FISH ON!

HOOK-AND-LINE SURVEY VOLUNTEER NEWSLETTER

SPRING/FALL 2018






GREETINGS VOLUNTEERS!

Another successful year of hook-and-line surveys has been completed at Cascade Head and Cape Perpetua. We want to thank all our volunteer anglers who helped this year, especially those who remained flexible when we had to postpone surveys due to rough seas. We thank our anglers and bio assistants for making this year's survey fun, exciting and successful. To our charter captains and crews - Capt. Robbie Waddell, and crew, Chris, Randy, Brett, Josh and Cody, on the Misty; Capt. Lars Robison and crewmember Shad on the Samson - your hard work, patience and skill made this year a success. Thank you all for the many hours, miles and happy dispositions you brought to the program.

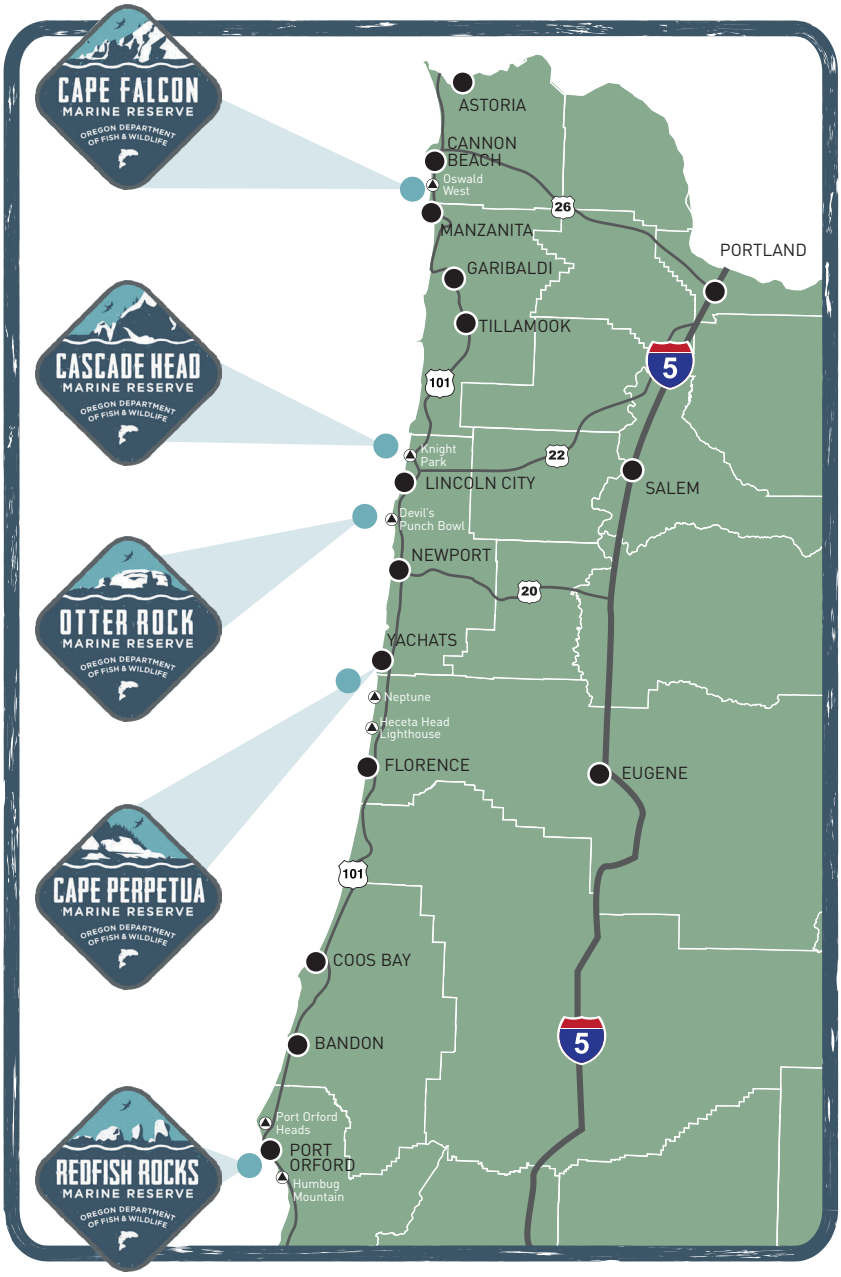
This year we completed our 4th year of surveys at Cape Perpetua, as well as our 5thth year of hook and line surveys at Cascade Head.

Dr. Wolfe Wagman will be retiring this January 2019 after 11 years at ODFW and another 7 in various State positions. We wish him many years of enjoyment.

Please enjoy this brief summary of the data YOU ALL helped collect this year. Thank you and we hope to see you again next year for the surveys at Cape Falcon!

