

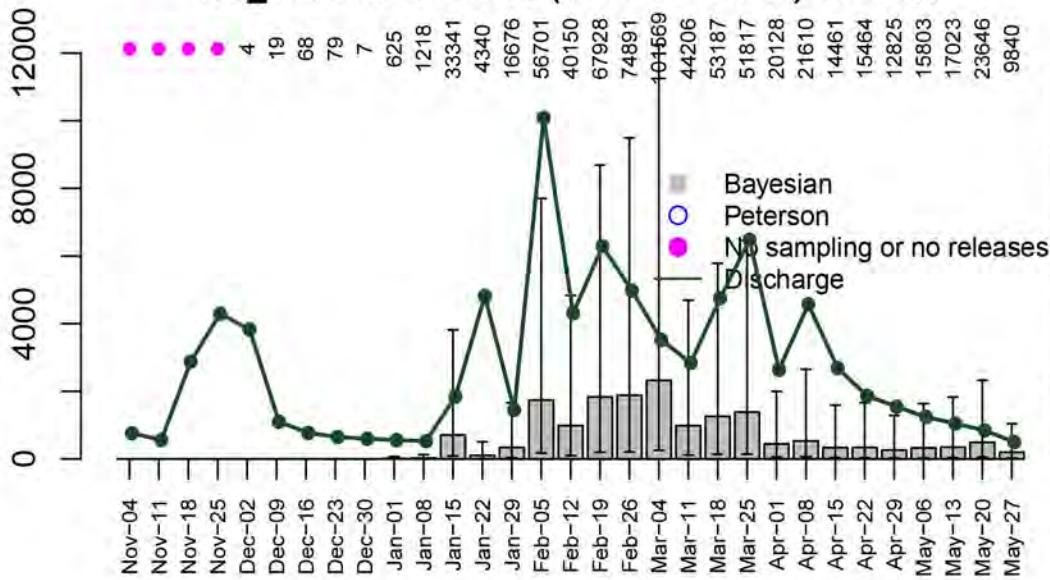
## A. Predictions of Weekly Capture Probabilities of Chinook Salmon Abundances (All Runs)

Figures in this appendix show predicted abundance of juvenile outmigrant Chinook salmon (i.e., all run types and fry and smolt life stages combined; top panel) and capture probability (bottom panel) by weekly strata for select rotary screw trap sites and run years.

- The height of the bars and error bars show the medians and 95% credible intervals predicted by the model.
- Numbers at the top of each plot show the unmarked catch ( $u$ , top panel), and the number of recaptures ( $r$ ) and releases ( $R$ , bottom panel).
- Bars in the top panels with dots above them and no open circles or numbers above them identify strata with no sampling data; bars in the bottom panel with no numbers above them identify strata with no mark-recapture data.
- Open circles show the Peterson estimates of abundance ( $U=u/p$ ; error bars show 95% confidence intervals) and capture probability ( $p=r/R$ ).
- The line with points shows the average weekly discharge.
- Figure titles show the median total abundance estimate for the run year with 95% credible intervals in parentheses.
- Coefficient of variation of the annual abundance estimate is also shown.

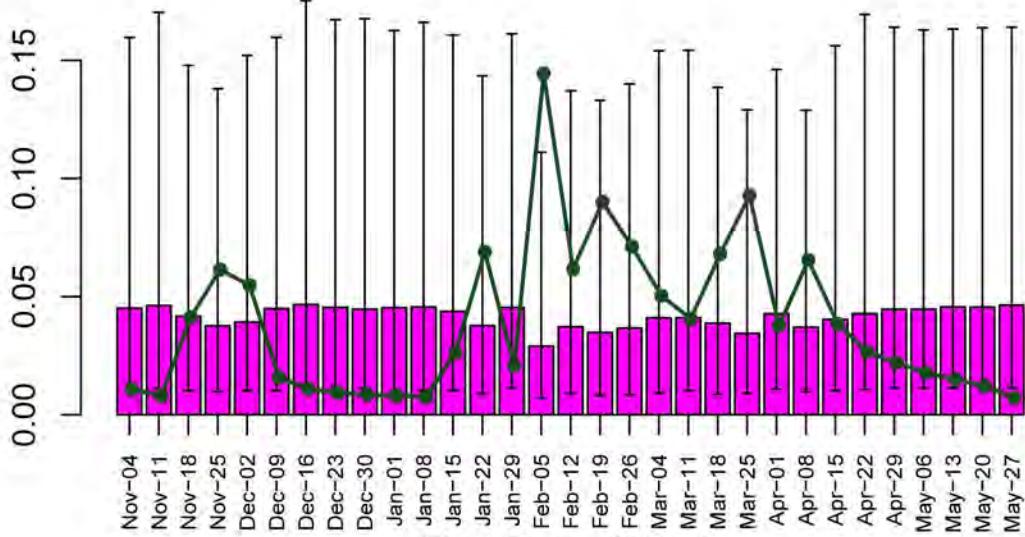
# lcc\_1999 Ntot=21855 (13804 – 35700) cv=25%

Abundance ('000s)



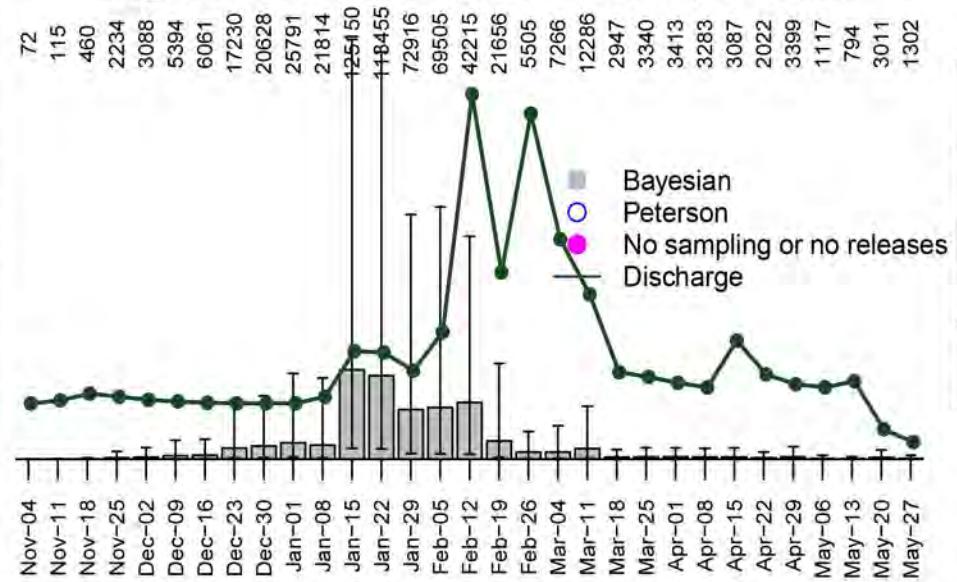
Discharge (kcfs)

Capture Probability



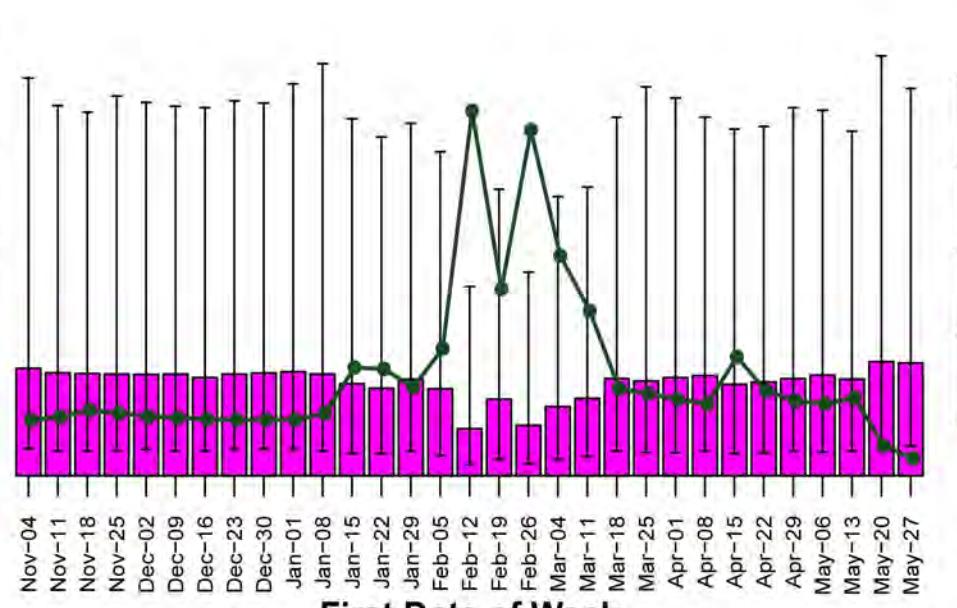
# lcc\_2000 Ntot=18210 (10517 - 33313) cv=31%

Abundance ('000s)



Bayesian  
Peterson  
No sampling or no releases  
Discharge

Capture Probability



Discharge (kcfs)

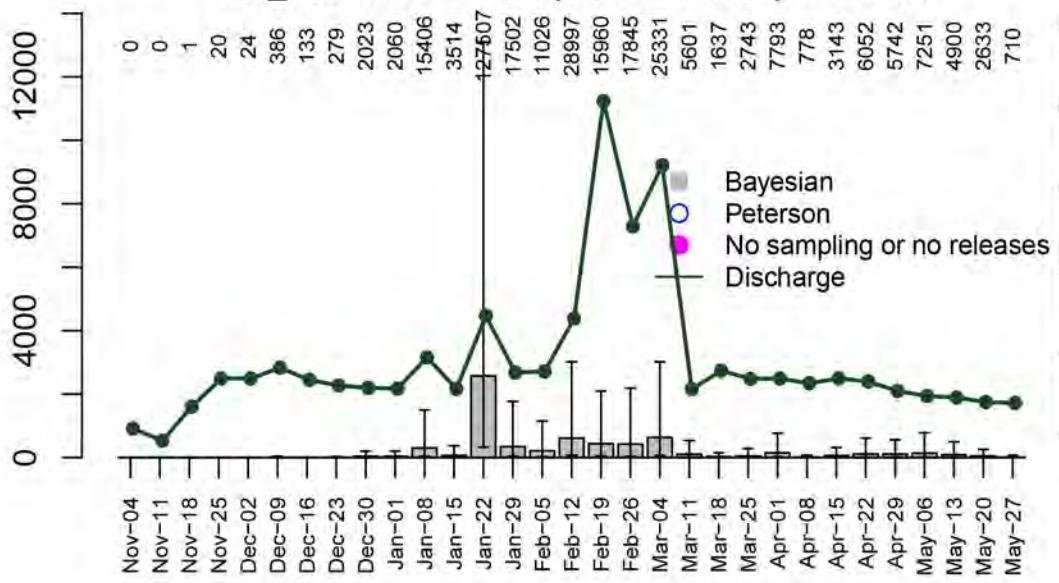
0.2 0.4 0.6 0.8 1.0

0.2 0.4 0.6 0.8 1.0

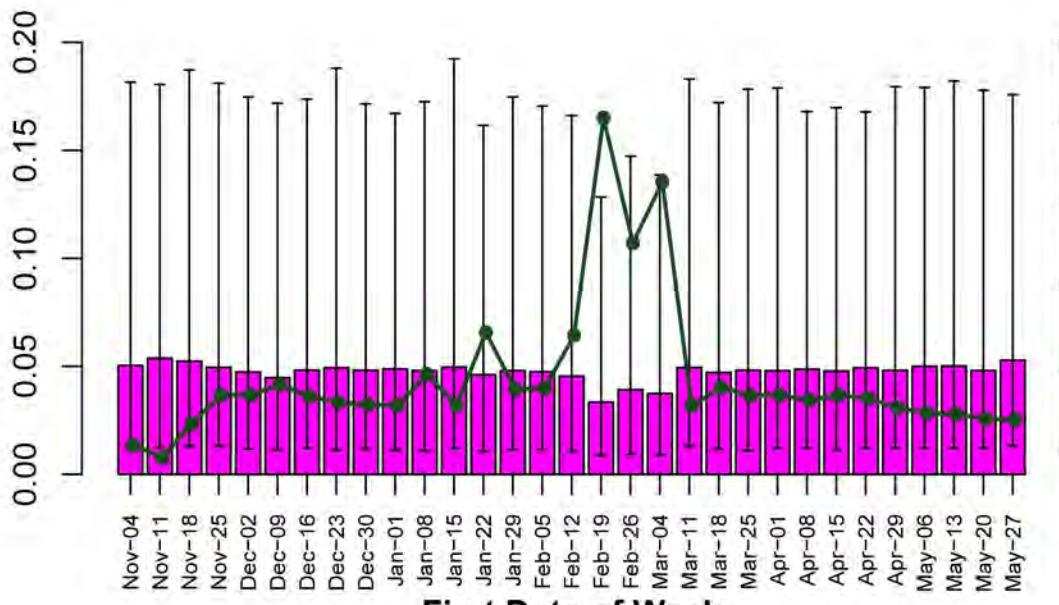
First Date of Week

# Icc\_2001 Ntot=8254 (4511 - 19405) cv=41%

Abundance ('000s)



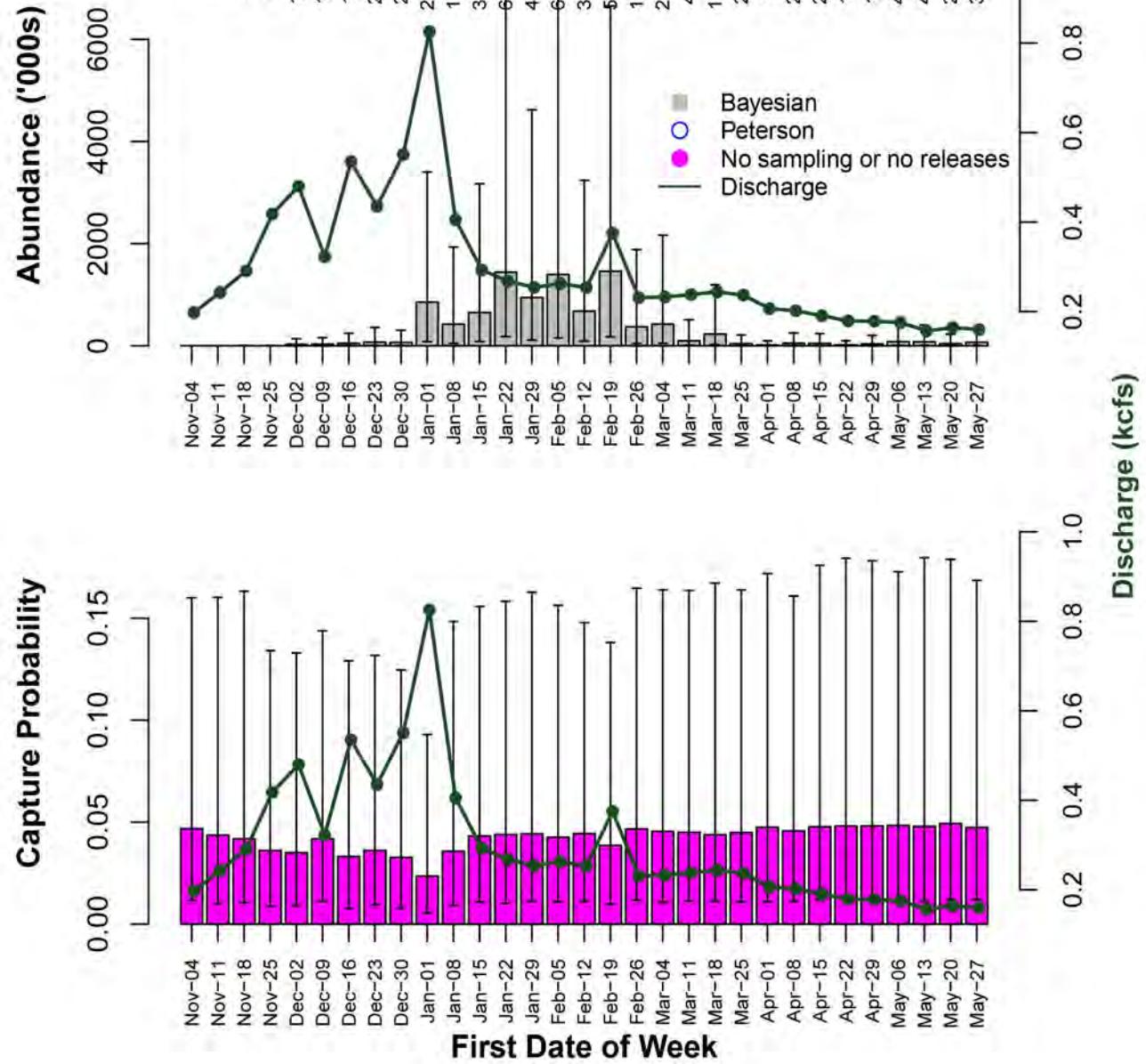
Capture Probability



First Date of Week

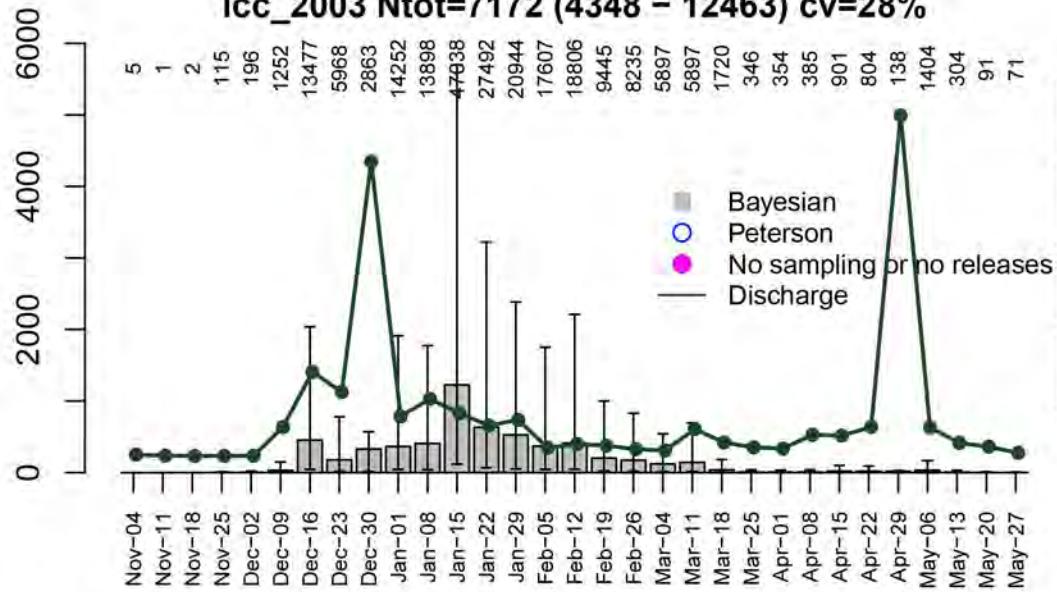
Discharge (kcfs)

lcc\_2002 Ntot=12470 (7475 – 21670) cv=28%

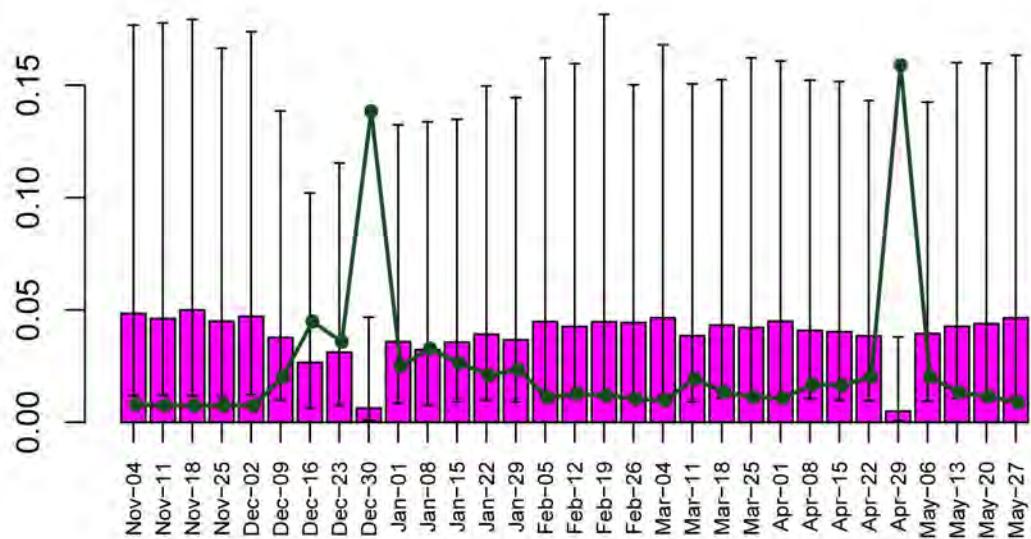


Icc\_2003 Ntot=7172 (4348 - 12463) cv=28%

Abundance ('000s)



Capture Probability

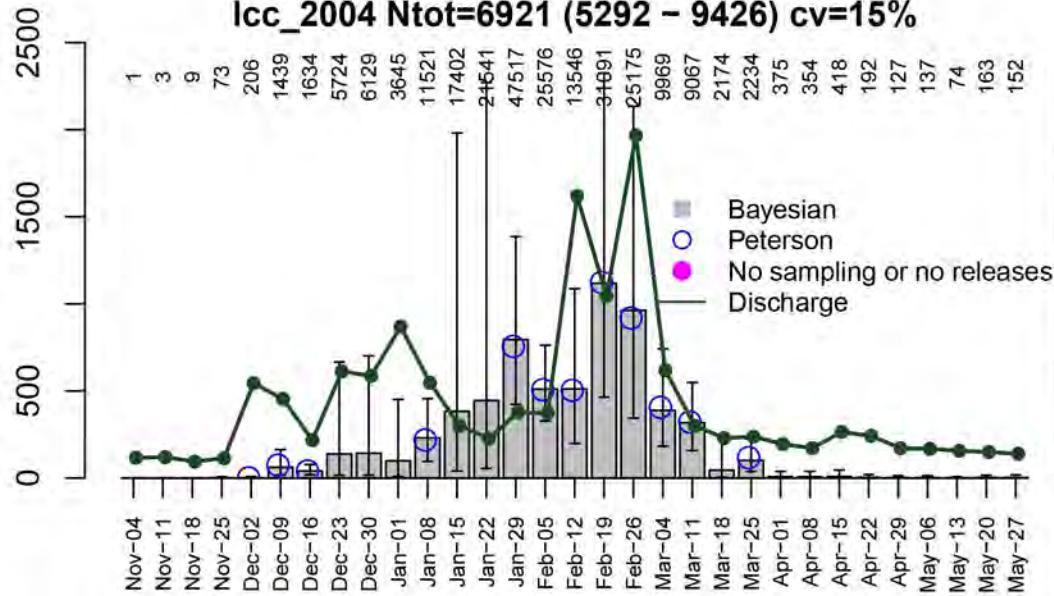


First Date of Week

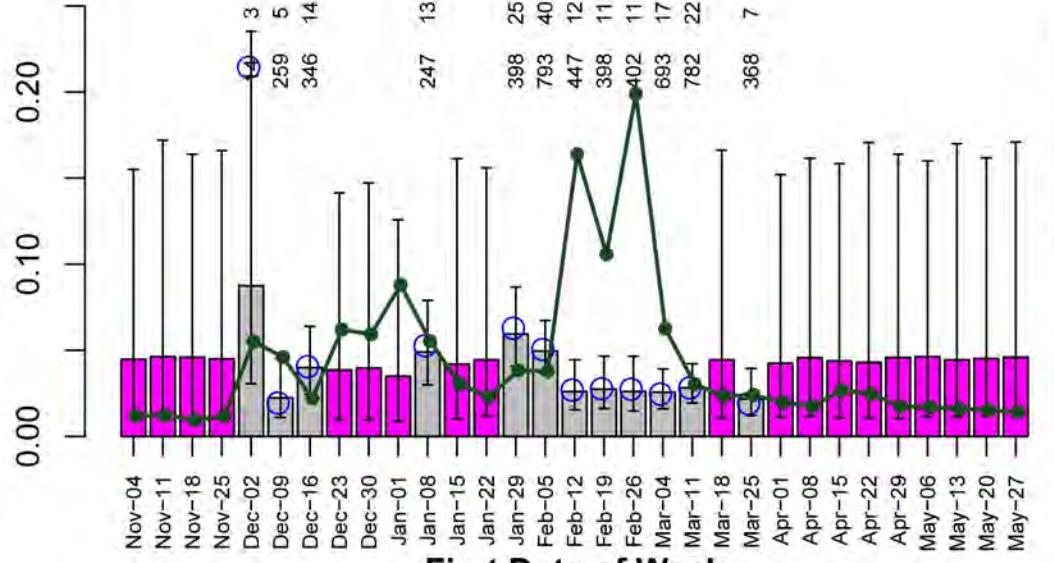
Discharge (kcfs)

### lcc\_2004 Ntot=6921 (5292 - 9426) cv=15%

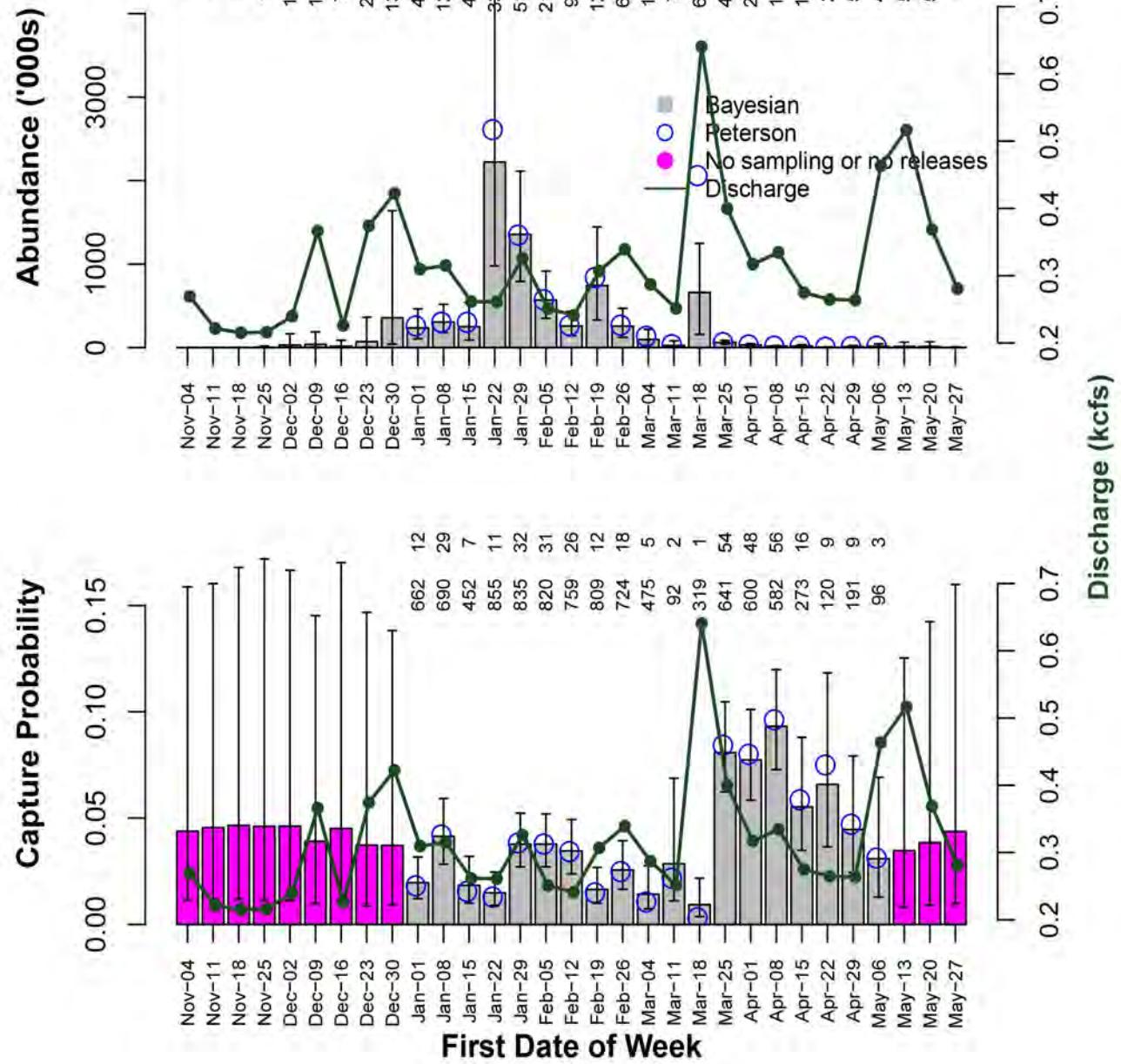
Abundance ('000s)



Capture Probability

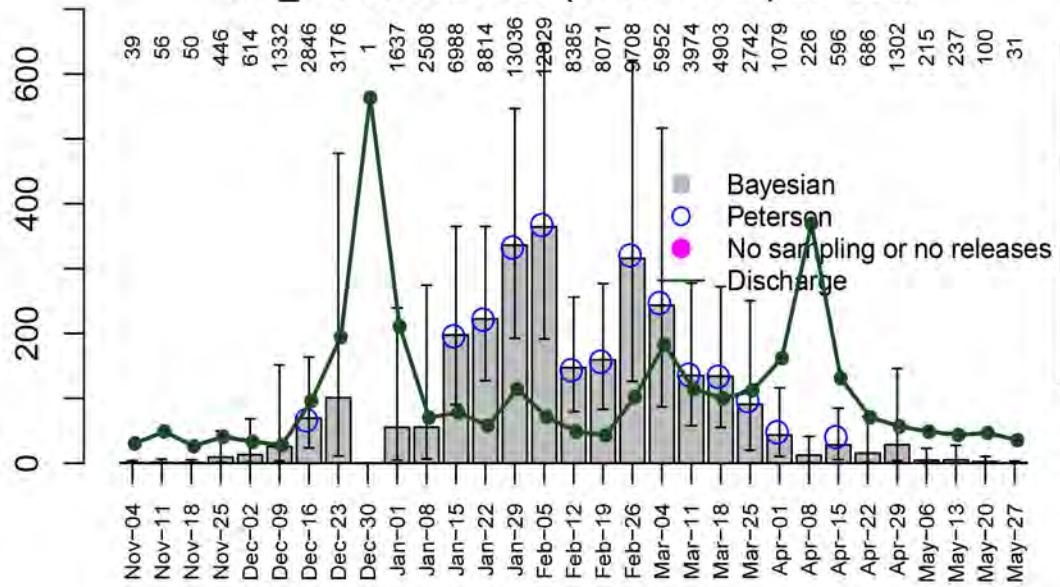


# Icc\_2005 Ntot=8056 (6271 - 10578) cv=13%

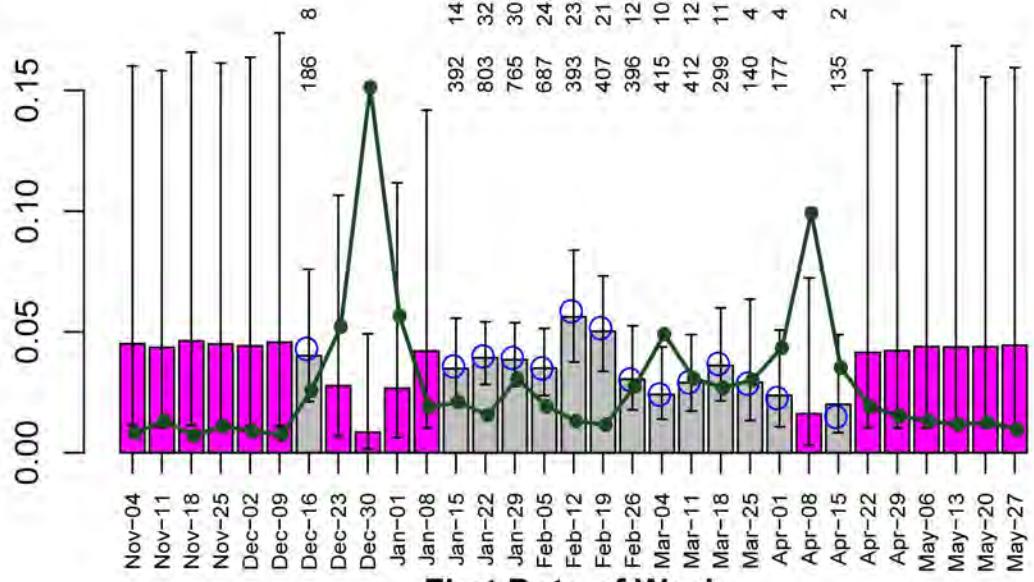


# lcc\_2006 Ntot=3017 (2493 – 3687) cv=10%

Abundance ('000s)



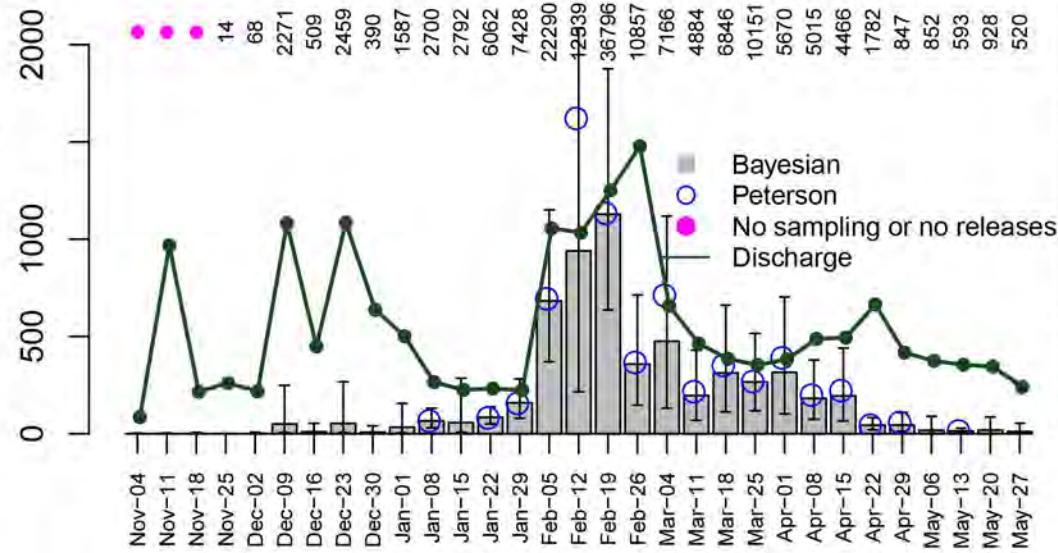
Capture Probability



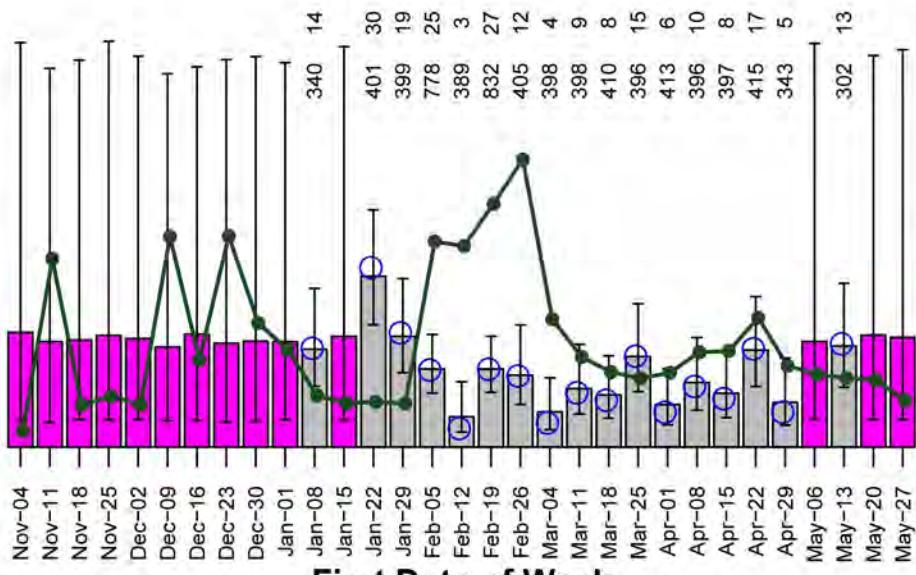
First Date of Week

lcc\_2007 Ntot=6014 (4802 - 7560) cv=12%

Abundance ('000s)

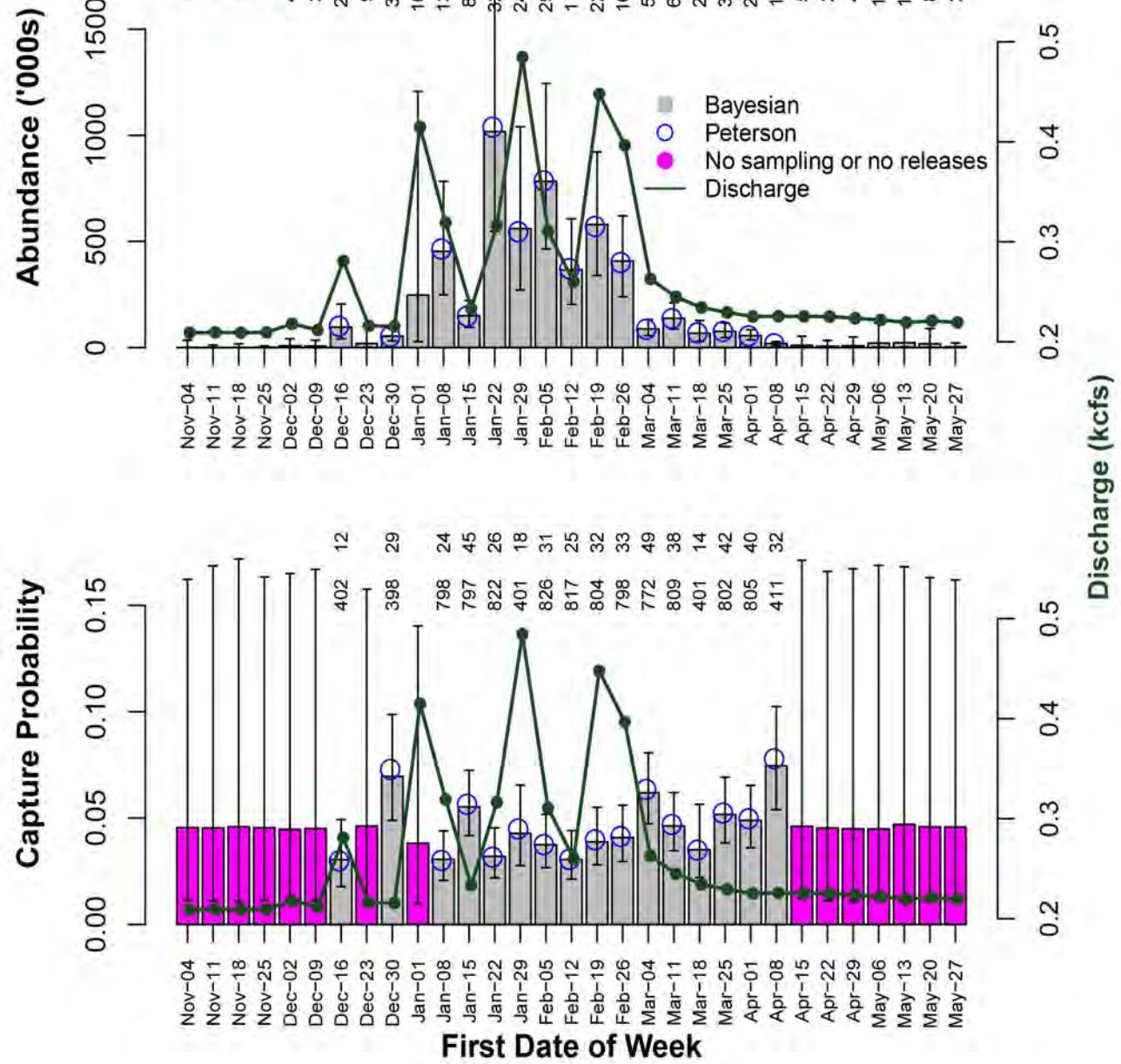


Capture Probability



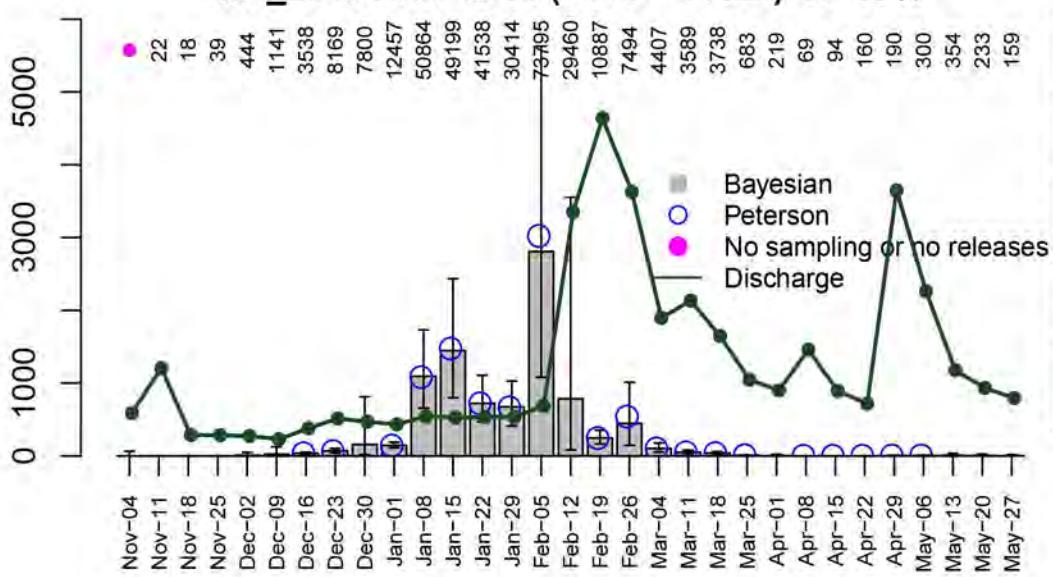
Discharge (kcfs)

# lcc\_2008 Ntot=5508 (4636 - 6816) cv=10%

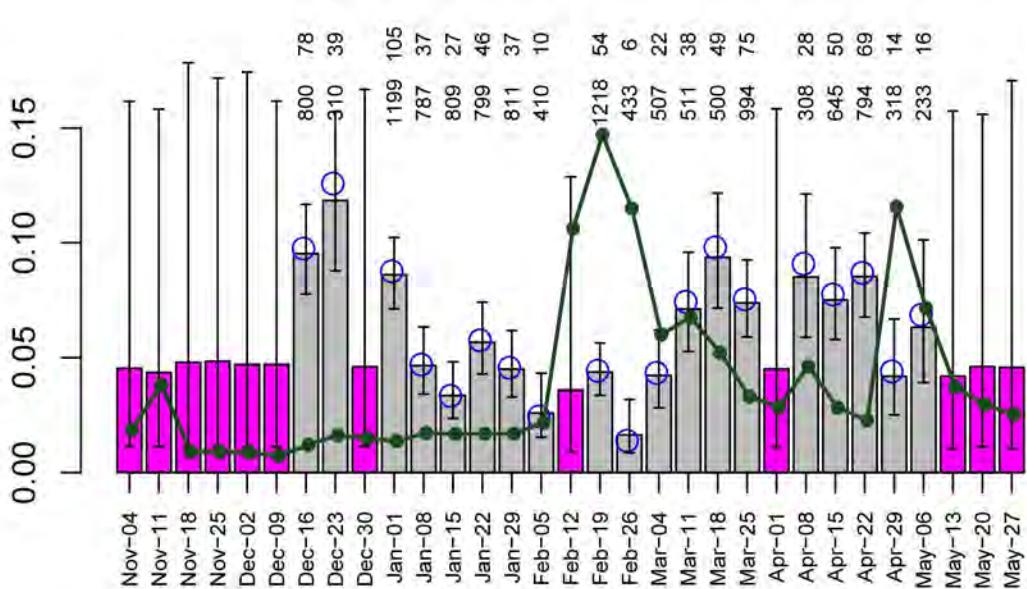


# Icc\_2009 Ntot=9319 (6888 - 13128) cv=17%

Abundance ('000s)



Capture Probability

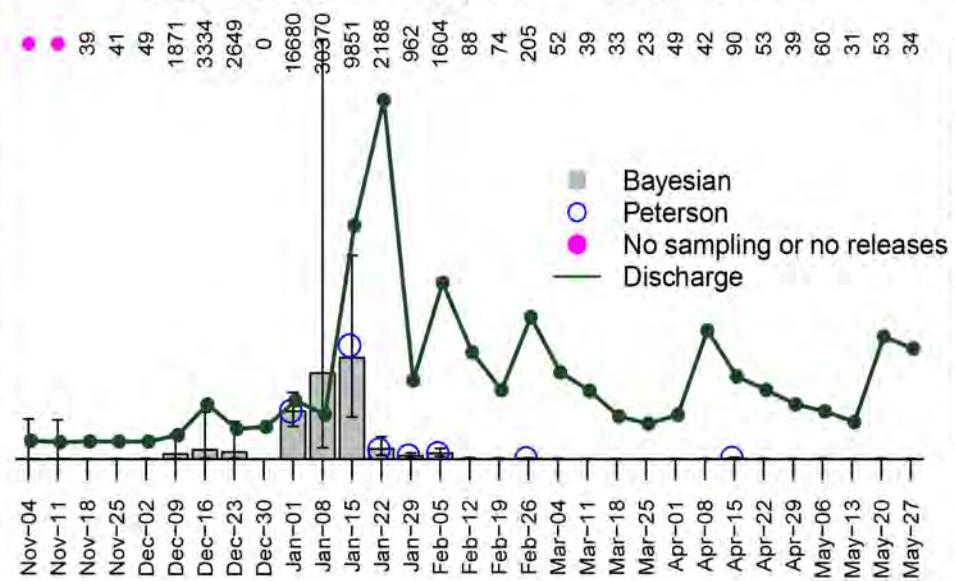


First Date of Week

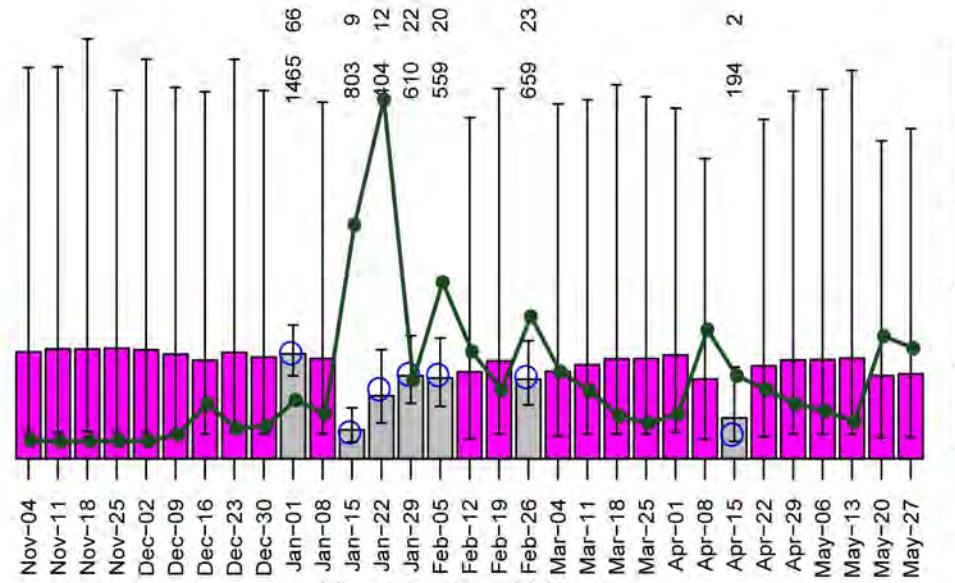
Discharge (kcfs)

# lcc\_2010 Ntot=2396 (1446 – 4968) cv=34%

Abundance ('000s)



Capture Probability



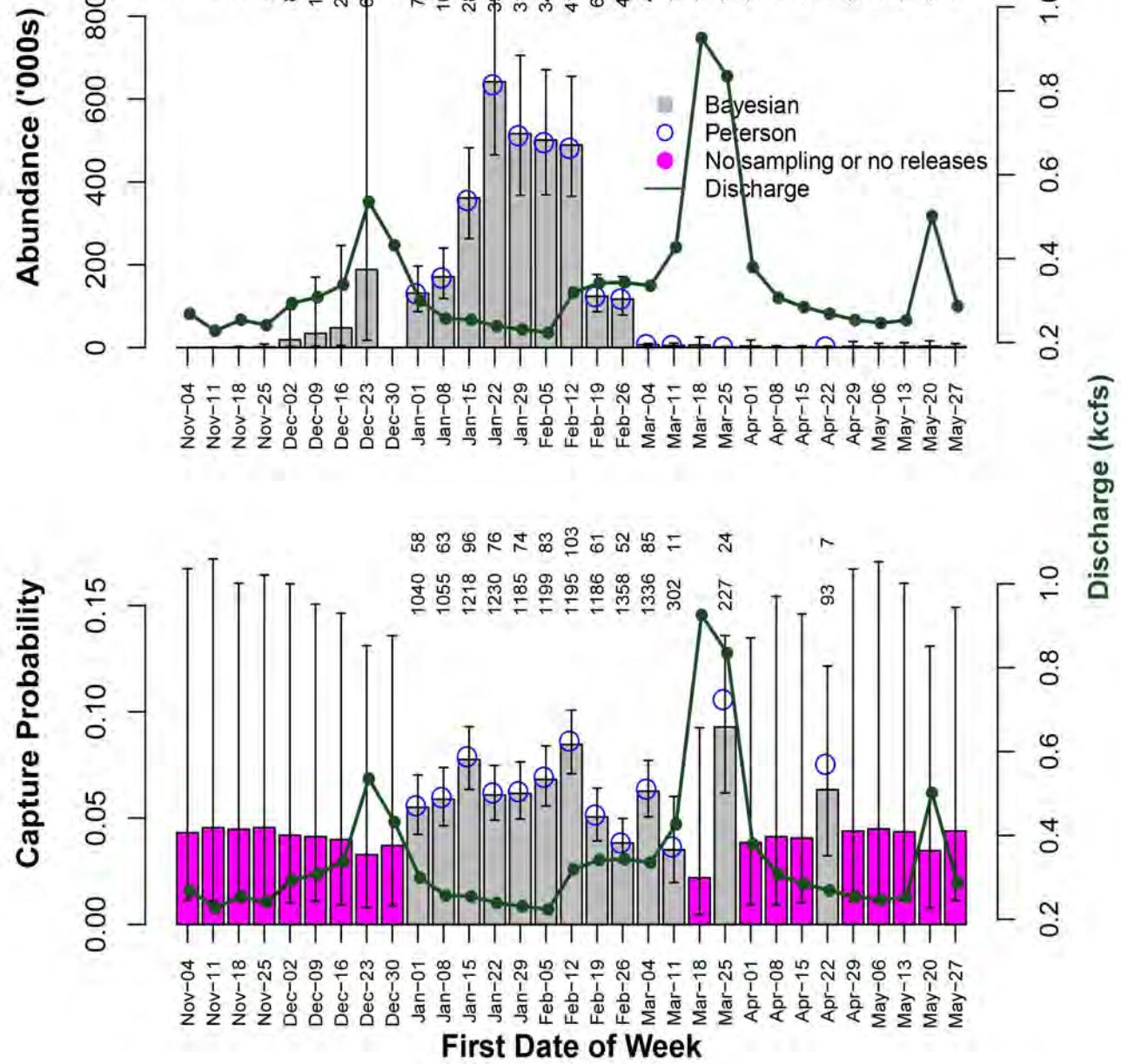
First Date of Week

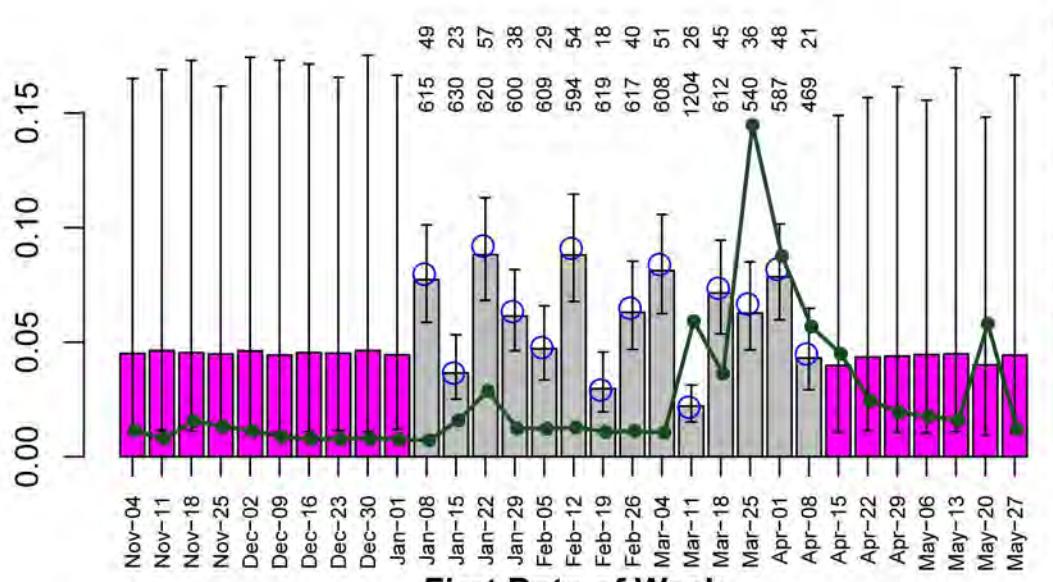
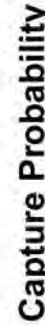
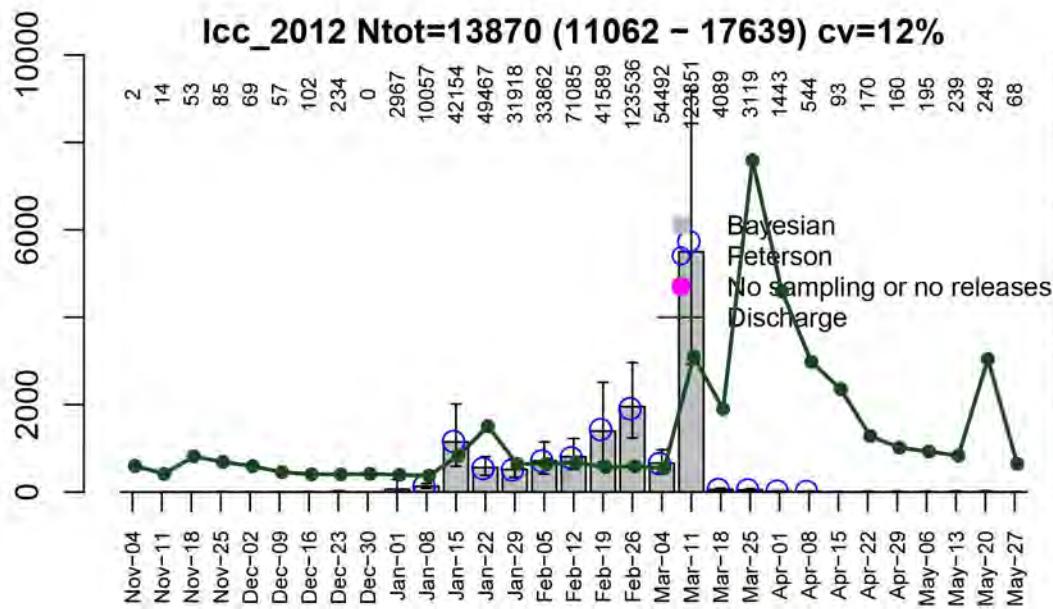
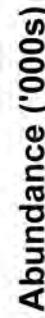
Discharge (kcfs)

0.2 0.4 0.6 0.8 1.0 1.2

0.2 0.4 0.6 0.8 1.0 1.0 1.2

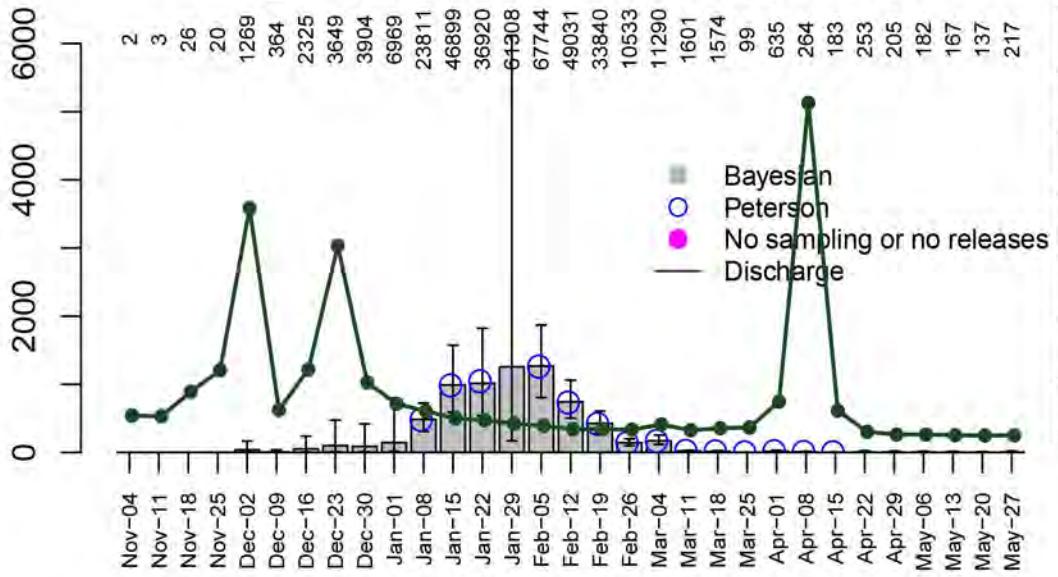
# icc\_2011 Ntot=3477 (3050 - 4214) cv=8%





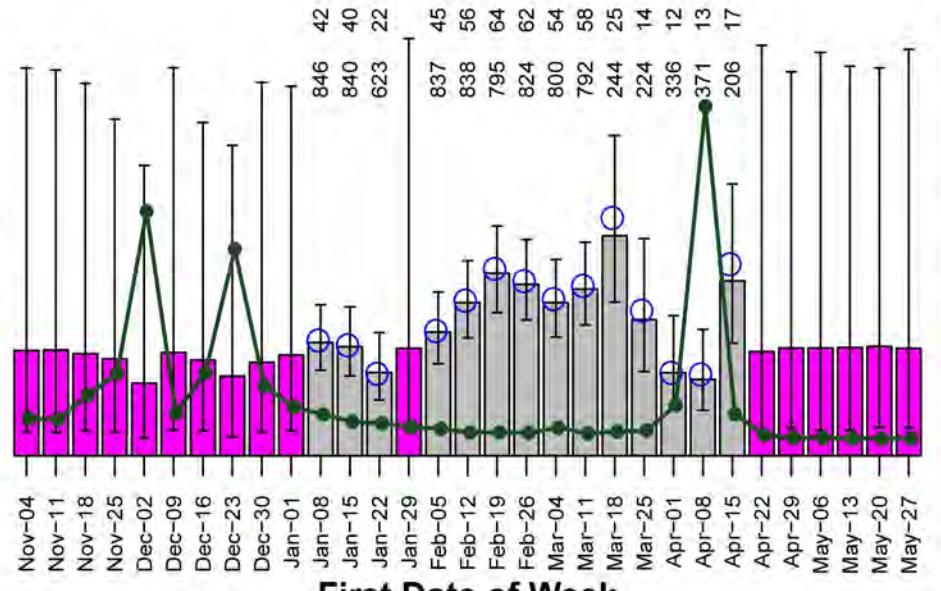
# lcc\_2013 Ntot=7364 (5667 - 12111) cv=22%

Abundance ('000s)



Bayesian  
Peterson  
No sampling or no releases  
Discharge

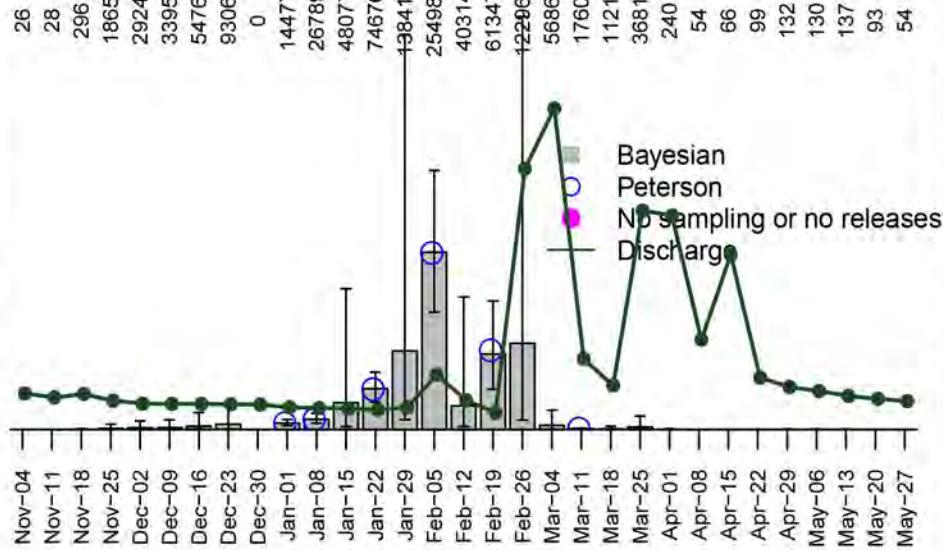
Capture Probability



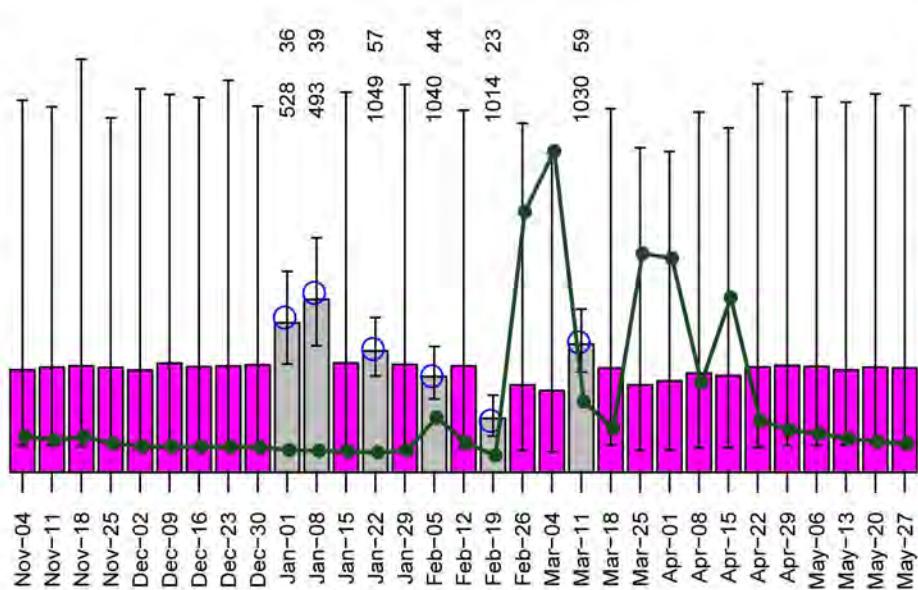
Discharge (kcfs)

# lcc\_2014 Ntot=20750 (14450 - 36336) cv=25%

Abundance ('000s)



Capture Probability

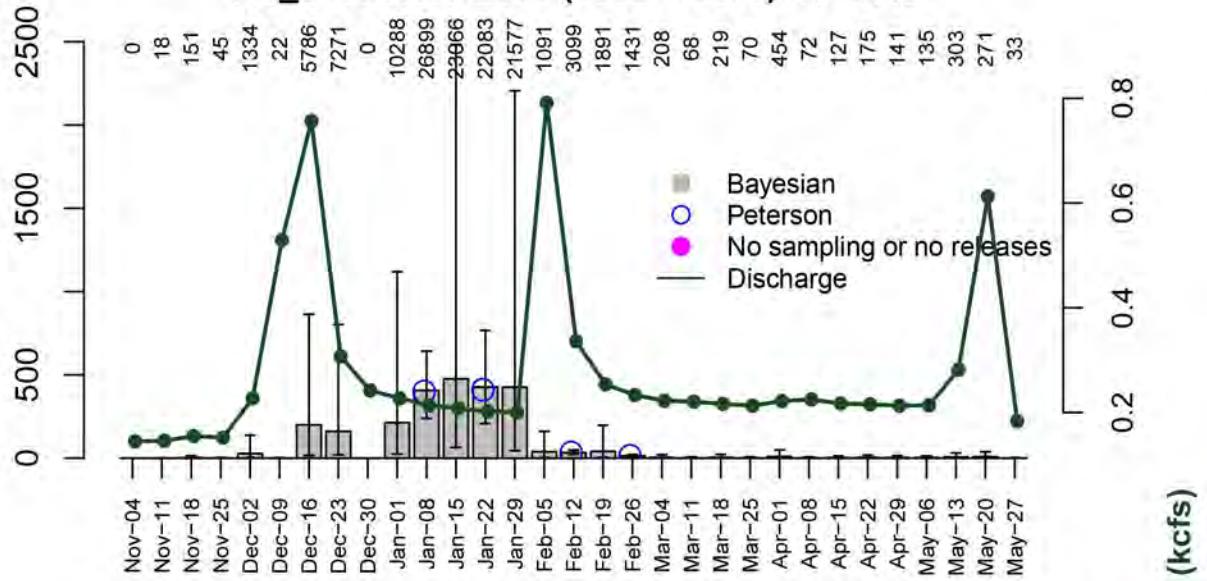


First Date of Week

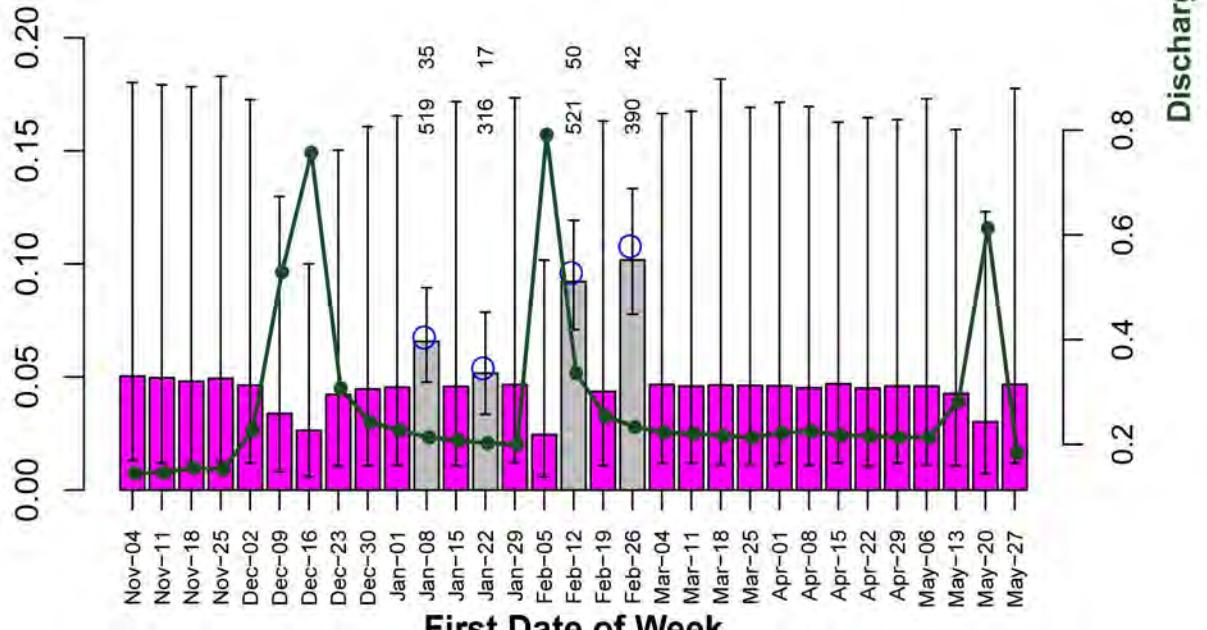
Discharge (kcfs)

# lcc\_2015 Ntot=2898 (1862 - 5671) cv=31%

Abundance ('000s)

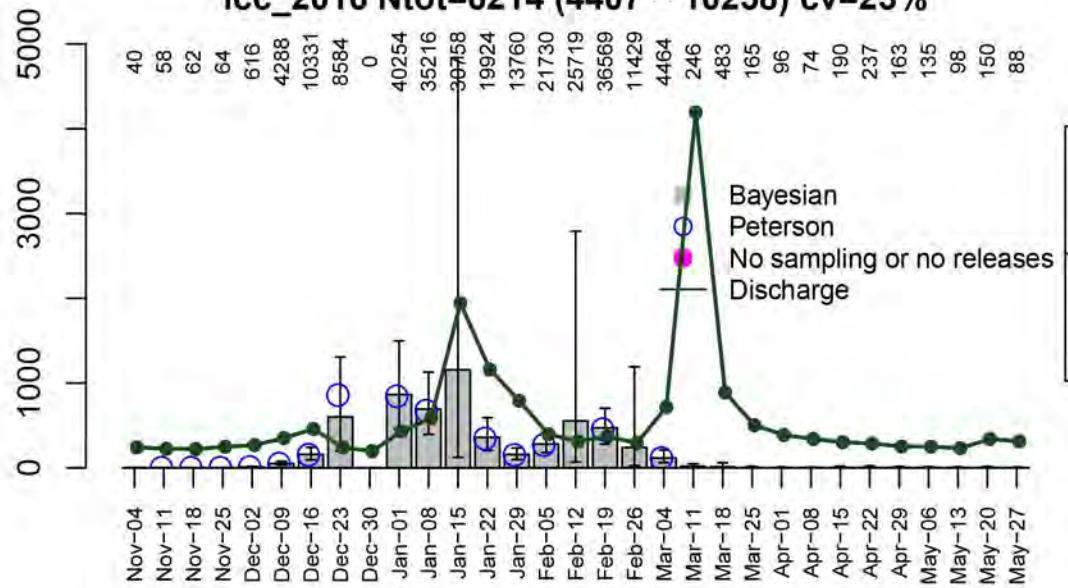


Capture Probability



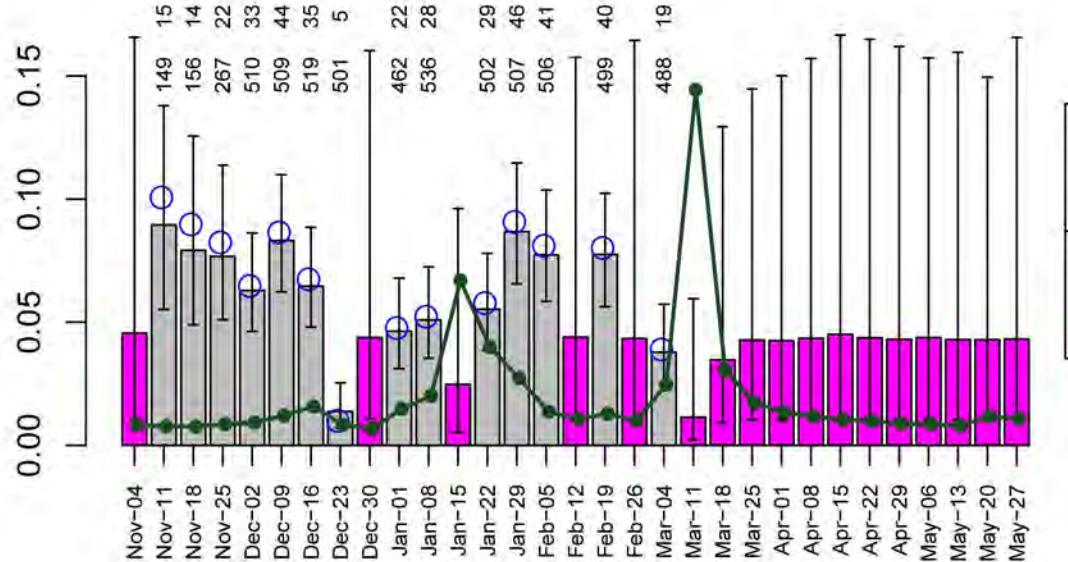
# Icc\_2016 Ntot=6214 (4407 - 10258) cv=23%

