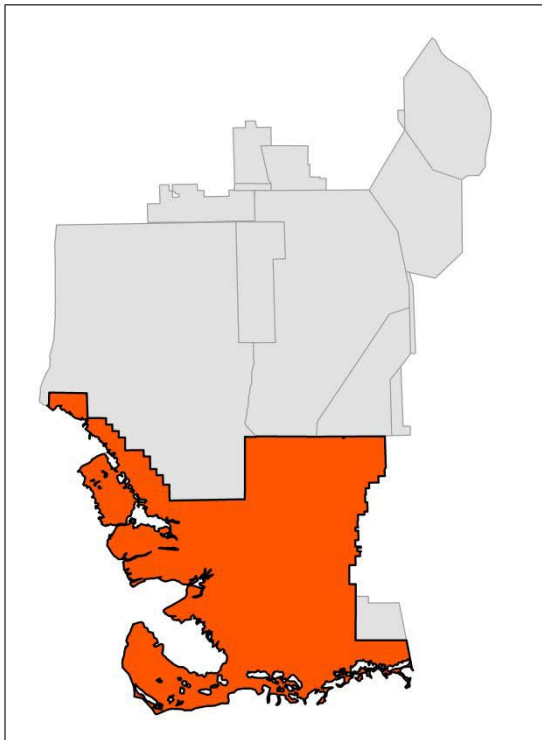


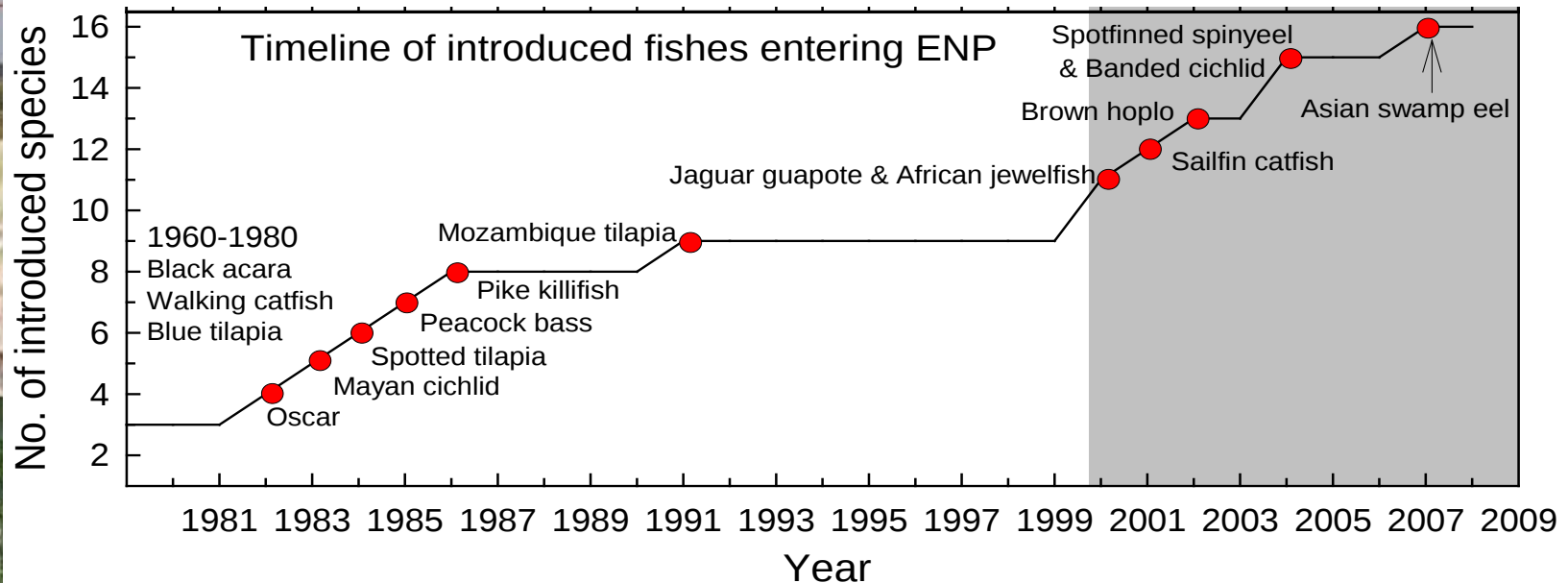
Everglades National Park Freshwater Aquatics Monitoring



Jeffrey Kline
ENP

History/Background

- Generally species lists
- 16 species of non-native fish
- *Pomacea insularum* and *P. diffusa*-2005
- Misc other invertebrates



Priority Animal Species

- **My perspective**

- The most recent introductions
- Most abundant
- And those not in ENP yet!



