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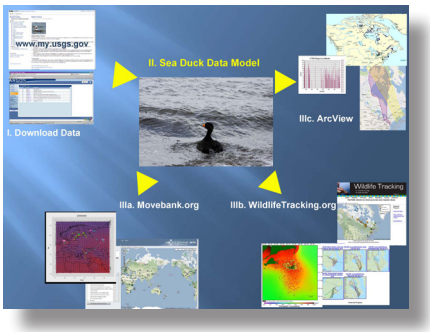
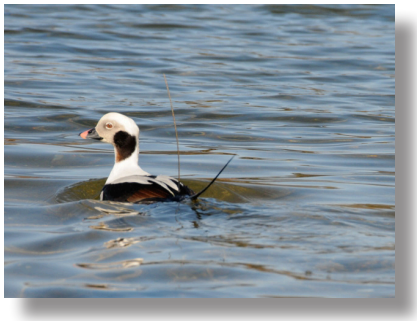
Patuxent Wildlife Research Center

Compiling Seaduck Satellite Telemetry Data for Analyses Regarding Population Delineation, Weather Effects on Migrational Pathways, and Baseline Information for Climate Change Effects on Seaducks

- ***The Challenge:*** One of the primary goals of the Sea Duck Joint Venture is to delineate the populations of seaducks in North America. This goal has led to number of satellite telemetry tracking projects all over North America. To this day this data has either been published in numerous different journals or not published at all. There is an increase interest into large landscape scale perspectives to manage species. If this data is compiled into one database then some of these pertinent continent wide issues can be addresses, such as effects of climate change and weather events on migrational pathways, home ranges, and timing; visualization of potential interactions between populations or designating potential subpopulations, monitoring the potential spread of avian borne diseases such as west nile virus and potentially avian flu; and aiding in determining where more information is needed.



- ***The Science:*** An archival database has been created in our secure portal through my.usgs.gov. For all new tags our username is allowed shared access for automatic downloads of all new data. The capabilities of the database are 1)archives all raw location data and deployment information, 2)provides numerous filtering abilities including Douglas filter, and 3) multiple export options of data including but not limited to Arcview , Movebank, and Wildlife tracking.



- ***The Future:*** With increased interest in climate change and spread of diseases creating a large dataset for seaducks will allow for the continued monitoring of these issues for the long term. The Audubon Society just produced a climate change report that analyzed the Christmas Bird Count data and the results showed numerous species have moved their wintering ranges significantly northward, including the Red-breasted Merganser and the Ring-necked Duck. By compiling our data now and continuing to add any new information collected we will be able to provide recommendations on critical habitats for seaduck species that could be impacted by climate change and potential anthropogenic changes, such as wind farm implementation.

Contact: Alicia Berlin at (301)497-5730 or aberlin@usgs.gov