Keota Silaphone Portfolio

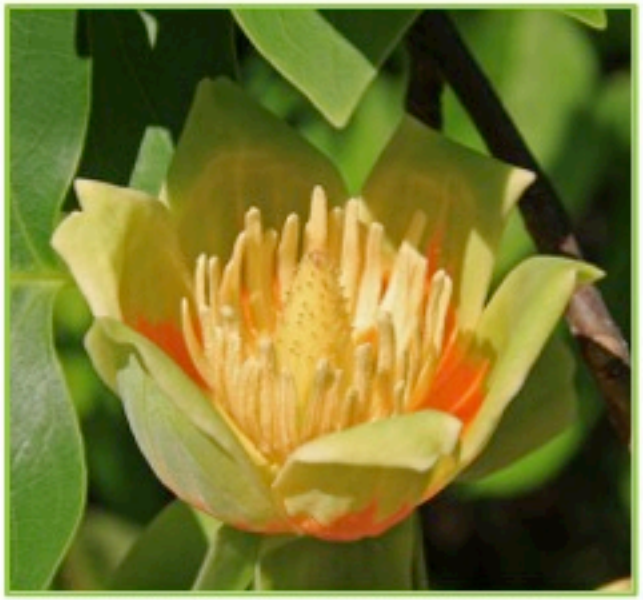
Science Communication Course, Spring 2016

A hands-on course giving participants the opportunity for tremendous growth

Tulip poplar trees are among the fastest growing trees in Maryland but more than 5 years will pass before ever seeing a blossom.

Contents

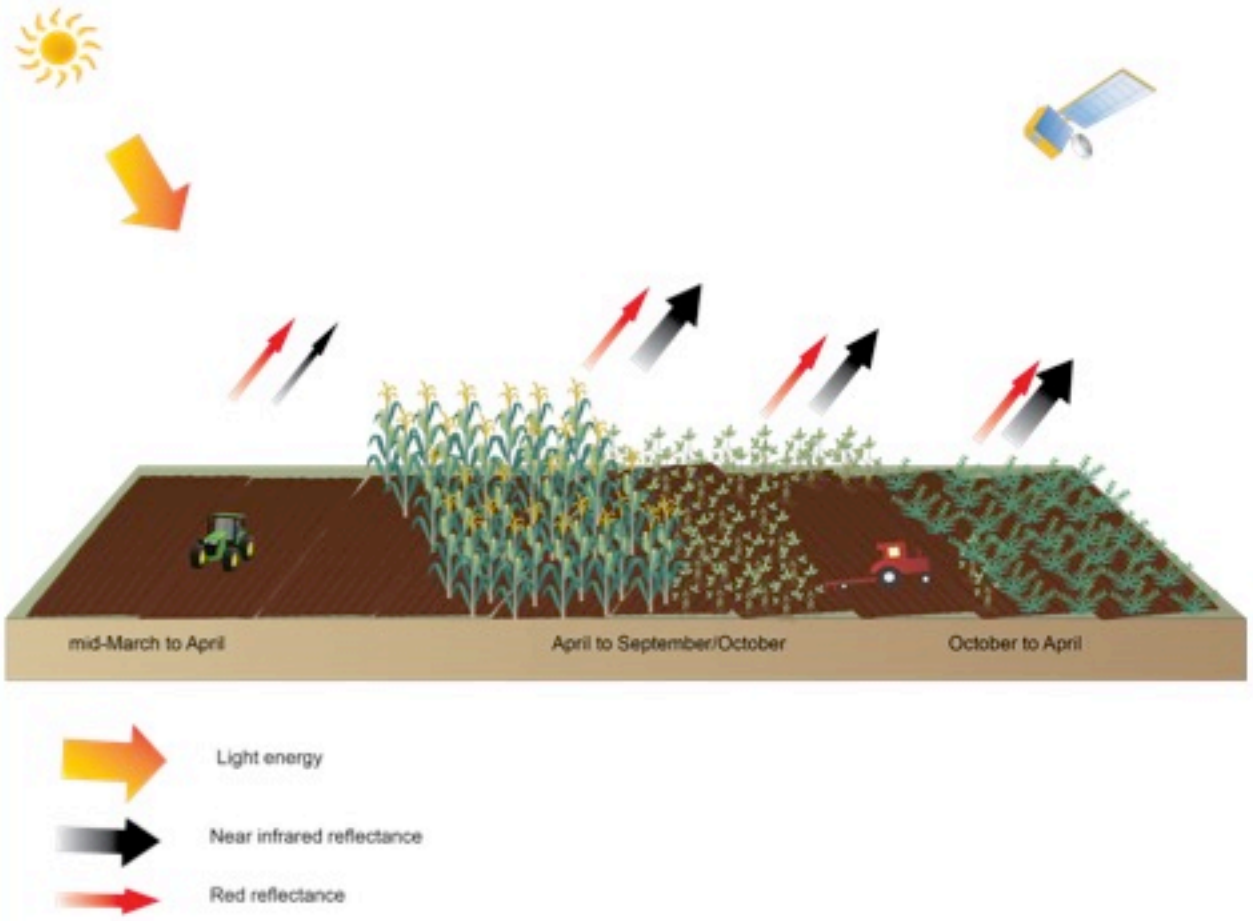
- Conceptual diagram – Visualizing NIR reflectance from a changing farm field
- Data visualization – Cover crop growing season
- Maps – Greensboro Watershed
- Photography – Cover crops
- ABT statement
- Storyboarding – Poster



