More big bass: Understanding the role of largemouth bass as top predators in the littoral zone

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UC DAVIS
UNIVERSITY OF CALIFORNIA

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Changes in the Delta shoreline

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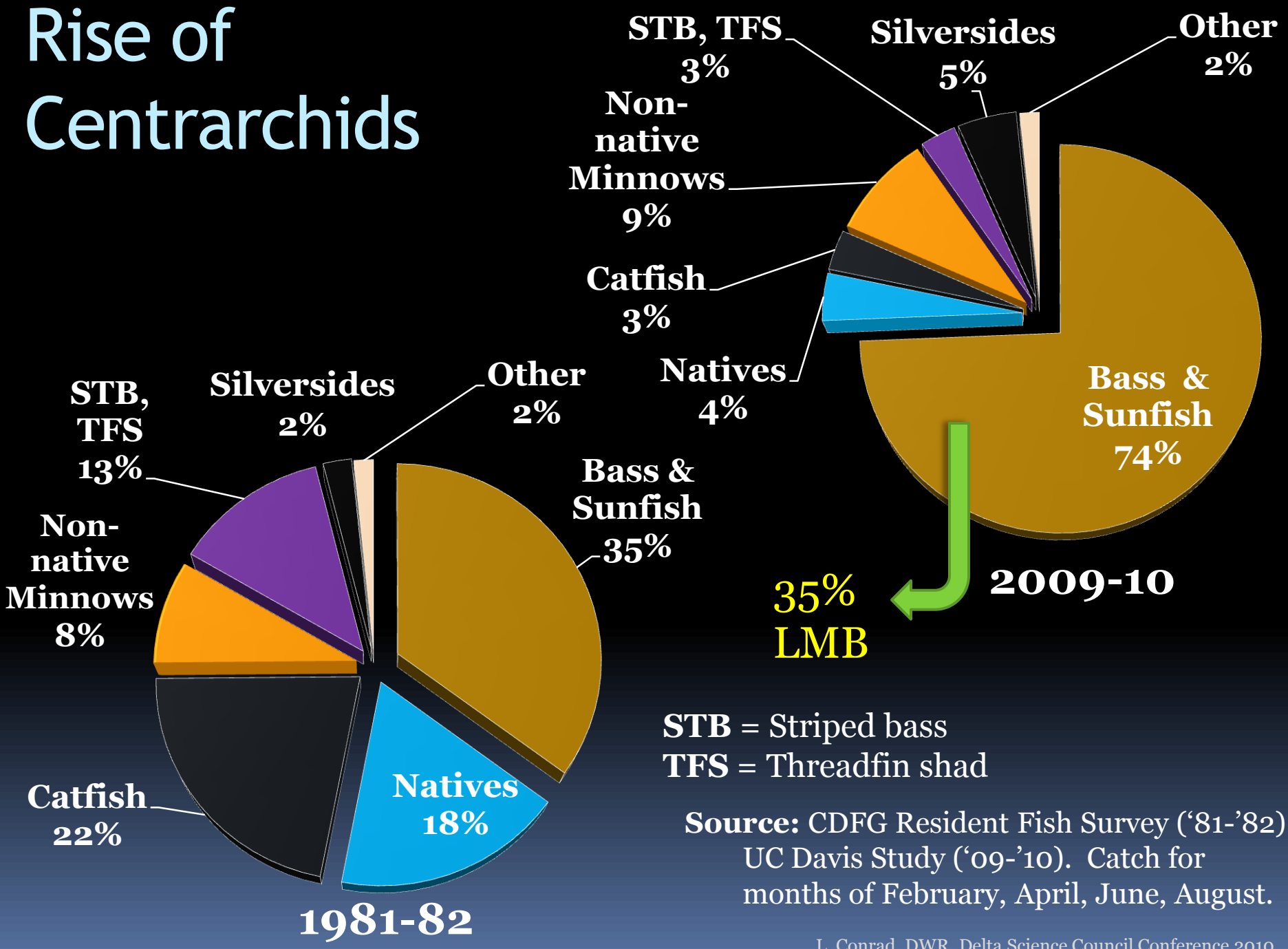
Rise of Centrarchids



STB = Striped bass
TFS = Threadfin shad

Source: CDFG Resident Fish Survey ('81-'82). UC Davis Study ('09-'10). Catch for months of February, April, June, August.