Abundance ('000s)



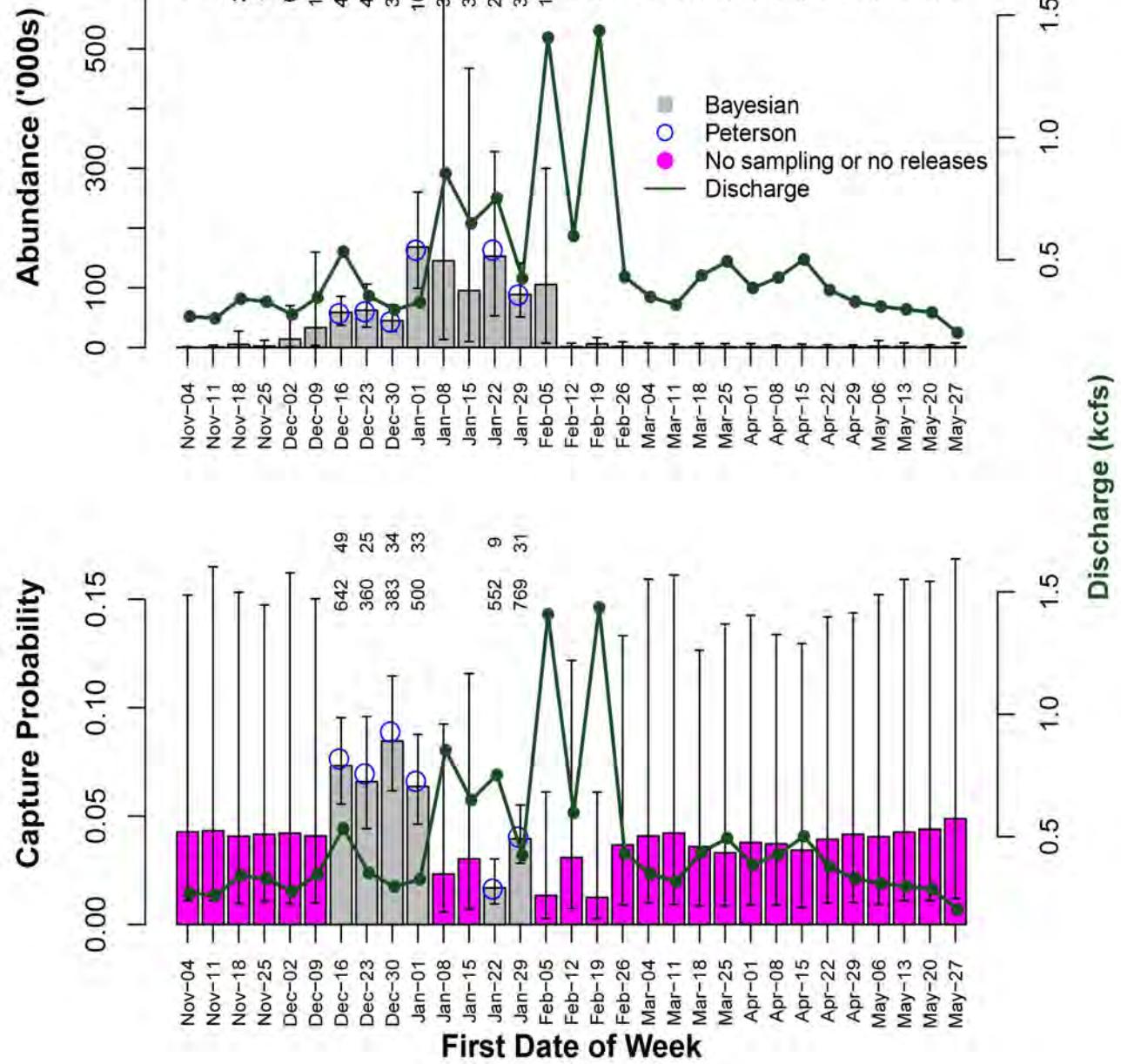
Discharge (kcfs)

Capture Probability

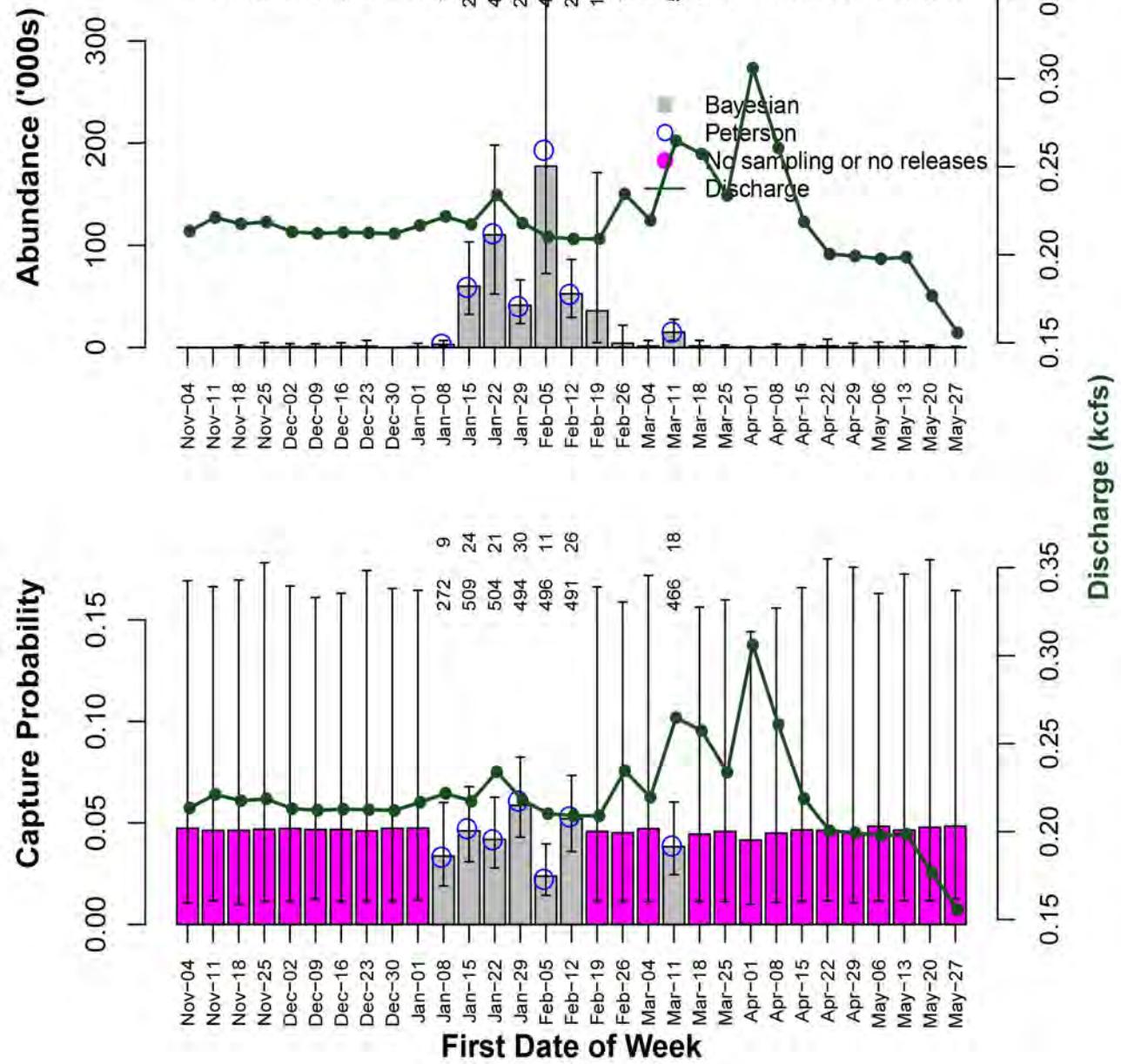


Discharge (kcfs)

Icc\_2017 Ntot=1111 (776 - 1642) cv=19%

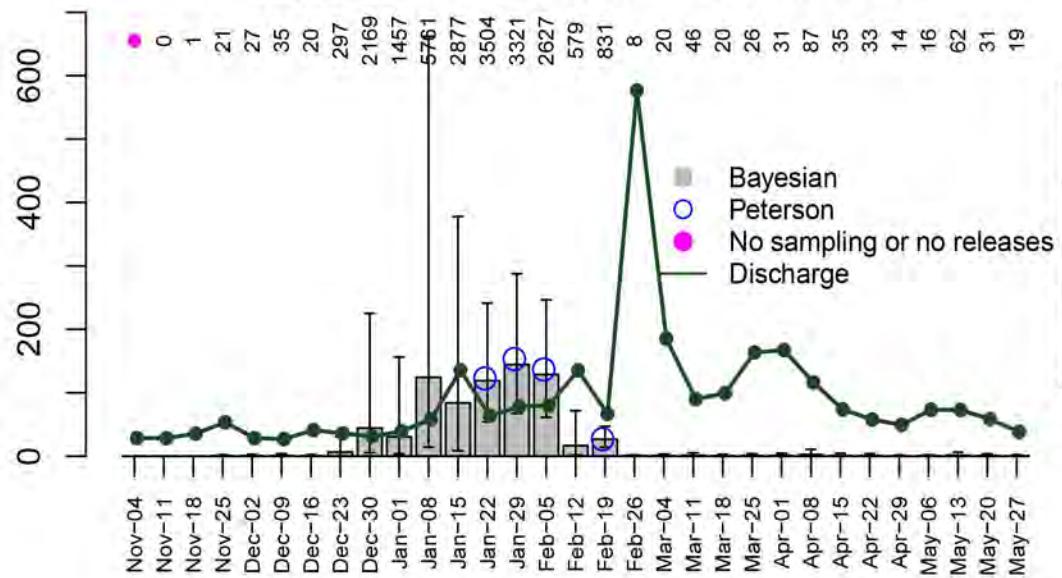


# lcc\_2018 Ntot=539 (396 - 777) cv=18%

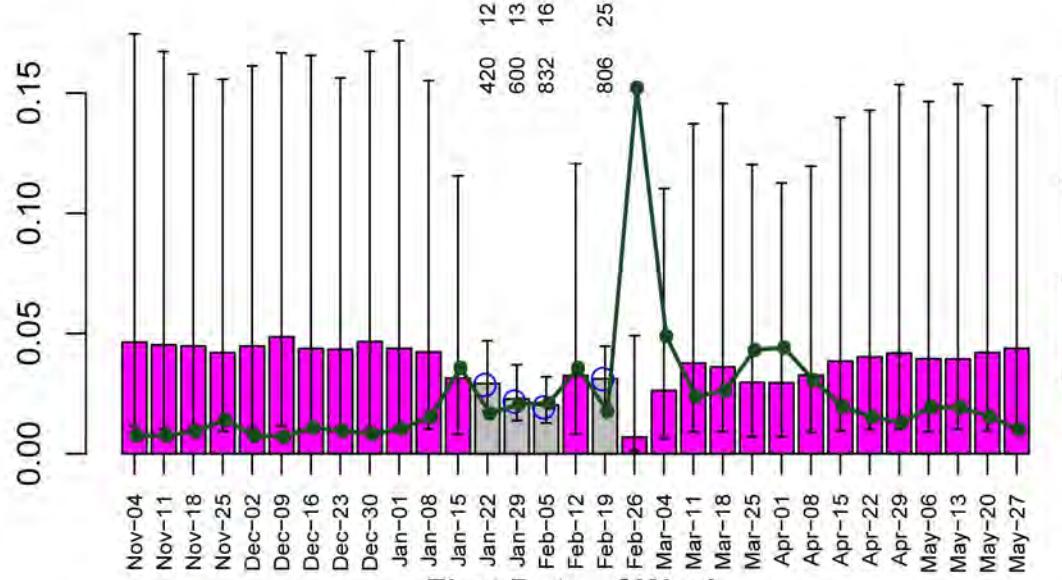


Icc\_2019 Ntot=831 (564 - 1424) cv=25%

Abundance ('000s)



Capture Probability



First Date of Week

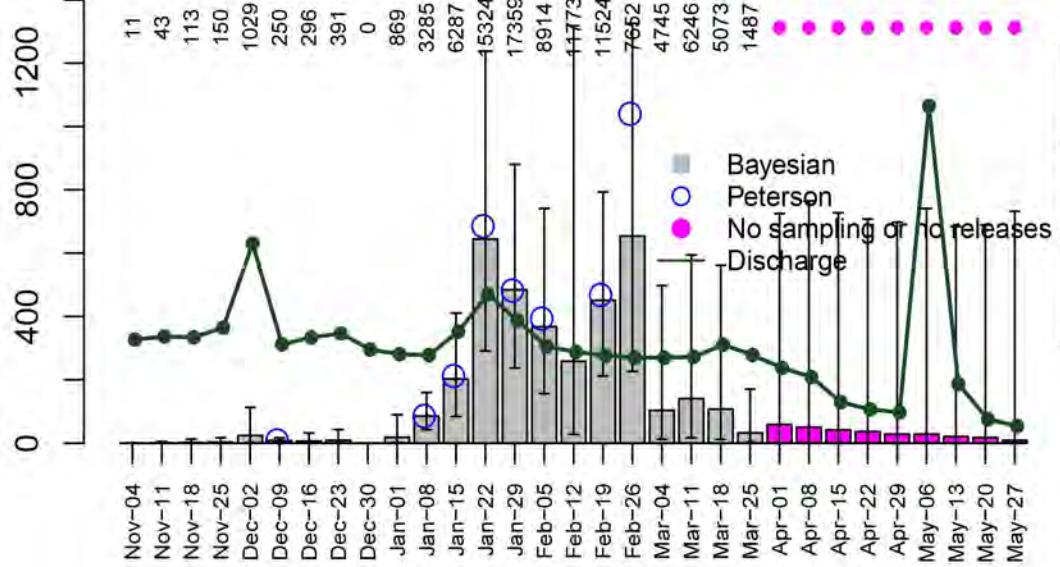
Discharge (kcfs)

Discharge (kcfs)

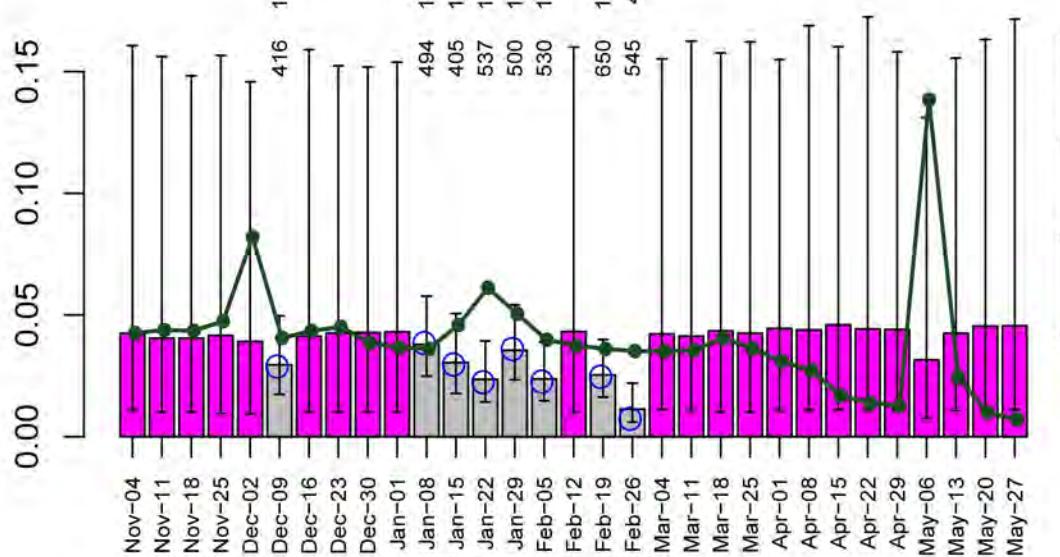
Discharge (kcfs)

lcc\_2020 Ntot=4876 (3414 - 7476) cv=21%

Abundance ('000s)



Capture Probability

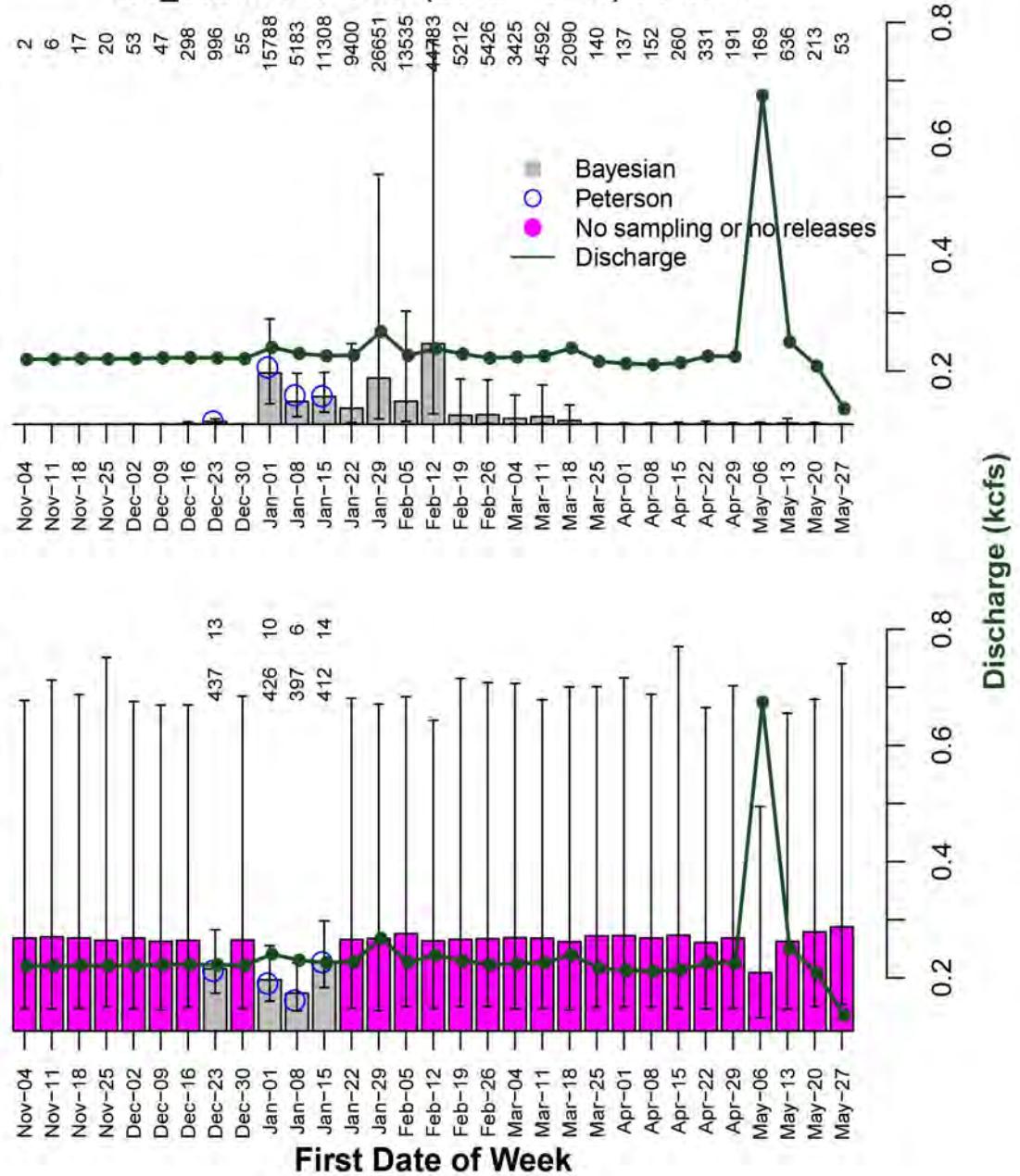


First Date of Week

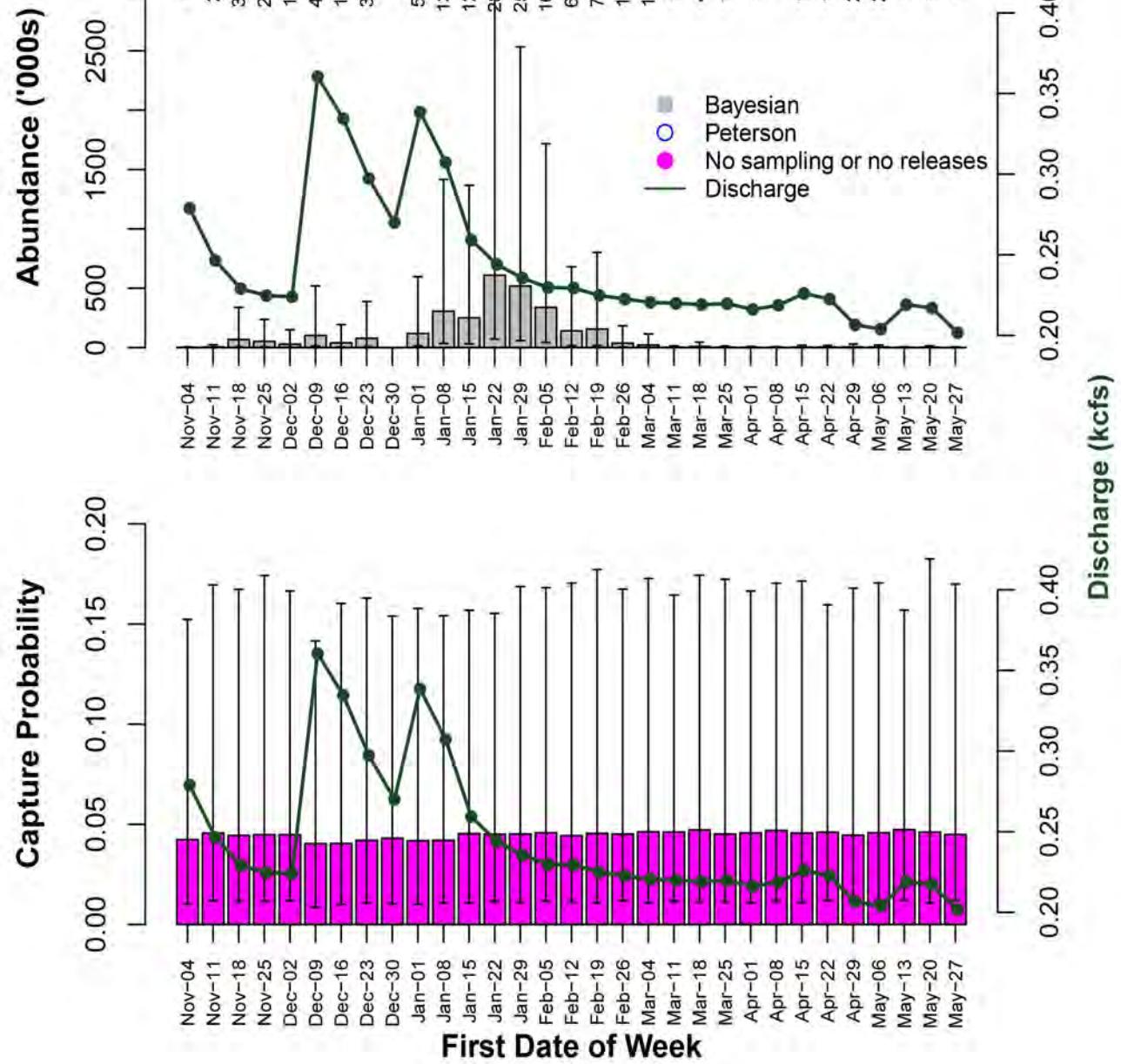
Discharge (kcfs)

# lcc\_2021 Ntot=4303 (2678 – 8445) cv=33%

Abundance ('000s)

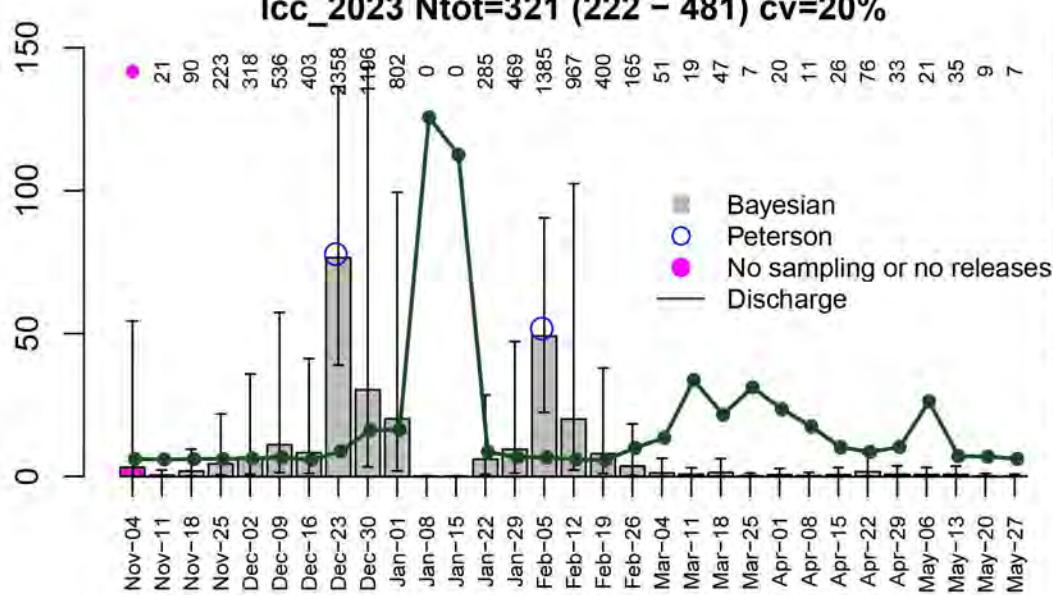


# lcc\_2022 Ntot=3711 (2163 - 6984) cv=32%

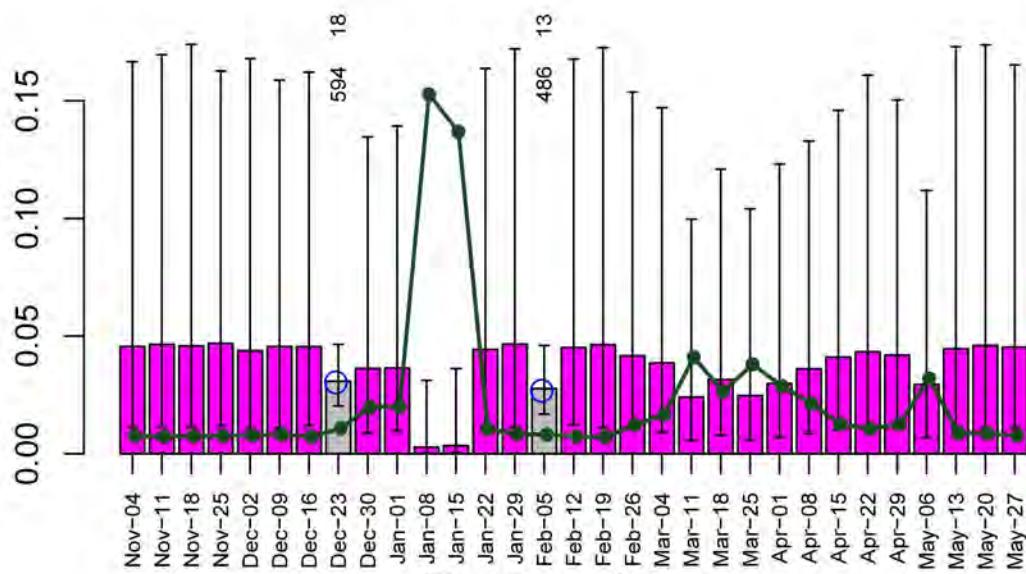


**Icc\_2023 Ntot=321 (222 – 481) cv=20%**

Abundance ('000s)



Capture Probability

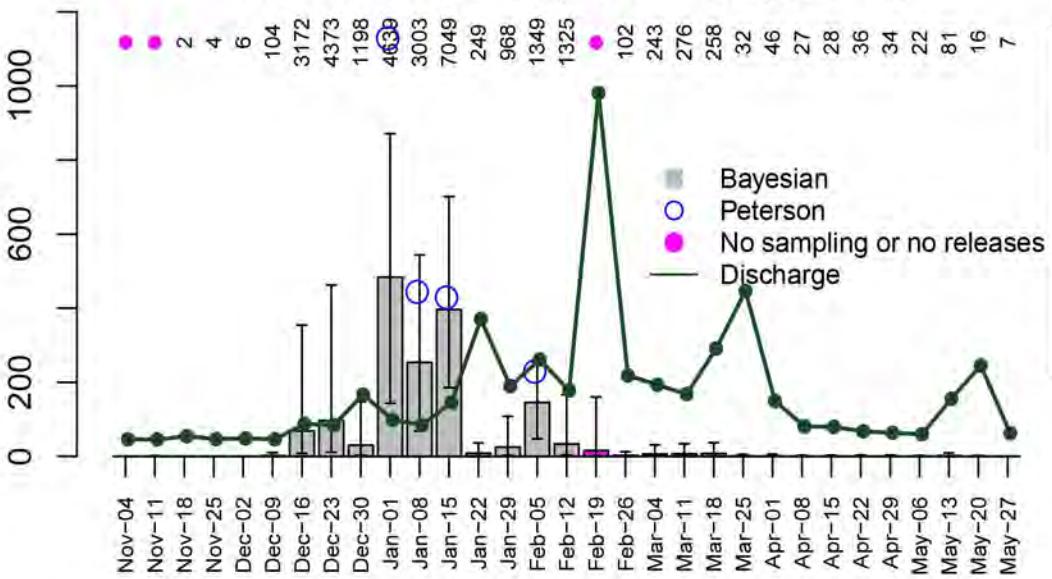


First Date of Week

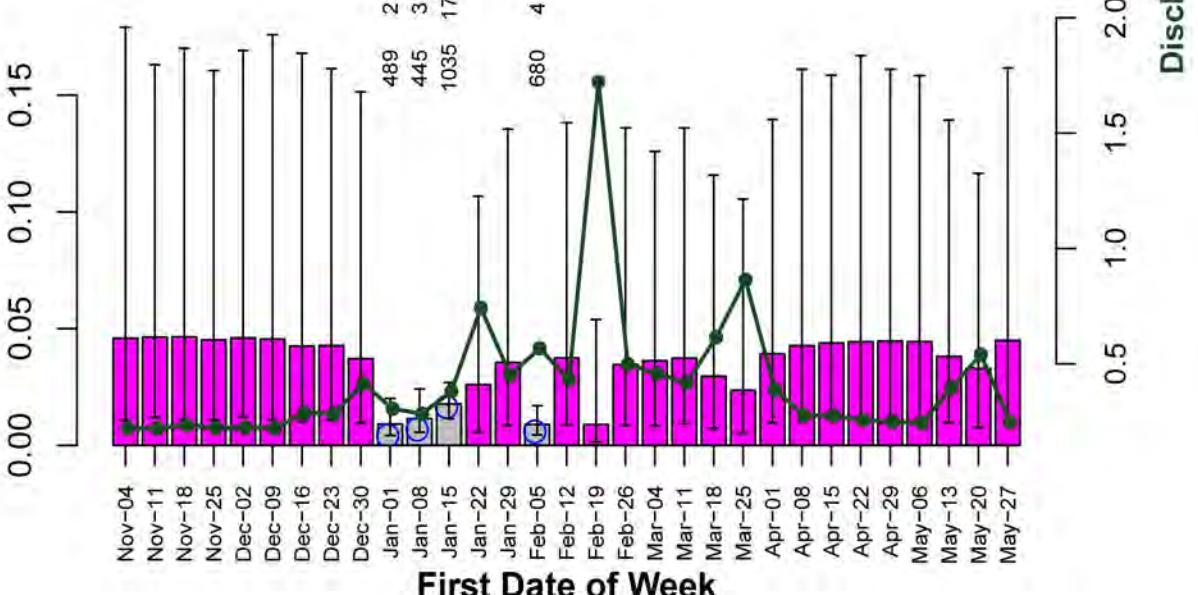
Discharge (kcfs)

# icc\_2024 Ntot=1742 (1185 - 2401) cv=17%

Abundance ('000s)



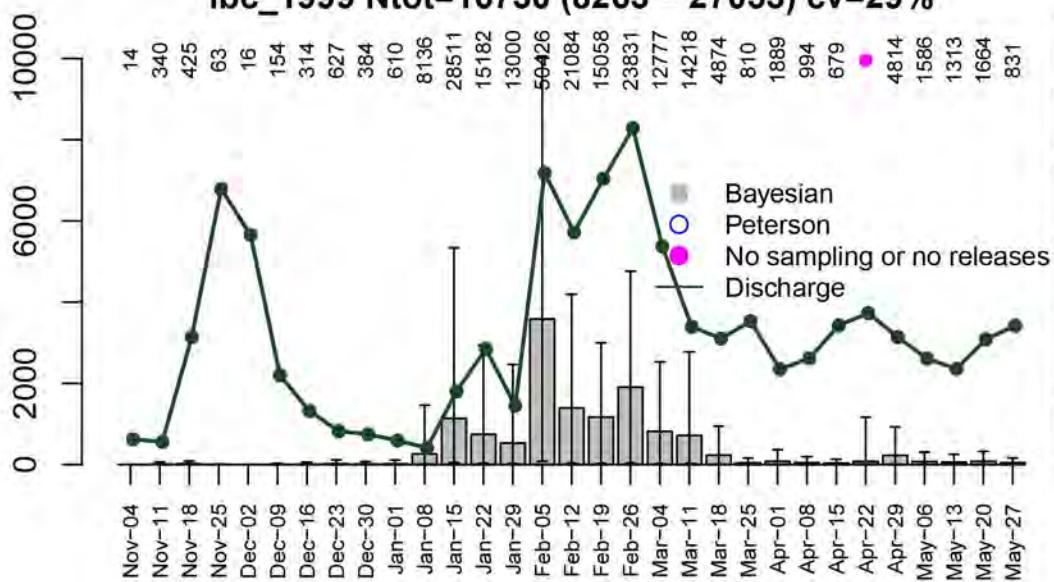
Capture Probability



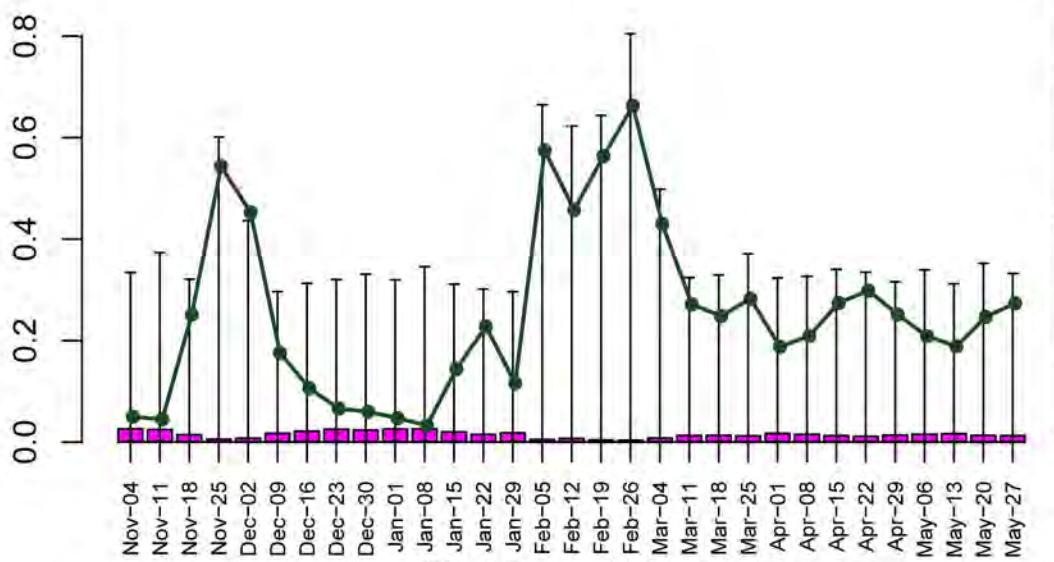
First Date of Week

# lbc\_1999 Ntot=16730 (8263 - 27053) cv=29%

Abundance ('000s)



Capture Probability

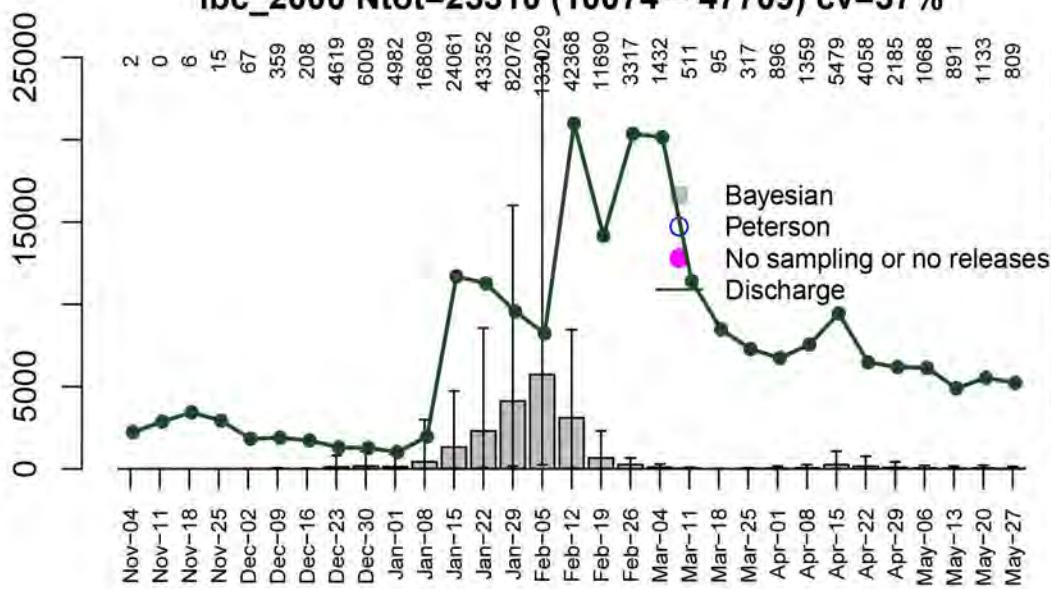


First Date of Week

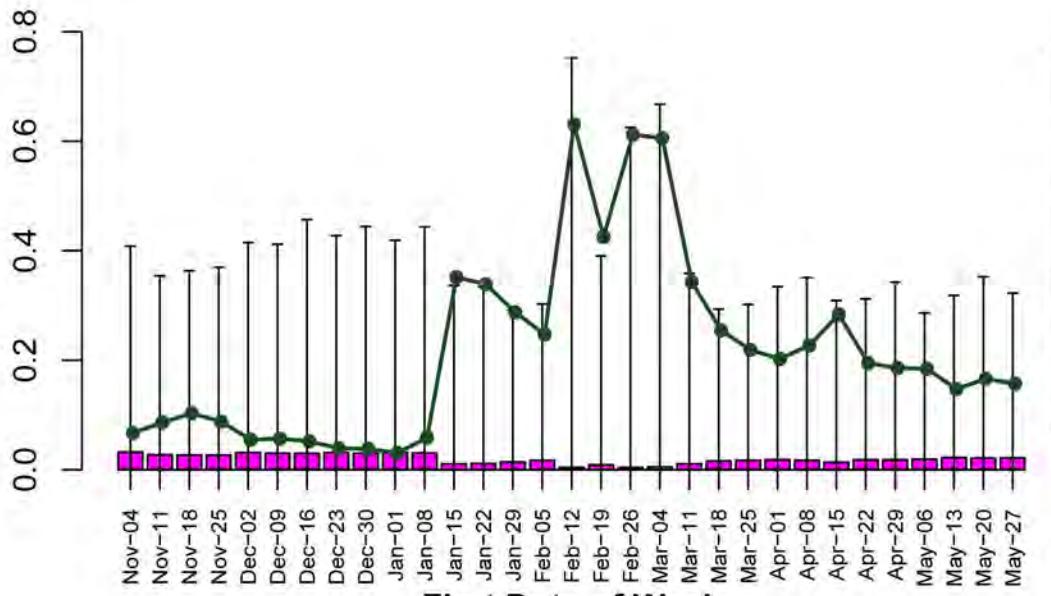
Discharge (kcfs)

# lbc\_2000 Ntot=25310 (10074 - 47709) cv=37%

Abundance ('000s)



Capture Probability

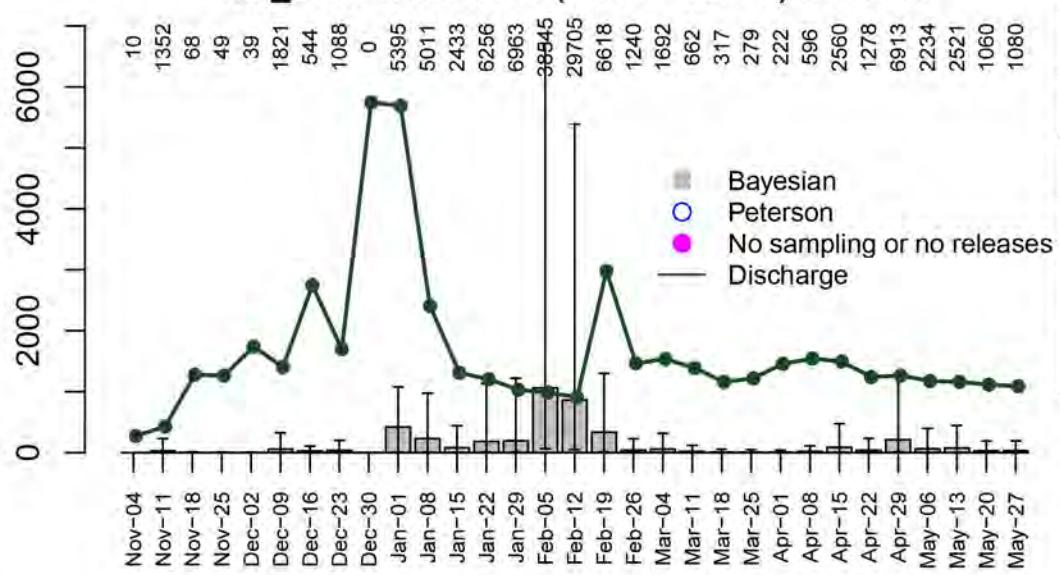


First Date of Week

Discharge (kcfs)

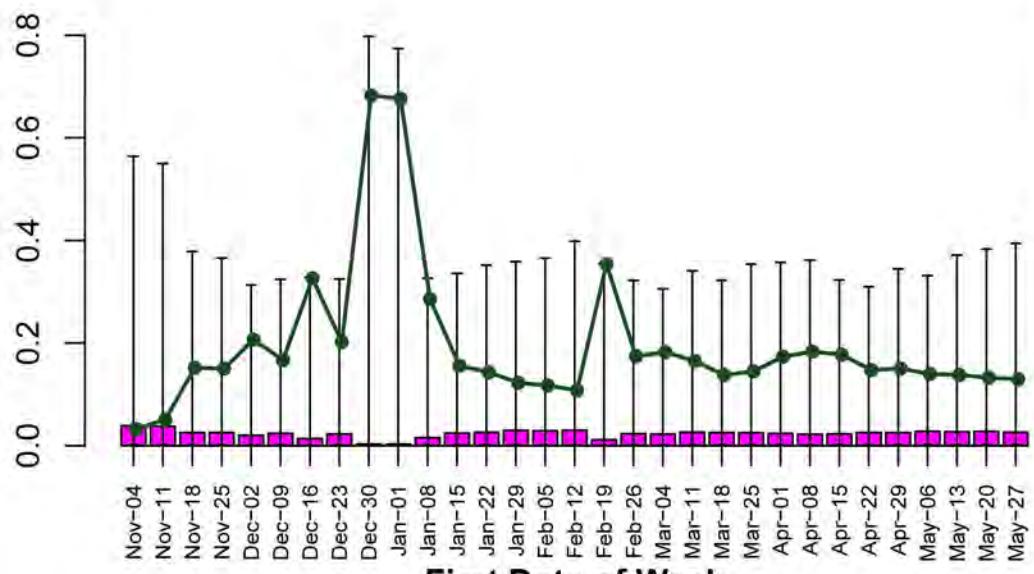
# Ibc\_2002 Ntot=6130 (2943 - 12241) cv=38%

Abundance ('000s)



Discharge (kcfs)

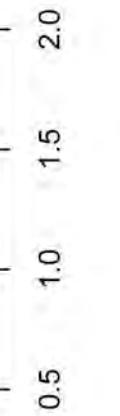
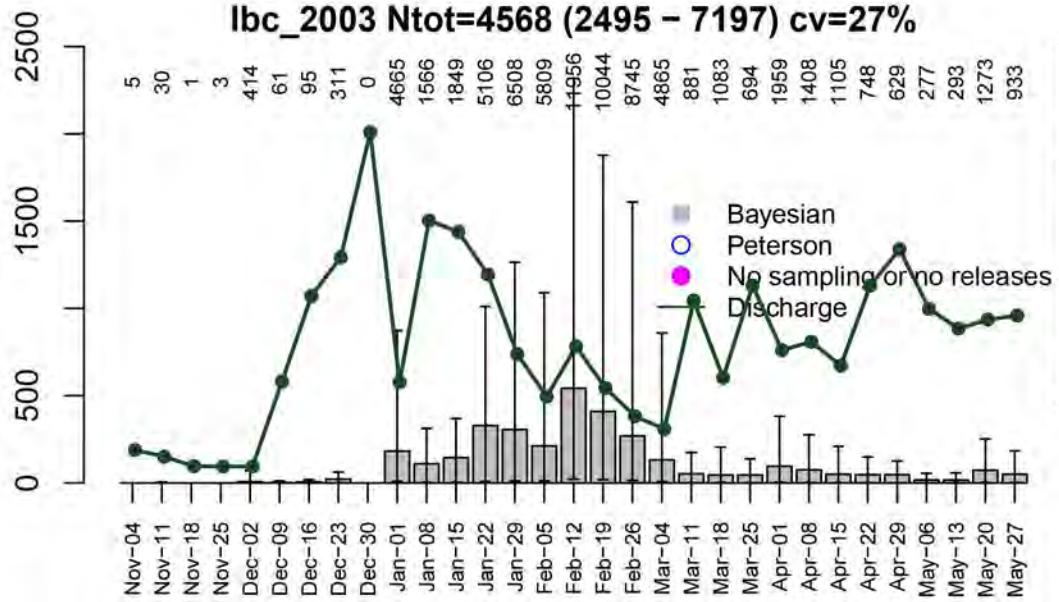
Capture Probability



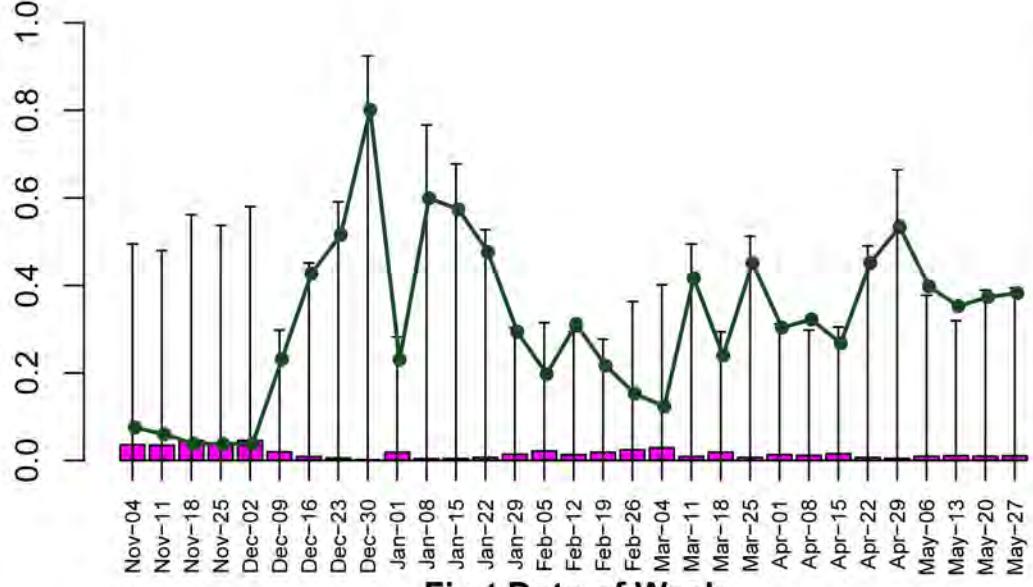
First Date of Week

**Ibc\_2003 Ntot=4568 (2495 - 7197) cv=27%**

Abundance ('000s)



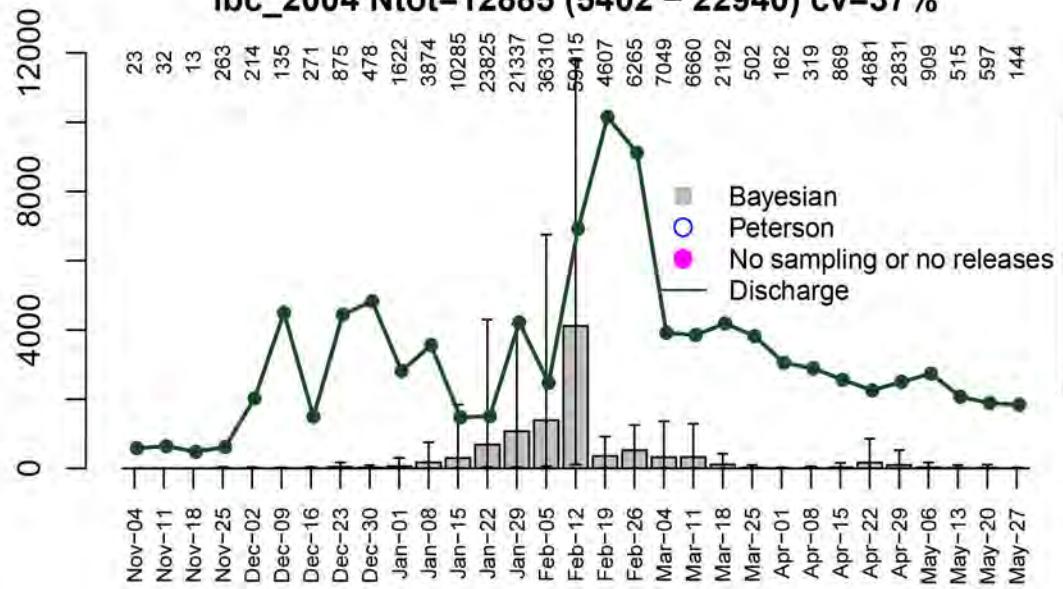
Capture Probability



First Date of Week

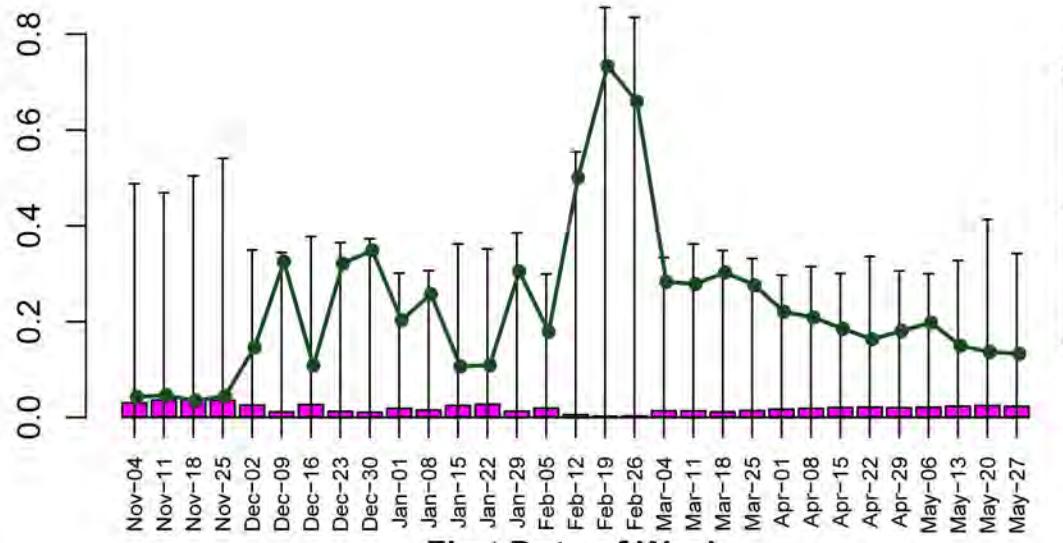
# Ibc\_2004 Ntot=12885 (5402 - 22940) cv=37%

Abundance ('000s)



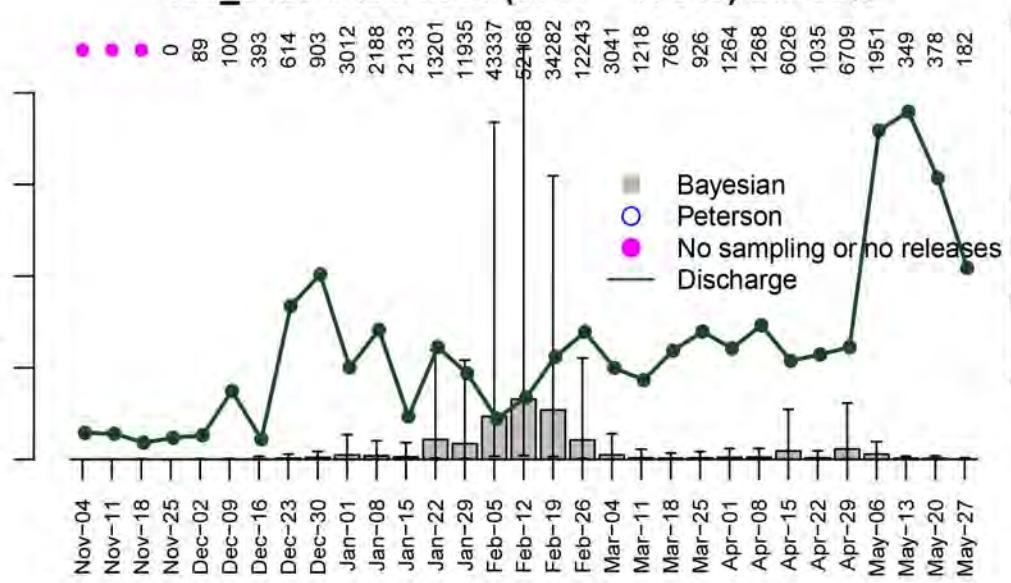
Discharge (kcfs)

Capture Probability

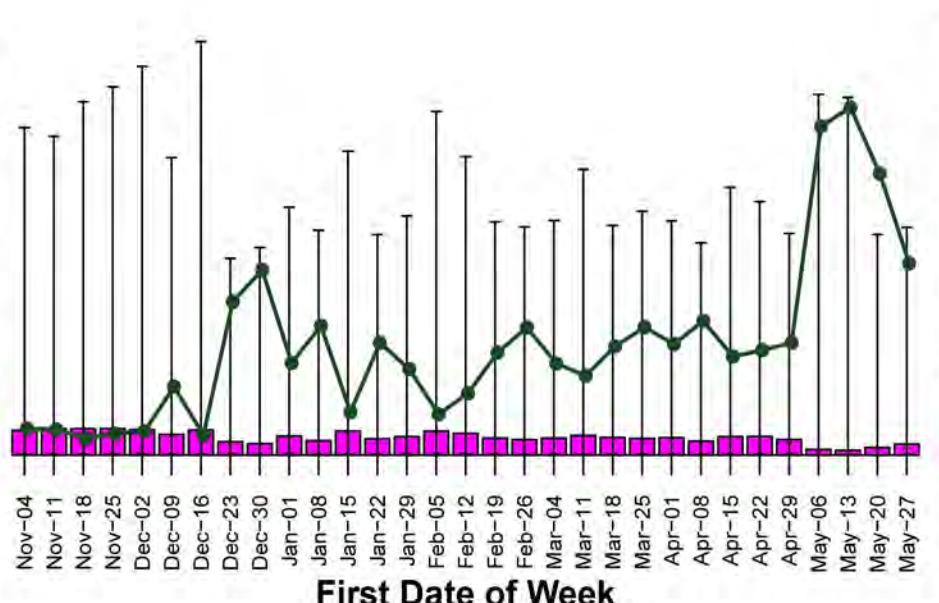


**lbc\_2005 Ntot=9030 (3817 – 17523) cv=39%**

Abundance ('000s)



Capture Probability

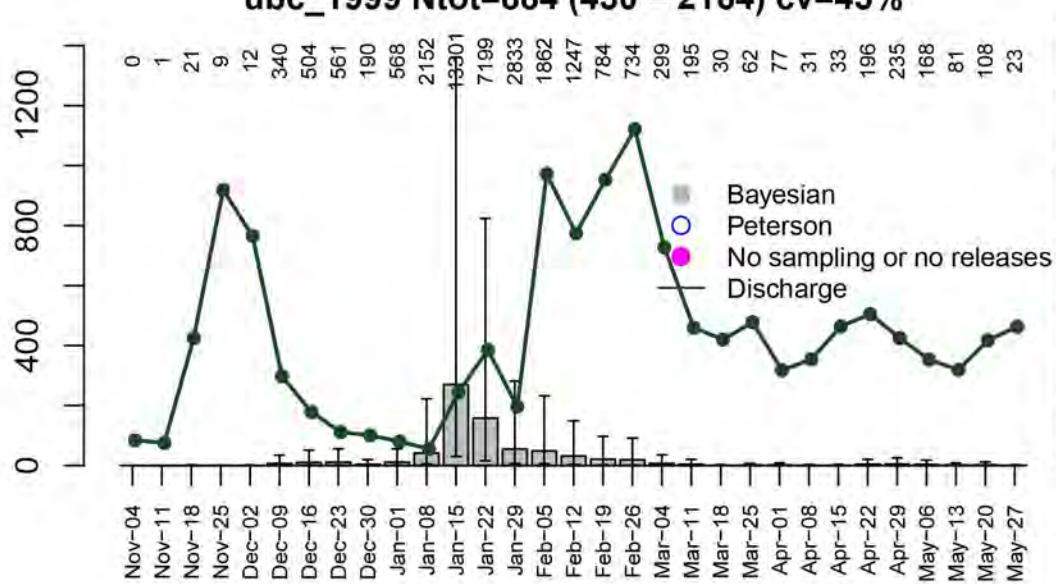


First Date of Week

Discharge (kcfs)

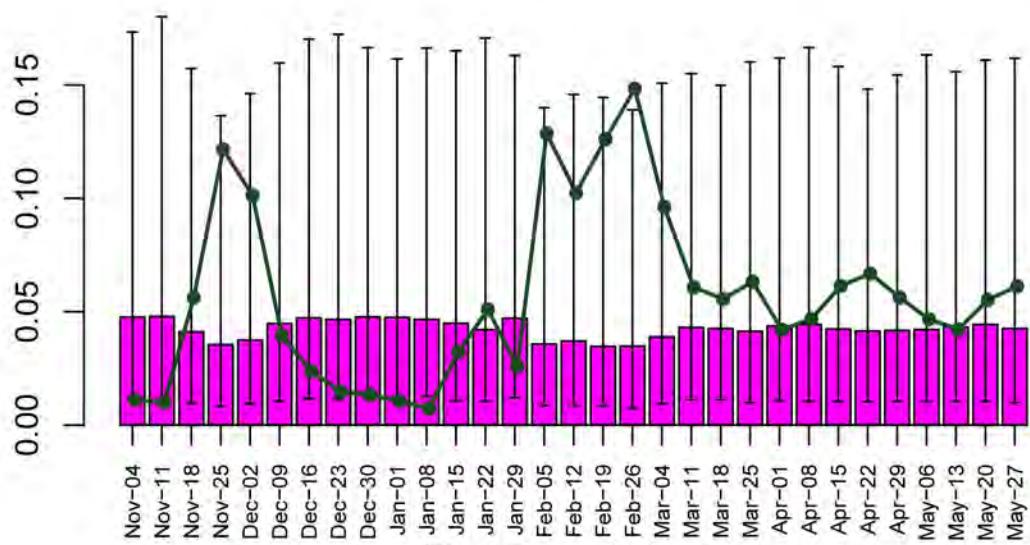
# ubc\_1999 Ntot=884 (450 - 2164) cv=45%

Abundance ('000s)



Discharge (kcfs)

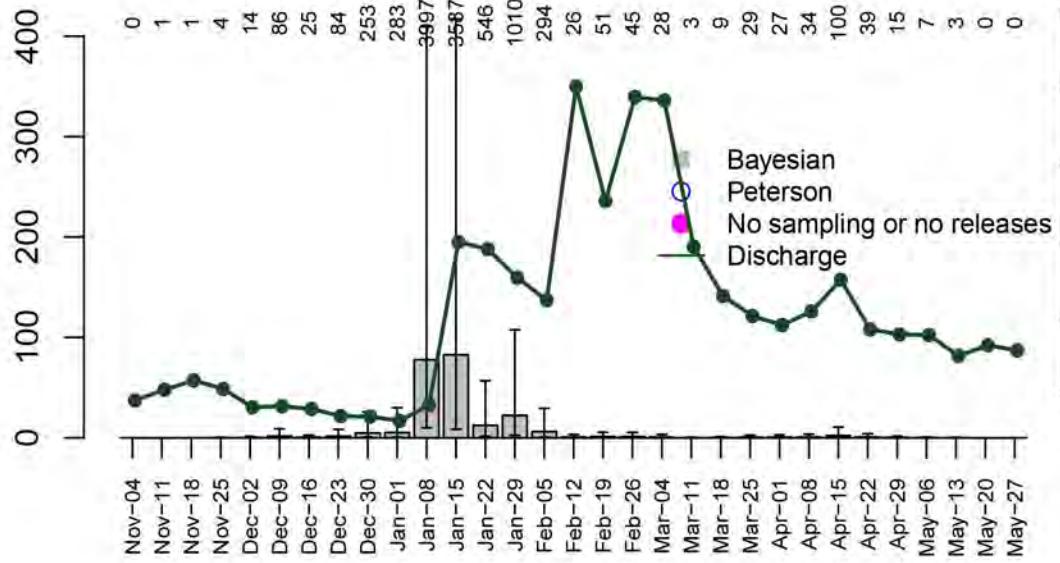
Capture Probability



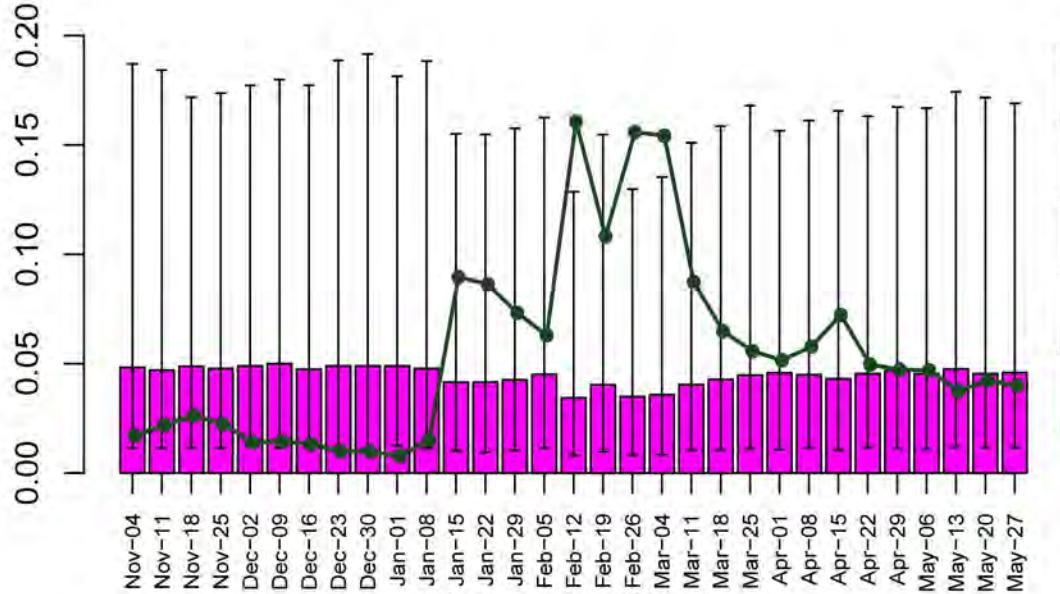
First Date of Week

# ubc\_2000 Ntot=269 (123 - 719) cv=49%

Abundance ('000s)

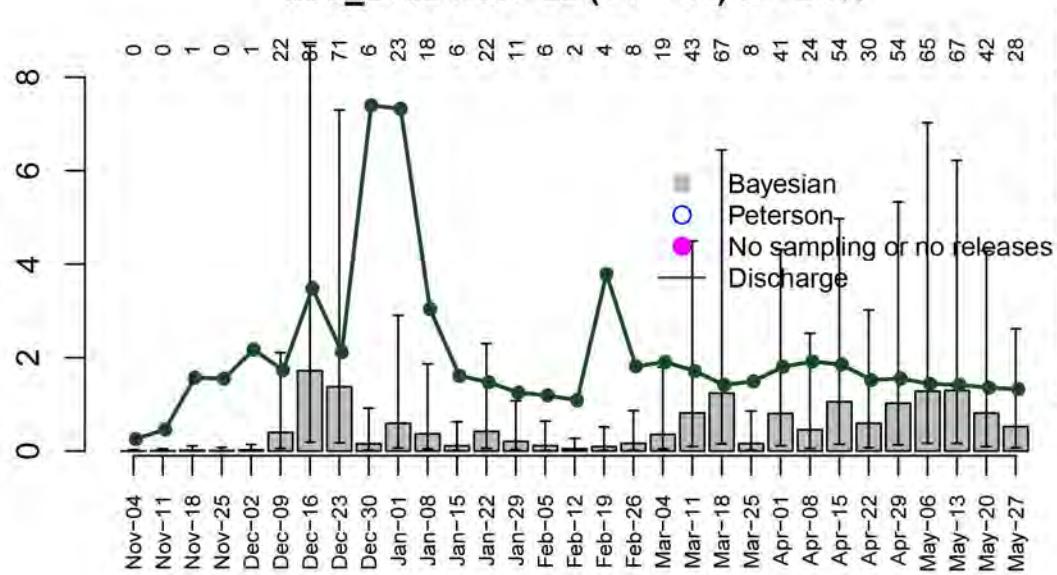


Capture Probability



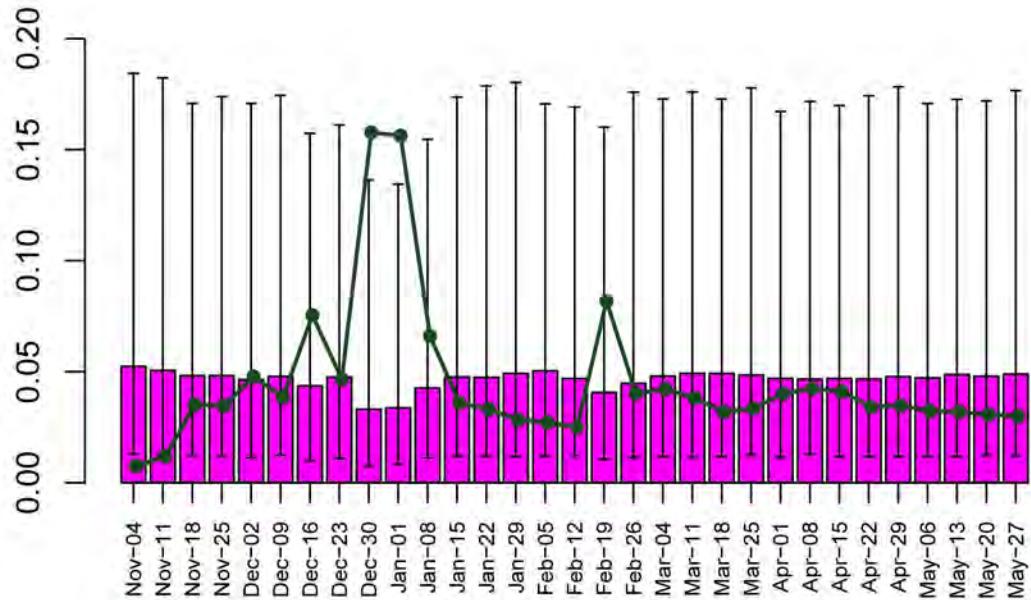
# ubc\_2002 Ntot=22 (14 – 34) cv=23%

Abundance ('000s)



