Audubon

Full annual cycle conservation of migratory birds: Improving conservation impact of the protected area network in Colombia

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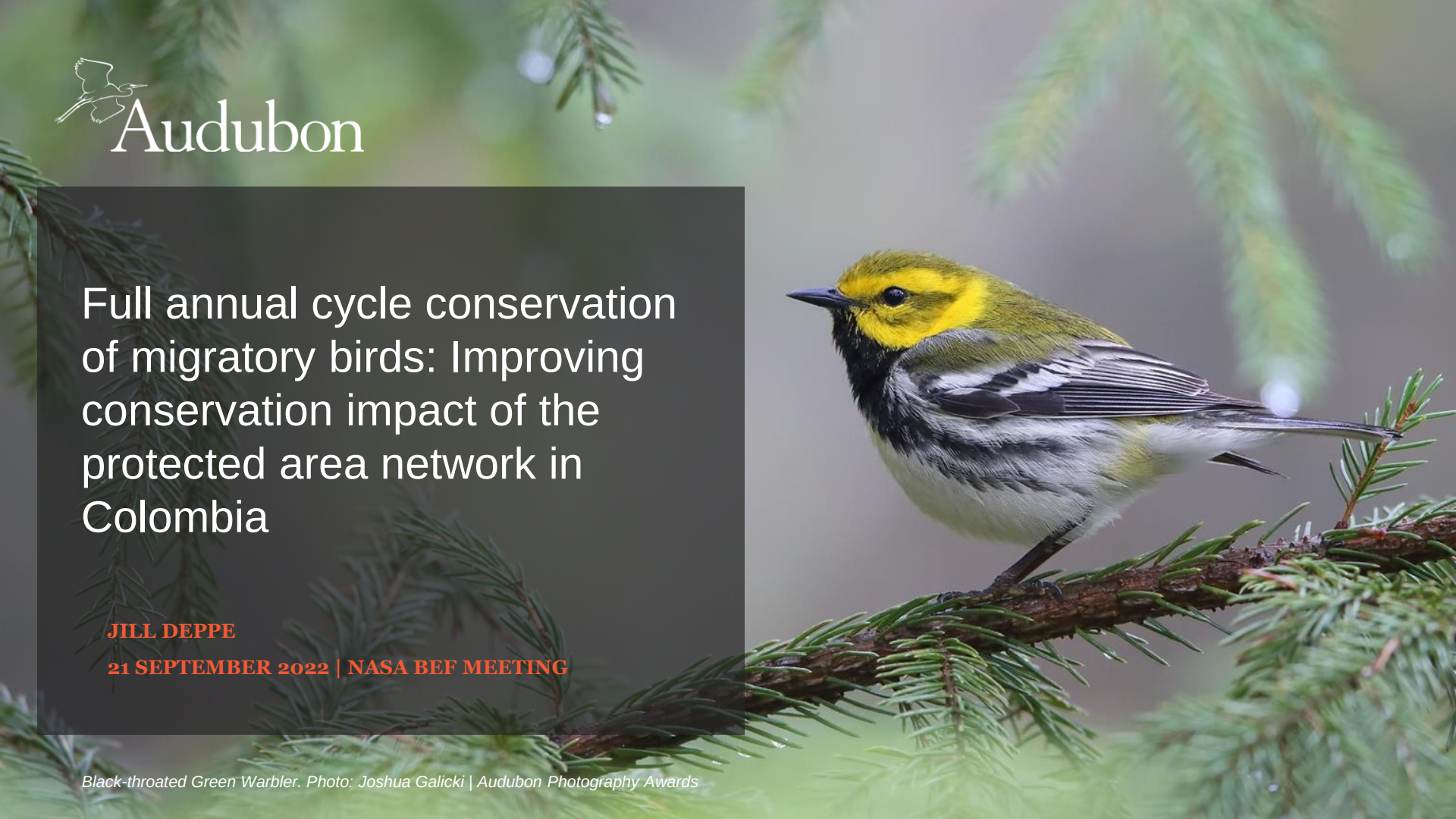
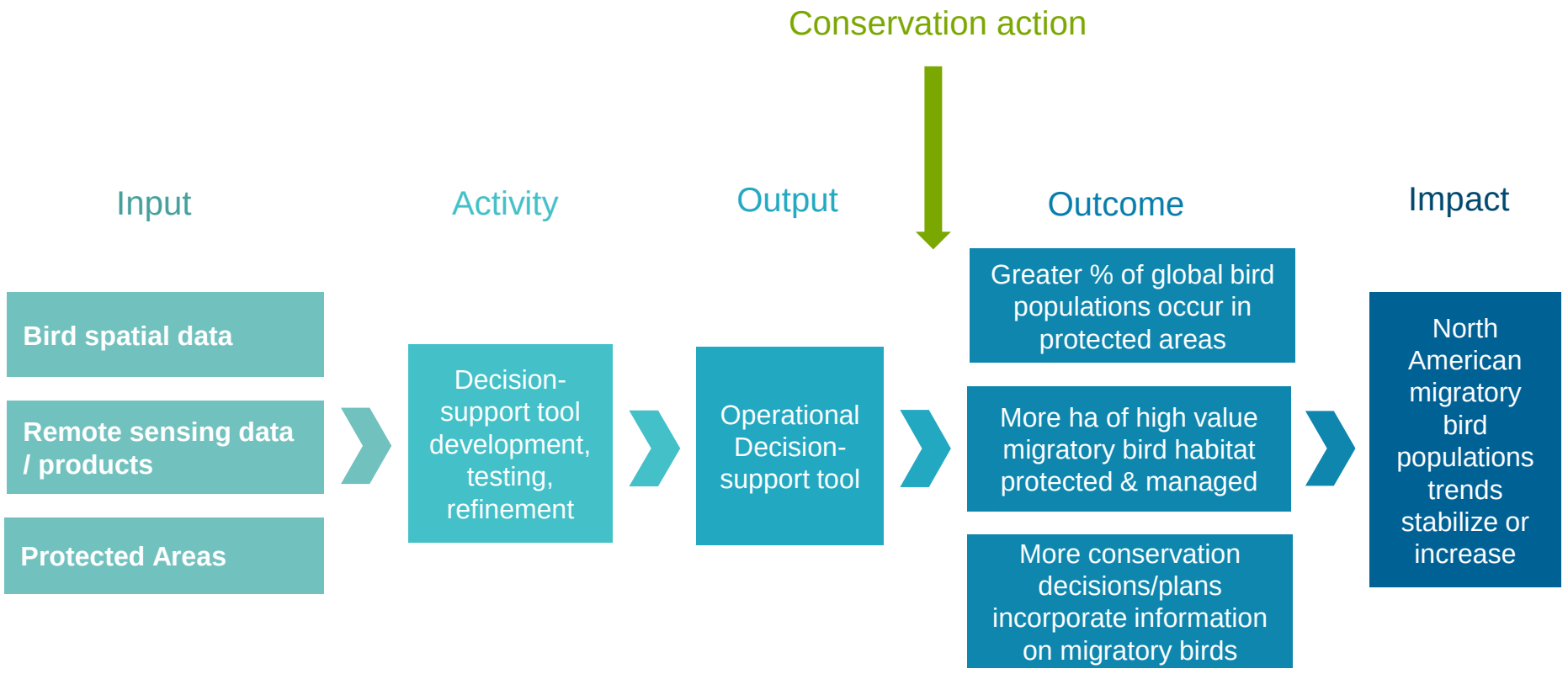


