U.S. Fish and Wildlife Service

Caribbean Ecological Services Field Office

Guánica Bay Habitat Restoration Initiative Landscape Conservation throughout Watershed Management

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Caribbean Ecological Services Field Office (CESFO)

Conserving Fish and Wildlife Resources in the U.S. Caribbean
Puerto Rico and U.S. Virgin Islands (St. Croix, St. Thomas and St. Johns)

- ***Puerto Rican Parrot Recovery Program – Rio Grande Station***
- ***Field Office – Boquerón Station***
  - ***Endangered Species Program***
  - ***Habitat Conservation***
  - ***Contaminants Program***
  - ***Habitat Restoration Programs (PFW & CP)***

Our Mission:

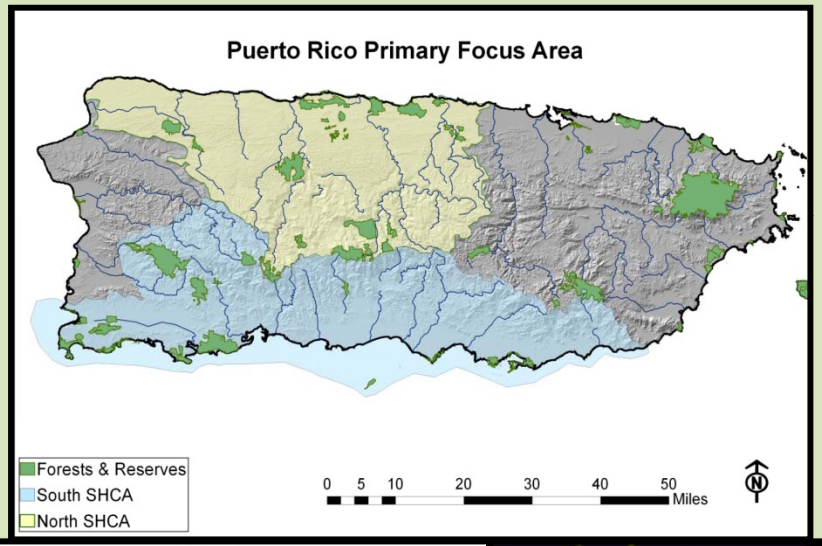
…to work with others to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people.

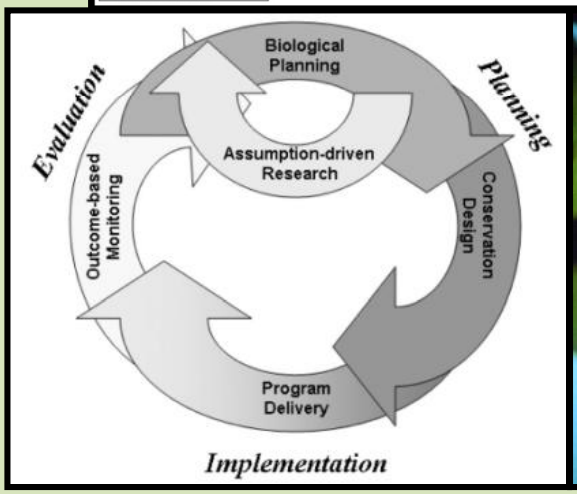
Agelaius xanthomus
Yellow-shouldered blackbird

Trichechus manatus
Antillean manatee

How do we implement conservation?

- SHC Framework (Adaptive Management Approach)
- Focus landscape conservation
- Integrating watershed management
- Strategic Plan (priorities)
- Integrating all USFWS Programs
- Establishing Partnerships





