



**NOAA
FISHERIES**

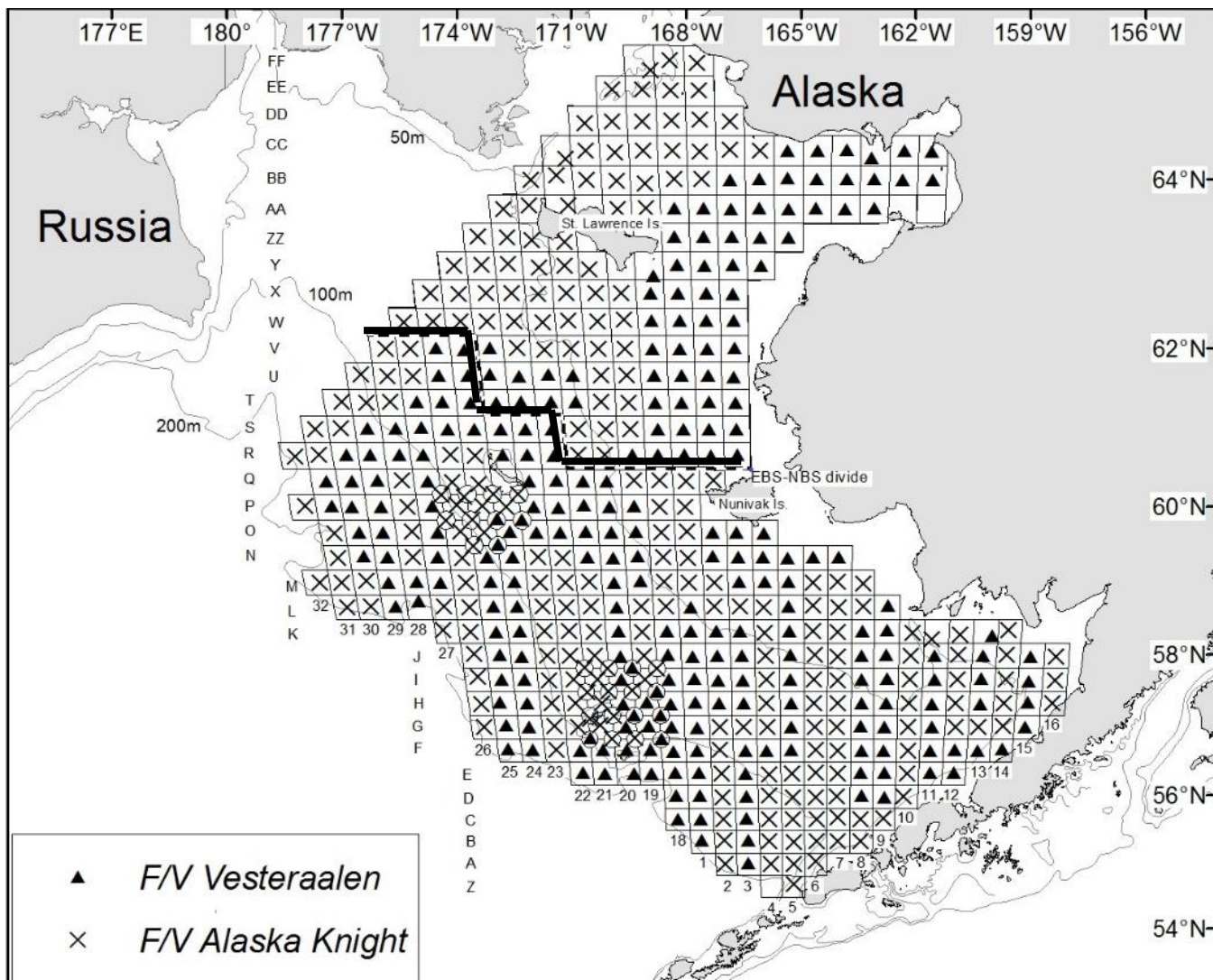
Alaska Fisheries
Science Center-
Kodiak Lab

The 2019 Eastern Bering Sea Continental Shelf Bottom Trawl Survey: Results for Commercial Crab Species

Jonathan Richar, Leah Zacher
AFSC SAP and GAP programs

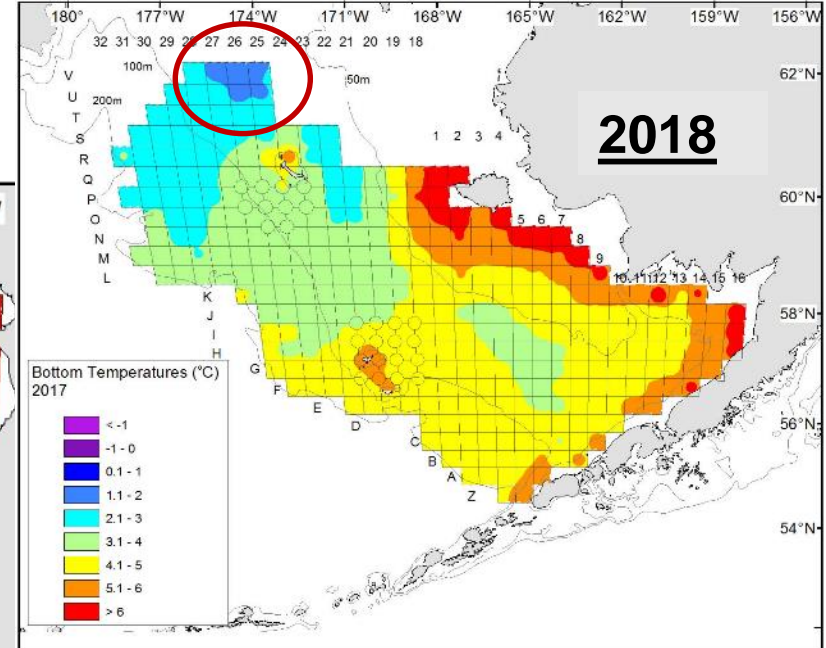
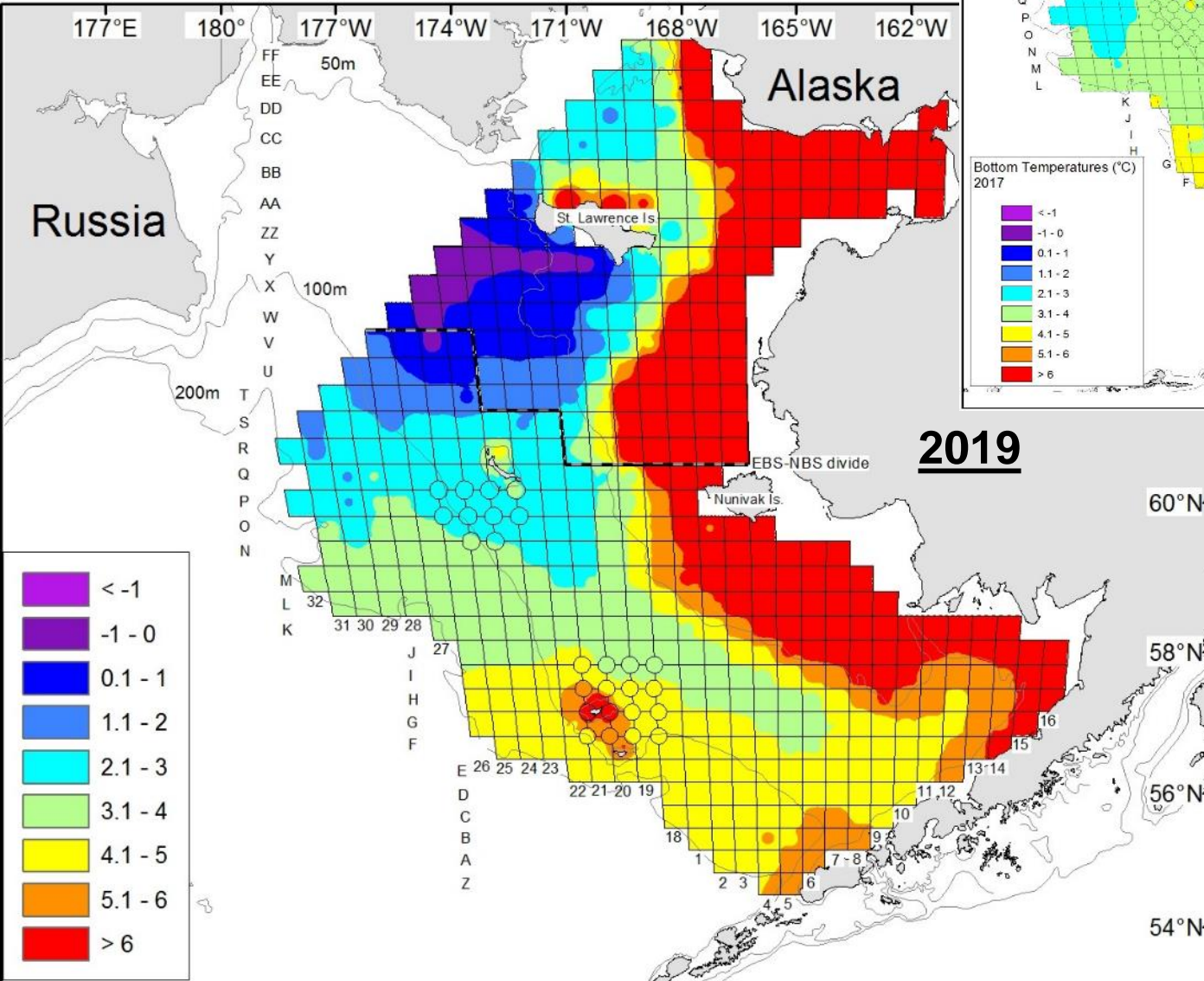
Crab Plan Team
September 2019

2019 standard Bering Sea survey

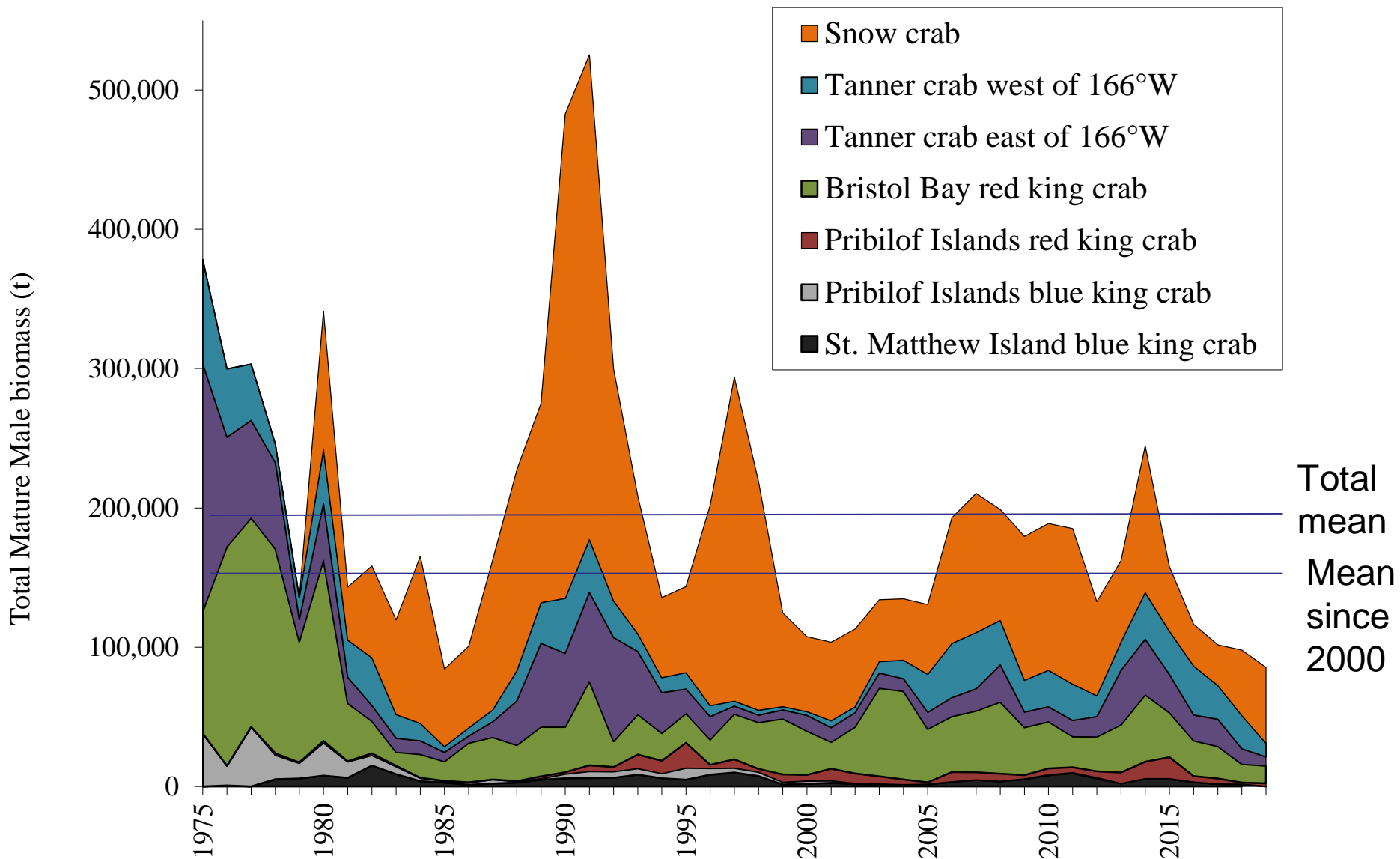


HIGHLIGHTS

- Eastern Bering Sea survey
 - June 3– July 28
 - 375 standard stations
 - 139,949 nmi²
 - 9 special crab projects
 - Warm water
-
- Northern Bering Sea survey
 - July 28-Aug 20
 - 144 standard stations
 - 57,744 nmi²