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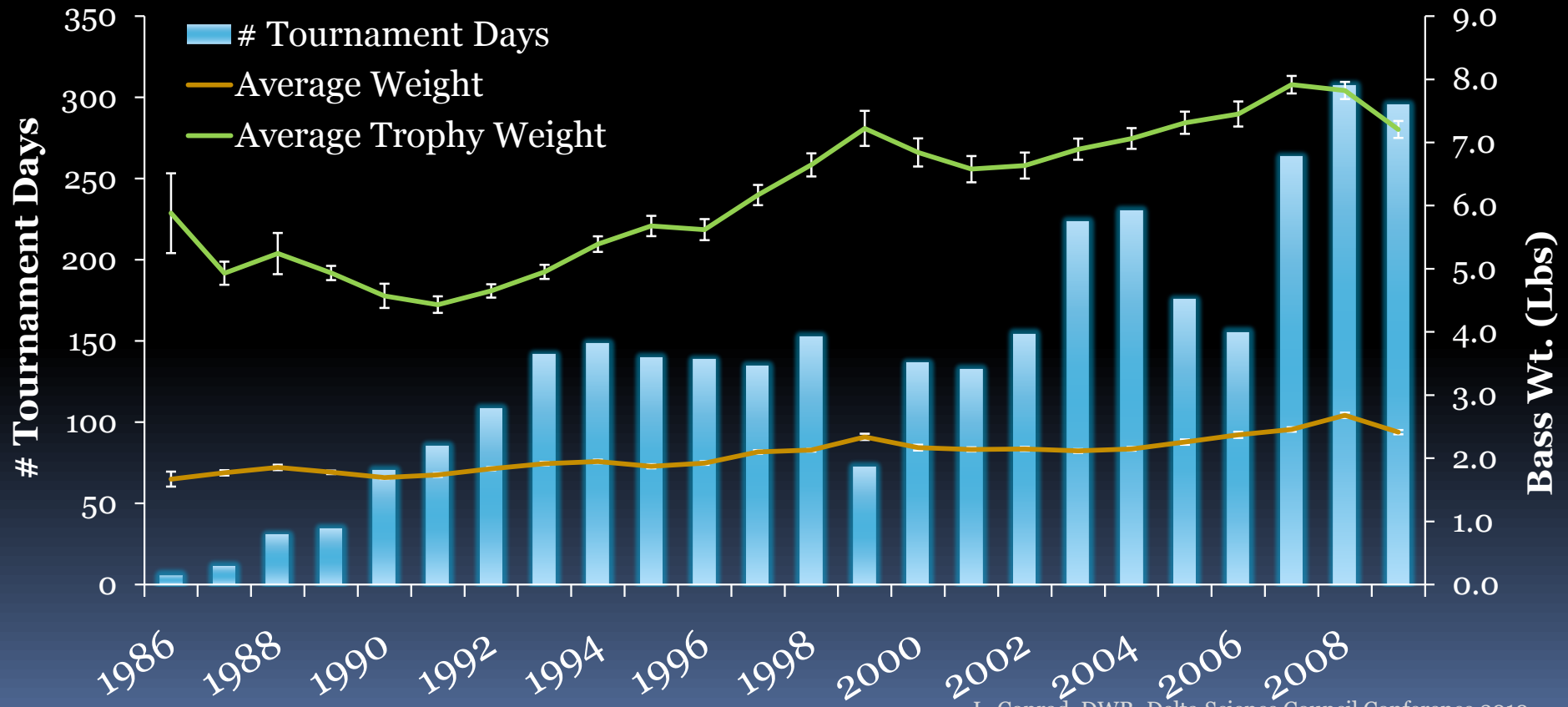
More BIG bass….



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Bimonthly fish, vegetation & WQ surveys at 33 sites since October 2008

