



PUGET SOUND KELP CONSERVATION AND RECOVERY PLAN

Understanding management framework of kelp

Linking science and policy

June 13, 2019

WORKSHOP OBJECTIVES

1. Identify priority research and monitoring actions to inform management/regulatory changes to better protect kelp.
2. Identify currently available management tools that can further help conservation and restoration of kelp.
3. Assess opportunities for additional tools that can further help conservation and restoration.

10:00-10:30	Welcome and Introductions Meeting goals and agenda review Group introductions Kelp Conservation and Recovery Plan	Dana Oster, NW Straits Commission Dan Tonnes, NOAA
10:30-11:15	Puget Sound Kelp: Trends and Roles Review of regional trends, ecology and ecosystem services	Max Calloway, Puget Sound Restoration Fund
11:15-11:30	Break	
11:30-12:00	Kelp Data Gaps and Actions	
12:00-1:00	Lunch (not provided)	
1:00-1:30	Management Framework Review understanding of current framework	
1:30-2:30	Breakout Discussions In groups discuss scenarios of human activities and kelp	
2:30-2:45	Break	
2:45-3:15	Group Reporting Review breakout group discussions	
3:15-4:00	Kelp Management Mad Libs Complete the mad libs sentences and report back to the group	
4:00-4:30	Meeting wrap up/ Next steps	

GROUND RULES

- Respect different perspectives and experiences
- Burden of proof and debating the merits of proposed policies are beyond the scope of this workshop
- Ask all the help questions you can think of!

ROCKFISH RECOVERY PLAN

Puget Sound / Georgia Basin
Yelloweye Rockfish (*Sebastes ruberrimus*)
and Bocaccio (*Sebastes paucispinis*)