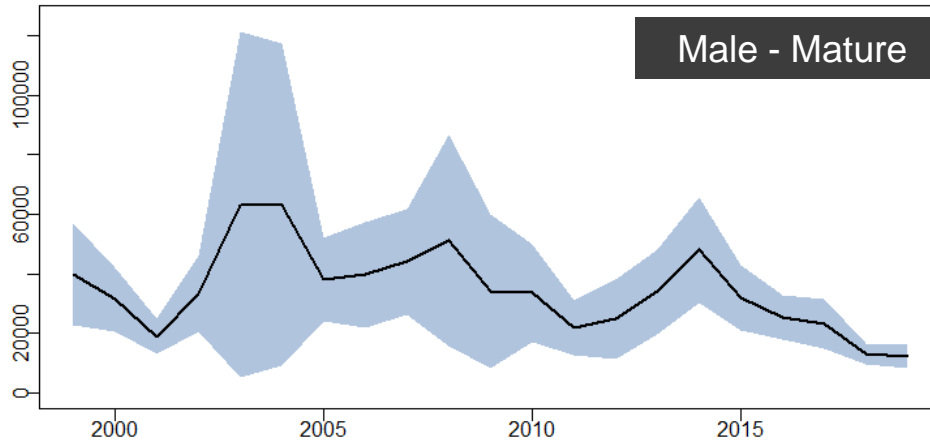


Mature male biomass



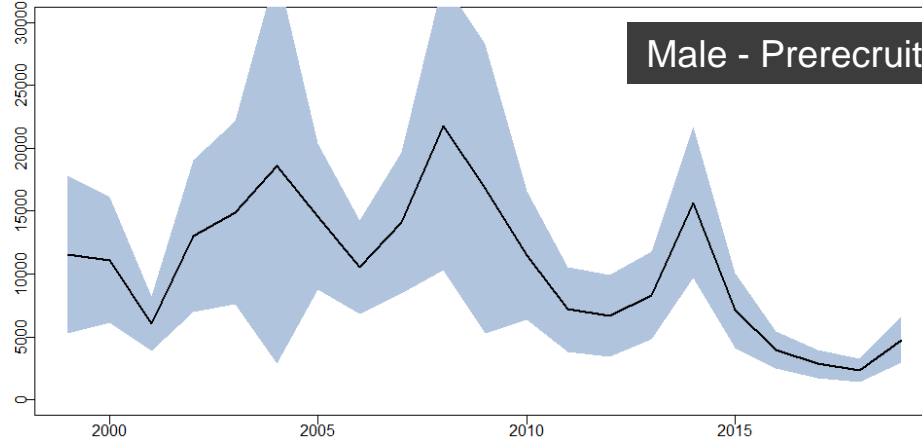
Bristol Bay red king crab

Biomass (t)

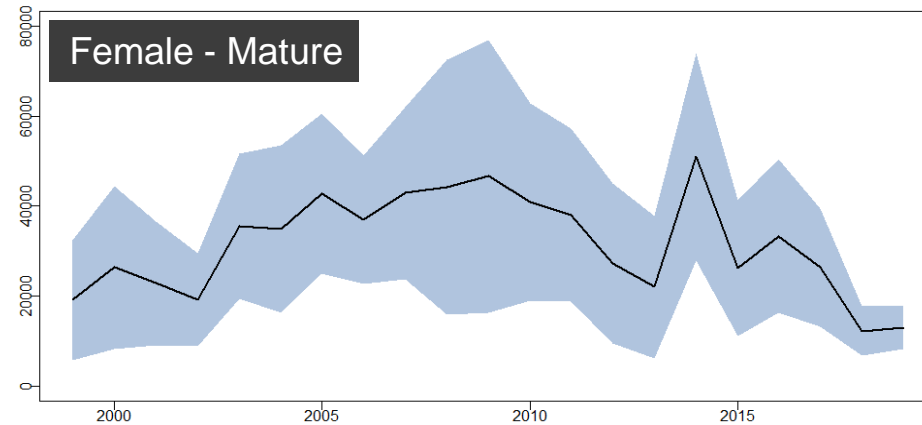


Legal male
-25%

Mature male
-6%



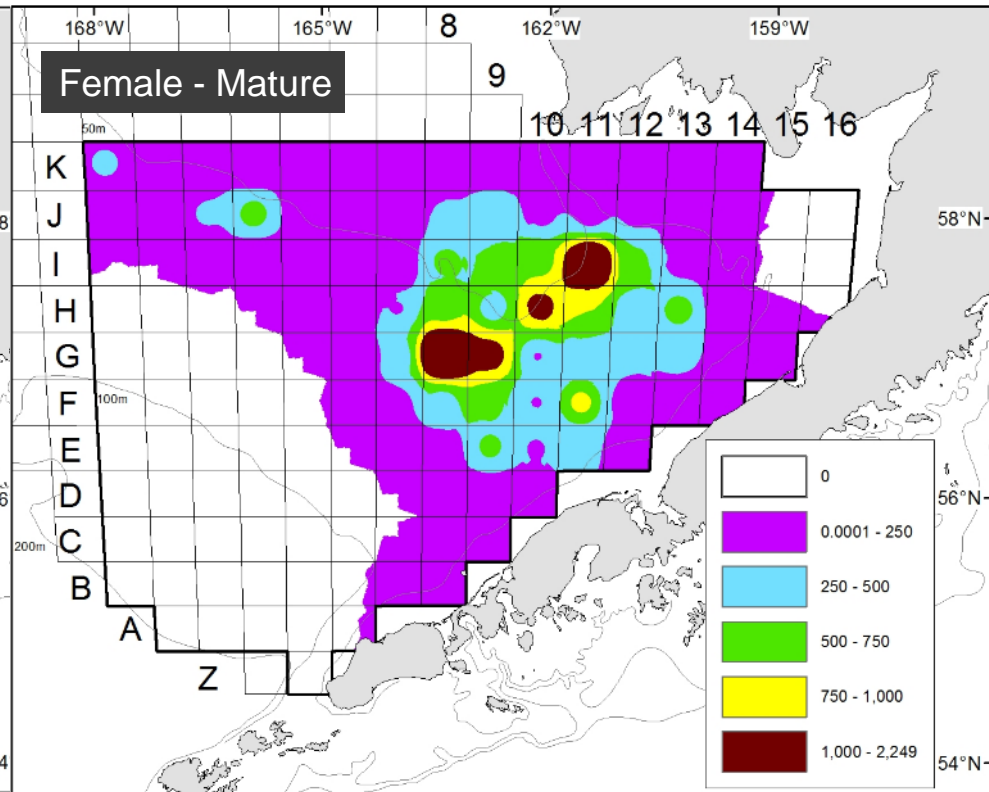
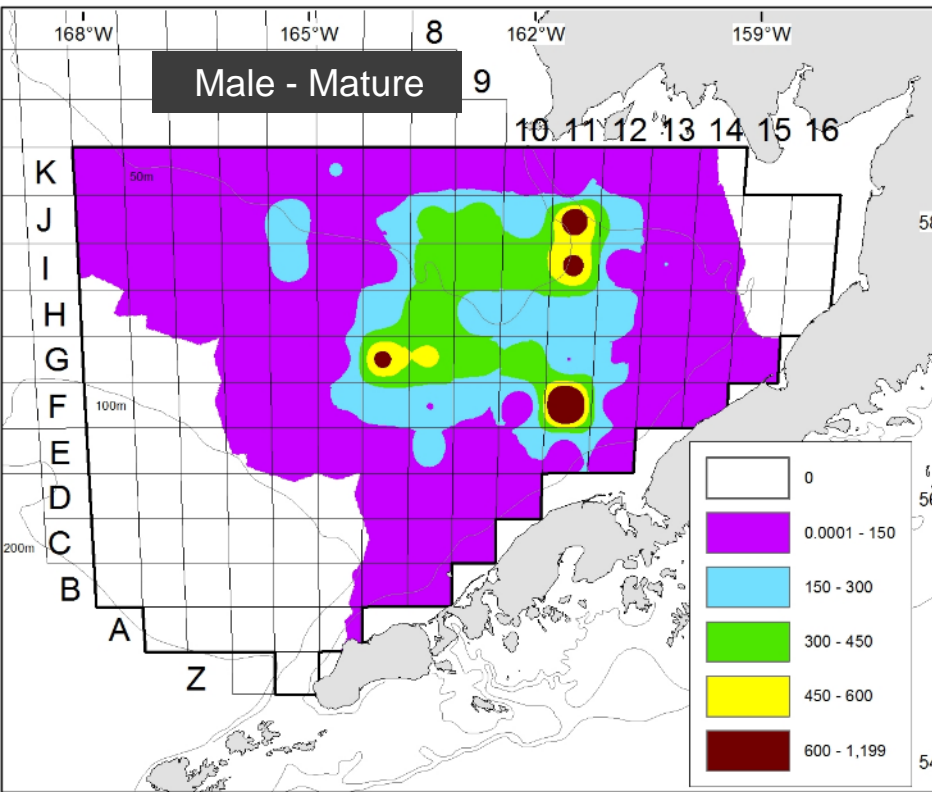
Pre-recruit males
+105%



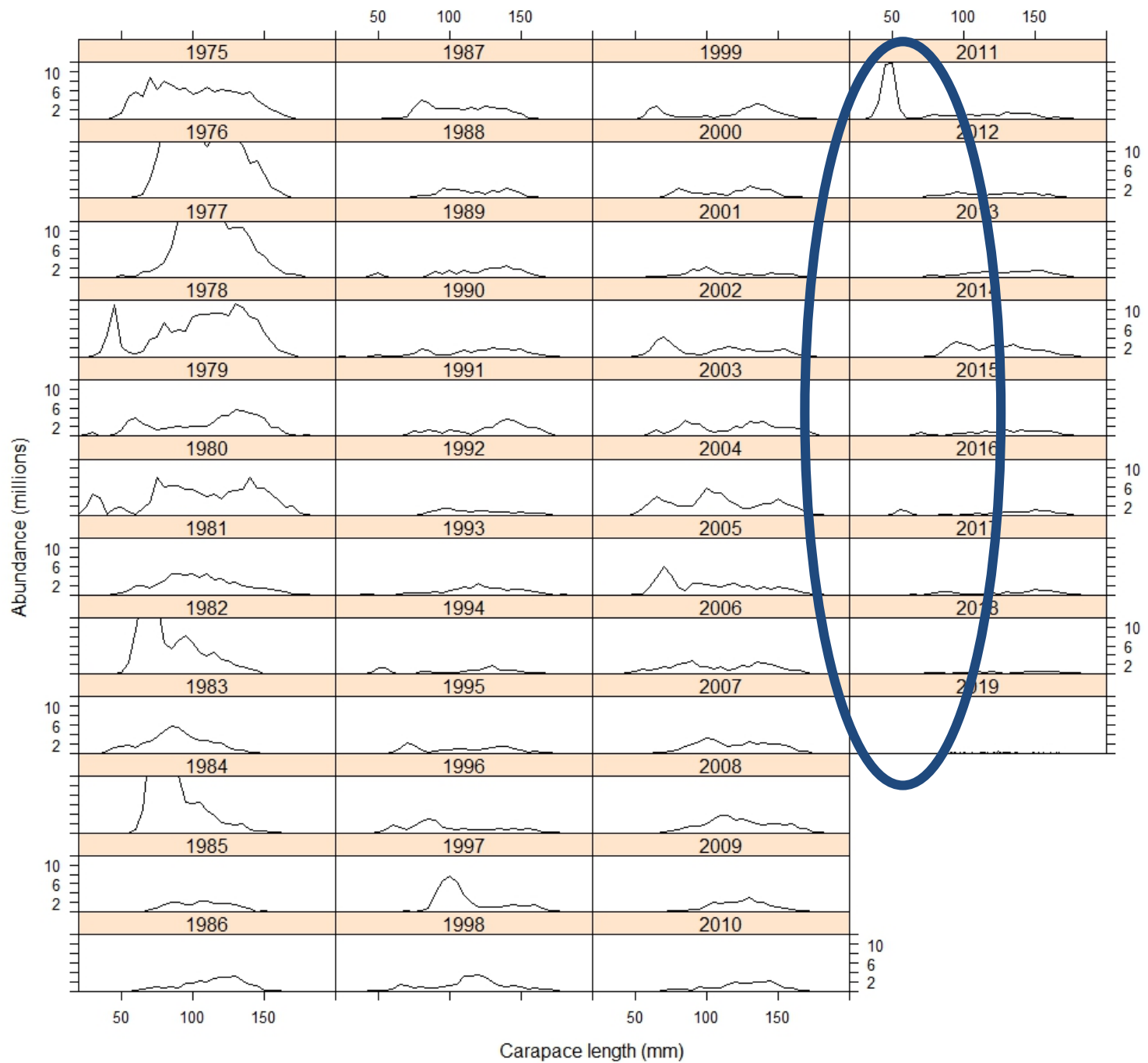
Mature female
+6.6%

Juveniles
Male -1%
Female -32%

Bristol Bay red king crab



Bristol Bay Red King Crab (male)



Bristol Bay Red King Crab (male)