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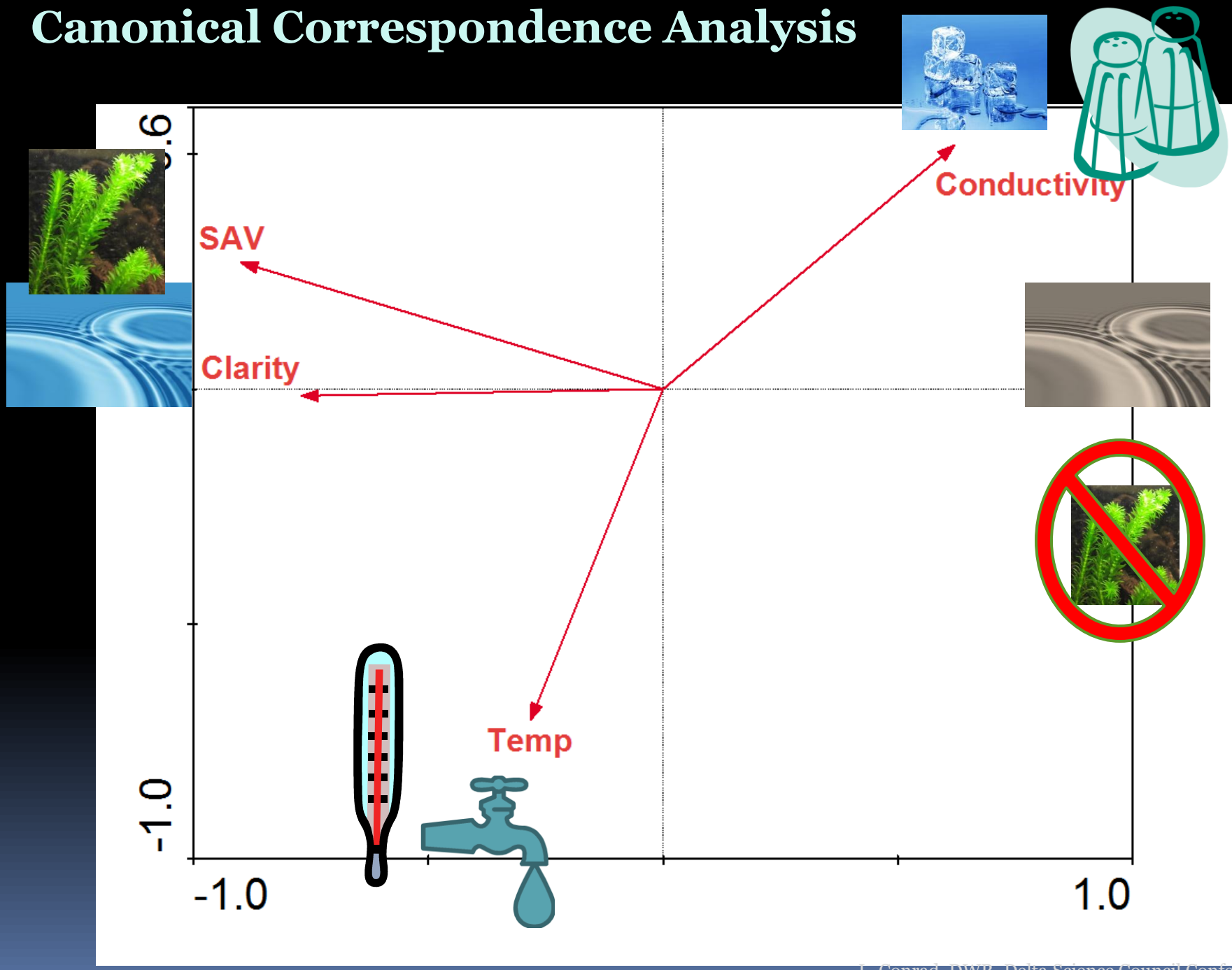