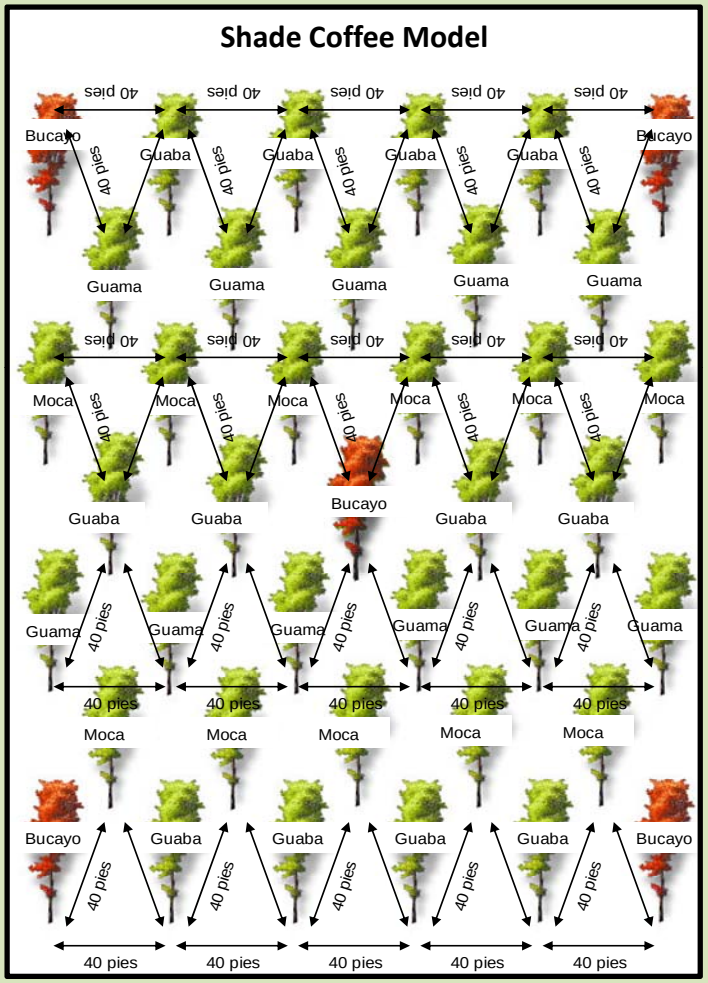
Habitat restoration activities in the mountains are needed to protect marine ecosystems and coral reefs

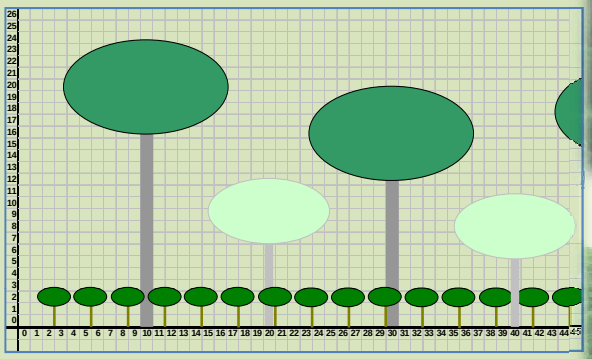
Shade Coffee Initiative: An example of Watershed Management in Puerto Rico

- For more than 15 years, CESFO has been restoring native forests in the Coffee Region, area covering about 900,000 acres
- Traditionally coffee was cultivated under forest shade
- More recently, forests were destroyed and coffee was mainly cultivated in sun
- Conversion of sun coffee to shade coffee provides habitat to native wildlife, migratory birds, federally-listed and candidate species.
- Shade coffee reduces soil erosion / sedimentation, reduces contaminants