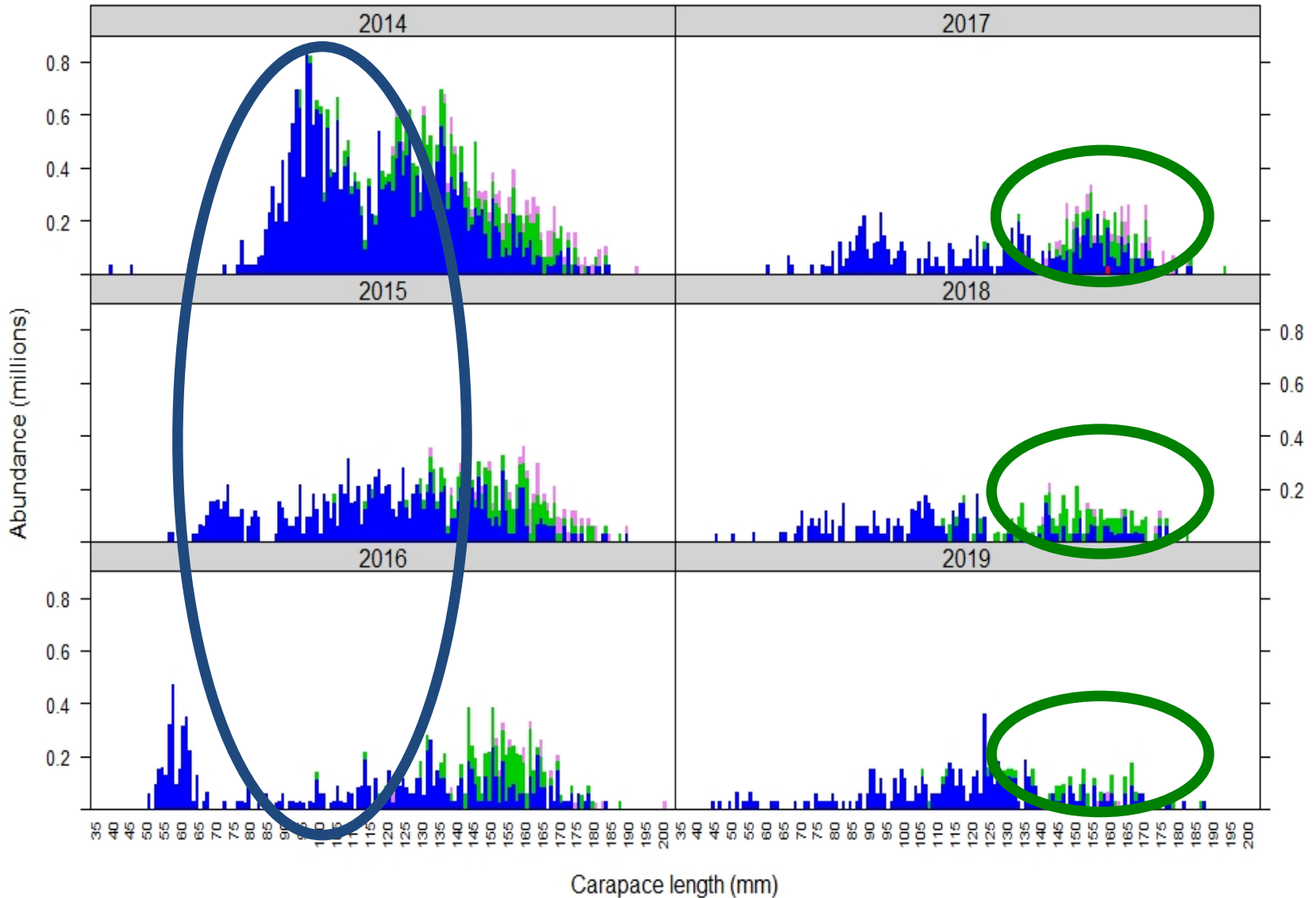
Shell condition

Molting & soft ■

New - hard ■

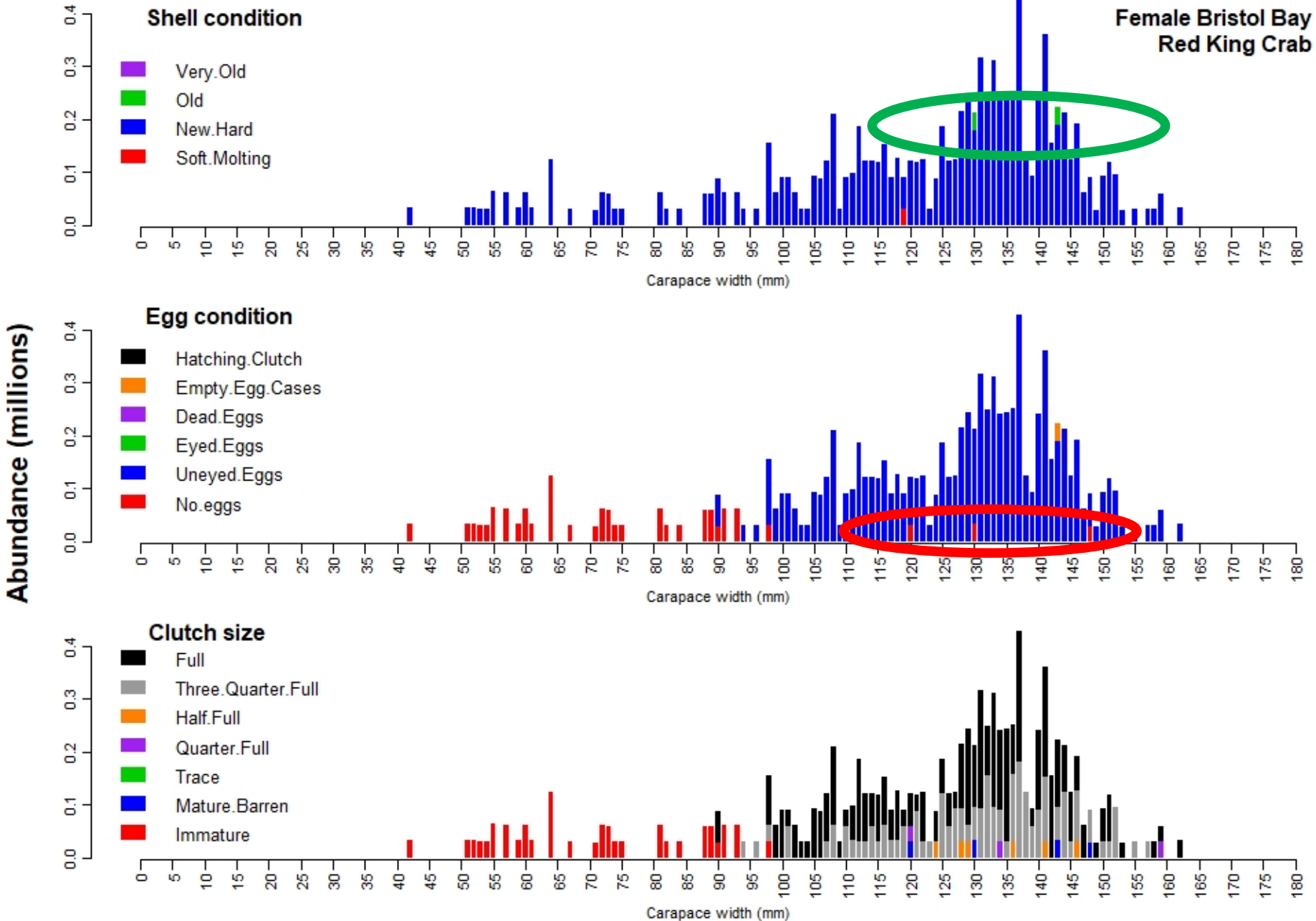
Old ■

Very old ■



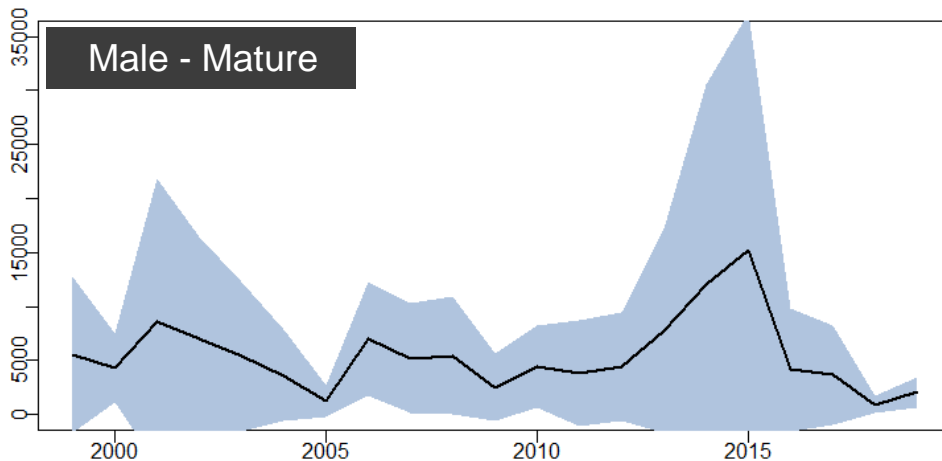
Bristol Bay red king crab

Female Bristol Bay Red King Crab

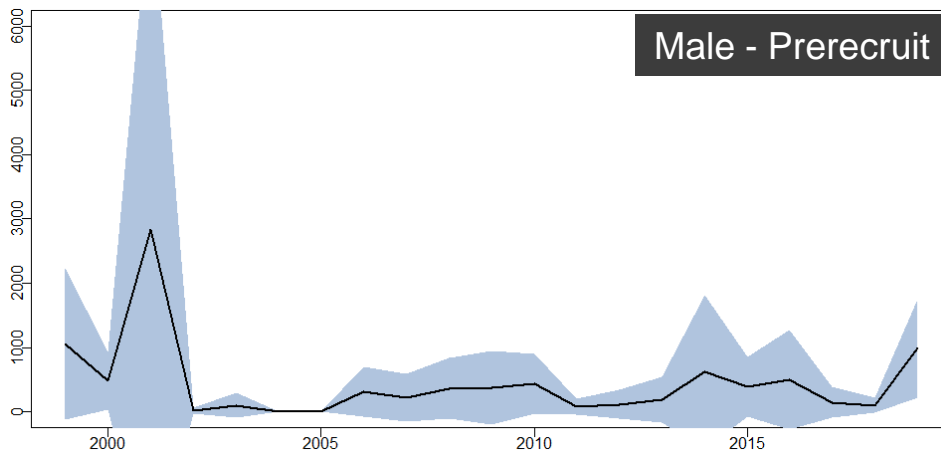


Pribilof Islands red king crab

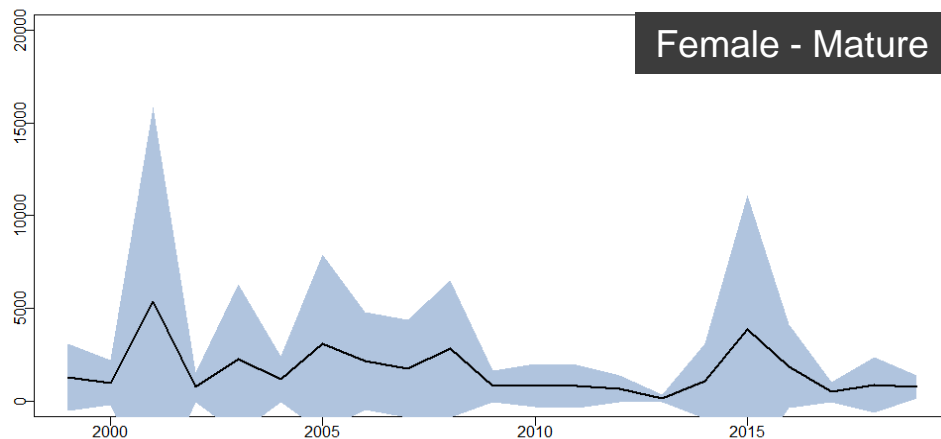
Biomass (t)



Legal male
+33%



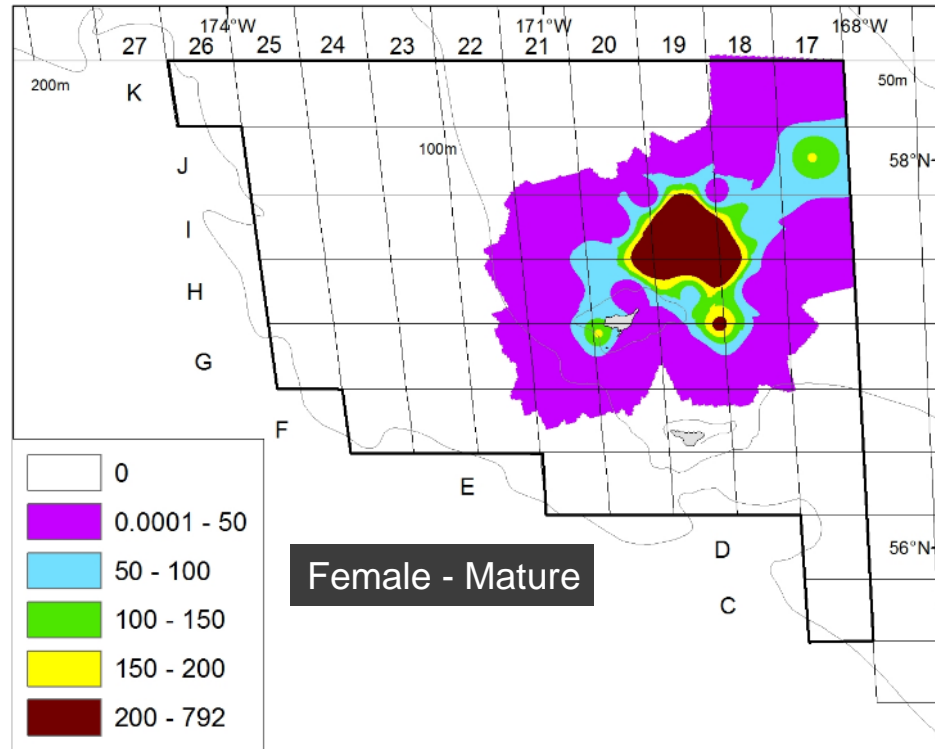
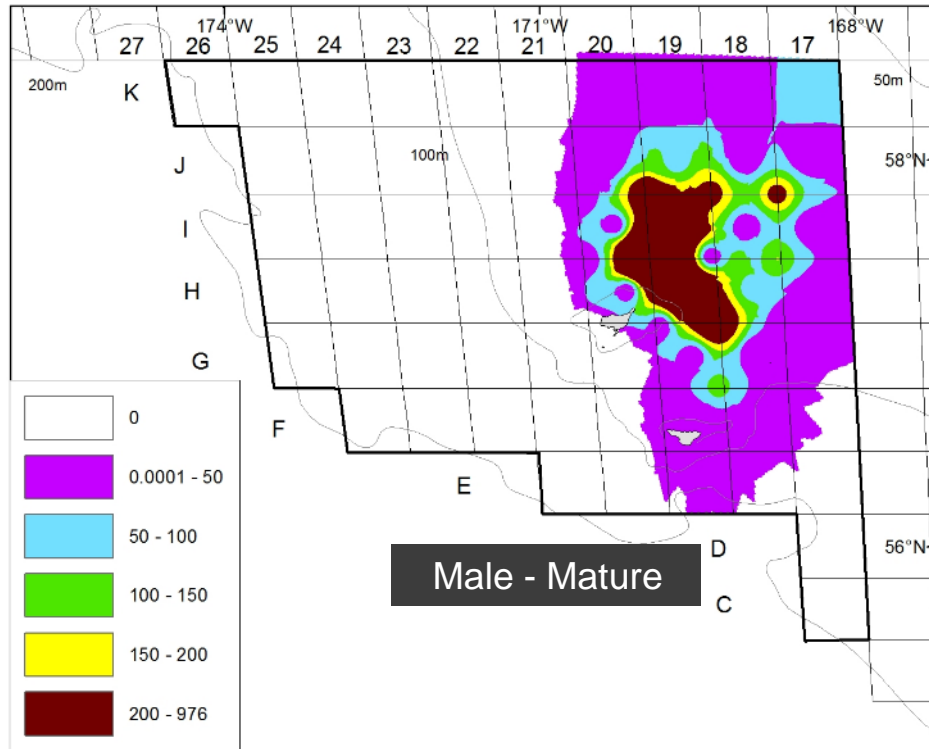
Pre-recruit males
+867%