Years of nurturing tulip poplar trees are required before blossoms begin to appear. Likewise, practice often to reap the benefits of communicating science well.
Image credit: Wikimedia.

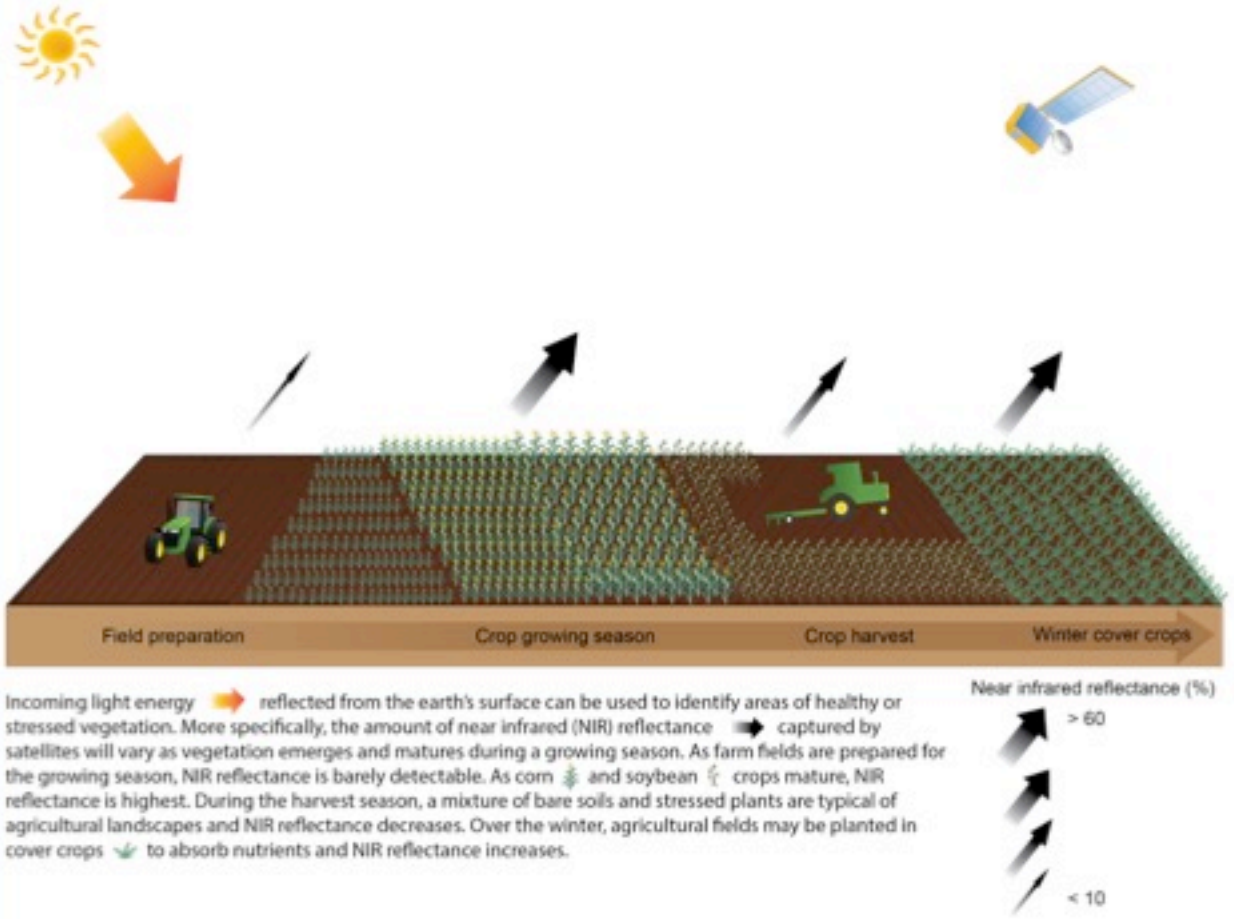
Before: Conceptual diagram

- Created in Adobe Illustrator
- Relative sizes: Corn vs. tractor
- Create seamless bare ground cover
- Time continuum: apply arrow to shoe continuity
- Tractor icon selection: why red?