Sincerely,

Lindsay, Jessica and Wolfe



2018 HIGHLIGHTS

2 Sites Surveyed
Cape Perpetua -- 8 days
Cascade Head 13 days

21 Trips
78 Volunteer Anglers

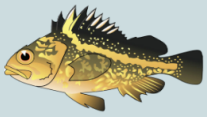
2,112 Fish Caught:
15 Species from
3 Families

RECORD LARGEST and smallest catches from 2018

BLACK ROCKFISH
minimum: 22 cm (9 in)
maximum: 56 cm (22 in)

BROWN ROCKFISH
maximum: 28 cm (11 in)

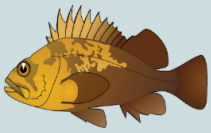
CANARY ROCKFISH
minimum: 25 cm (10 in)
maximum: 51 cm (20 in)



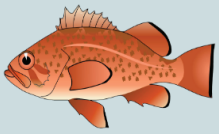
CHINA ROCKFISH
minimum: 24 cm (9 in)
maximum: 39 cm (15 in)

COPPER ROCKFISH
minimum: 32 cm (13 in)
maximum: 54 cm (21 in)

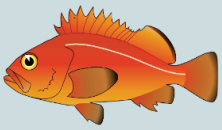
DEACON ROCKFISH
minimum: 25 cm (10 in)
maximum: 38 cm (15 in)



QUILLBACK ROCKFISH
minimum: 25 cm (10 in)
maximum: 46 cm (18in)

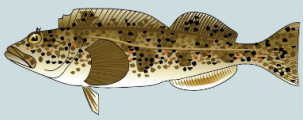


VERMILLION ROCKFISH
maximum: 59 cm (23 in)

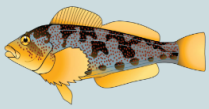


YELLOWEYE ROCKFISH
minimum: 28 cm (11 in)
maximum: 54 cm (21 in)

YELLOWTAIL ROCKFISH
minimum: 15 cm (6 in)
maximum: 44 cm (17 in)



LINGCOD
minimum: 31 cm (12 in)
maximum: 89 cm (35 in)



KELP GREENLING
minimum: 24 cm (9 in)
maximum: 42 cm (17 in)

BUFFALO SCULPIN
minimum: 25 cm (10 in)
maximum: 34 cm (13 in)

CABEZON
minimum: 31 cm (12 in)
maximum: 69 cm (27 in)

RED IRISH LORD
minimum: 31 cm (12 in)
maximum: 37 cm (15 in)

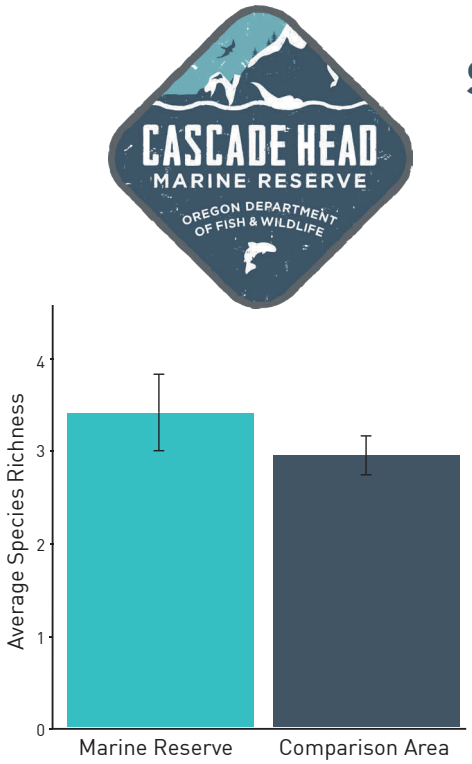
Fish icons courtesy of Dr. Larry Allen (CSUN)

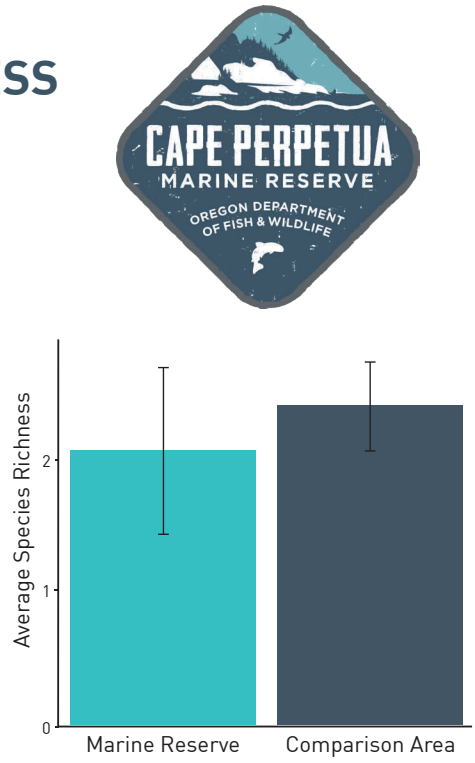
HOW MANY SPECIES WERE THERE?

