

Gopher Tortoise Conservation, Working Forests and the Potential Role of Forest Certification

USFWS and Forestry Partners

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The Concept

- *Private forest landowners voluntary reporting of forest conditions that provide GT habitat*
 - *Verification using certification*
- = Significant contribution to USFWS ability to preclude listing*

Drivers

- *Working forest habitats, at scale, must contribute meaningful conservation value to GT*
- *USFWS ability to recognize the habitat value of working forests to GT is necessary to incent landowners to report and/or incorporate management to provide GT habitat*

Working Forest Habitats

- *Significant information on forest management and GT habitat is contained in existing scientific literature*
- *Synthesis of best available data on working forests and GT habitat useful to move forward*
 - *ID key questions that remain*
 - *Define working forest conditions that contribute to GT habitat*
- *Cooperative investigation of questions that remain around working forest landscapes as GT habitat and GT population dynamics will be valuable*

Working Forest Habitats

- *Forest management at the stand scale has GT conservation value:*
 - *Forest thinning*
 - *Herbicide treatments of midstory hardwood that promote herbaceous vegetation*
 - *Prescribed fire*
 - *Mechanical removal (biomass harvest) of midstory hardwood*

Working Forest Habitats

- *Certain forest characteristics at the tract or landscape scale have GT conservation value:*
 - *Stand size and adjacency limits significantly influence the spatial and temporal extent of crown closure over a landscape – Lochloosa example*
 - *Linear habitats, other non-forested habitats*

Long Term Population Dynamics of Gopher Tortoises in a Pine Plantation in Northern Florida

Joan Berish

- Three decades of research on one site
- Only long-term study of tortoises on working forest lands
- Under continuous active forest management through multiple ownerships
- 30 years of intensive pine silviculture
 - Several rotations of pine planted, thinned, and clearcut
 - Stand establishment techniques employed over time: shear & rake, windrows, bedding, flat harrowing, machine planting, targeted herbicide application

“This follow up survey indicated that viable gopher tortoise populations can persist on sites undergoing intensive silviculture” (Berish 2012)

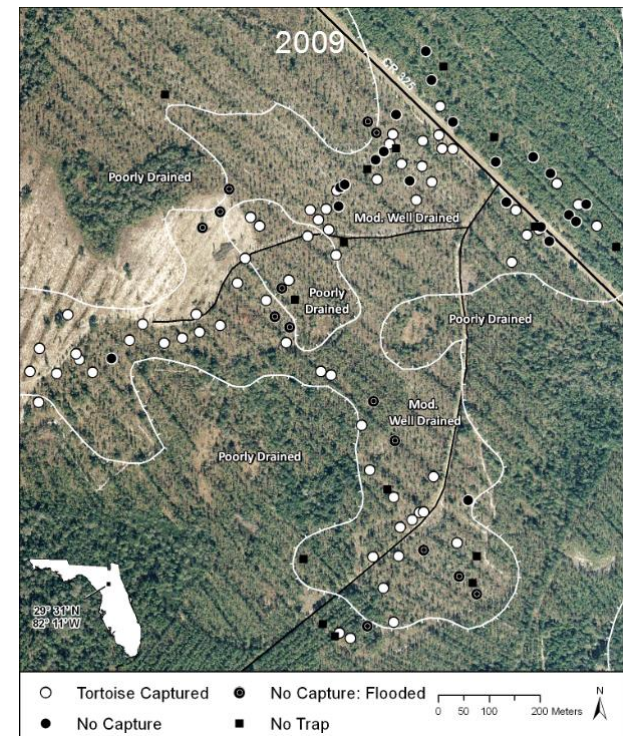
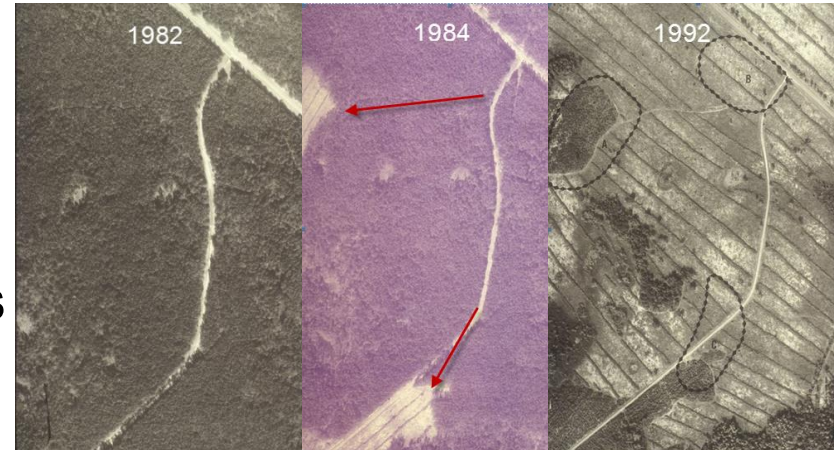
Results From a Working Forest Perspective

■ Movement in response to habitat change

- Reduced density of tortoises along road following 1984 CC
- Burrows were found along ecotones of recent clearcuts and older plantations
- Association with suitable soil type was strong when habitat conditions not limiting
- Tortoises moved in response to moisture conditions, utilizing berms and windrows
- Movement by “Rovers”
...documented movement \pm 1 km off site

■ Also extreme site fidelity

- (88% marked individuals recaptured same approximate location)



Working Forest Habitats

- *What are the implications of stand and landscape forest management to GT habitat?*
- *What is needed for the USFWS to recognize existing or future contributions to working forests?*



Potential Steps Forward Collaborate on:

- *Additional synthesis of scientific data on working forest and GT*
- *Development of framework for recognition of working forest habitat values*
 - *GT Soils are Key – Develop a framework for landowners to determine extent of priority and suitable soils within GT range*
 - *Pilot project on assembling forest management information and its relationship to GT habitat*