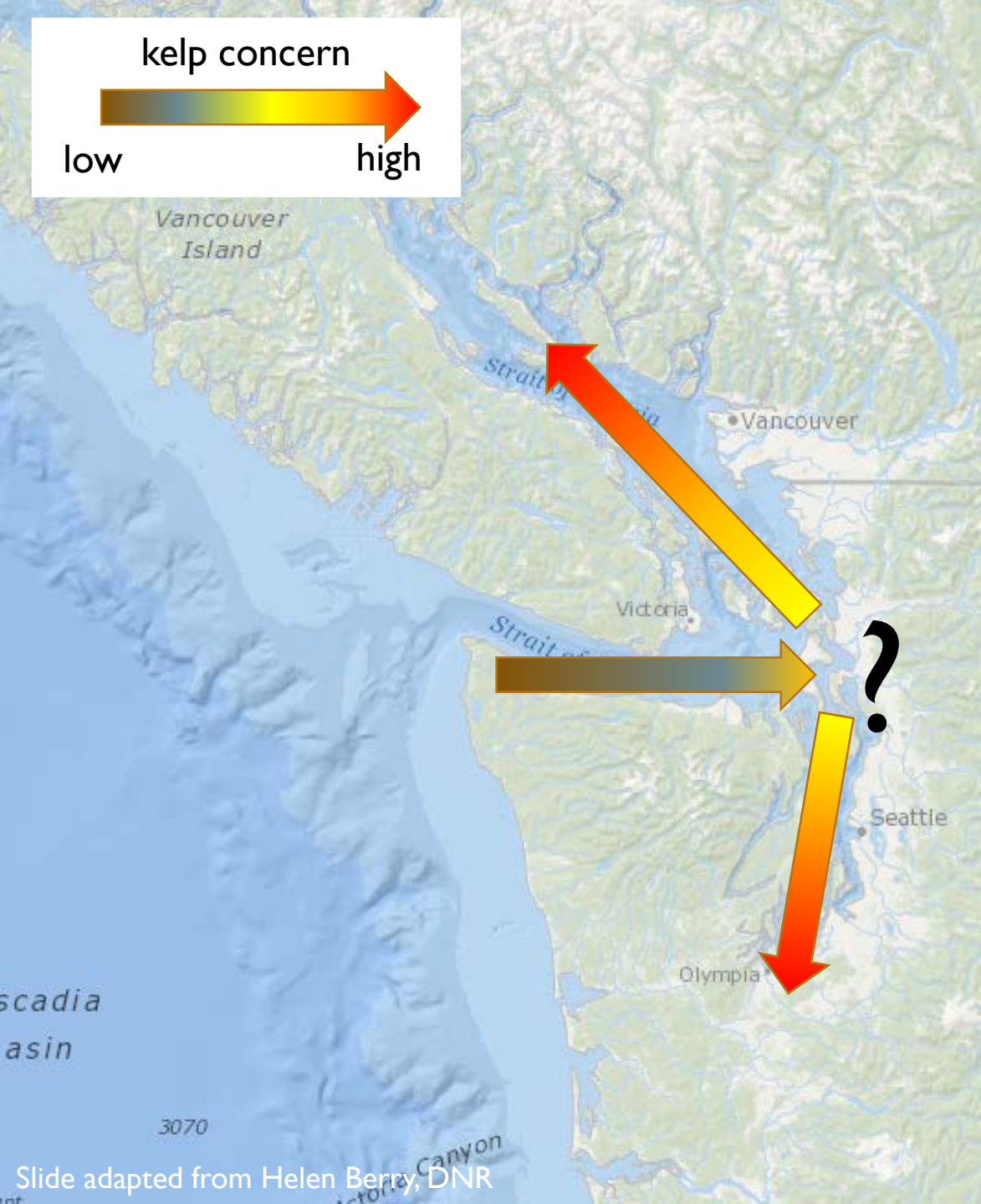


Prepared by
Office of Protected Resources
West Coast Regional Office
National Marine Fisheries Service
National Oceanic and Atmospheric Administration

