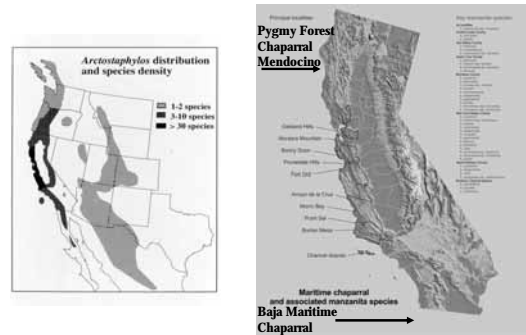


Maritime Chaparral and Adaptive Management



Michael Vasey
San Francisco State University

Distribution of Maritime Chaparral



Maritime *Arctostaphylos* Taxa

All Taxa	Maritime Taxa	All Species	Maritime Species	Local Endemics	Maritime Local Endemics
98	54	64	45	50	33
	55%		70%		66%

Wells 2000 Manzanitas of California and the World



Salt Point State Park, Sonoma Co.



Torrey Pines State Park, San Diego Co.

"A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land. Health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity..." Aldo Leopold, Sand County Almanac 1949



Arctostaphylos imbricata
San Bruno Mountain



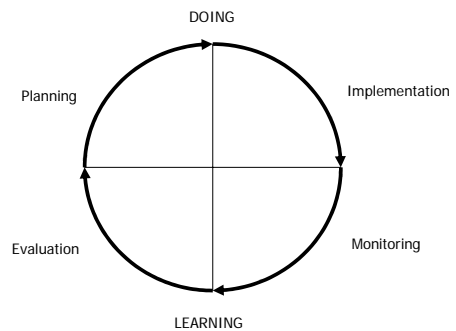
Arctostaphylos edmundsii
Big Sur Coast

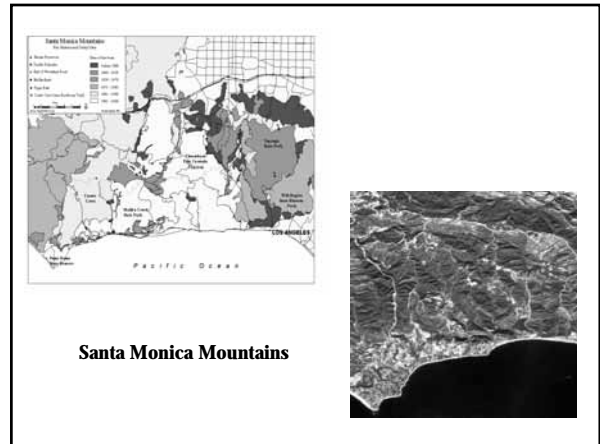
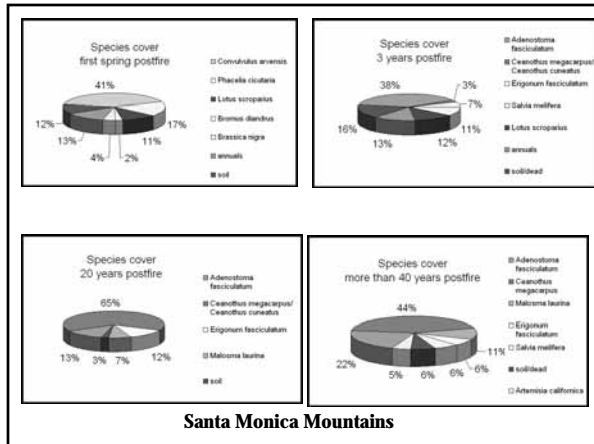
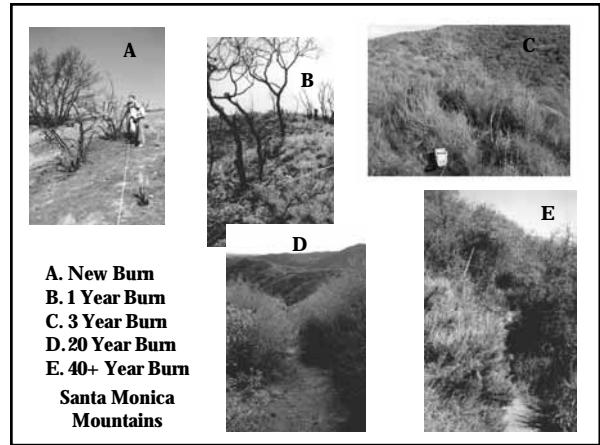
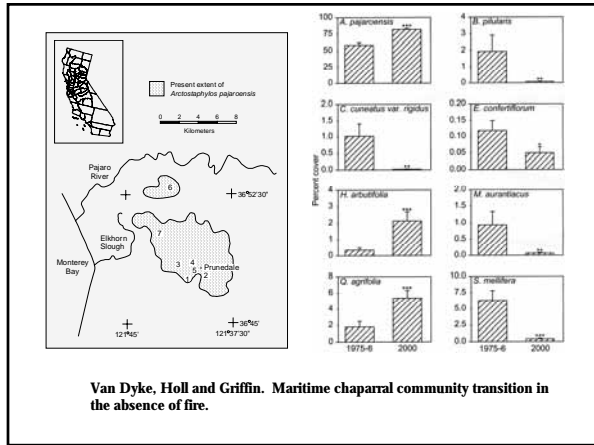
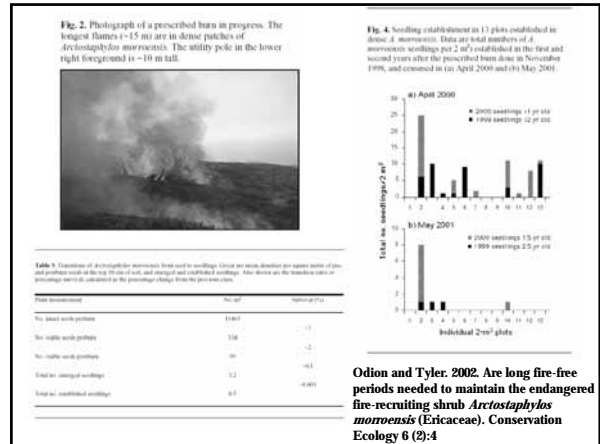
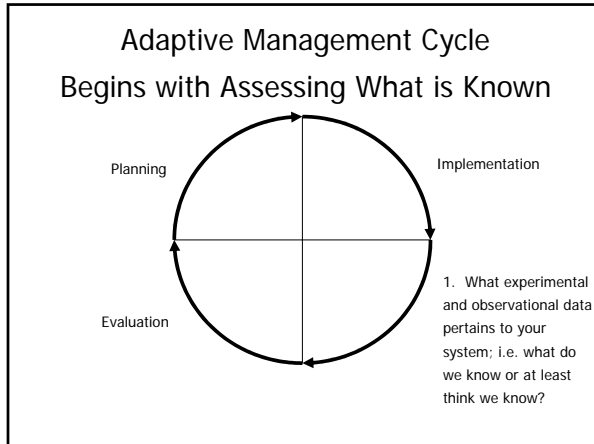
Why is it difficult to understand and preserve the capacity for ecosystems to self-renew?