We have restored over 2,000 acres

Conversion of Sun Coffee to Shade Coffee

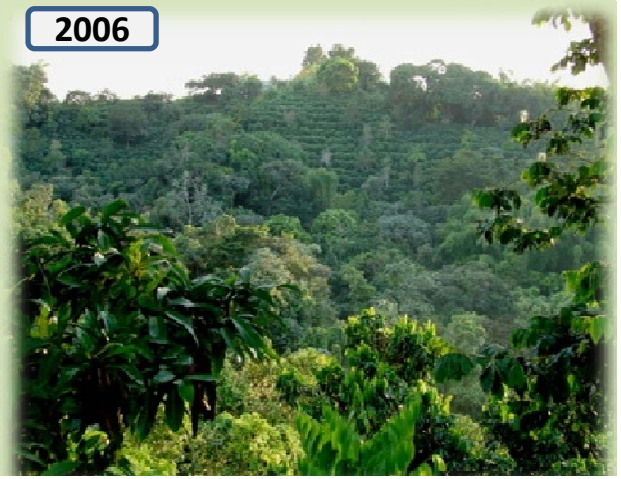




2001

2003

2006



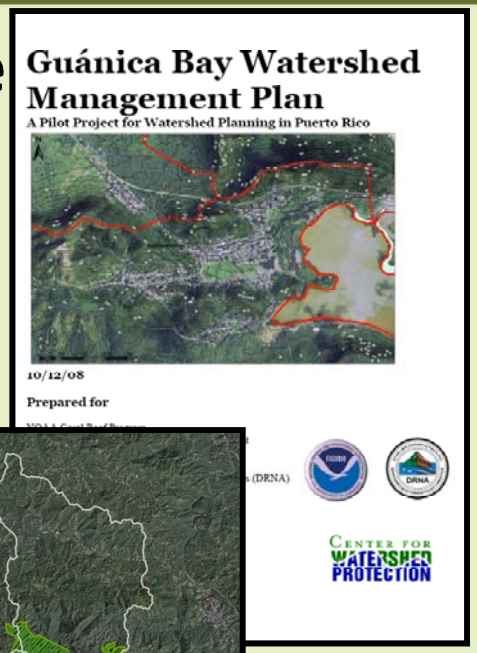
Programa Costero

Compañeros para la Vida Silvestre

Partnership with NRCS

- **CESFO has been working with NRCS for over 10 years in habitat restoration projects and Section 7 consultation process.**
- **Informal cooperation between PFW and EQIP programs started in 2007**
- **Formal Agreement signed in 2008**
- **Interagency Agreements – 2009 to present**
- **Efforts focused to Río Loco Watershed / Guánica bay initiative since 2010**
- **Additional efforts adjacent to the Maricao Forest for EEW**

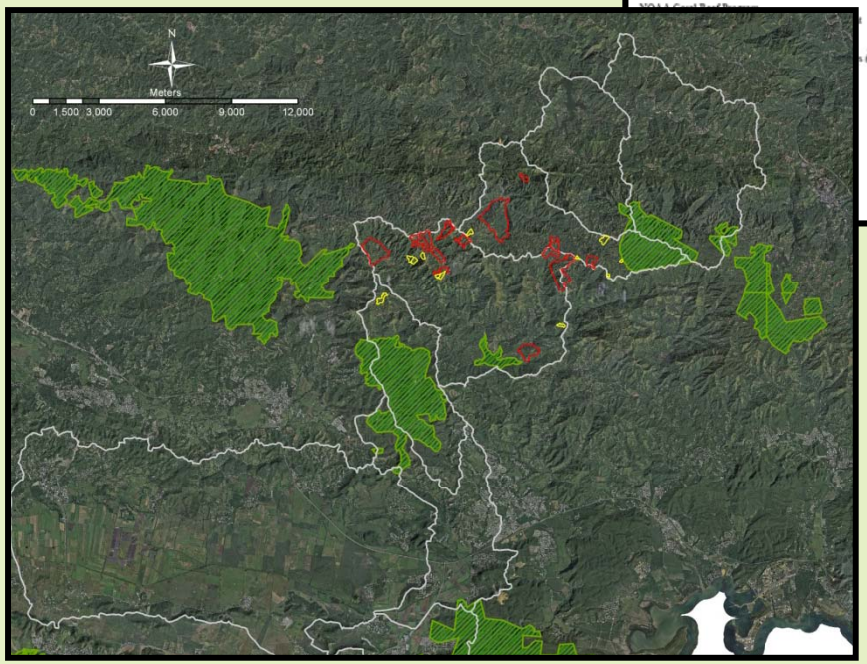
Guánica Bay / Río Loco Watershed Initiative Restoring Habitat in the Mountains to Protect our Corals



Collaborative Project between NOAA, DNER, CWP, USFWS, NRCS and NGO's

Is a component of the Shade Coffee Initiative

Restoration activities benefit listed species, candidate species and migratory birds



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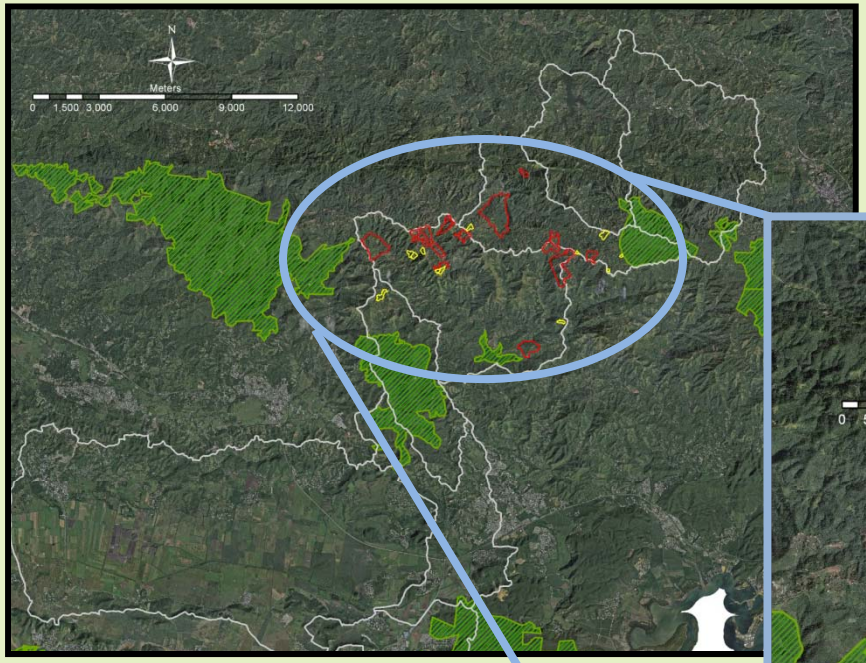

