

HOW DOES LOCAL SOCIAL SYSTEM SUPPORT CONSERVATION?

- What is the modernizing impact on local social systems, which support conservation?
- How is the impact reflected in species diversity?

Cases as Systems in Theory Developing

	Village:	Ivarinu (sustainable)	vs.	Yaro (consumption-prone)
X: System Characteristic				
Setting – history & ecology		similar		similar
Diffusion – influence of state & market		no		yes
Context – cultural (knowledge, land ethics)		yes		no
– social (clad network, institution)		yes		no

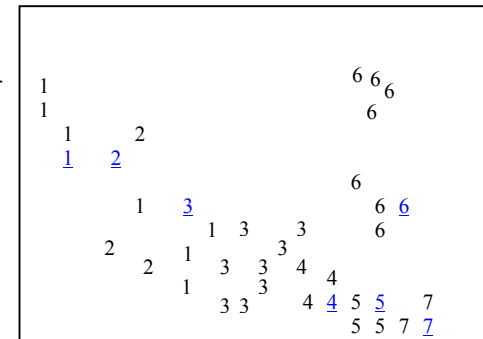
Y: Conservation Practices – species diversity yes (diverse) no (declining)

Ideas

Household Variables in Hypotheses Testing

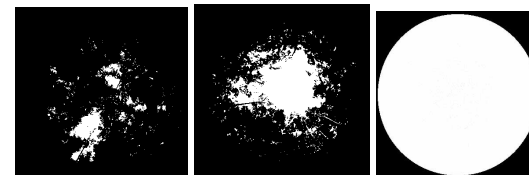
X: HumanCap + SocialCap + CulturalCap → Y: Species Diversity + Habitat
E (Y1, Y2 | X , village) + error

Species Number
of
1. ant
2. vegetation
3. taro



1=forest
2=fallow
3=orchard
4=dry field
5=paddy
6=home garden
7=chem-dep farm

canopy openness



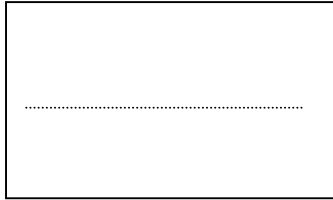
Evidence

Summary of Hypotheses

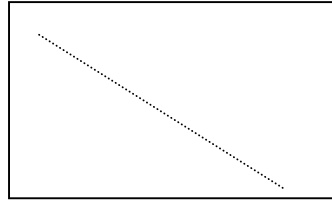
1. Species diversity loses while increasing habitat disturbance.

E ($Y1$ =species number of ant/taro/vege | $Y2$ =canopy openness)

Species#



NH: $Y1 = a_0$



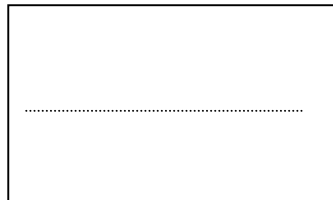
Canopy Openness

AH: $Y1 = a_0 + a_1 Y2$ ($a_1 < 0$)

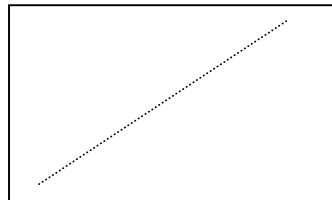
2. Species diversity is positively correlated with conservation capital at given habitat types.

E ($Y1$ =species number of ant/taro/vege | X =conservation capital, fixed $Y2$)

Species#



NH: $Y1 = a_0$



Conservation Capital

AH: $Y1 = a_0 + a_1 X$ ($a_1 > 0$)

x_1 = Human Capital: ethno-ecological knowledge

x_2 = Social Capital: exchange frequency of taro gift, kinship network size

x_3 = Cultural Capital: index of land ethics