Working Landscapes Working Together: The Bay Area

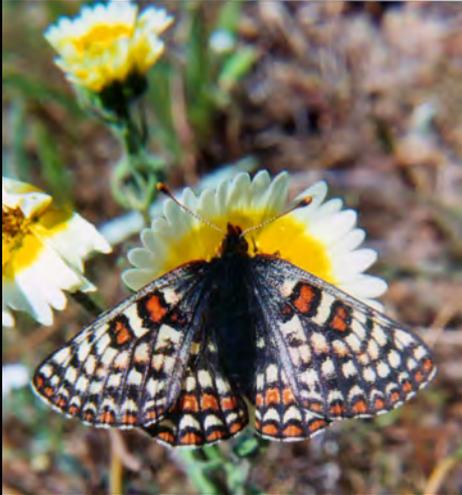## Lynn Huntsinger,
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Synergies!

Working Landscapes

Multiple benefits: ecosystem services including food, habitat, viewshed, heritage.

Pasture Scale: Producing the ecosystem service of wildlife habitat

Species may benefit from grazing to alter grassland structure

- shorter grass, openings.

- species or structural heterogeneity

- tool to manage invasives

- Western burrowing owl (CCWD 2005).
- Stephens kangaroo rats (Kelt et al 2005; USFWS 1997)
- Goldfields (Barry 2005)
- Some insects/beetles (Dennis et al 1997)
- Western pond turtle (CCWD 2005).
- Butterflies (Weiss, 1999)

Vernal Pools

- Grazing benefits documented by Pyke and Marty, Marty 2005.

Conservation of working landscapes requires all three:

- Pasture: manage grazing to achieve environmental effects.

- Ranch: sustainable enterprise.

- Landscape: year round forage supply from mix of private, leased, and public land.
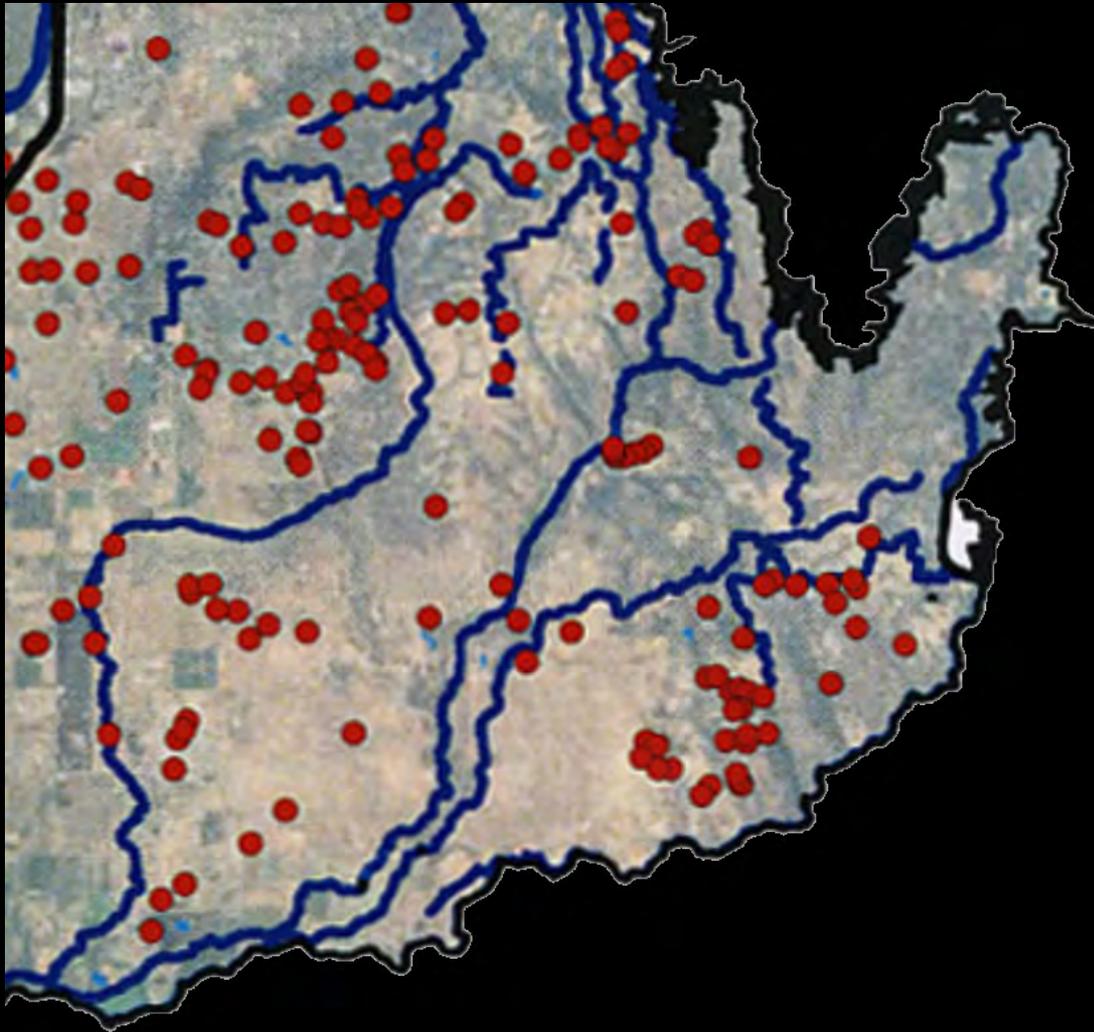
Ranchers as "ecosystem engineers"

