# **Repeat Landscape Photography in Susquehanna** Munger Tanner

#### Agricultural Fields



County, PA Jessie Comba & Jim Lassoie

## What is the Susquehanna photomonitoring project about?

Photomonitoring is the process of monitoring landscape change through the use of photographs. This gualitative research tool has proven very effective in gaining public support and documenting changes in the land. Another term used to describe this technique is repeat historical photography, which simply compares pictures from many years ago to recently re-photographed pictures from the same photo point as the original. These pictures are then compared to one another to see how the landscape has changed over time. Hypotheses can be determined for possible reasons of change and methods of possible effects of cow further conservation can be enacted. This documented proof of landscape changes makes it easier for people to understand conservation and the effect that it will have on their community therefore more likely to support its implementation.

E.L. Rose Conservancy of Susquehanna Co. since 1999. On this project we have

conservancy and the historical society. The database will enable a future database and

-No understory growth



Riparian habitat without disturbance Increased wildlife

uiire	Conser
and ersity	Primary
Section 1	-Hardwood

### -Intact Shorelines -Wildlife Diversity Riparian Areas

Transect #	Road Name	# Photo Points	# Views
1	Rt. 858 continuing to Rt.367	33	89
2	Rt. 267	42	132
3	Rt. 167	26	96
4	Rt. 29	26	75
5	Rt. 11	7	23
6	Rt. 92	18	54
7	Rt. 171	13	53
8	Rt. 706	26	106
Total # trans: 8		Total # pp: 191	Total # views: 62

Threats

Presen

Changes over time

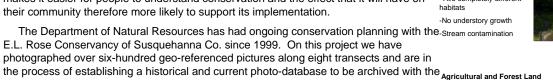
extended forest growth new agricultural business

oad development

griculture -Unsustainable Forestry -Shoreline Development -Track-Home Development -Tourism -Hilltop Clearing

Continuing Plans
Develop 'old' photo database
Relocate and retake 'old' photos
Develop analytical framework
Design and archive image database
Ostala a sud da sian ata harranda

China Program



Pp #8 Transect 3



Clearing trees off hilltops for: -gravel -stone walls -timber (less)

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Total # trans: 8		Total # pp: 191	Total # views: 627

# Methodology

Conservancy.

-methodology was based on Dr. Lassoie's China project and then adapted to conservation planning on a smaller scale

-Cameras: Nikon D200 and Nikon CoolPix8800

-7 road transects N to S

-1 road transect W to E

-Avg. 24 photopoints per transect

Multiple geo-referenced photos per photopoint

-Stopped approx. every 5-10 miles to photograph the landscape



Cornell University Department of Natural Resources



Silver Lake

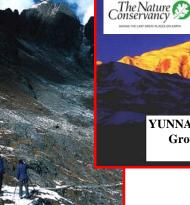


#### Quaker Lake Early 1900s

Changes over time -very heavy shoreline development (lawns) -woody debris removed -houses packed together -tourism







ervation T	argets	Examples of
у	Secondary	-Unsustainable Agr

**Results of Summer Photographs** 

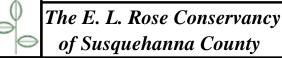
Early 1900s

ood Forests -Agricultural Land -Conifer Plantations -Ponds -Stonewalls -Barns

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#	Road Name	# Photo Points	# Views	(
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	D+ 00	40	E 4	1

-Catalog and designate keywords

YUNNAN PROVINCE GREAT RIVERS PROJECT: Ground-based Repeat Photomonitoring Study (Lassoie et al. 2006)





Free species composition