- **Newly Detected Aquatic Species**

- None known 2008-present
- Asian swamp eel spreading in Taylor Slough?



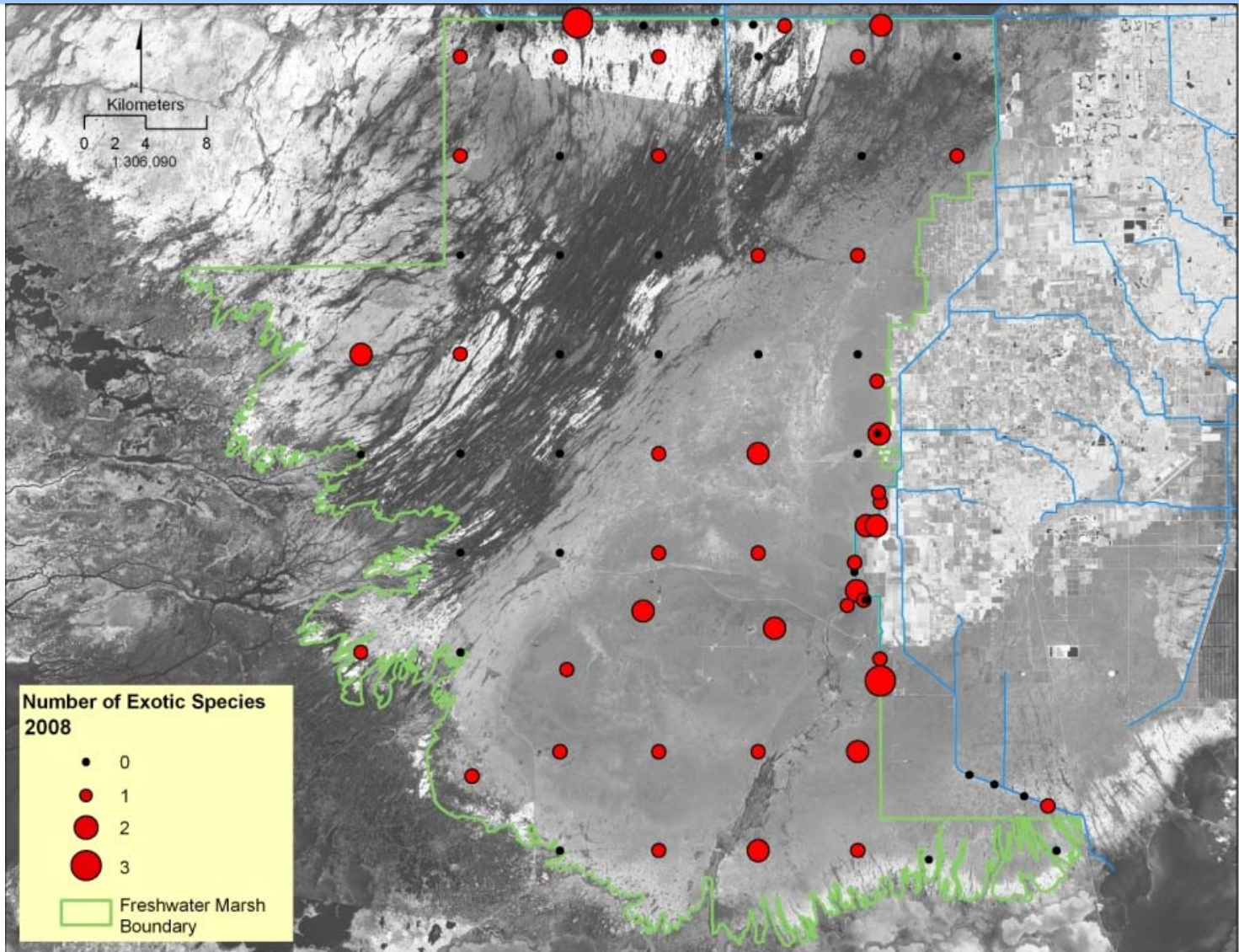
Courtesy of K. Sunderland

Monitoring

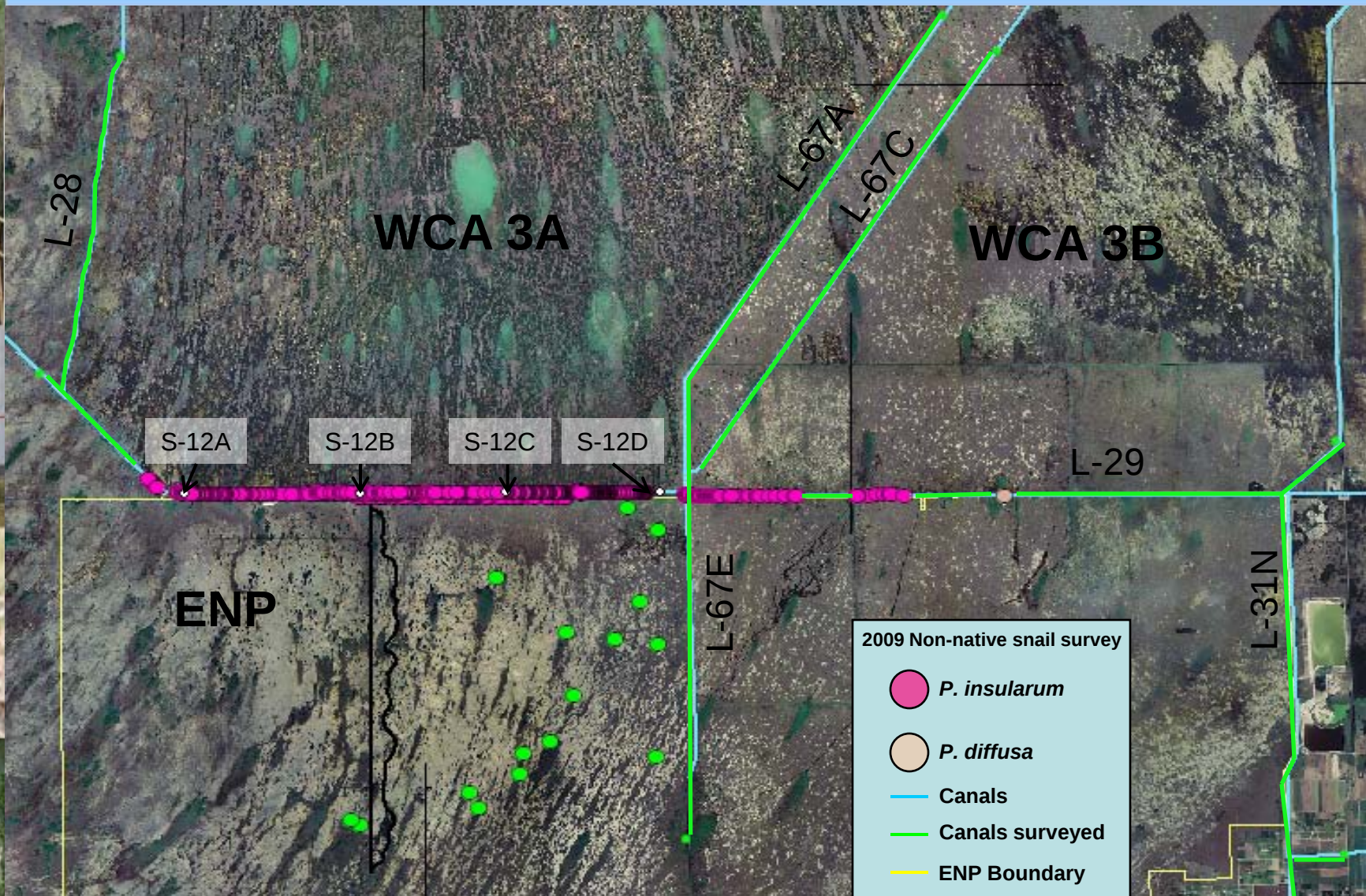
- Fish monitoring
 - 50 Sites park-wide sample-Annually
 - Other monitoring efforts-ENP and cooperator
 - Misc observations
- Non-native apple snail
 - *Pomacea insularum*
 - Old Tamiami Canal survey every 8-10 days
 - Since May 2005
 - *P. diffusa* at Frog City
 - 2008 & 2009 survey of border canals



