



Challenges to Conservation Banking: Lessons from the U.S.

Jessica Fox

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Research Questions

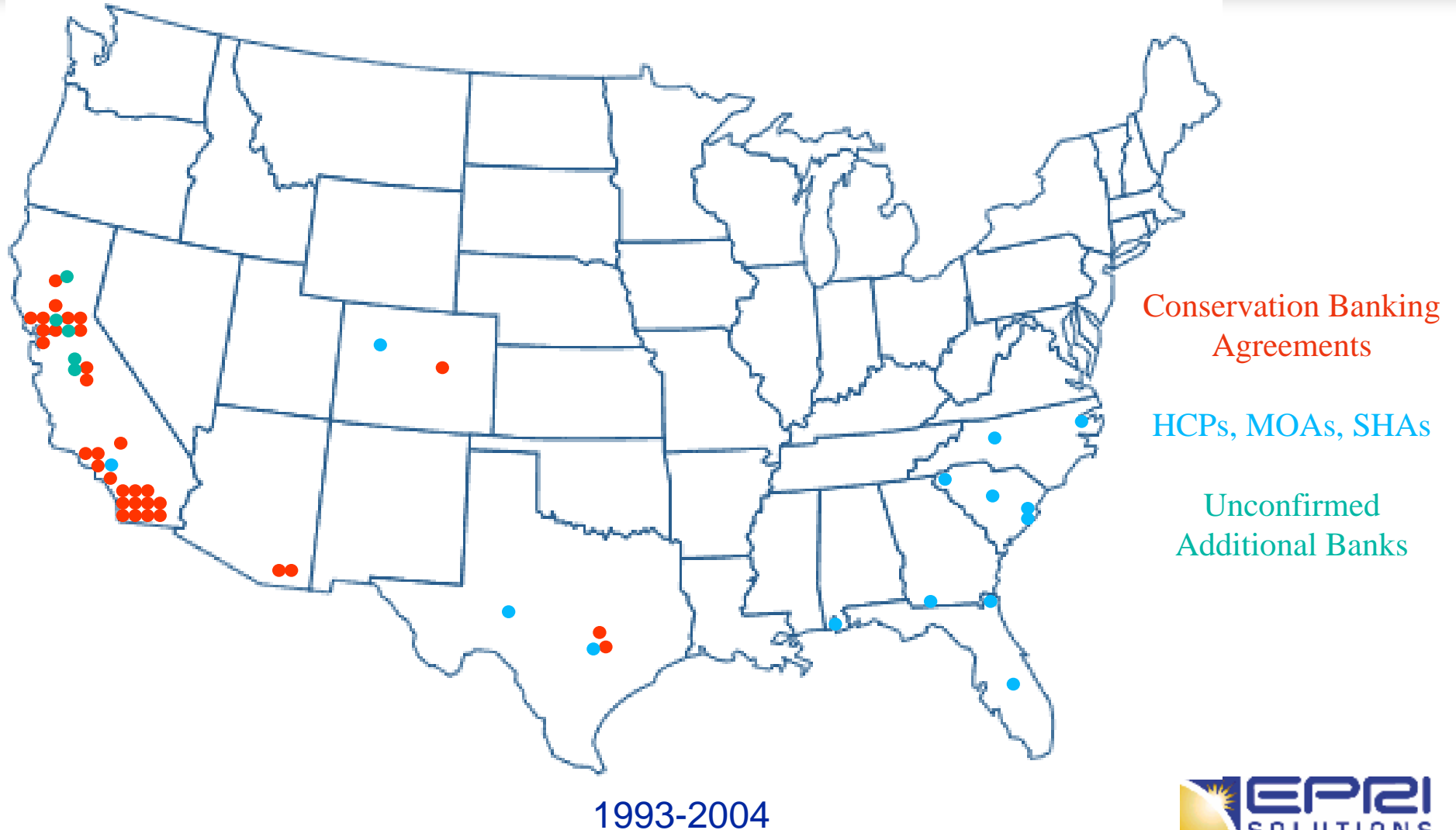
- Does conservation banking provide an incentive to protect rare species on private land?
- What are the challenges?