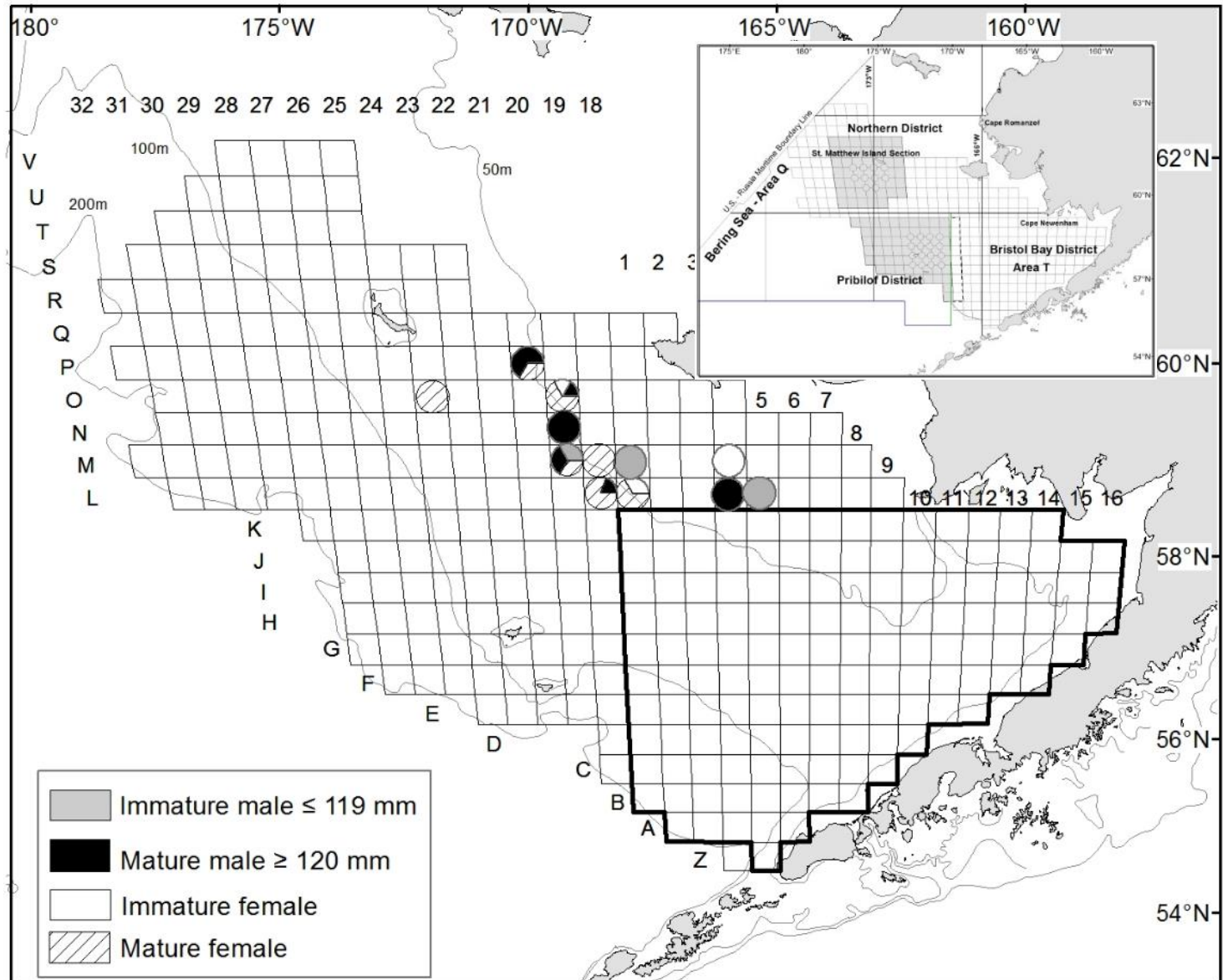
Mature female
-9 %

Juveniles
Male: -77%
Female: none caught
2017/2018

Pribilof Islands red king crab

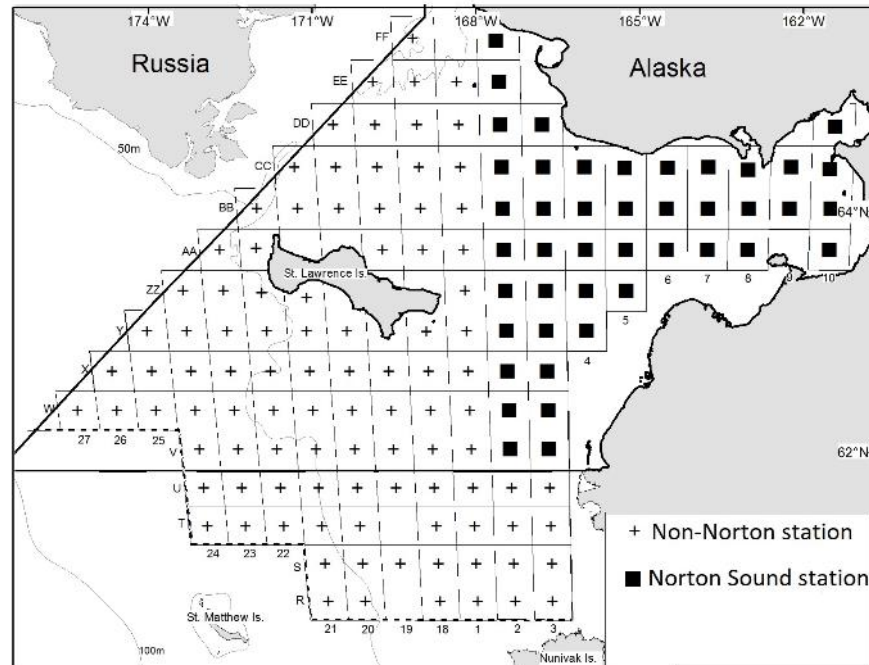


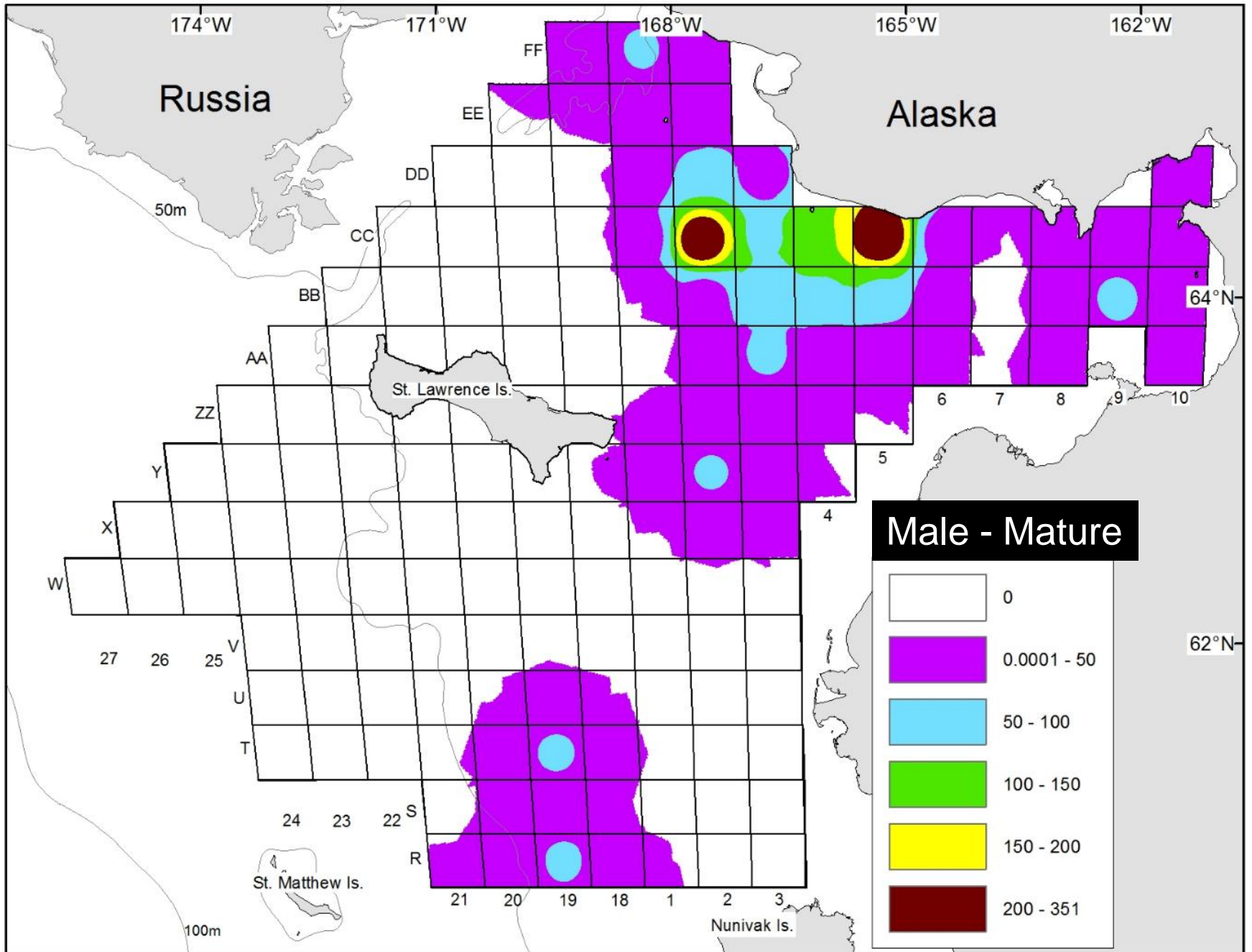
Northern District/Unstratified red king crab



Norton Sound red king crab

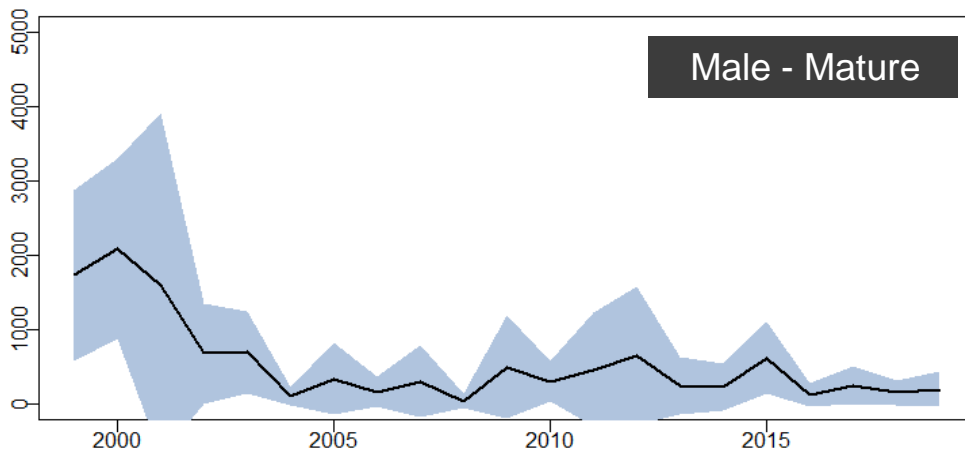
	<u>2017 biomass (MT)</u>	<u>2019 biomass (MT)</u>	<u>Percent difference</u>
Immature male (LE93)	295.78	1364.32	361.26
Mature male (GE94)	1191.98	710.90	-40.36
Legal male (GE104)	1069.88	526.45	-50.79





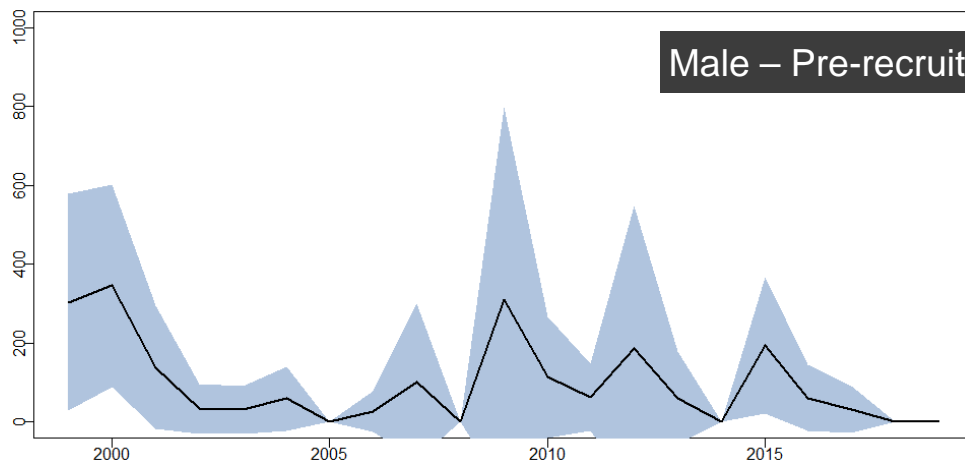
Pribilof Islands blue king crab

Biomass (t)

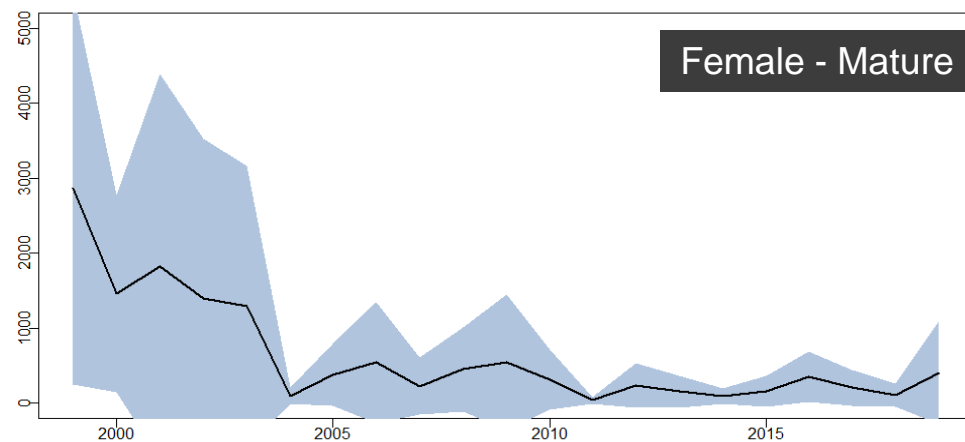


Legal male
+34%

Mature male
+34%



Pre-recruit males
None caught 2018/2019

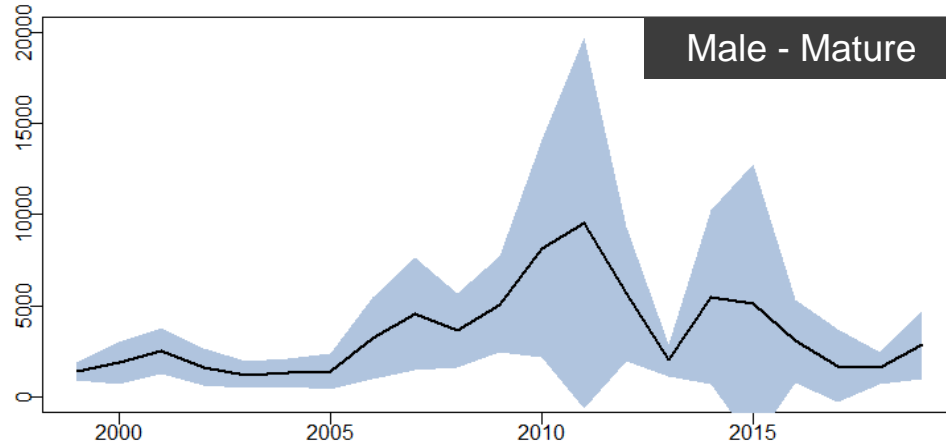


Mature female
+277%

Juveniles:
Male +21%
Female -100%

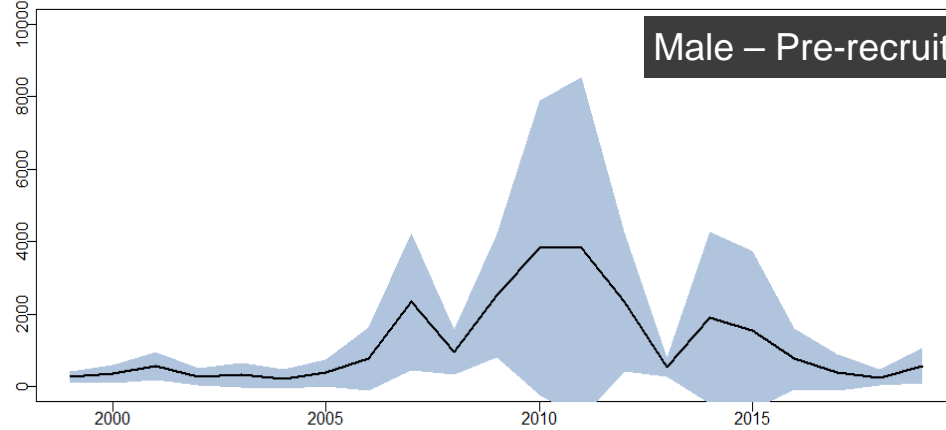
St. Matthew Island blue king crab

Biomass (t)

