CRA 5 EMERGENCY SURVEY & POST EARTHQUAKE–SURVEY RESULTS

Kaikoura crayfish research to determine quake effects on $24 million industry
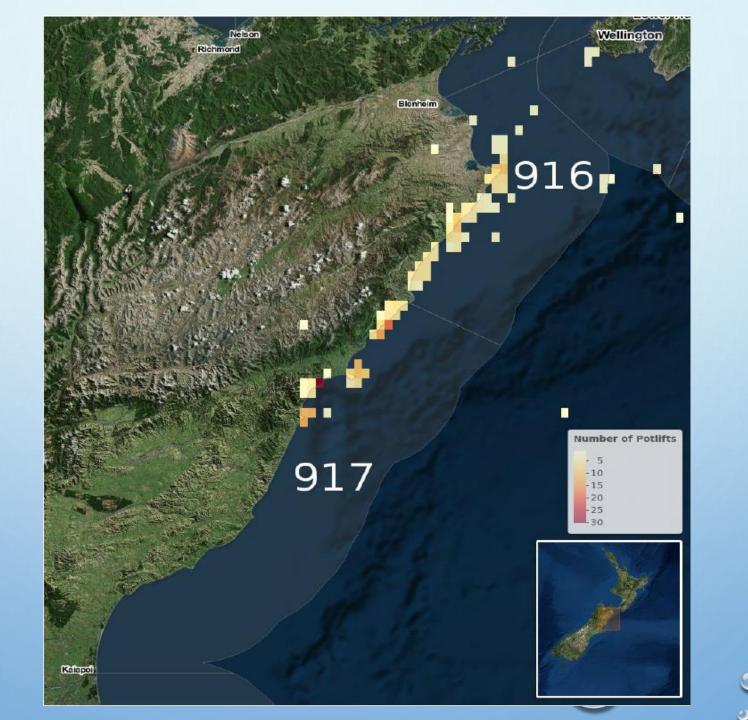
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CRA 5: EMERGENCY SURVEY

- MPI CLOSED DOWN FISHERY

- EMERGENCY SURVEY WAS DESIGNED AND CARRIED OUT BY 6 VESSELS

- SURVEY DATA SENT TO MPI, NIWA, THEN ON TO THE ROCK LOBSTER SCIENCE TEAM

- ADDITIONAL INFORMATION WAS SOURCED FROM HISTORICAL RECORDS EFFORT TO COMPARE RESULTS

CRA 5 SURVEY AREA

DATA THAT WERE LOOKED AT

- SURVEY DATA

- CELR DATA

  o LIMITED THE DATA TO THE 6 VESSELS THAT PARTICIPATED IN THE SURVEY

  o LIMITED ANALYSIS TO THE LAST THREE FISHING YEARS (2013–14 TO 2015–16) DURING OCTOBER, NOVEMBER
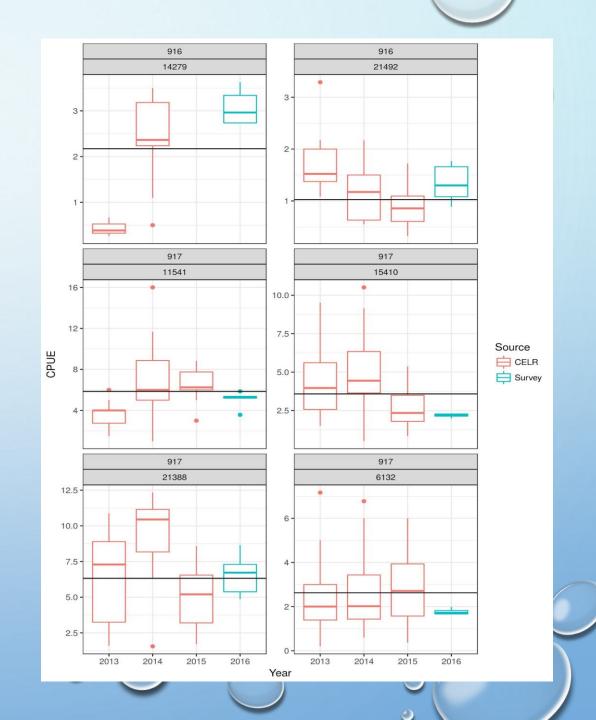
  AND DECEMBER

