Stacking Habitat Functions for Multiple Species

The Central Valley Habitat Exchange





Rene Henery, PhD[1,2]

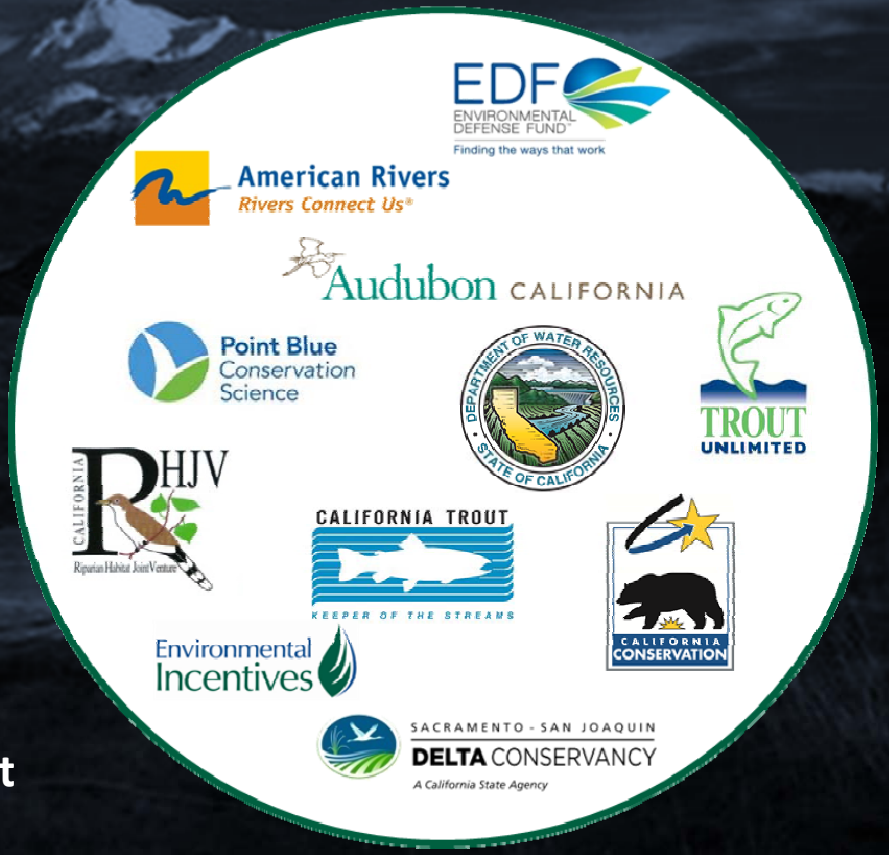
[1]*Trout Unlimited*

[2] *University of Nevada, Reno*

The Central Valley Habitat Exchange (CVHE)

Partners:

American Rivers
Environmental Defense Fund
Trout Unlimited
Point Blue Conservation Science
Sacramento-San Joaquin Delta Conservancy
Department of Water Resources
California Trout
Environmental Incentives
California Department of Conservation
Riparian Habitat Joint Venture (RHJV)
Audubon California



With support from:

Stanford Woods Institute for the Environment

Funded By:

Natural Resource Conservation Service (NRCS) - CIG

CVHE Stacking

- **Stacking** = Quantifying and crediting species specific ecosystem functions, for multiple species, at a single location