kelp concern

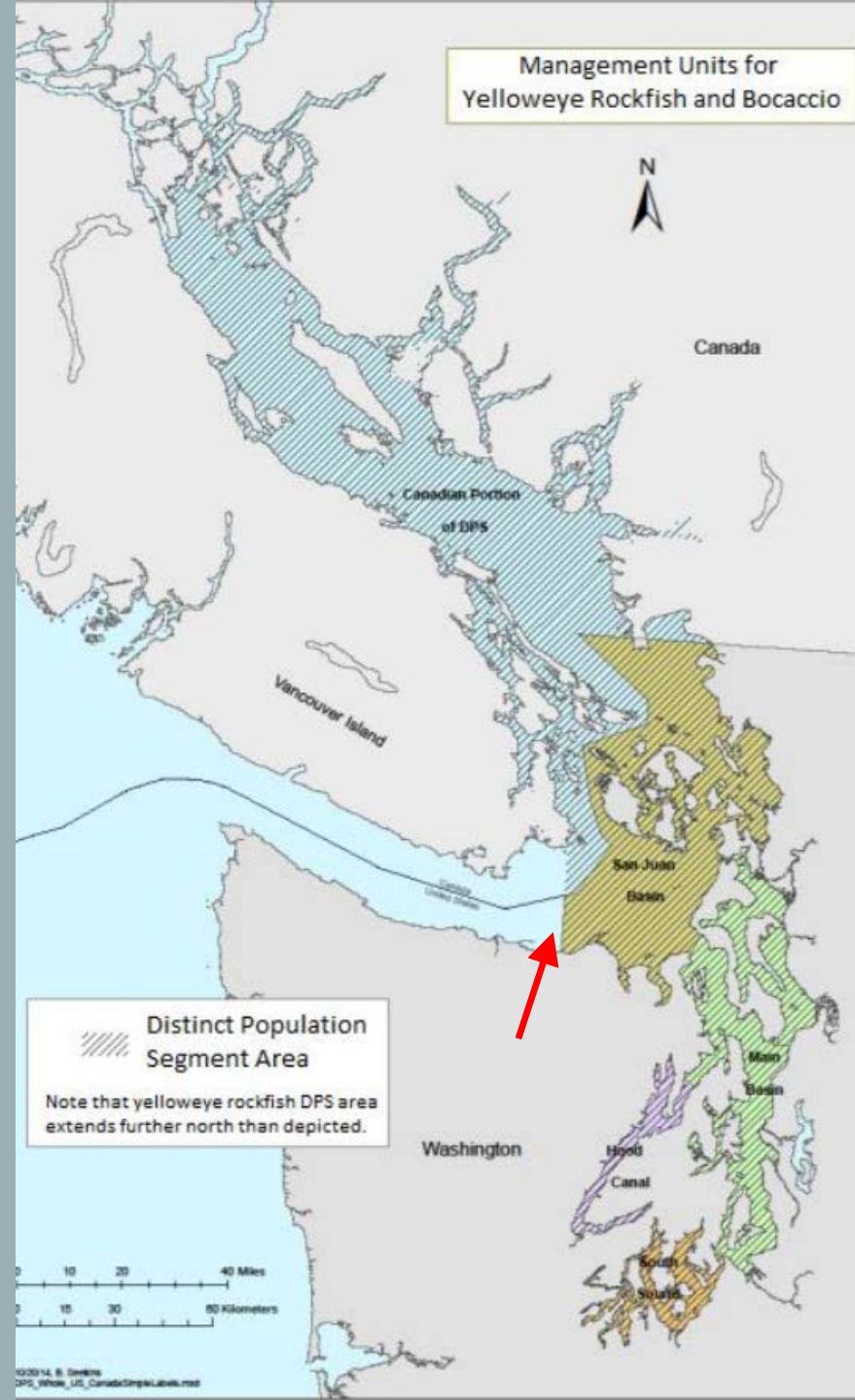
low

high



CRITICAL QUESTION:
IS THE SALISH SEA EXPERIENCING MAJOR BULL KELP LOSSES?

PUGET SOUND KELP CONSERVATION AND RECOVERY PLAN



A wide-angle photograph of a beach covered in a thick layer of seaweed. The seaweed consists of long, thin, brown stalks and numerous dark, bulbous floats. The seaweed is piled up in the foreground and middle ground, extending towards the water's edge. The background shows a calm sea and a distant shoreline with trees and buildings under a clear sky.

WHAT'S THE PROBLEM?

Photo: Brittany Jones

What's the plan?

YEAR 1:
UNDERSTAND THE
SCIENCE



The Cultural Importance of Kelp to Pacific Northwest Tribes

Nicole Naar
UC-Davis, Anthropology Department
Puget Sound Kelp Recovery Plan Workshop
March 20, 2018

Investigating Kelp as Salmon Habitat

Sarah Schroeder, Maycira Costa, Francis Juanes
University of Victoria

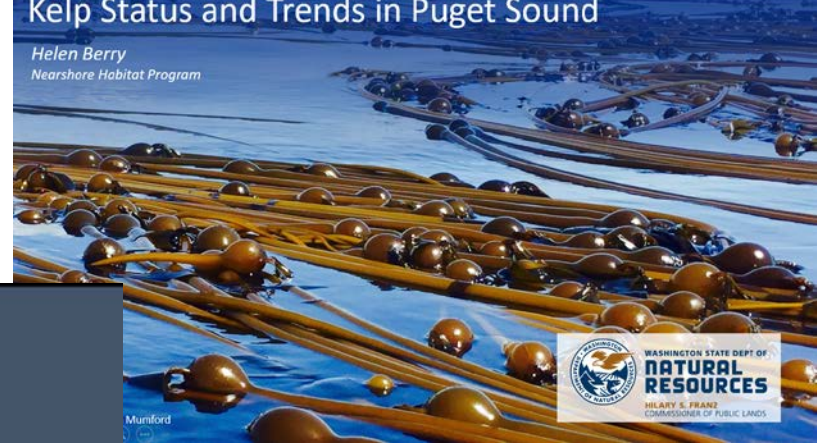


INTERACTIONS AND CONSEQUENCES OF CHANGING CONTROLLING FACTORS IN KELP FORESTS

Max Calloway
Evergreen State College
Northwest Straits Commission
Photo courtesy of Glacier Bay National Park

Kelp Status and Trends in Puget Sound

Helen Berry
Nearshore Habitat Program



Remote Sensing of Kelp: *preliminary results and challenges*

Jordan Hollarsmith
Ani Ghosh
Kate Tiedeman
(UC Davis)