Monitoring



2009 Exotic Apple Snail Monitoring

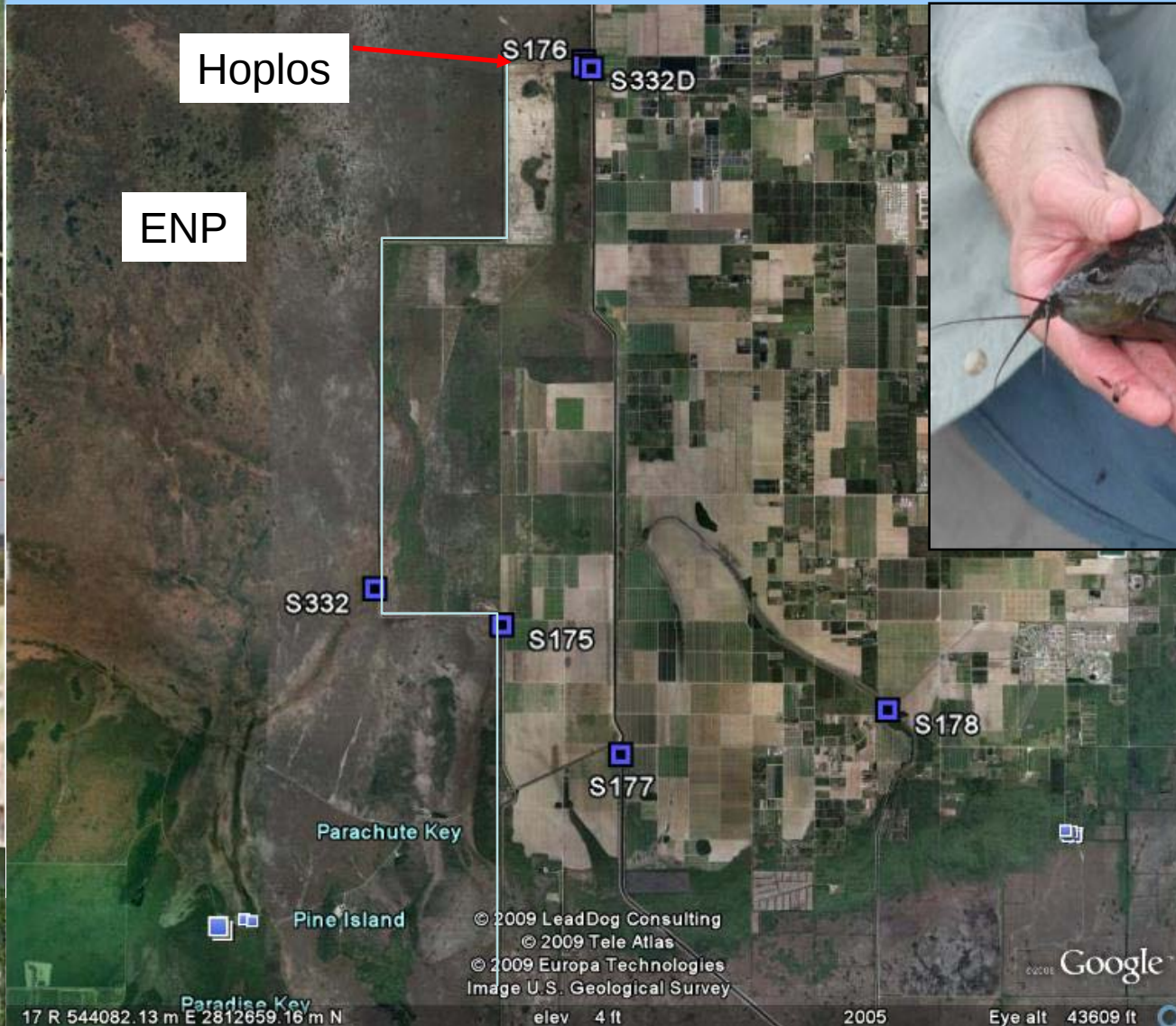


Invasive Species Special Assessment

- **Task Name**
 - Assessment L-31W Brown Hoplo (*Hoplosternum littorale*) aggregation
- **Description**
 - Aggregation of a large number of brown boplo in a small areas of the L-31W canal bordering ENP
- **Objective**
 - Assess aggregation of large number of brown hoplo in L-31W canal
- **Partners**
 - ECISMA discussion
- **Start/End Dates**
 - March 2009 – April 2009
- **Status**
 - Removed-mostly
- **Funding (FY):**
 - Staff Time: 2 people, 4 trips ~20 hrs of time, 3 cast nets
- **Annual Summary:**
 - ~1900 lbs removed = ~45,900 individuals
 - Some specimens saved for additional analyses



Fiscal Year Treatments: {enter FY period}



Brown Hoplo
Hoplosternum littorale

L-31W canal



Planned monitoring efforts (2009-)

Detection of new invasive exotic fish using long-term monitoring of canals adjacent to South Florida National Parks.

- Cooperative effort
 - Everglades National Park
 - South Florida/Caribbean Inventory and Monitoring Network



Planned

- Meeting to discuss canals, exotics and controls
 - How to facilitate working together on non-native aquatics issues.
- ECISMA sponsored
- At ENP Early Fall 2009



Planned Treatments: {next FY period}