Bayesian  
Peterson  
No sampling or no releases  
Discharge

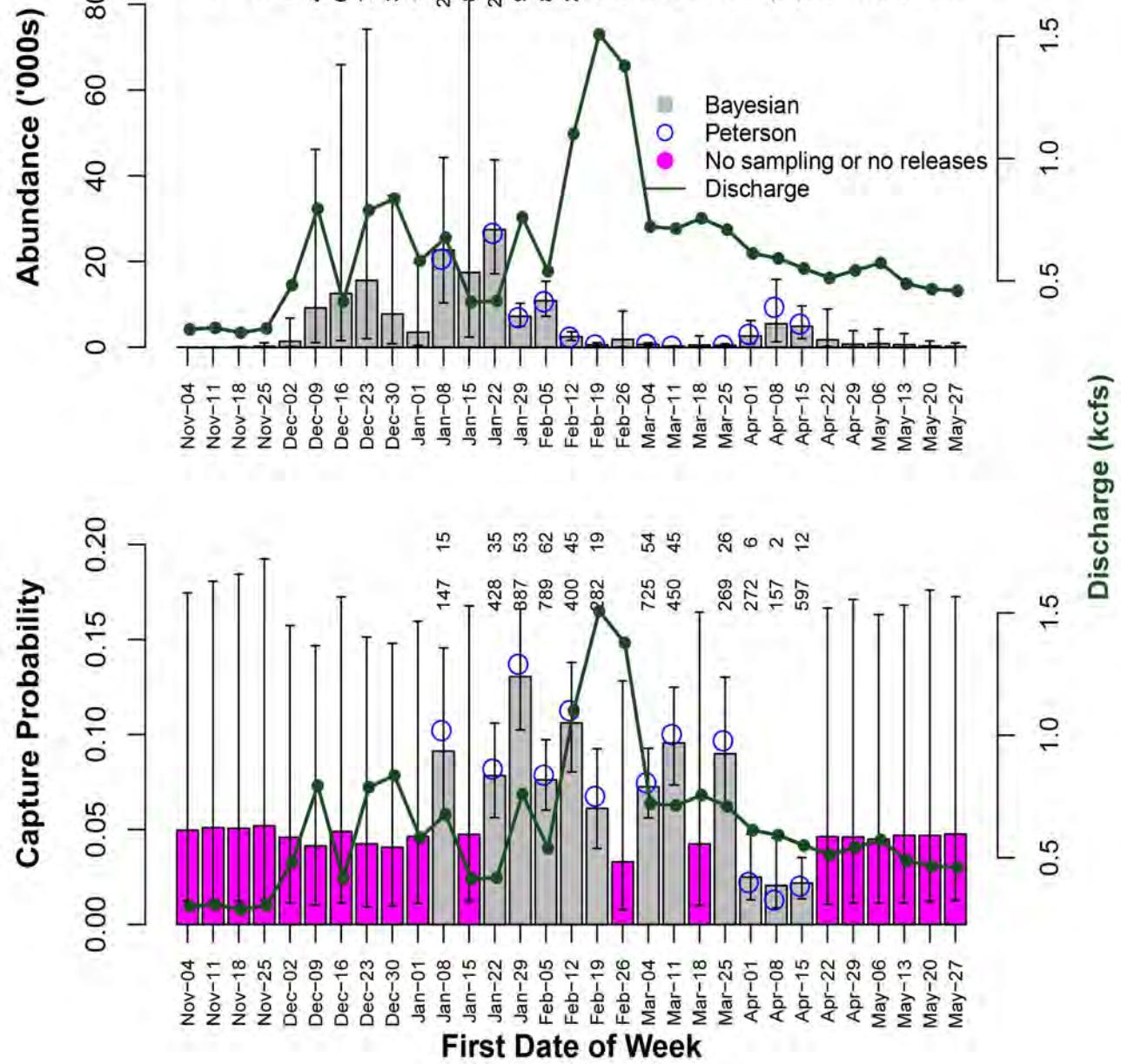
Capture Probability



Discharge (kcfs)

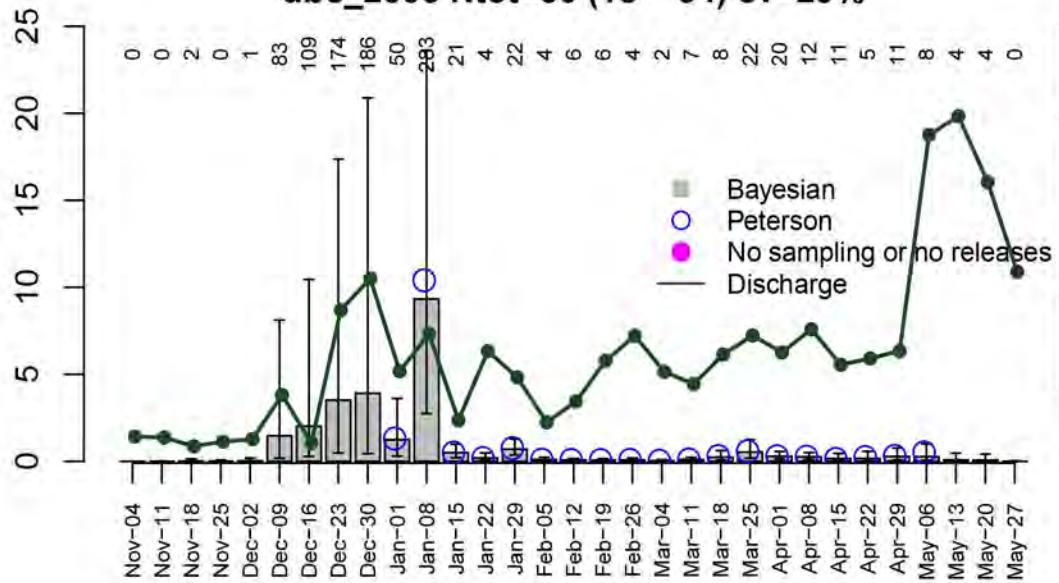
First Date of Week

# ubc\_2004 Ntot=182 (131 - 286) cv=21%



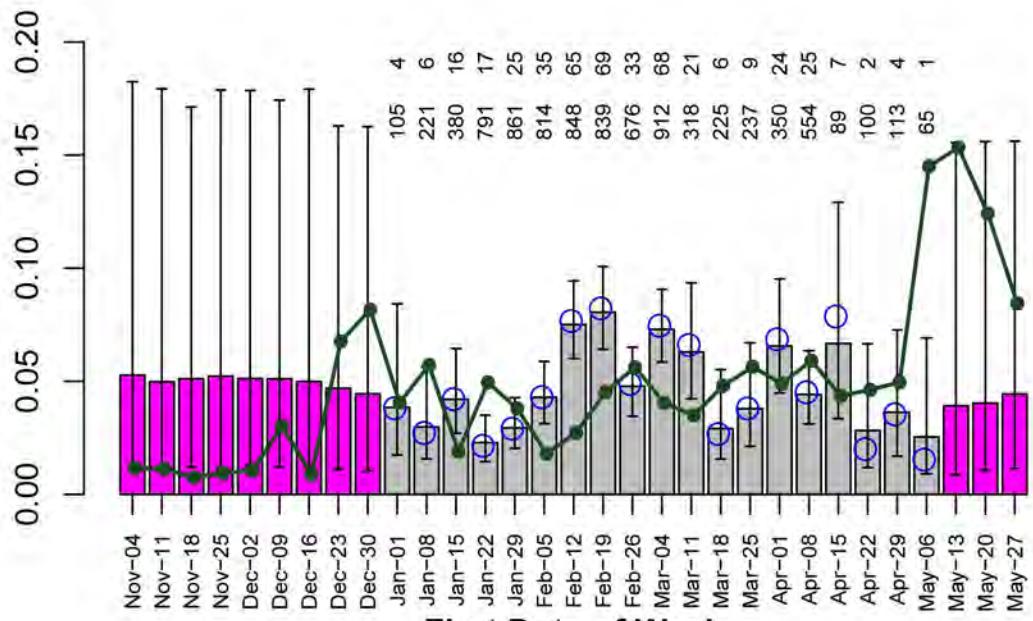
# ubc\_2005 Ntot=30 (18 - 54) cv=29%

Abundance ('000s)



Discharge (kcfs)

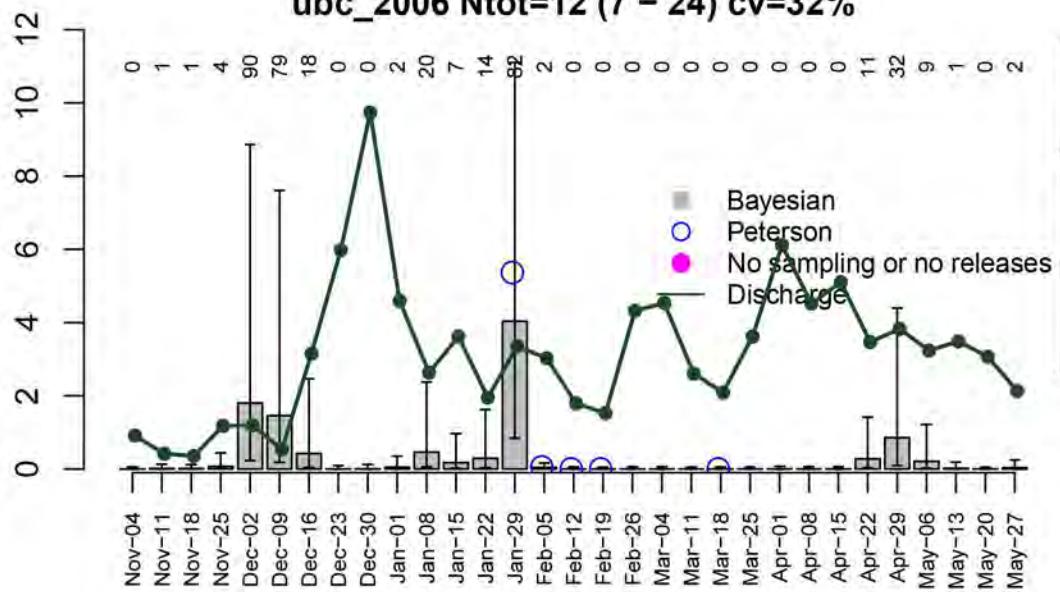
Capture Probability



First Date of Week

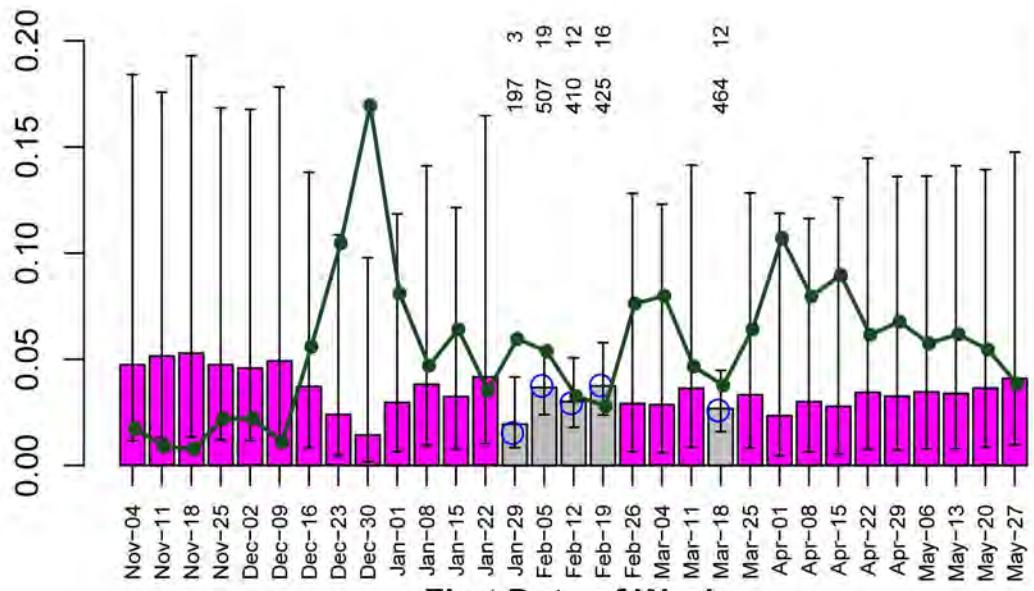
# ubc\_2006 Ntot=12 (7 - 24) cv=32%

Abundance ('000s)



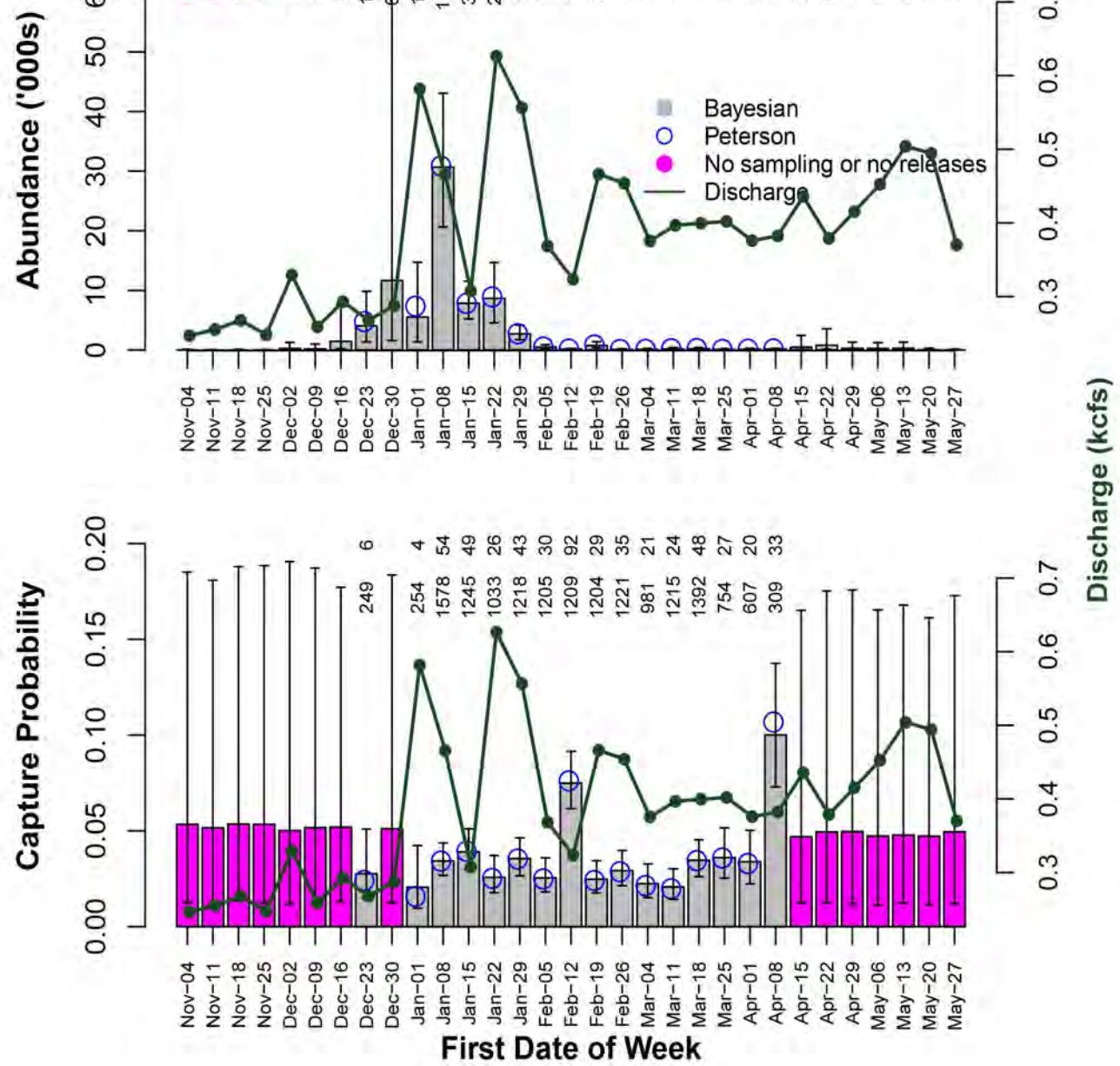
Discharge (kcfs)

Capture Probability



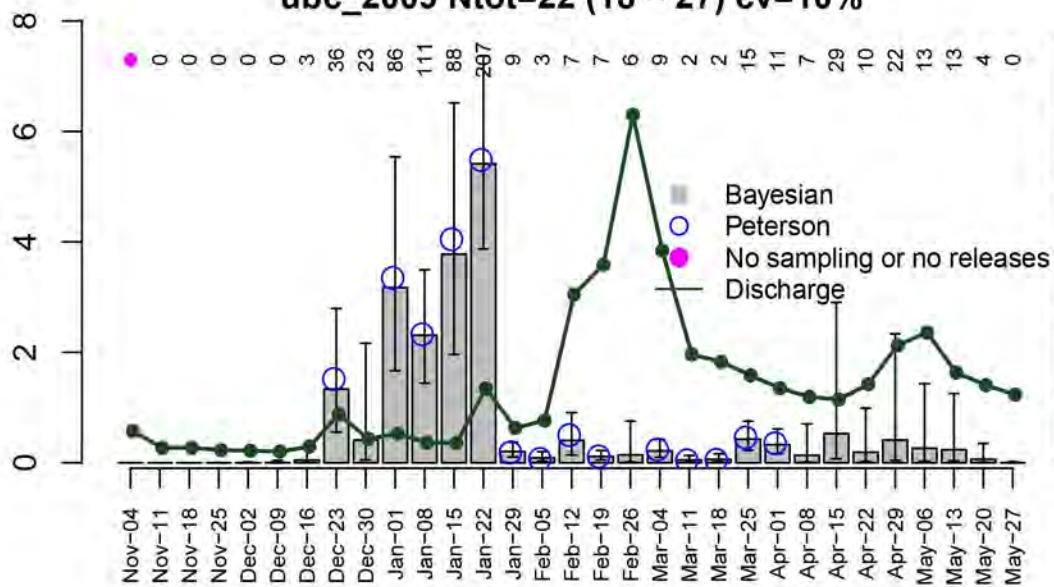
First Date of Week

# ubc\_2008 Ntot=82 (63 - 131) cv=20%

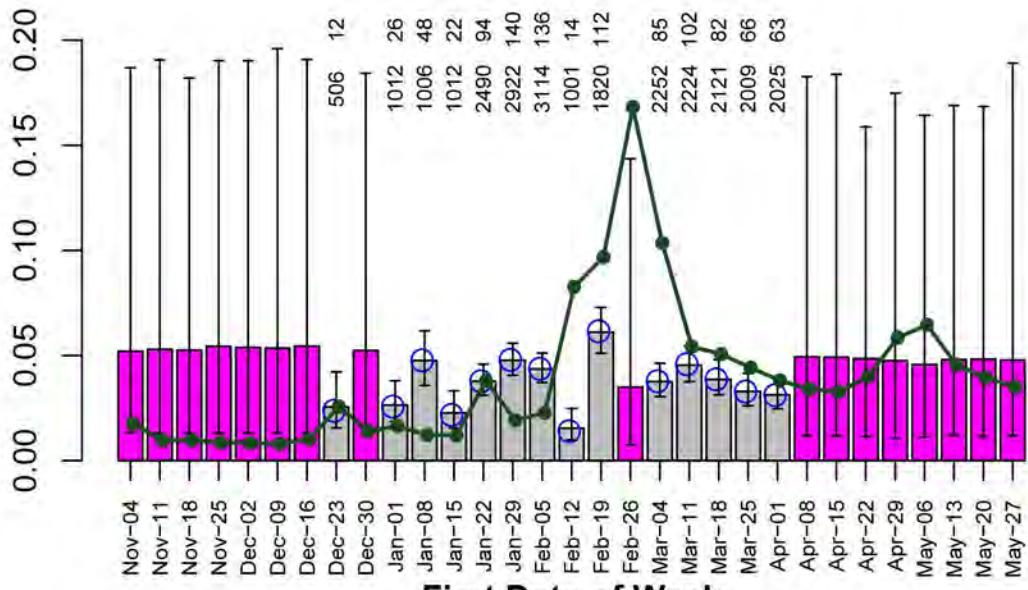


# ubc\_2009 Ntot=22 (18 – 27) cv=10%

Abundance ('000s)



Capture Probability

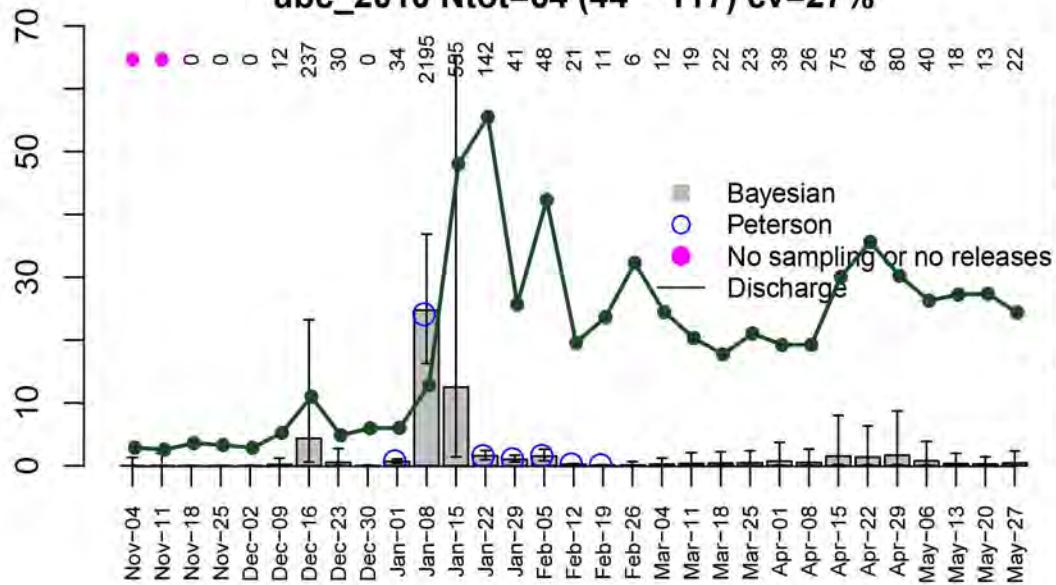


First Date of Week

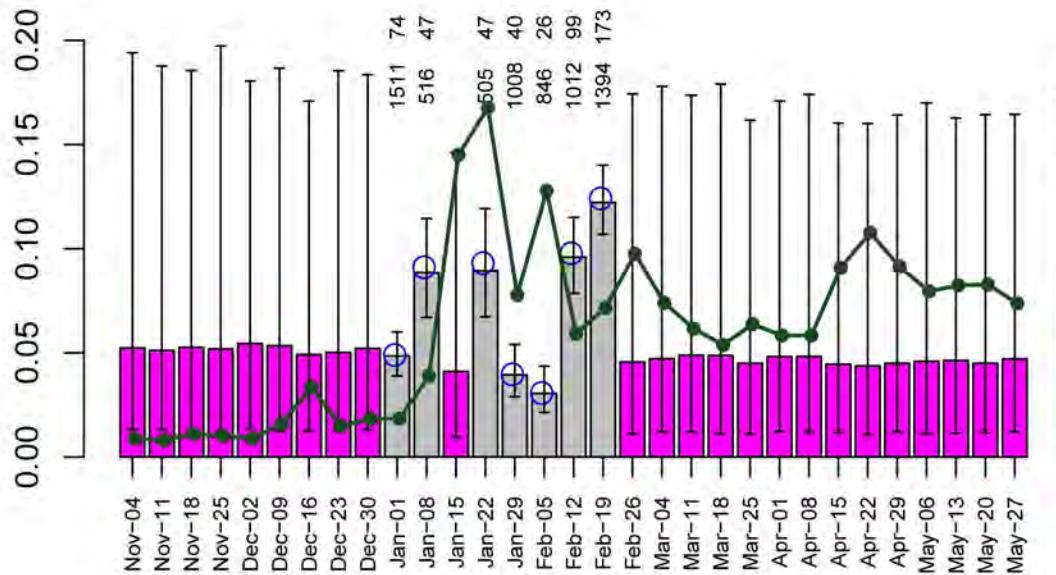
Discharge (kcfs)

# ubc\_2010 Ntot=64 (44 - 117) cv=27%

Abundance ('000s)



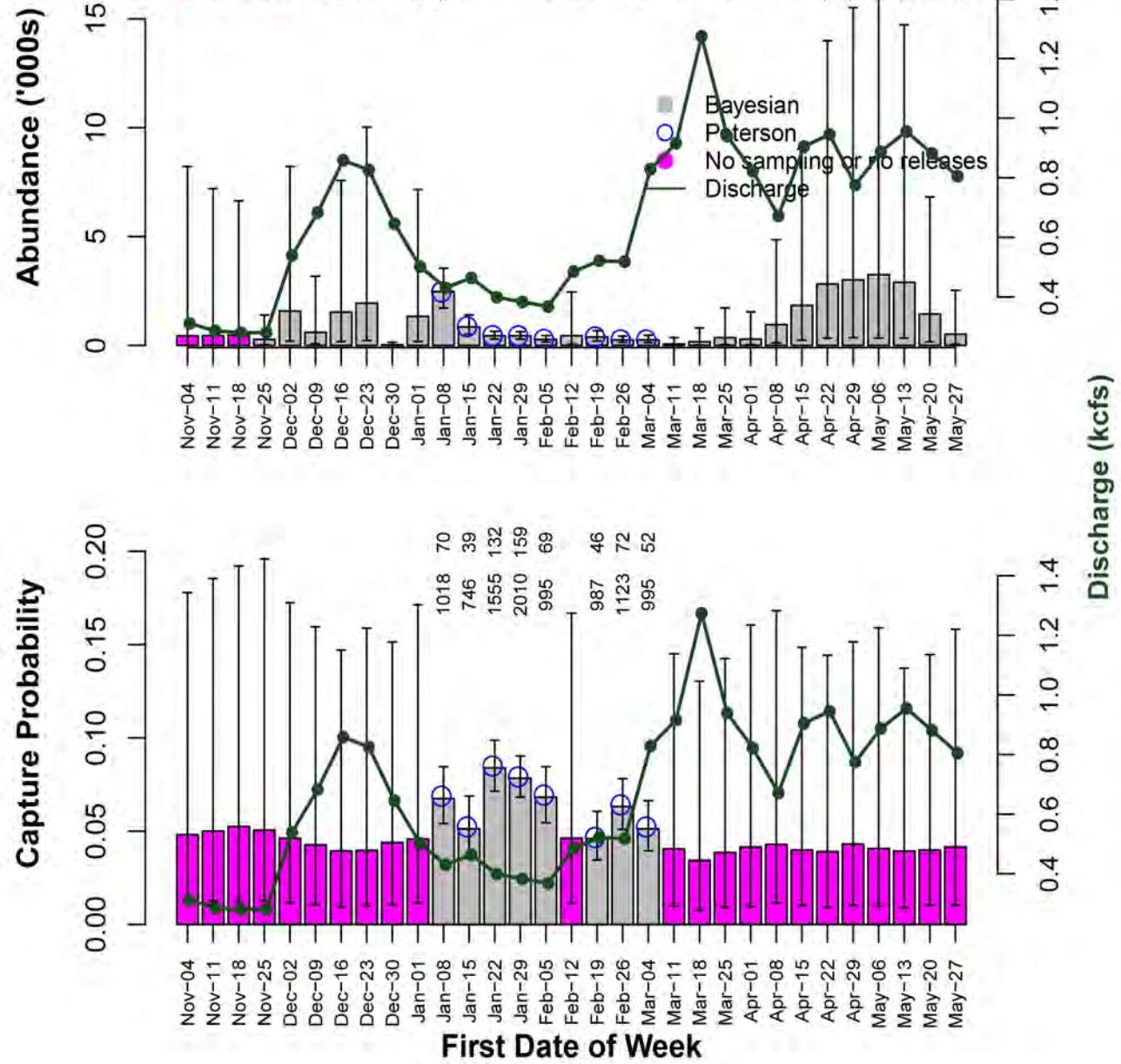
Capture Probability



First Date of Week

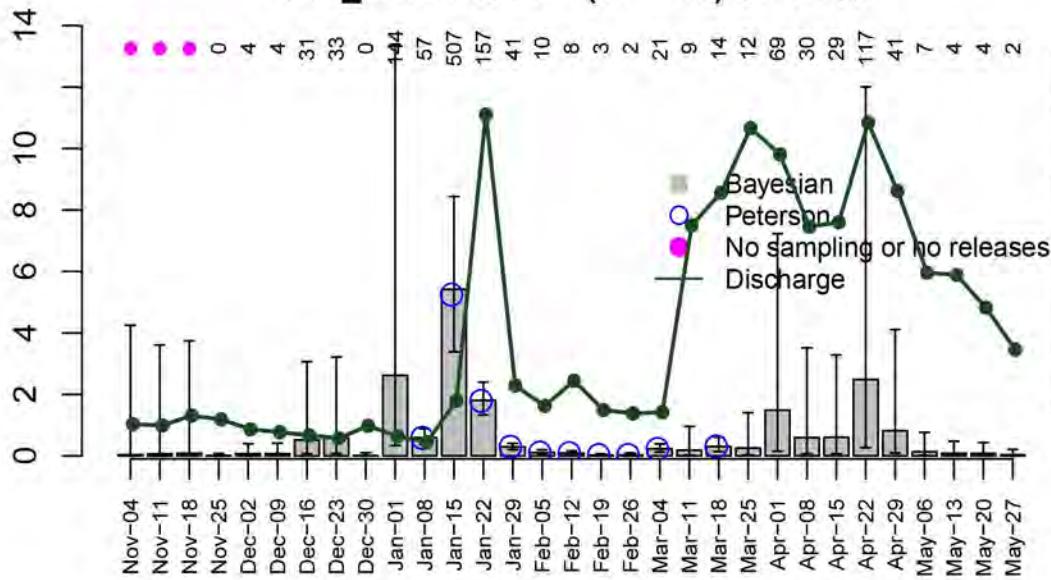
Discharge (kcfs)

# ubc\_2011 Ntot=43 (28 - 66) cv=22%

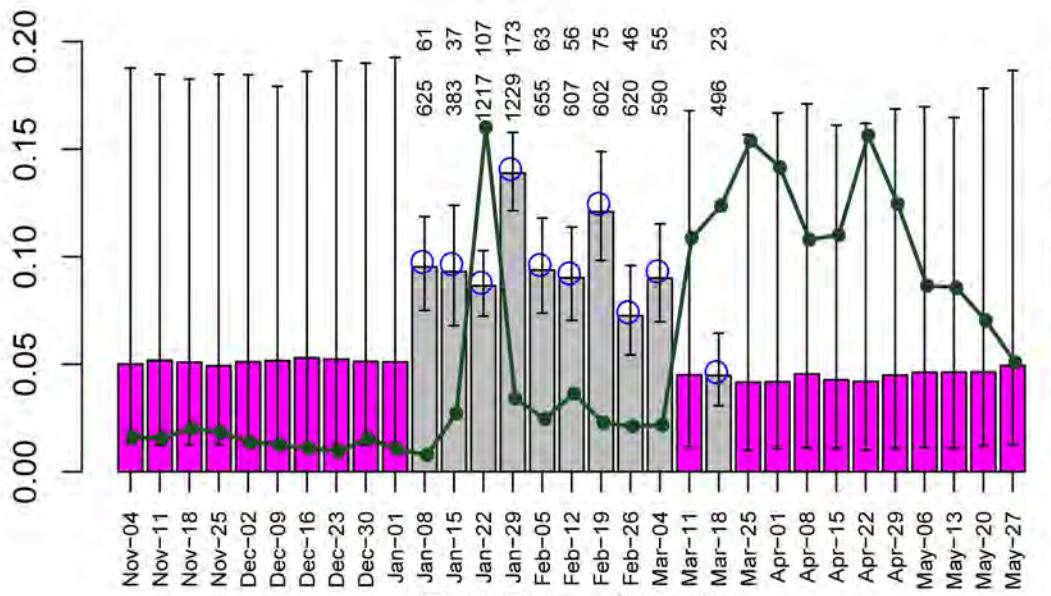


# ubc\_2012 Ntot=24 (17 – 40) cv=24%

Abundance ('000s)



Capture Probability

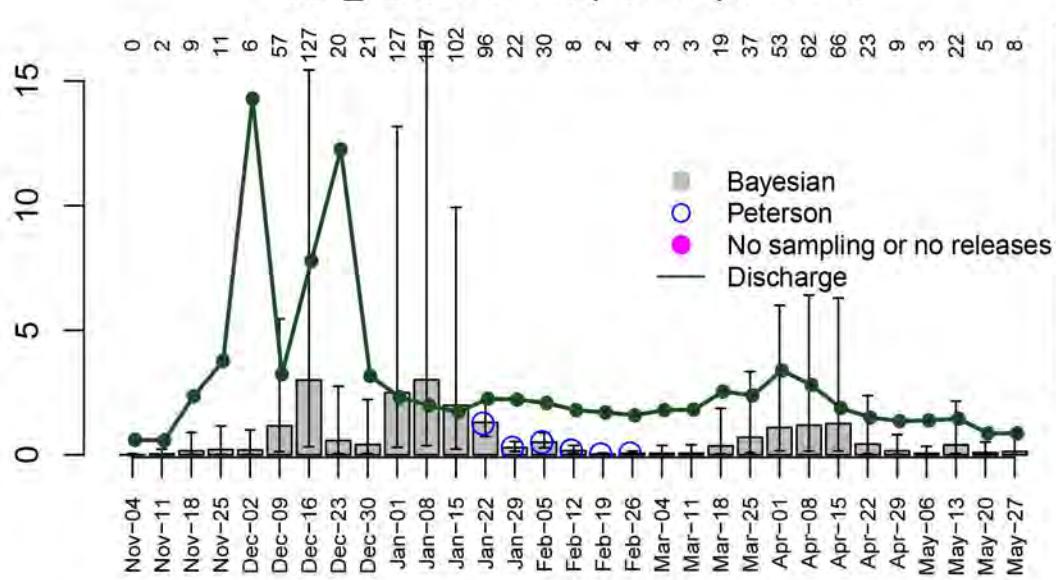


First Date of Week

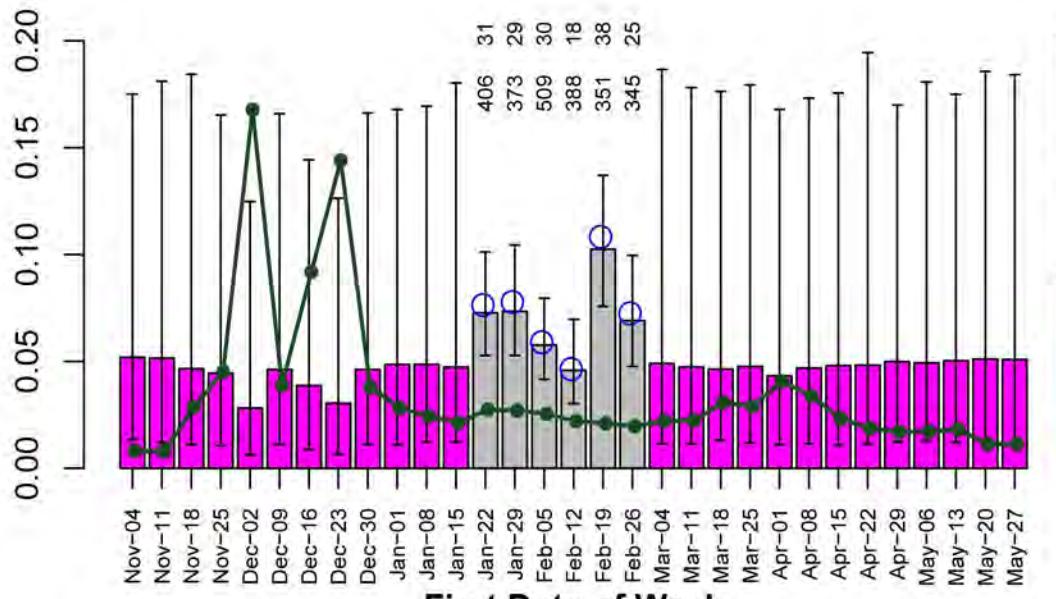
Discharge (kcfs)

# ubc\_2013 Ntot=28 (18 – 47) cv=27%

Abundance ('000s)



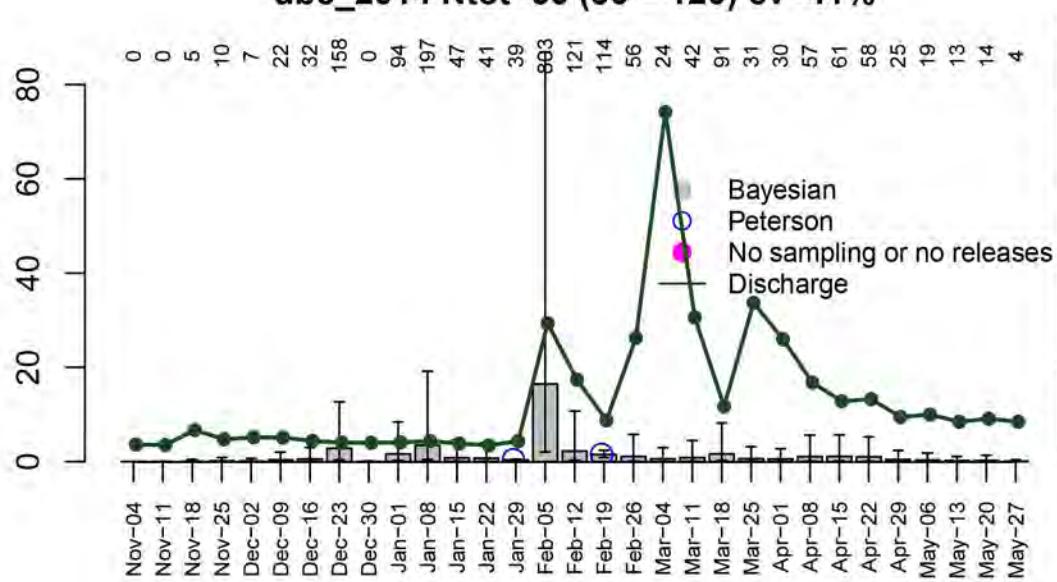
Capture Probability



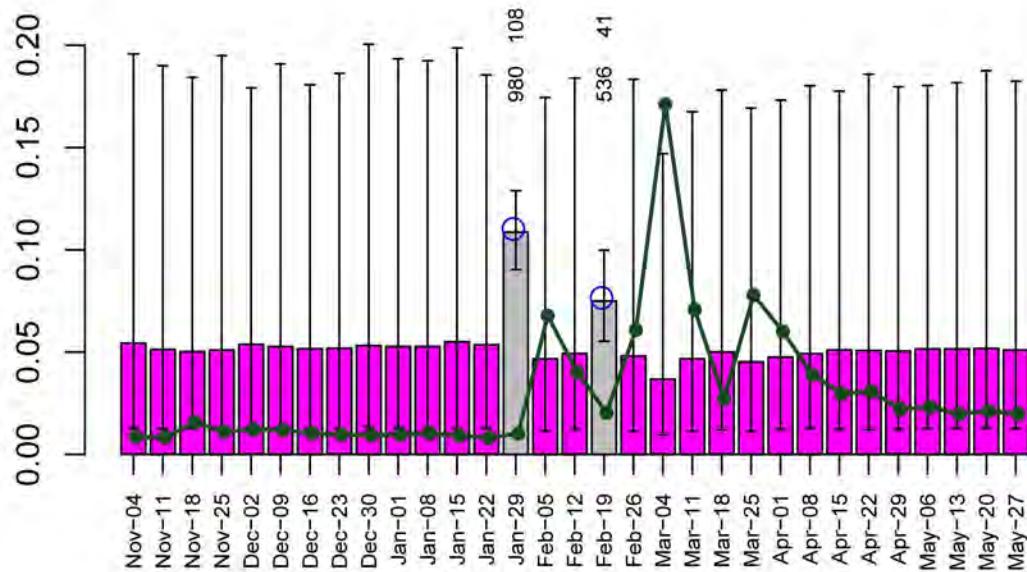
Discharge (kcfs)

# ubc\_2014 Ntot=50 (30 – 120) cv=41%

Abundance ('000s)



Capture Probability



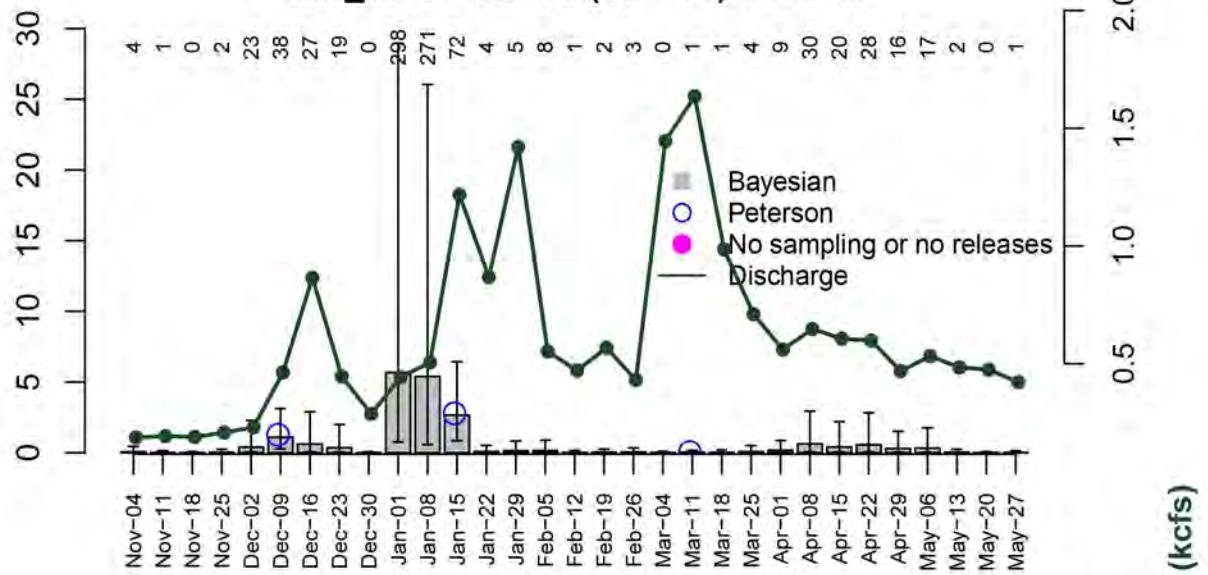
First Date of Week

Discharge (kcfs)

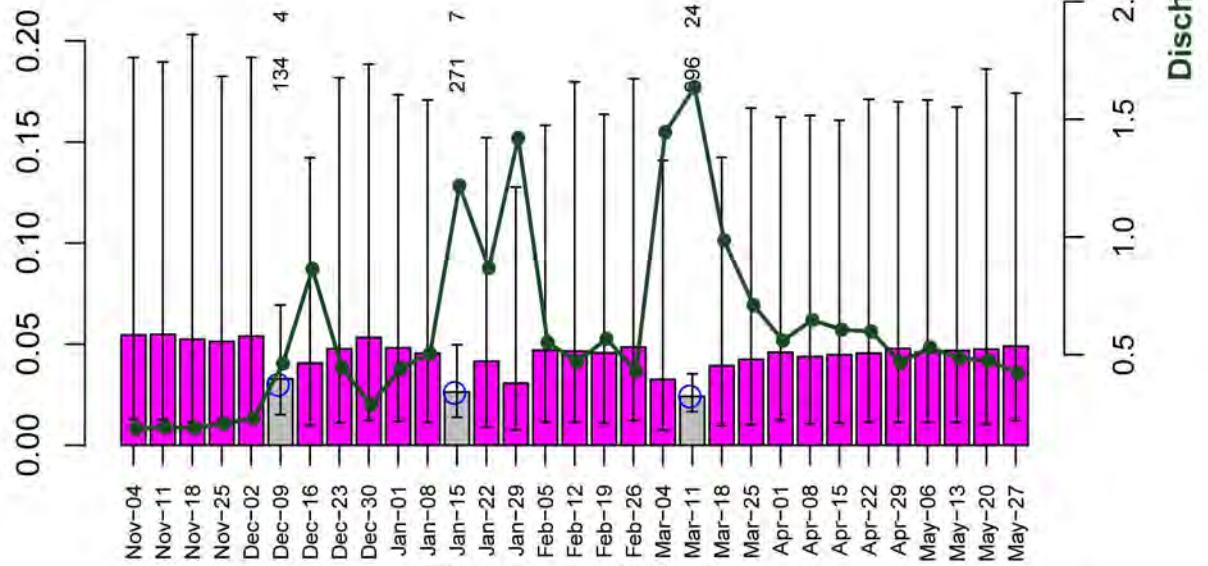
0.2 0.4 0.6 0.8 1.0 1.2

# ubc\_2016 Ntot=23 (13 - 55) cv=41%

Abundance ('000s)



Capture Probability

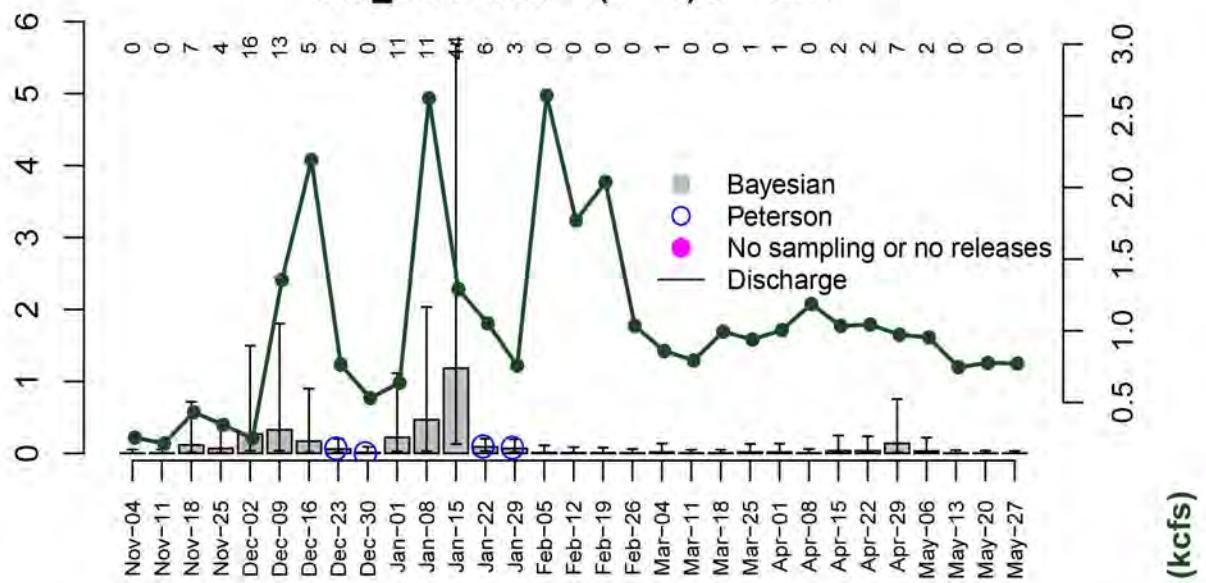


First Date of Week

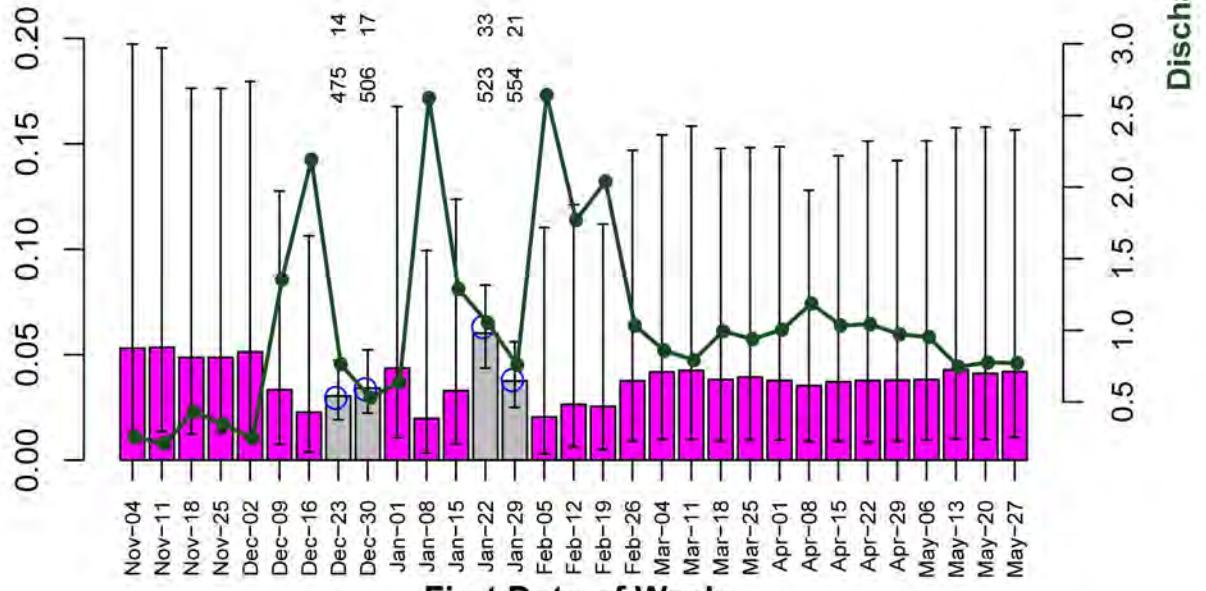
Discharge (kcfs)

# ubc\_2017 Ntot=4 (2 - 9) cv=36%

Abundance ('000s)



Capture Probability

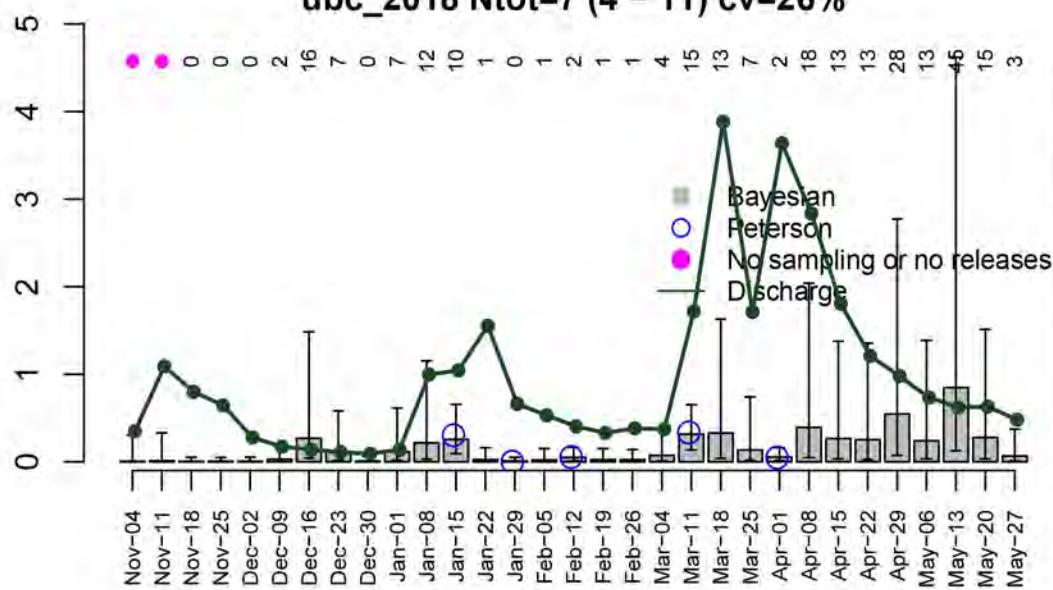


First Date of Week

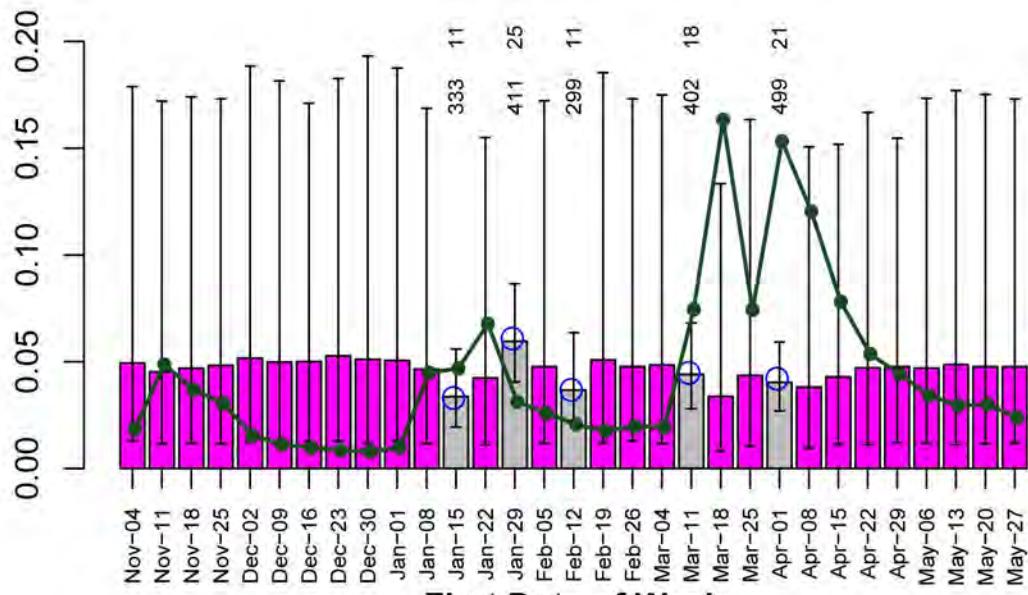
Discharge (kcfs)

# ubc\_2018 Ntot=7 (4 - 11) cv=26%

Abundance ('000s)



Capture Probability

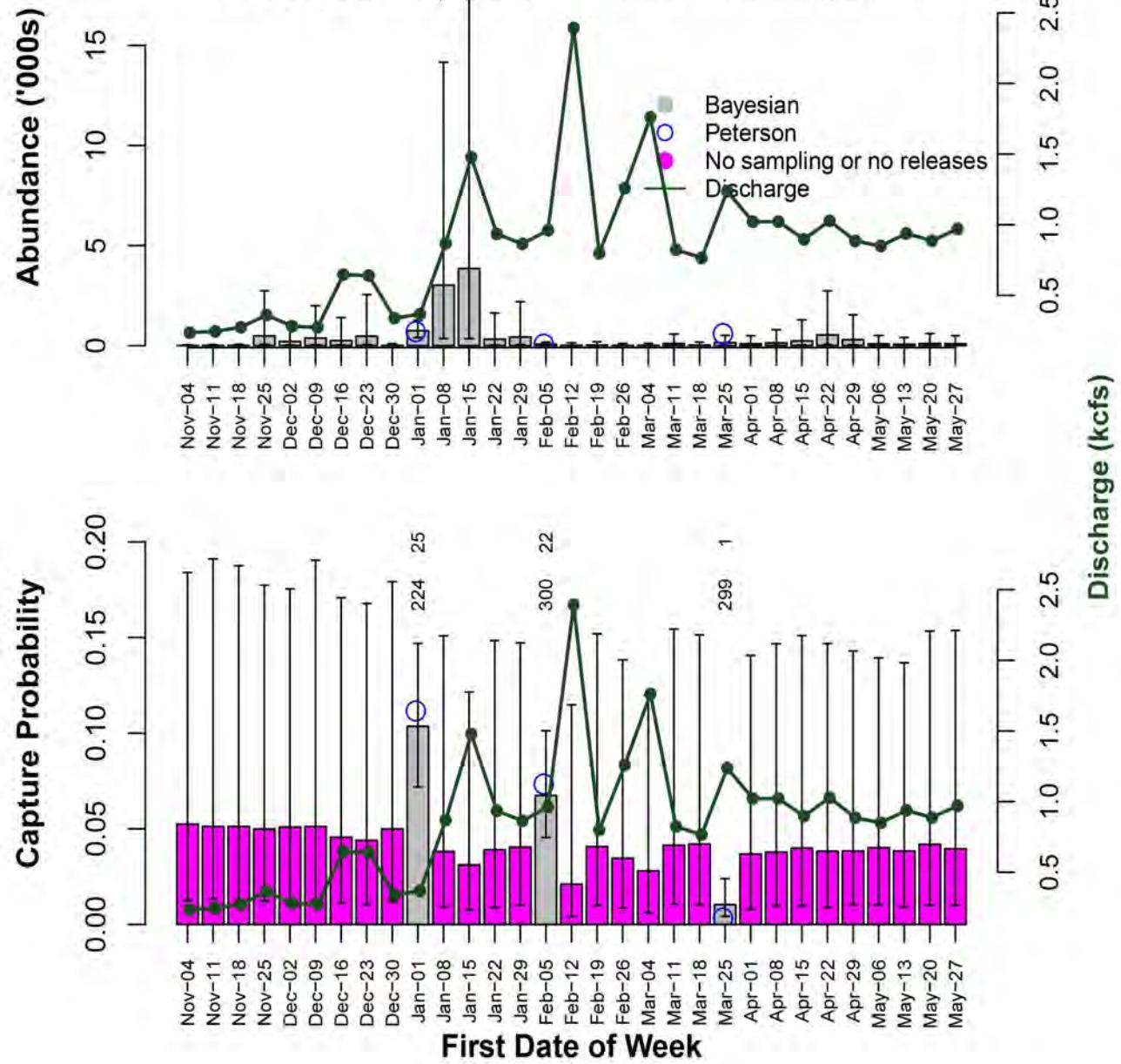


First Date of Week

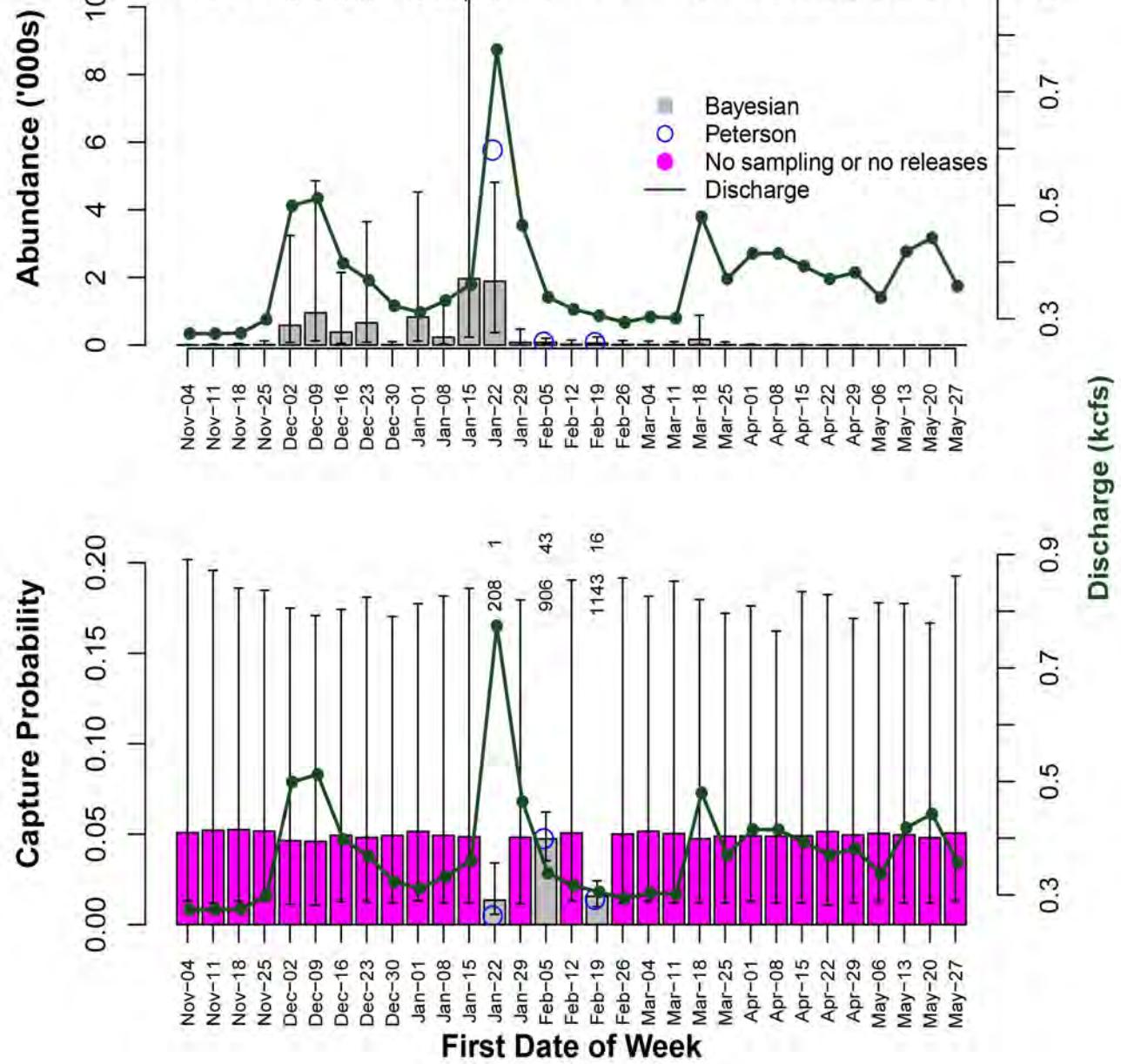
Discharge (kcfs)

0.4 0.6 0.8 1.0 1.2 1.4

# ubc\_2019 Ntot=15 (8 - 32) cv=36%

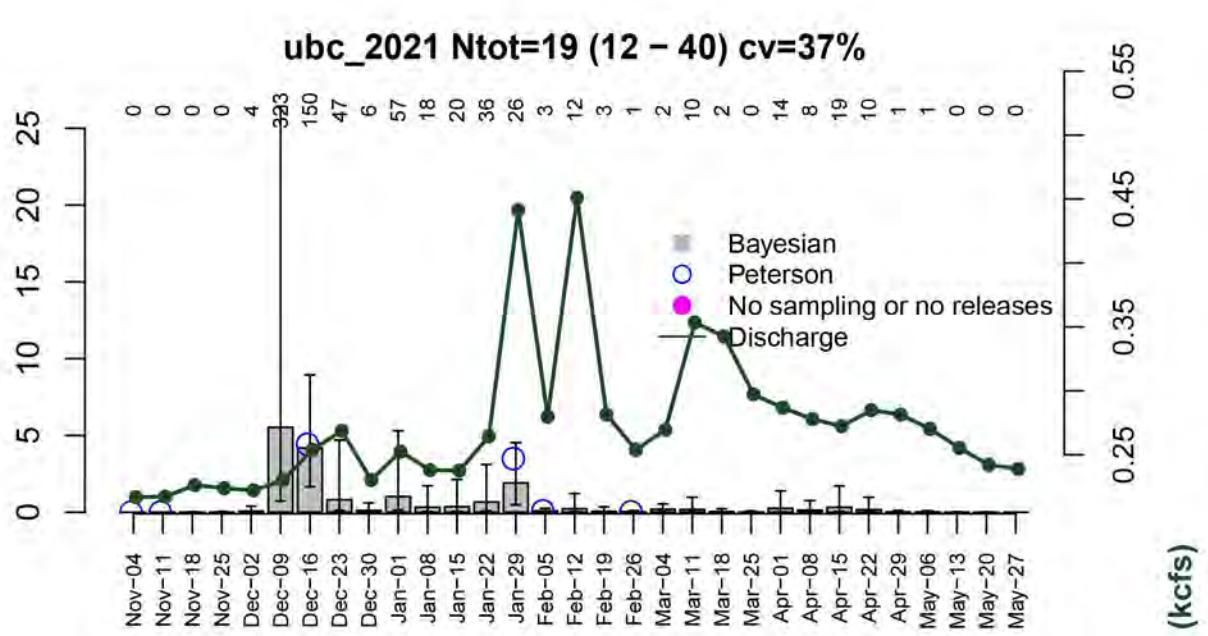


# ubc\_2020 Ntot=10 (5 - 20) cv=34%

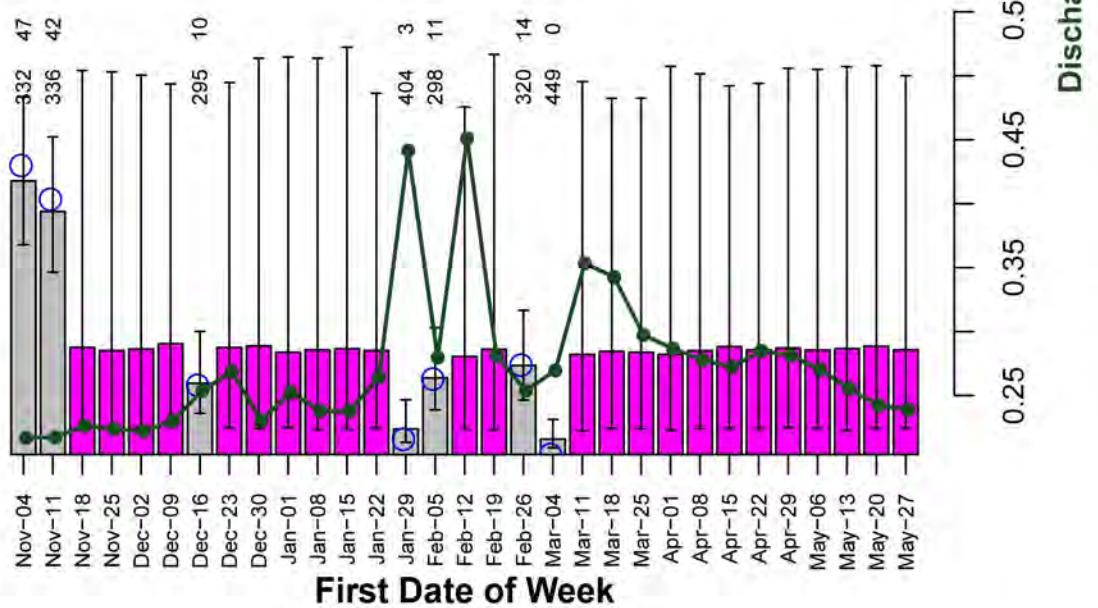


# ubc\_2021 Ntot=19 (12 – 40) cv=37%

Abundance ('000s)

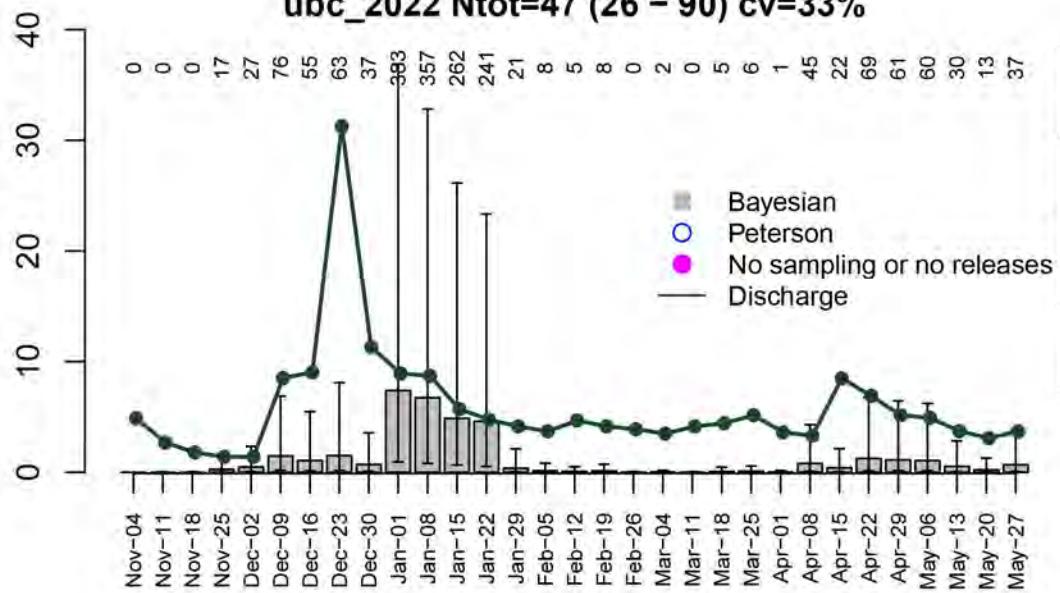


Capture Probability

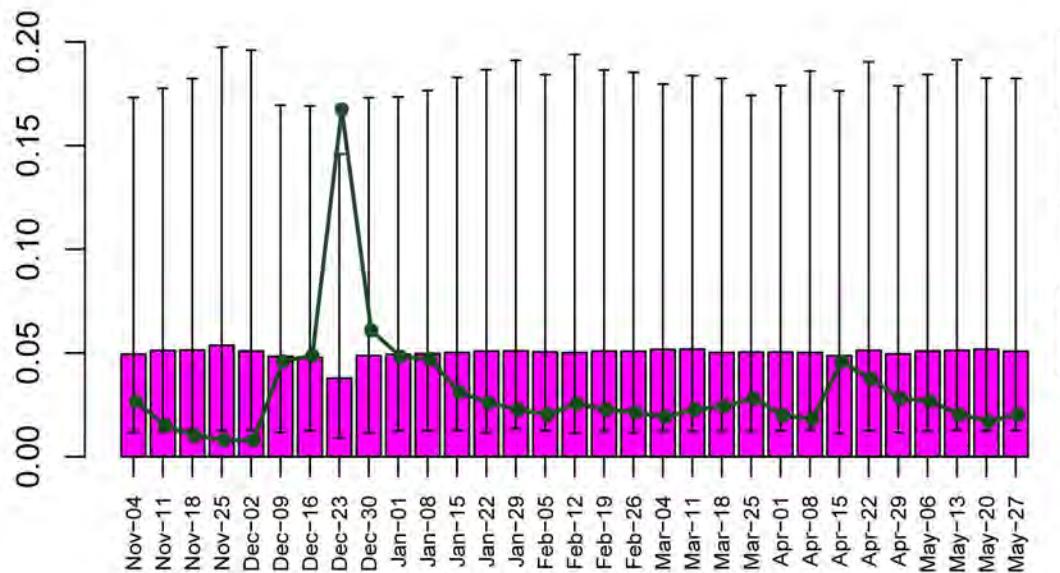


### ubc\_2022 Ntot=47 (26 - 90) cv=33%

Abundance ('000s)