- Create habitats, local and landscape effects *(Jones et al 1997).*

- Ranchers and ranching can be "ecosystem services"

Pasture scale: construction and maintenance of stockponds

Landscape level ecosystem engineering:

Network of stockponds across a working landscape benefits tiger salamanders and livestock.

The concept of
ecosystem services
implies that people are not active
participants in the production of benefits
to society from ecosystem management.

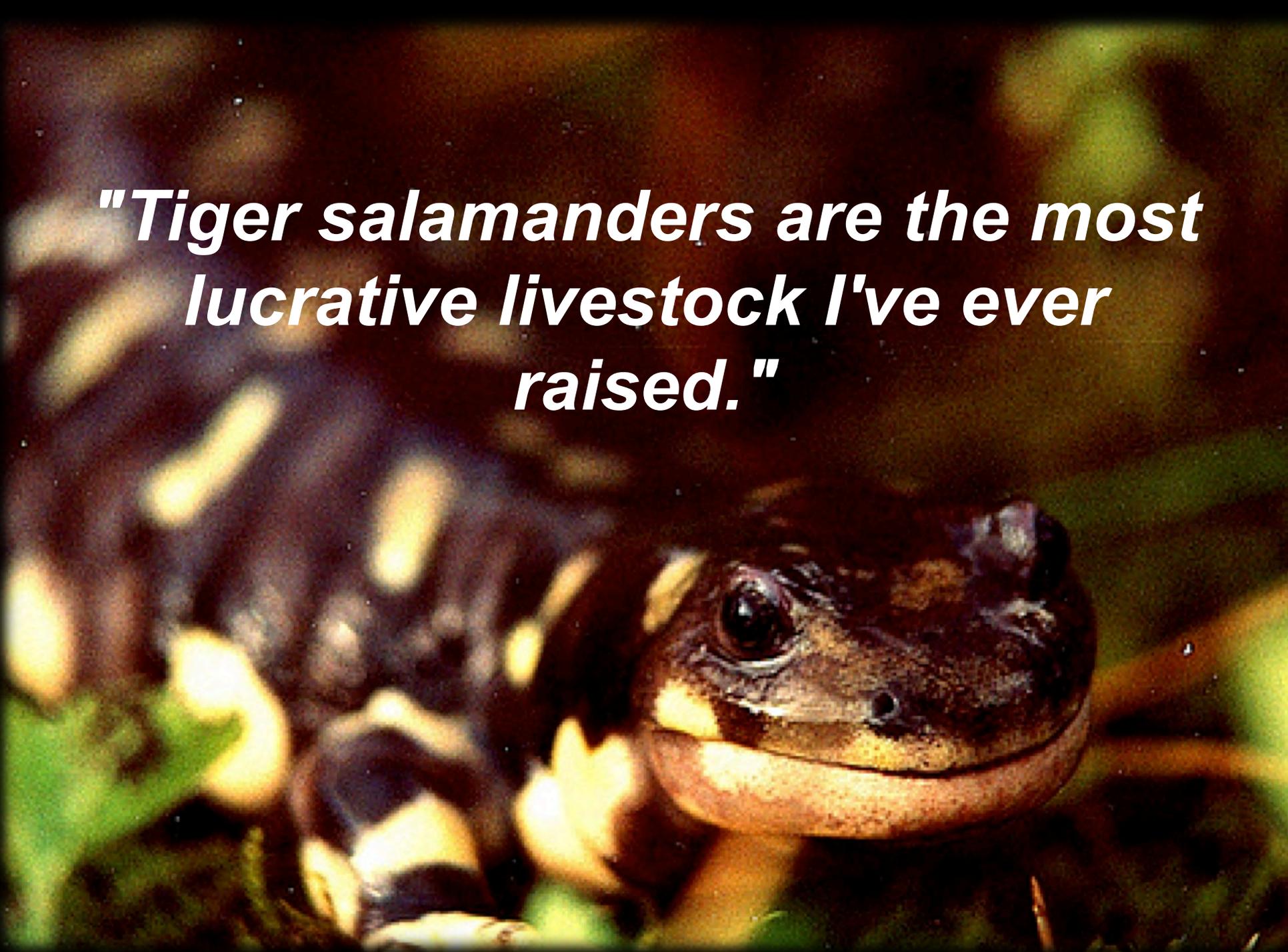Perhaps we should talk about "social
ecological services"
SES

Environmental services created by the
interaction of people and the environment

Recent paper on ecosystem services as social ecological services
at

http://www.ecologyandsociety.org/vol19/iss1/art8/

"Tiger salamanders are the most lucrative livestock I've ever raised."

