person in this plan!

Citizen science, Horseshoe crab

What do people do with the data from citizen science monitoring programs?

ebird bird database

Smartphone cameras could capture more info

photos need to be vetted, IDs confirmed by experienced biologists

Data only as good as the person who provides it

If there are groups with collective expertise in an area or particular taxa, they can do the vetting for us

Entomology classes at U-Del to help identify insects

U-Delaware has mapped habitat for the whole state

Important restoration activities at NWRs, NERRs sites using consistent protocols for action and monitoring

Only so many resources available to monitor effectiveness of actions

Coordinated monitoring possible across the state and region for certain groups (birds, herps)

Monitoring comes down to resources, money, and staff

Project plans have a monitoring component but don't have the \$\$ to fully implement



Monitoring usually added up-front to permits, then no compliance check or follow-through after project. Not all monitoring should be front-ended, need to be able to show what is actually going on as a result of project.

Land Trust monitoring of easements – difficult to do with volunteers!

Nobody's checking up on project managers to see if there are actual results from the projects

Climate change – importance of phenology monitoring (bloom times, nesting times, migration patterns)

People very proprietary over data – “our” data – data sharing agreements & plans needed

II. General WAP Concerns & Suggestions

Protect habitat but let people keep their interest, important to have landowners active in conservation e.g. bog turtle habitat. Keep interest but do not exploit.

How does this plan connect with other people's work at DNREC?

Habitat Protection #1 priority for Delaware

Can't go out and buy everything – need to be creative with easements and regulations

Is there a place within the SWAP for some forms of advocacy work?

e.g. getting the Federal Highway Administration to use the SWAP in their strategic planning

e.g. getting other agencies in the state on board with freshwater wetlands protection

DE SWAP is used in development reviews, e.g. when more information is needed about a species for a review

Revised SWAP needs to be accessible to state and county planners, for their 5-year plans

Why is SWAP important to you?

Ecological services

Prevent ESA listings

Flooding prevention, drainage control

Who are the key landowners for the key habitats? Conservation Opportunity Areas?



III. Database

Online web version exciting

Working document idea good, keeps it “on the radar”

Much easier to search through document online

Web GIS component very useful for people’s daily work – helps them stay aware of what is going on

Is there room to incorporate additional data layers in the GIS?

Lots of databases already at DNREC

Improve access to information among stakeholder groups

Sensitive areas

Priority areas

Access to data greatly improved with web-based tools e.g. ARC GIS

From a planning perspective, need a tool that provides yes/no answers for permitting

Need something that people can look at on web to facilitate higher-level communication and education

Lots of monitoring and assessments going on in state, need to capture all of that & make reports available – need a state monitoring clearinghouse

State Restoration database – includes information about wetland restoration and restoration sites that include wetlands and uplands. Funding to multiple groups, self-entry of data for restoration projects.

IV. Partner Resources

Progress made since last plan:

Breeding Bird Atlas

State Wildlife Grants

Delaware does not issue an RFP for State Wildlife Grants. PA has an RFP which has led to increased support for monitoring and action e.g. Hawkwatch.

Trying to buy up every piece of Bay Shore available – Delmarva Bays



Ongoing monitoring of waterfowl statewide – Mid-winter Waterfowl Survey

Funding for Delaware Adopt-a-Wetland Program was recently cut – 3,000 citizen scientists now no longer engaged. Program was suspended because of funding.

With sea level rise, and the increasing importance of vernal pools, the Adopt a Wetland program is essential! It had 2.5 staff and 3000 volunteers.

CRAs, Conservation Resource Areas, tried under Gov. Minner, bit off more than they could chew, not entirely successful.

There is a Volunteer Reptile/Amphibian Monitoring Program e.g. in Maryland

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