Capture Probability

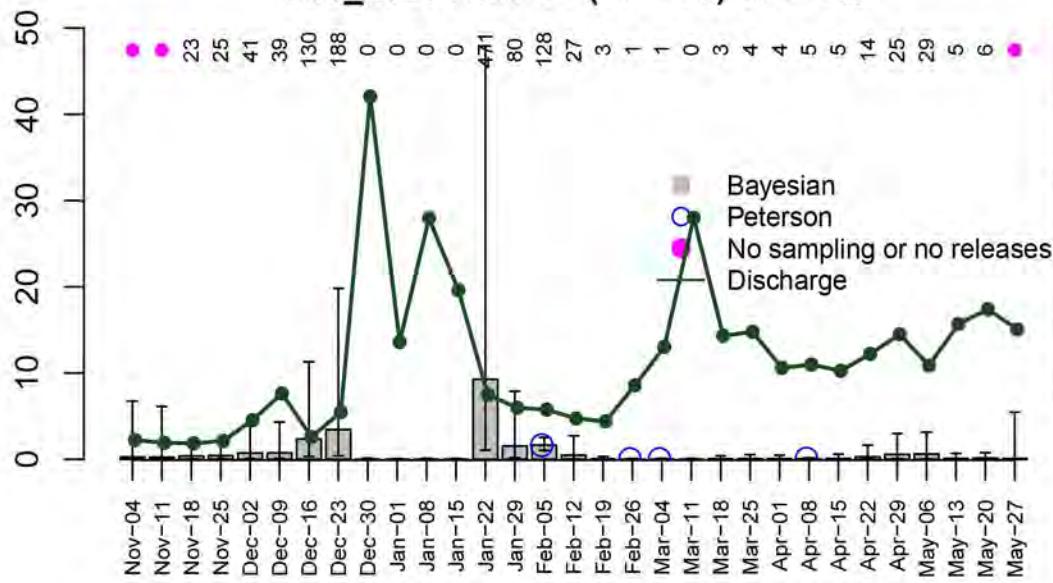


First Date of Week

Discharge (kcfs)

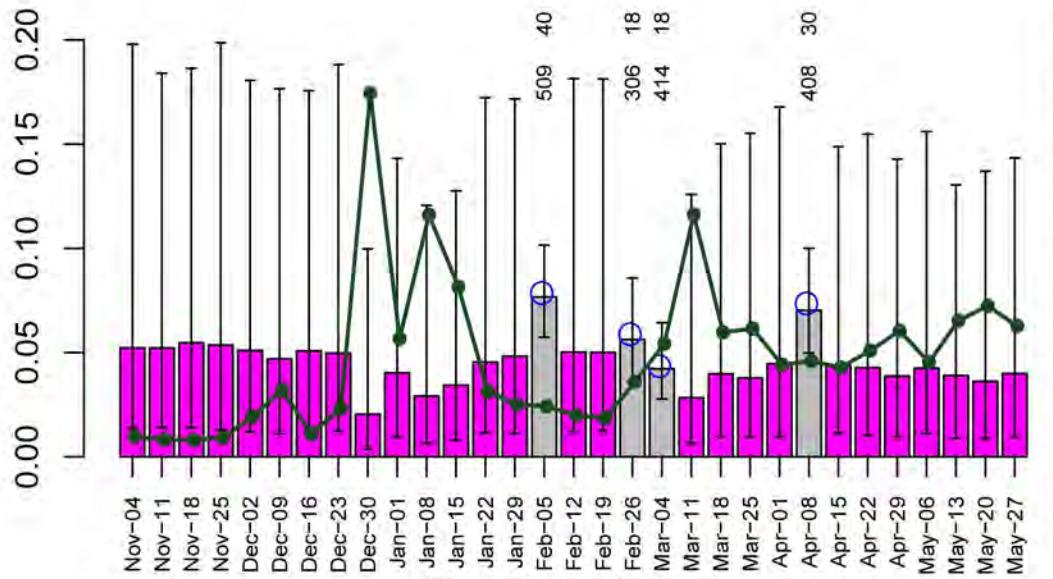
# ubc\_2023 Ntot=31 (17 - 73) cv=41%

Abundance ('000s)



Bayesian  
Peterson  
No sampling or no releases  
Discharge

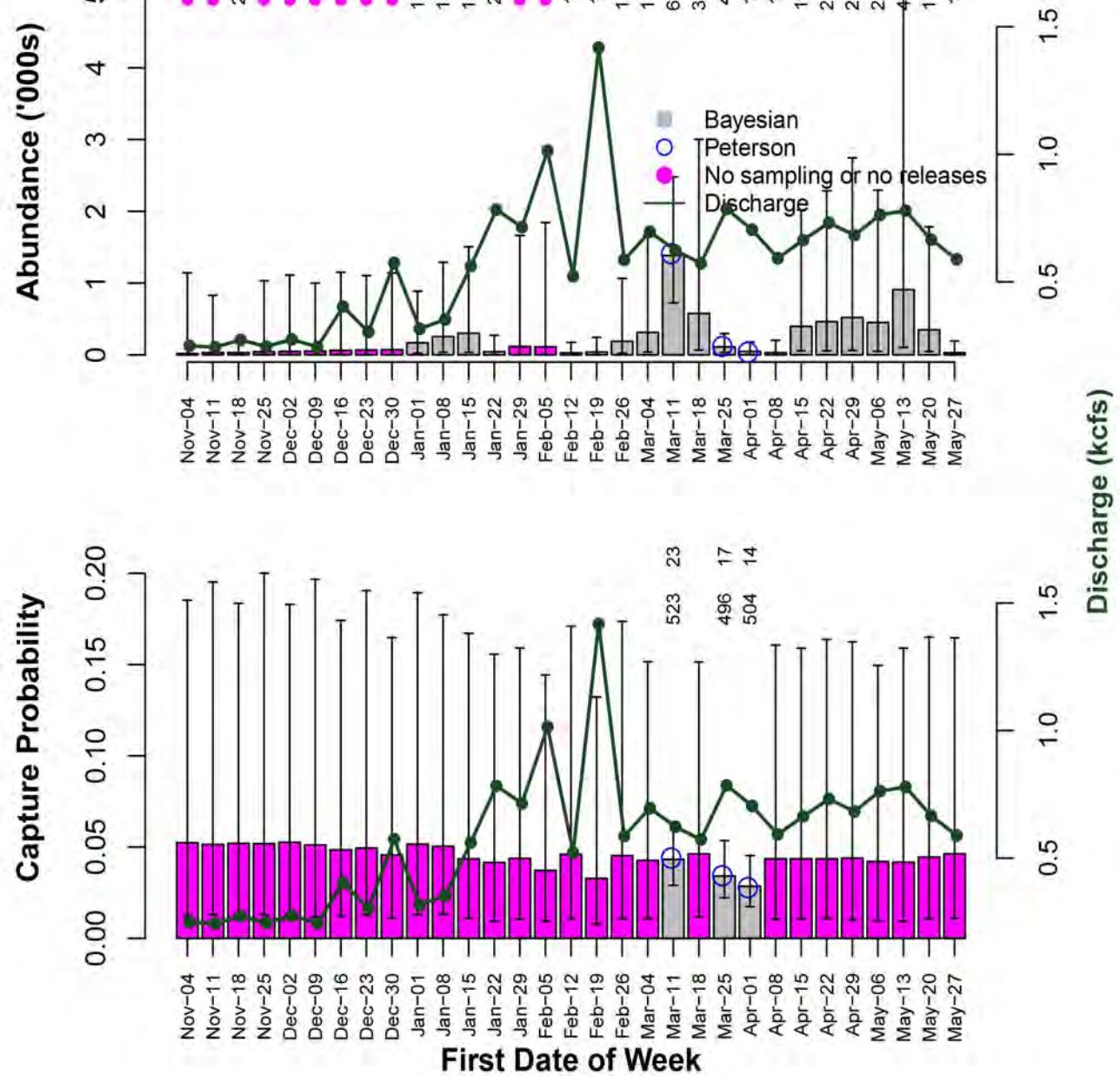
Capture Probability



First Date of Week

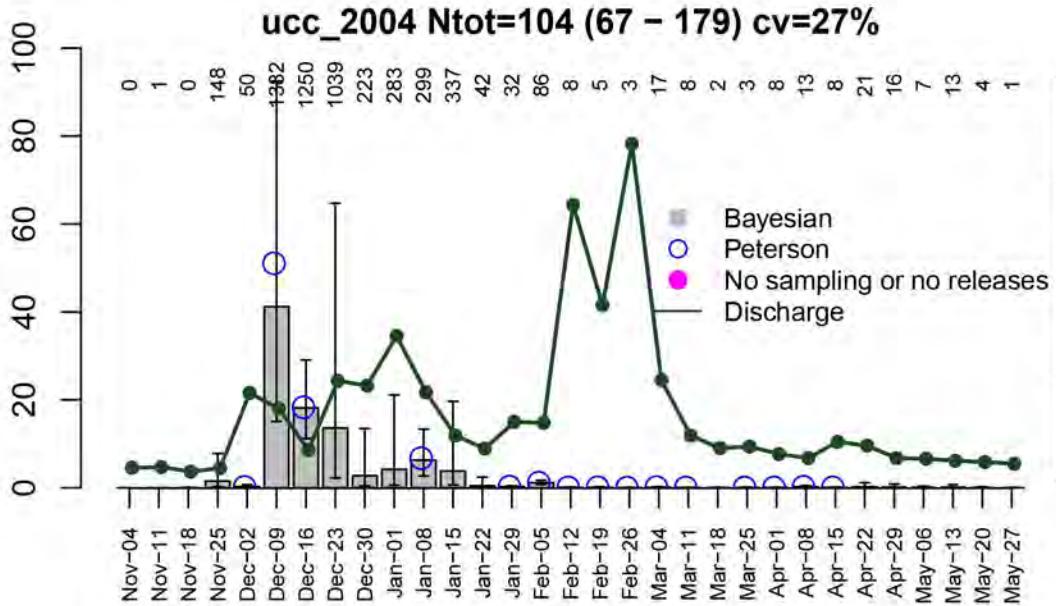
Discharge (kcfs)

# ubc\_2024 Ntot=10 (7 - 16) cv=23%

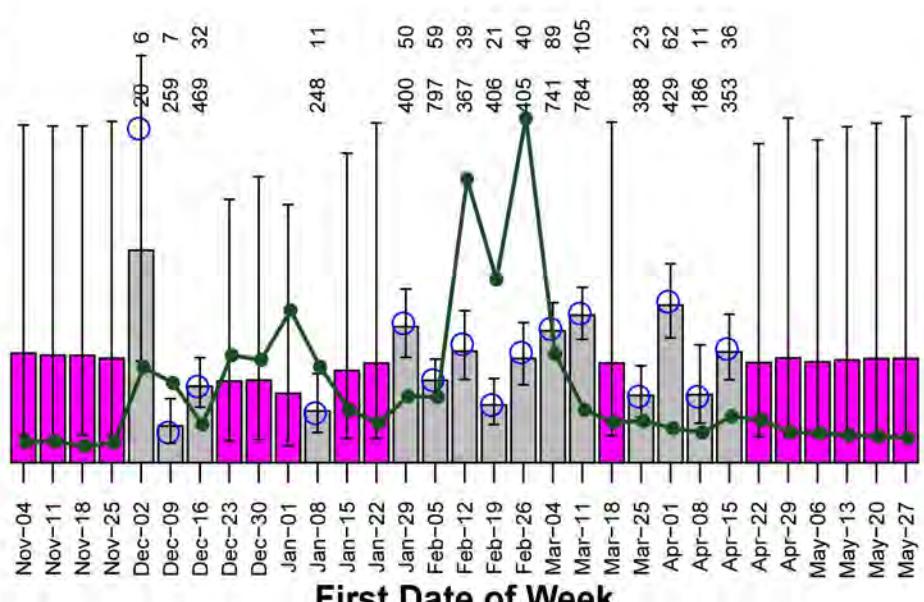


### ucc\_2004 Ntot=104 (67 - 179) cv=27%

Abundance ('000s)

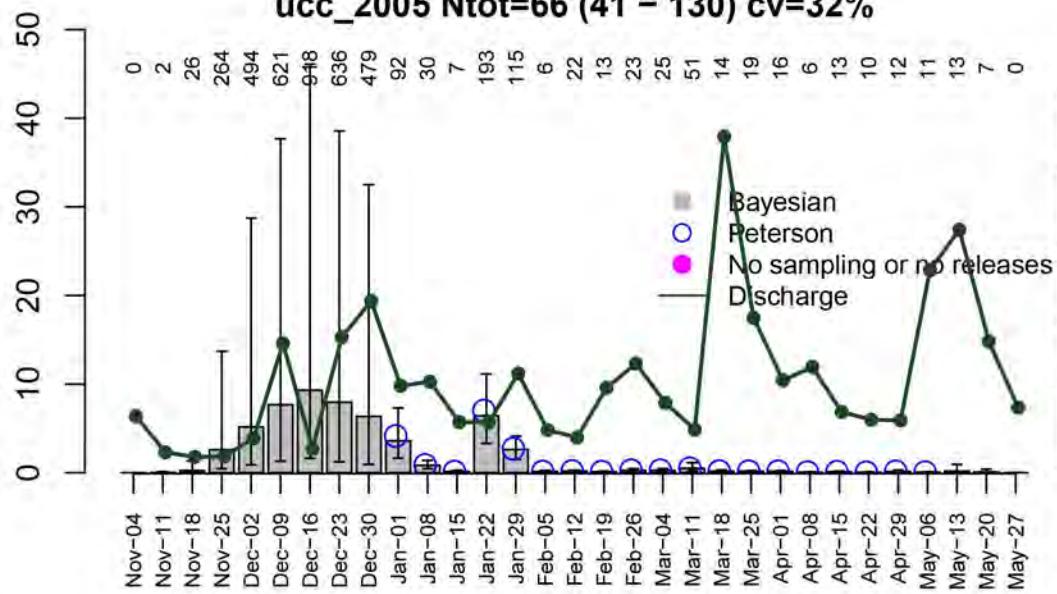


Capture Probability

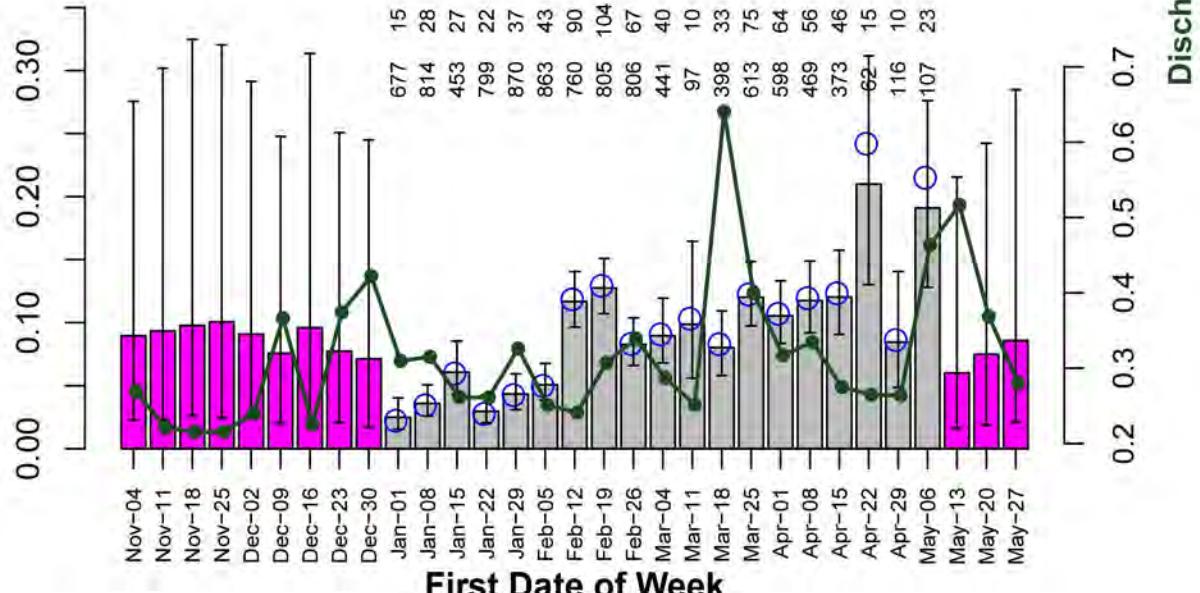


### ucc\_2005 Ntot=66 (41 – 130) cv=32%

Abundance ('000s)



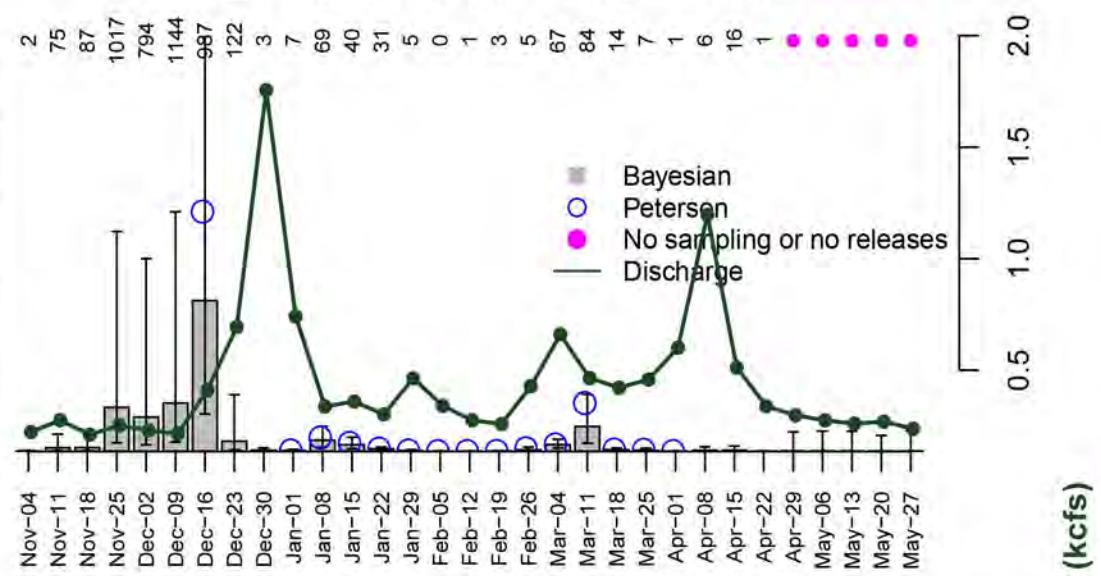
Capture Probability



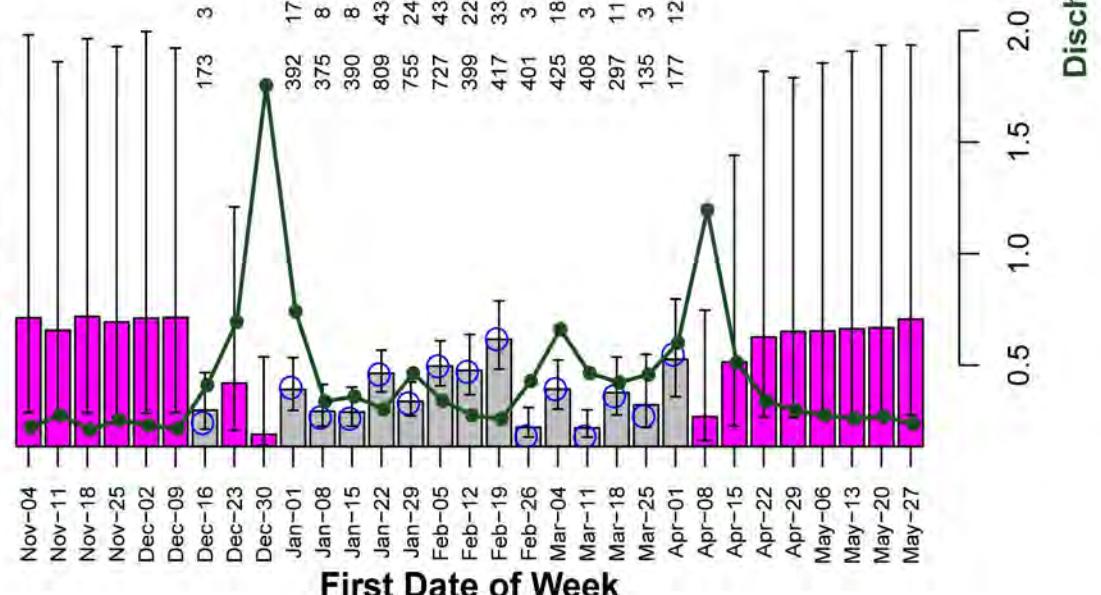
First Date of Week

# ucc\_2006 Ntot=98 (57 – 197) cv=33%

Abundance ('000s)

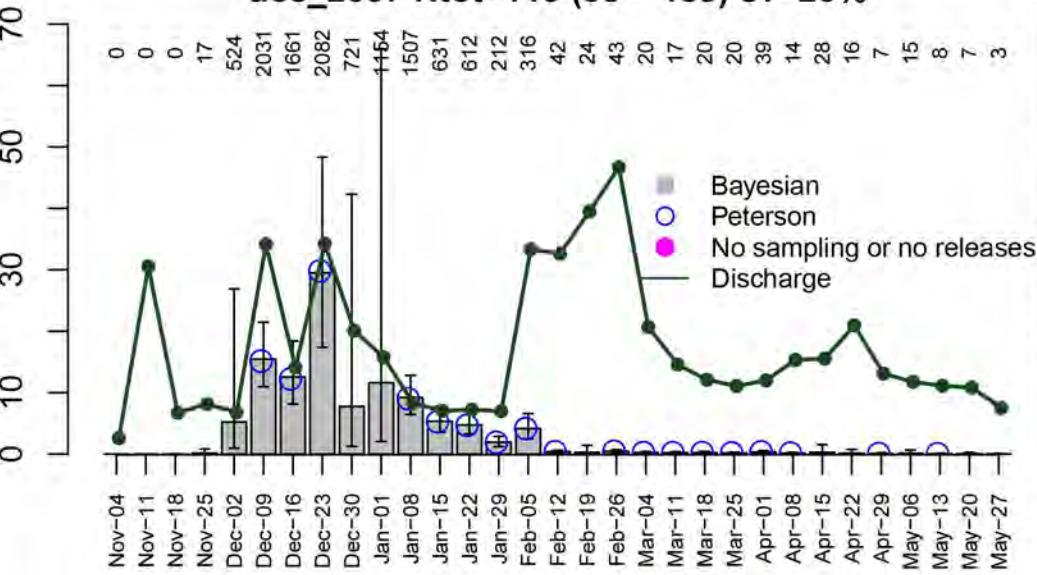


Capture Probability

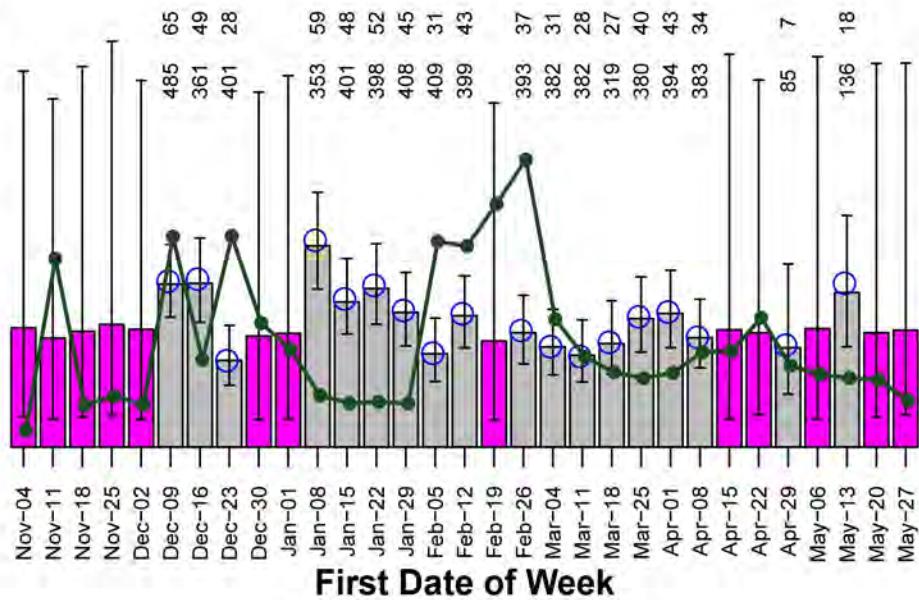


### ucc\_2007 Ntot=119 (93 - 189) cv=20%

Abundance ('000s)



Capture Probability

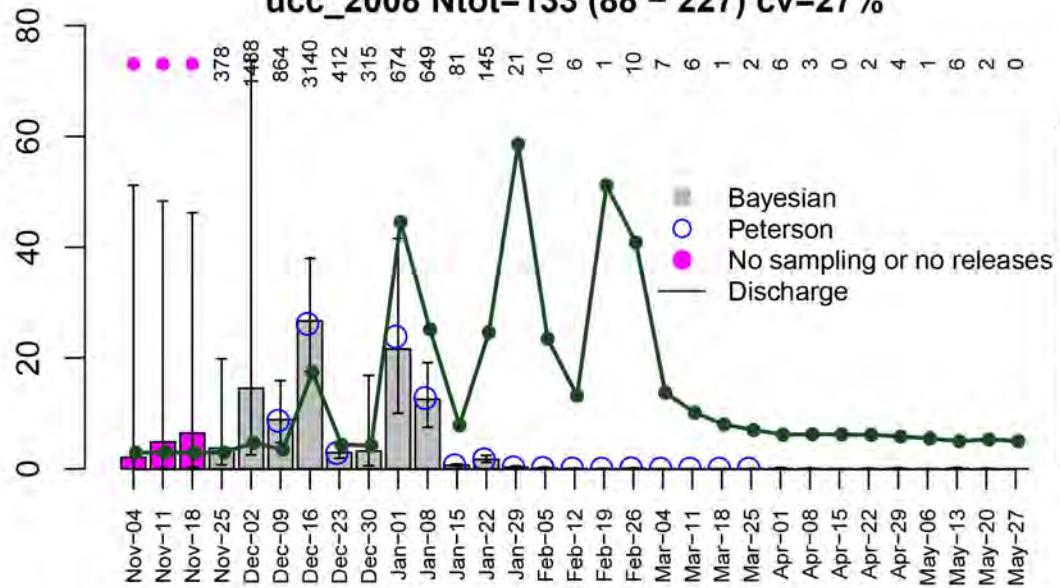


First Date of Week

Discharge (kcfs)

# ucc\_2008 Ntot=133 (88 - 227) cv=27%

Abundance ('000s)



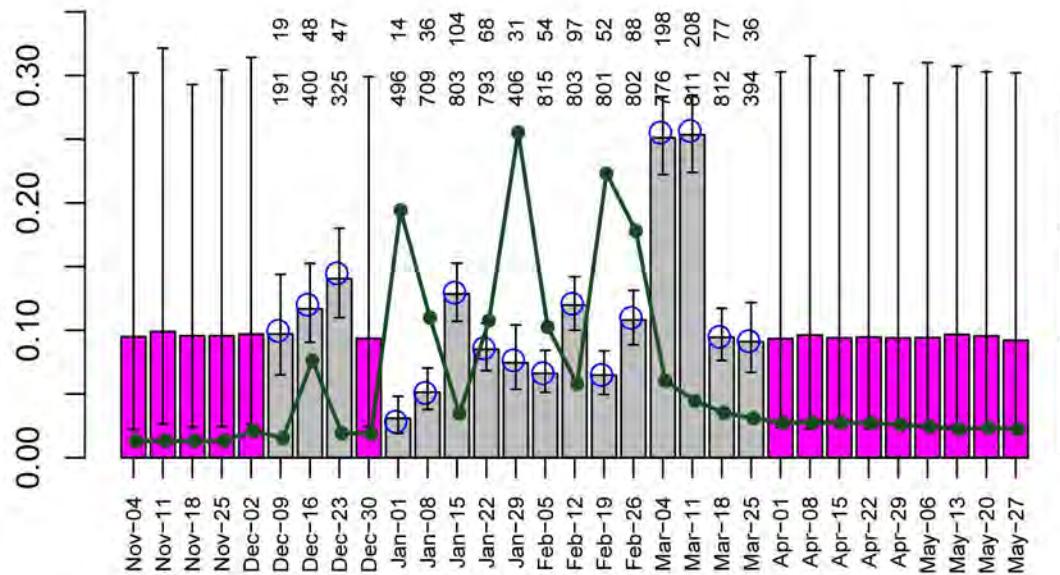
Bayesian

Peterson

No sampling or no releases

Discharge

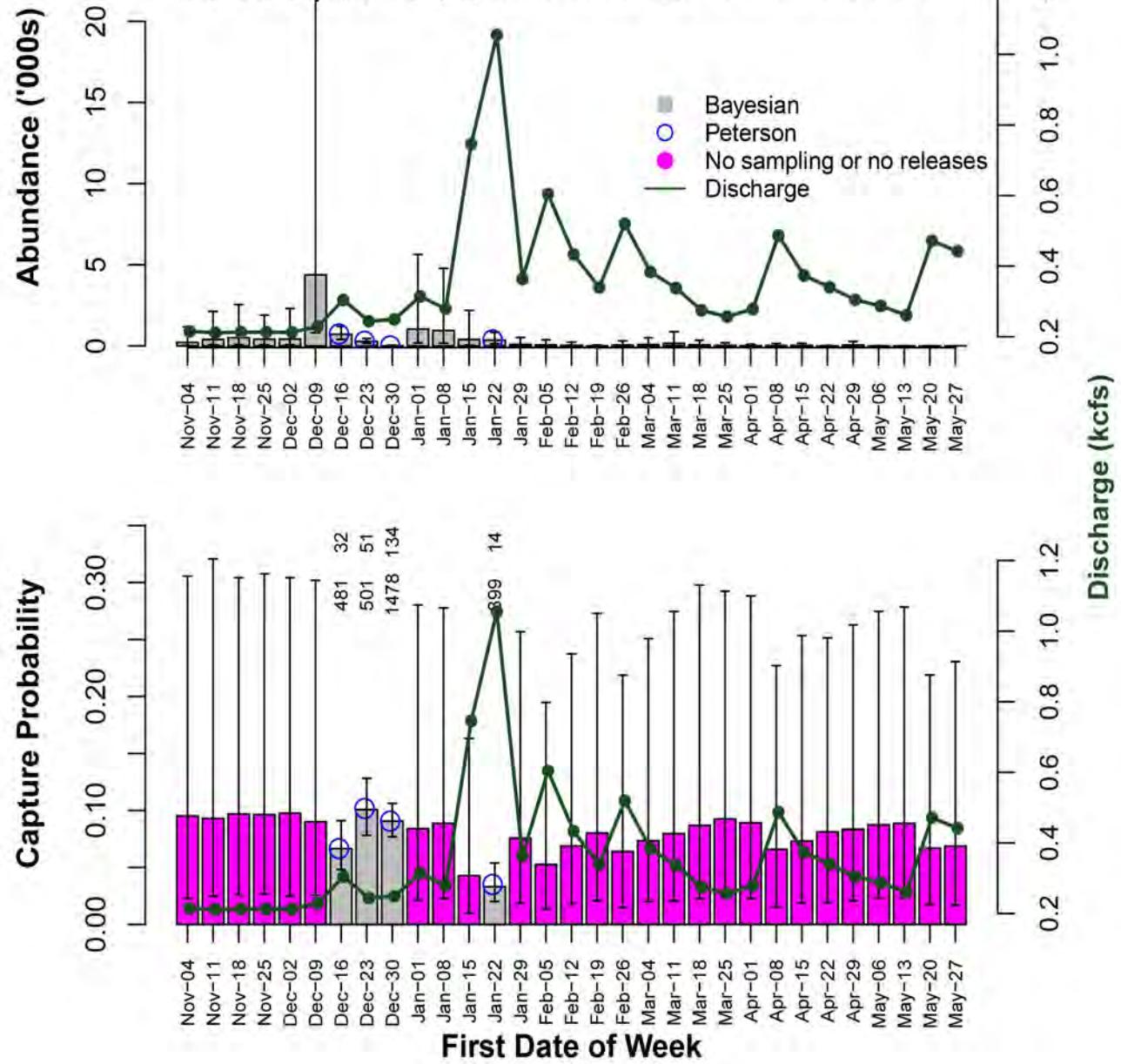
Capture Probability



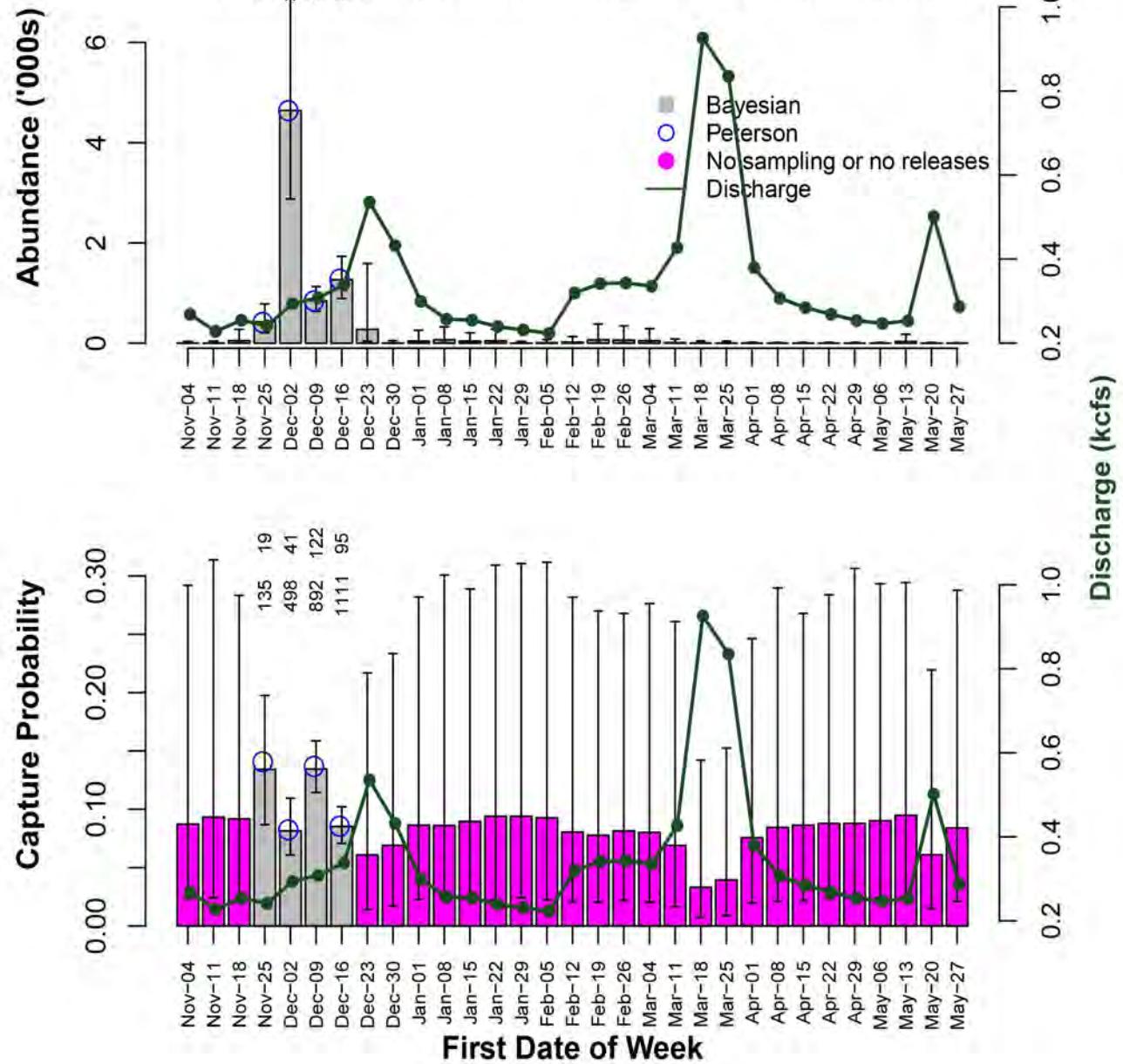
Discharge (kcfs)

First Date of Week

# ucc\_2010 Ntot=13 (8 - 31) cv=48%

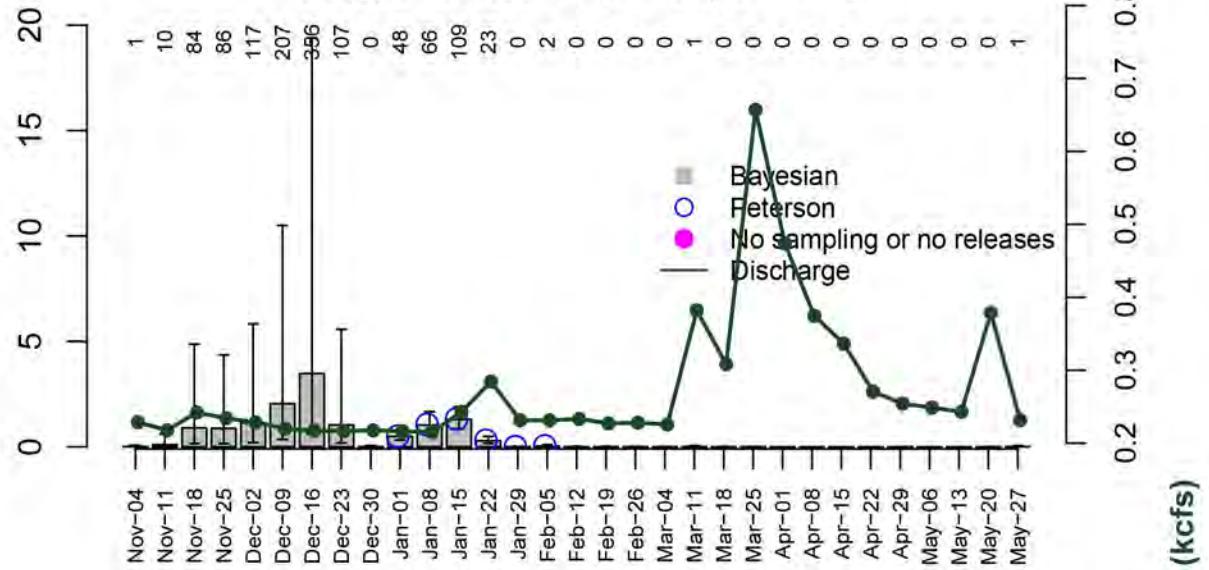


# ucc\_2011 Ntot=8 (6 - 11) cv=14%

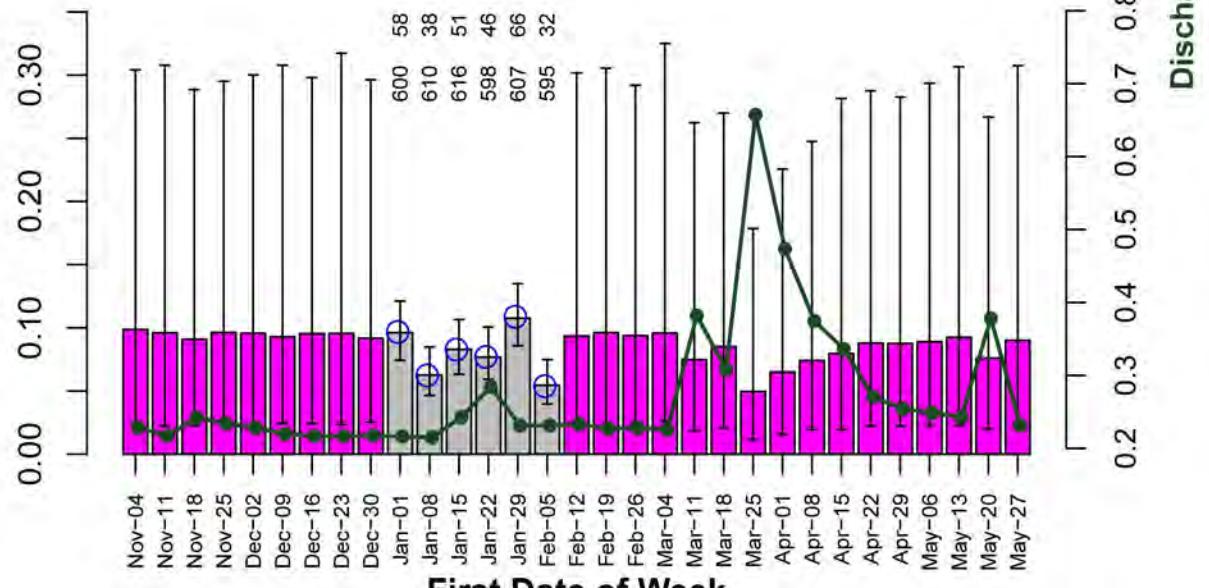


### ucc\_2012 Ntot=15 (9 - 34) cv=41%

Abundance ('000s)



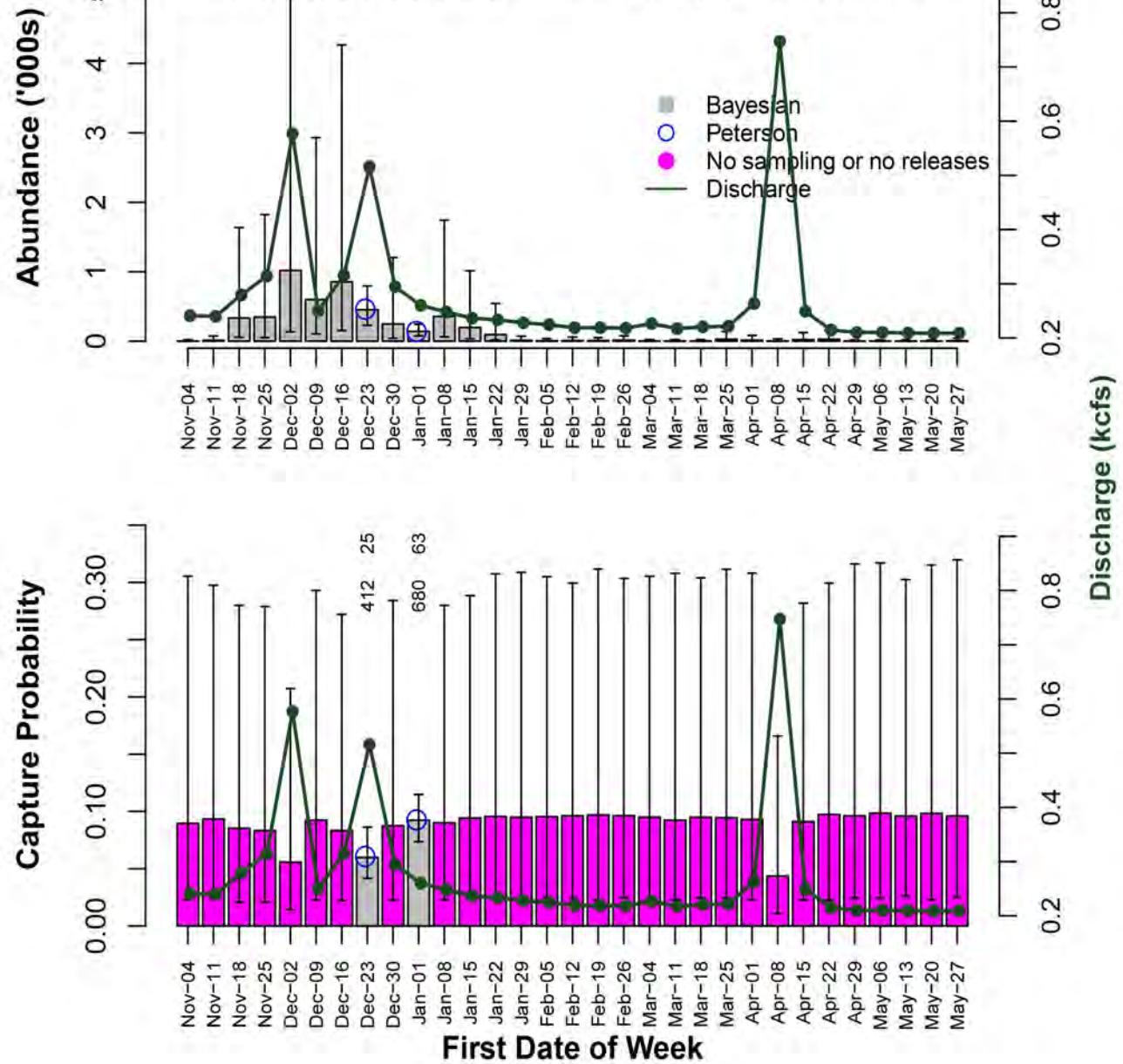
Capture Probability



First Date of Week

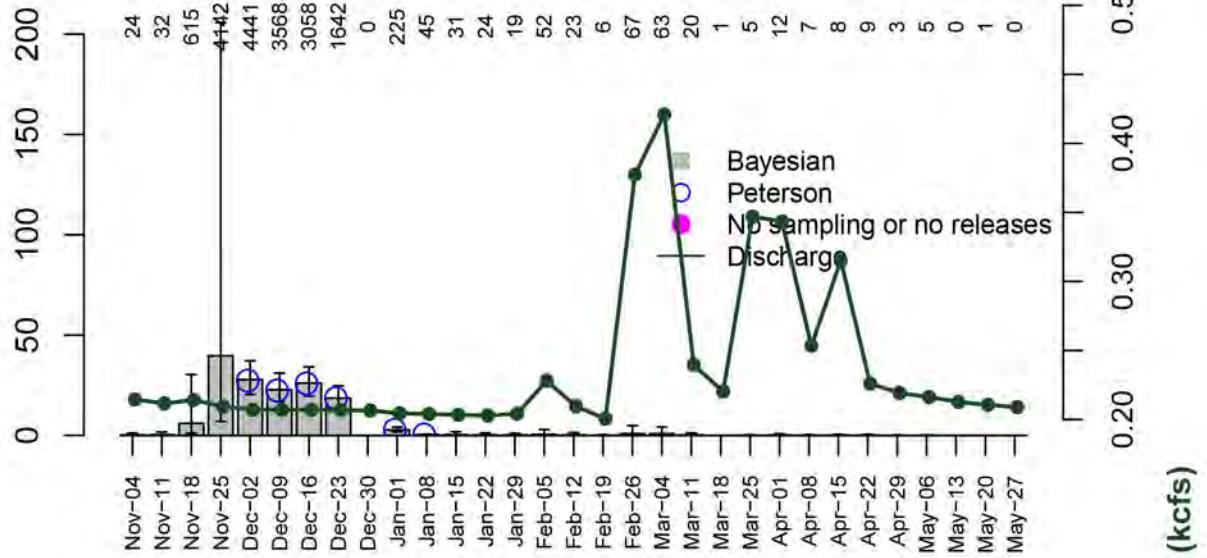
Discharge (kcfs)

# ucc\_2013 Ntot=6 (4 - 12) cv=35%

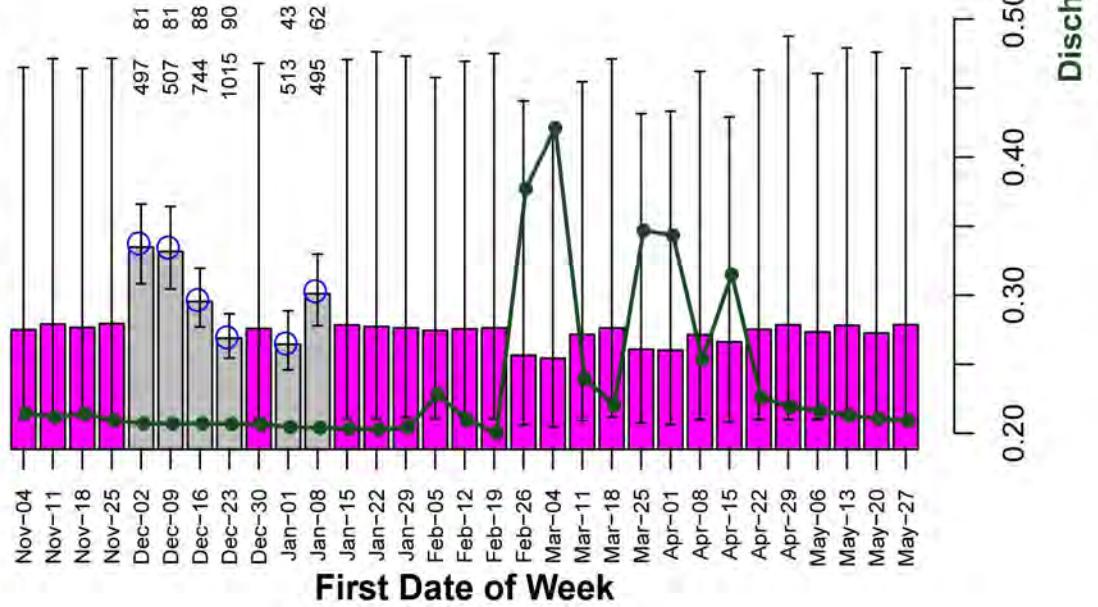


# ucc\_2014 Ntot=154 (115 - 318) cv=34%

Abundance ('000s)



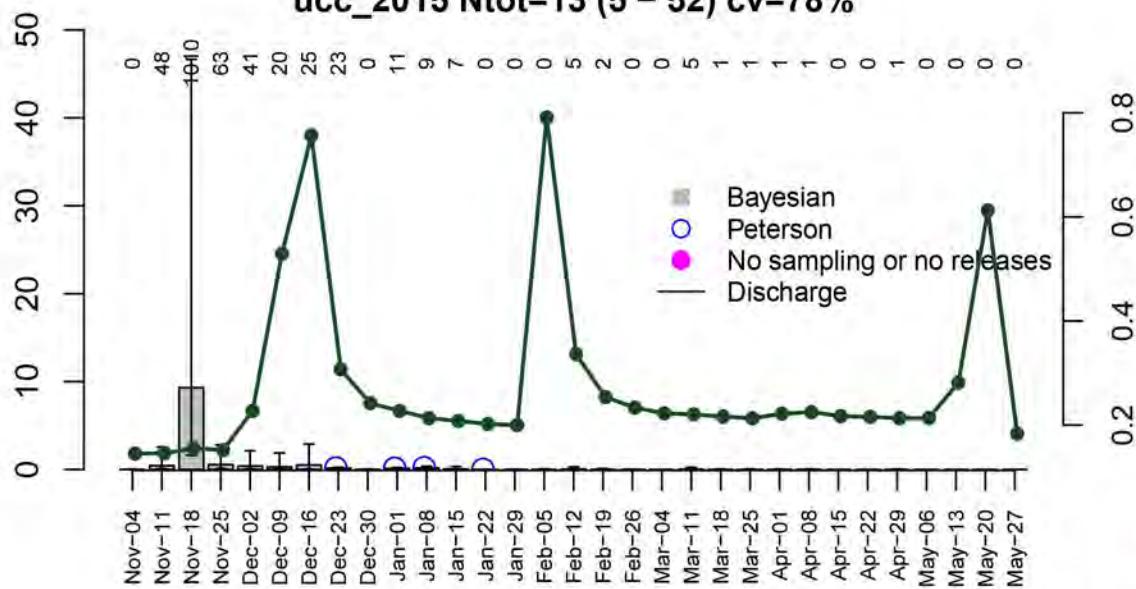
Capture Probability



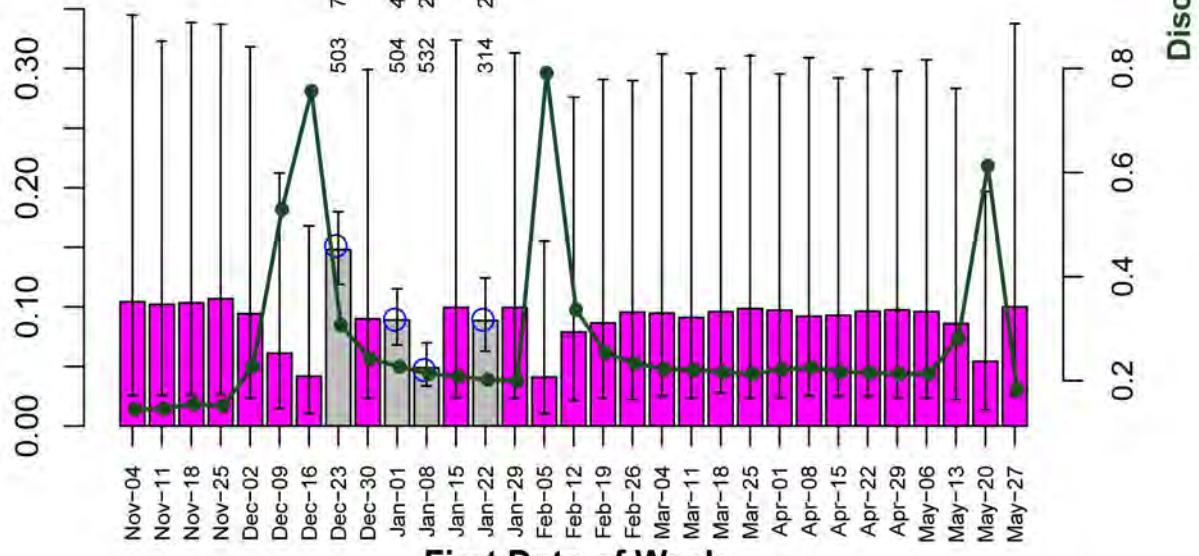
First Date of Week

# ucc\_2015 Ntot=13 (5 - 52) cv=78%

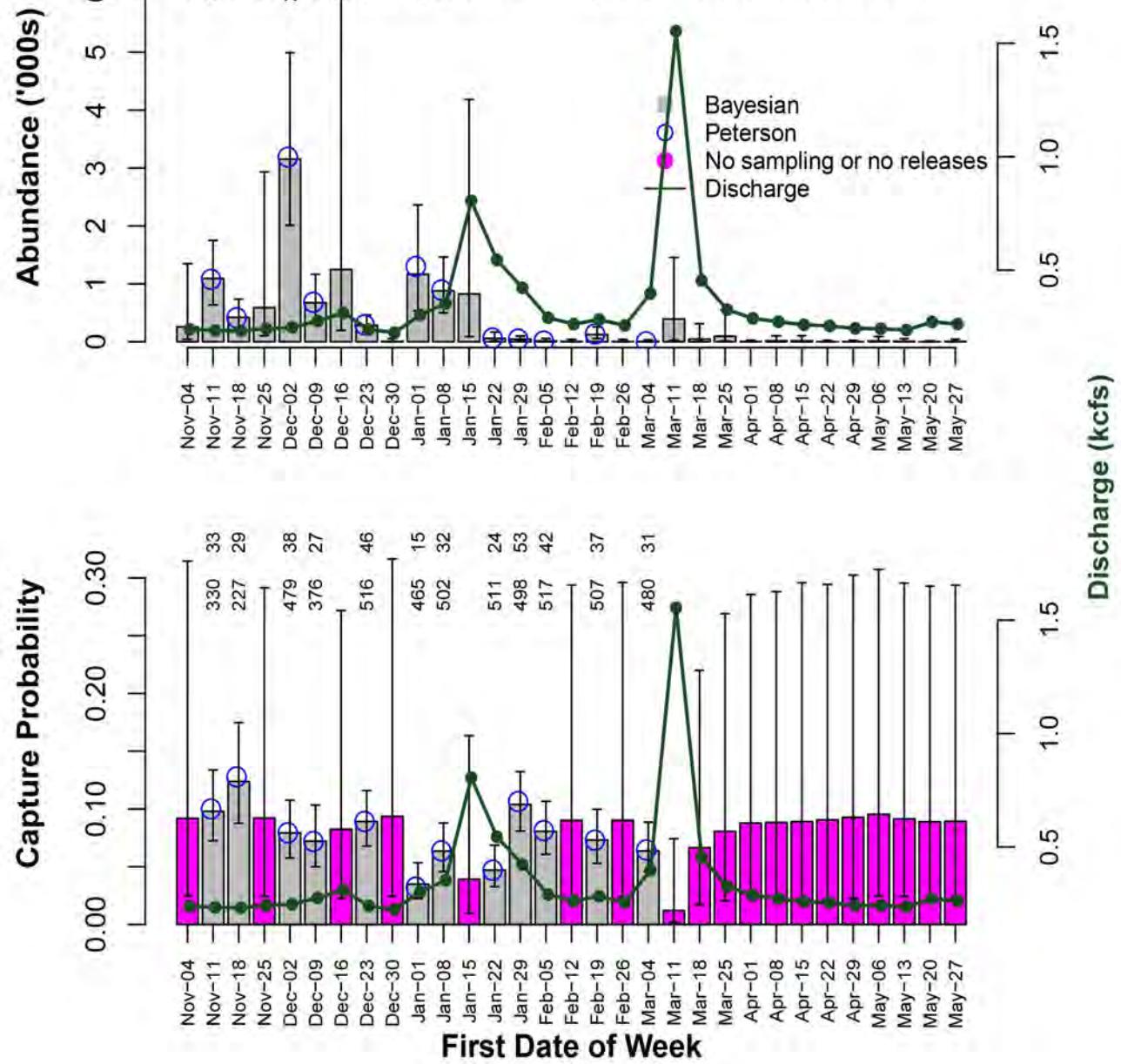
Abundance ('000s)



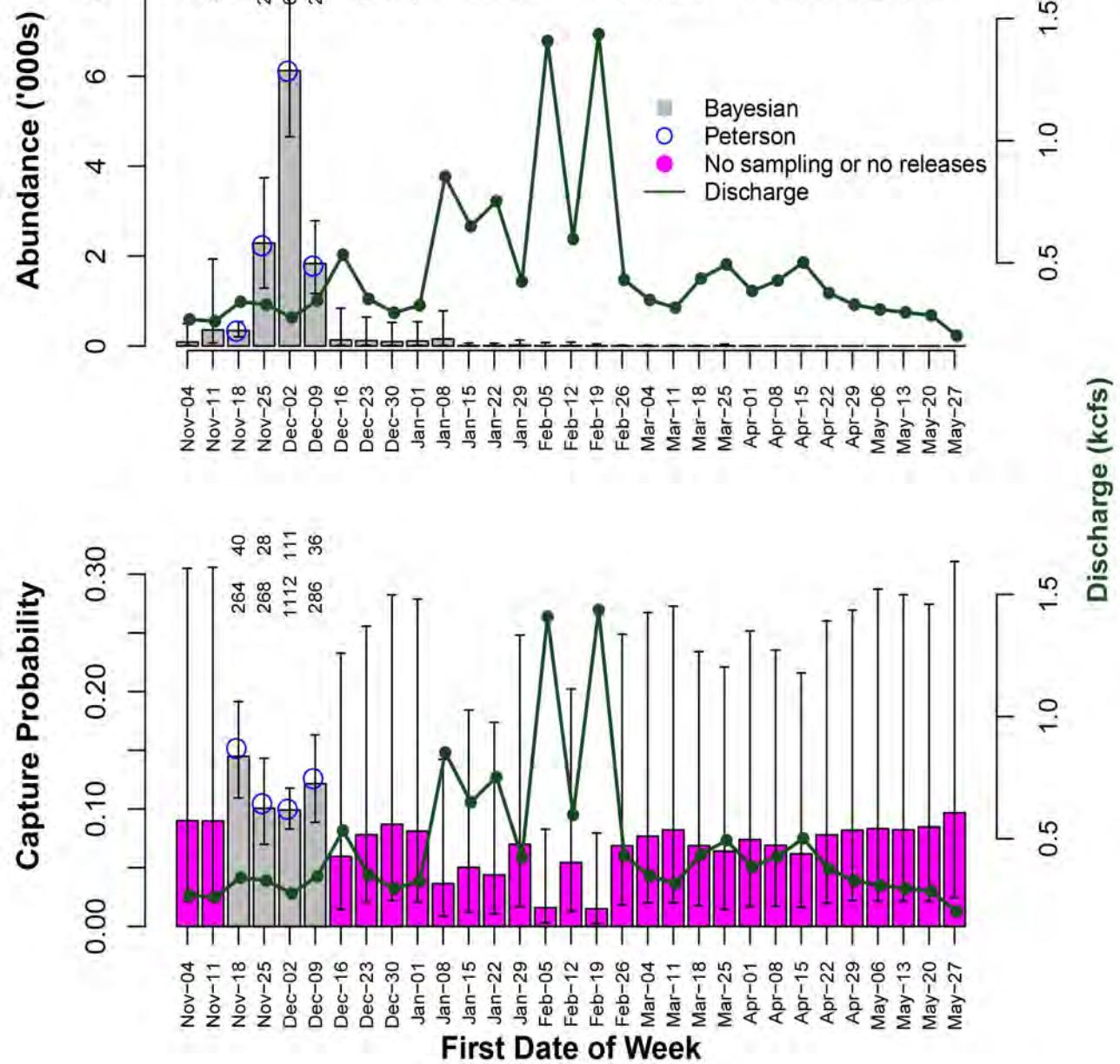
Capture Probability



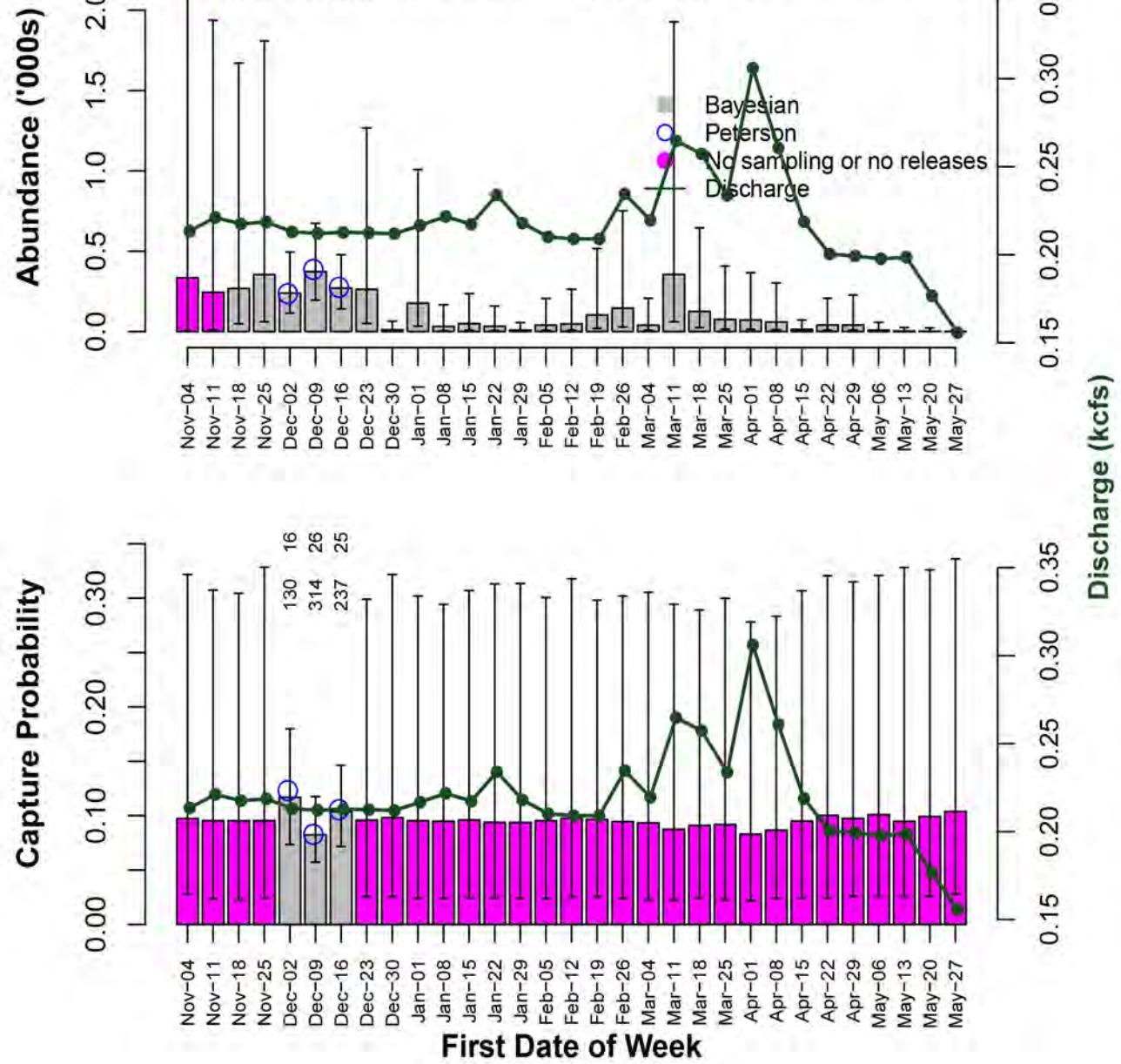
# ucc\_2016 Ntot=13 (10 - 19) cv=19%



# ucc\_2017 Ntot=12 (10 - 15) cv=11%

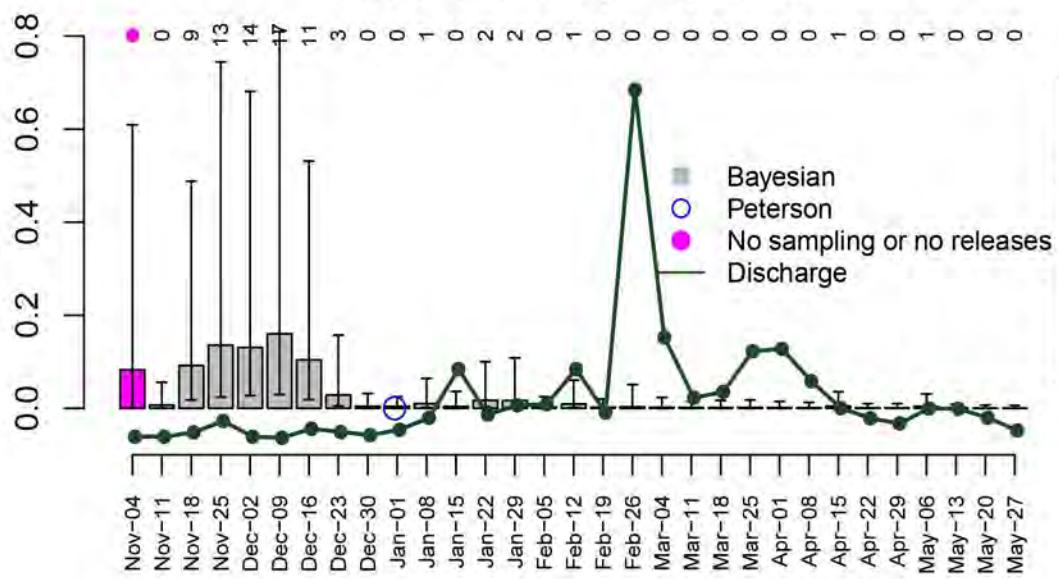


# ucc\_2018 Ntot=5 (3 - 9) cv=26%



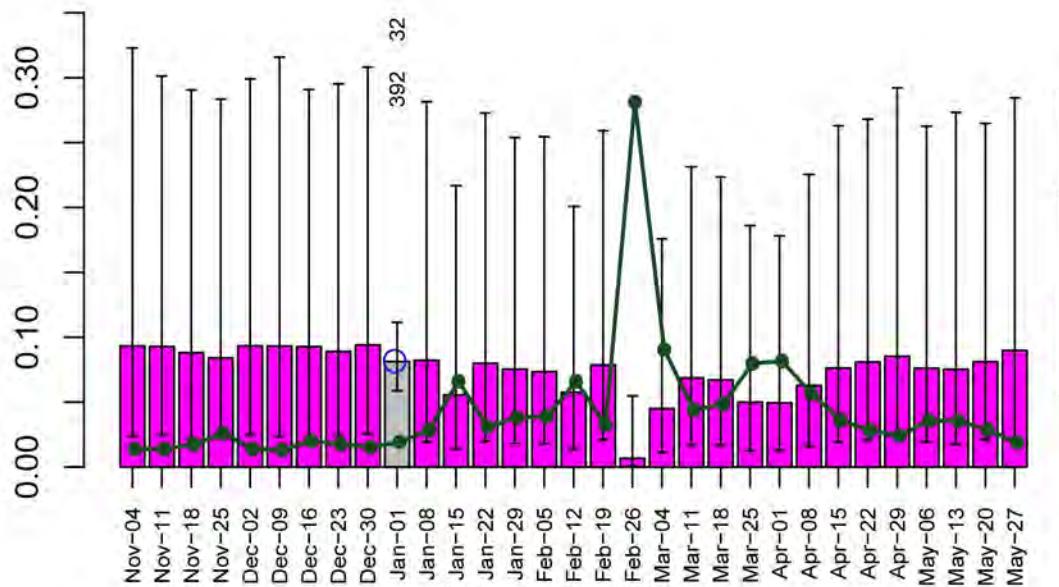
# ucc\_2019 Ntot=1 (1 - 2) cv=37%

Abundance ('000s)



Bayesian  
Peterson  
No sampling or no releases  
Discharge

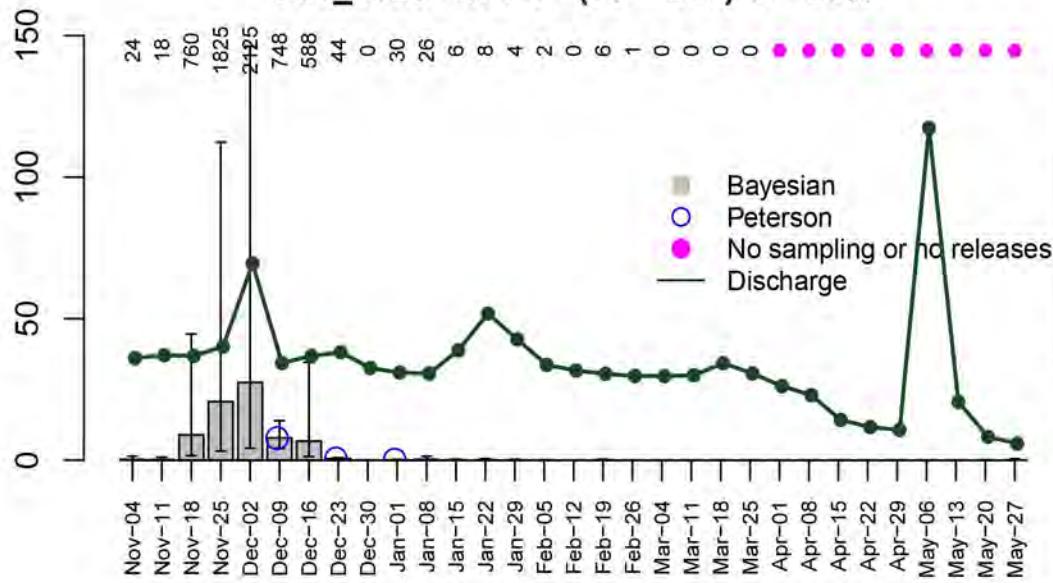
Capture Probability



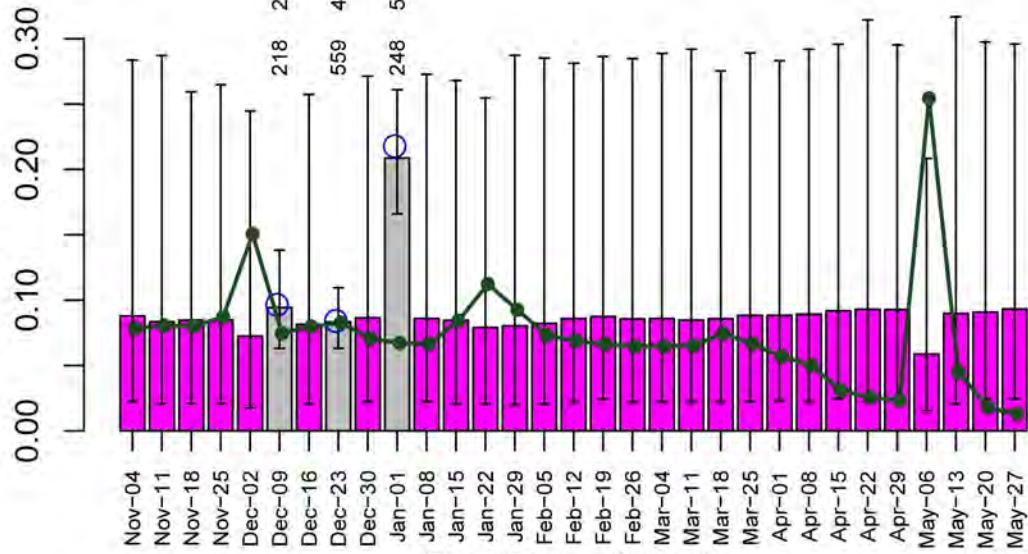
First Date of Week

# ucc\_2020 Ntot=87 (39 - 237) cv=53%

Abundance ('000s)