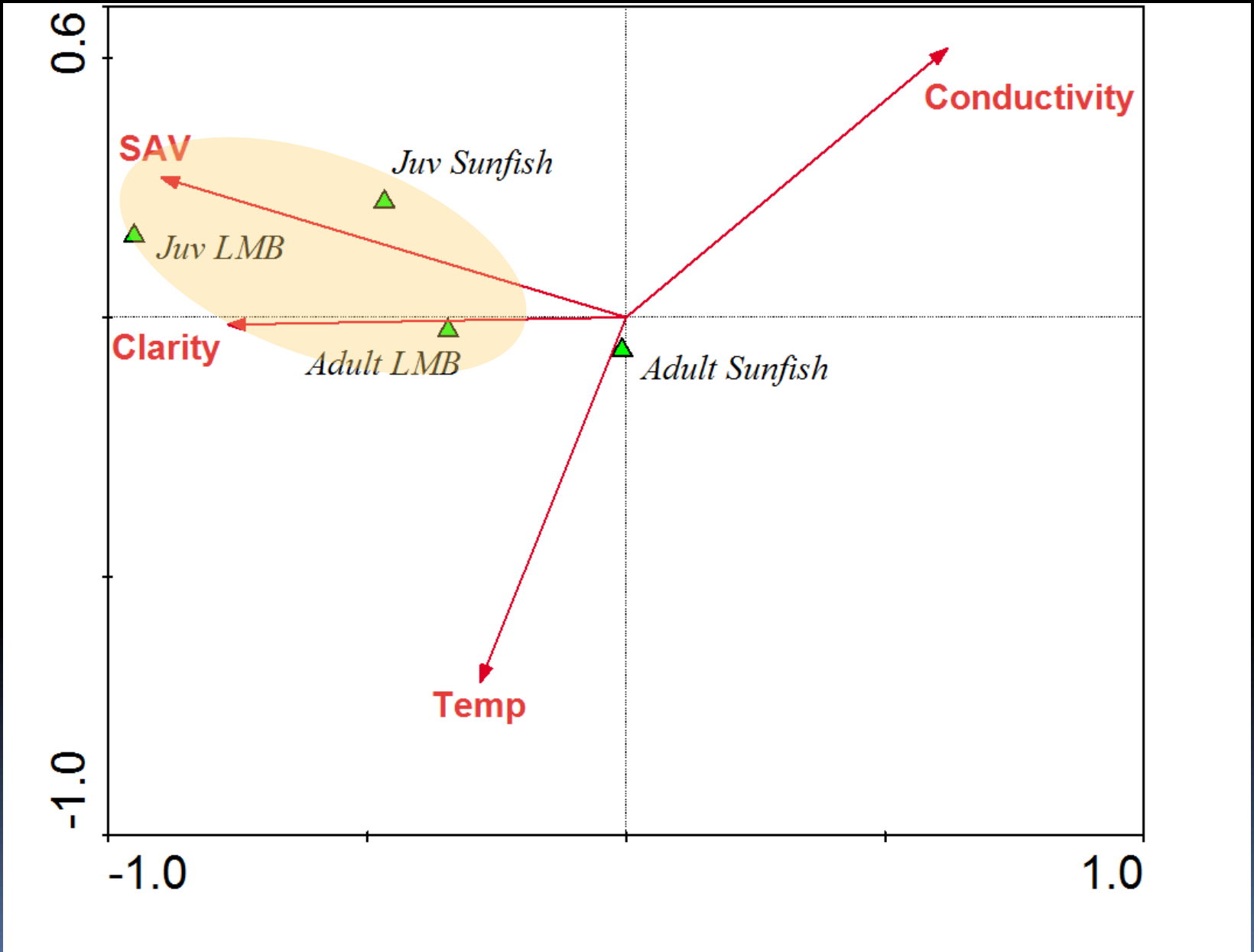
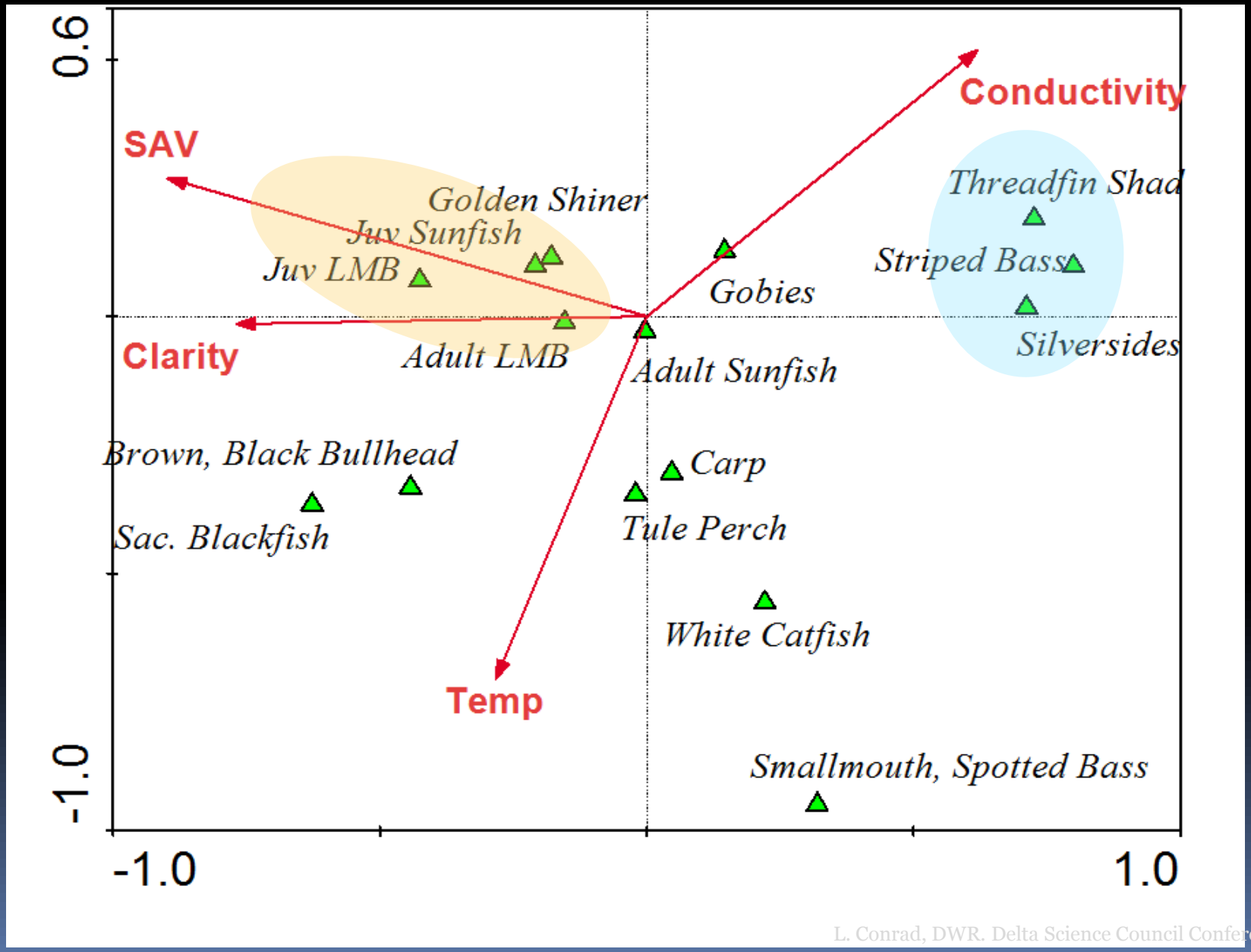
Canonical Correspondence Analysis