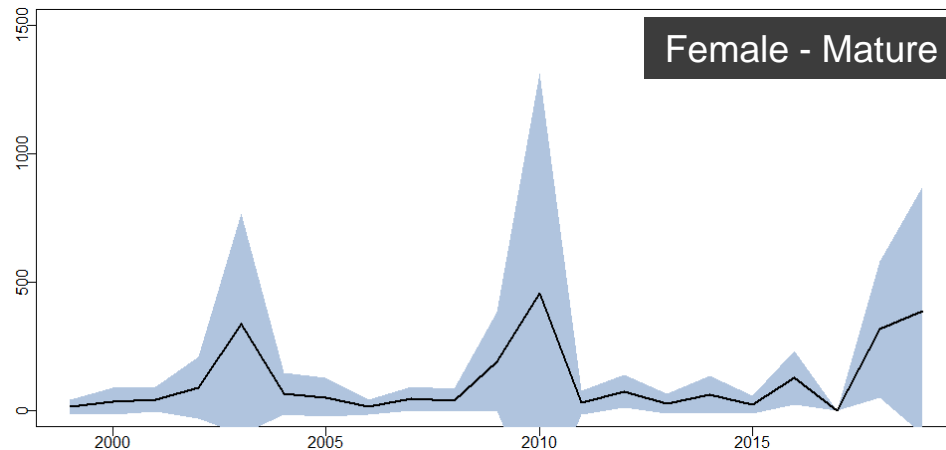


Legal males
+70%

Mature males
+79%



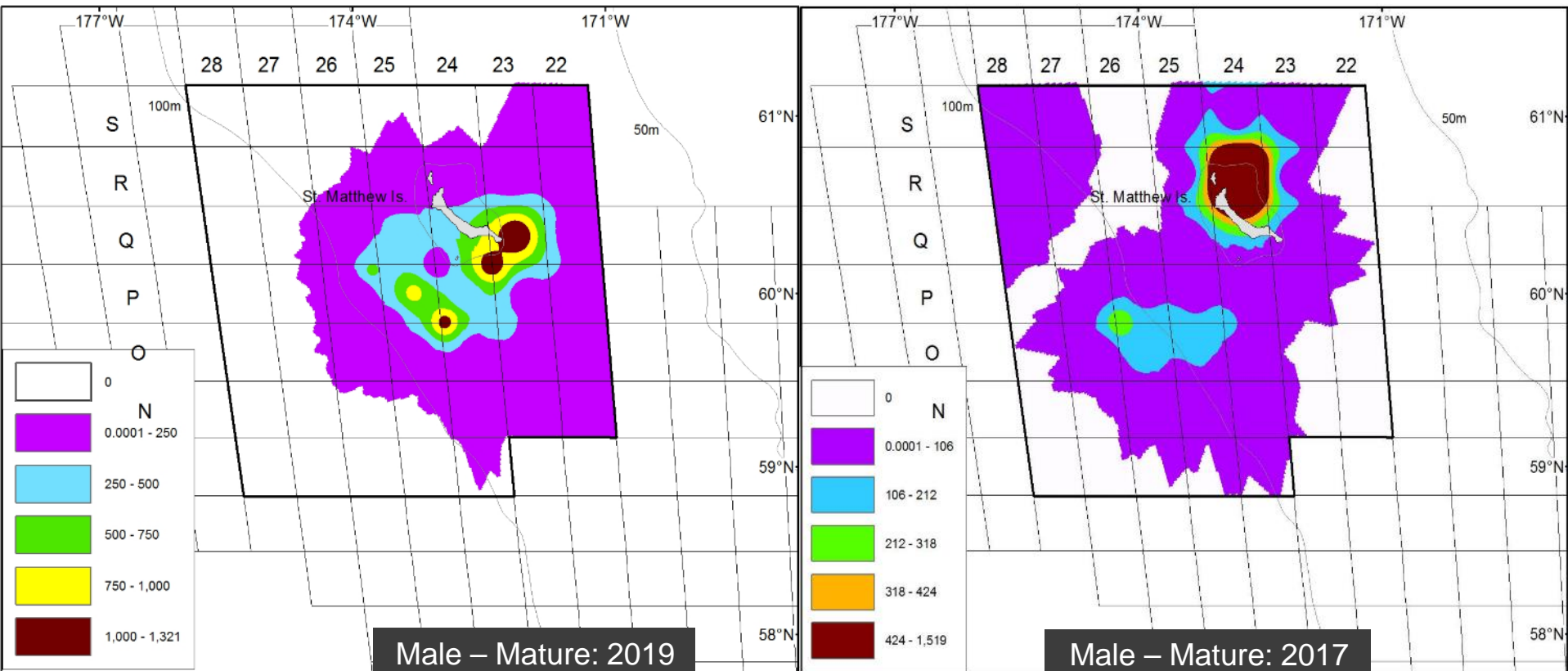
Pre-recruit males
+126%



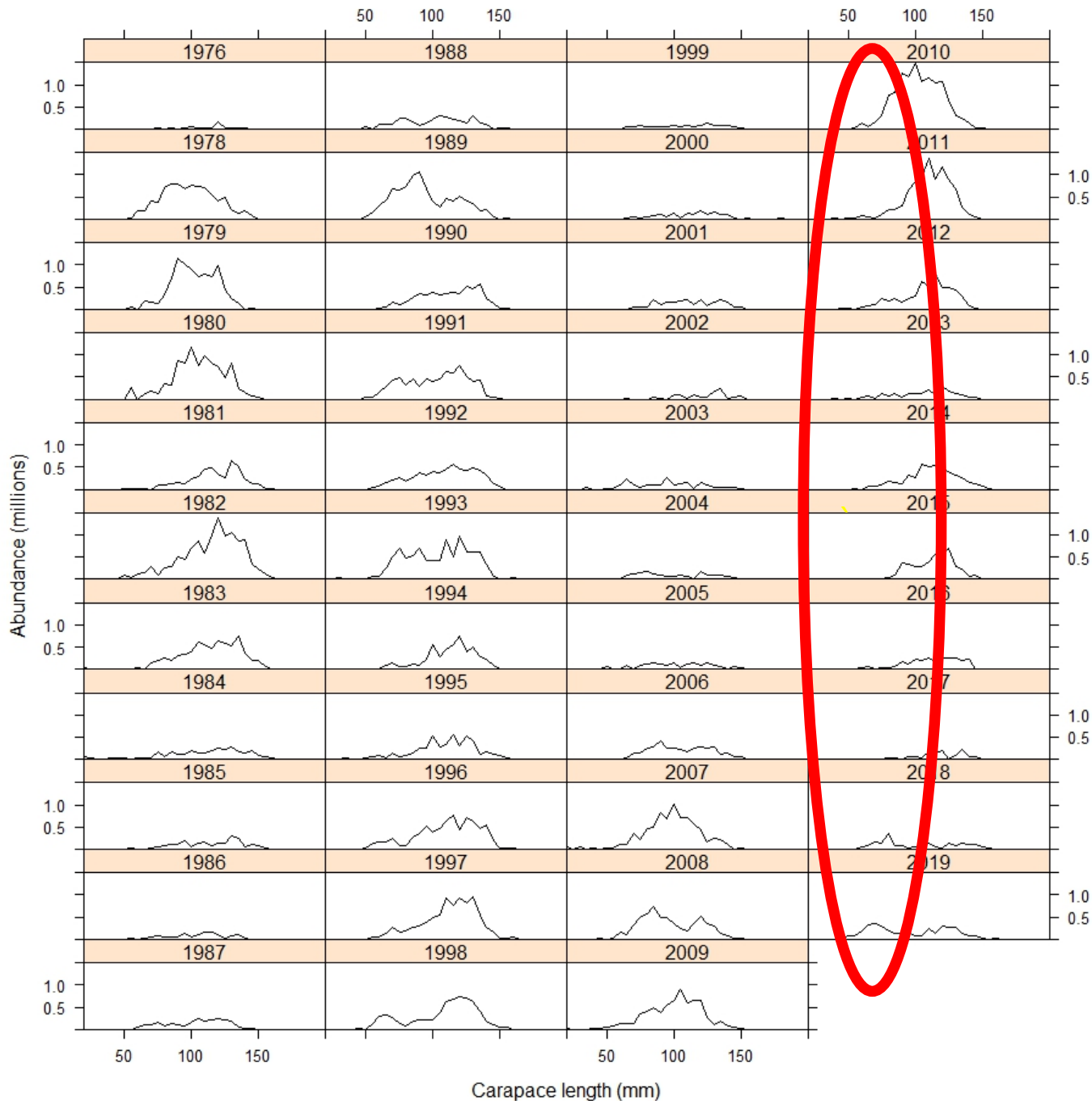
Mature females
+22%

Juveniles
Males +76%
Females +68%

St. Matthew Island blue king crab



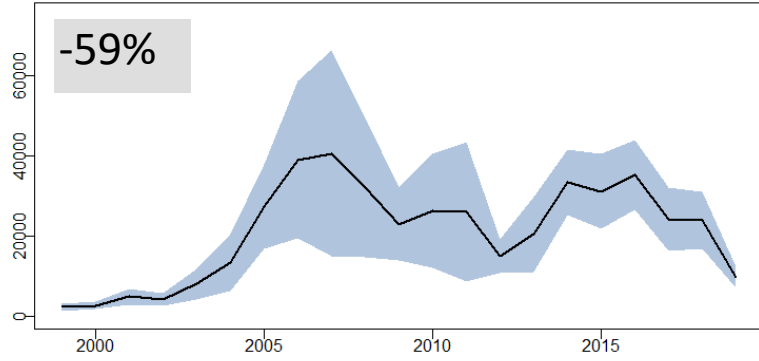
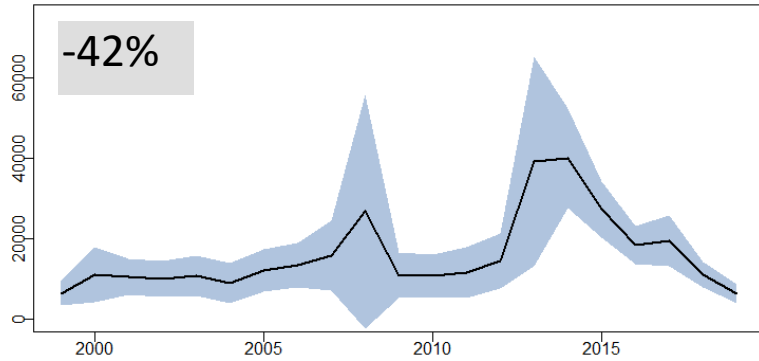
St. Matthew Island Blue King Crab (male)



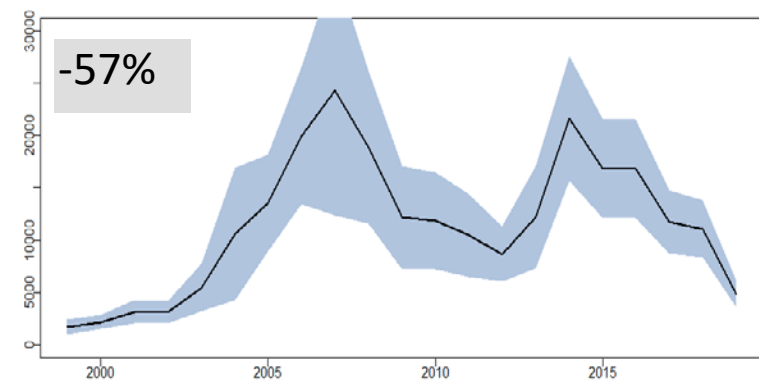
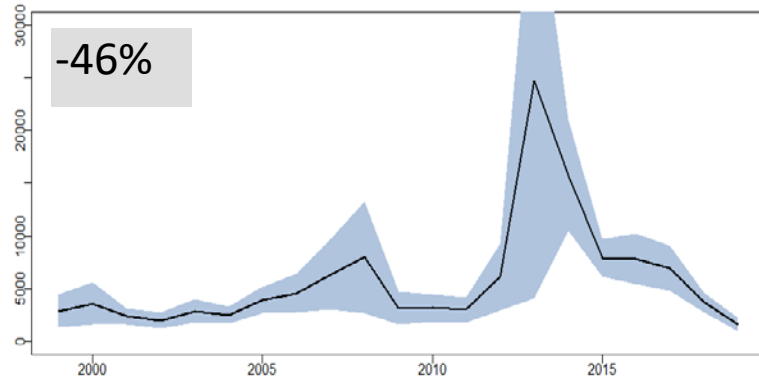
Tanner crab east of 166°W

Tanner crab west of 166°W

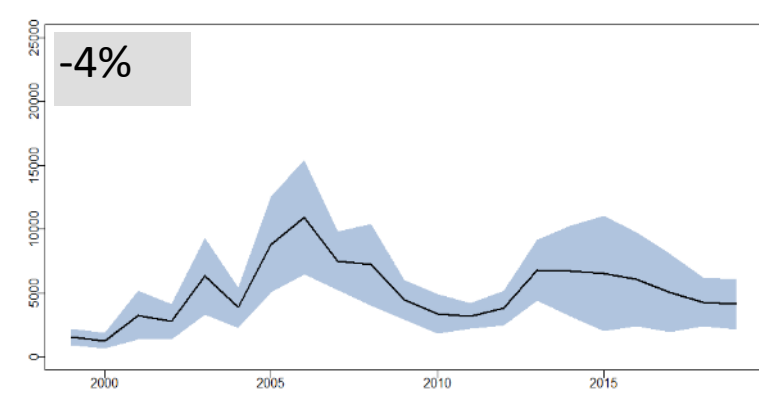
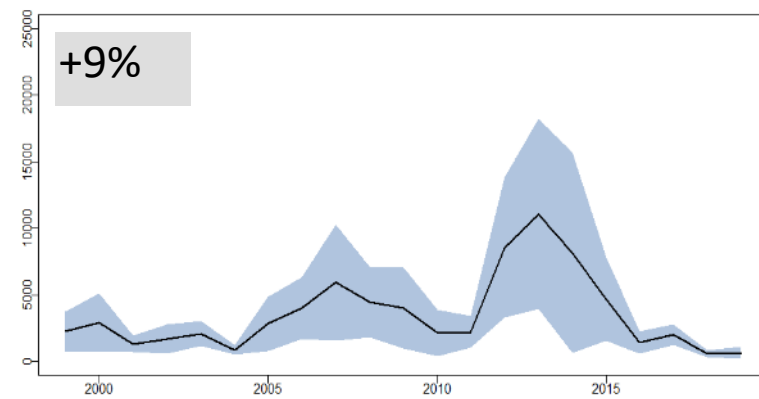
Biomass (t)