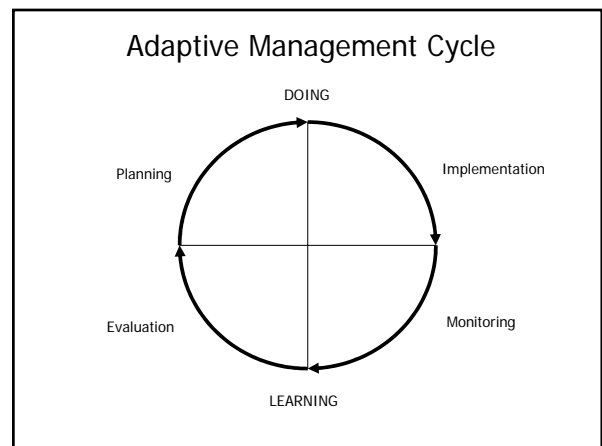
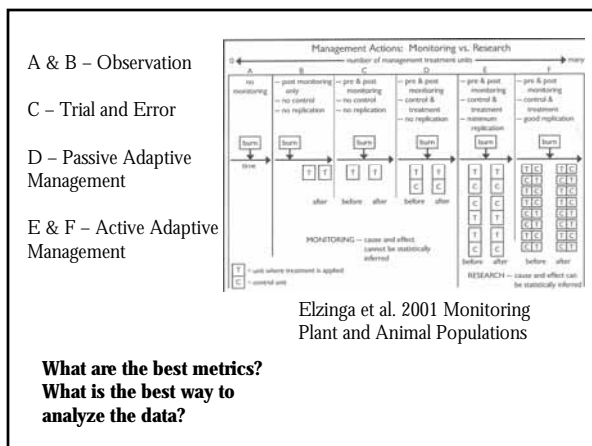
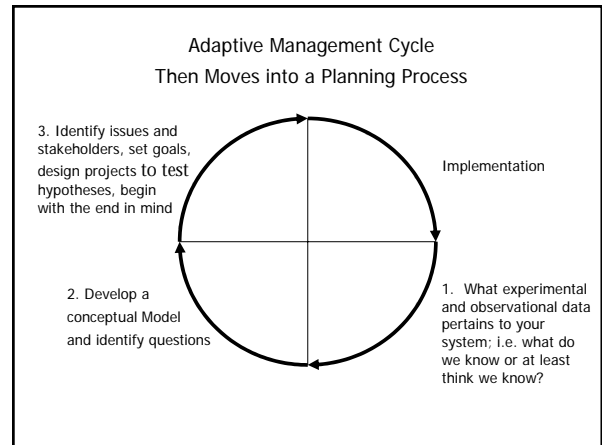
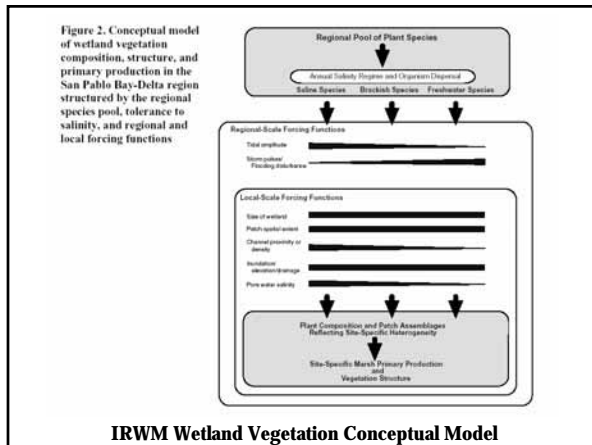
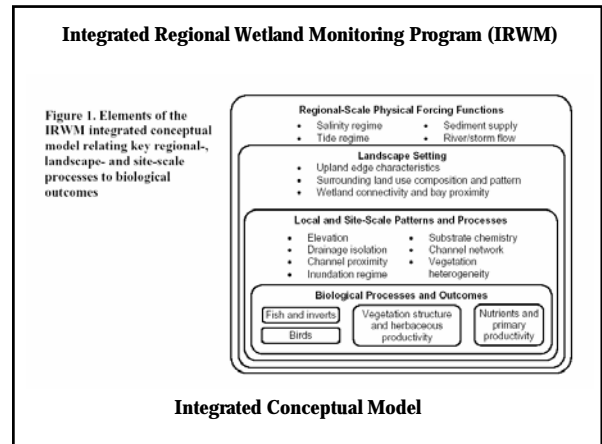
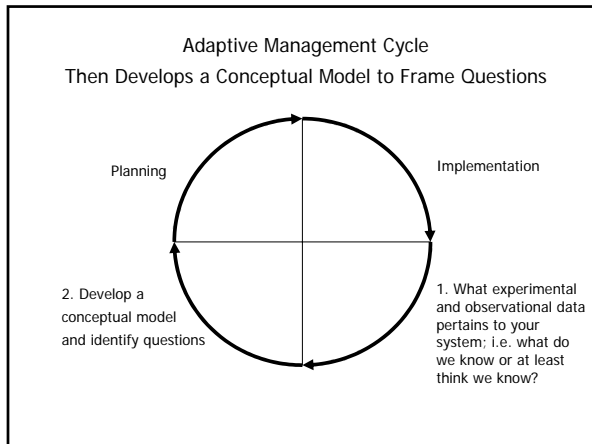
Ecosystems are:

- Dynamic = Intrinsically Uncertain;
- Historic i.e. Ecosystems are not only more complex than we think, but more complex than we CAN think
- Complex
- Open

Adaptive Management Cycle







Summary

- **There is a tremendous amount that we still don't know! Conserving maritime chaparral is a daunting task yet failure to conserve maritime chaparral risks a vital part of California's natural heritage**
- **Coordinate efforts of academia, agencies, and the public to generate better understanding of the dynamics of maritime chaparral (build conceptual model)**
- **Use management activities to stimulate large scale experimentation (adaptive management) that builds understanding**
- **Conduct more experimental work on maritime chaparral: e.g. seed banks and seedling survival, and develop predictive models that can be tested in the field**
- **Focus on restoring diversity and consider multiple species and life histories in an experimental context**
- **Be opportunistic! Learning must have as high a priority as doing. Cultivate a land ethic throughout the community**



Mt. Tamalpais, Marin County