  o COMPARED CPUE ACROSS THOSE PERIODS

- LOGBOOK DATA

  o FOR STATISTICAL AREAS 916 AND 917 FROM 2013–14 TO 2015–16 DURING OCTOBER, NOVEMBER AND

  DECEMBER

  o THESE WERE AGGERATED DATA, DATA WERE NOT AVAILABLE BY VESSEL ON SHORT NOTICE
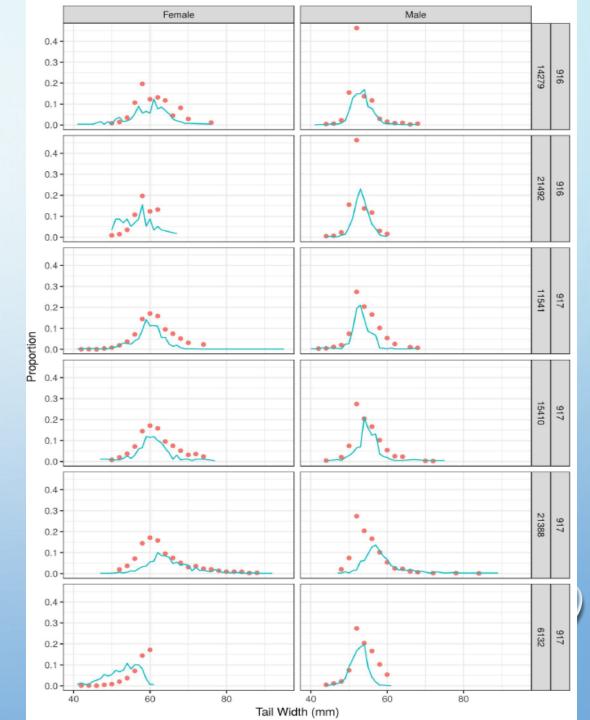
  o COMPARED LENGTH FREQUENCIES WITH SURVEY

CELR vs. Survey

Plot of Survey CPUE by statistical area and vessel compared to the annual CELR CPUE for the past 3 fishing years for the same vessel during the months of October, November and December. The horizontal black line indicates median of the CELR CPUE by statistical area and vessel during the first 3 years.

Logbook LFs vs survey LFs

- Length–frequencies of logbook data (red) by statistical area and sex.

- Survey data (blue lines) by statistical area, vessels, and sex.

- Logbook data summarised over the months of October, November, December from fishing years 2013–14 to

CRA 5 data

Data source	Why is it useful?
Tag-recaptures	Growth
Observer catch sampling	Size-structure, maturity, growth
Logbook records	Size-structure, maturity, growth, CPUE?
CELR forms	Catch, CPUE, offset year CPUE
Puerulus collectors	Recruitment

CRA 5 COMMERCIAL DATA SUMMARY

- 27 commercial vessel harvest lobster in CRA 5

- 19 vessel operate the voluntary logbook program, 16,816 lobsters data has been recorded in 2017

- CRAMAC 5 has deployed 34,000 tags with a total of 7003 individuals have been recapture