CCA: Summer – Early Fall

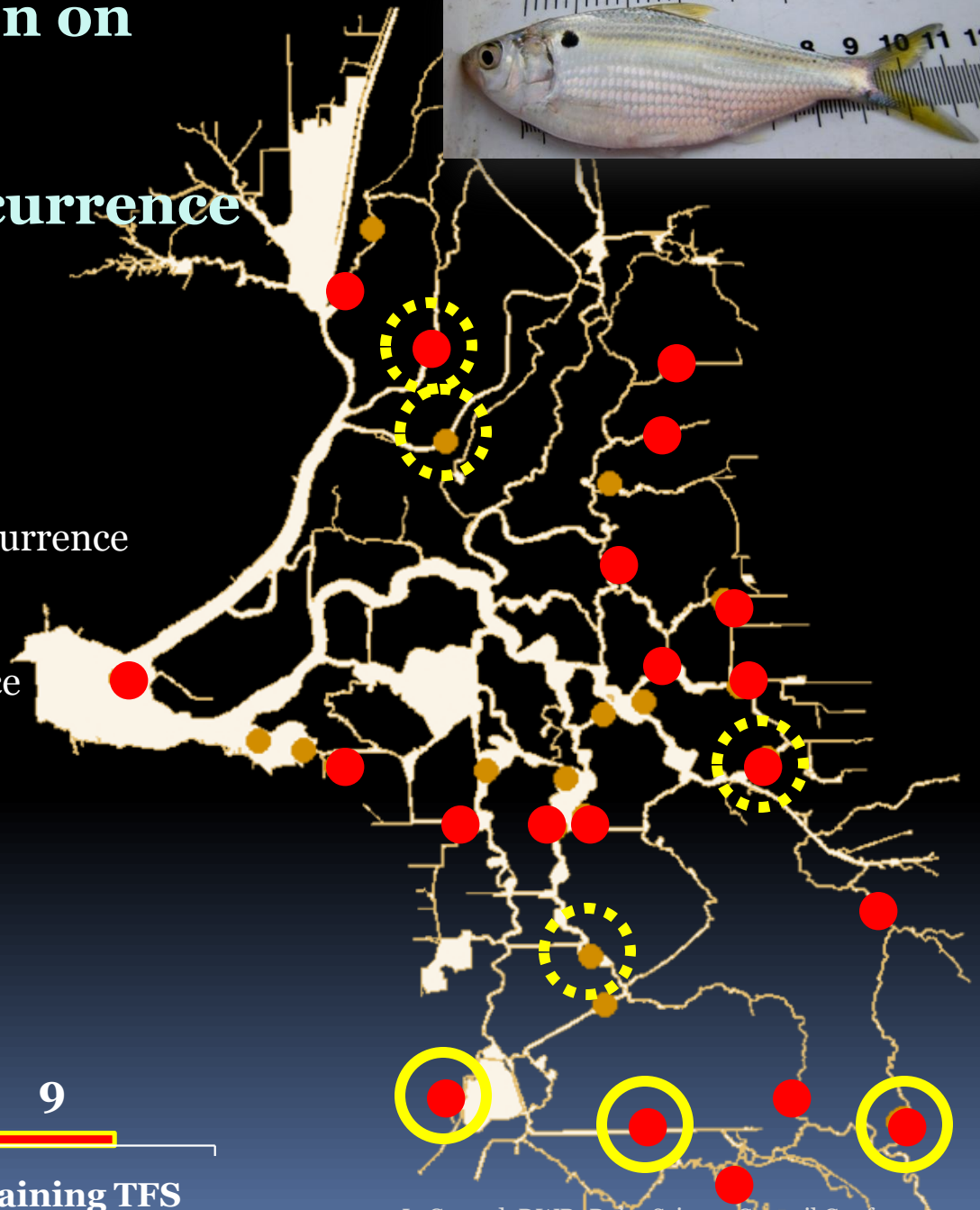


CCA: Summer – Early Fall

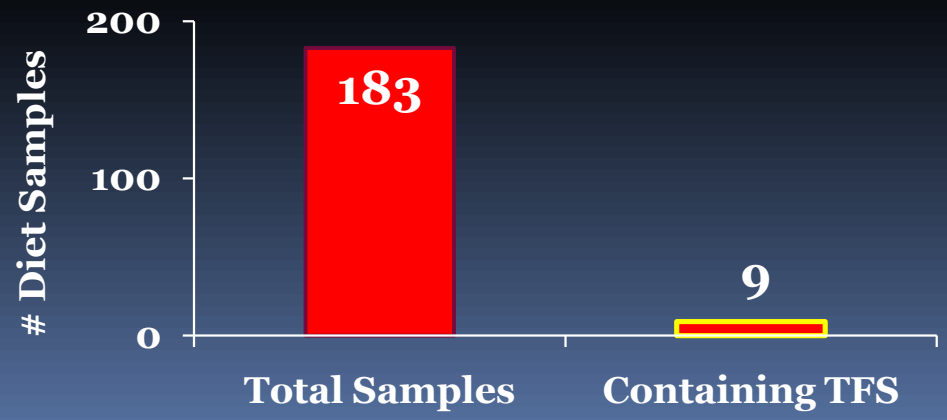


Largemouth Predation on Threadfin Shad:

<u>RARE</u> despite co-occurrence



- LMB & TFS co-occurrence October '08 – October '09
- TFS predated at time of co-occurrence
- TFS predated, no co-occurrence at time of sample