Capture Probability

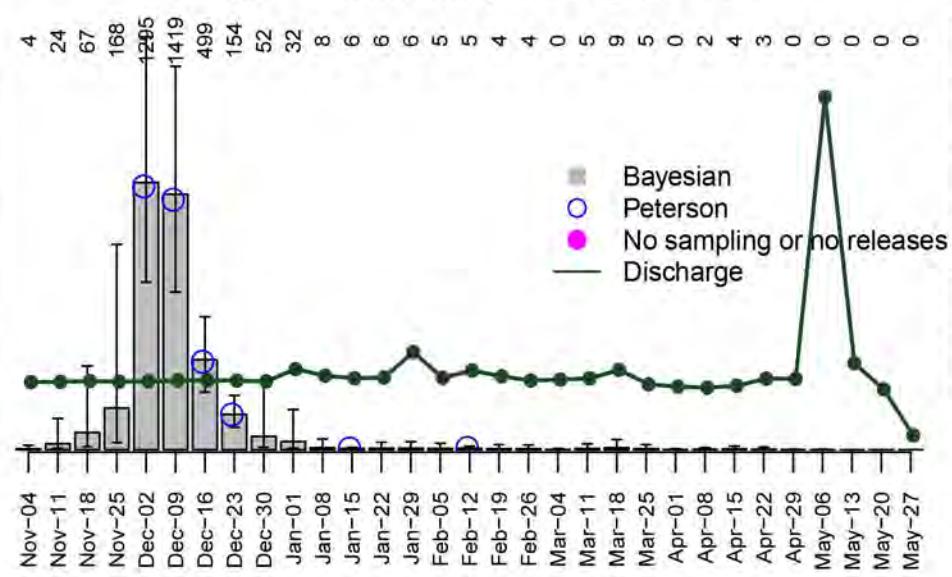


First Date of Week

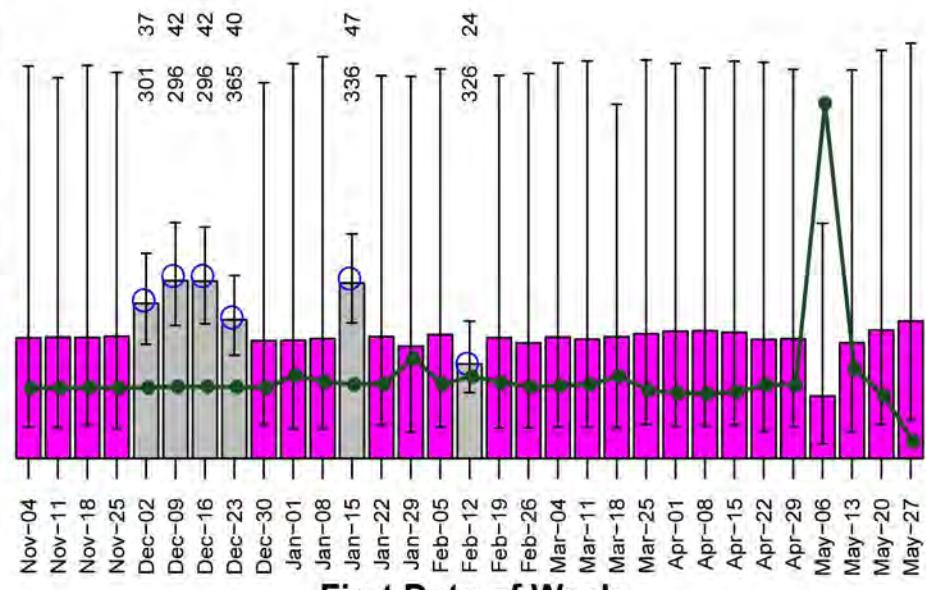
Discharge (kcfs)

# ucc\_2021 Ntot=32 (25 – 42) cv=14%

Abundance ('000s)

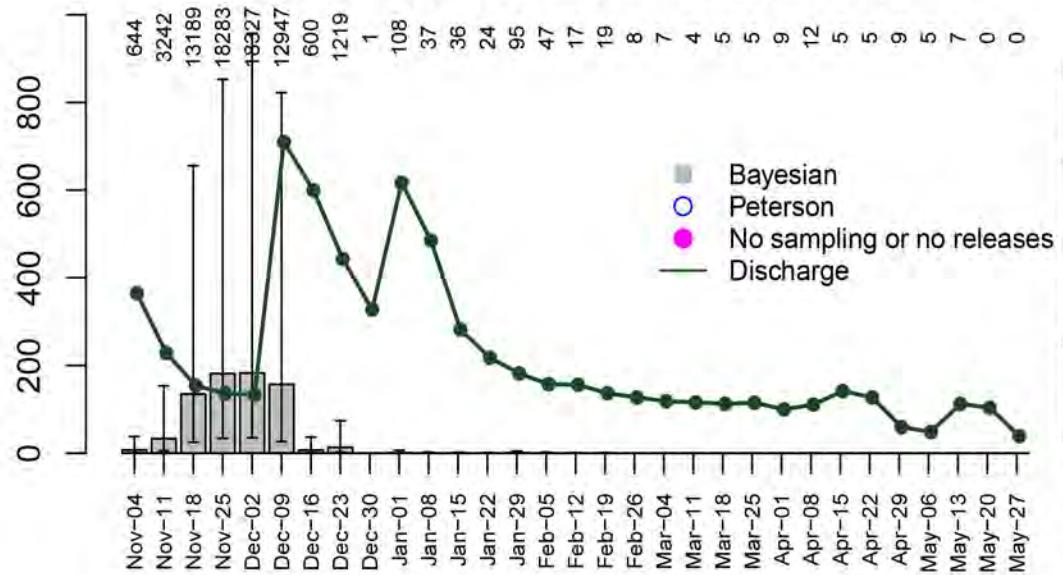


Capture Probability



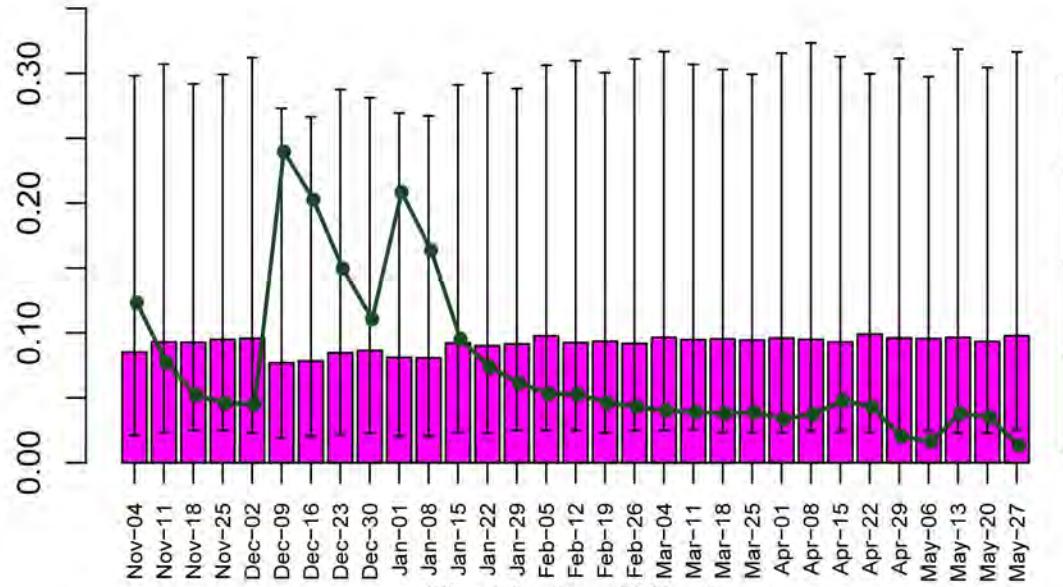
# ucc\_2022 Ntot=901 (433 - 2246) cv=47%

Abundance ('000s)



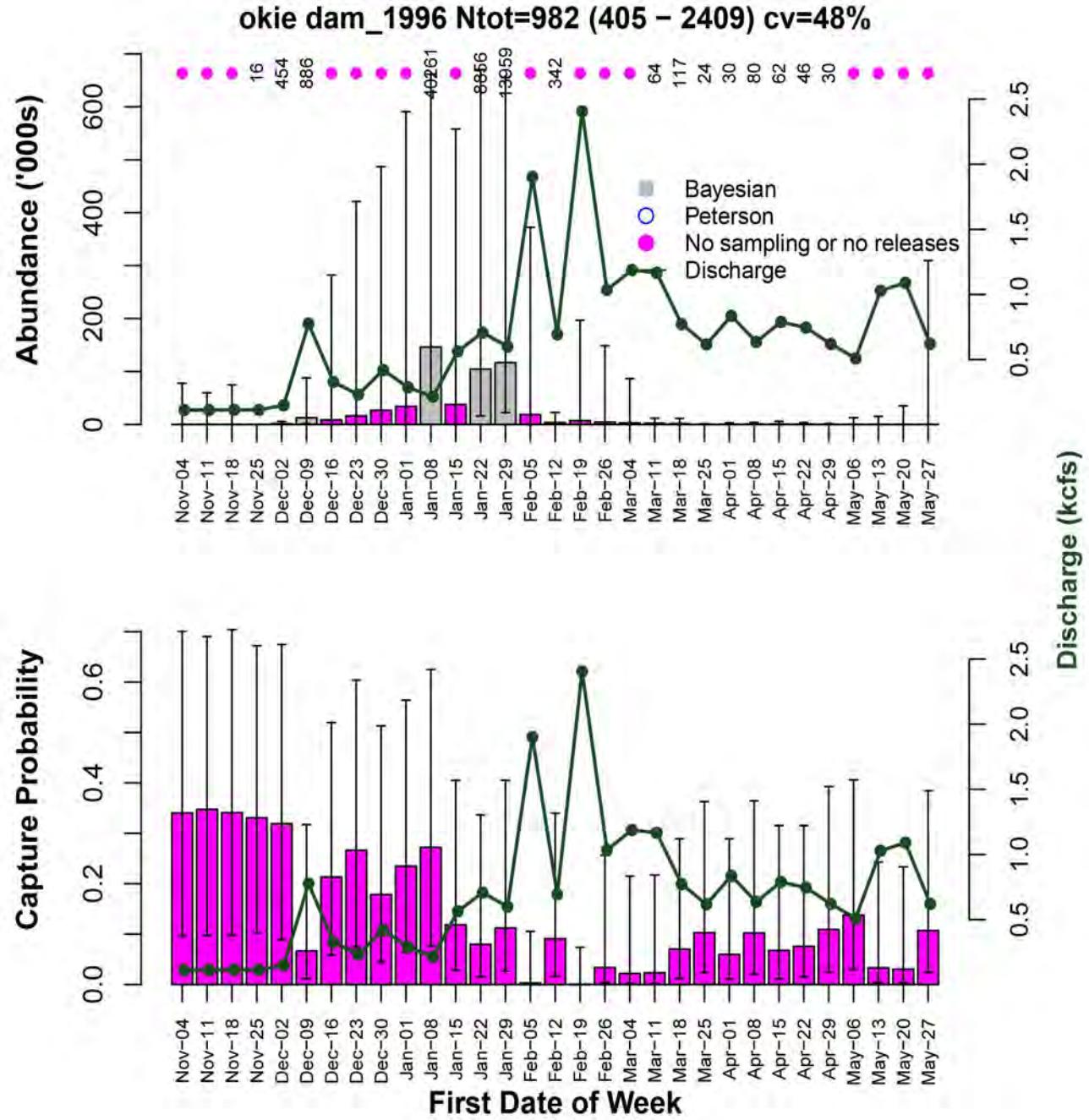
Bayesian  
Peterson  
No sampling or no releases  
Discharge

Capture Probability



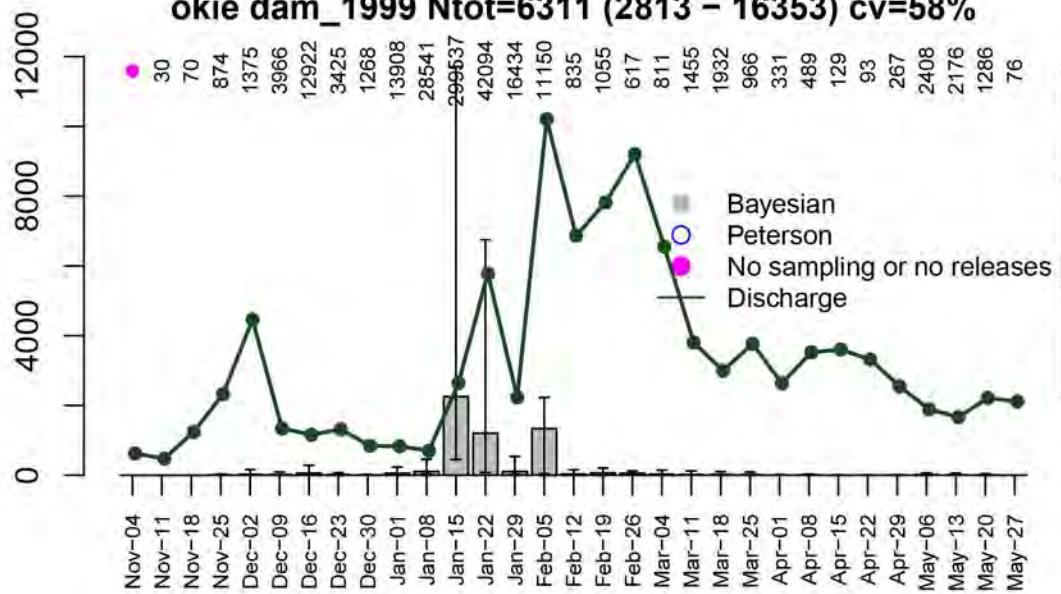
First Date of Week

Discharge (kcfs)

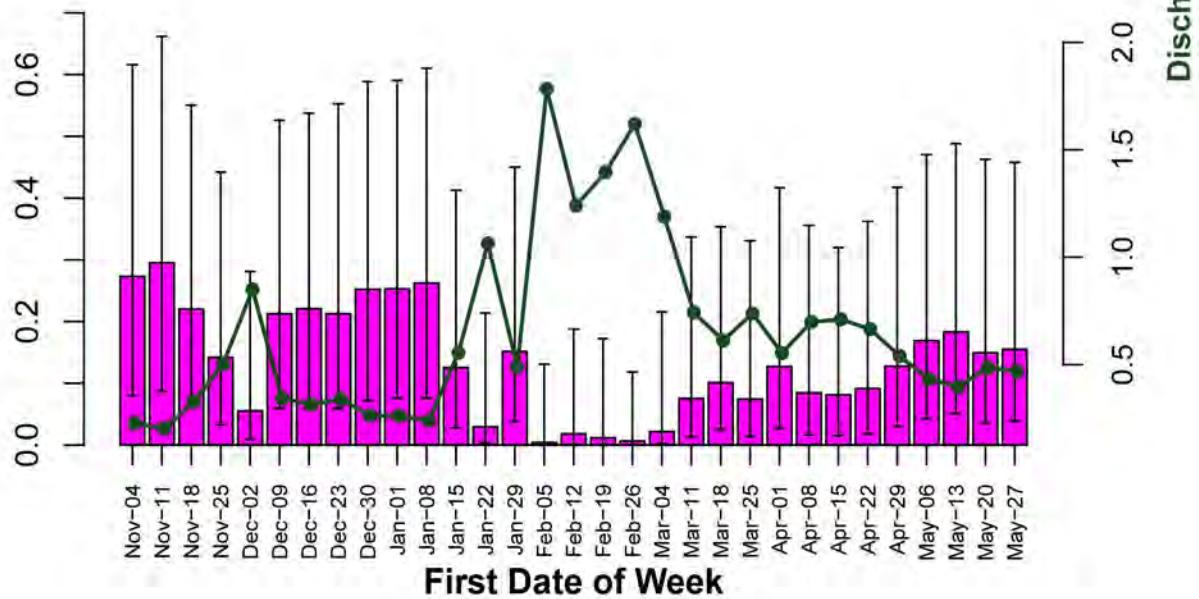


# okie dam\_1999 Ntot=6311 (2813 – 16353) cv=58%

Abundance ('000s)

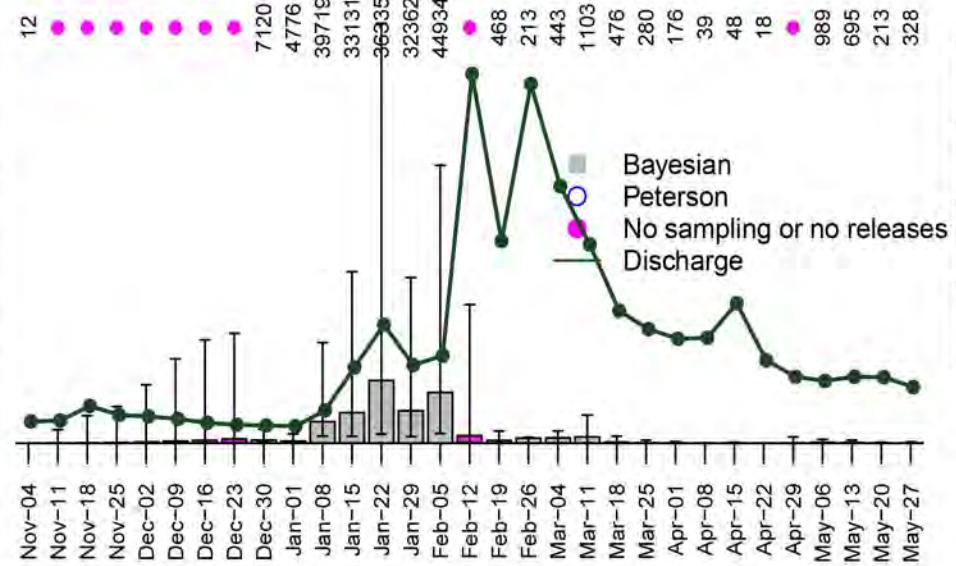


Capture Probability



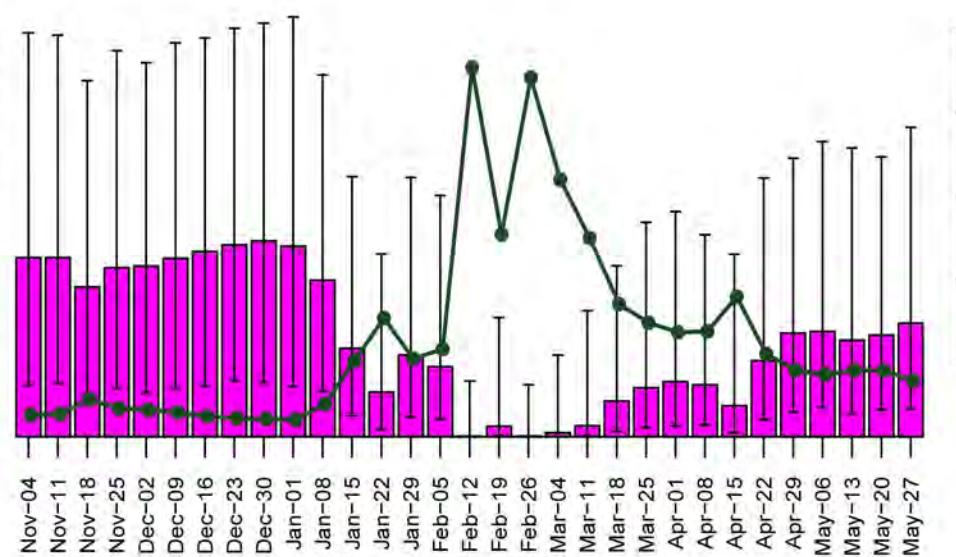
# okie dam\_2000 Ntot=2621 (1331 - 6305) cv=43%

Abundance ('000s)



Bayesian  
Peterson  
No sampling or no releases  
Discharge

Capture Probability



First Date of Week

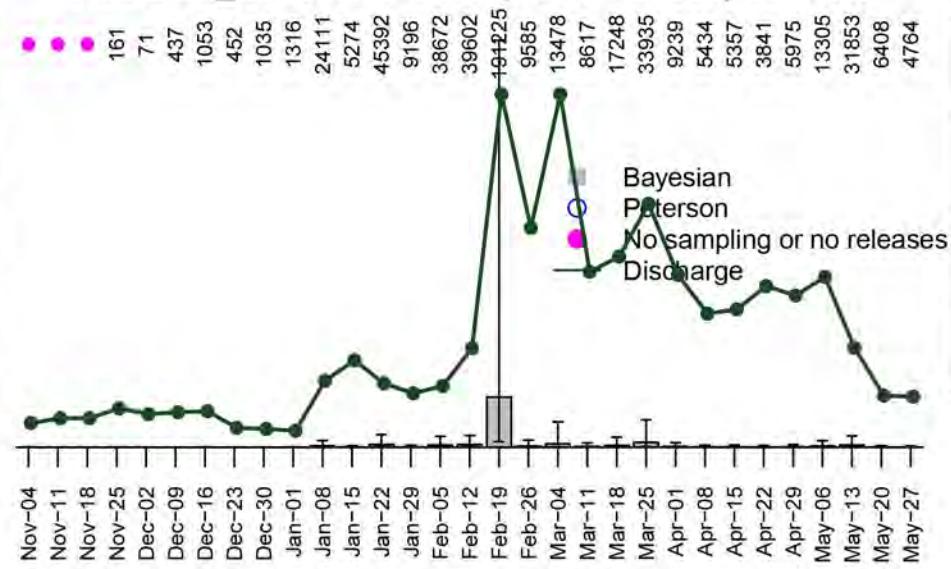
Discharge (kcfs)

0.5 1.0 1.5 2.0 2.5

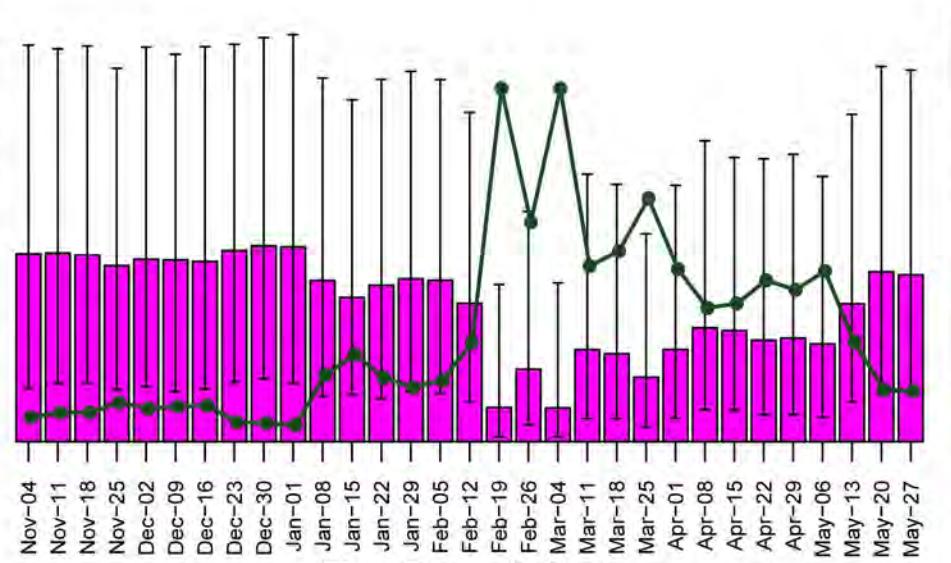
0.5 1.0 1.5 2.0 2.5

# okie dam\_2001 Ntot=5542 (2419 - 26601) cv=80%

Abundance ('000s)

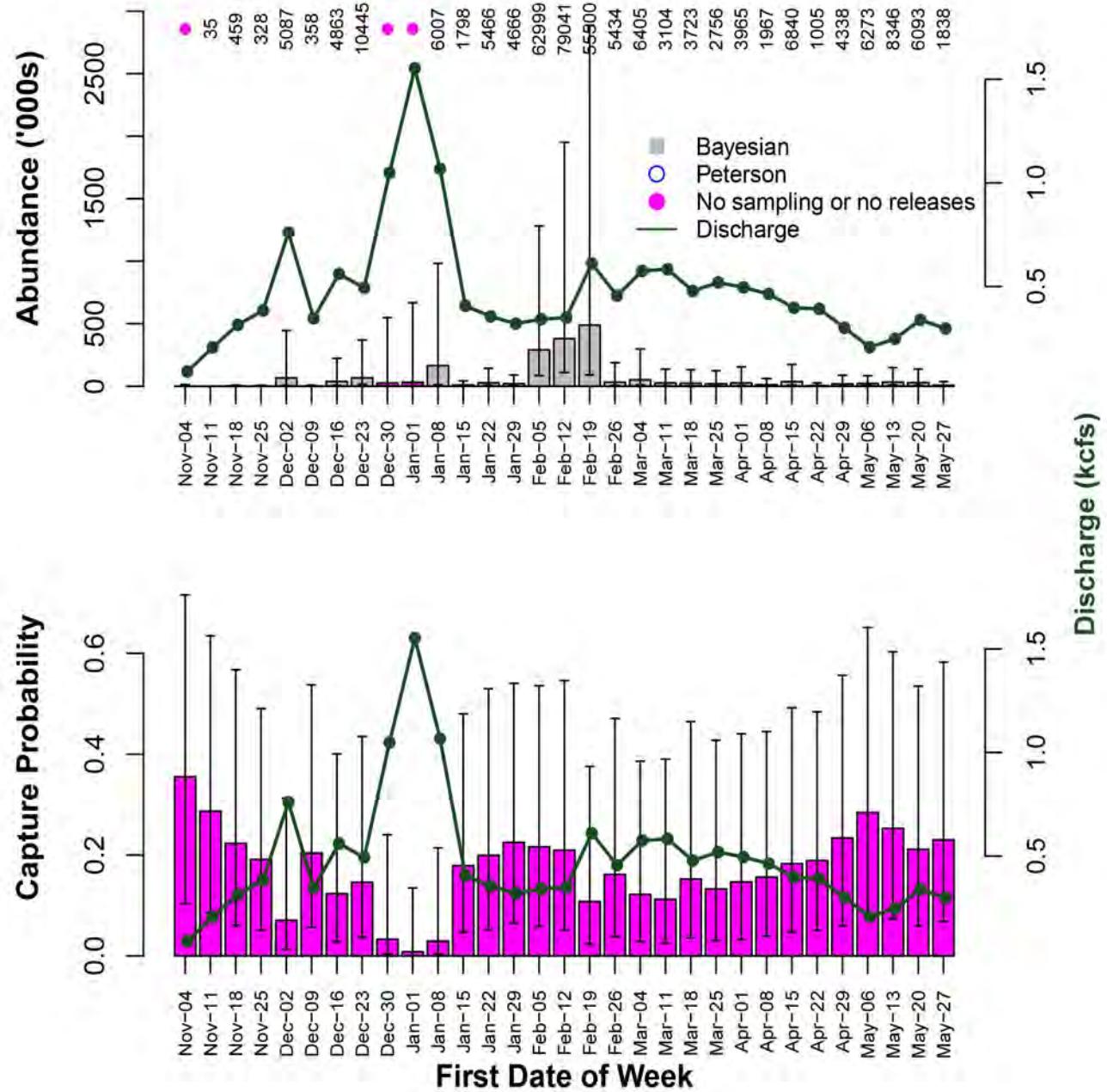


Capture Probability



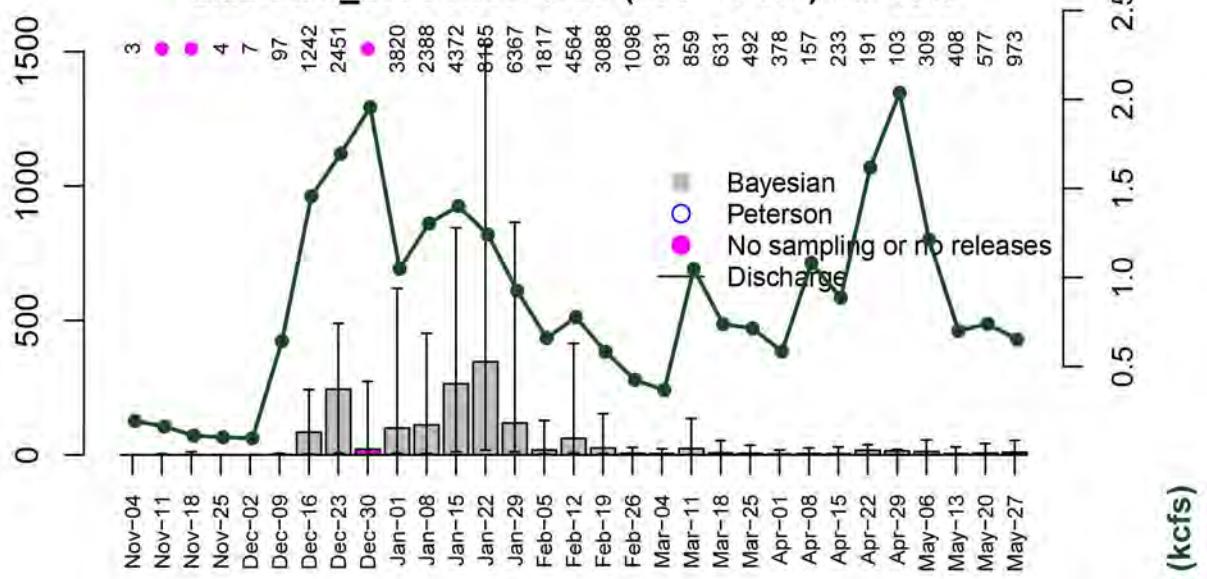
Discharge (kcfs)

# okie dam\_2002 Ntot=2641 (1576 - 5784) cv=40%

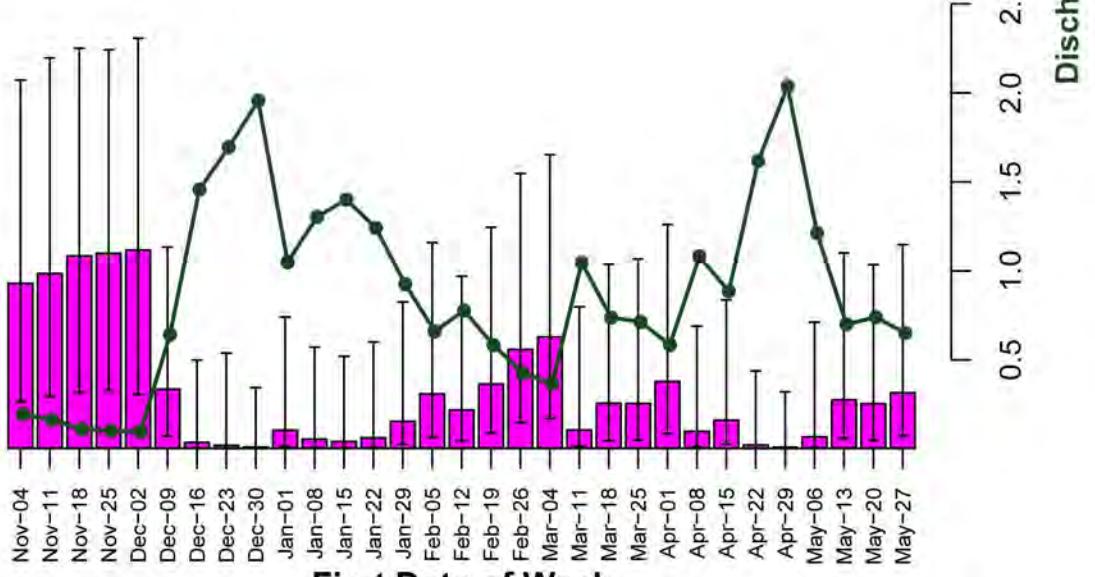


# okie dam\_2003 Ntot=1980 (999 - 3433) cv=30%

Abundance ('000s)

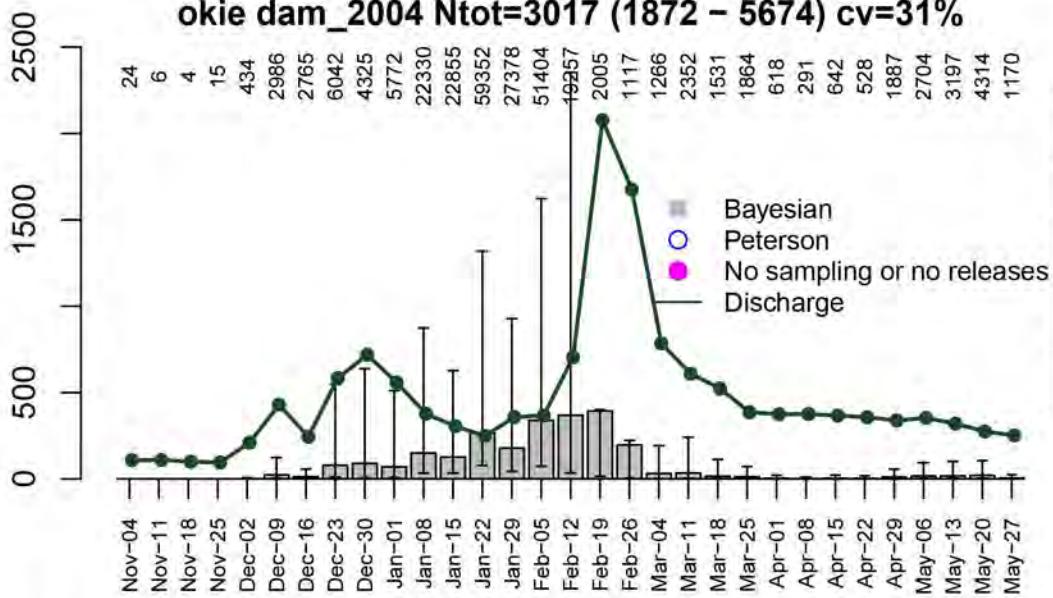


Capture Probability

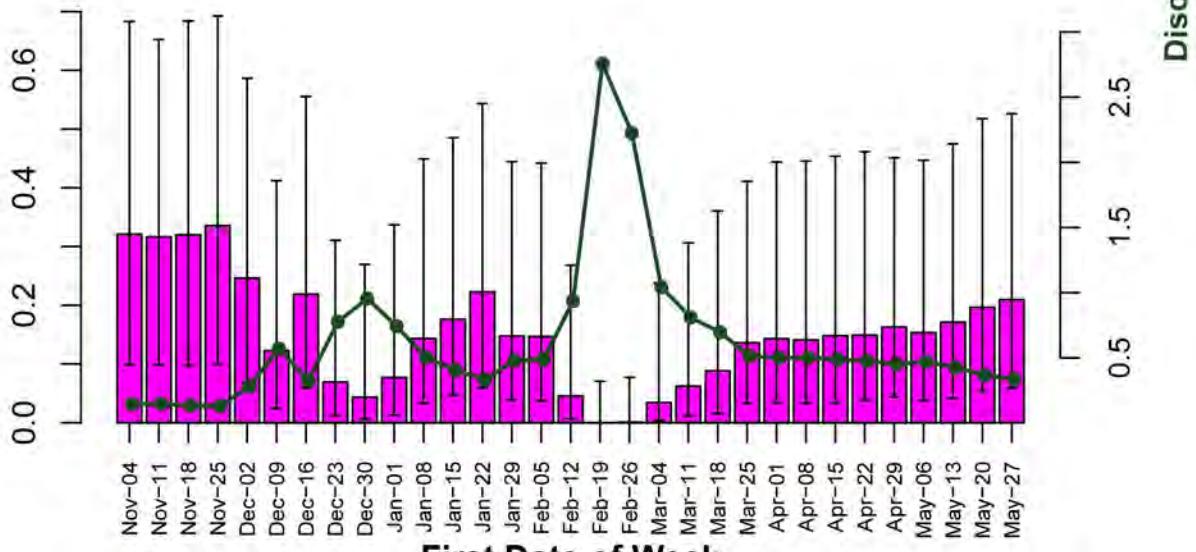


okie dam\_2004 Ntot=3017 (1872 - 5674) cv=31%

Abundance ('000s)

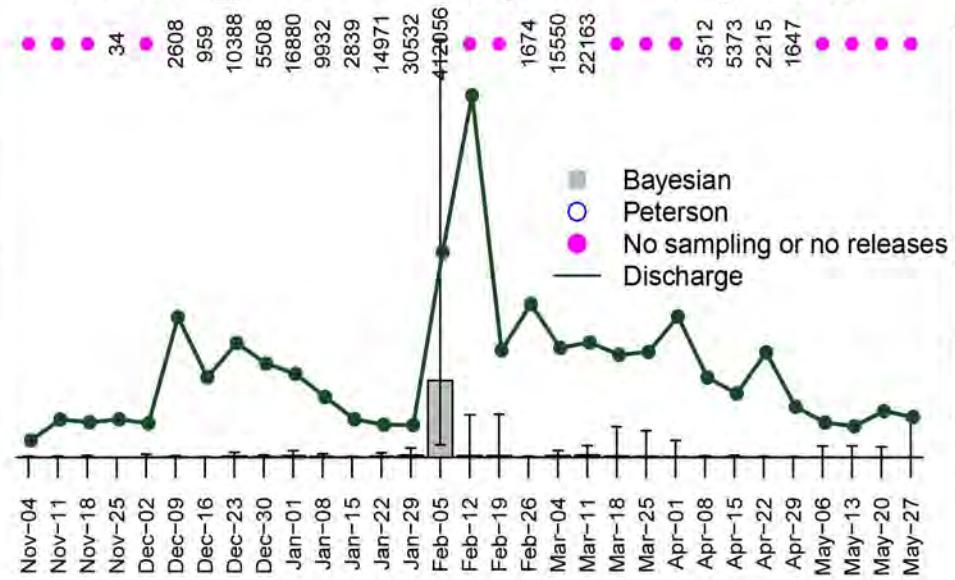


Capture Probability

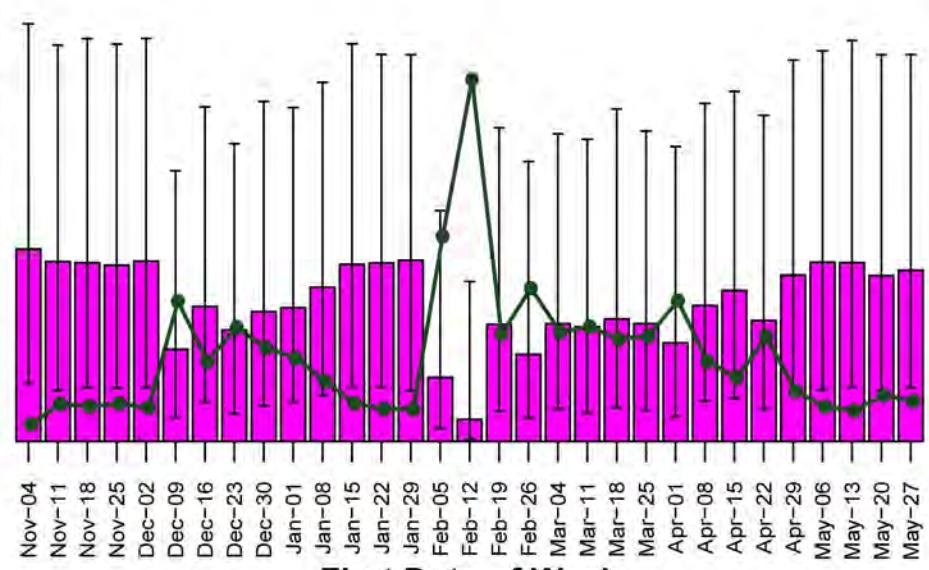


# okie dam\_2007 Ntot=6138 (2157 - 22702) cv=75%

Abundance ('000s)



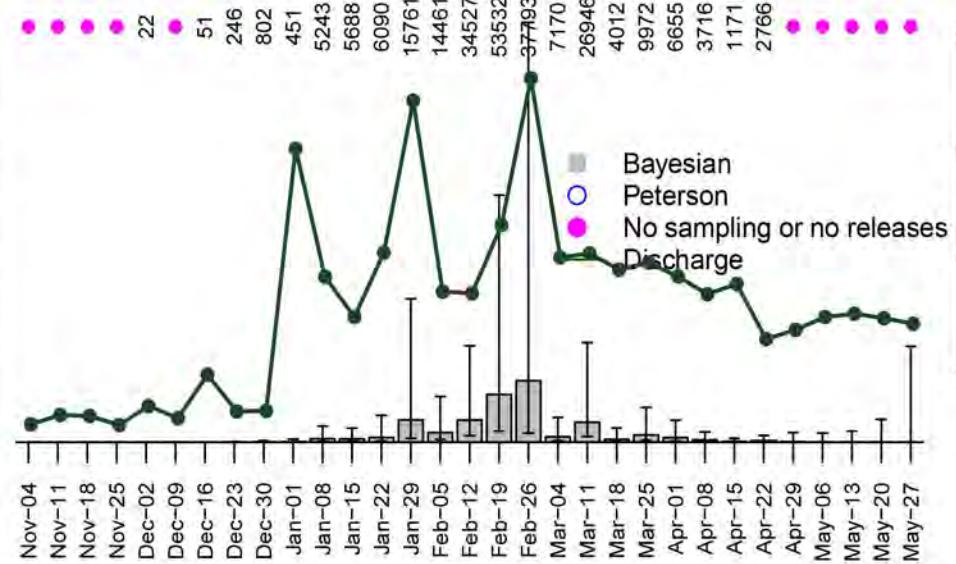
Capture Probability



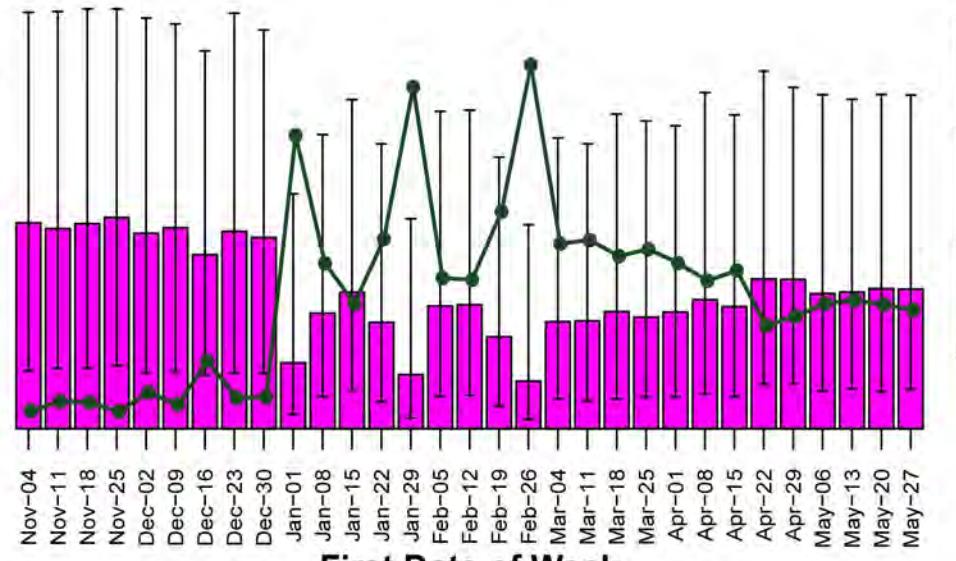
Discharge (kcfs)

# okie dam\_2008 Ntot=2130 (1155 - 5437) cv=46%

Abundance ('000s)



Capture Probability

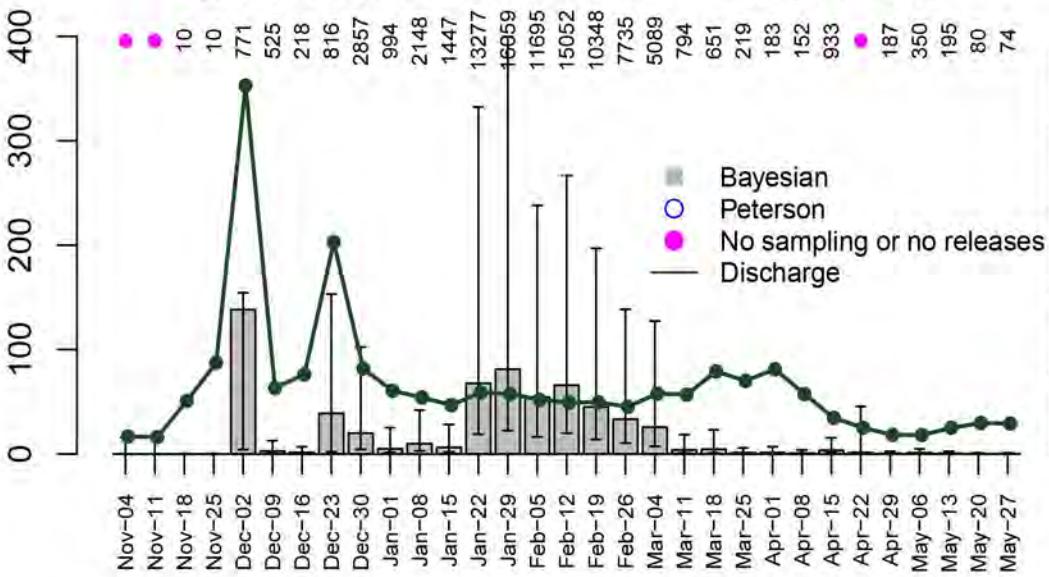


First Date of Week

Discharge (kcfs)

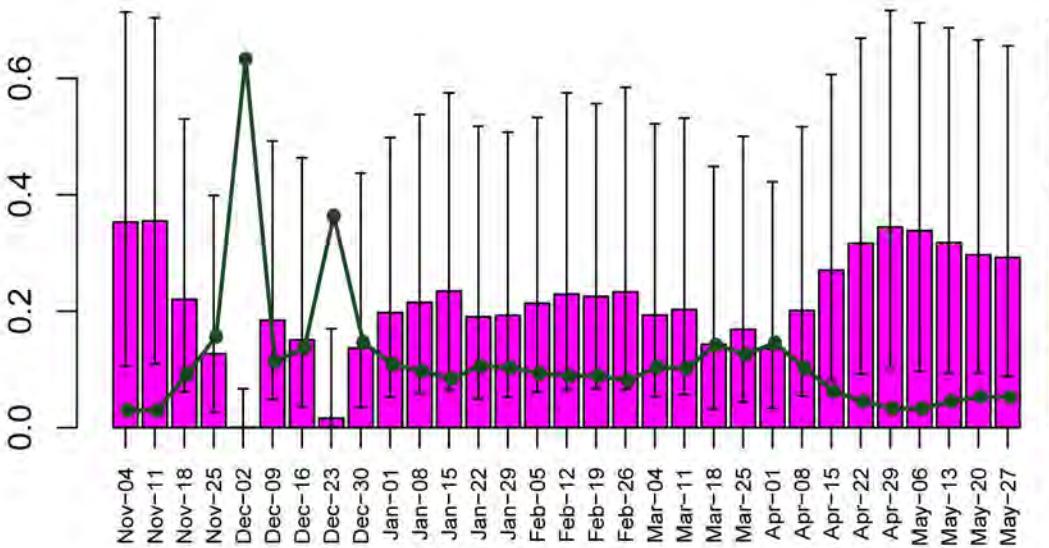
# okie dam\_2013 Ntot=724 (470 - 1273) cv=27%

Abundance ('000s)



Bayesian  
Peterson  
No sampling or no releases  
Discharge

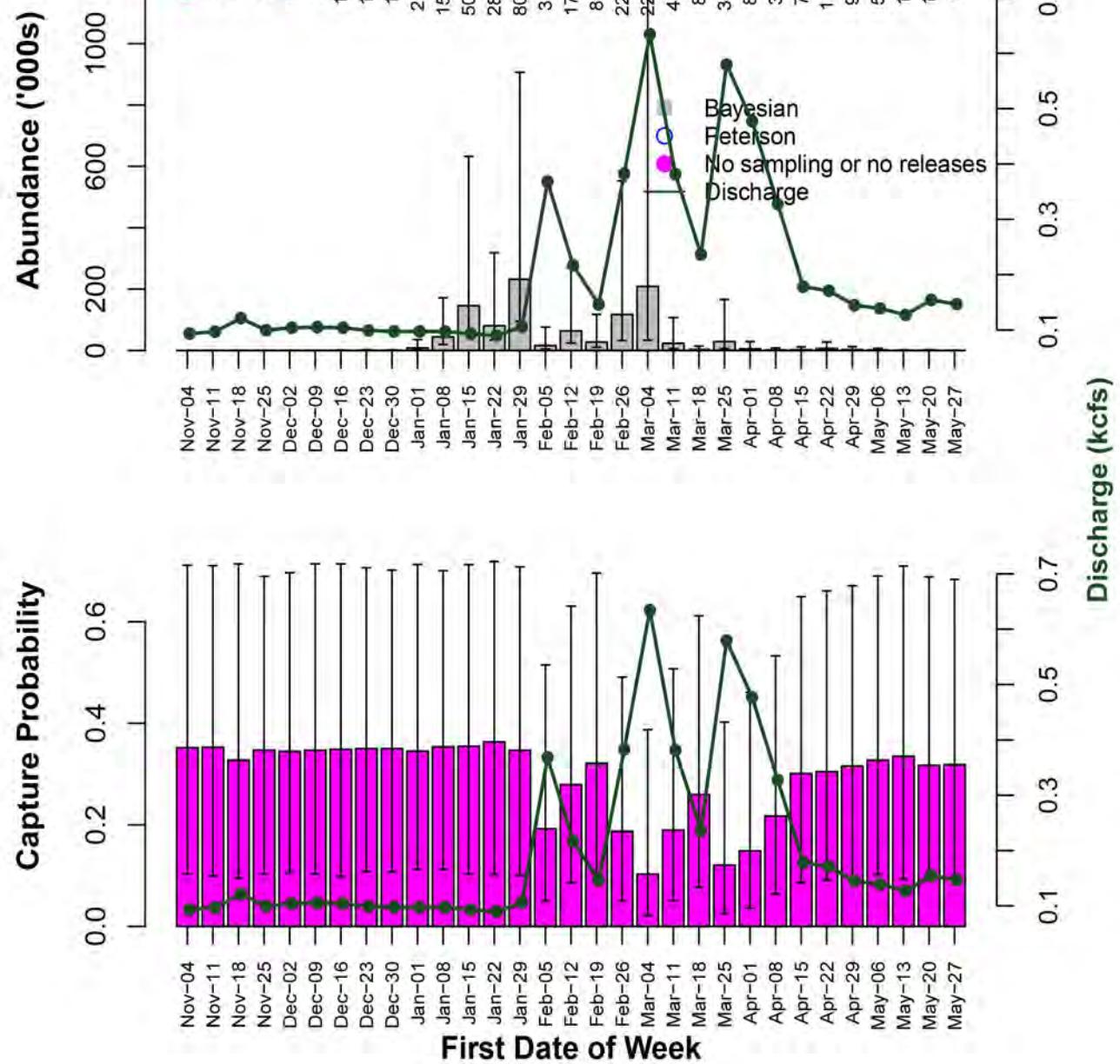
Capture Probability



Discharge (kcfs)

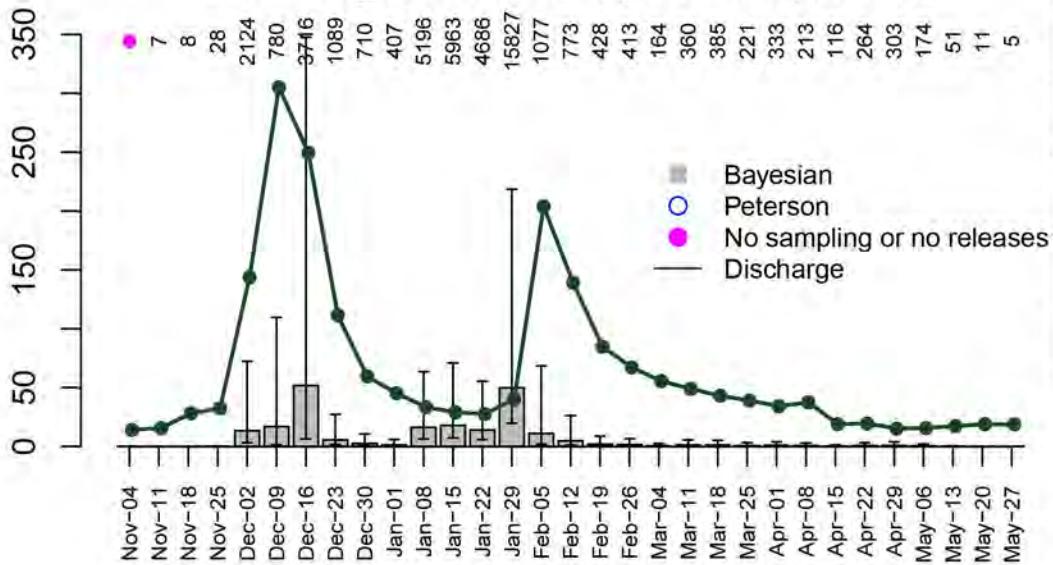
First Date of Week

# okie dam\_2014 Ntot=1259 (771 - 2697) cv=36%

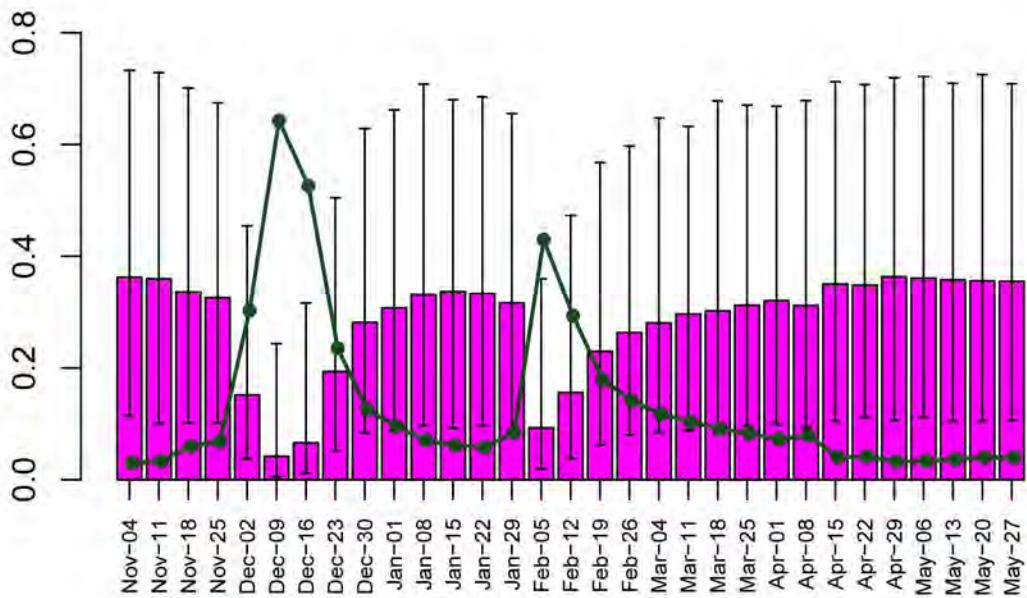


# okie dam\_2015 Ntot=276 (162 – 643) cv=41%

Abundance ('000s)

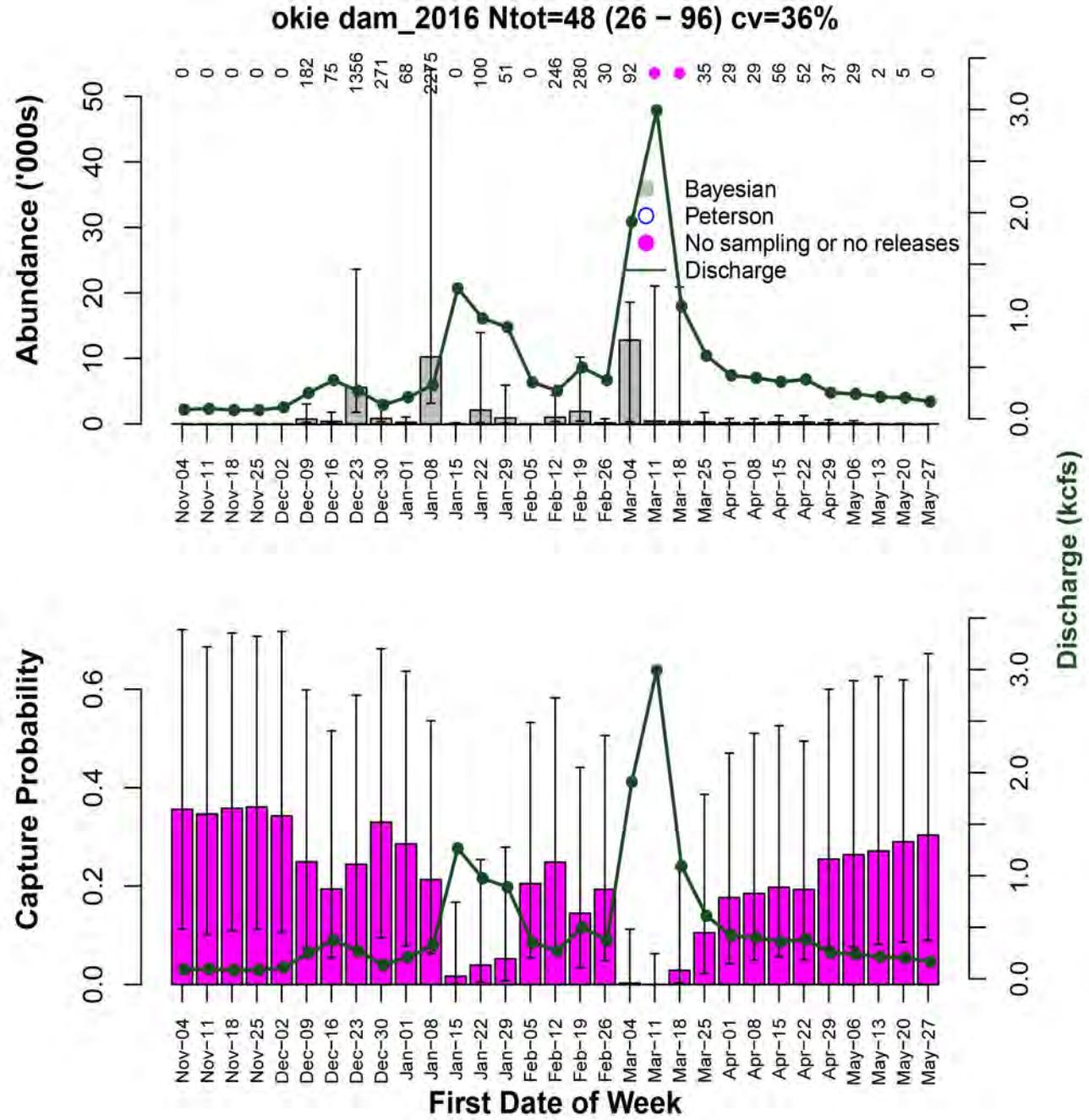


Capture Probability



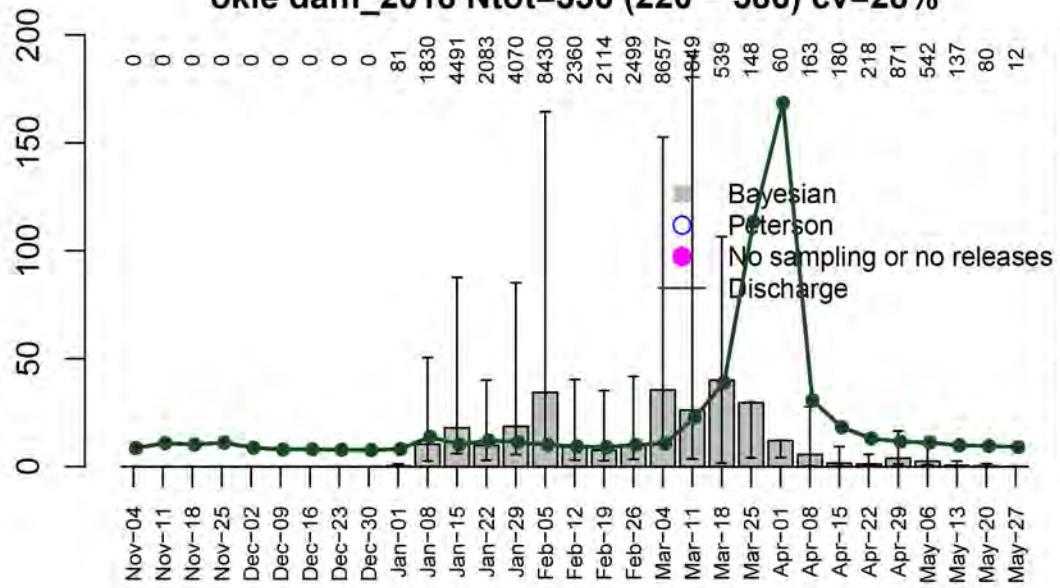
First Date of Week

Discharge (kcfs)

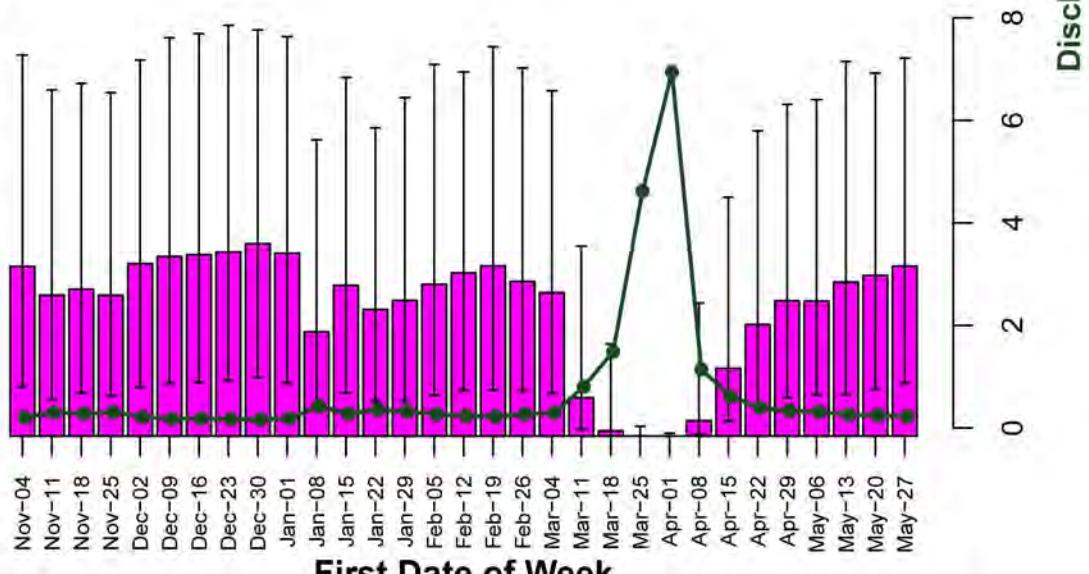


# okie dam\_2018 Ntot=336 (220 - 586) cv=28%

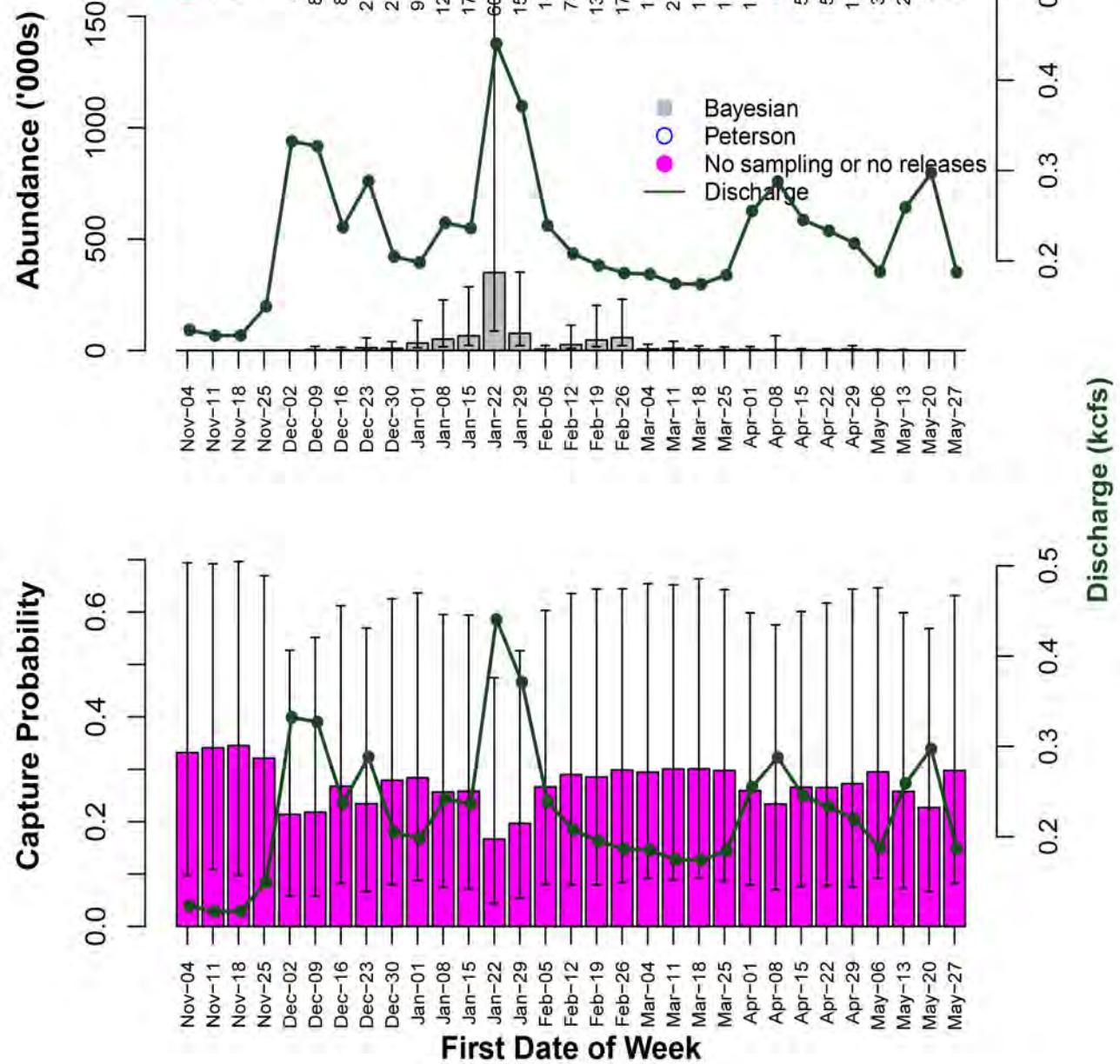
Abundance ('000s)



