**Fish Habitat Spatial Data Tools**
**July 29, 2016**


***North Atlantic Landscape Conservation Cooperative***
> *A multi-criteria decision support tool designed to assess aquatic habitats and threats in North Atlantic watersheds and estuaries which enables users to visualize and manipulate information to prioritize areas for conservation action.*
> http://northatlanticlcc.org/projects/downstream-strategies-project/decision-support-tool-to-assess-aquatic-habitats-and-threats-in-north-atlantic-watersheds (winter flounder and brook trout)

> *The Northwest Atlantic Marine Ecoregional Assessment includes data such as seabed form, bathymetry, sediment, benthic habitats and physical oceanography.*
> http://nalcc.databasin.org/maps/01e1d5b8954b40d98dbf05a4b0595c02

***National Fish Habitat Partnership Data System***
> *The data system provides data access and visualization tools including inland stream and coastal assessments, Fish Habitat Partnership habitat condition index scores and Human Disturbance data, and additional datasets from cooperators.*
> http://www.fishhabitat.org/content/nfhp-data-system
> - Risk of current Habitat degradation for stream and coastal fish habitats (assessment results)
> - OBIS Fish Data, OBIS Bivalve Data, MARIS Fish Sampling Dataset, NFHP Community Data

***Landscope***
> *A wide variety of maps pertaining to the Chesapeake Bay Watershed including conservation priority data sets, cultural data, environmental data and numerous other applications.*
> http://www.landscope.org/chesapeake
> - Conservation Priorities (Wildlife Action Plans), threats, etc.

***MD Greenprint***
> *Maryland's Greenprint map identifies and maps targeted ecological areas, high priority lands and watersheds for conservation, land conservation programs. This map enables the user to visualize and prioritize conservation activities based on the characterization of land cover and other GIS data.*
> http://greenprint.maryland.gov/
> Fisheries, Protected Lands, Targeted Ecological Areas, Smart Growth, etc.

***VA Coastal Geospatial and Educational Mapping System (GEMS)***
> *Virginia's Coastal Zone Management Program provides an expansive inventory of land and water based natural resources, conservation planning, coastal laws and policies, information on coastal resource values, and planning examples designed to promote stewardship and environmental education.*
> http://www.deq.virginia.gov/Programs/CoastalZoneManagement/CoastalGEMSGeospatialData.aspx

***VA DCR Conservation Lands Database***
> *Virginia's Managed Conservation Lands Map uses digital surveys and other data sources to track Virginia's progress towards land conservation goals.*
> http://www.dcr.virginia.gov/natural_heritage/clinfo.shtml#dev

***VA DEQ GIS Database***
>The Virginia Environmental Geographic Information Systems viewer provides that viewer with geographical data on impaired waters, petroleum release sites, solid waste facilities, water quality monitoring stations and additional data.
>http://www.deq.virginia.gov/ConnectWithDEQ/VEGIS.aspx

***VA DGIF Database***
>The Virginia Department of Game and Inland Fisheries GIS database provides data to users regarding public features, HUC10s, trout fishing and wildlife management areas.
>http://dgif-virginia.maps.arcgis.com/home/webmap/viewer.html?useExisting=1

***New TNC Habitat Prioritization Tool***
>The Nature Conservancy has developed a library of maps and spatial data to provide meaningful contributions to conservation. This includes terrestrial, freshwater, and marine datasets which are accessible at the following link.
>https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/edc/reportsdata/marine/cby/Pages/default.aspx

***Chesapeake Bay Fish Passage Prioritization Tool***
>The Nature Conservancy partnered with the National Oceanic and Atmospheric Administration and the states of Maryland and Virginia to develop a new tool to aid in the prioritization of barriers to fish passage in the Chesapeake Bay.
>http://maps.tnc.org/EROF_ChesapeakeFPP/

***Chesapeake Bay USGS Data***
>United States Geological Survey datasets include land use and climate change layers, water quality and quantity, living resources and habitats, and other additional data resources.
>http://chesapeake.usgs.g http://ice.ecosheds.org/ov/data.html

***Maryland Water Monitoring Site Mapper***
>The Maryland Water  Monitoring Council  provides a tool which provides users with a comprehensive map of Maryland waterway monitoring sites and allows users to map stations based on type of sampling (biological, chemical, physical, restoration related).
>http://maryland.maps.arcgis.com/apps/webappviewer/index.html?id=b788336339df416fbe1402a4c2f30720

**FishStats**
>FishStats is a toolbox of public software for combining stock assessment, habitat, ecosystem and climate research. The index standardization and multispecies models  of environmental drivers and fish intereactions can be applied to generated abundance trends and environmental impacts.
>http://www.fishstats.org/

**HGIT's Additions**

***Eastern Brook Trout Joint Venture***
>The EBTJV Integrated Spatial Data and **Tools** product is a GIS map featuring data layers relevant to the Eastern Brook Trout's status and habitat extent and tools to aid decision makers in their conservation in this species.

http://easternbrooktrout.org/resources/brook-trout-conservation-decision-support-tools/eastern-brook-trout-joint-venture-data-tools

*The Interactive Catchment Explorer* **tool** *allows resource managers to explore catchment characteristics and environmental model predictions to identify spatial patterns related to ecological conditions and identify priority locations for restoration.*
http://ice.ecosheds.org/

*The EBTJV created a sub-watershed* **dataset** *to show the current population distributions of the Eastern Brook Troup and their stressors.*
https://nalcc.databasin.org/datasets/2b5fb8b75465437ba2526e8928ca263b

### The Nature Conservancy

*This* **dataset** *indicates the estimated resiliency of freshwater streams and stream networks under the stressors of future climate change*
https://nalcc.databasin.org/datasets/666a31750bce4d268734bf5402f24efc

*The Nature Conservancy along with UMASS and other fish ecologists created a* **map** *to show important habitats that support biodiversity and rare and endangered aquatic species.*
https://nalcc.databasin.org/datasets/112673f3722c46faba2d0553da8e270e

### USGS

*This* **tool** *provides current and historic stream temperature data to aid resource managers in their decision making*
https://ccviewer.wim.usgs.gov/noreast/

### University of Massachusetts

*This* **map** *shows the Mean Minimum Winter Temperature projected for 2030 under predicted climate change conditions*
https://nalcc.databasin.org/datasets/c8bd21e030e34dd790565983910643a7

*This* **map** *shows the Mean Maximum Summer Temperature projected for 2030 under predicted climate change conditions*
https://nalcc.databasin.org/datasets/0d378cf961c64a0c957e7cc97f298512

### North Atlantic Landscape Conservation Cooperation

*The NALCC created Fish Habitat Decision Support* **Tool** *to grant access to spatial data and results from multiple fish habitat assessments and provides users three tools (visualization, ranking, and futuring) to analyze such data. (Includes the Chesapeake Bay Brook Trout Assessment)*
http://www.fishhabitattool.org/

### North Atlantic Aquatic Connectivity Collective

*This* **tool** *prioritizes sub-watersheds that may be of high priority for field survey based on species present and connectivity to larger networks.*
https://streamcontinuity.org/assessing_crossing_structures/prioritizing_crossings.htm

### MD iMAP: Biota

*This website hosts a number of **maps** and **datasets** regarding Maryland wildlife including historical Chesapeake Bay SAV expanses and areas of different finfish spawning habitat.*
http://imap.maryland.opendata.arcgis.com/datasets?q=Biota&sort_by=relevance