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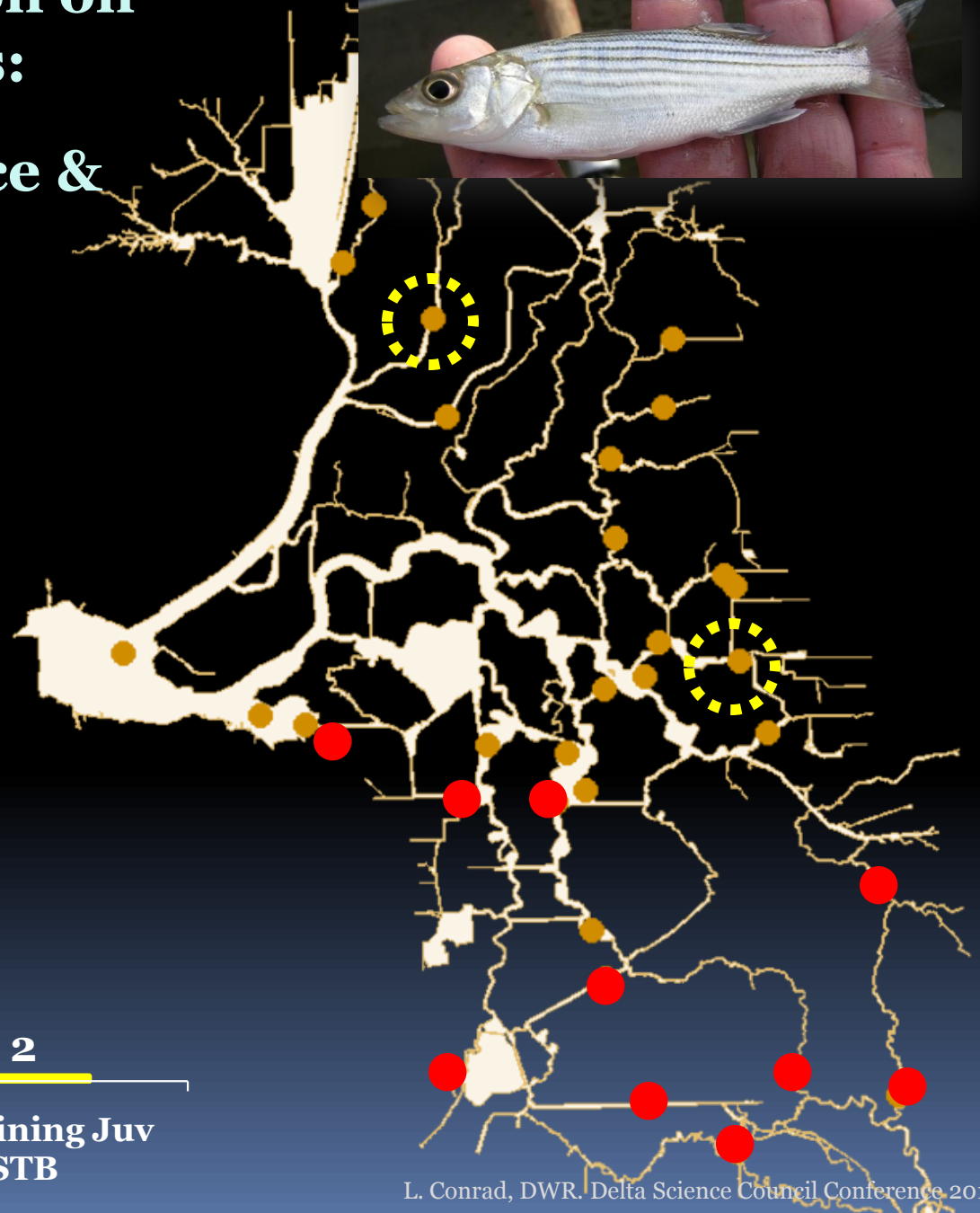
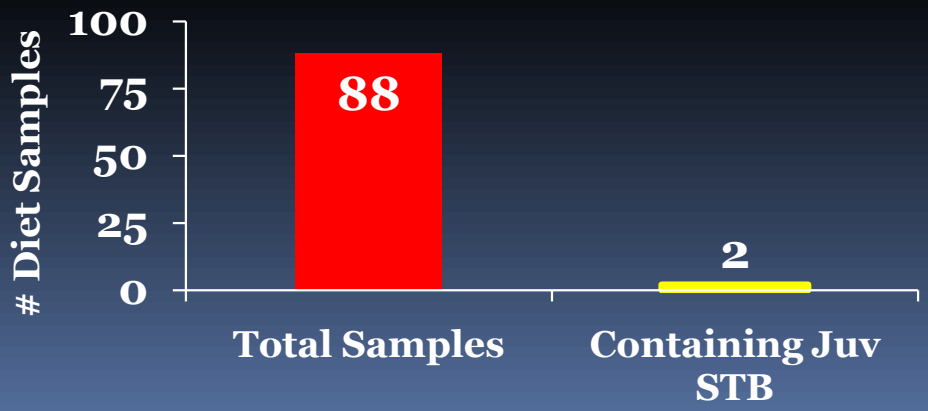
Largemouth Predation on Juvenile Striped Bass:

Limited co-occurrence & even more RARE



LMB & STB co-occurrence October '08 – October '09

STB predated, no co-occurrence at time of sample



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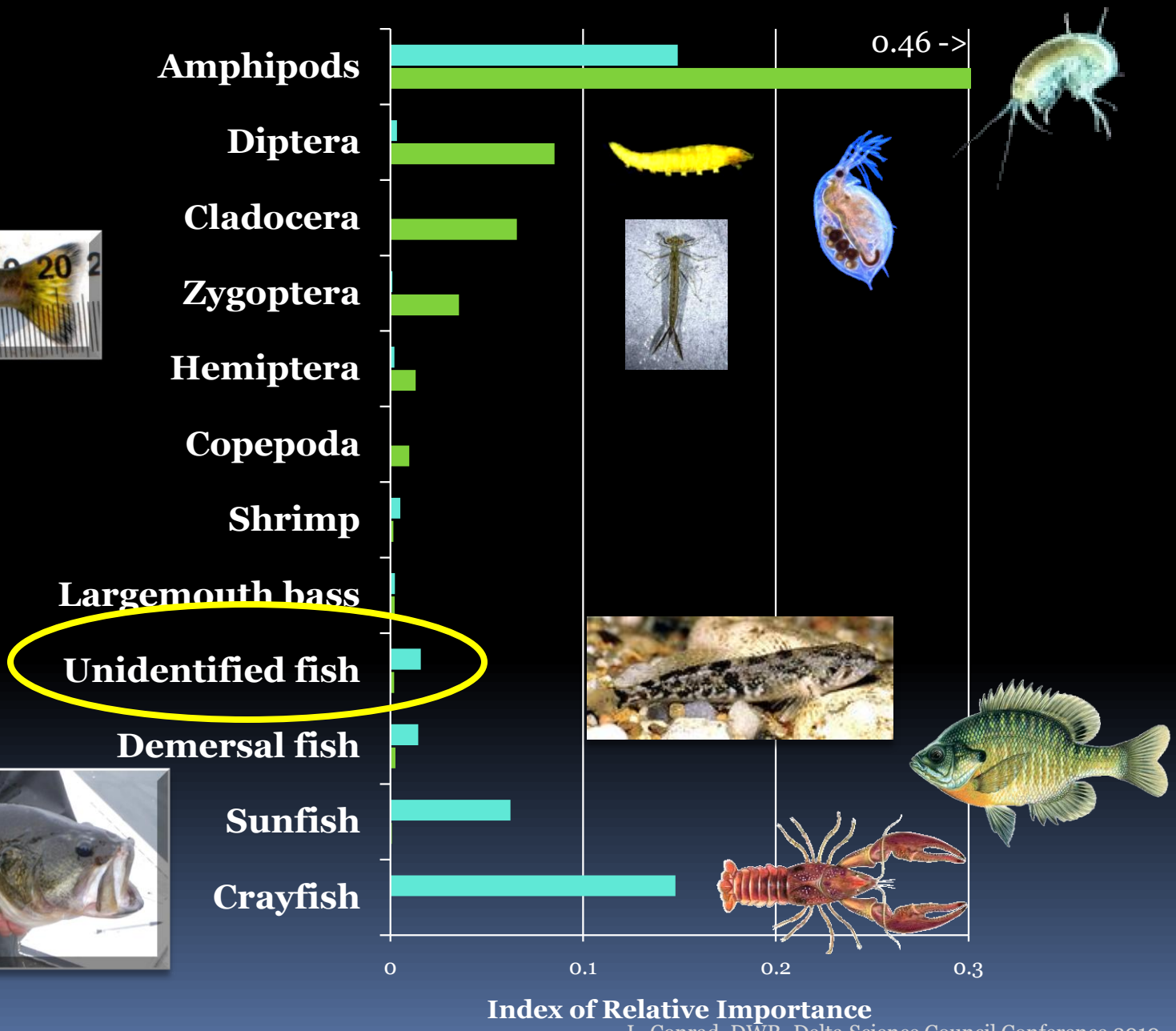
Largemouth Diet Composition

≤125 mm

n = 708

> 125 mm

n = 740



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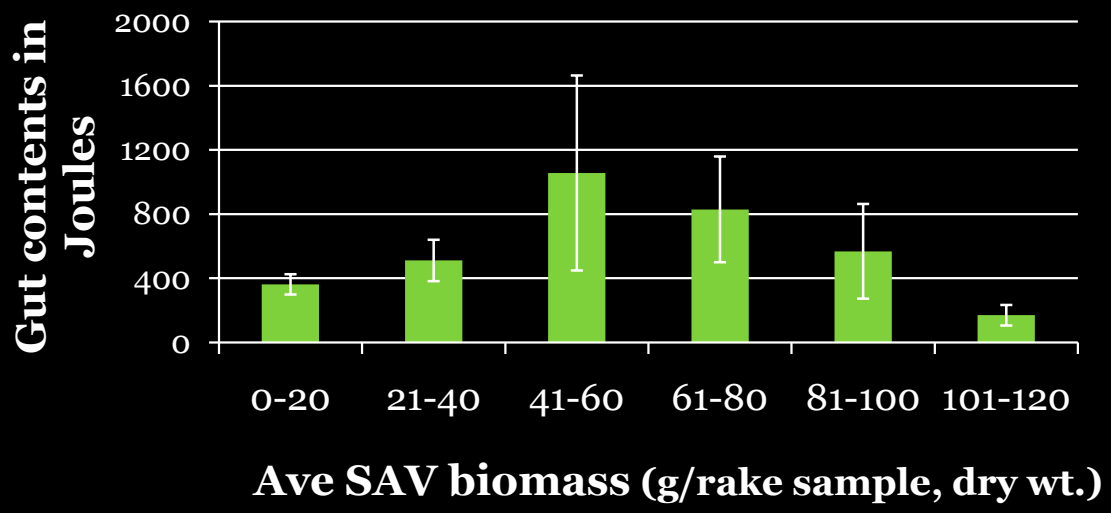
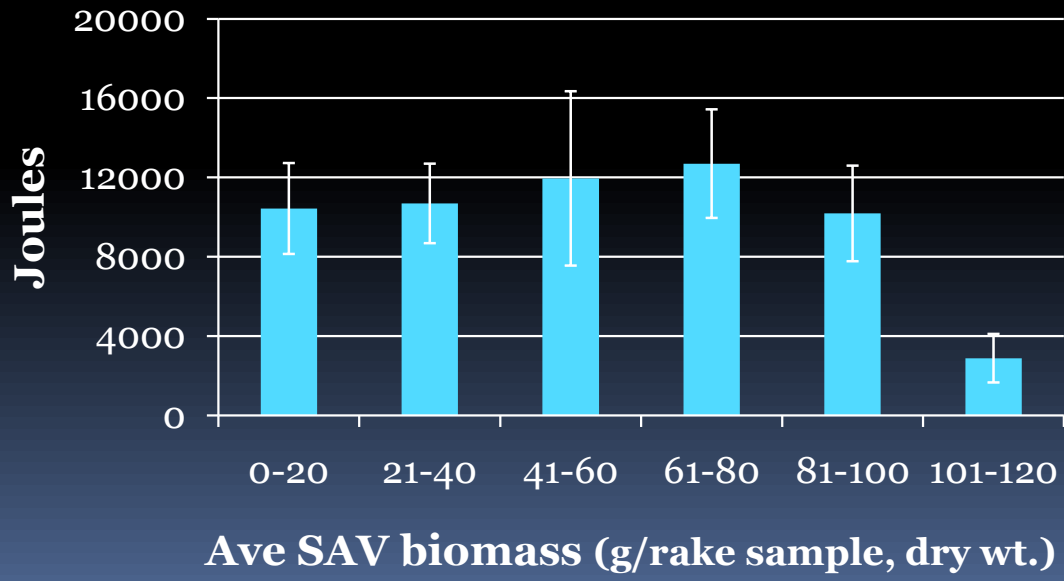
Does more SAV mean better food?