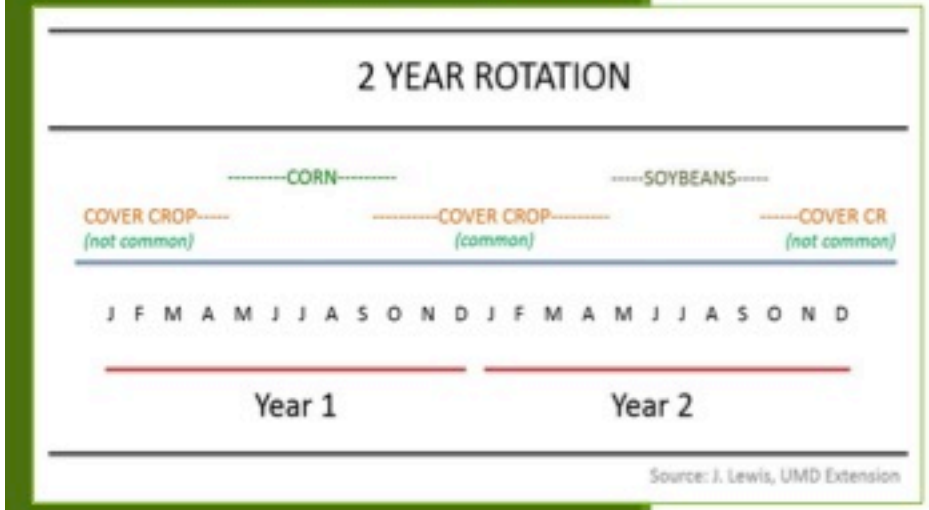
After: Conceptual diagram

- Increased size of tractors and reduced size of vegetation
- Modified color of red tractor
- Created different growth stages of corn
- Placed soybean harvest in foreground and tractor in background
- Graduated NIR reflectance arrow size
- Supplemental text with symbols
- Seamless bare ground
- Arrow with subtitles beneath activity implies timeline