Capture Probability

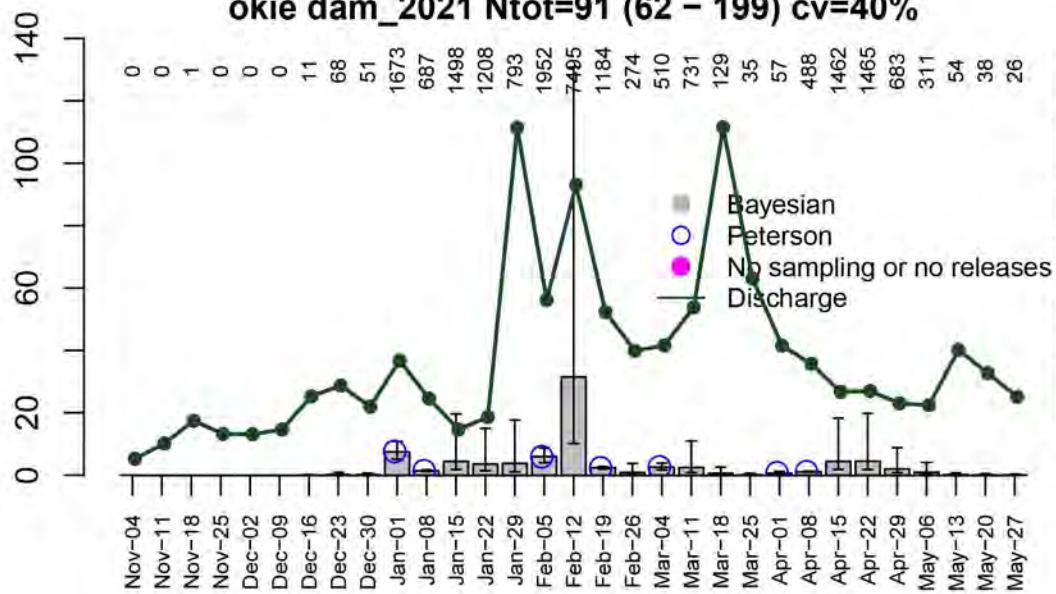


# okie dam\_2020 Ntot=938 (551 - 2295) cv=44%

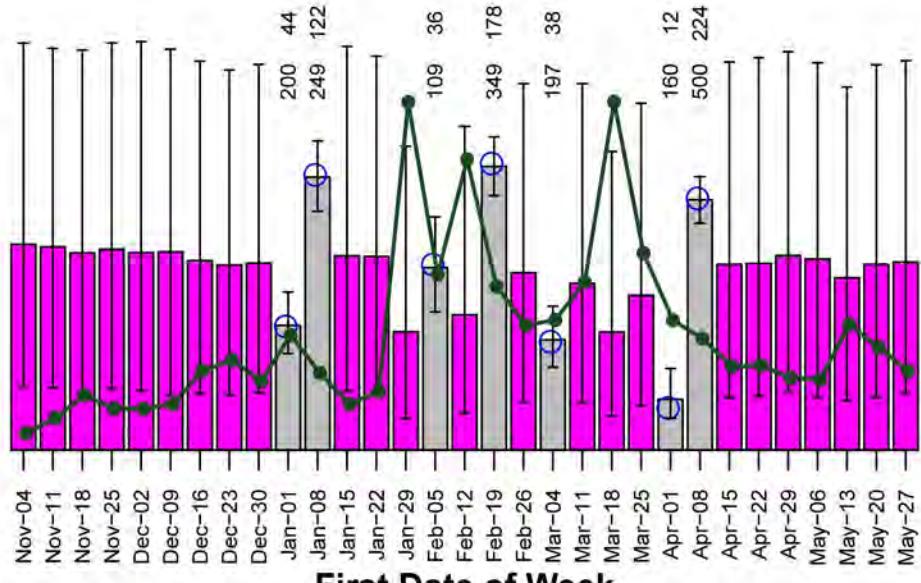


# okie dam\_2021 Ntot=91 (62 - 199) cv=40%

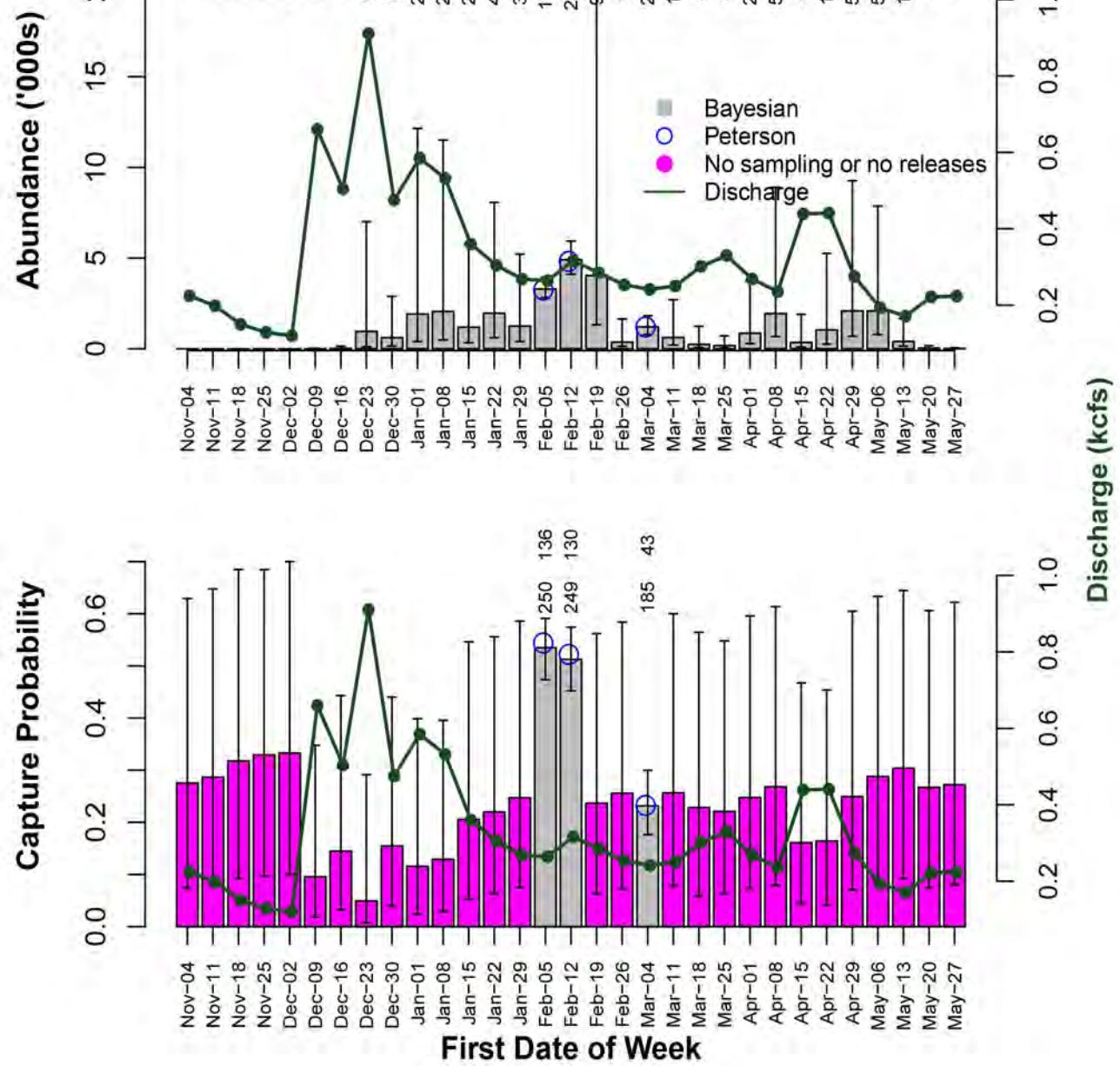
Abundance ('000s)



Capture Probability

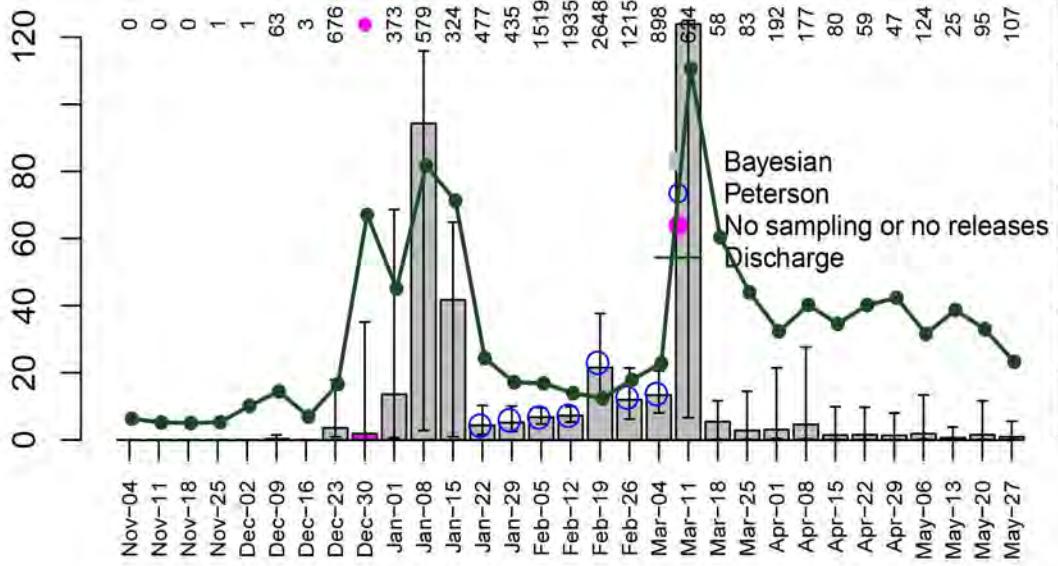


# okie dam\_2022 Ntot=41 (30 - 65) cv=23%

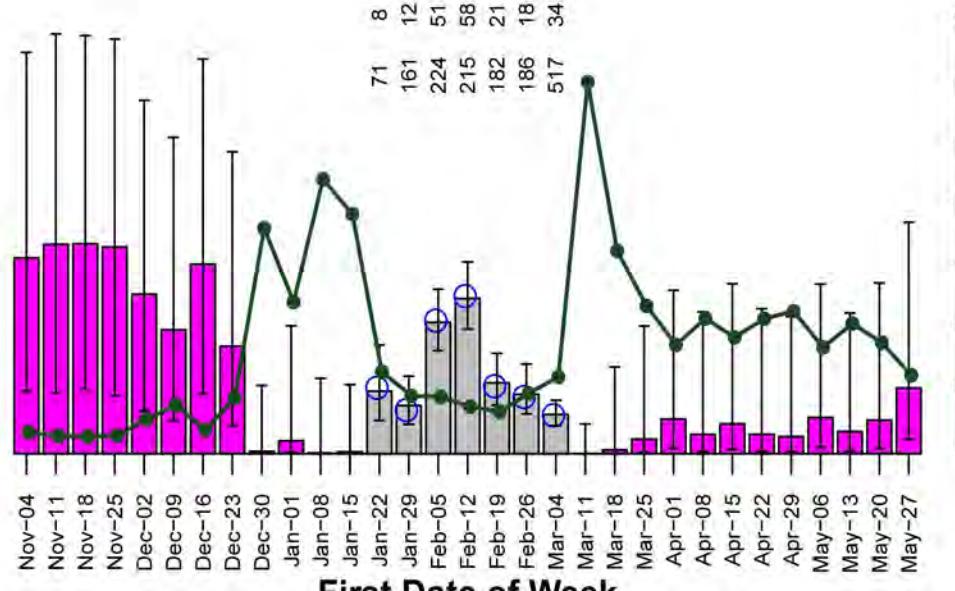


# okie dam\_2023 Ntot=367 (237 - 466) cv=17%

Abundance ('000s)

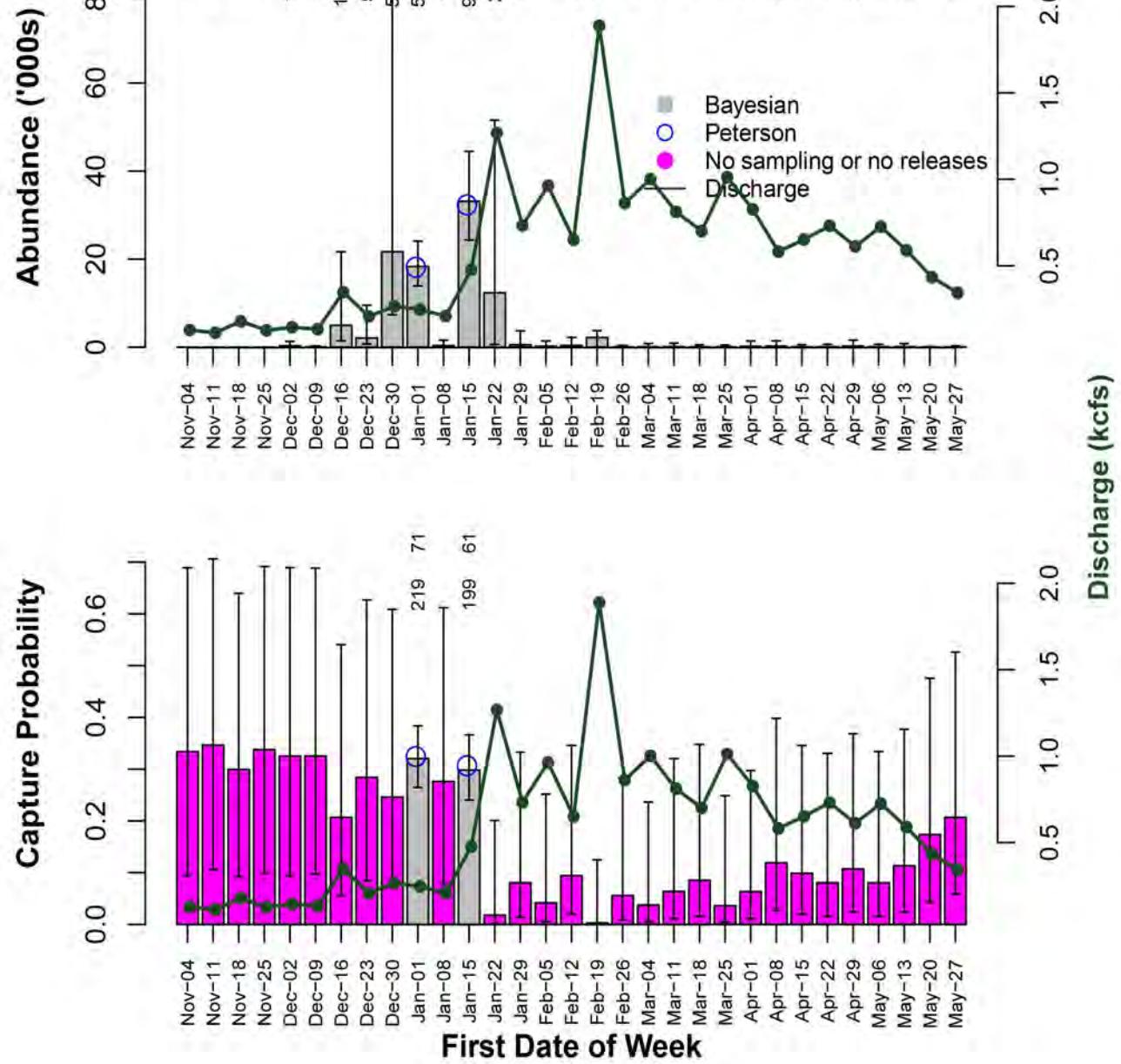


Capture Probability



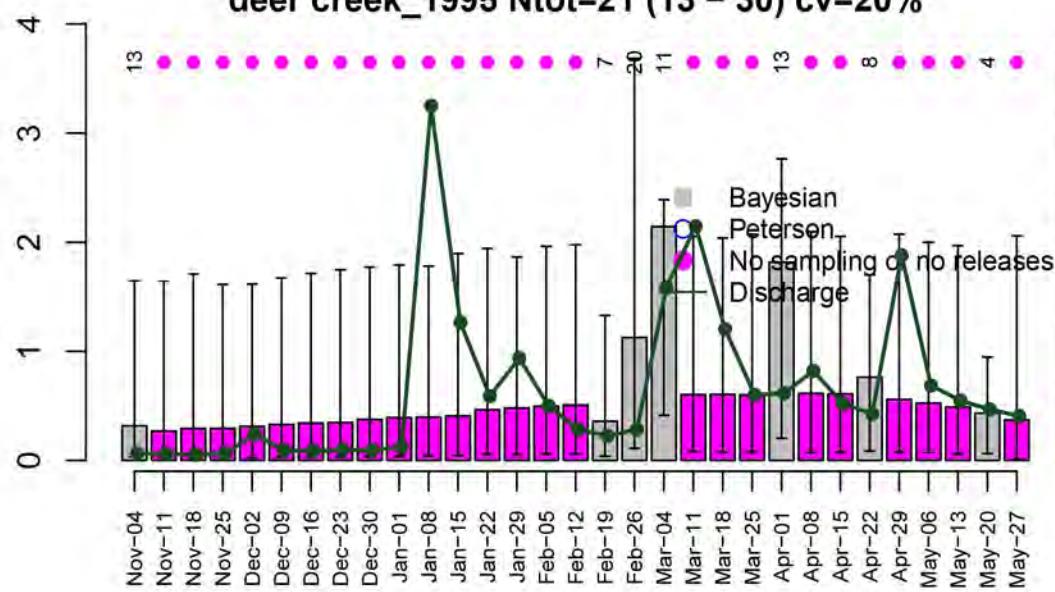
First Date of Week

# okie dam\_2024 Ntot=108 (77 - 181) cv=28%



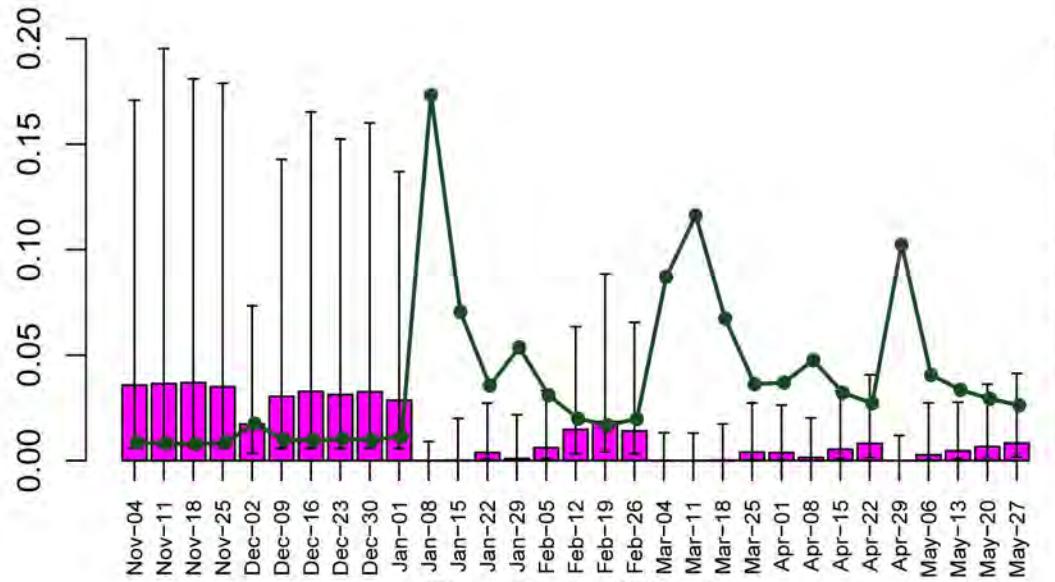
# deer creek\_1995 Ntot=21 (13 – 30) cv=20%

Abundance ('000s)



Discharge (kcfs)

Capture Probability

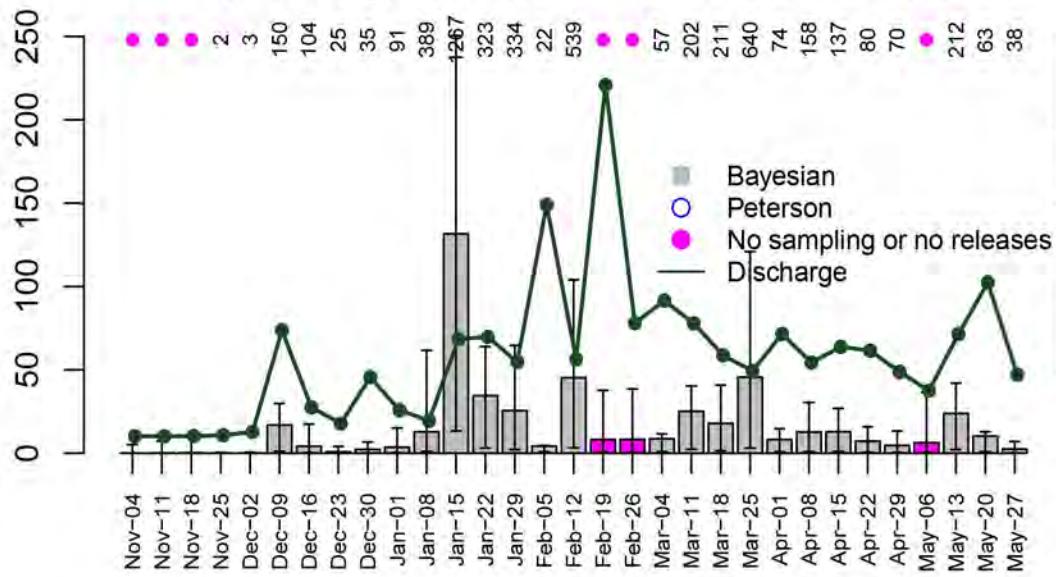


Discharge (kcfs)

First Date of Week

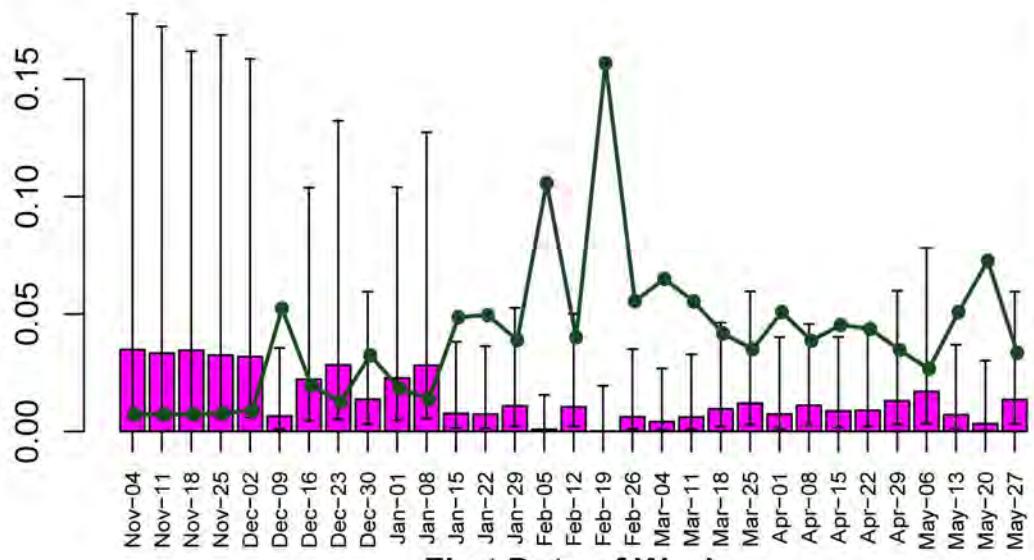
# deer creek\_1996 Ntot=517 (343 - 698) cv=18%

Abundance ('000s)



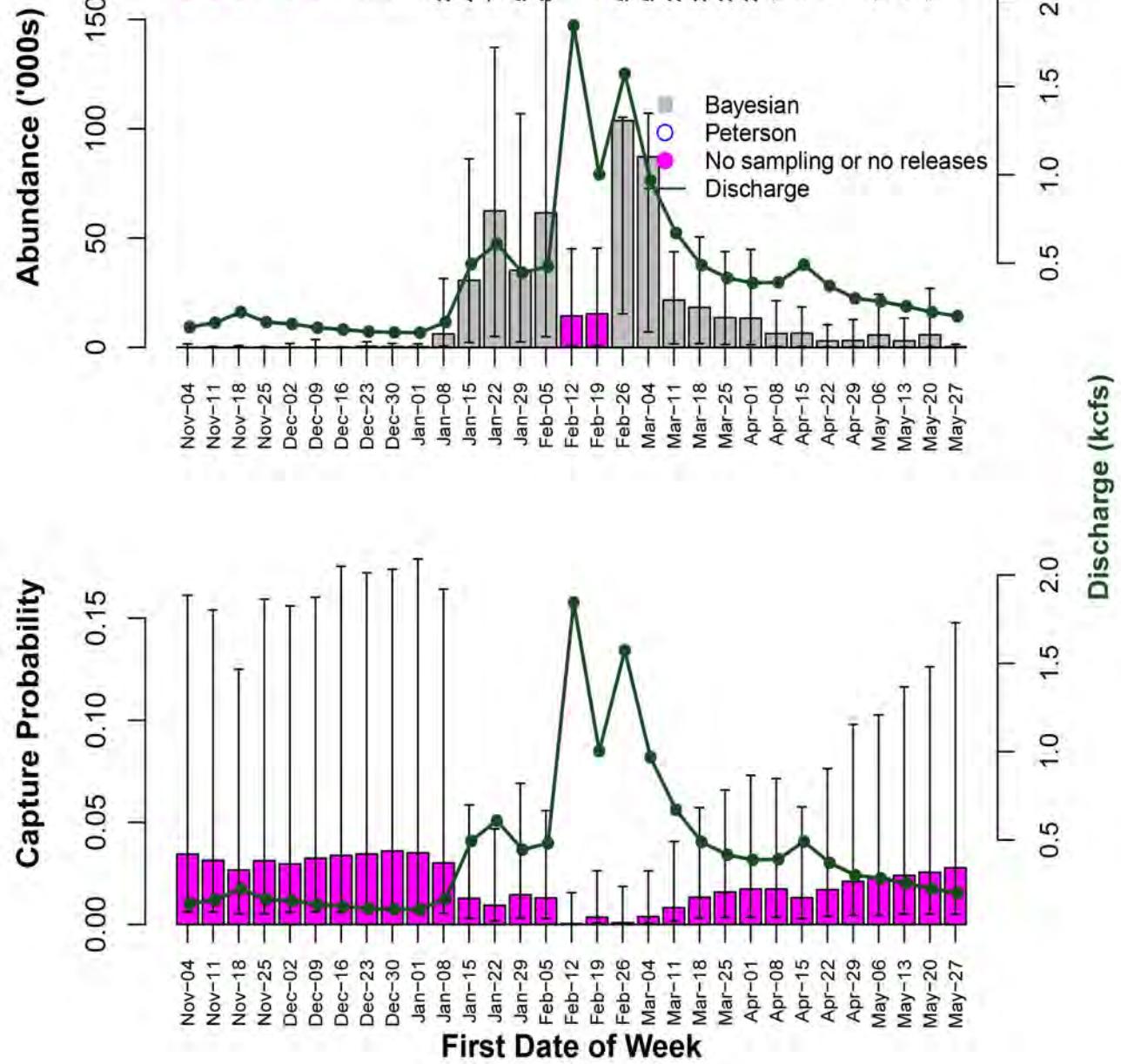
Discharge (kcfs)

Capture Probability



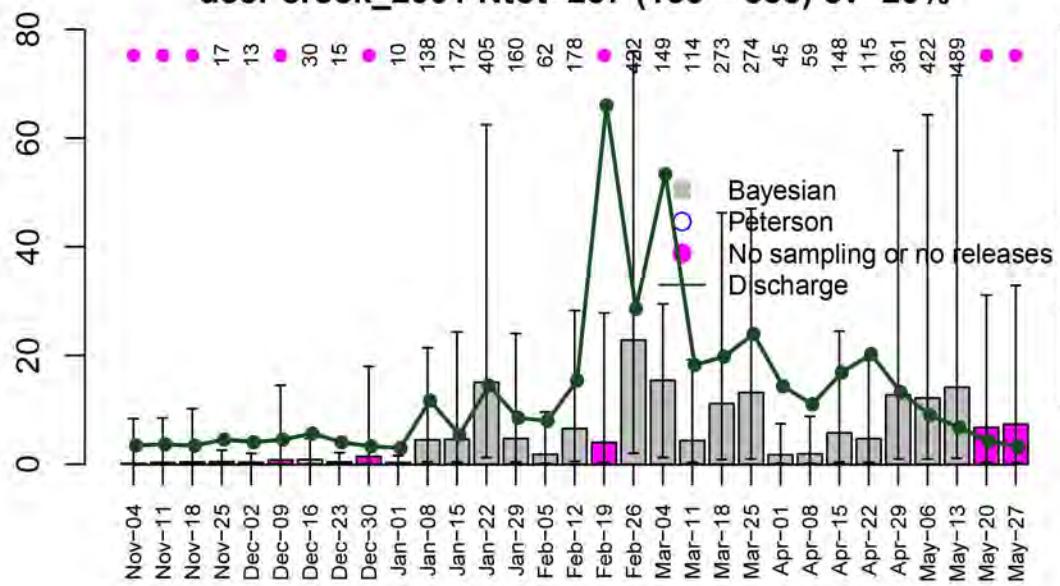
First Date of Week

# deer creek\_2000 Ntot=544 (382 - 716) cv=16%

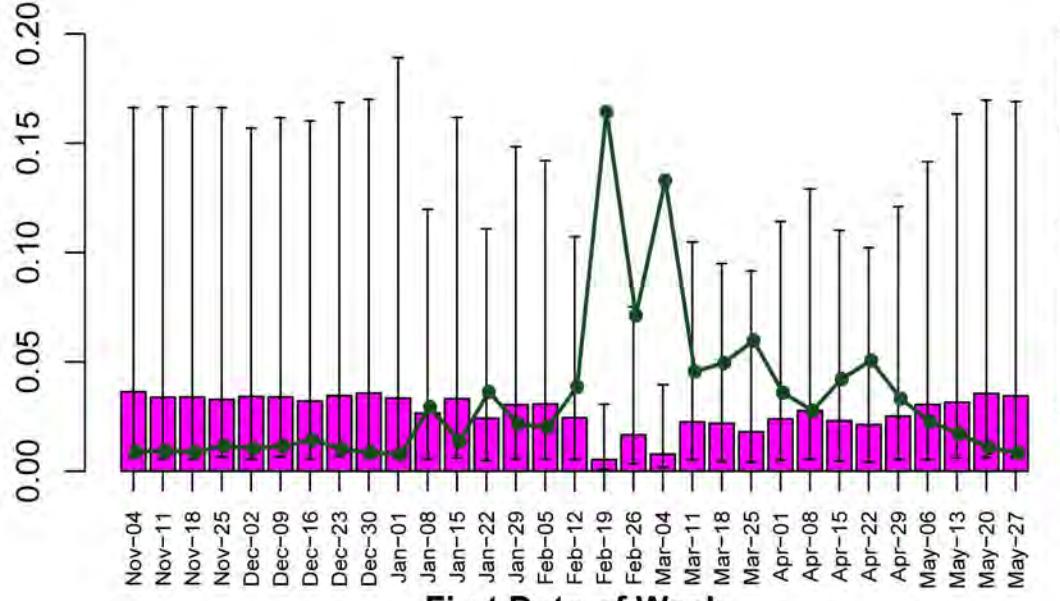


# deer creek\_2001 Ntot=237 (153 - 338) cv=20%

Abundance ('000s)



Capture Probability

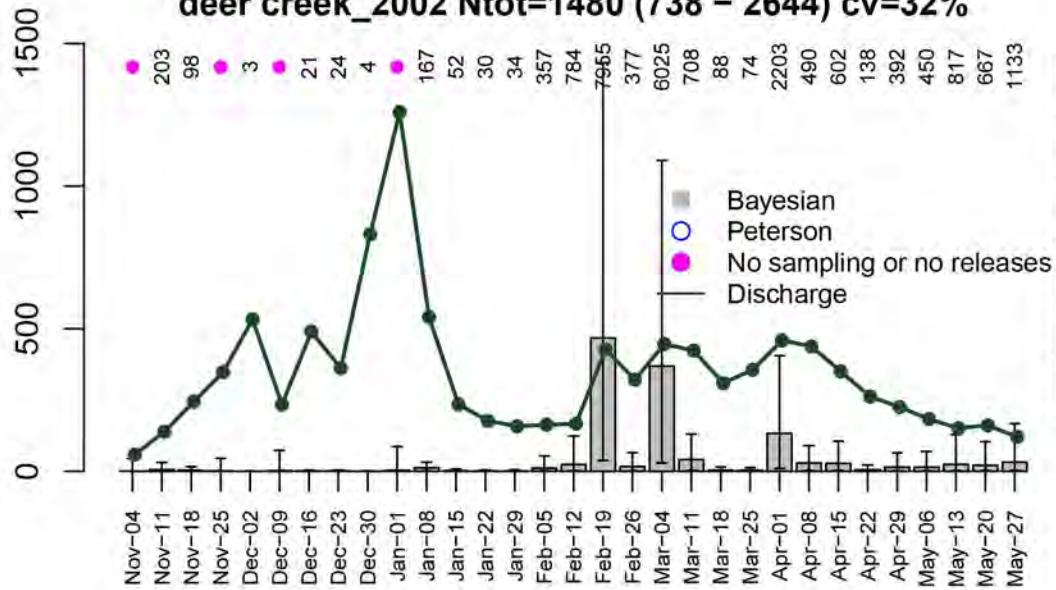


First Date of Week

Discharge (kcfs)

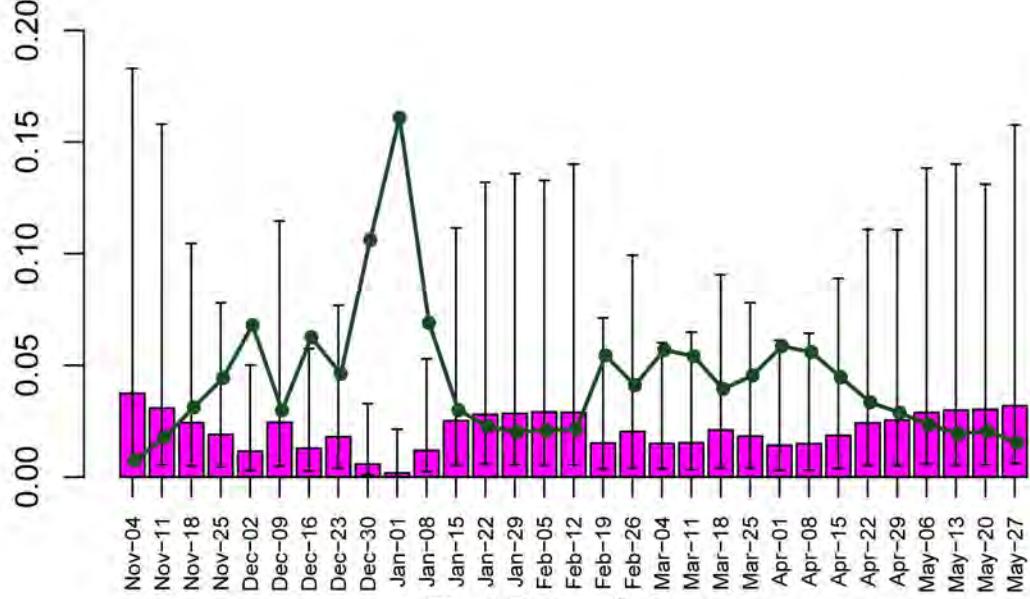
# deer creek\_2002 Ntot=1480 (738 - 2644) cv=32%

Abundance ('000s)



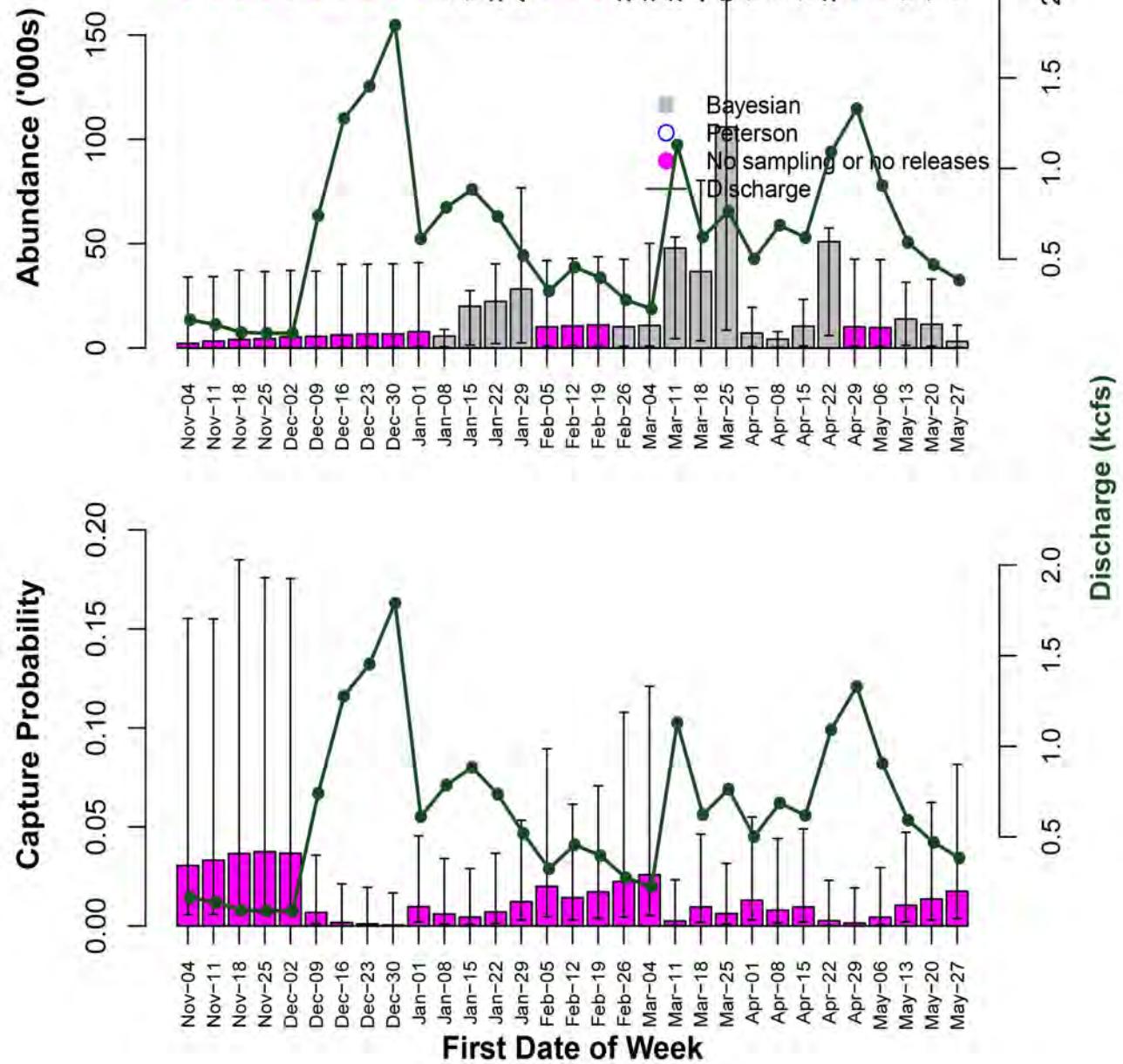
Discharge (kcfs)

Capture Probability



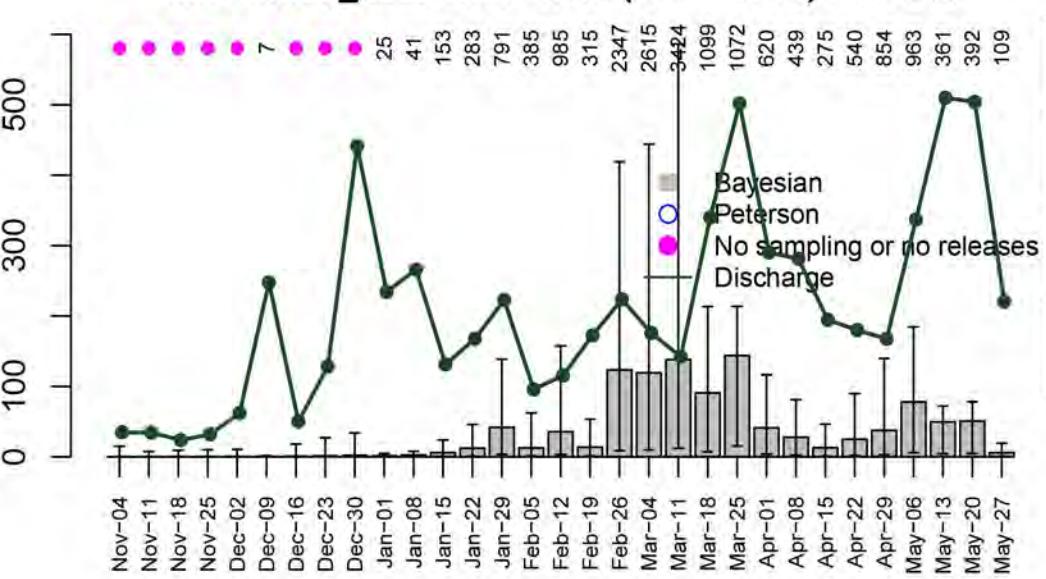
First Date of Week

# deer creek\_2003 Ntot=545 (374 - 731) cv=17%



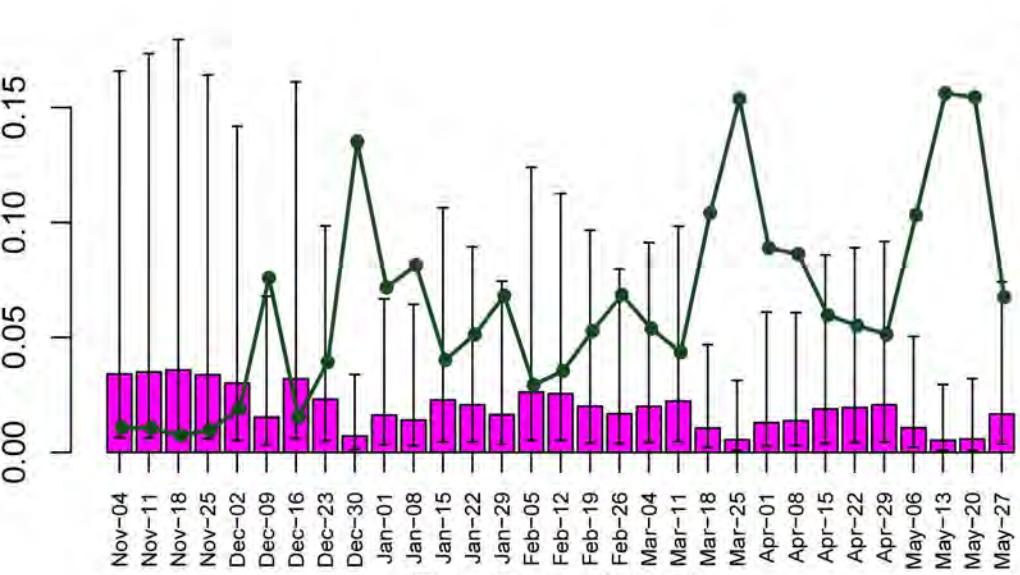
# deer creek\_2005 Ntot=1210 (817 - 1814) cv=20%

Abundance ('000s)



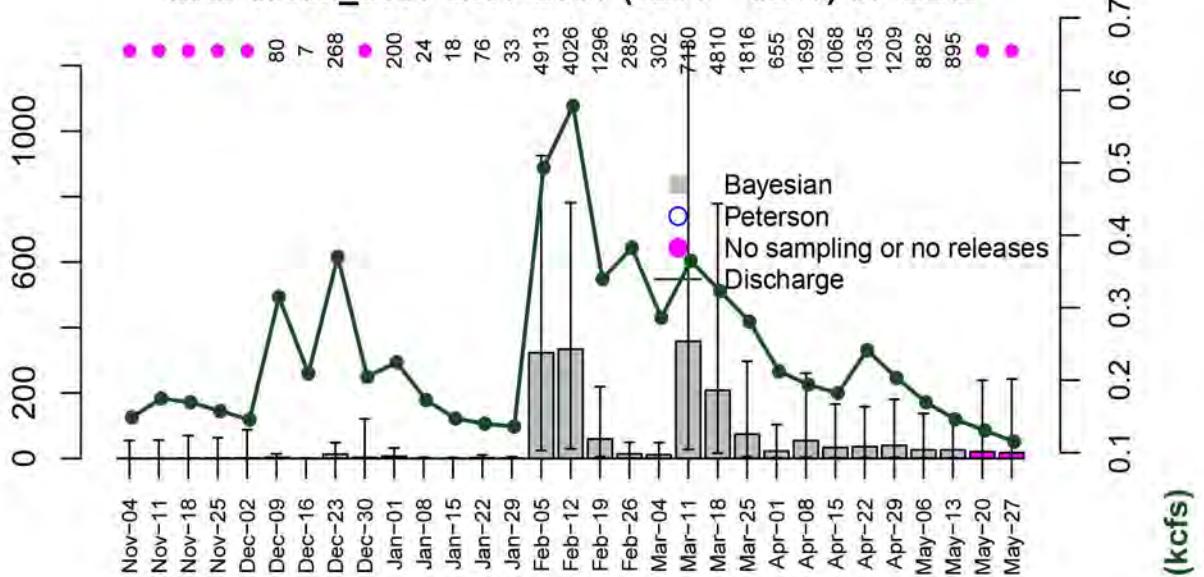
Discharge (kcfs)

Capture Probability

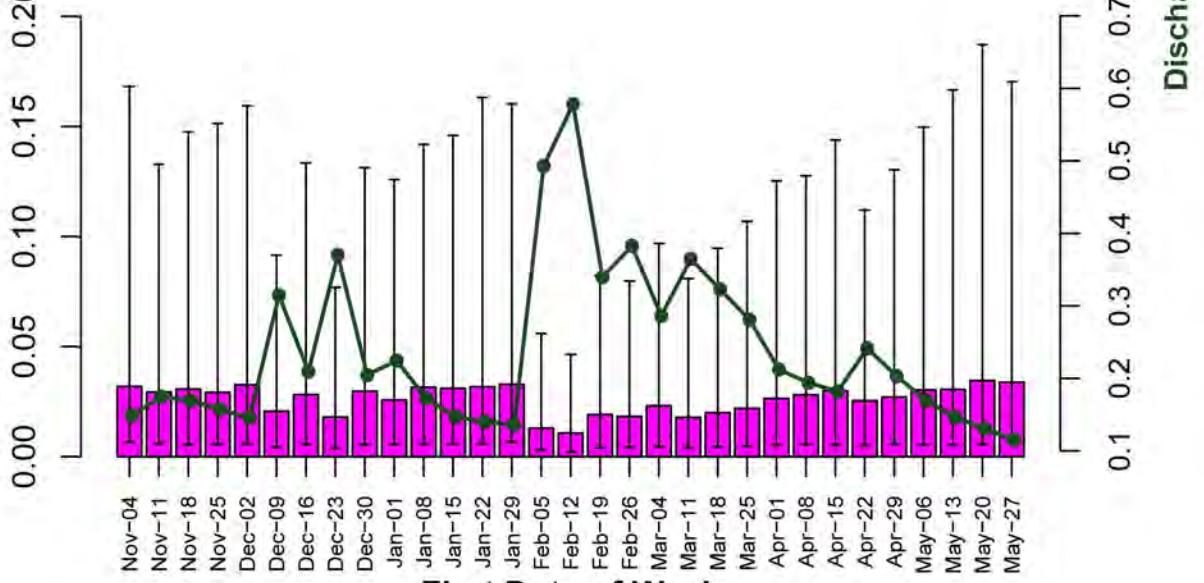


# deer creek\_2007 Ntot=2097 (1211 - 3247) cv=25%

Abundance ('000s)



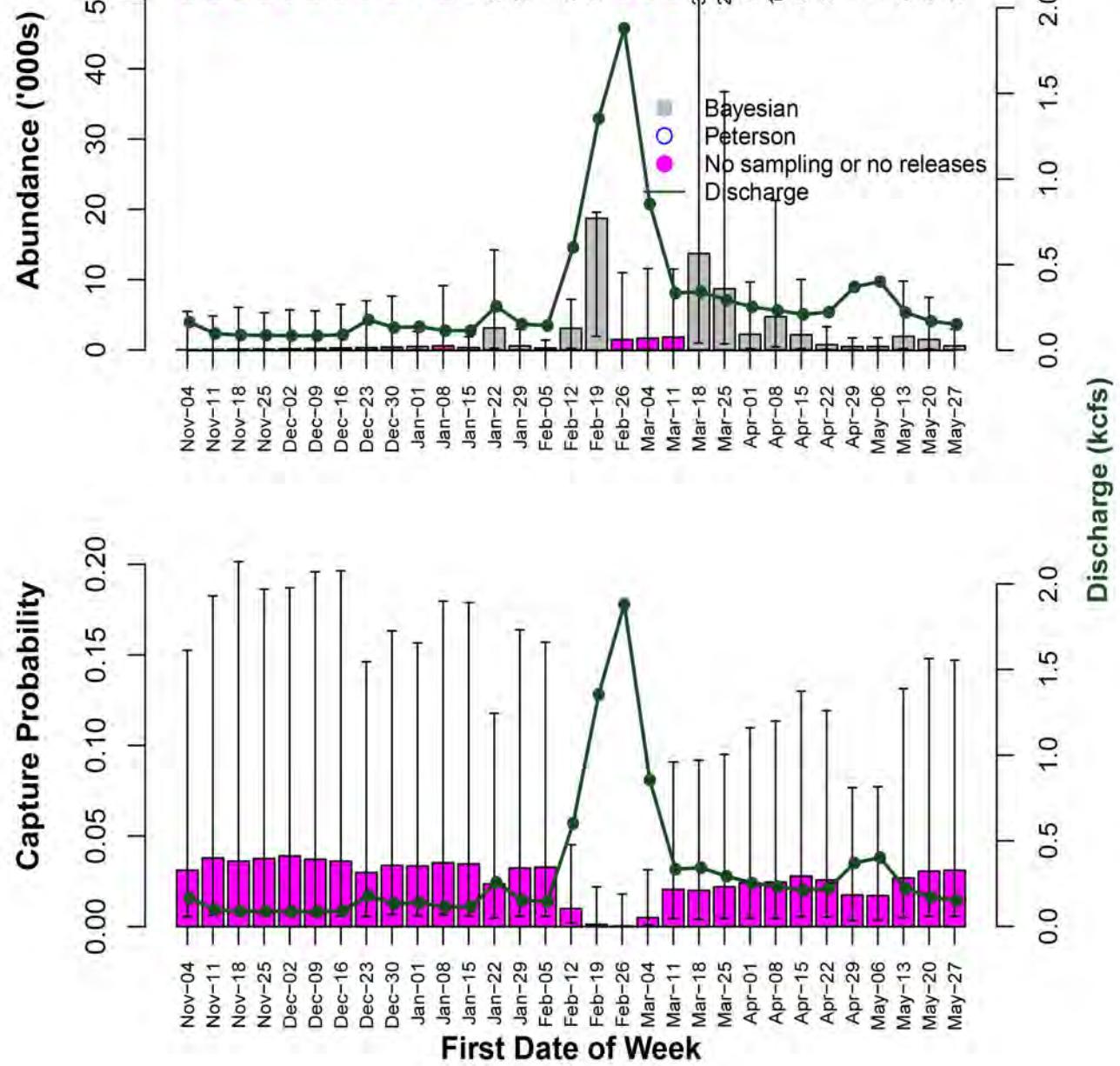
Capture Probability

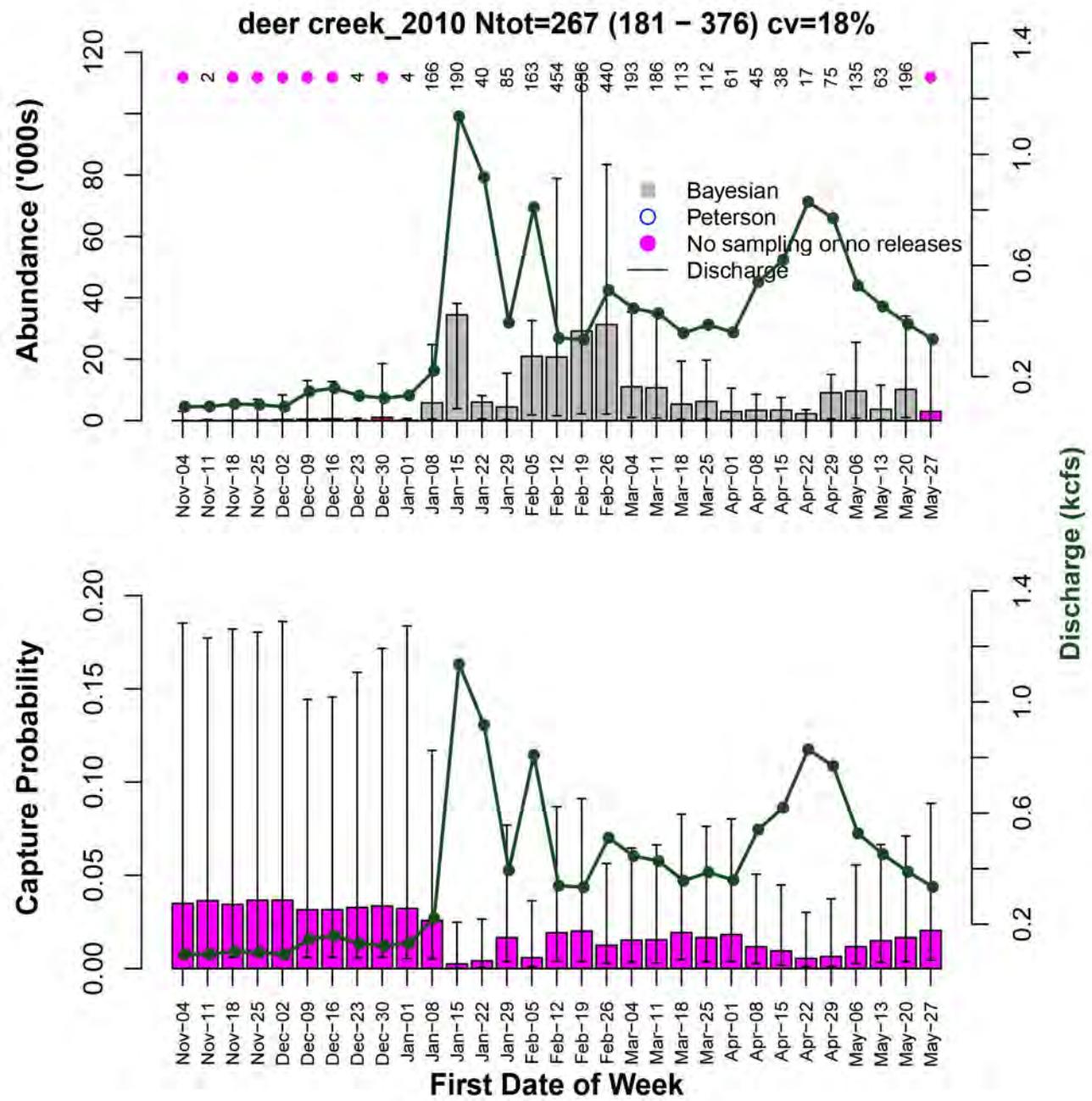


First Date of Week

Discharge (kcfs)

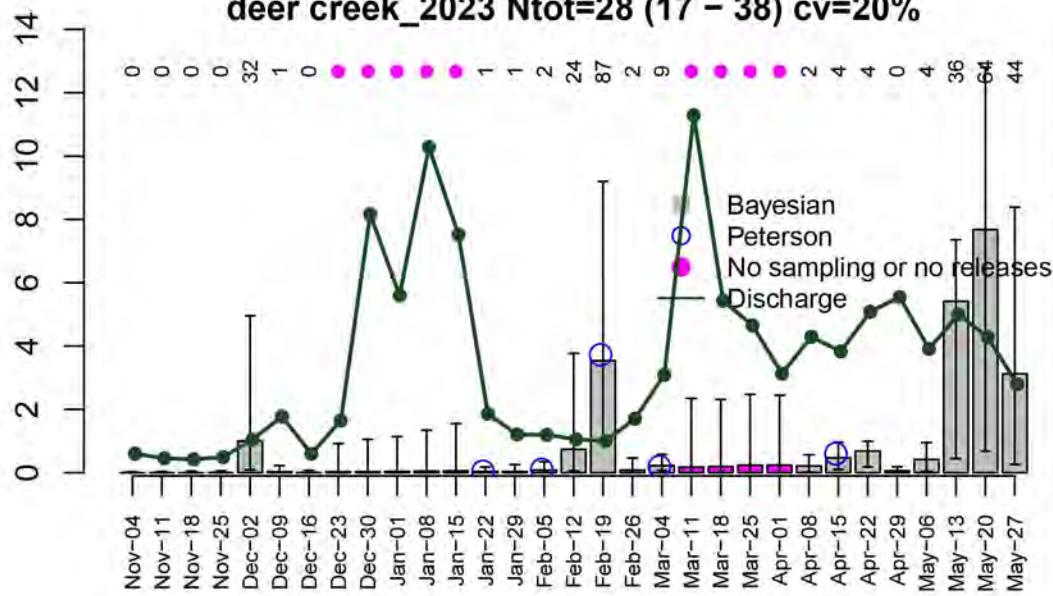
# deer creek\_2009 Ntot=89 (55 – 138) cv=23%





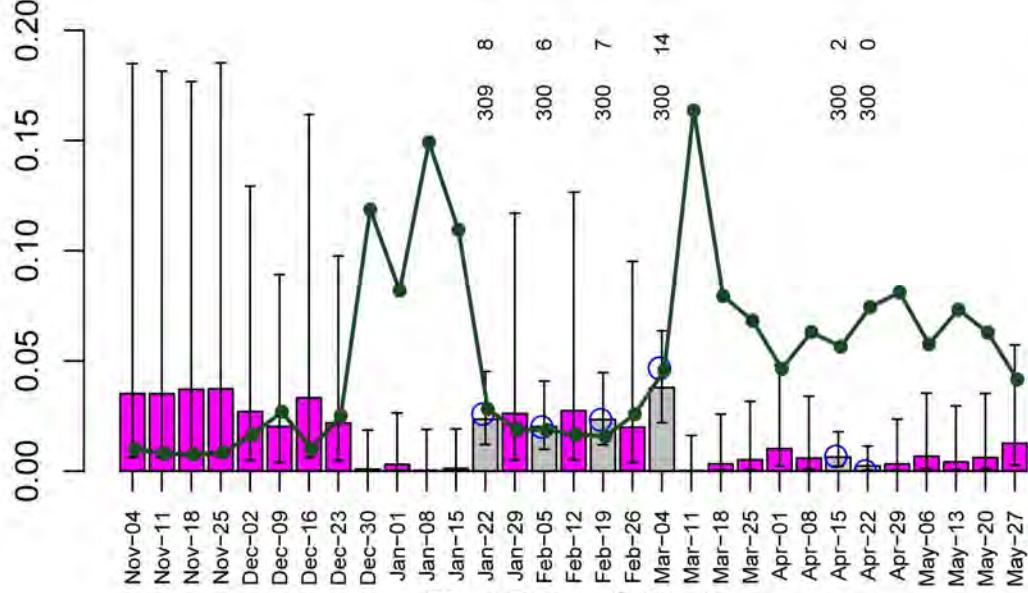
# deer creek\_2023 Ntot=28 (17 - 38) cv=20%

Abundance ('000s)



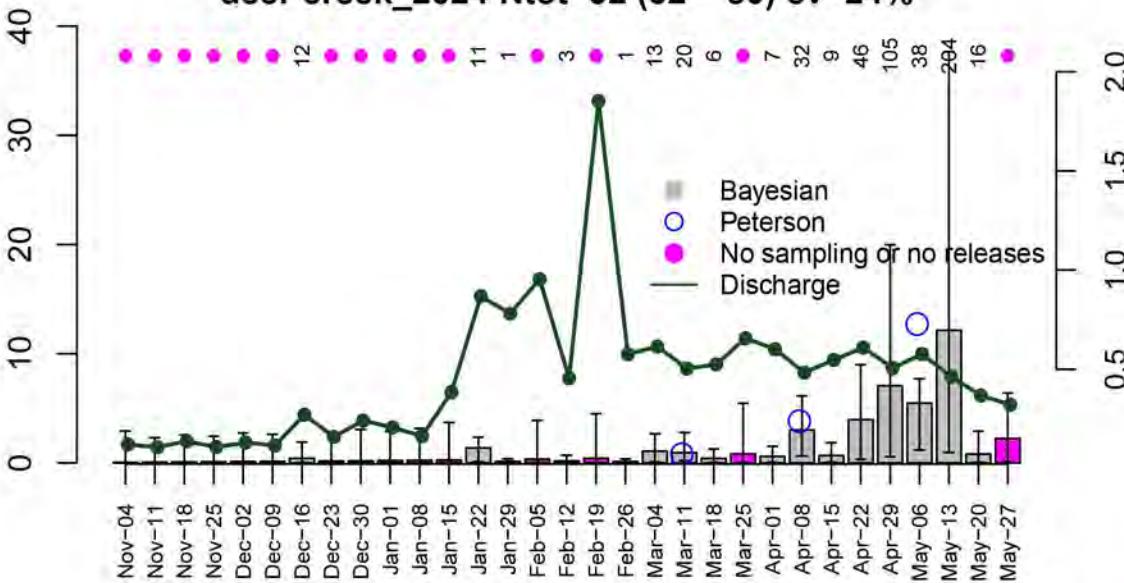
Discharge (kcfs)

Capture Probability

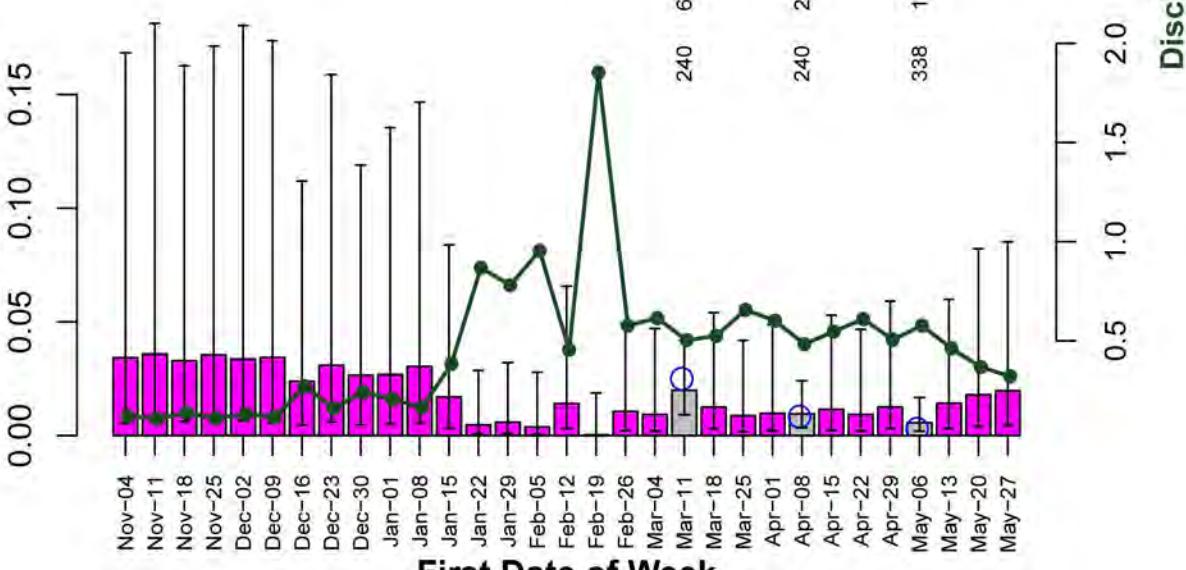


# deer creek\_2024 Ntot=52 (32 – 80) cv=24%

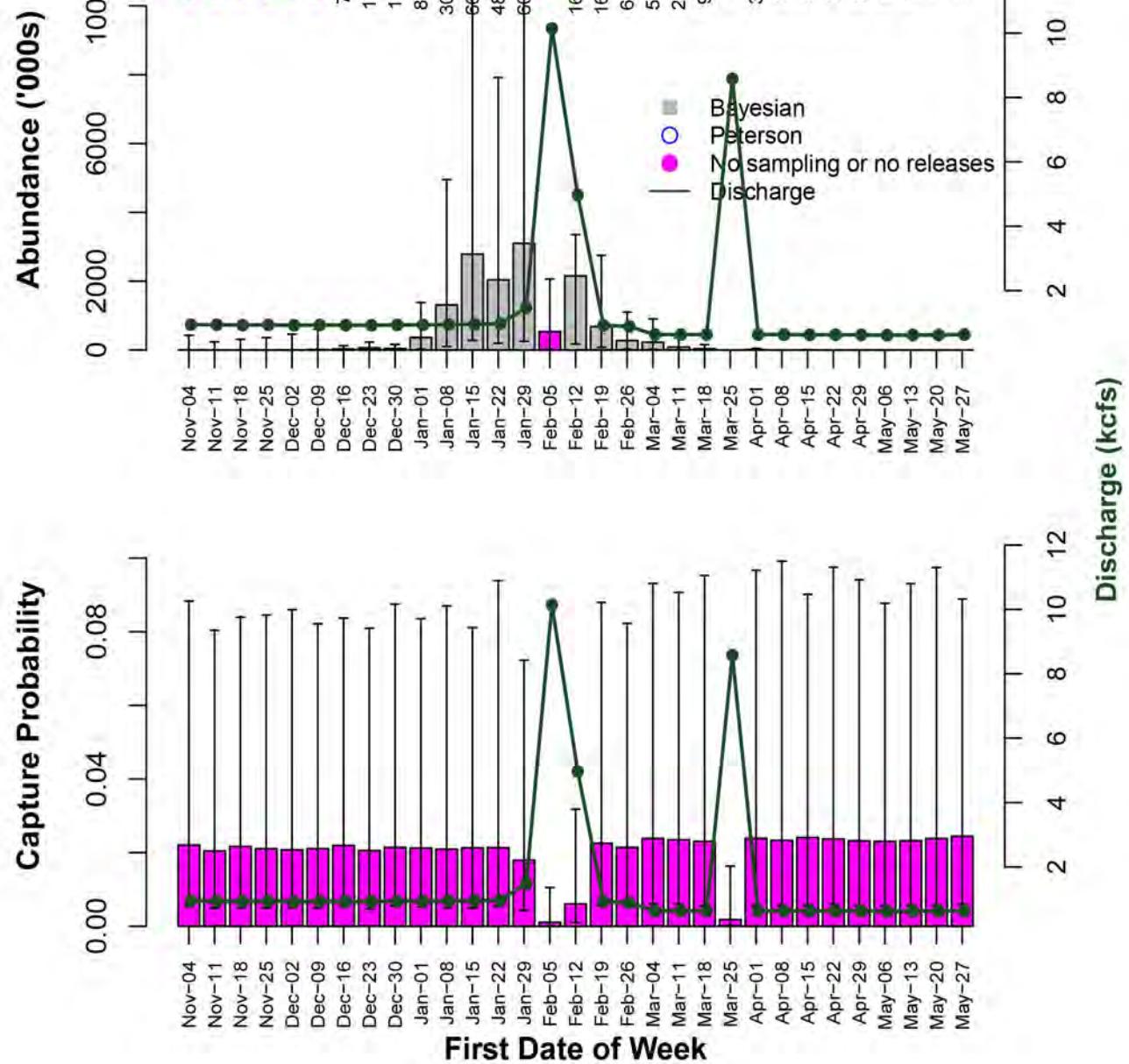
Abundance ('000s)



Capture Probability

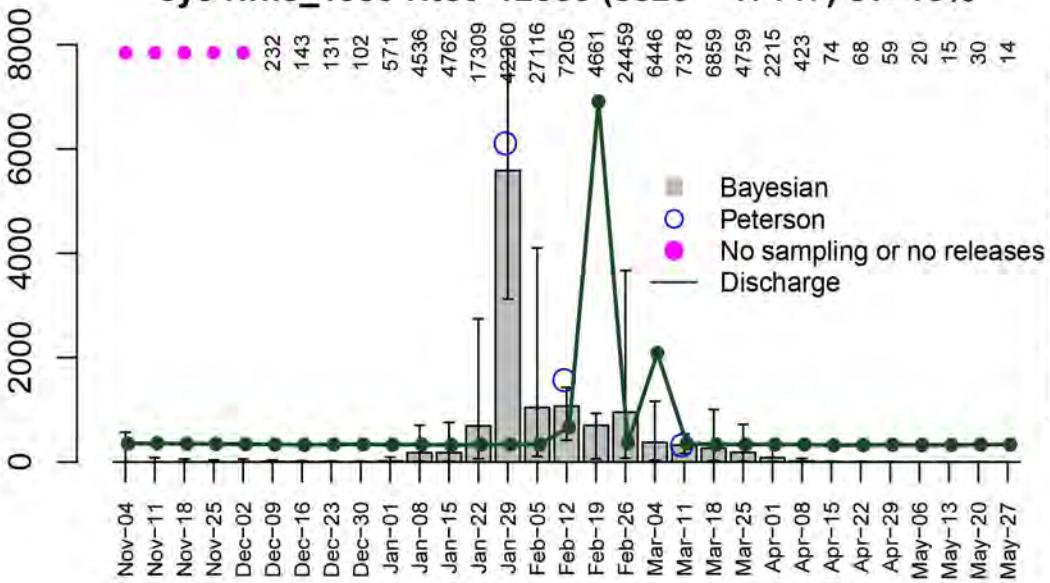


eye riffle\_1998 Ntot=16125 (9080 - 27729) cv=28%



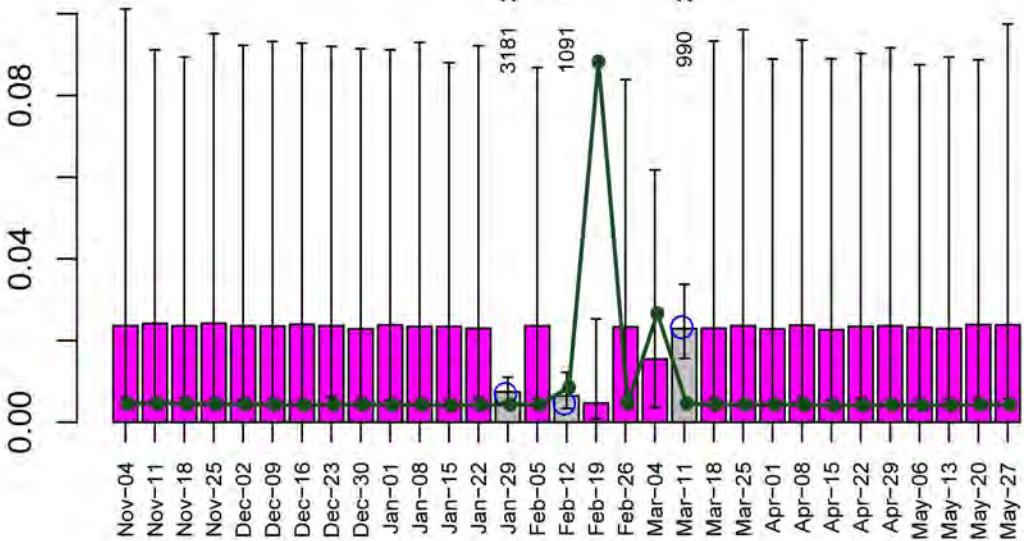
eye riffle\_1999 Ntot=12550 (8823 – 17147) cv=16%

Abundance (000s)



Discharge (kcfs)