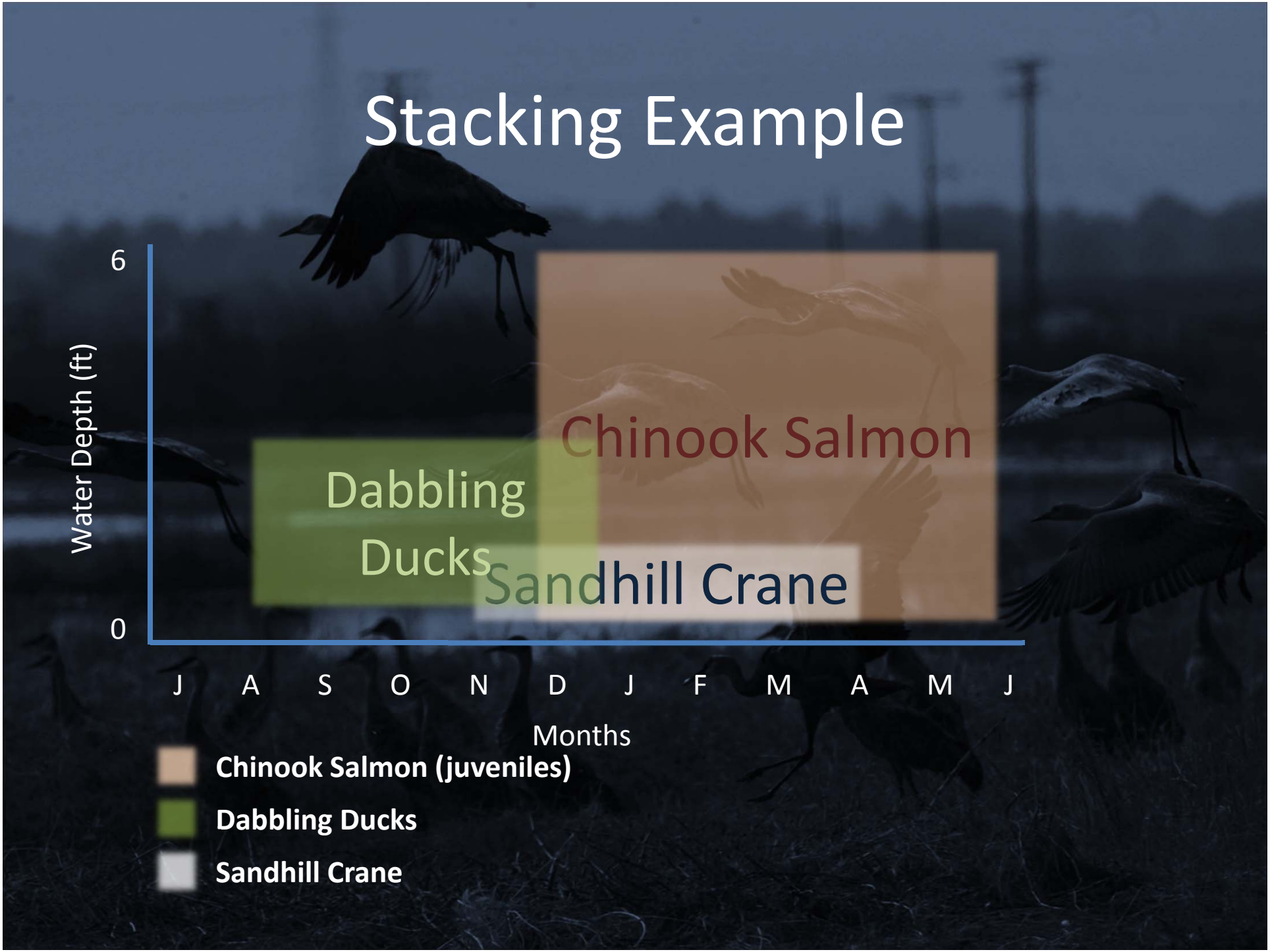
Why Stack?

- That's how natural systems function
- Single species mitigation is not working
- Saves time and money
- Incentivizes functional ecosystems