Male -
Mature

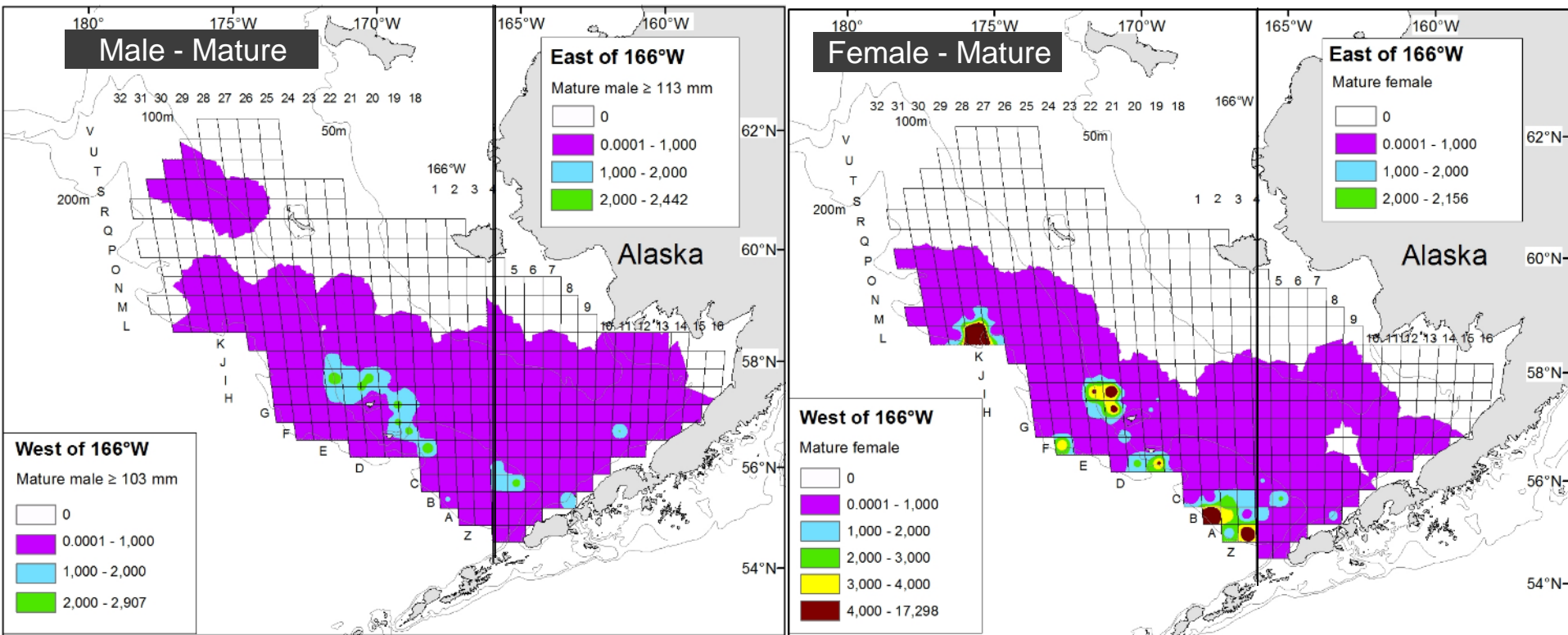


Male -
Pre-recruit

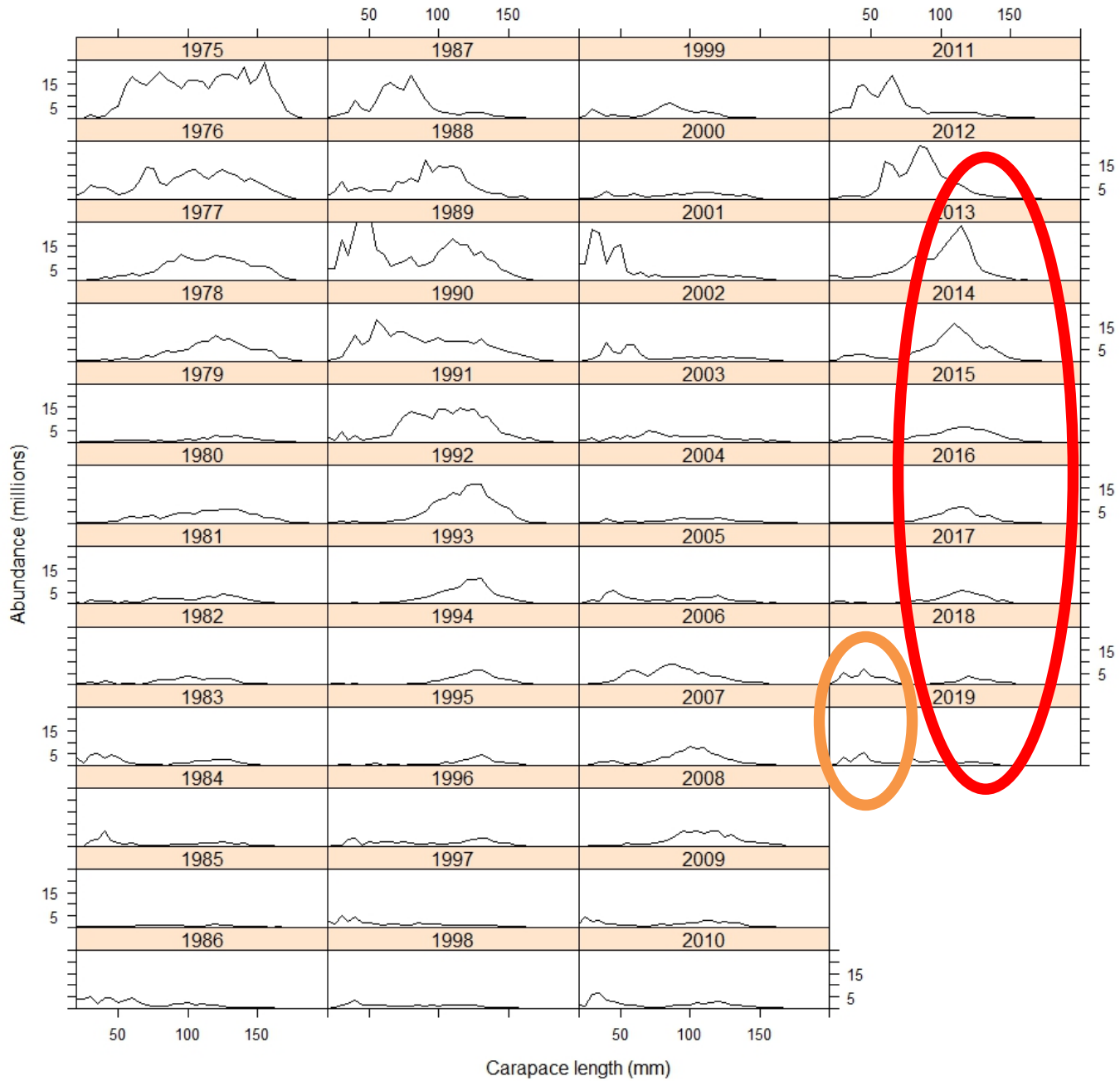


Female -
Mature

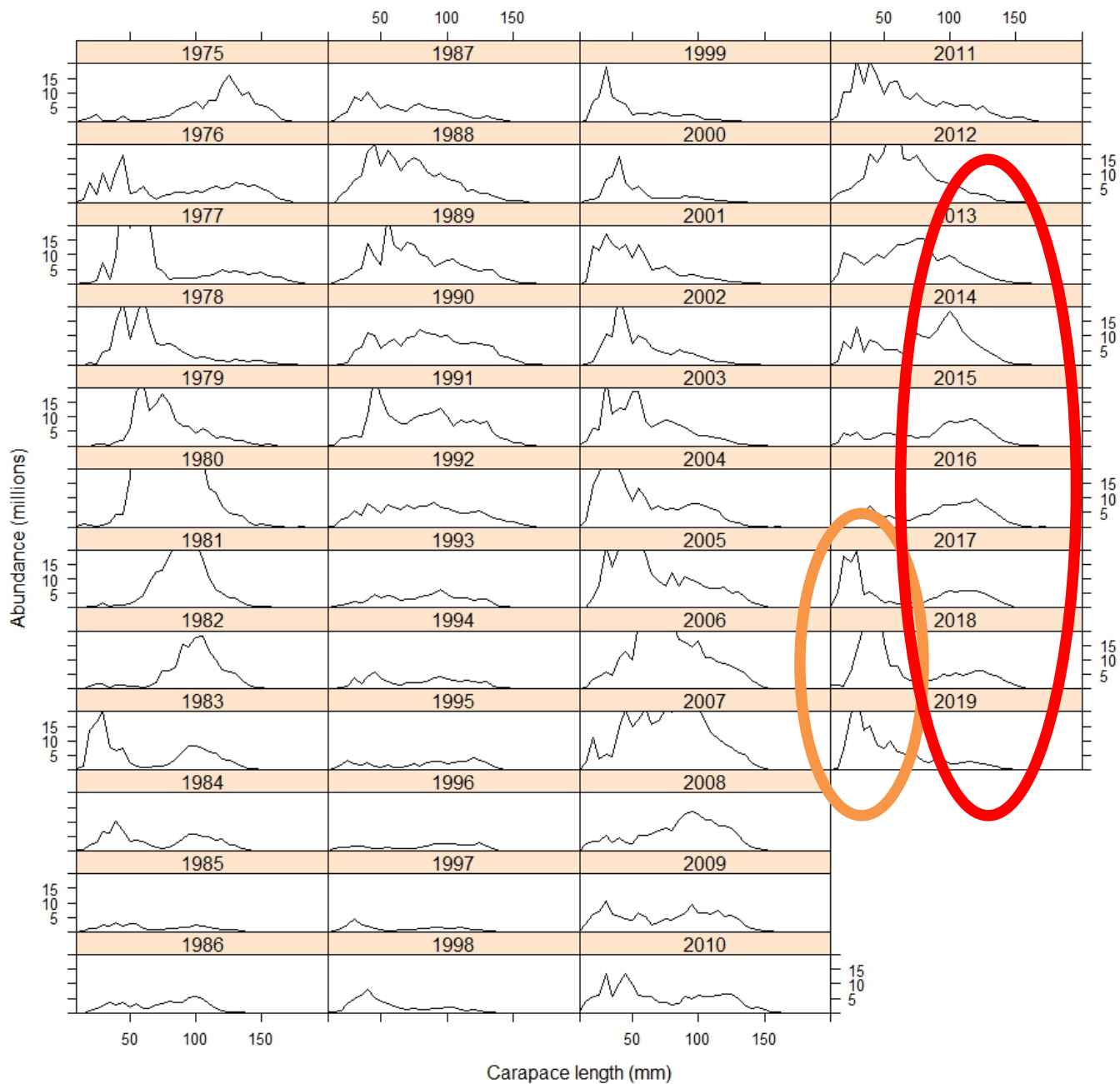
Tanner crab



Tanner Crab east of 166W (male)



Tanner Crab west of 166W (male)