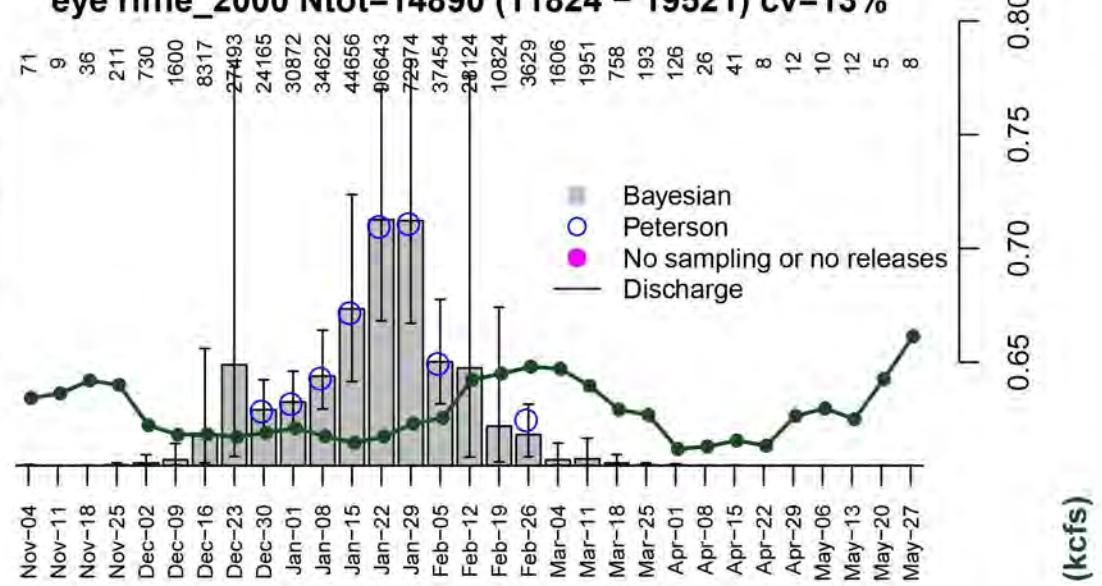
Capture Probability



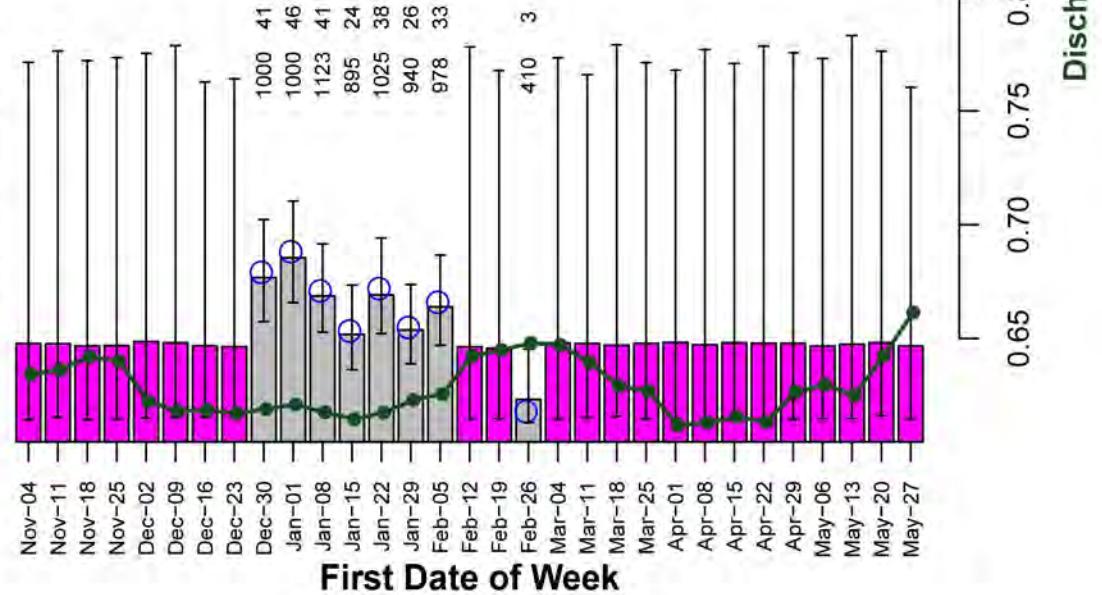
First Date of Week

eye riffle\_2000 Ntot=14890 (11824 – 19521) cv=13%

Abundance ('000s)

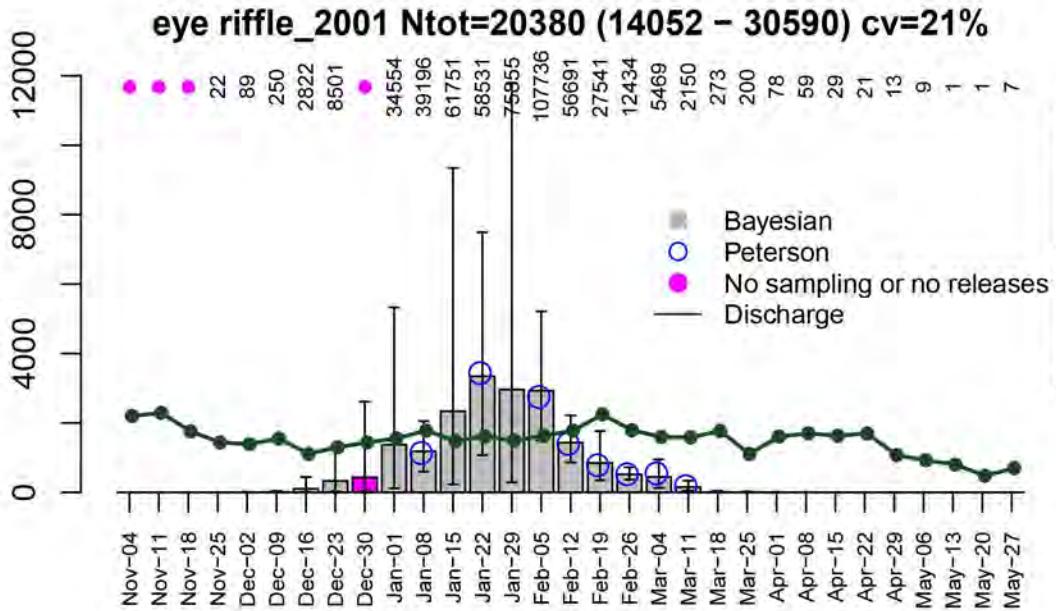


Capture Probability



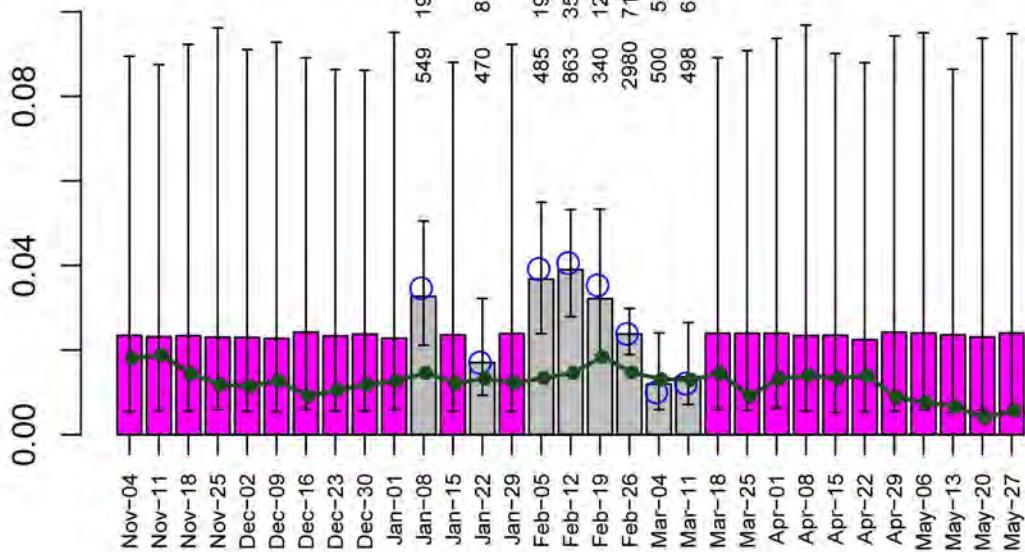
eye riffle\_2001 Ntot=20380 (14052 - 30590) cv=21%

Abundance ('000s)



Discharge (kcfs)

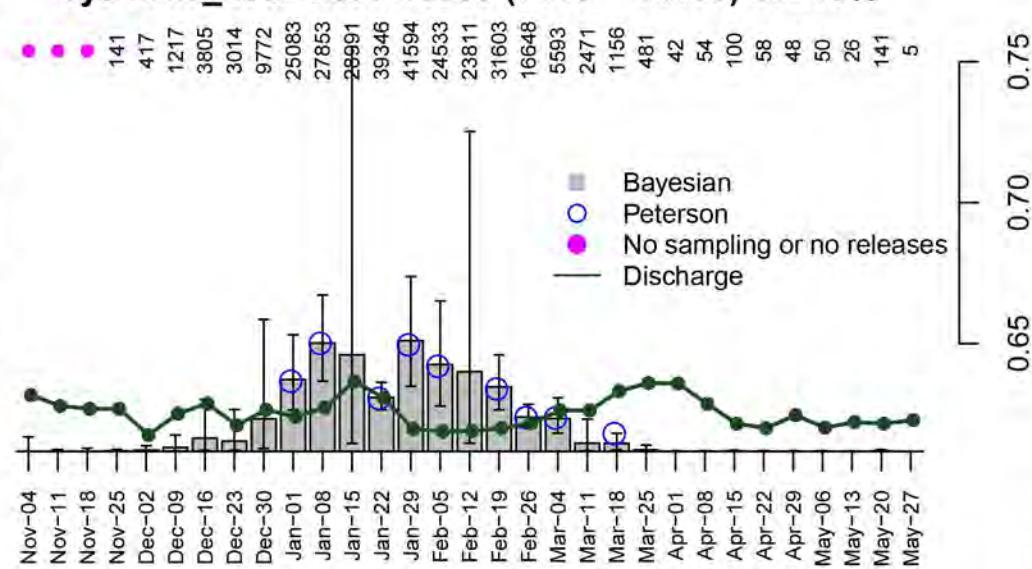
Capture Probability



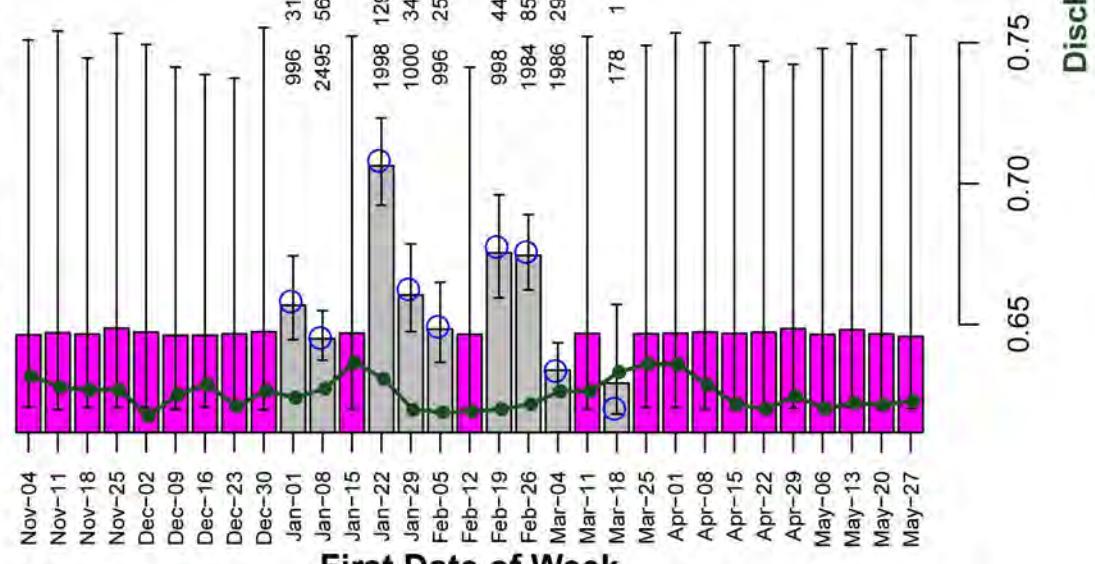
Discharge (kcfs)

eye riffle\_2002 Ntot=10090 (7913 - 14108) cv=16%

Abundance ('000s)



Capture Probability



First Date of Week

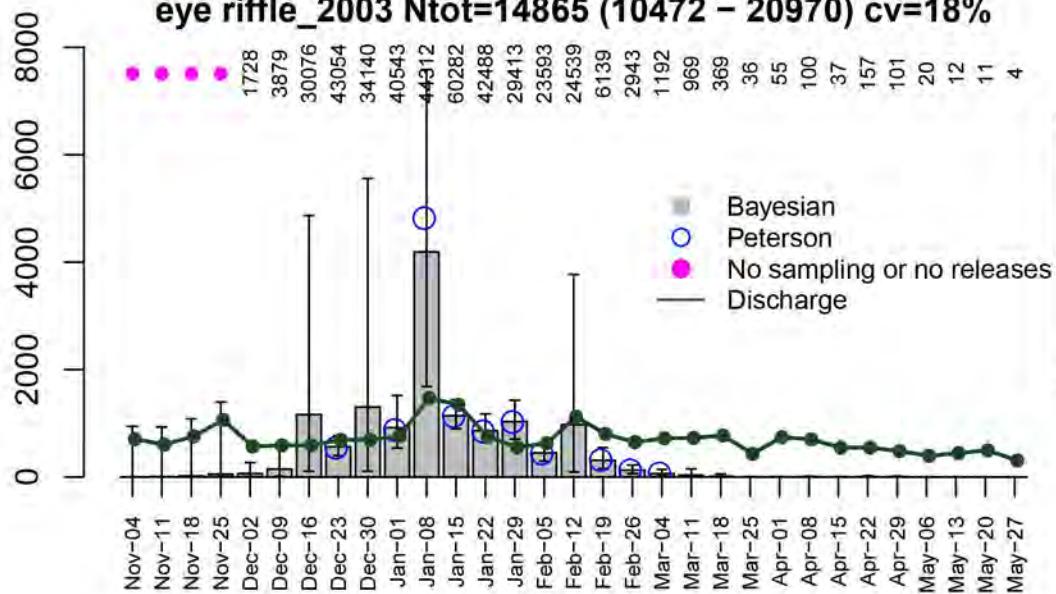
Discharge (kcfs)

0.65 0.70 0.75 0.65 0.70 0.75

0.65 0.70 0.75

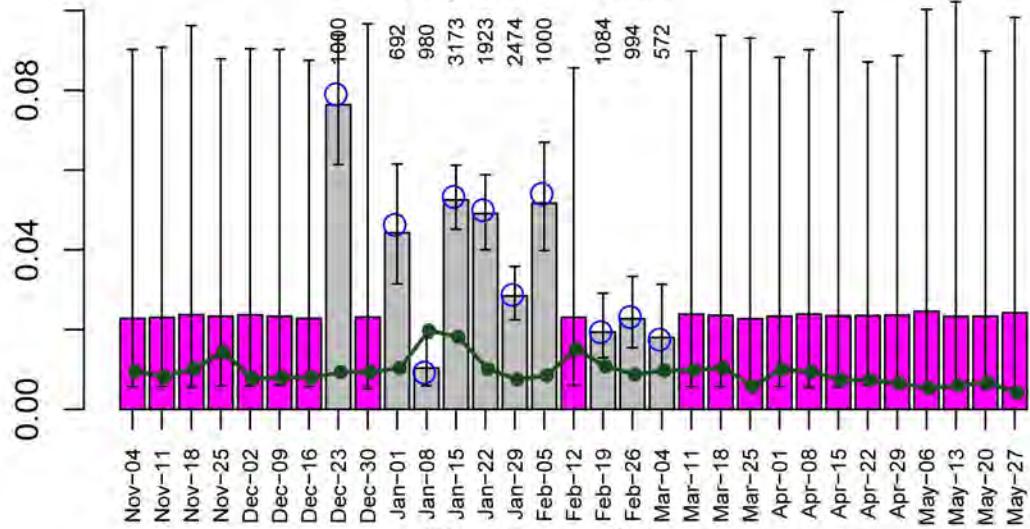
eye riffle\_2003 Ntot=14865 (10472 - 20970) cv=18%

Abundance ('000s)



Discharge (kcfs)

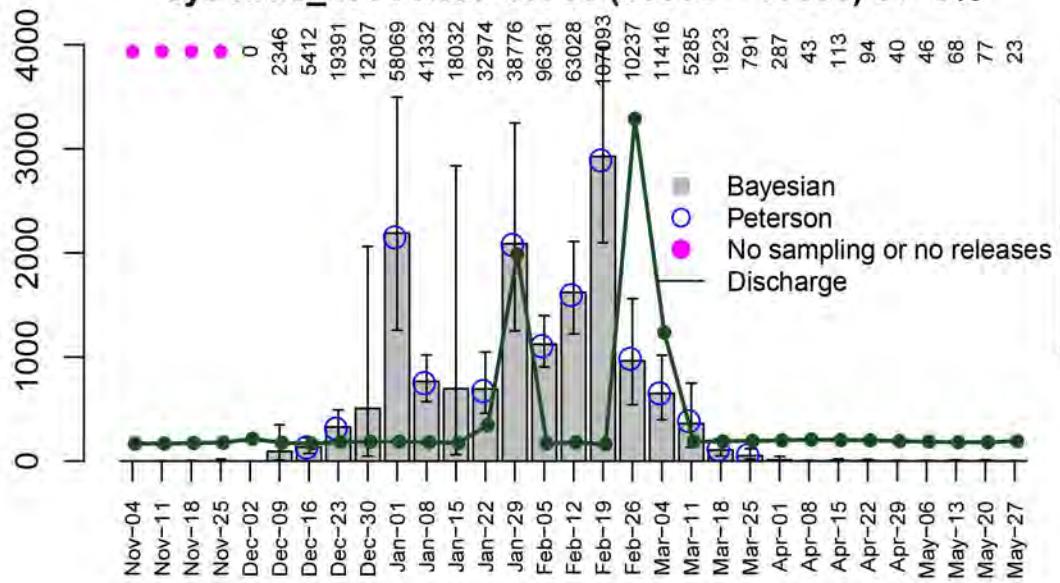
Capture Probability



First Date of Week

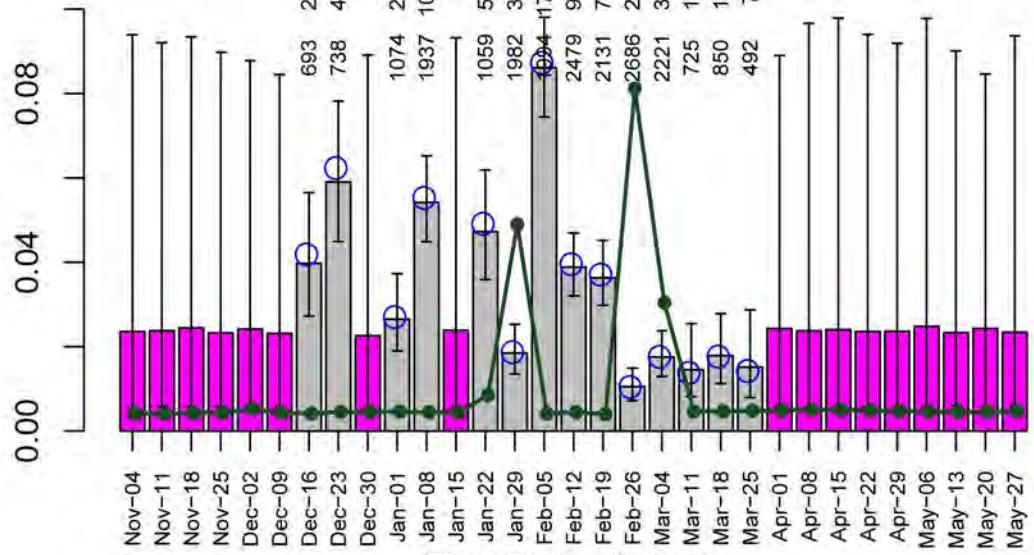
# eye riffle\_2004 Ntot=15760 (13552 – 18660) cv=8%

Abundance ('000s)



Discharge (kcfs)

Capture Probability

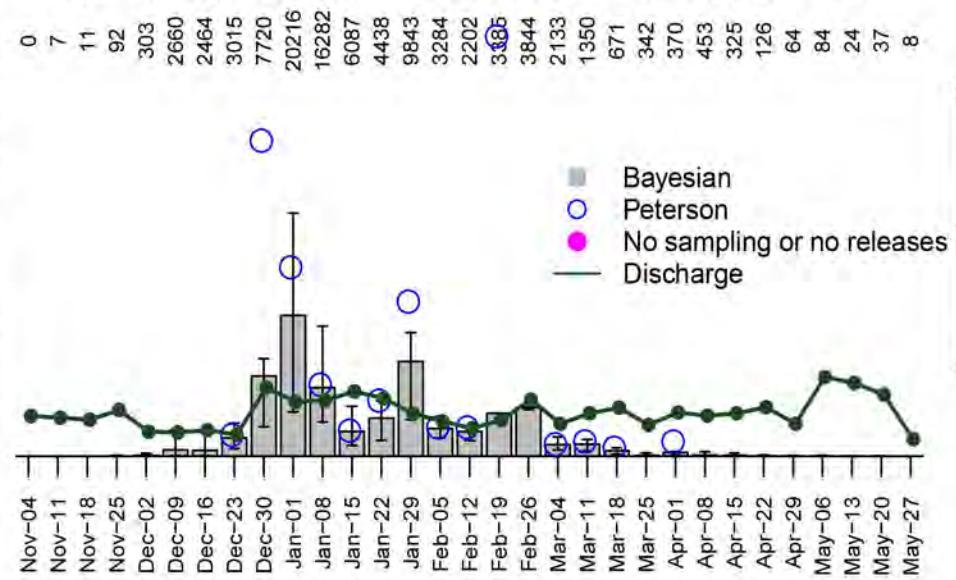


Discharge (kcfs)

First Date of Week

eye riffle\_2005 Ntot=10430 (8369 - 12508) cv=10%

Abundance ('000s)



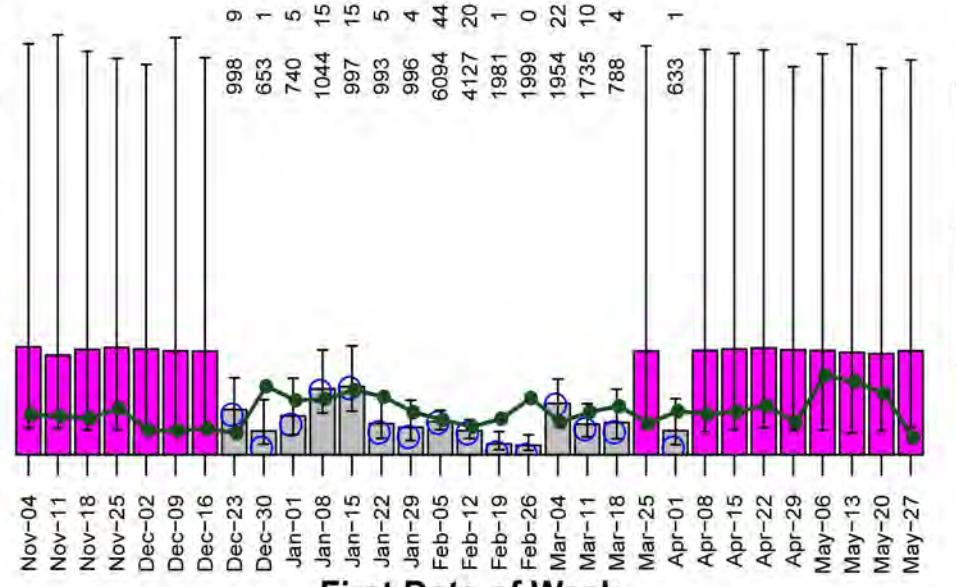
Bayesian

Peterson

No sampling or no releases

Discharge

Capture Probability

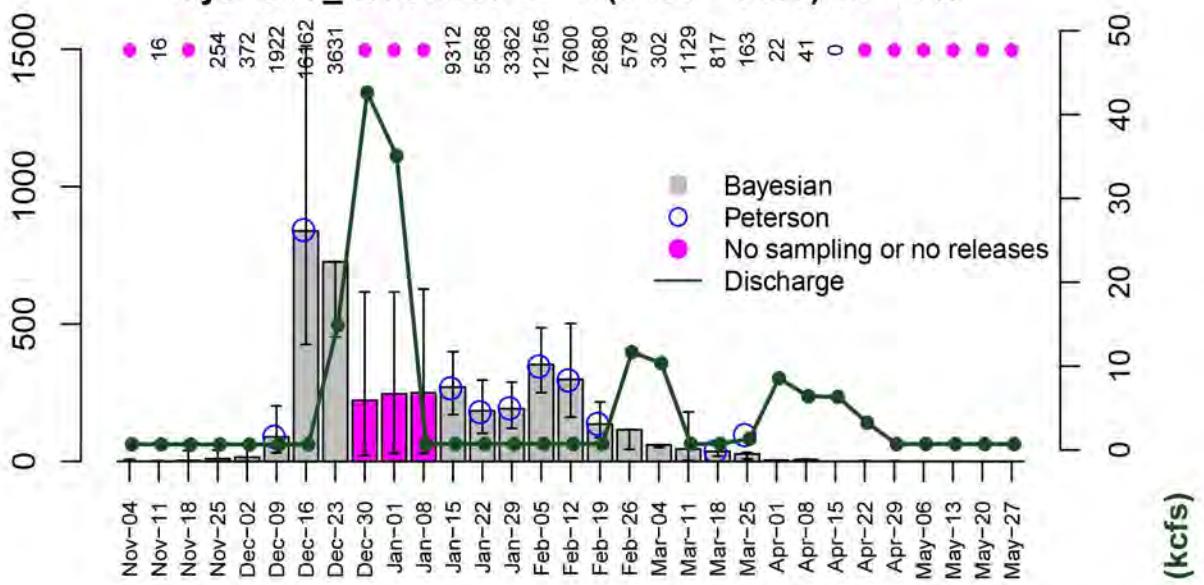


Discharge (kcfs)

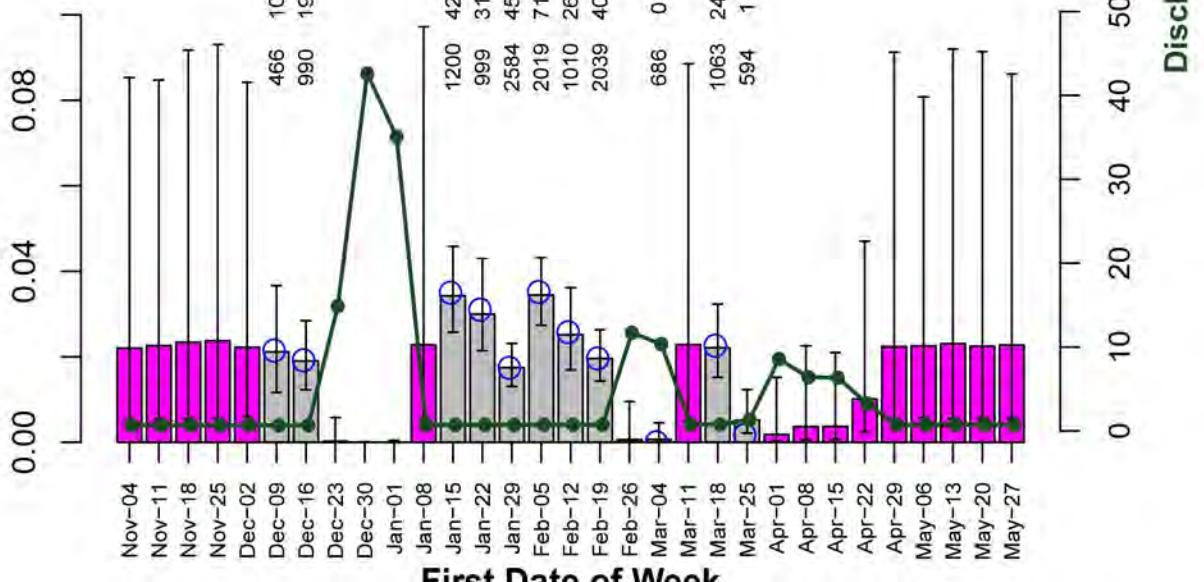
Discharge (kcfs)

# eye riffle\_2006 Ntot=4244 (3432 - 5193) cv=11%

Abundance ('000s)

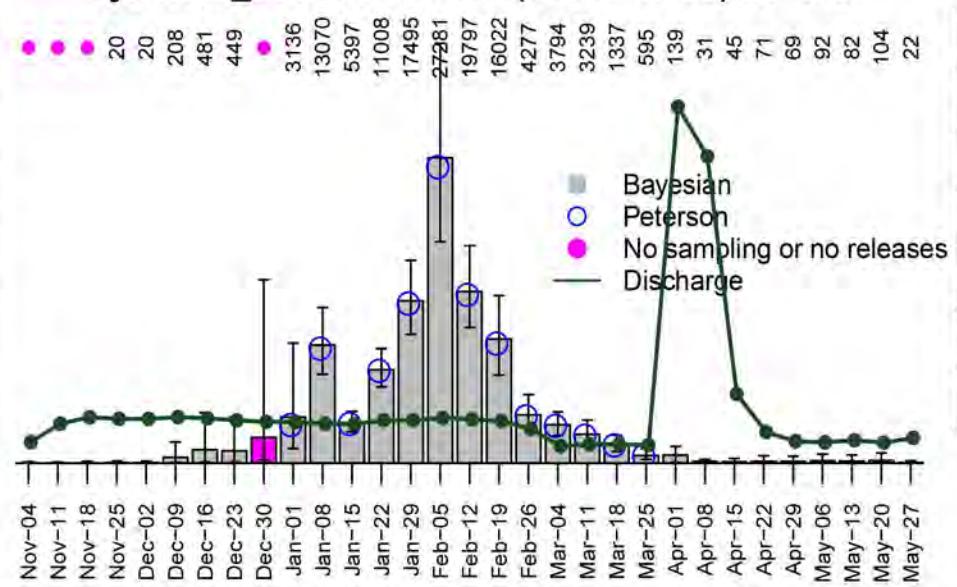


Capture Probability

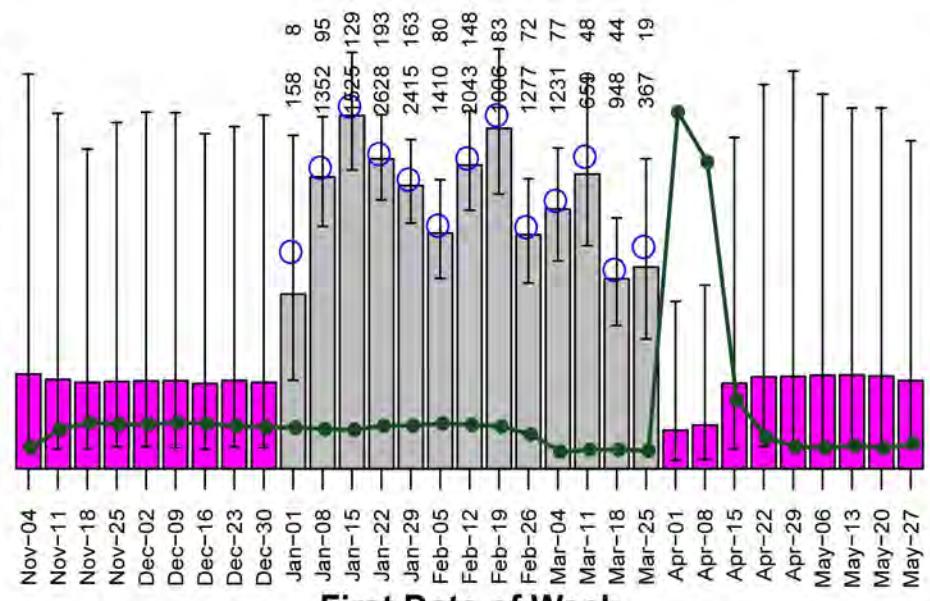


# eye riffle\_2018 Ntot=2138 (1916 – 2485) cv=7%

Abundance ('000s)



Capture Probability

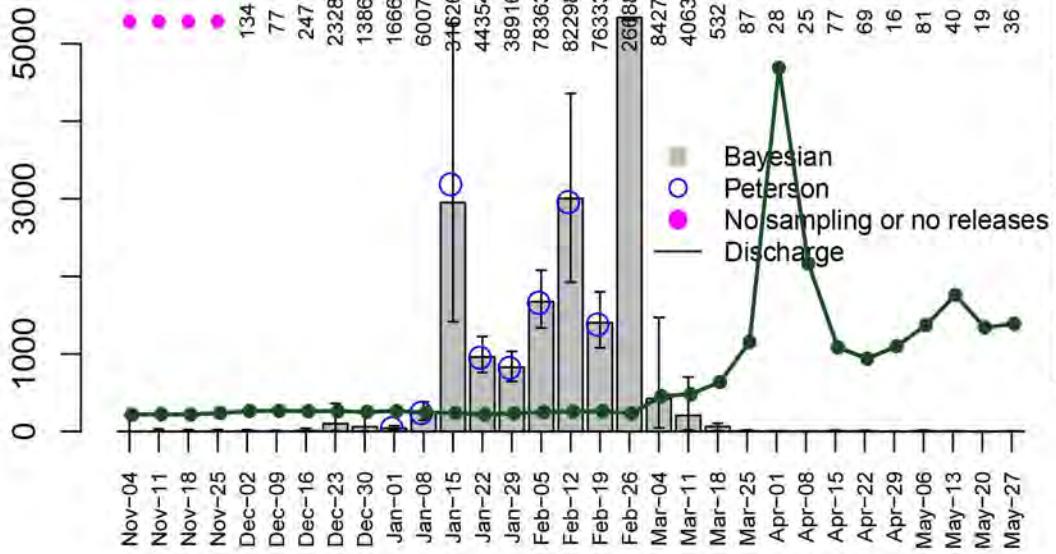


First Date of Week

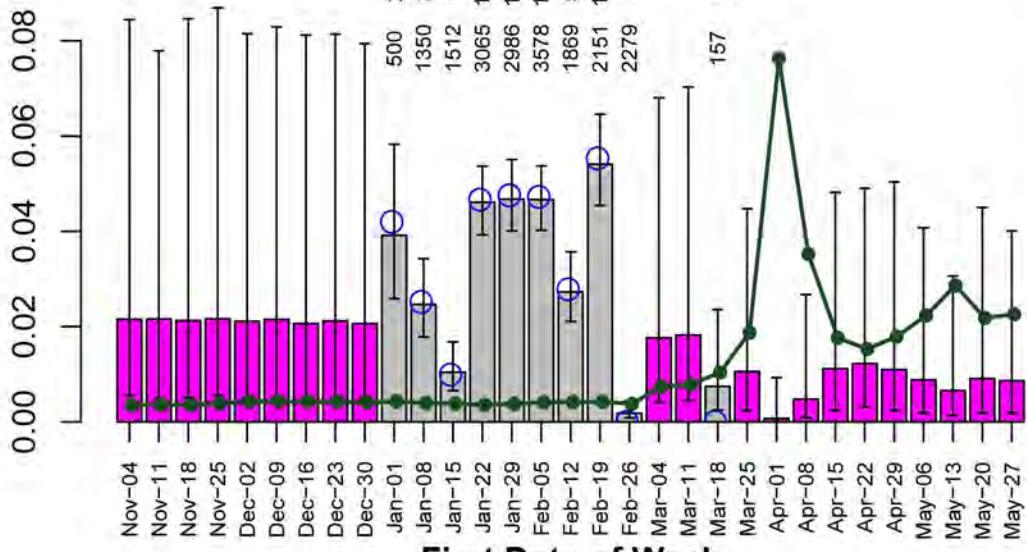
Discharge (kcfs)

eye riffle\_2019 Ntot=17670 (15510 - 20478) cv=7%

Abundance ('000s)



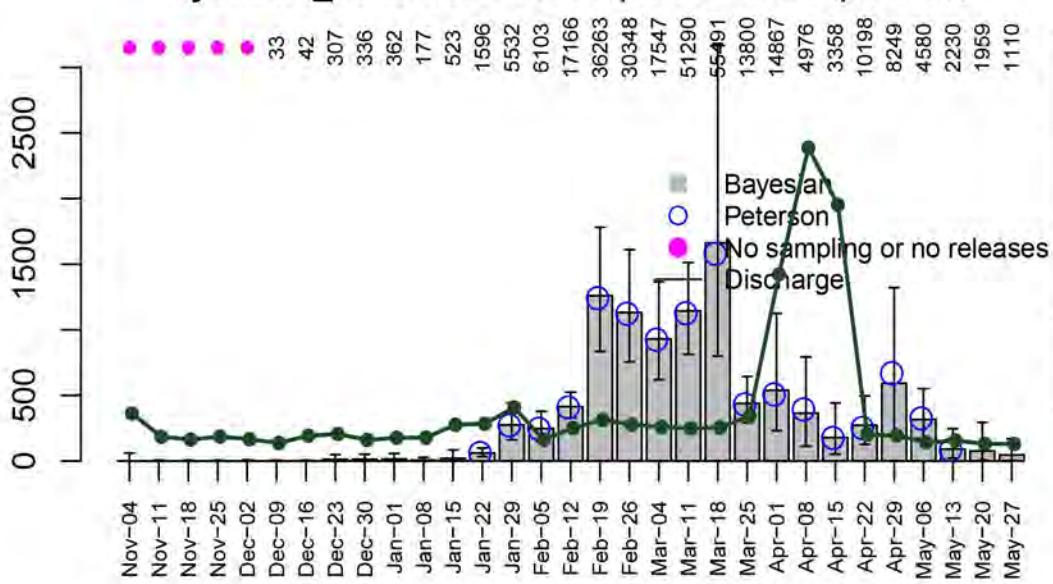
Capture Probability



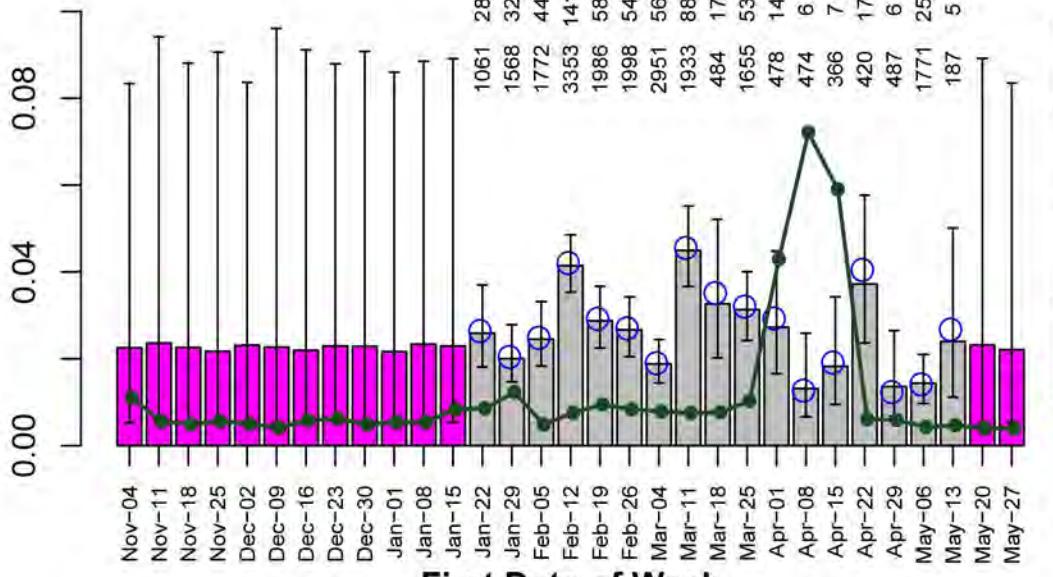
First Date of Week

# eye riffle\_2020 Ntot=10390 (8944 - 12348) cv=8%

Abundance ('000s)



Capture Probability

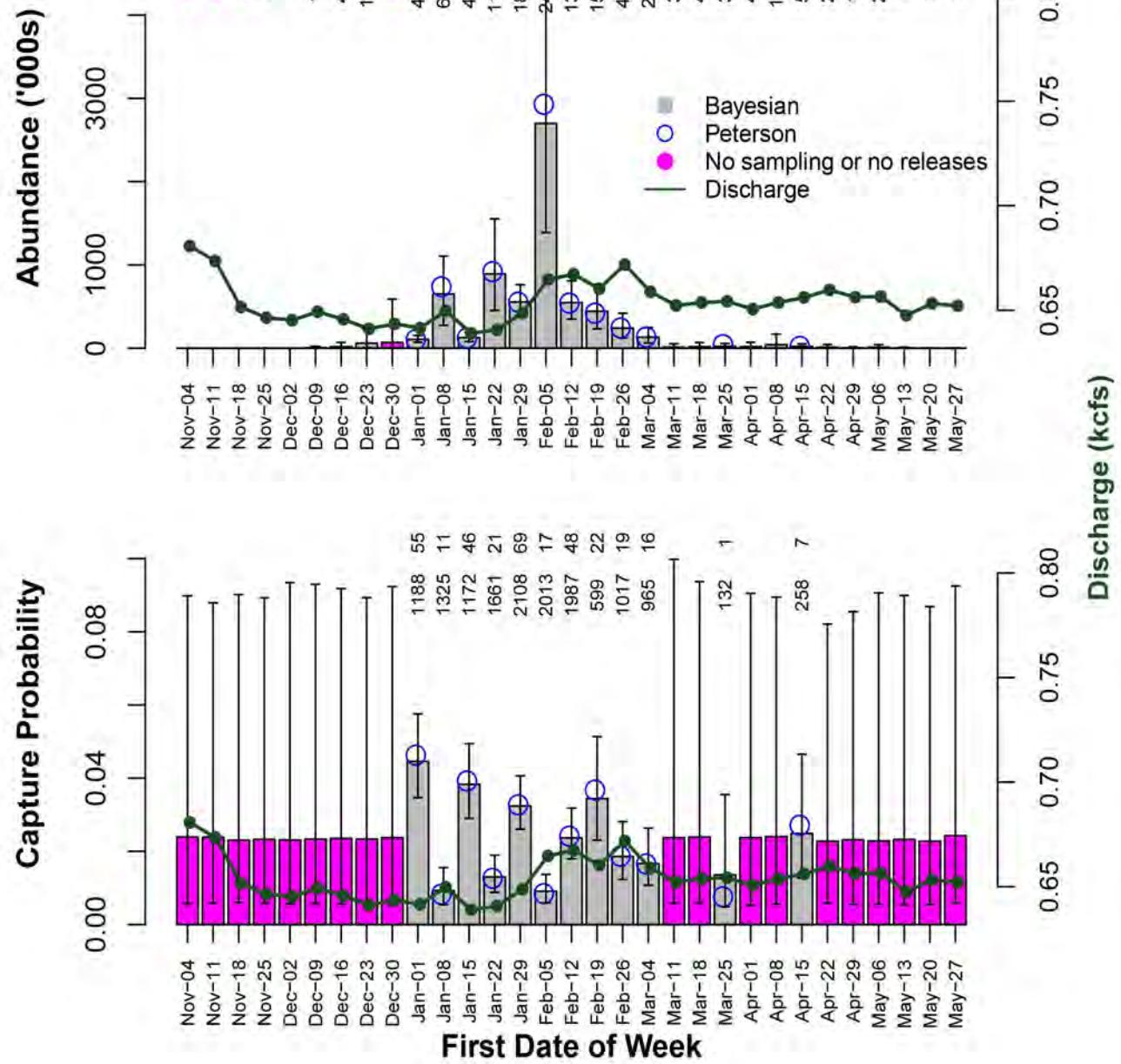


Discharge (kcfs)

0.8 1.0 1.2 1.4 1.6

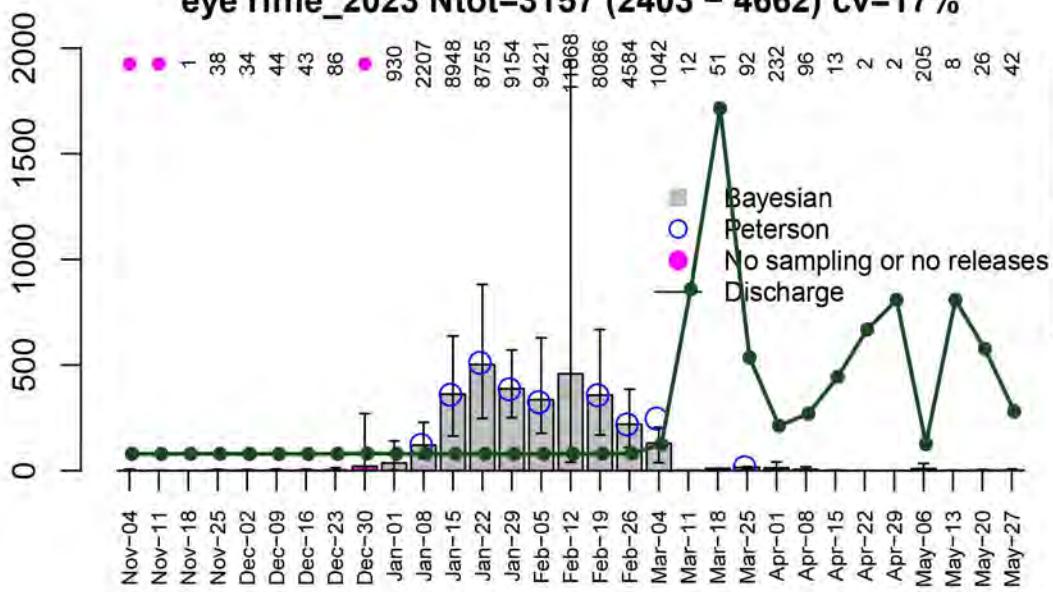
Discharge (kcfs)

eye riffle\_2022 Ntot=6908 (5351 - 8789) cv=12%



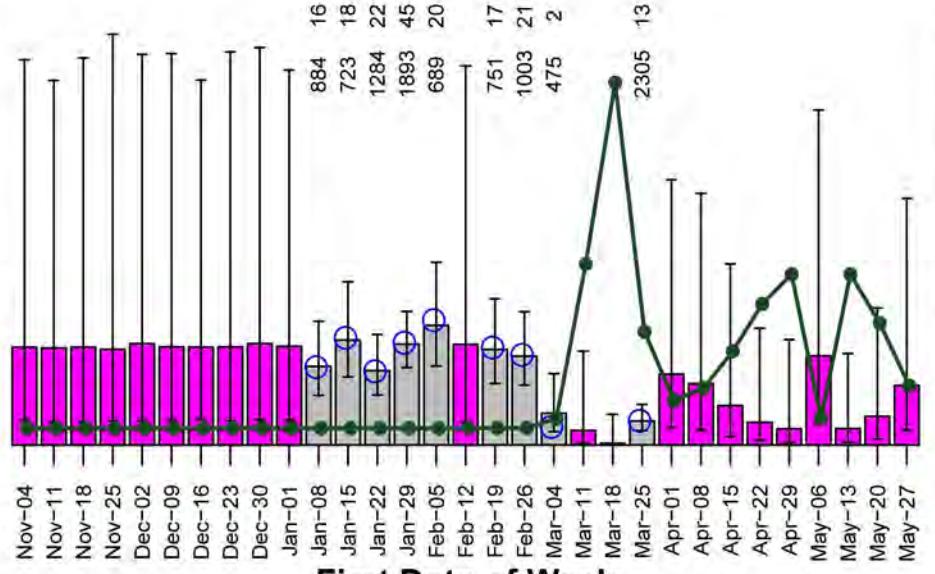
eye riffle\_2023 Ntot=3157 (2403 – 4662) cv=17%

Abundance ('000s)



Bayesian  
Peterson  
No sampling or no releases  
Discharge

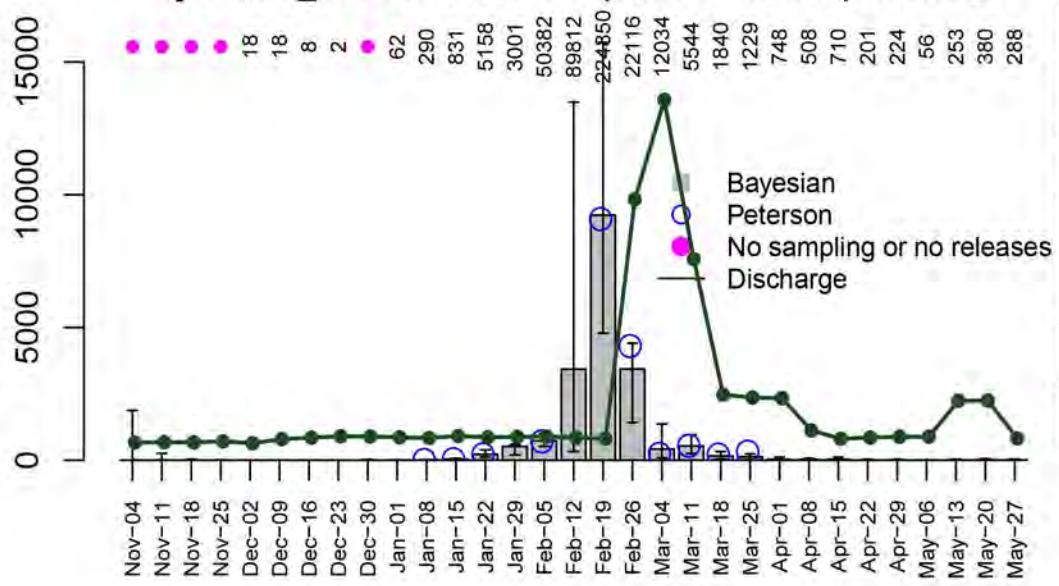
Capture Probability



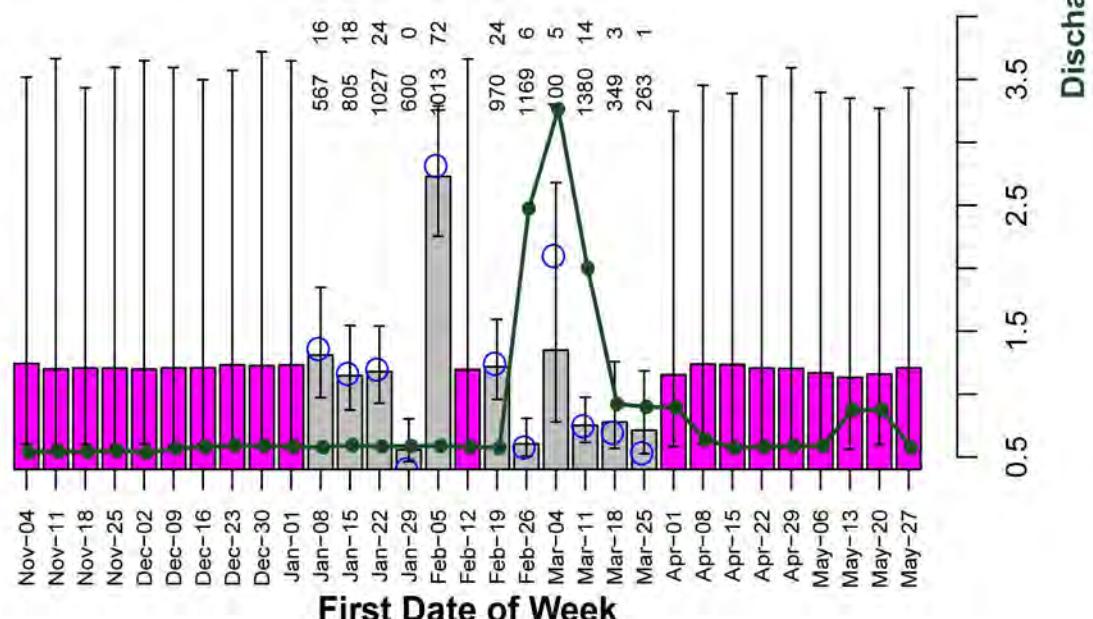
Discharge (kcfs)

# eye riffle\_2024 Ntot=19590 (13524 - 30987) cv=21%

Abundance ('000s)

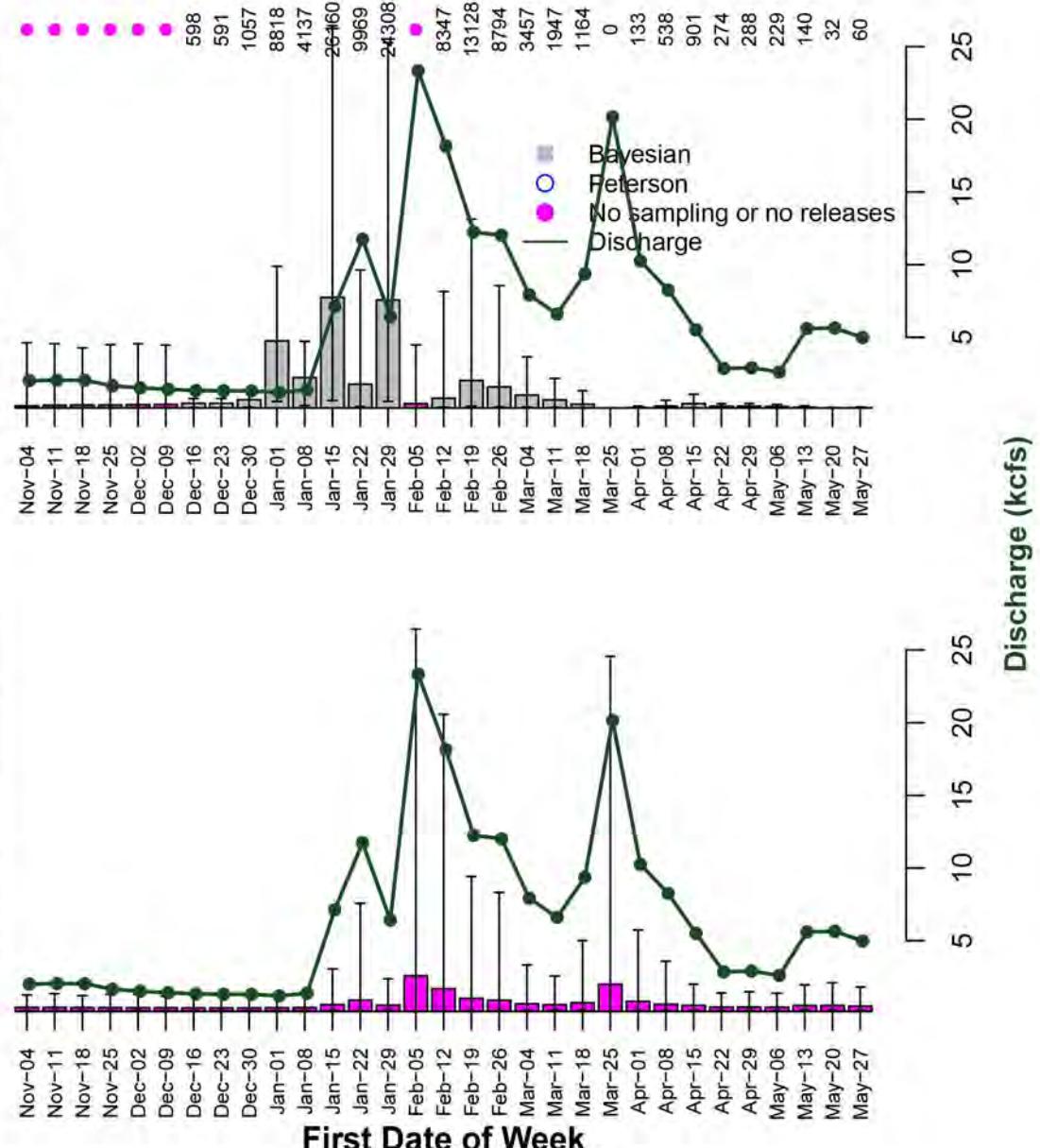


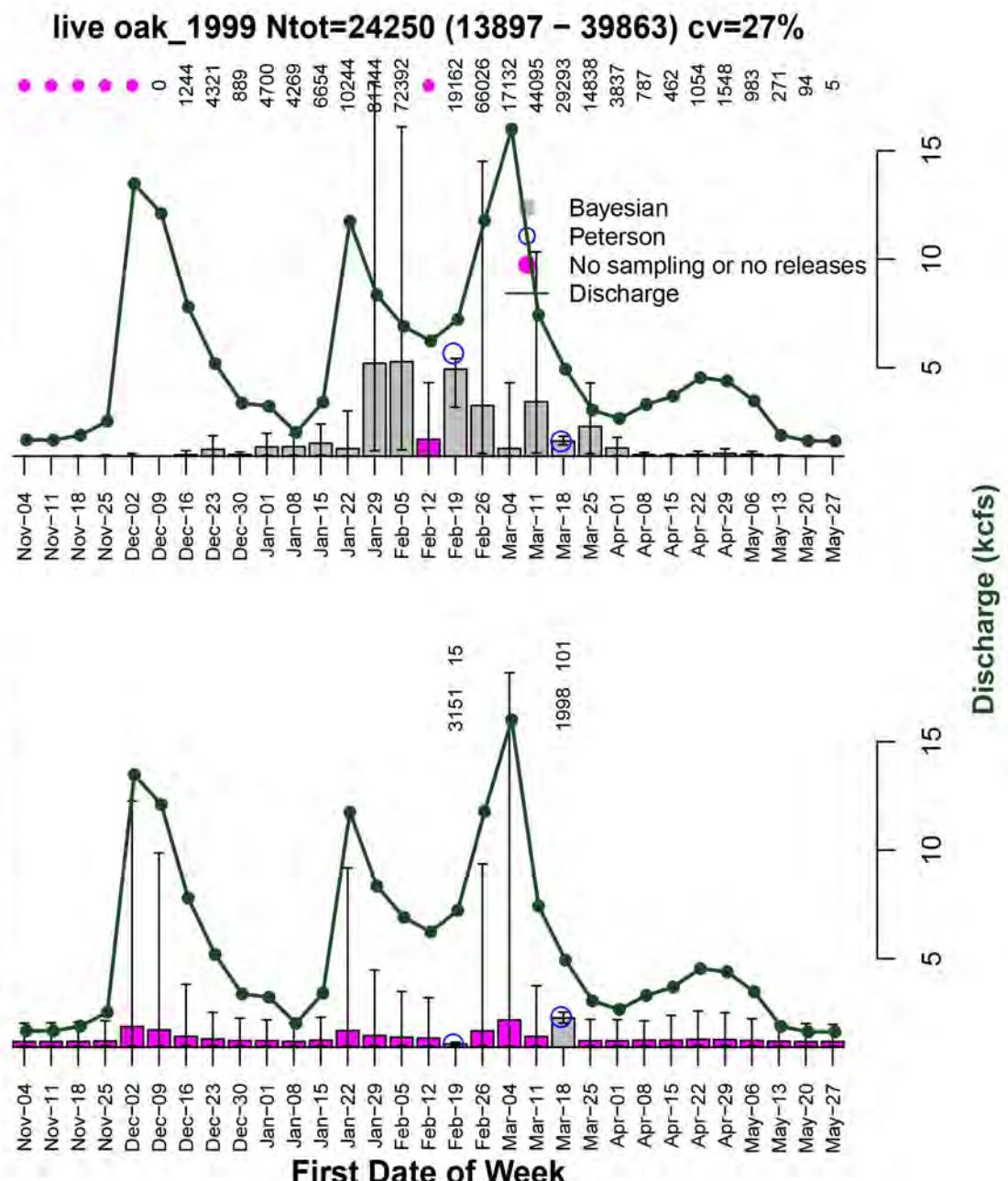
Capture Probability



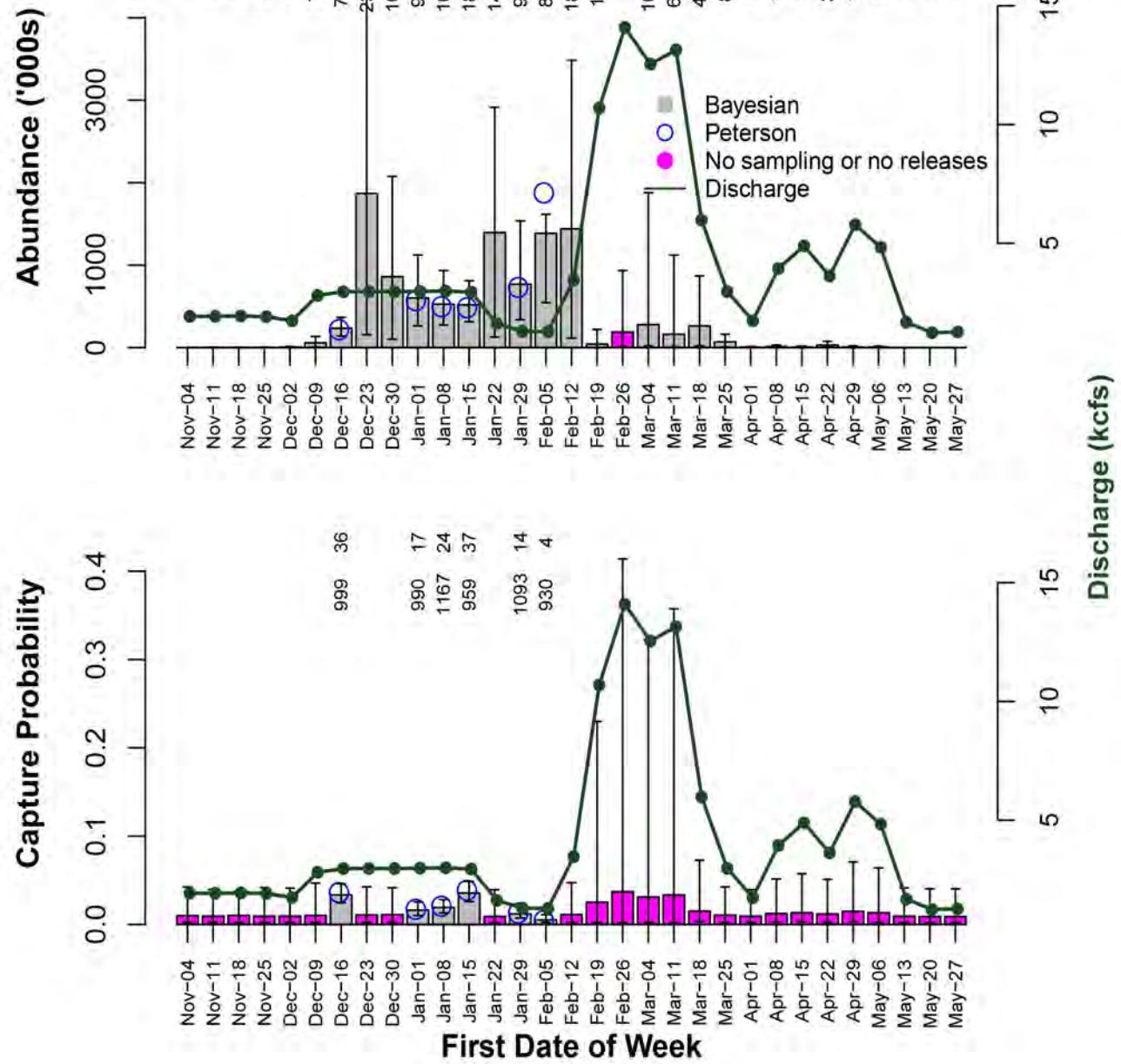
live oak\_1998 Ntot=7709 (4414 - 12770) cv=27%

Abundance ('000s)



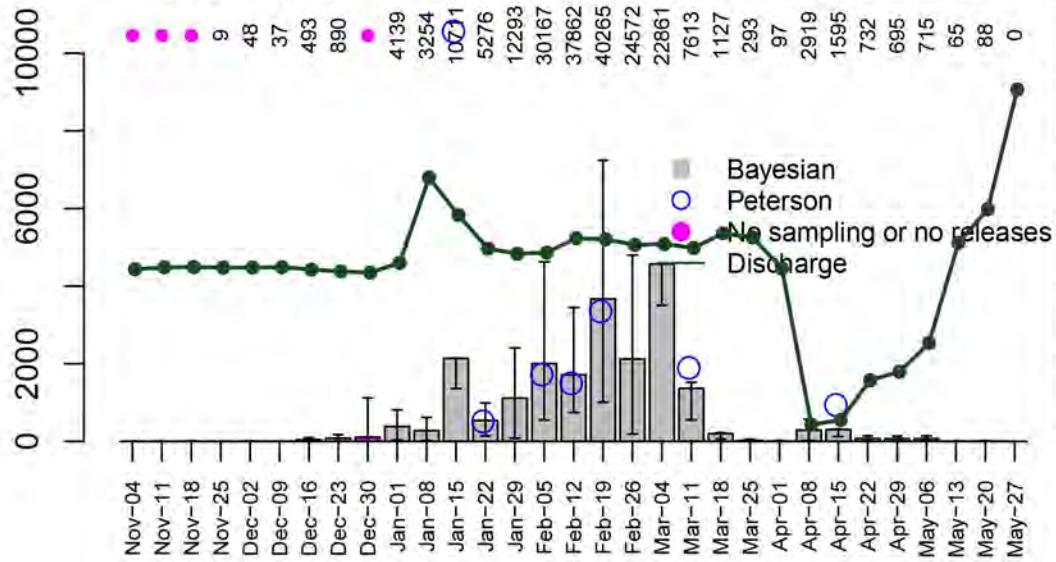


# live oak\_2000 Ntot=11580 (8116 – 15558) cv=17%

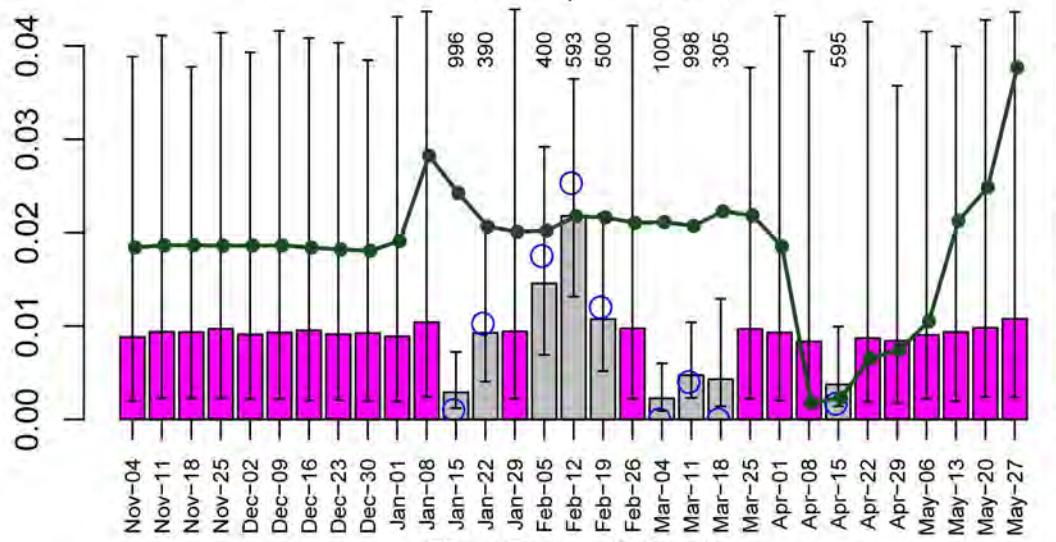


# live oak\_2001 Ntot=21550 (16942 - 26848) cv=12%

Abundance ('000s)



Capture Probability



First Date of Week

Discharge (kcfs)

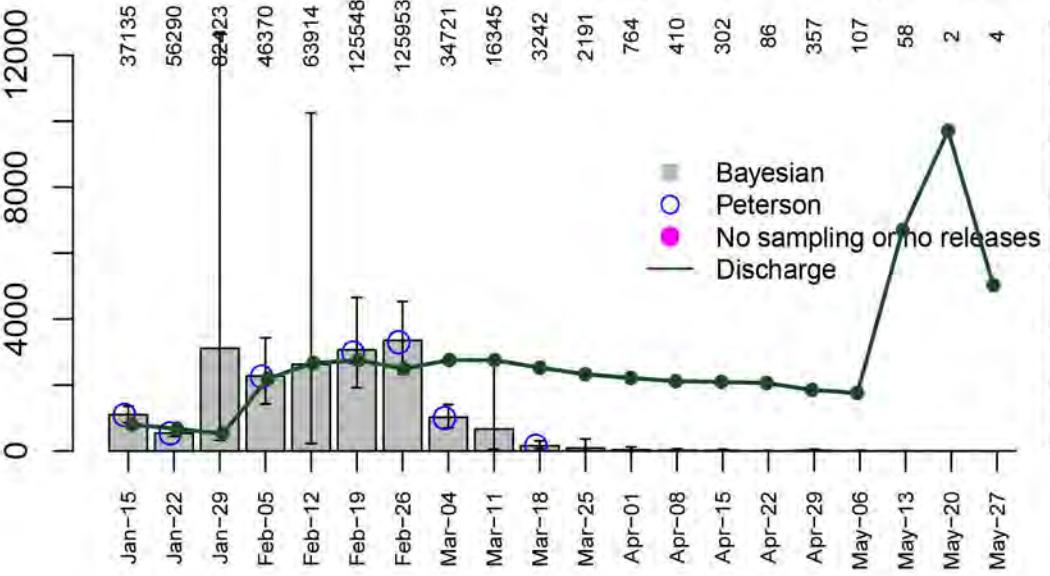
0.5 1.0 1.5 2.0 2.5 3.0 3.5

Discharge (kcfs)

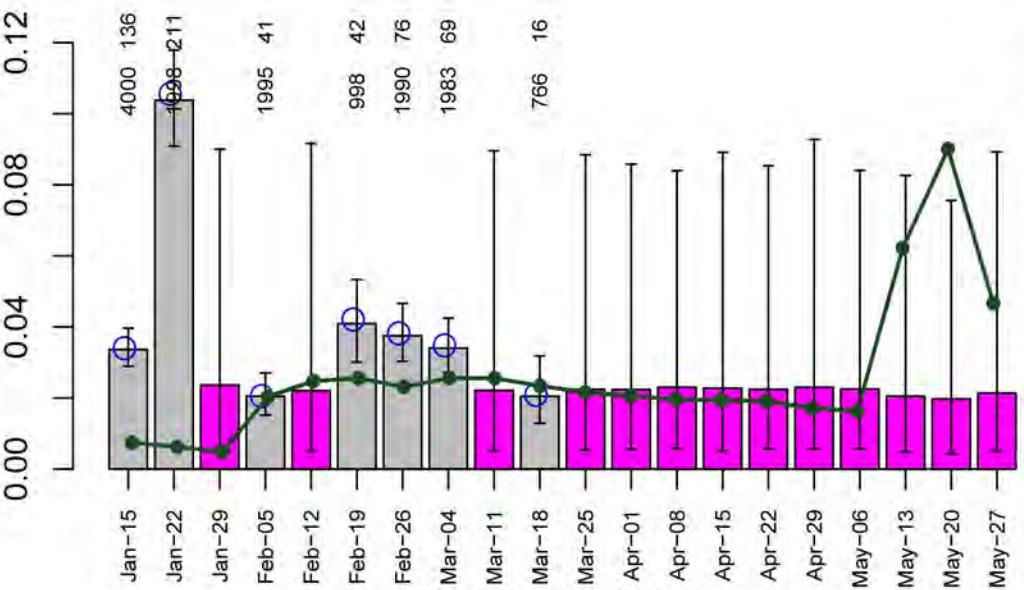
0.5 1.0 1.5 2.0 2.5 3.0 3.5

# herringer riffle\_2002 Ntot=19140 (13704 – 30233) cv=21%

Abundance ('000s)