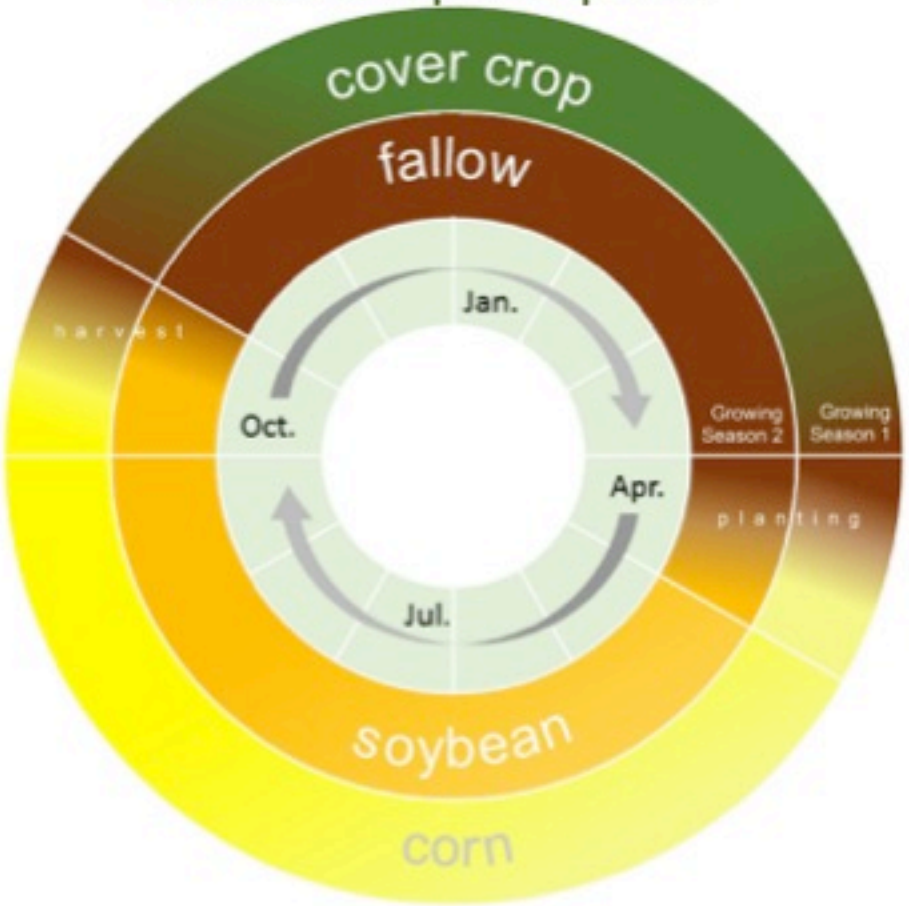


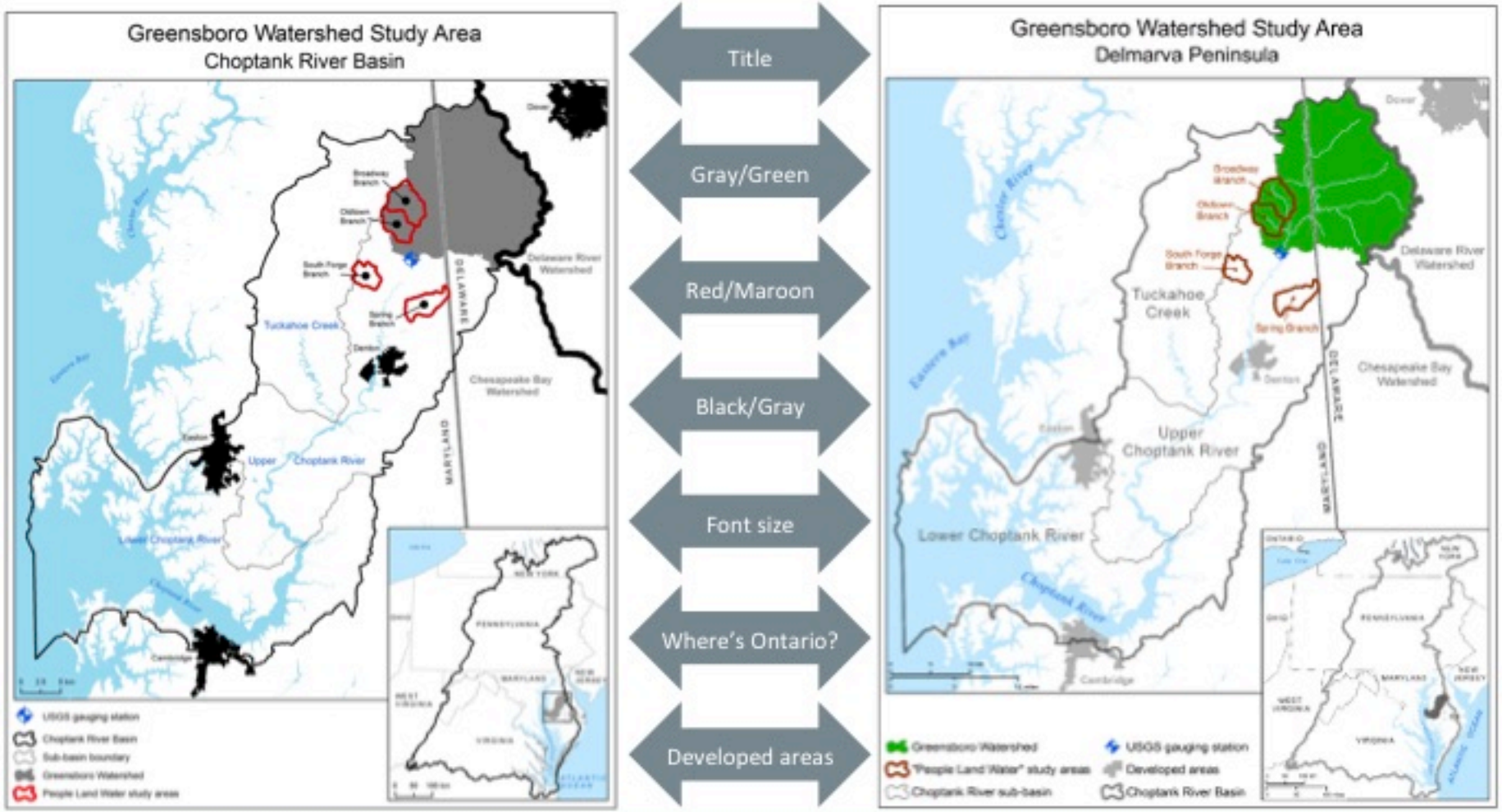
Before: Data visualization

- Round shape implies "rotation" in normal clockwise manner
- Color saturation implies activity based on label and transition
- "planting" and "harvest" labels added for clarity



After: Data visualization created in ArcGIS and powerpoint





Before: Map created in ArcGIS

After: Map created in ArcGIS

Rule of thirds and fill the frame

Fill the frame and perspective

Fill the frame, perspective, rule of thirds

Photography in practice

Before:

Water quality in the Greensboro Watershed is degrading, [**and**] the long-term water quality record shows an overall upward trend in N and P [**but**] there are brief periods of interannual variability in N and P concentrations; [**therefore**], in my research several factors will be examined to determine whether these factors have any influence over water quality.

After:

Water quality is degrading in the Greensboro Watershed, and the 50-year water quality record shows an overall upward trend in N and P concentration but controlled experimental studies have shown that cover crops can improve water quality; therefore, my research will study whether cover crops applied onto operational farmfields reverse degrading water quality in the watershed (overarching hypothesis).