Black-throated Green Warbler. Photo: Joshua Galicki | Audubon Photography Awards

Project goals

- **Conservation goal:** halt declines of North American migratory birds and maximize bird biodiversity in Colombia
- **Need:** Where and how should conservation resources be invested to achieve goal?
- **End users:** local and international conservation non-profits responsible for making decisions on where to create new protected areas and implement conservation actions on private lands in the surrounding matrix (e.g., regenerative ag).
- **Outputs: (1)** Interactive geospatial tool to inform land protection and management decisions and **(2)** metrics to assess impact.
- **Outcomes:** improve bird population and community resiliency.


Conservation action
Input
Activity
Output
Outcome
Impact
Bird spatial data
Remote sensing data / products
Protected Areas
Decision-support tool development, testing, refinement
Operational Decision-support tool
Greater % of global bird populations occur in protected areas
More ha of high value migratory bird habitat protected & managed
More conservation decisions/plans incorporate information on migratory birds
North American migratory bird populations trends stabilize or increase

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Bird spatial data

Full Annual Cycle Prioritization

- Hemispheric
- Coarse resolution
- Integration of tracking, connectivity, abundance data

Bird Friendliness Index

- Colombia
- Fine resolution
- Abundance and diversity data

Local work

- Specific locations
- Connections with people

Remote sensing data / products

Current and forecasted developed areas (SEDAC Global Grid Probabilities of Urban Expansion, Human Built-up and Settlement Extent)

Current and forecasted crop-based and grazing agriculture (Global Food Security Support Analysis Data, SEDAC Cropland Expansion Development Potential Index)

Land cover / land use (esp. agricultural crops)

Ephemeral, permanent, temporary water sources (inland waters, tidal flats derived from Landsat)

Indices of overall biodiversity and potential carbon sequestration (GEDI products estimating primary productivity, vertical forest profile, woody above ground biomass density, vegetation canopy height)

End user design thinking workshop results

Project team and end users

- Nat Seavy
- William DeLuca
- Nicole Michel
- Sarah Saunders
- Tim Meehan
- Christina Farber
- Benjamin Poulter