- CRA 5 have been collecting Puerulus settlement data in two locations since 1979, two other locations since 2011, la
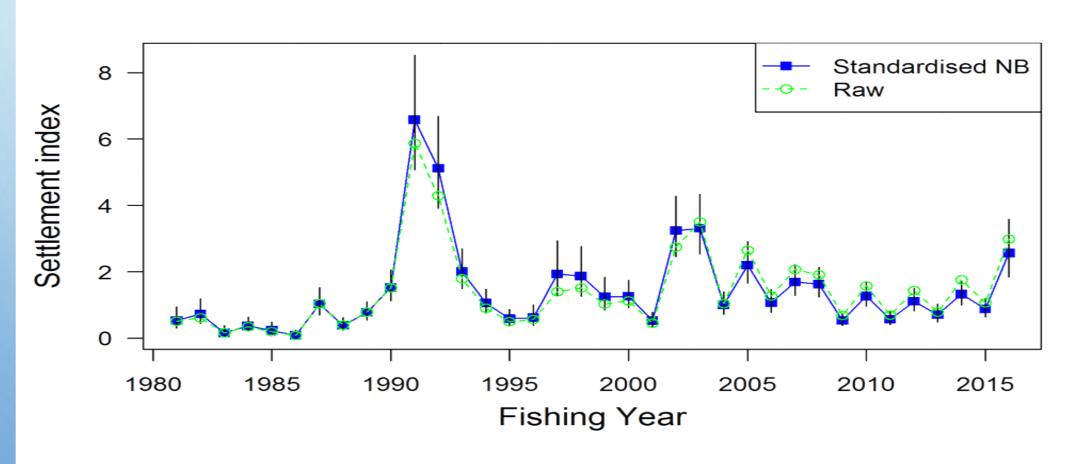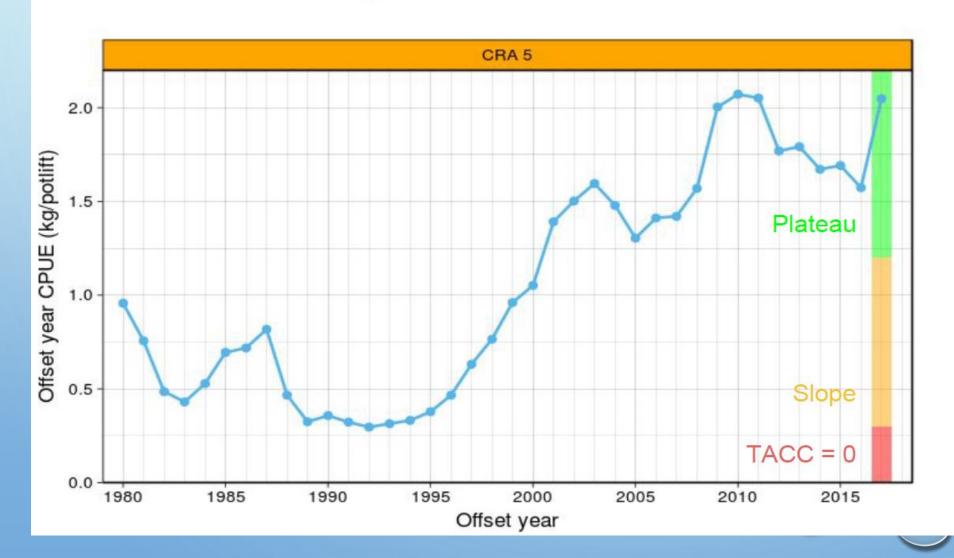
CRA 5 SETTLEMENT DATA

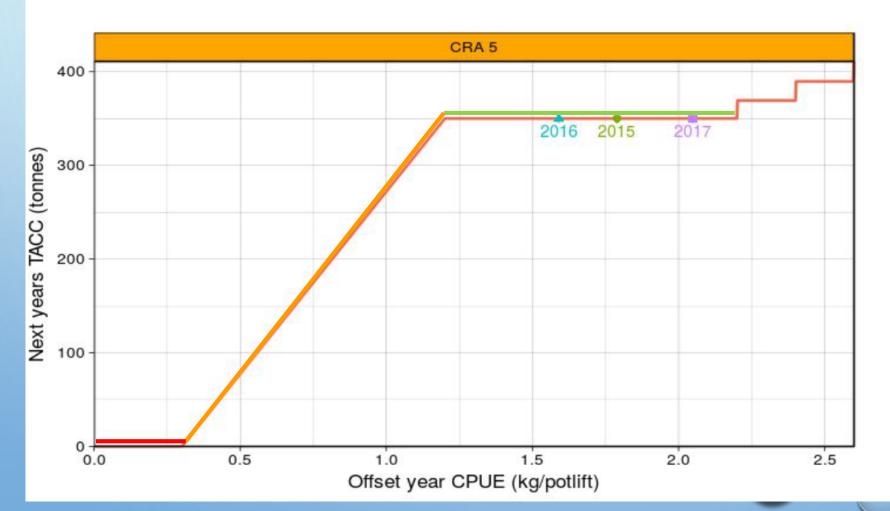

Kaikoura (001,002,003,004,005,006,008,009)

CRA 5 CPUE

CRA 5: offset year CPUE

An offset-year begins 1 October through 30 September of the following year and is named by the first year (i.e. 2017-18 is termed "2017")

CRA 5: Management Procedure

CRA 5: management procedure (MP)

TACC for 2017 was 350 tonnes

CPUE increased from 1.6 to 2.0 kg per potlift which remains on the plateau

Rule resulted in a TACC of 350 tonnes

CRA 5: summary

● Little evidence of earthquake negatively influencing CRA 5

● Offset year CPUE is sitting on the plateau so no TAC change

● The 2017-18 CPUE looking good **CRAMAC 5**

● Stock assessment scheduled for 20