Before & After: ABT statement

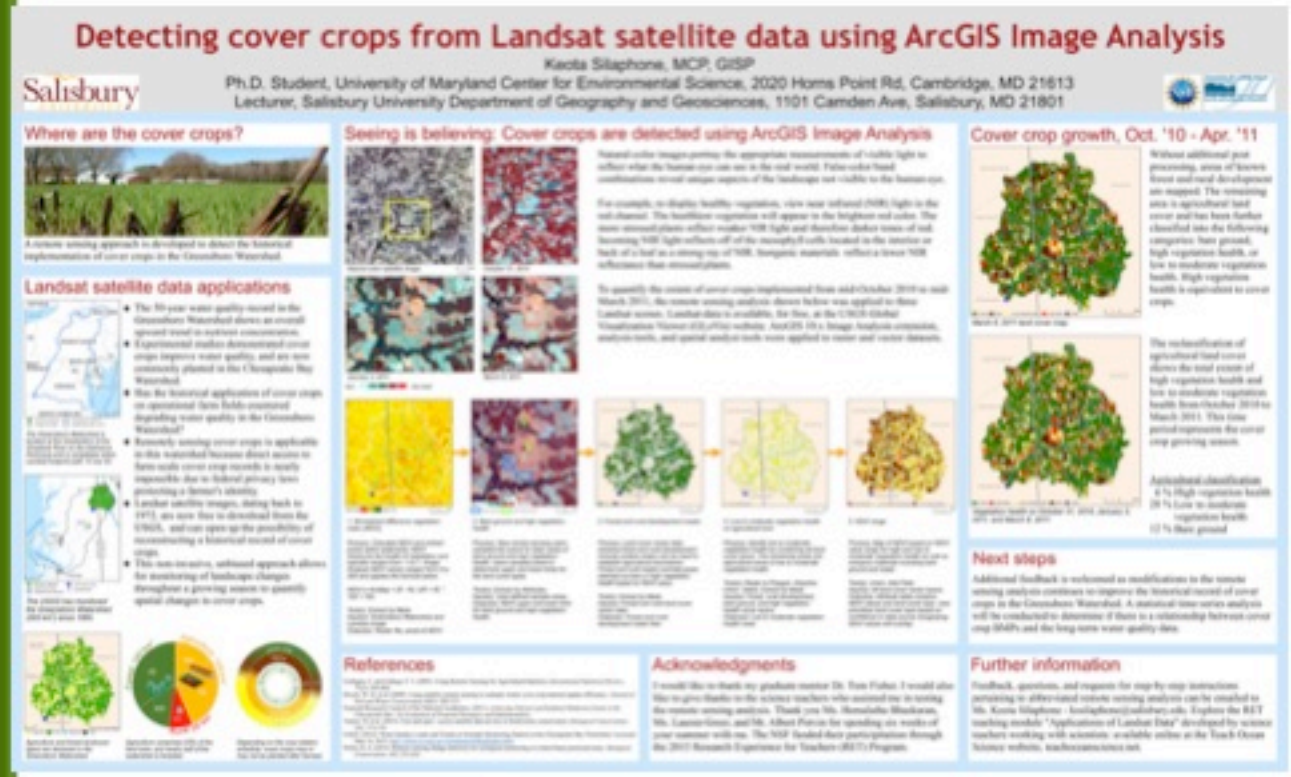
Before: Storyboarding

- Created in ArcGIS
- Bullet text for Introduction section
- Use active titles for all sections
- Too much white space for Literature cited
- Remove all instances of "Figure"
- Do not duplicate legend and make sure legend is large enough to be seen
- Rewrite the title
- Enlarge the logos
- Purpose: URISA GIS conference

Poster size: 3' x 5'

After: Storyboarding

- Change titles and increase logo size
- Cover crop photo sets off poster along with question
- Bullet 6 main aspects of research
- Provide diagram showing land cover and growing seasons
- Replace "figure" with title
- List abbreviated references
- 10" x 10" maps each have a legend due to vertical placement
- Legend height: 0.20"
- Lighten map background



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