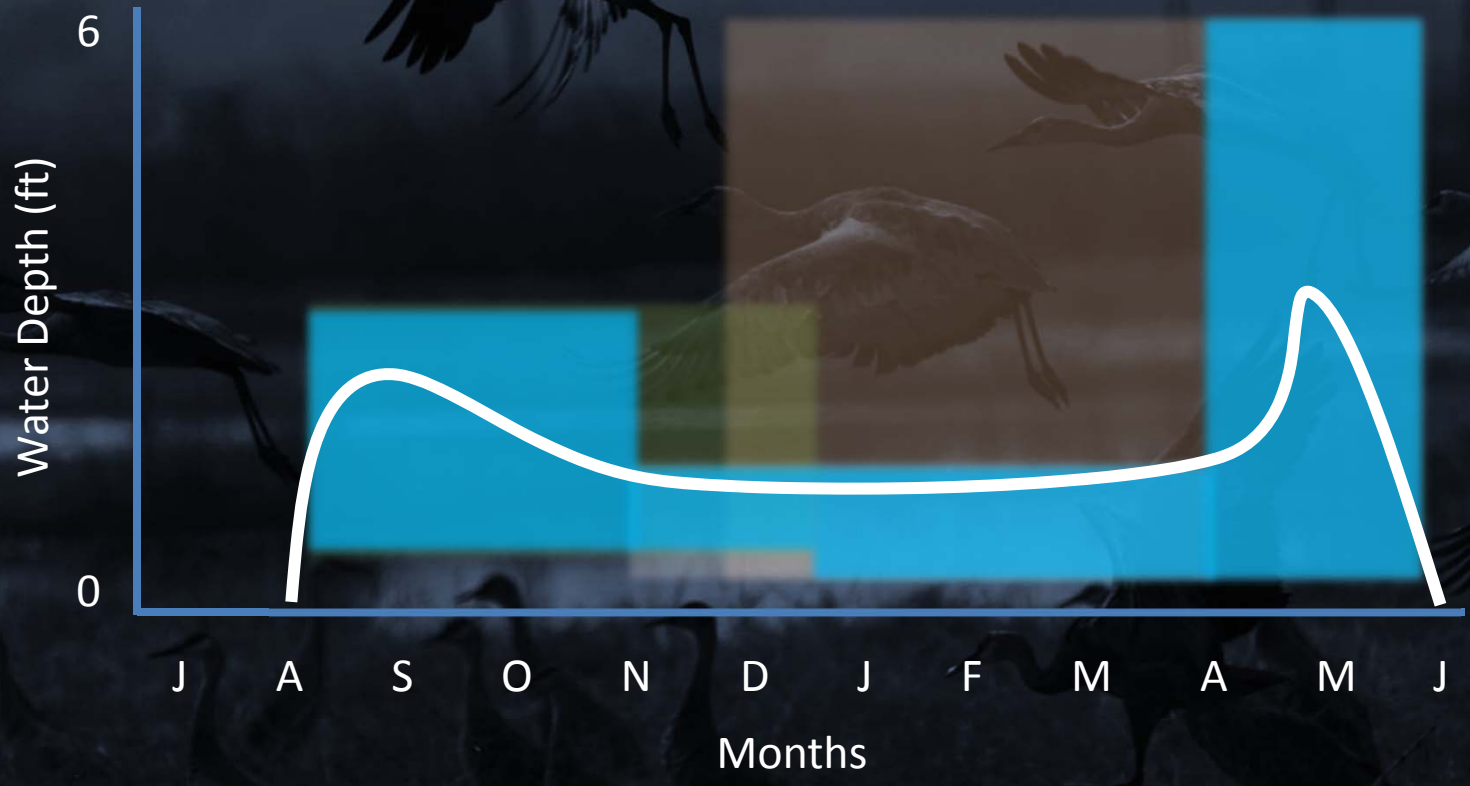
Stacking Approach

- Develop a set of measurable parameters to describe physical and ecological conditions
- Define species needs using a subset of those parameters
- Look for places where parameters align or can be combined

Stacking Example



Stacking Example



Challenges and Opportunities

- **Assumes "restored" landscape provides the greatest benefit (untested)**
- **Requires multiple species to incentivize ecosystem function**
- **Adds a layer of complexity**

But…

- **Can also support single species approaches or ecotype-based credits**
- **Flexible and Easily adjusted as new information becomes available**
- **Universally applicable – able to bridge and integrate a wide range of requirements**