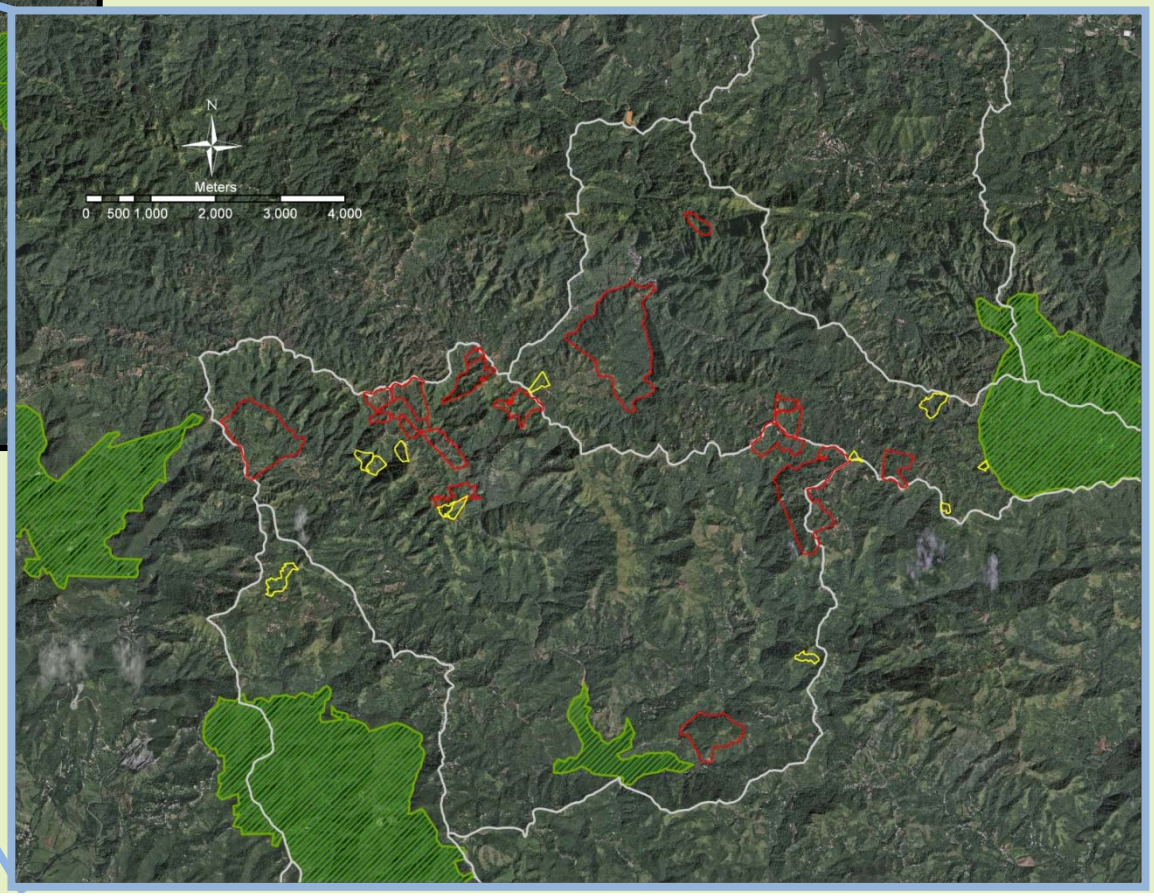

Legend

- **Rio Loco Watershed**
- **Commonwealth Forests**
- **2010 Farms**
- **2011 Farms**

Guánica Bay / Río Loco Watershed Initiative Accomplishments and Projections

For 2010 to 2011

Acres Restored	Planted Trees	No. Farms
270	9,280	27

For 2011 to 2014

Projected Acres	Projected Trees	Time
453	12,467	2010 to 2014

Caribbean Ecological Services Field Office

Our Vision is to Integrate all Program Efforts and Focus Conservation Efforts