WHAT SPECIES RICHNESS AND COMPOSITION TELL US

The graphs below summarize the average species richness (number of different species observed) and the catch composition for each of the reserves and comparison areas surveyed in 2018

SPECIES RICHNESS

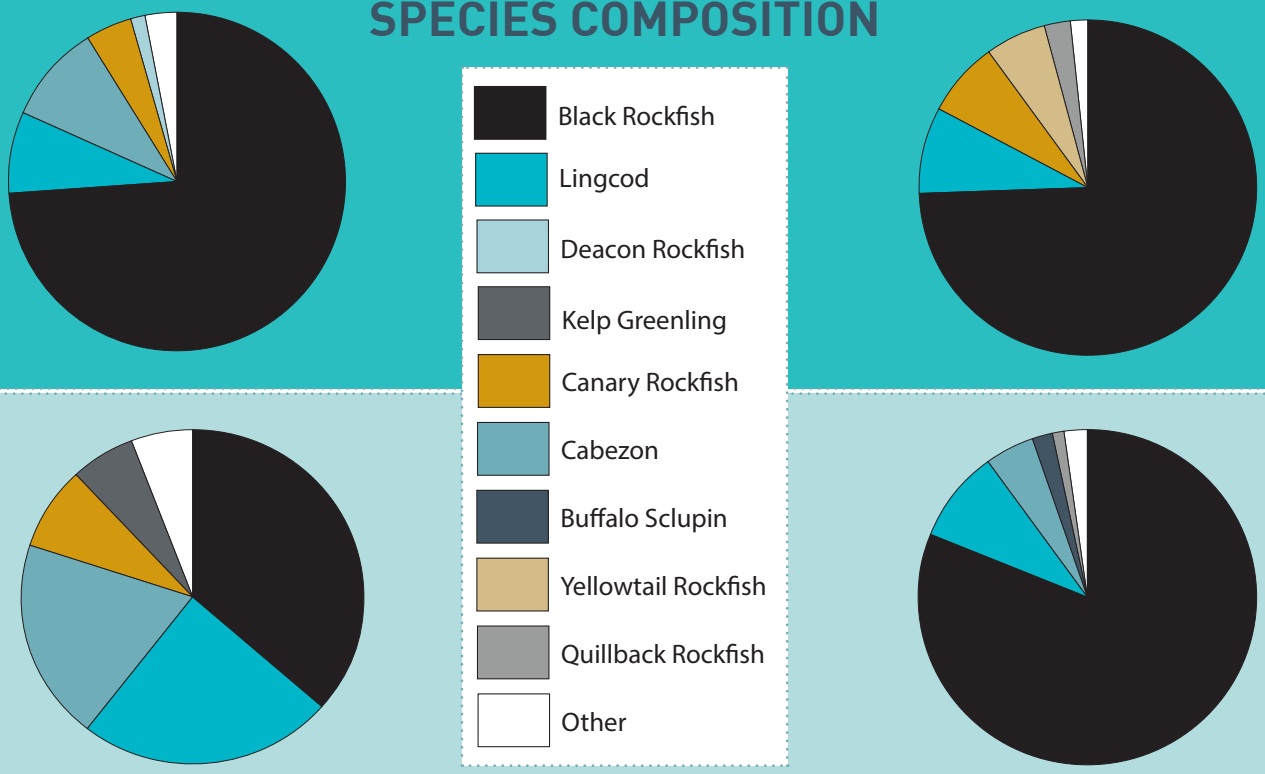




SPECIES COMPOSITION

Marine Reserve

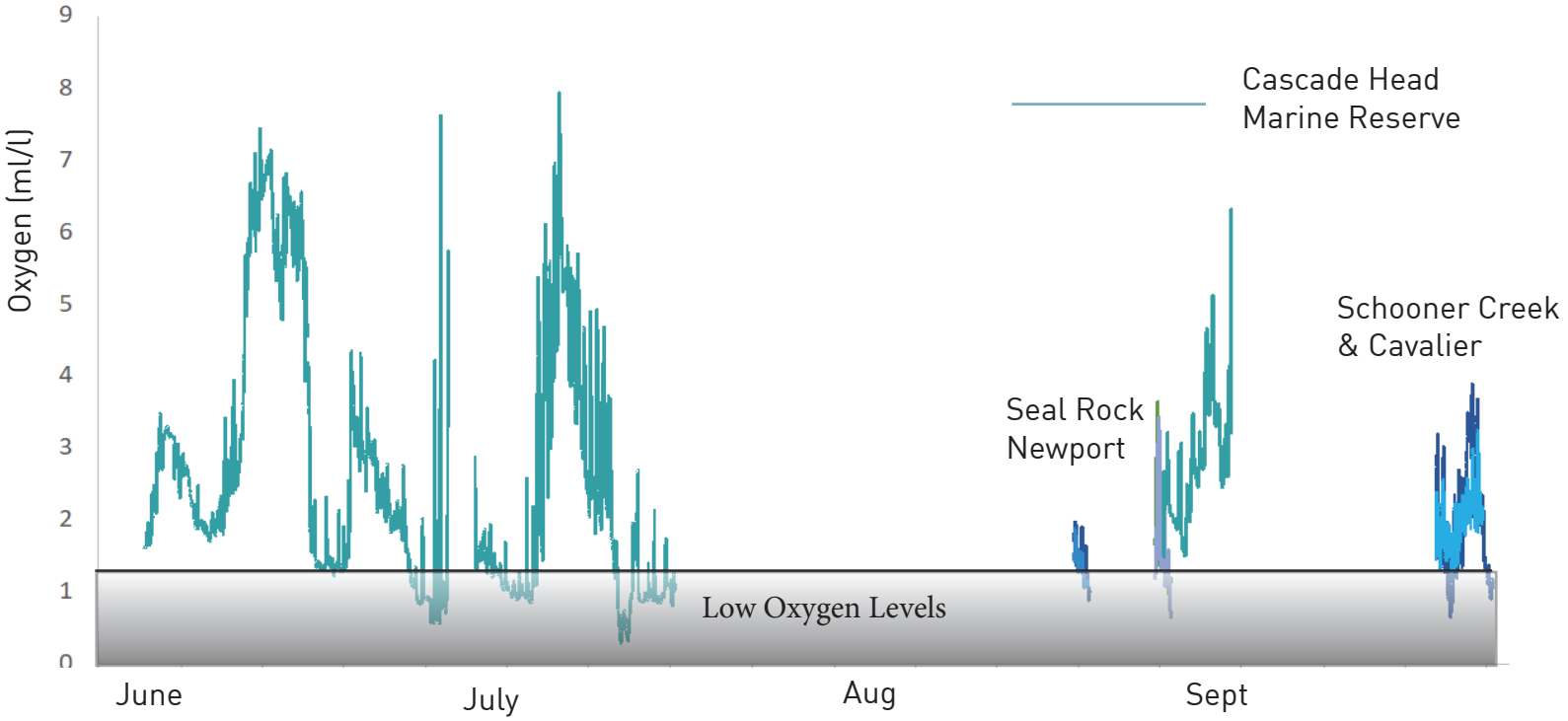
Comparison Area



RESPONDING TO EMERGING ISSUES IN 2018

DEPLOYING OXYGEN SENSORS

Our hook and line efforts this past fall provided an opportunity for our program to collaborate with OSU Scientist Francis Chan to address an emerging issue: low oxygen levels. Low oxygen conditions are known to occur in Oregon waters during the summer. How these events affect our marine resources are not well understood, as some species seem able to escape or tolerate these conditions, while others die as a result of low oxygen areas. Reports of dead fish and crab washing up on local beaches in August, may have resulted from a low oxygen event, and our hook and line surveys provided an opportunity to collect much needed data. We deployed crab pots with oxygen sensors on them during our Cape Perpetua and Cascade Head surveys. On our Cape Perpetua surveys, one crab pot was dropped near Newport, and the other in our comparison area near Seal Rock. On our Cascade Head surveys we dropped one crab pot in the Cavalier comparison area and another in the Schooner Creek comparison area. These sensors provided immediate information about oxygen levels in the nearshore, and most likely explain our low catch rates during our Cape Perpetua surveys.



INCREASING OUR SPATIAL UNDERSTANDING OF LOW OXYGEN CONDITIONS

The oxygen sensors we deployed from the hook and line surveys help us to better understand when and where conditions of low oxygen occur along the coast. In the graph above, we are able to add the sensor data from the hook and line surveys to the data from a similar sensor placed by divers in the Cascade Head Marine Reserve. Together they help us understand when and where low oxygen conditions occurred along the coast.

WHY ARE WE MISSING DATA FROM PARTS OF AUGUST AND SEPTEMBER?

Data from our sensor in the Cascade Head Marine Reserve was most likely clogged with sediment for the month of August, therefore no data are available to report. However by deploying the crab pot oxygen sensors during our hook and line surveys at the end of August, we were able to learn that indeed there were days with low oxygen levels. Divers took our Cascade Head Marine Reserve sensor out of the water the first week in September, therefore the only other data available are from our crab pot sensors deployed during our hook and line surveys.