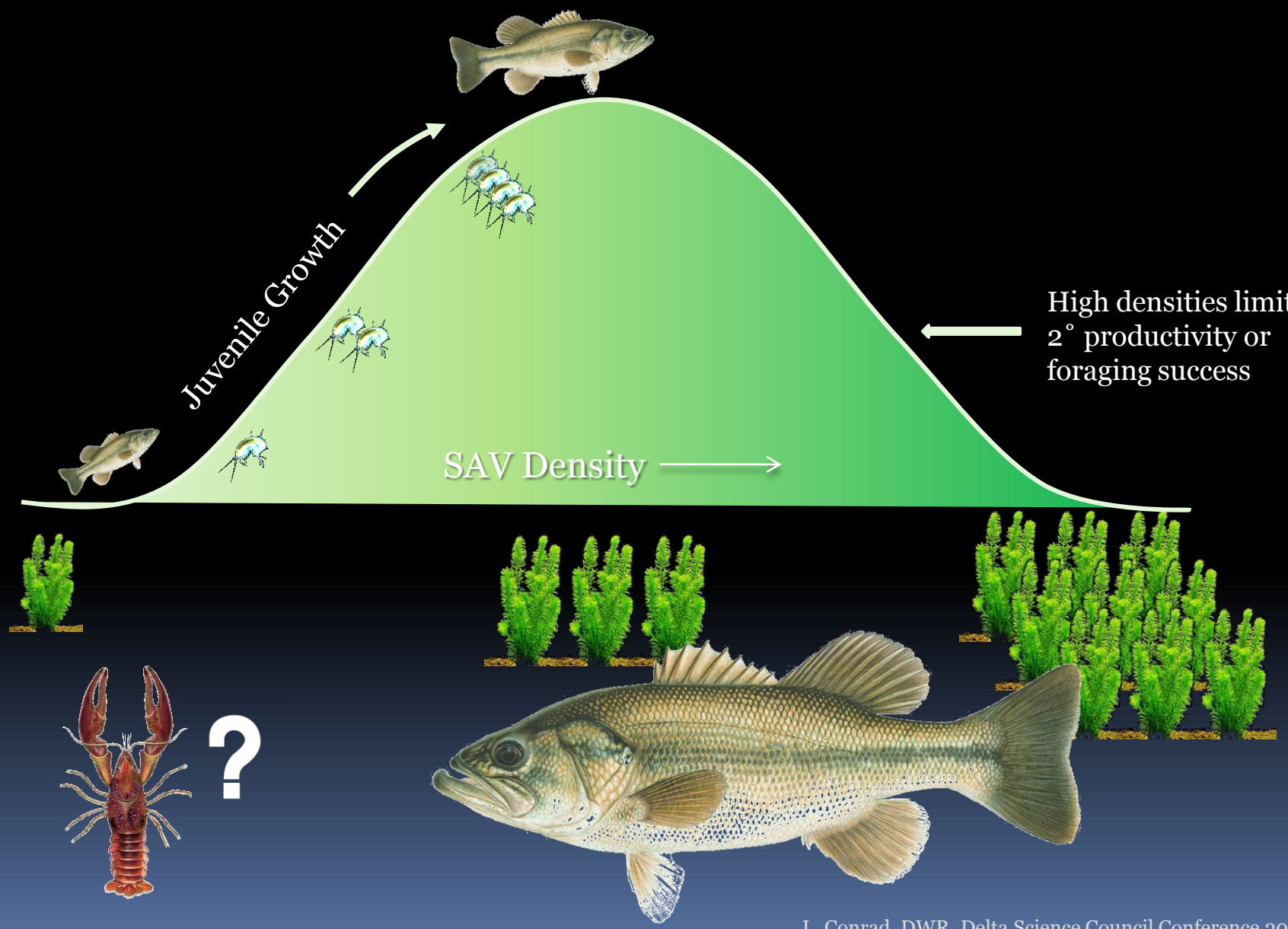


≤125 mm

> 125 mm



SAV Grows Bass…a conceptual model



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Many Thanks

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Diet Sample Analysis

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Talene Baghdassarian, UCD
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Michael Vella, DWR
Caily Nelson, DWR

CDFG Resident Fish Survey Data provided by Larry Brown, USGS

LMB Tournament Data from Kyle Murphy & Kelly Souza

Electrofishing Vessel: California Department of Fish & Game

Marty Gingras, Curtis Hagen

Questions?

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