Puget sound kelp recovery plan workshop, March 20, 2018

YEAR I – WORKSHOP I

YEAR 1 –
WORKSHOP
2

Data Gaps

Kelp trends

Role of kelp as a habitat

Role of kelp as a primary producer

Economic and socioeconomic impacts

Stressors

Kelp microscopic life history

Kelp genetics

Kelp restoration

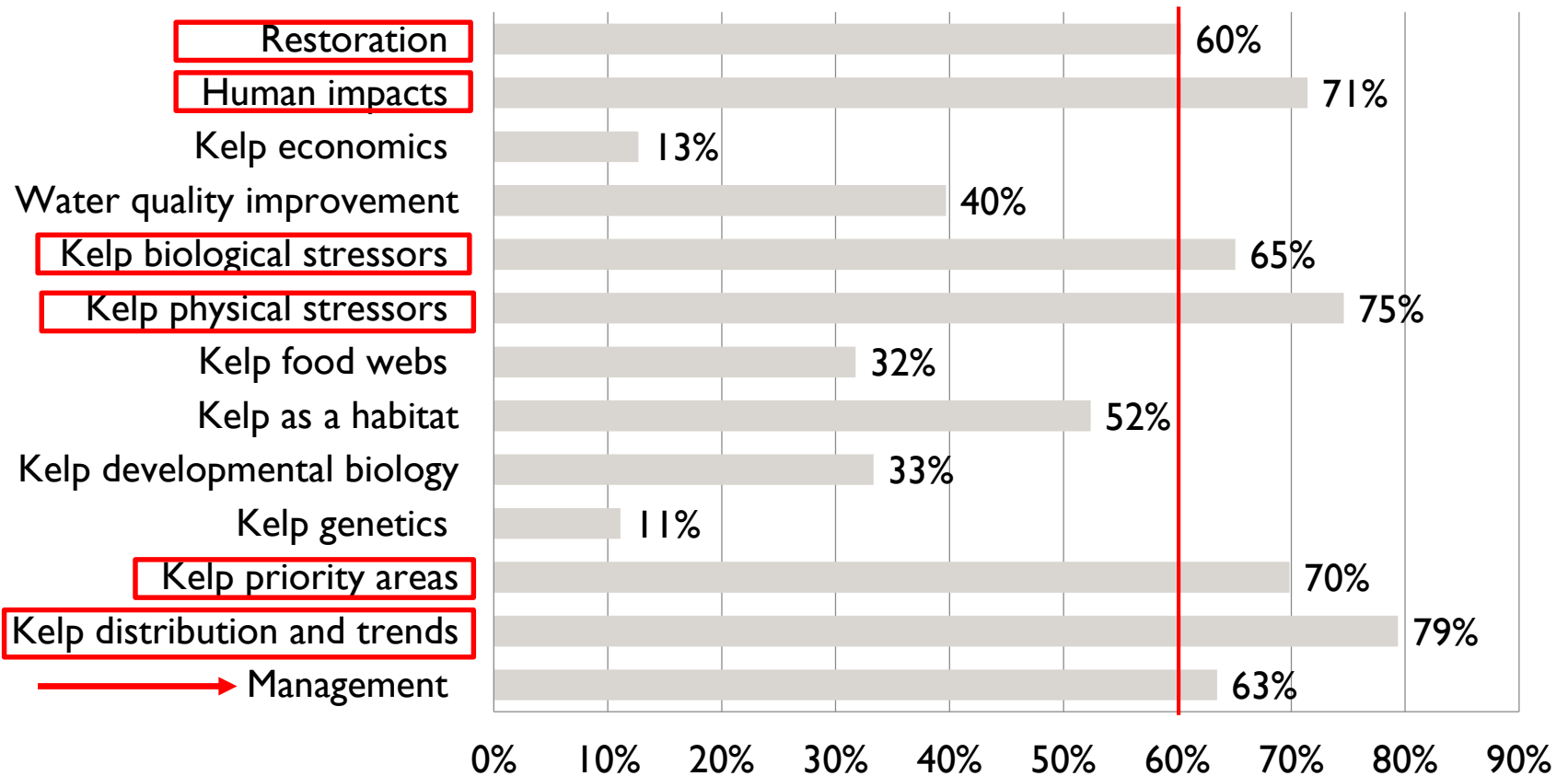
And more

What's the plan?

~~YEAR 1:~~
~~UNDERSTAND THE~~
~~SCIENCE~~

YEAR 2:
OUTLINE ACTIONS





YEAR 2 – WORKSHOP 3 PRIORITIZED DATA GAPS SURVEY RESULTS

Value of addressing each data gap for kelp conservation and recovery strategies



DISTRIBUTION

* Identify distribution/trends of understory species (12)
 * Long term / short term

* Historic / TEK data mining (11)

* Aerial photography / ground truthing (2)

* Develop protocols (15)
 - using drones
 - kept
 - variety
 - understory (multibeam)

Data repository

* Standardize monitoring protocol
 (Central Coordination of Monitoring)

THANKS TO THE CORE TEAM

Max Calloway, Puget Sound Restoration Fund – Lead author

Tom Mumford, Marine Agronomics – Contributing author

Helen Berry, DNR

Dan Tonnes, NOAA

Steve Copps, NOAA

James Selleck, NOAA/NRC

Brian Allen, Puget Sound Restoration Fund

Betsy Peabody, Puget Sound Restoration Fund

Jodie Toft, Puget Sound Restoration Fund