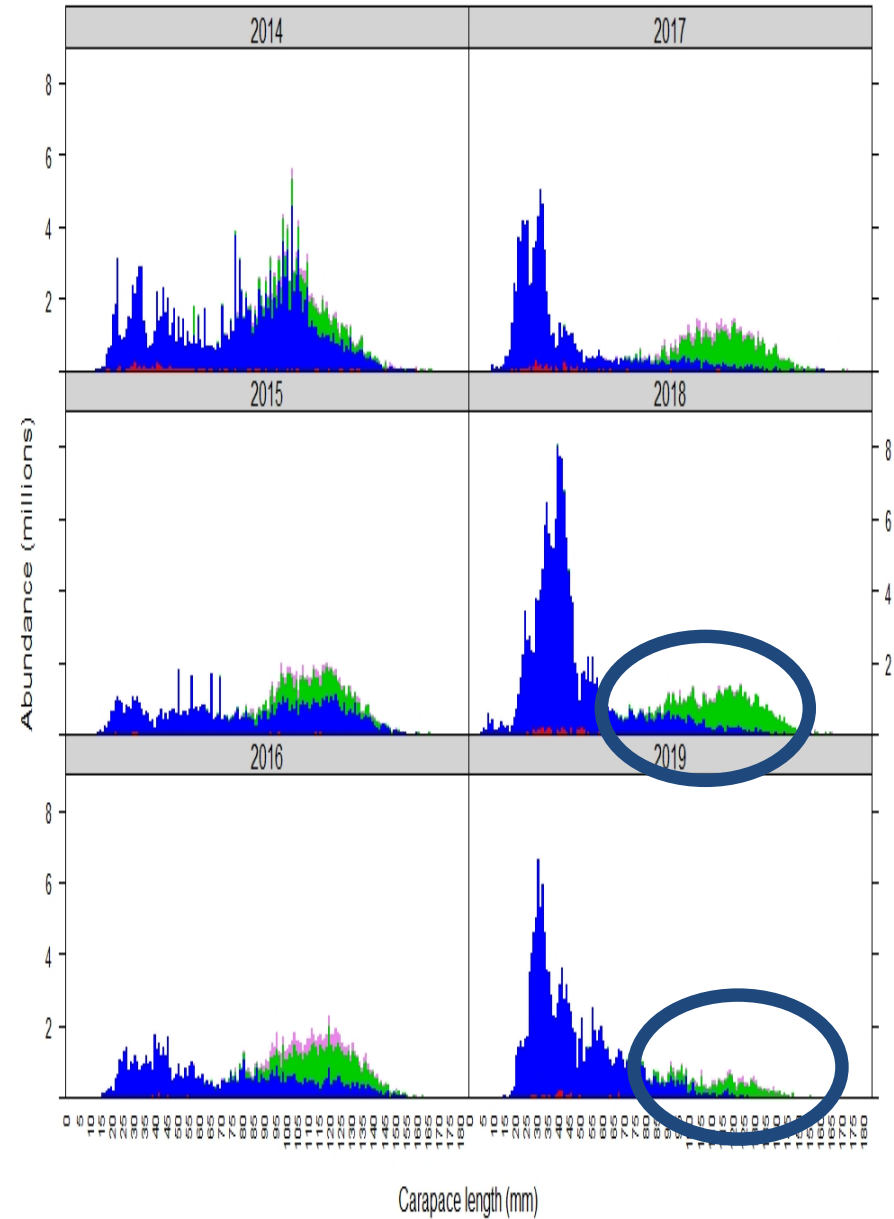
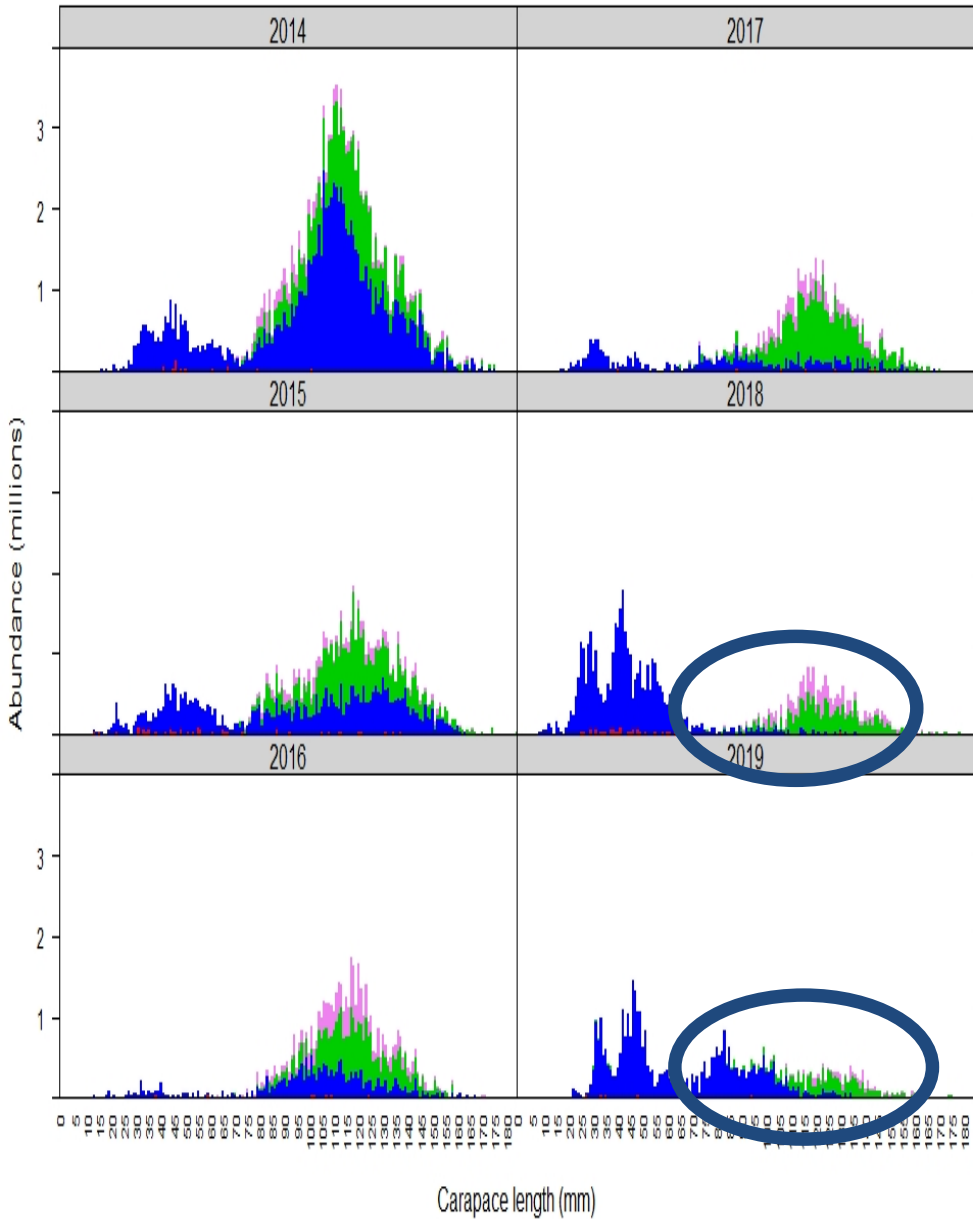


Tanner Crab east of 166°W

Tanner Crab west of 166°W

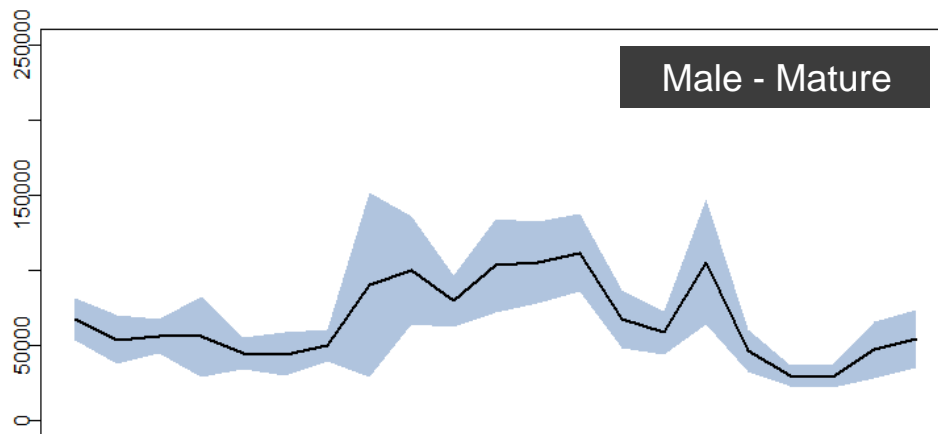
Shell condition
 Molting & soft ■ New - hard ■ Old ■ Very old ■

Shell condition
 Molting & soft ■ New - hard ■ Old ■ Very old ■



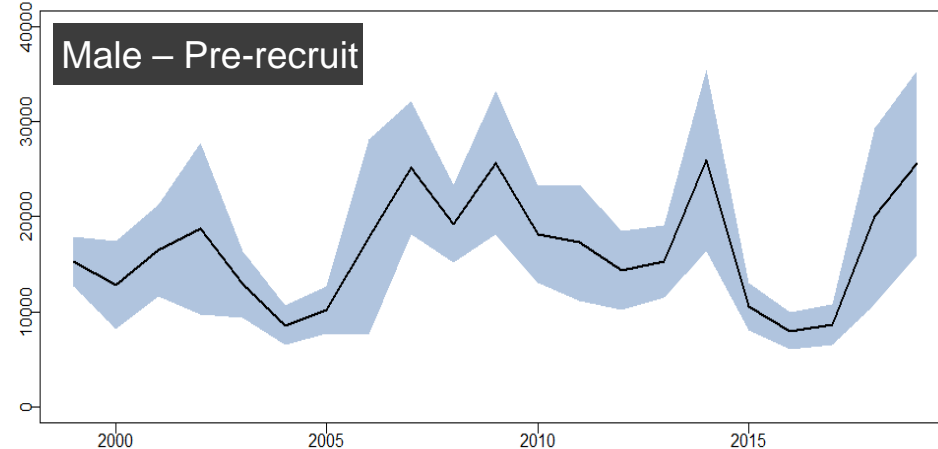
Snow crab

Biomass (t)



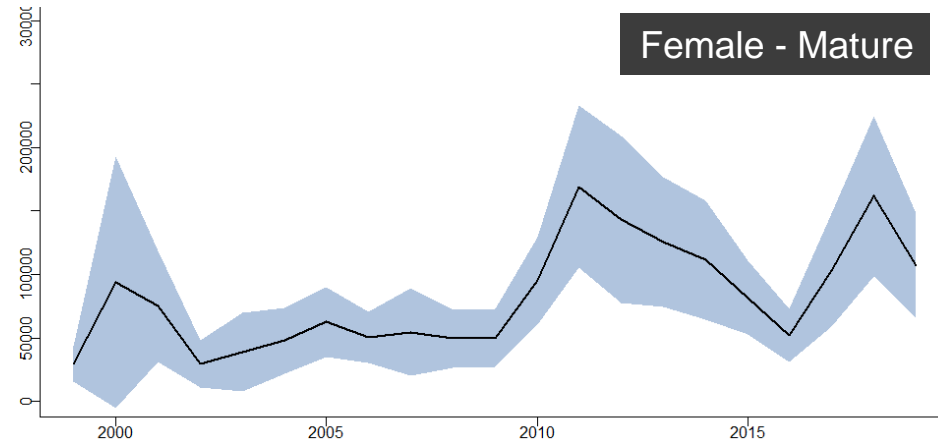
Preferred males
+7%

Mature males
+16%



Legal males
+35%

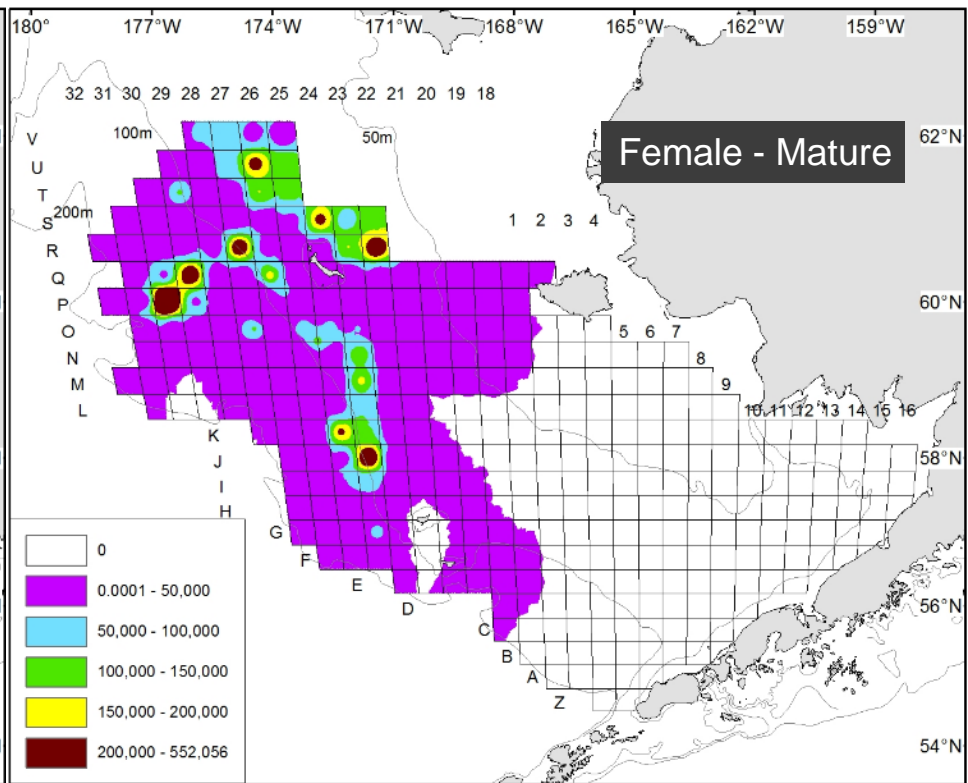
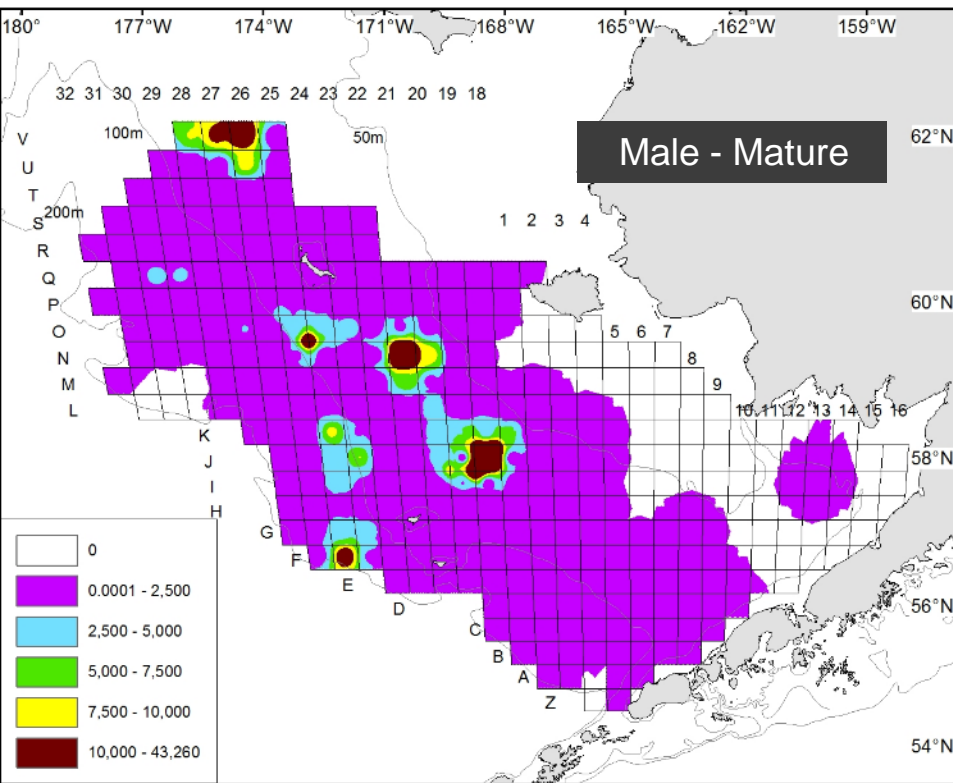
Pre-recruit males
+28%