Many Conversations

- 7 regional offices FWS
- 15 field offices FWS
- 7 offices of CA Dept Fish & Game
- 100 basic interviews
- 31 in-depth interviews into political, social and economic experience of cons. banking

Conservation Banks in the U.S.

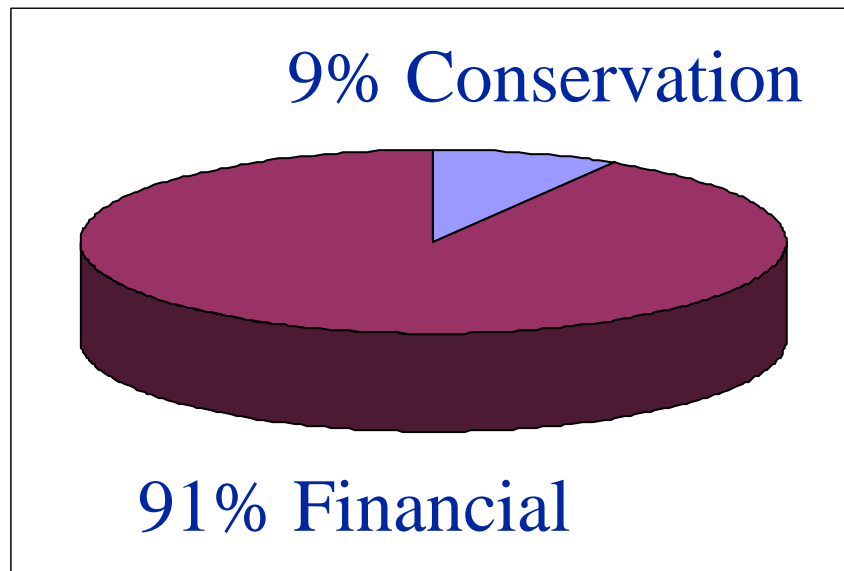


Credit Prices from Official Banks

Asking prices range from \$3000 for an acre of San Joaquin Kit Fox to \$125,000 for a breeding pair of Least Bell's Vireo.



Motivations for Bank Establishment



Financial reasons:

- sell credits for a profit
- use credits internally, thereby reducing permitting time & expense.

Socio-Political Experience

Bureaucracy of establishing agreement was the most common challenge (67%).

Real bottom line consequences . . .

Averaging **2.18** years to signed agreement (ranging 8m to 6 yrs).

Challenges

- Regulatory
- Business
- Ecological



photo: B. "Moose" Peterson/WRP

Regulatory Challenges

- Lack of interest at regional office
- Resource Allocation
 - Agreement Approvals
 - Monitoring & Verification
 - In-depth consideration of transactions

Business Challenges



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Exxon Mobil, Goldman Sachs, PG&E, Cal Trans,
International Paper, EPA, FWS, others . . .



Business Challenges

- Political Certainty
- Regulatory Guarantees
- Knowledge & Education
- Market “thickness”
- The Business Case?

Biological Challenges

- 94% are based on **preserved** habitat.
- 91% of banks base credits on **acres of habitat**, remaining based on breeding pairs.
- 65% have credit ratio of **1:1**, 11% are awarded more credits than acres.
- 44% **adjacent** to other protected habitat

What about genes?

- No rigorous consideration of gene flow
 - Genetic drift
 - Gene depression
 - Genetic fitness
 - metapopulations
- Is this working for the endangered species?**

Conservation Banking Citations

- **Fox** & Nino-murcia. August 2005. Status of Species Conservation Banking in the U.S. *J. Conservation Biology: V19 n4 996-1007*
- **Fox**, J., G.C. Daily, , B. Thompson, K.M.A. Chan. A. Davis, and A. Nino-Murcia. Forthcoming. Conservation banking. In *The Endangered Species Act at thirty: Conserving biodiversity in human-dominated landscapes*, ed. J.M. Scott, D.D. Goble, and F.W. Davis. Washington, DC: Island Press
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- Bauer, **Fox**, & Bean. 2004. Landowners Bank on Conservation. *Environmental Law Review: 10717-10722*

Jessica Fox, Senior Scientist, EPRI Solutions

jfox@epriolutions.com 510-364-4636.