Ranchers benefit from ecosystem services from their land and enterprise

90% + in California, Colorado, say that living near "natural beauty" is an important motive for ranching

(Huntsinger et al. 2010; Rowe et al.)

Synergies: mutual benefits from ranch stewardship

Rancher ecosystem services

- Natural beauty

- Living on property

- Wildlife and recreation

- Legacy value: heirs

- Production value

Public ecosystem benefits

- Natural beauty

- Existence and viewshed

- Wildlife and recreation

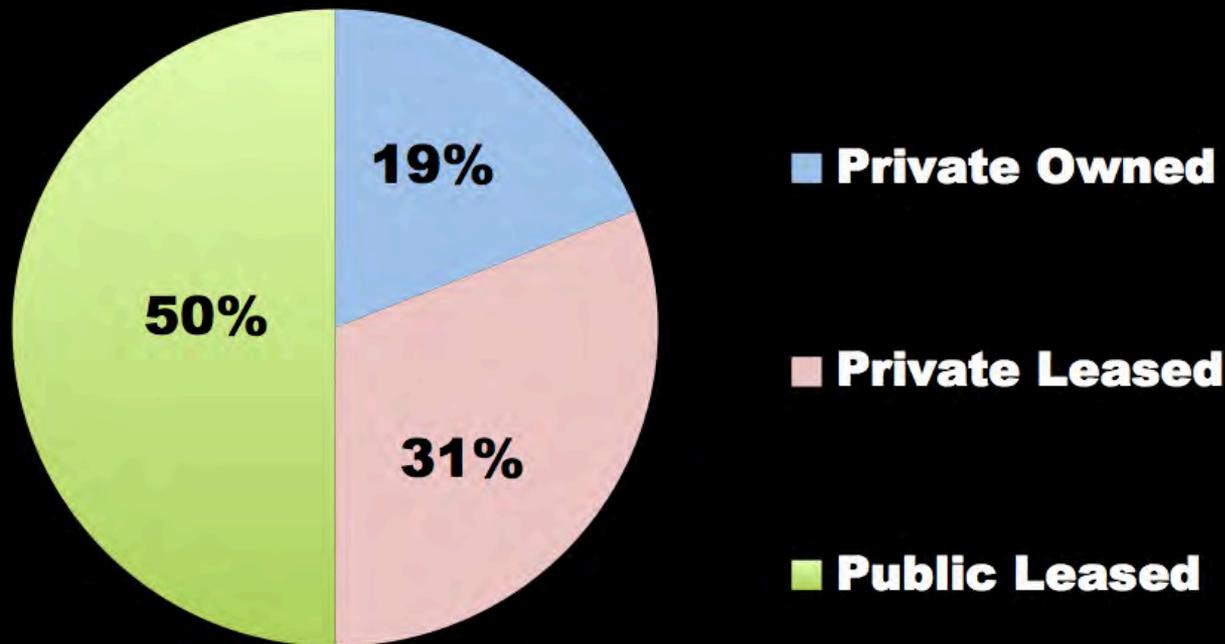- Legacy value: future generations

- Local ranch products

--Sustainable ranches need a stable, year round, forage supply

--Cows are not plants: pastoralism world-wide makes use of mobility

A typical East Bay ranch
(Sulak 2007)

Private Owned 19%

Private Leased 31%

Public Leased 50%

--Median date of establishment: 1890
--Competition for public leases is fierce as the forage base shrinks.
--Used 4 private leases on average, one used 15 private and public

"They think we can put the cows on a shelf when they don't need them."

If I lost my public leases…

- Would suffer a significant decline in income (41%).
- Would have to reduce herd size.
- Would like to buy or lease more land but it is increasingly difficult to find.
- 35% - 50% might sell the ranch.
- Public agencies select the ranches that survive??

(Sulak 2007)

Landscape Scale: Feedbacks of development or exclusion

Ranch
Developed or
Ranch land
taken out of
production

→

Limits management
Loss of forage base
Loss of infrastructure
Loss of community

→

Costs to farm and
Pressure to sell
increase

feedback loop: loss of ranches increases loss of ranches

(Sulak and Huntsinger 2007)

77% of CA ranchers think that ranching can survive

"It's not open space."

Bay Area Foodscapes

Bay Nature Magazine

Sunol Growing areas
- Croplands
- Private rangelands
- Public rangelands
- Urban
- Other (public & private)
- Tidal wetlands
- • Farmers' markets
- County lines
- Bay Area boundary

Conclusions: the landscape we know and ranching are interdependent

- Managed and stewarded by ranchers, and part of the ranching economy.
- Ranching can provide ecosystem stewardship and services on private as well as public lands.
- Ranchers need an affordable, year-round forage supply that fits the livestock calendar.
- Agencies, mitigation management have important impacts on regional private land conservation

- Ecosystem services from the pasture depend on maintaining the ranch and the landscape.

- Can't maintain landscape level services without the pasture and the ranch.