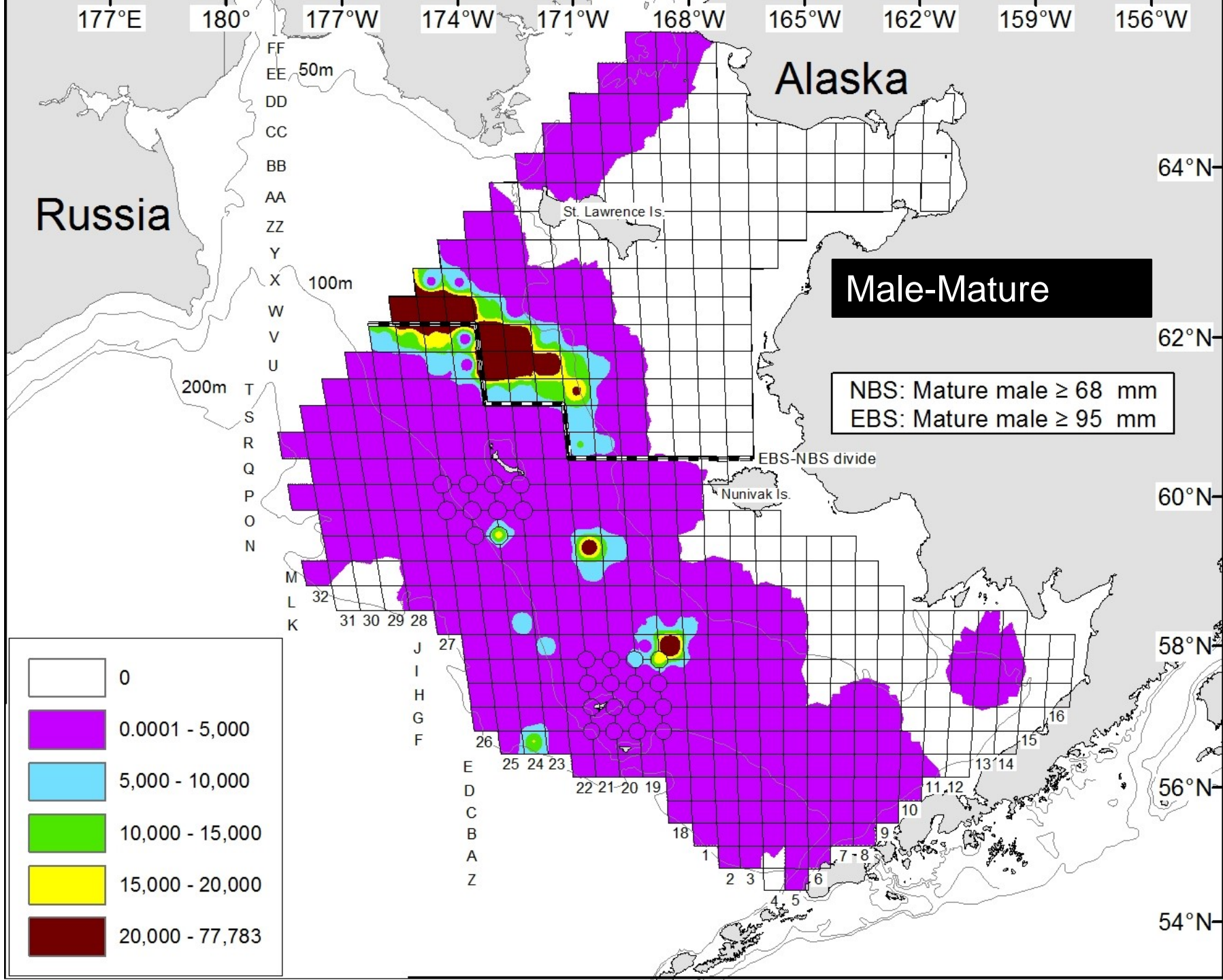


Mature females
-34%

Juveniles
Male -38%
Female -94%

Snow crab





177°E

180°

177°W

174°W

171°W

168°W

165°W

162°W

159°W

156°W

Russia

Alaska

64°N

62°N

60°N

58°N

56°N

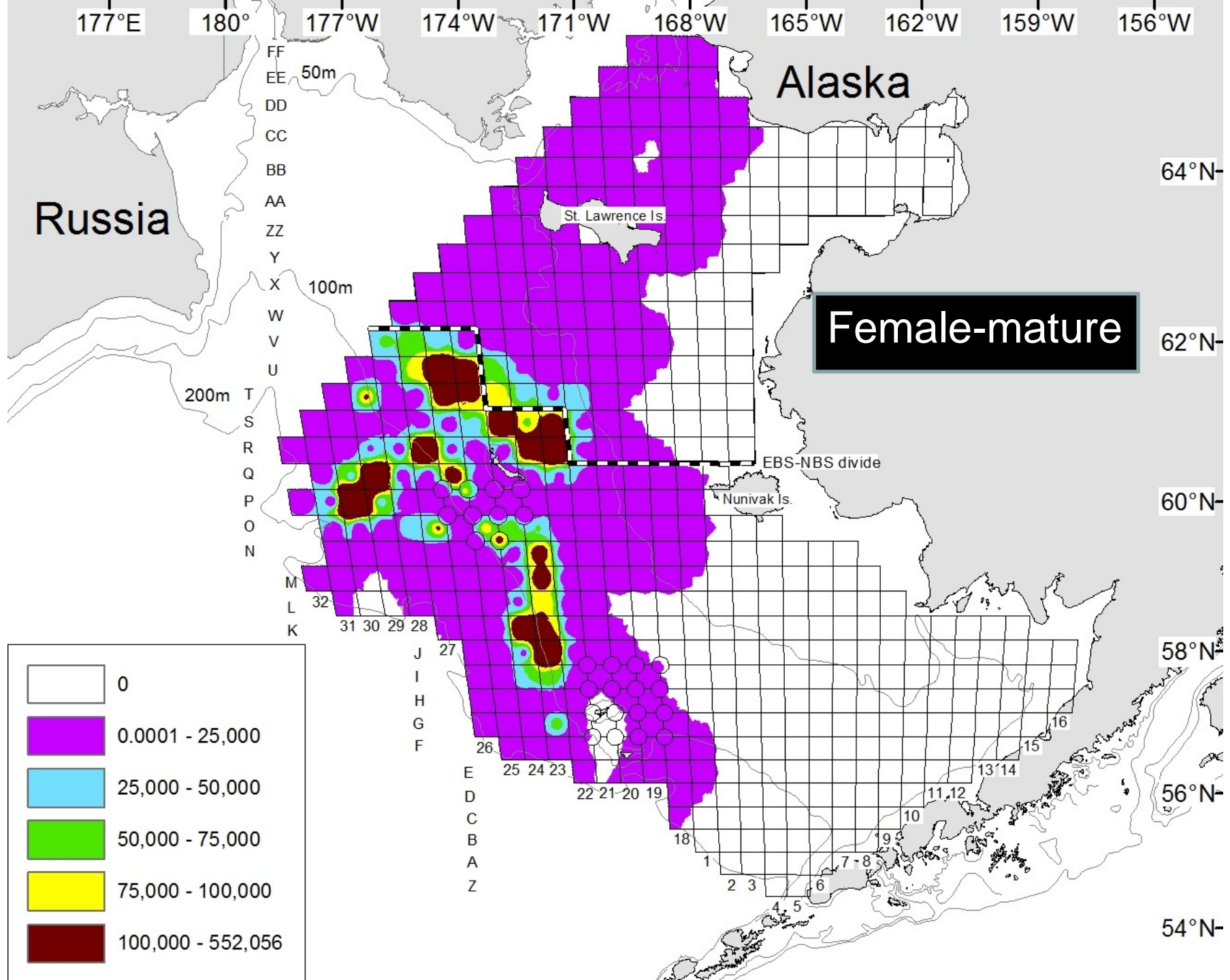
54°N

FF
 EE
 DD
 CC
 BB
 AA
 ZZ
 YY
 XX
 WW
 VV
 UU
 TT
 SS
 RR
 QQ
 PP
 OO
 NN
 MM
 LL
 KK

50m
 100m
 200m
 32
 31
 30
 29
 28
 27
 26
 25
 24
 23
 22
 21
 20
 19
 18
 17
 16
 15
 14
 13
 12
 11
 10
 9
 8
 7
 6
 5
 4
 3
 2
 1

St. Lawrence Is.

Nunivak Is.



177°E

180°

177°W

174°W

171°W

168°W

165°W

162°W

159°W

156°W

Russia

Alaska

St. Lawrence Is.

Female-mature

64°N

62°N

60°N

58°N

56°N

54°N

FF
EE
DD
CC
BB
AA
ZZ
Y
X
W
V
U
T
S
R
Q
P
O
N
M
L
K

50m

100m

200m

EBS-NBS divide

Nunivak Is.

J
I
H
G
F
E
D
C
B
A
Z

31 30 29 28

27

25 24 23

22 21 20 19

18

1

2 3

6

7-8

9

10

11, 12

13, 14

15

16

32

31

30

29

28

27

26

25

24

23

22

21

20

19

18

17

16

15

14

13

12

11

10

9

8

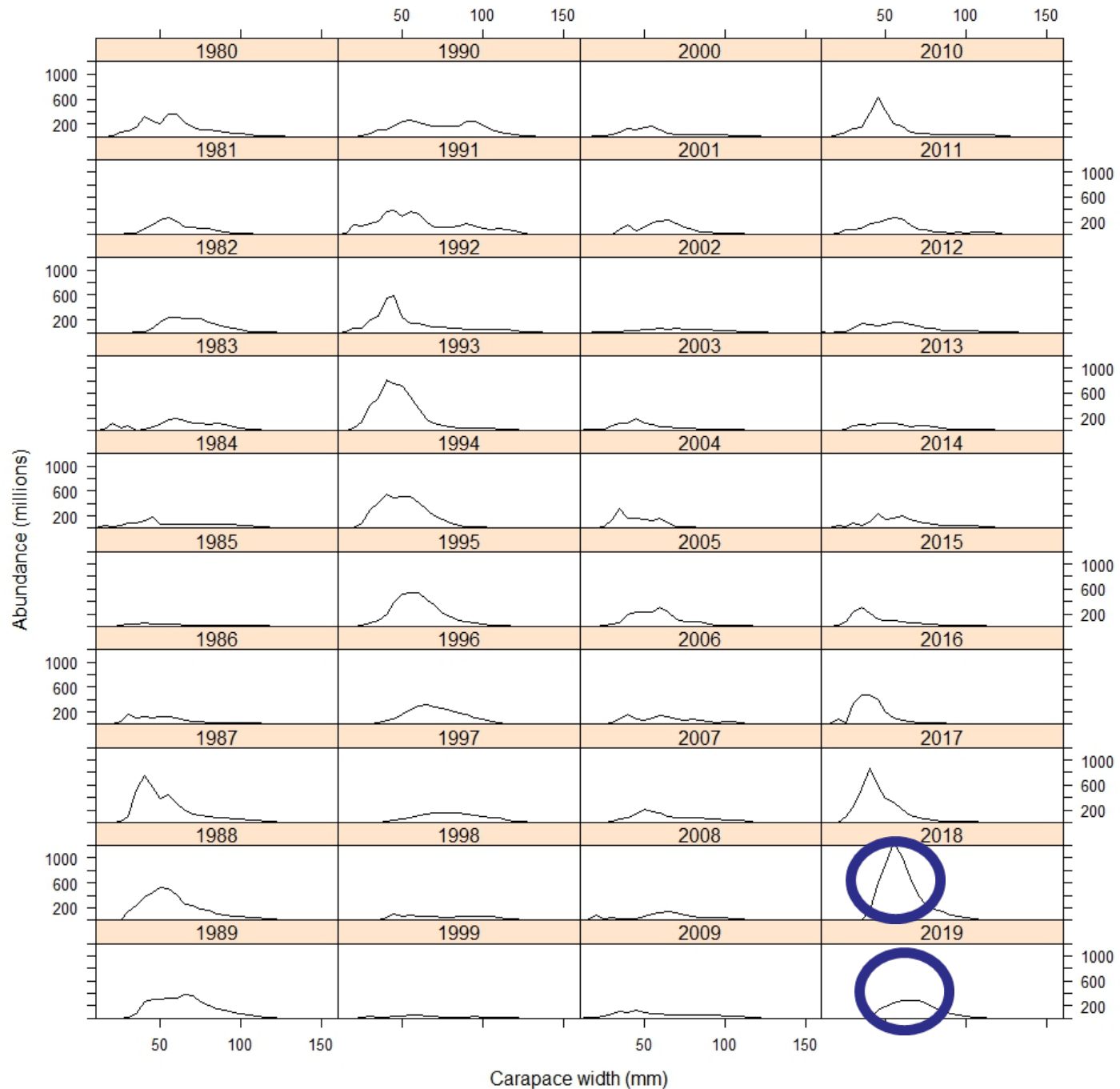
7

6

5

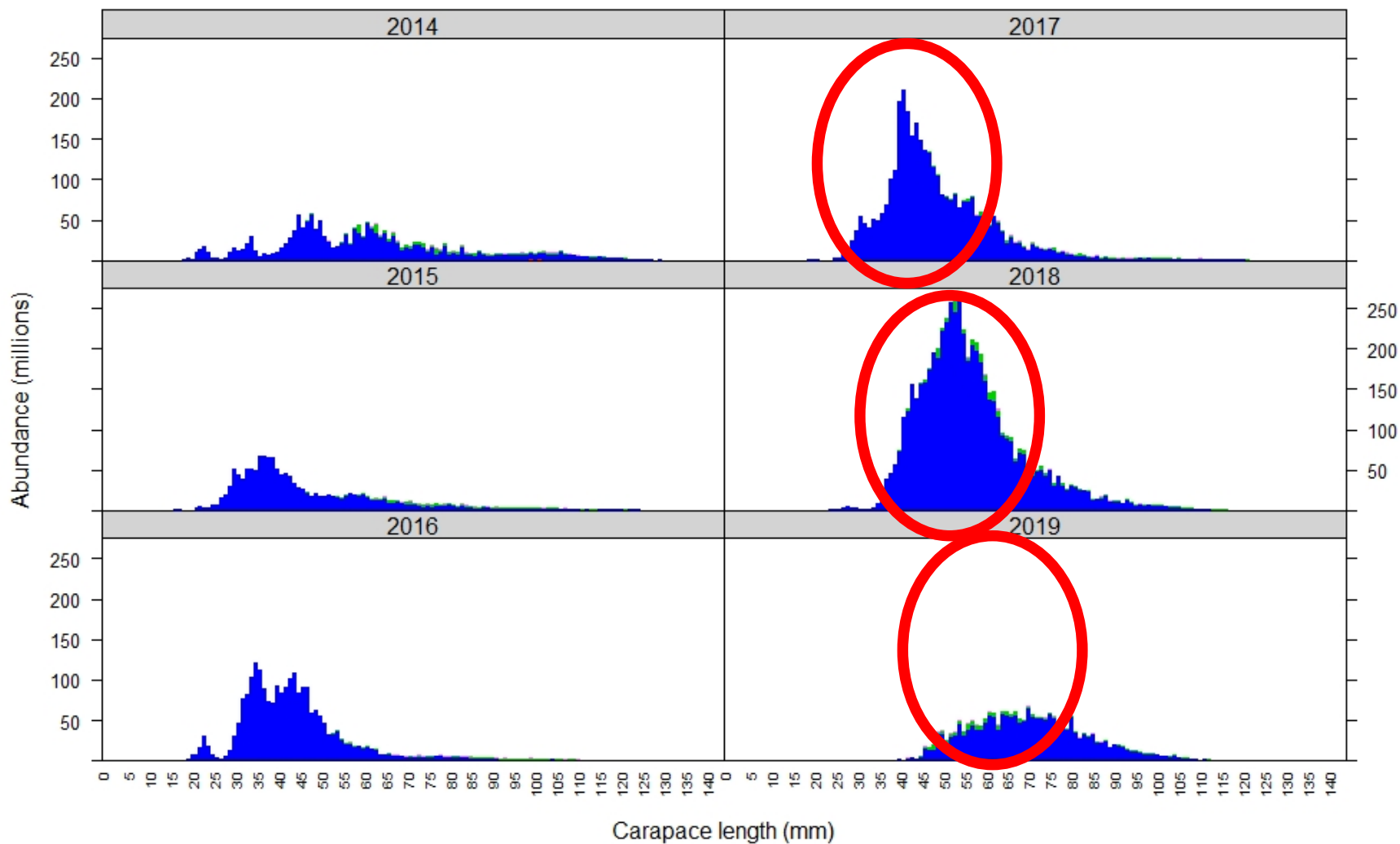
4

Snow Crab (male)



Snow Crab (male)

Shell condition
Molting & soft █ New - hard █ Old █ Very old █



Questions?