Capture Probability

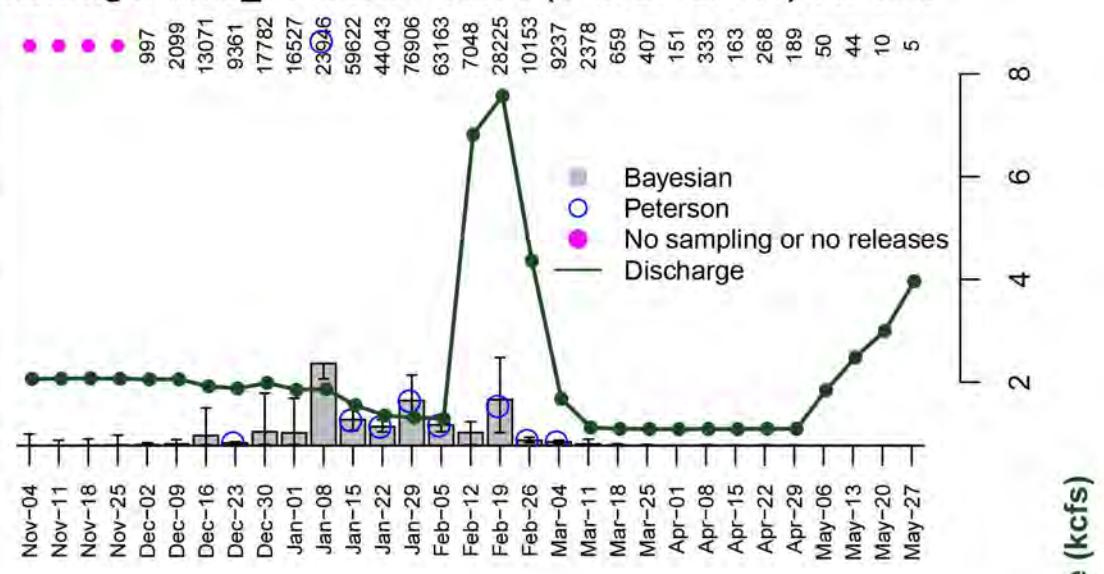


First Date of Week

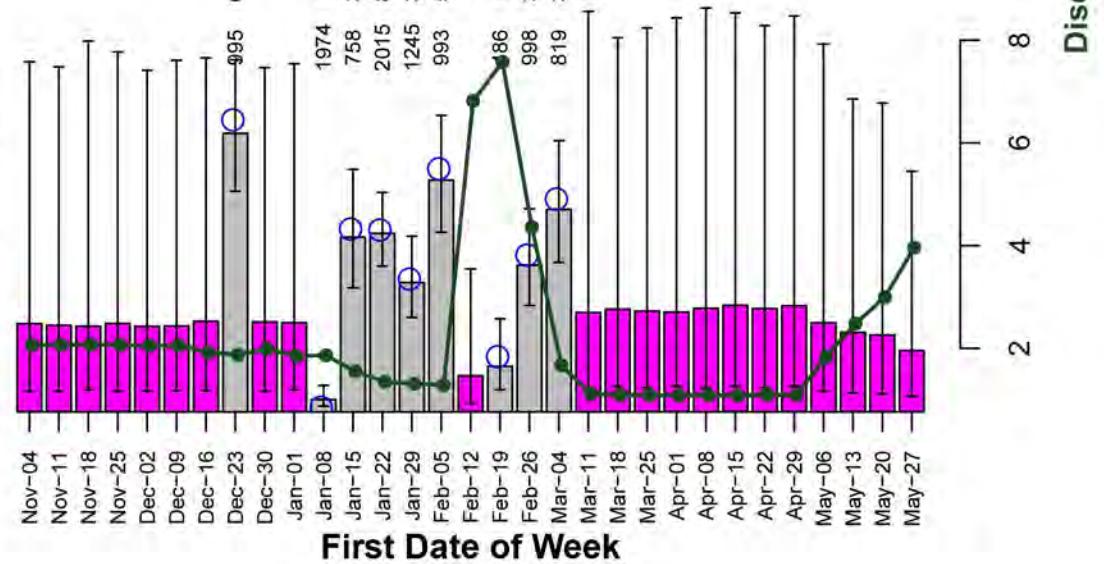
Discharge (kcfs)

# herringer riffle\_2003 Ntot=18620 (15292 - 22918) cv=10%

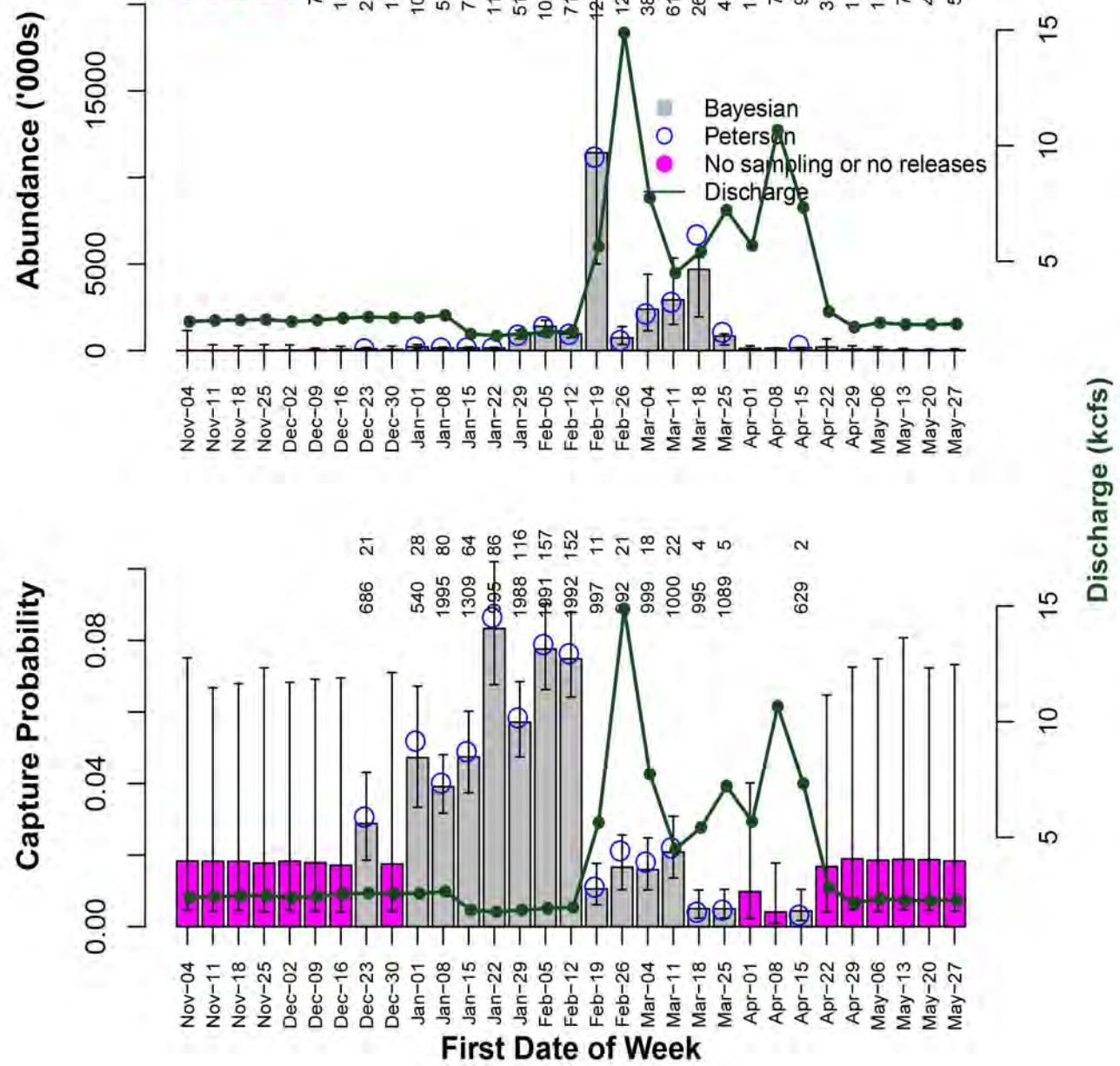
Abundance ('000s)



Capture Probability

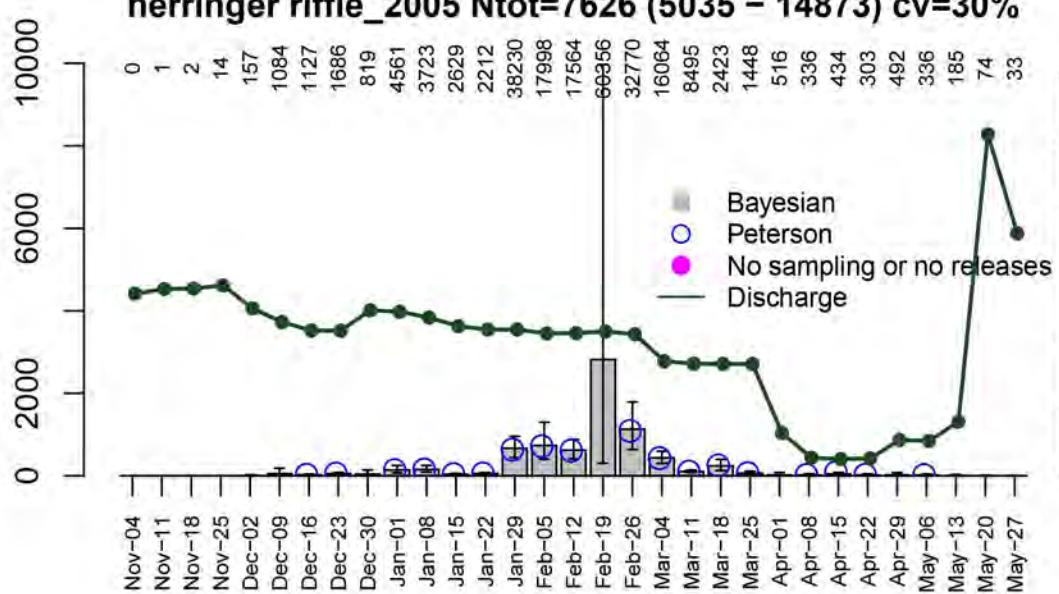


# herringer riffle\_2004 Ntot=28355 (21140 - 38448) cv=15%

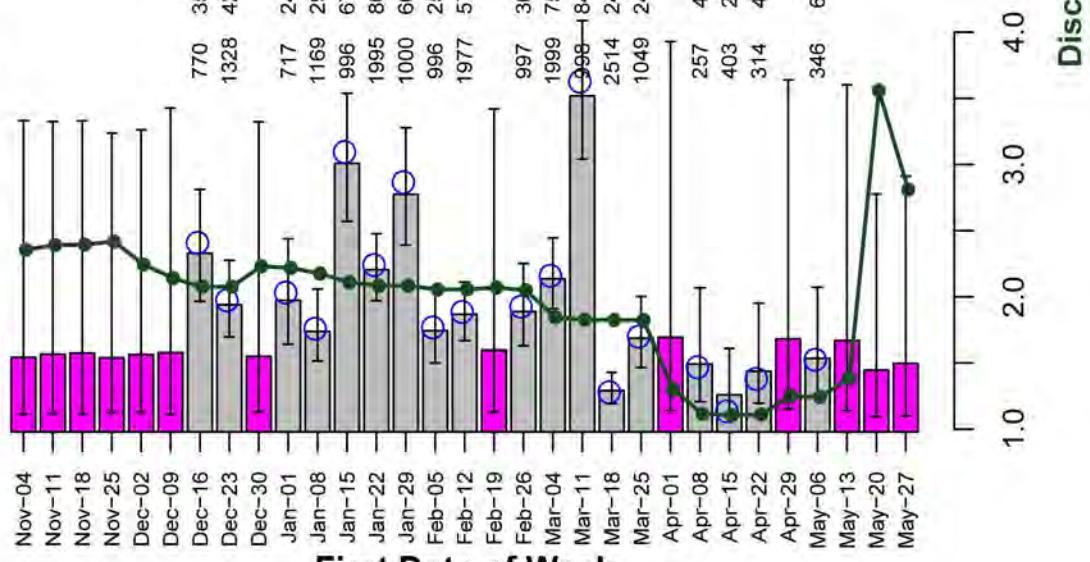


# herringer riffle\_2005 Ntot=7626 (5035 - 14873) cv=30%

Abundance ('000s)



Capture Probability

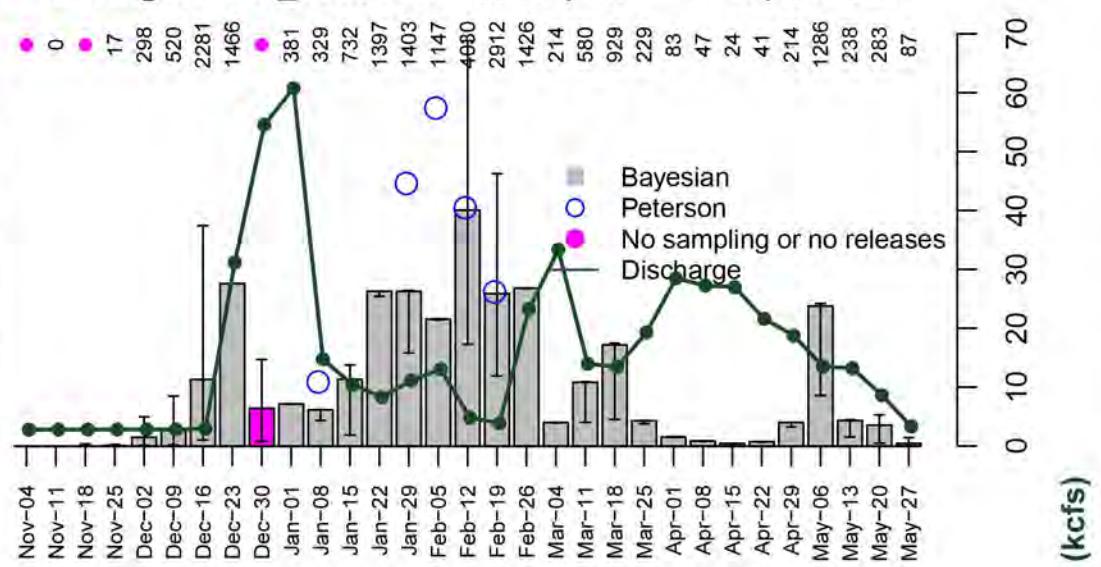


First Date of Week

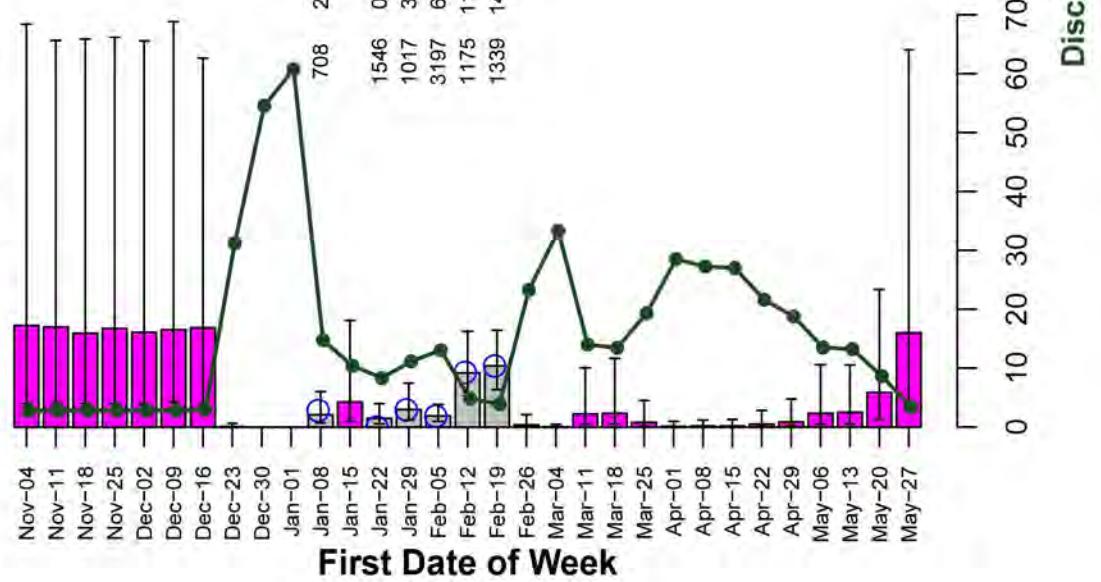
Discharge (kcfs)

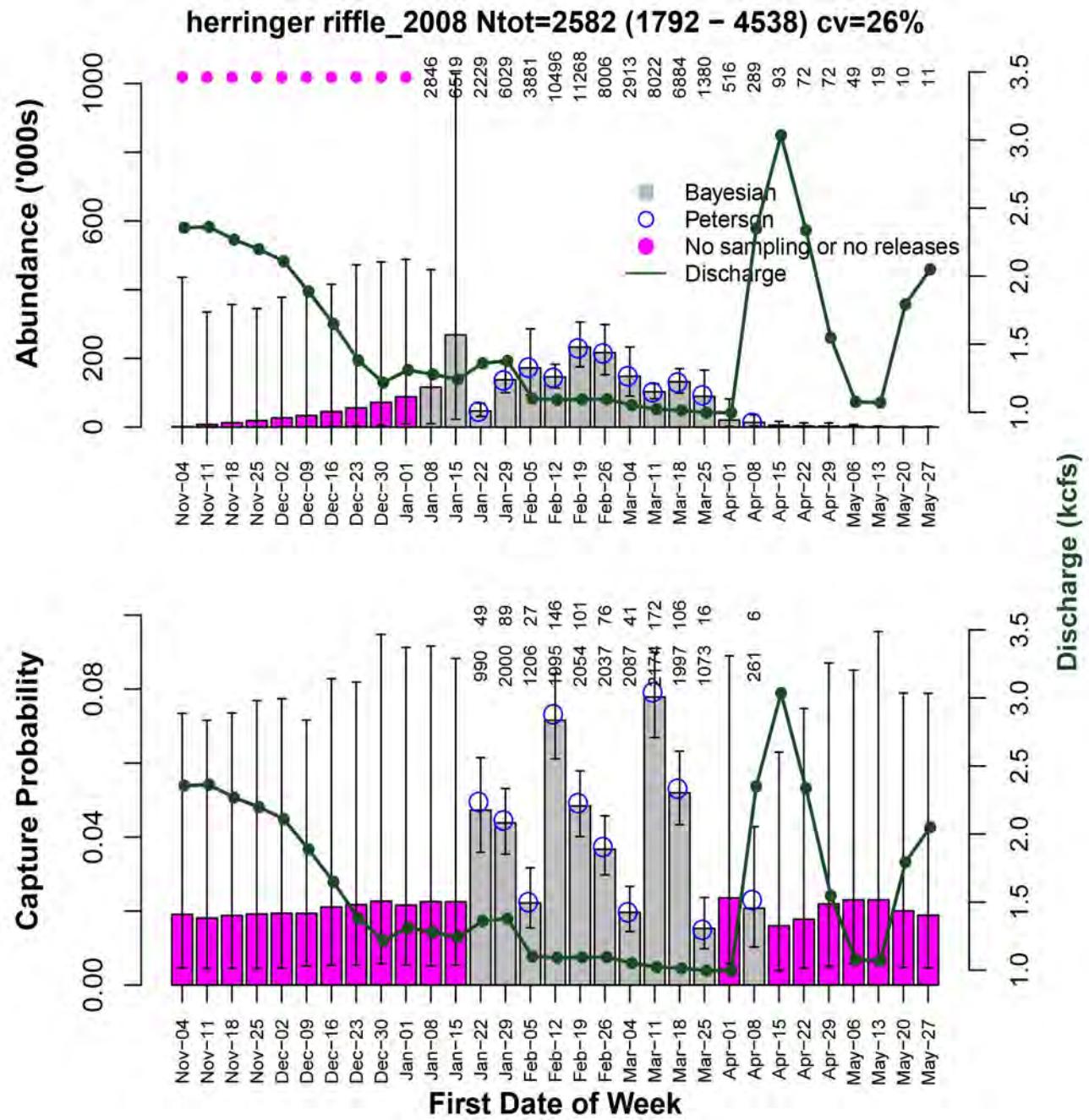
# herringer riffle\_2006 Ntot=3338 (2939 – 3767) cv=6%

Abundance ('000s)



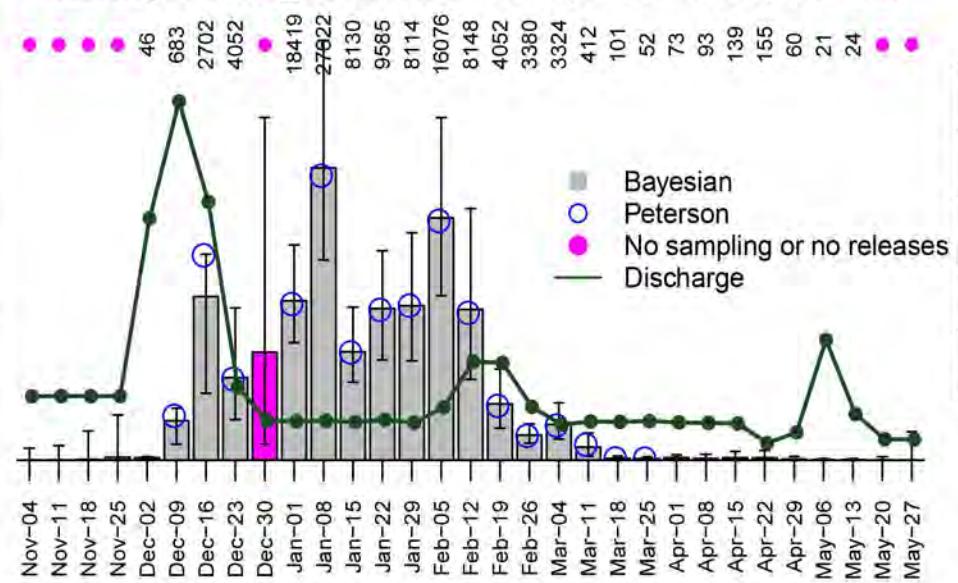
Capture Probability



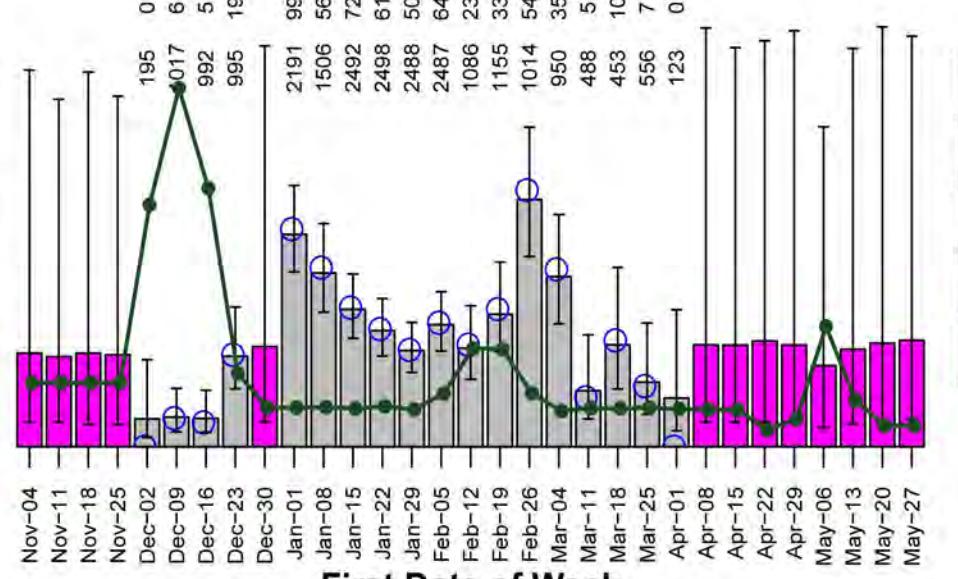


# herringer riffle\_2012 Ntot=4834 (4196 - 5698) cv=8%

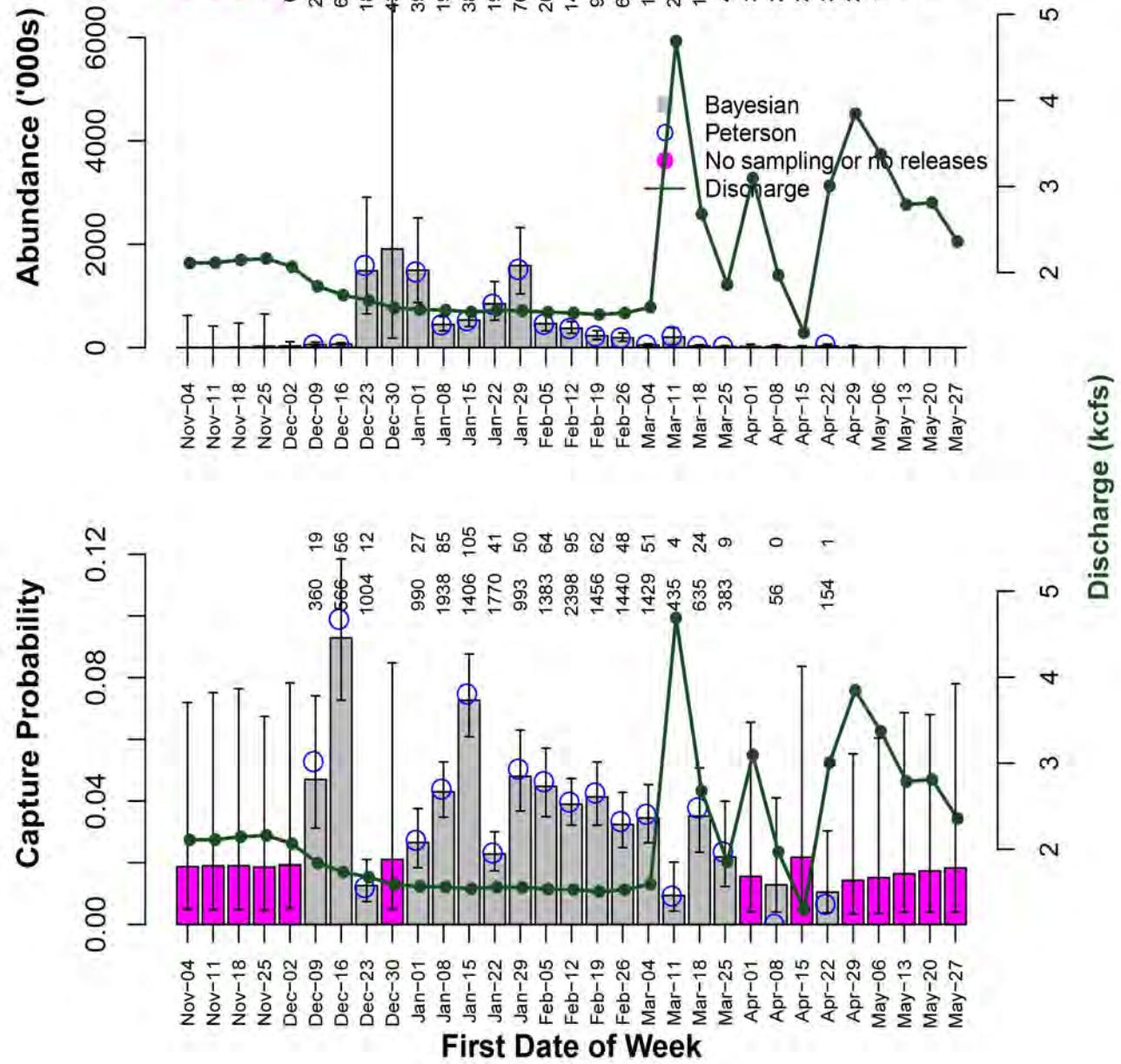
Abundance ('000s)



Capture Probability

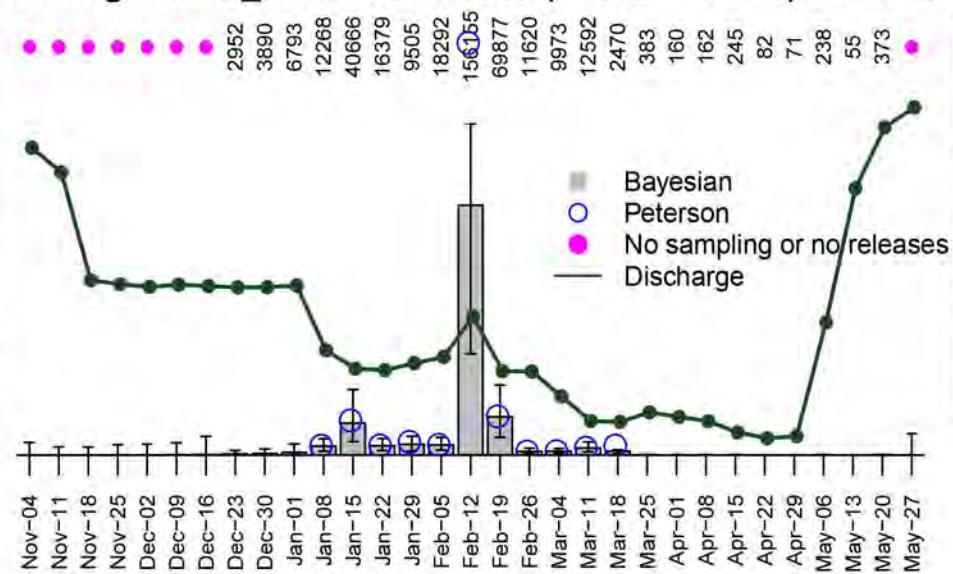


# herringer riffle\_2013 Ntot=10590 (8121 - 15990) cv=18%

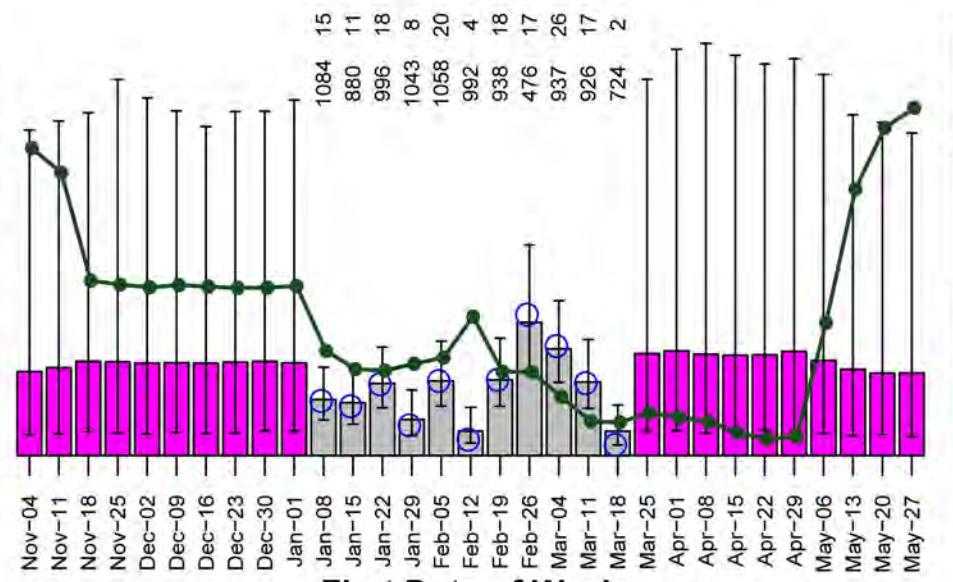


# herringer riffle\_2014 Ntot=37650 (22912 – 47116) cv=17%

Abundance ('000s)

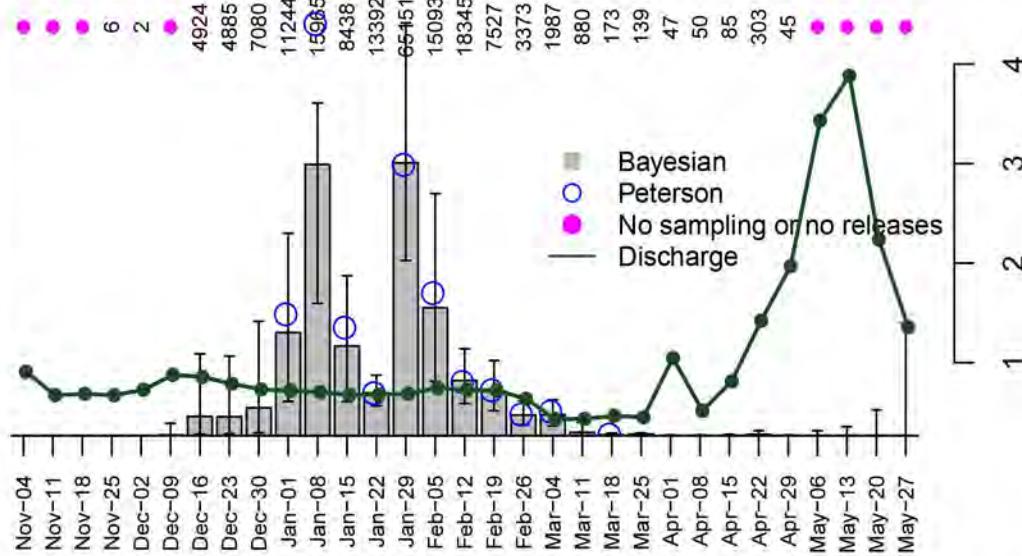


Capture Probability

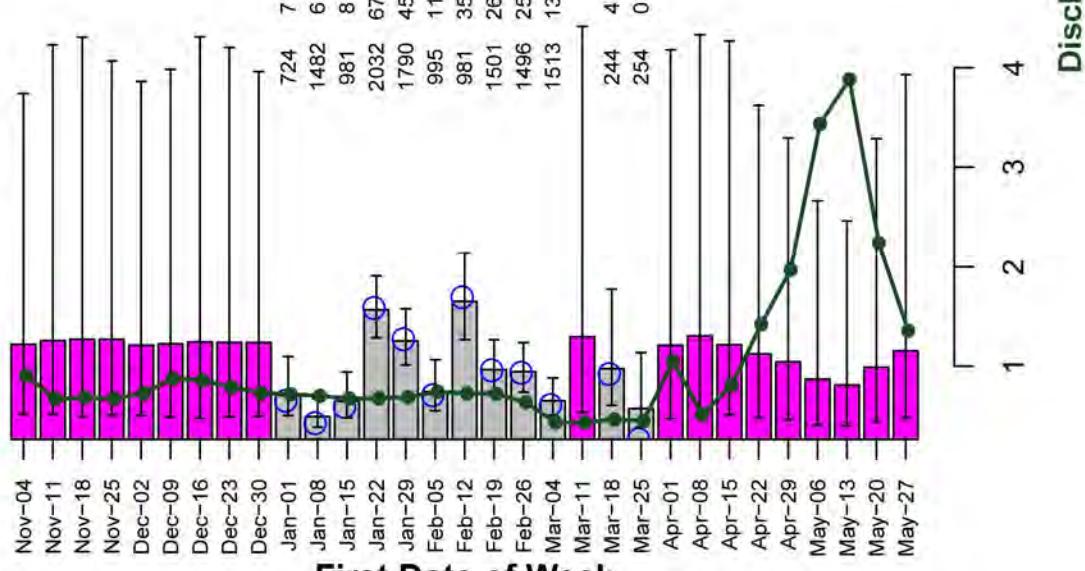


# herringer riffle\_2015 Ntot=11200 (9000 - 13506) cv=10%

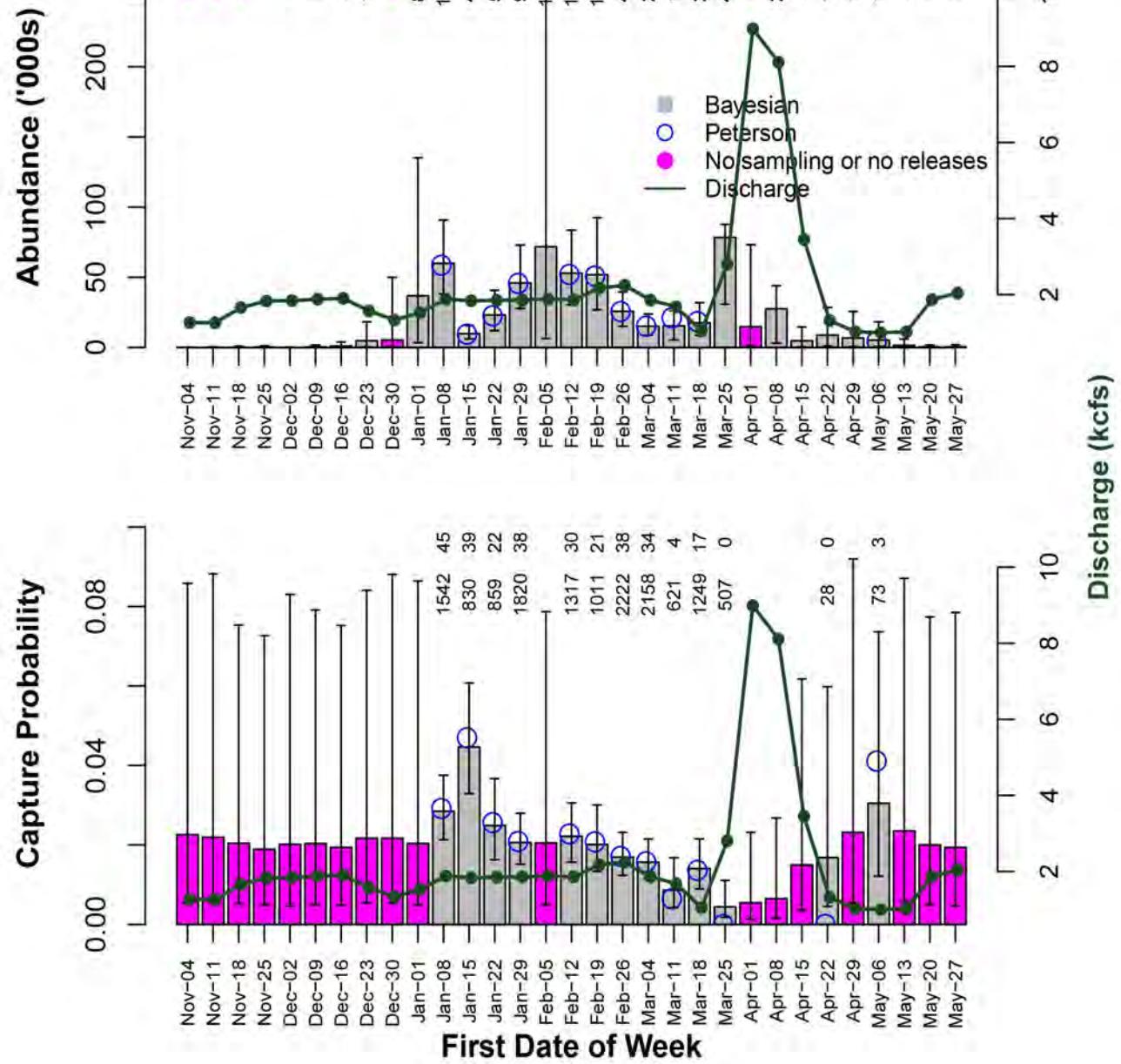
Abundance ('000s)



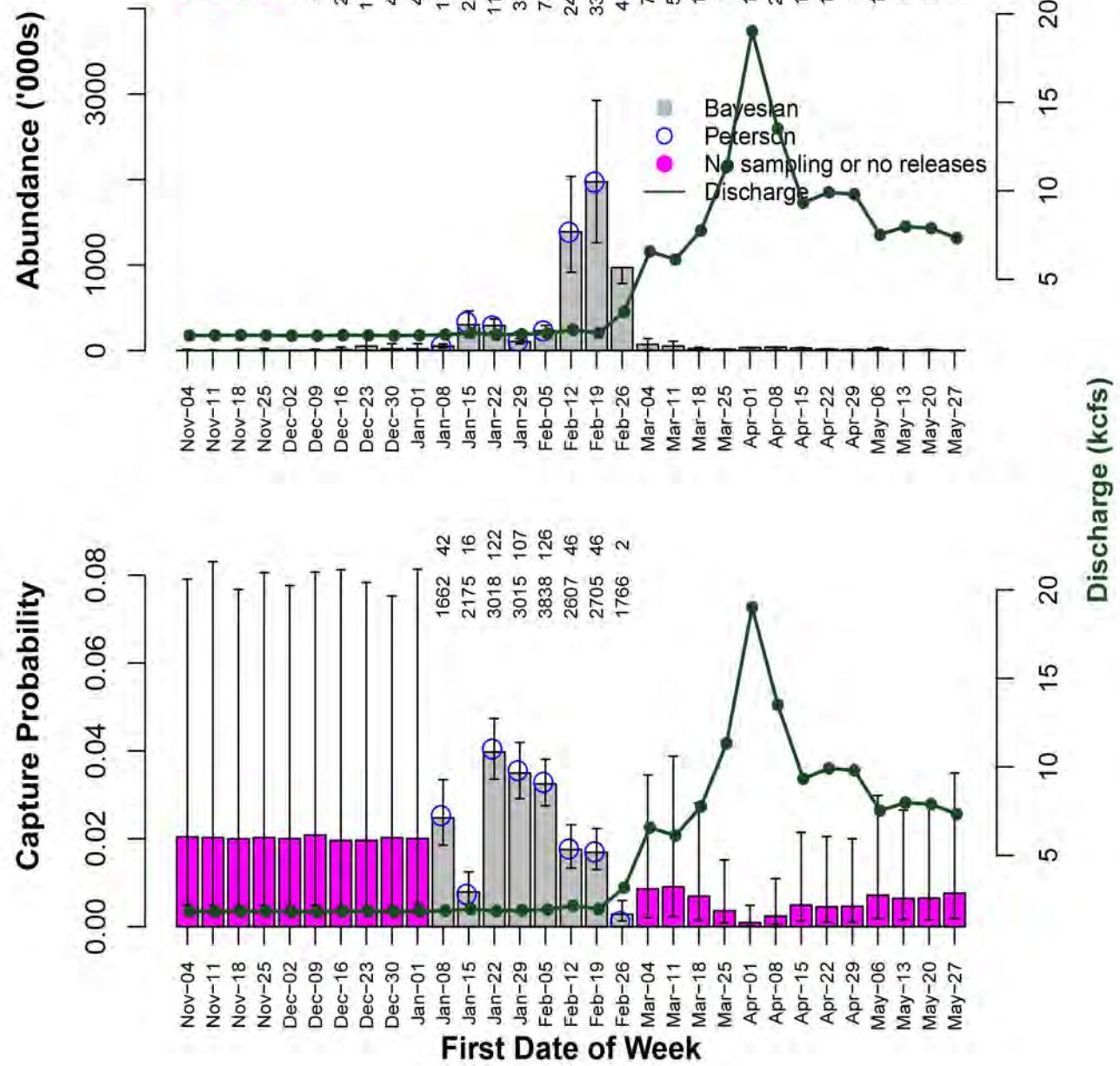
Capture Probability



# herringer riffle\_2018 Ntot=623 (487 - 826) cv=14%

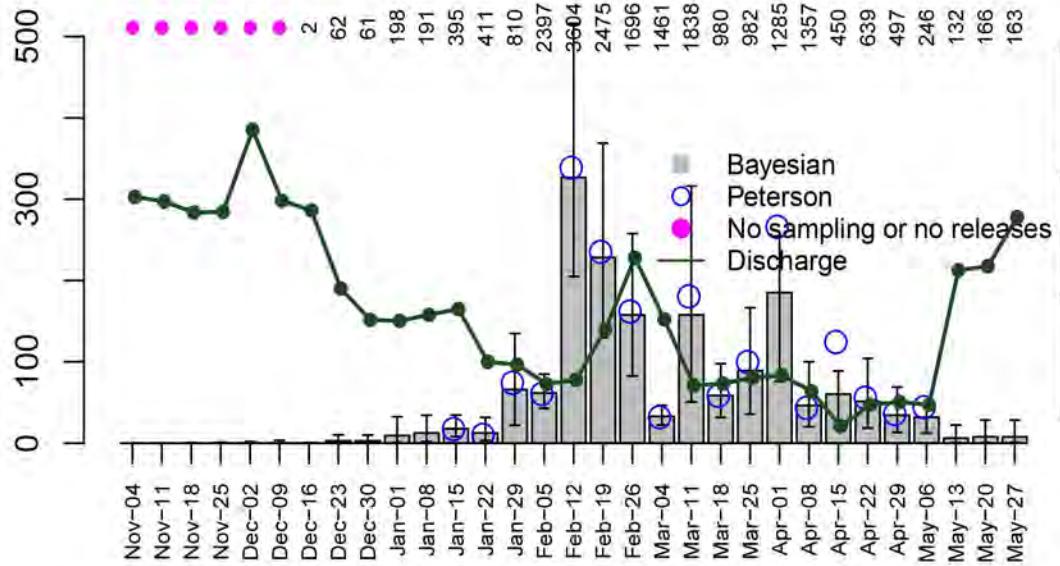


# herringer riffle\_2019 Ntot=5784 (4867 - 6946) cv=9%

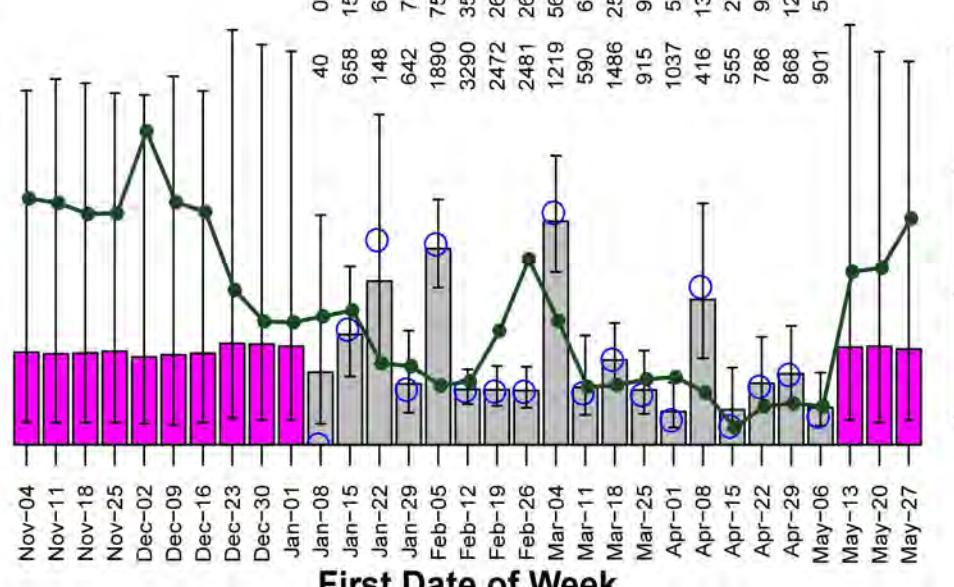


# herringer riffle\_2020 Ntot=1707 (1446 - 1999) cv=8%

Abundance ('000s)



Capture Probability

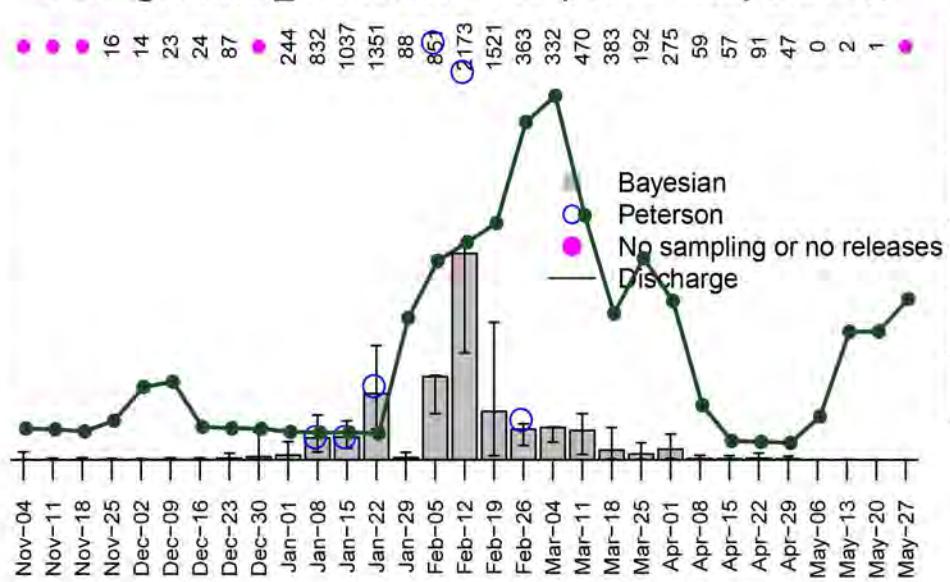


First Date of Week

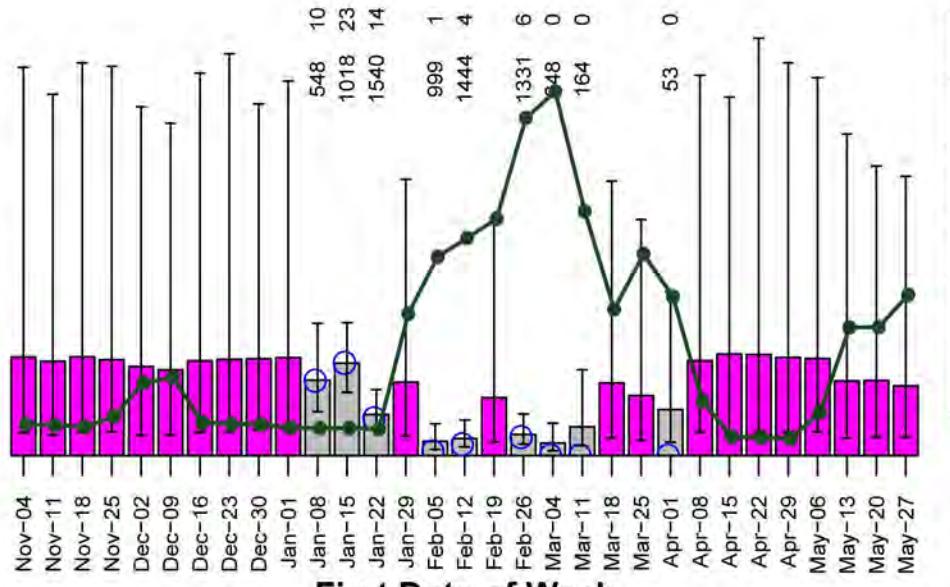
Discharge (kcfs)

# herringer riffle\_2022 Ntot=1181 (938 - 1402) cv=10%

Abundance ('000s)



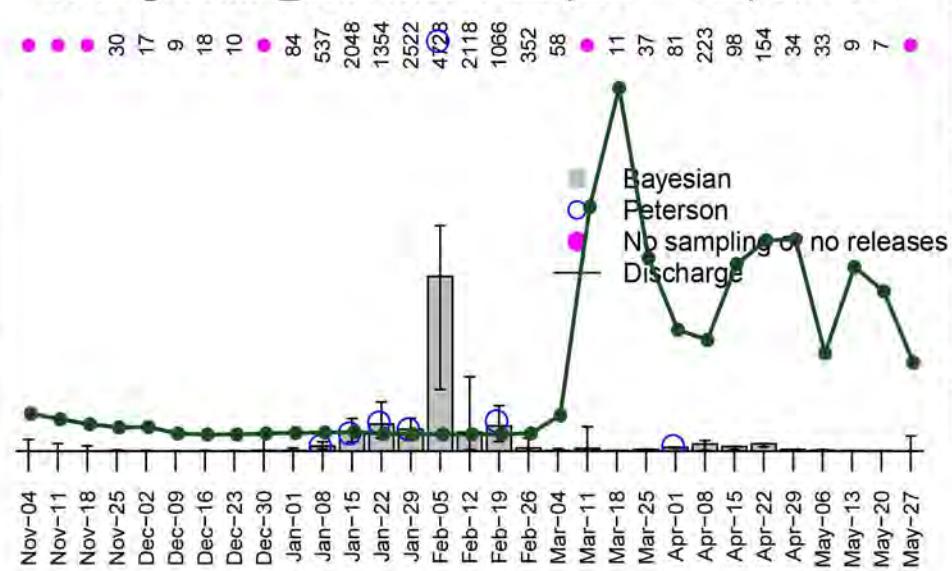
Capture Probability



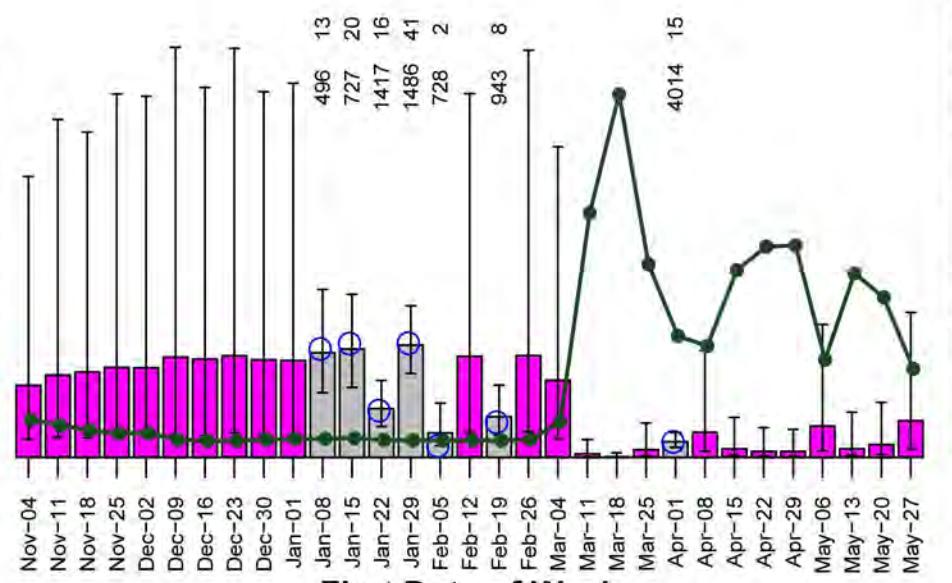
Discharge (kcfs)

# **herringer riffle\_2023 Ntot=1422 (922 – 1798) cv=16%**

Abundance ('000s)

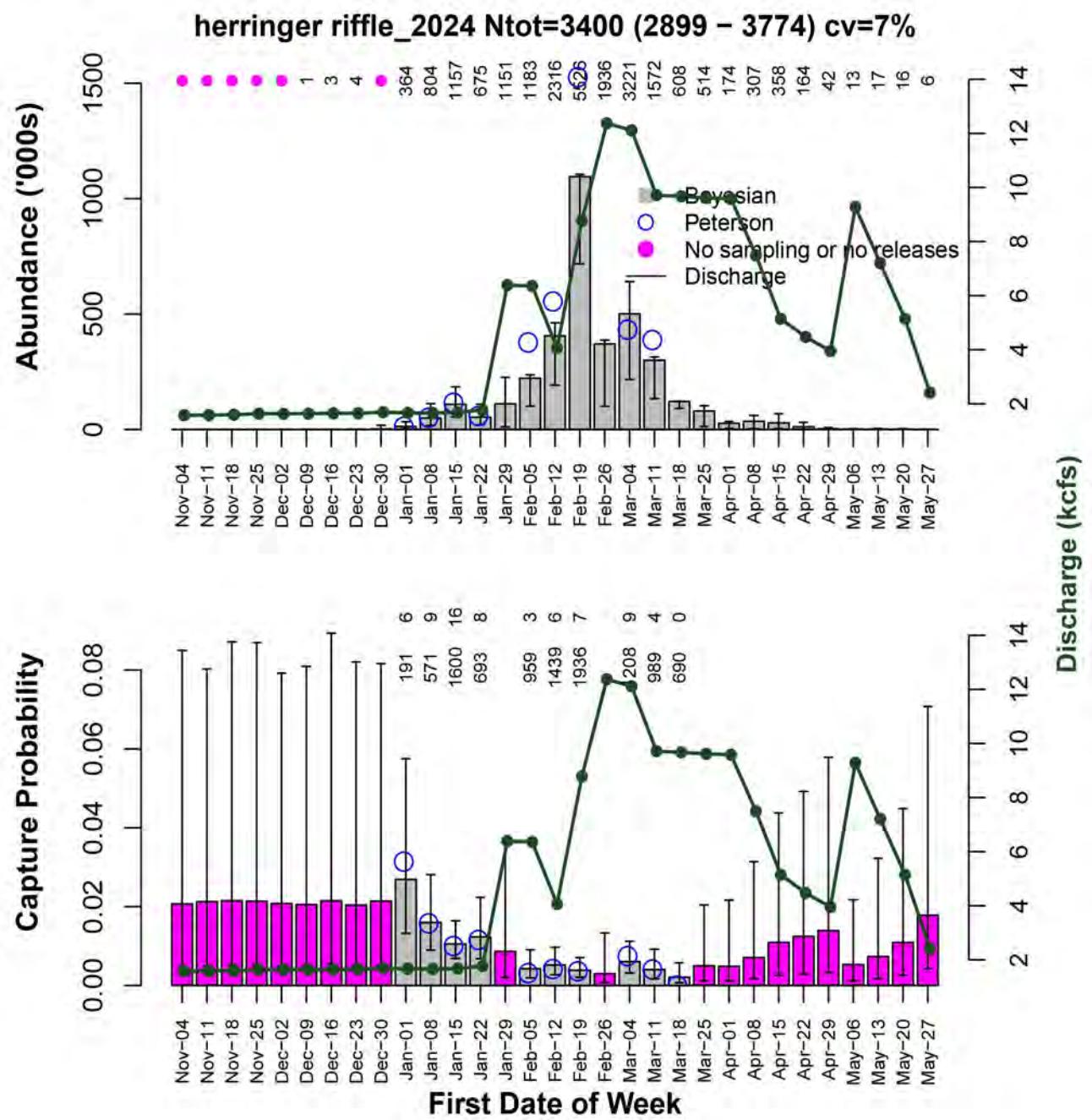


Capture Probability



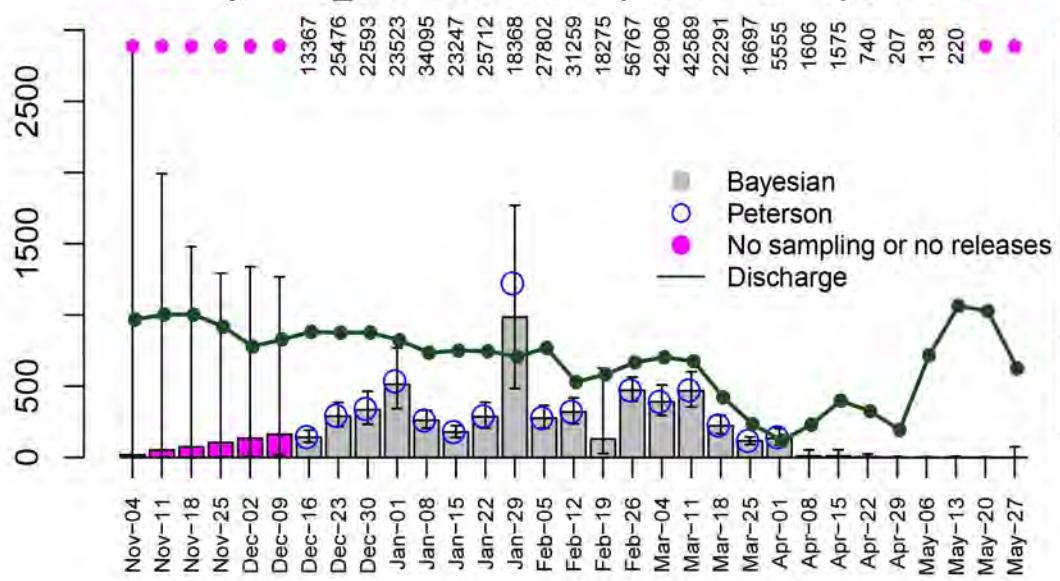
First Date of Week

Discharge (kcfs)

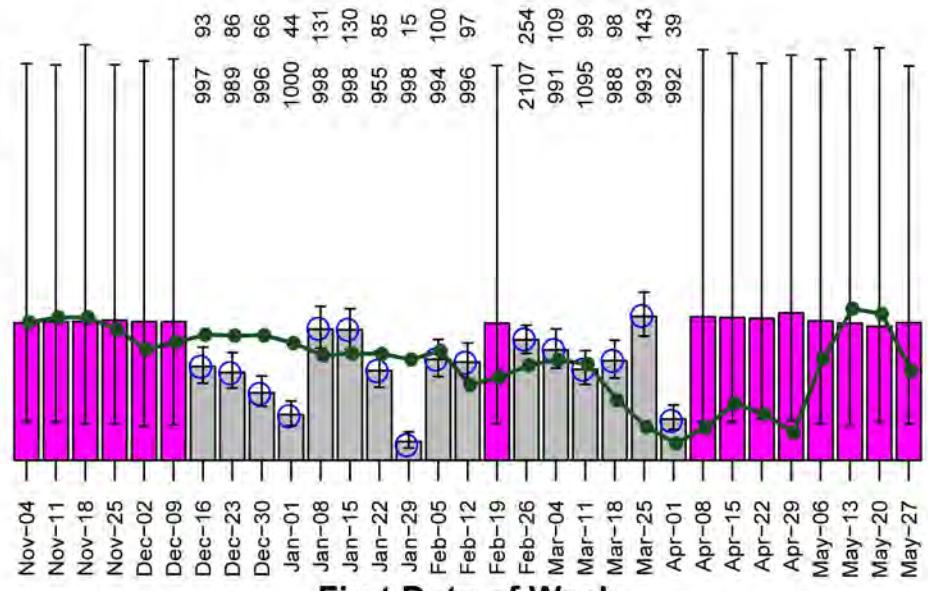


steep riffle\_2007 Ntot=6558 (5373 - 12683) cv=27%

Abundance ('000s)



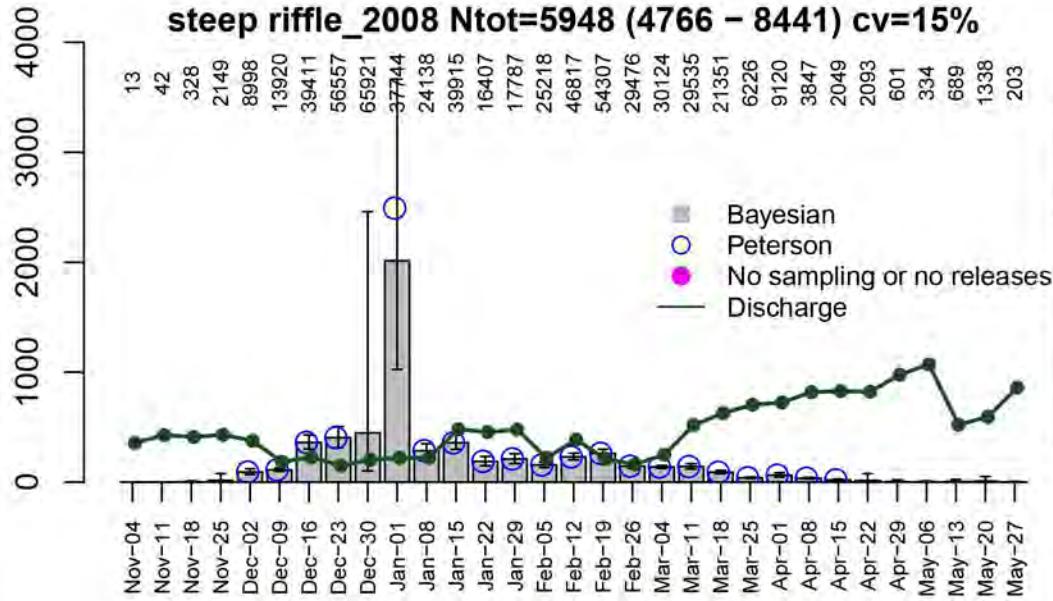
Capture Probability



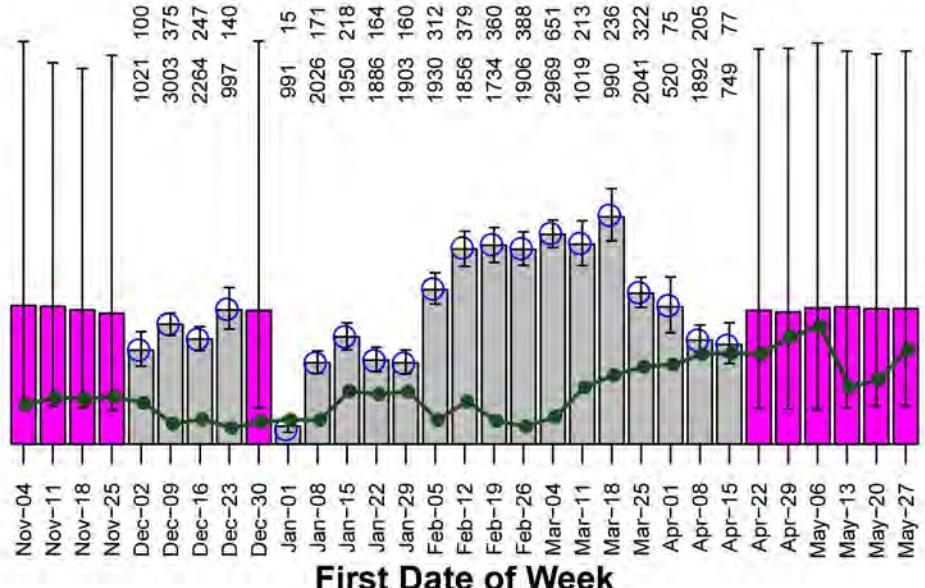
Discharge (kcfs)

# steep riffle\_2008 Ntot=5948 (4766 - 8441) cv=15%

Abundance ('000s)



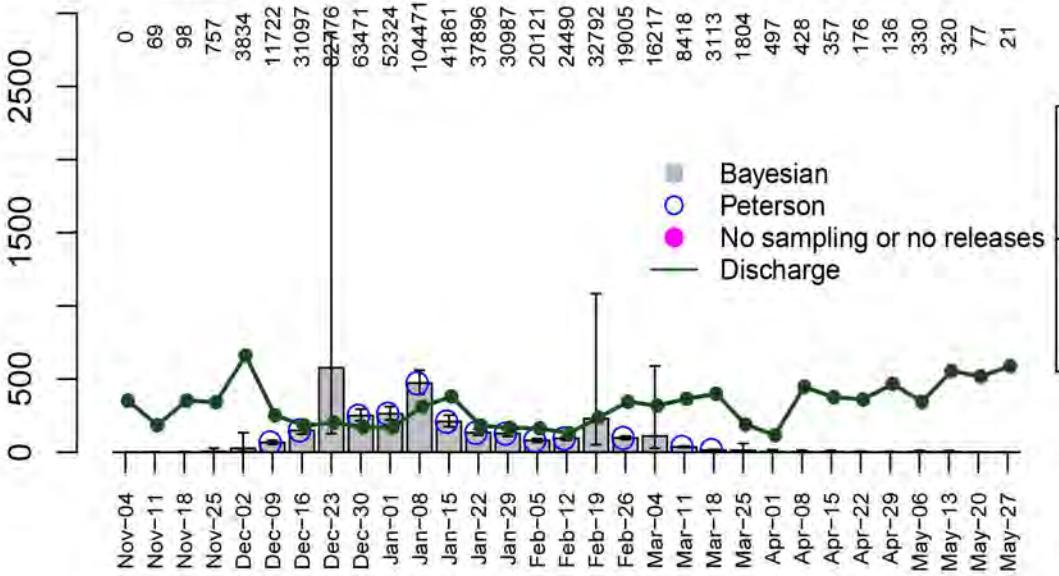
Capture Probability



First Date of Week

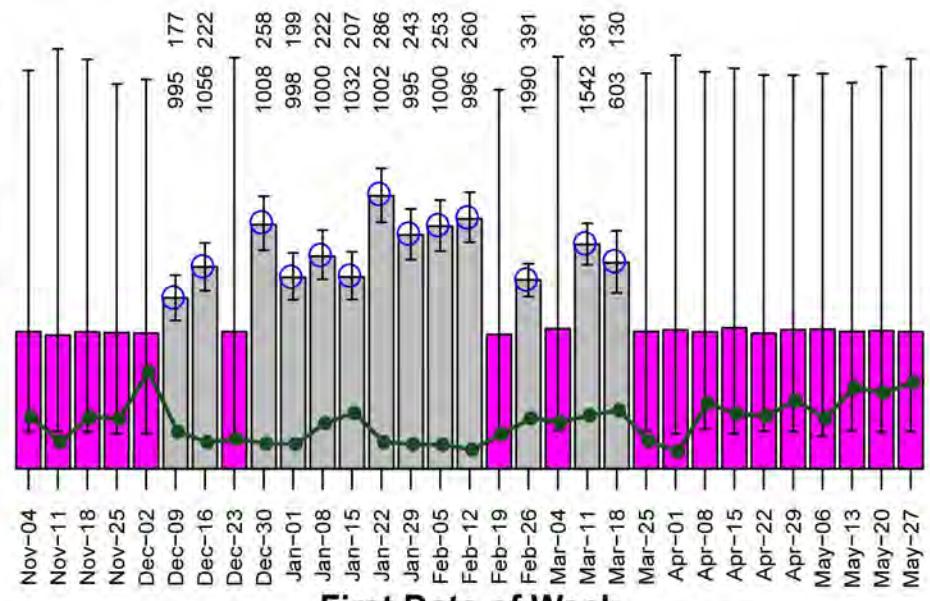
# steep riffle\_2009 Ntot=3109 (2454 - 5512) cv=28%

Abundance ('000s)

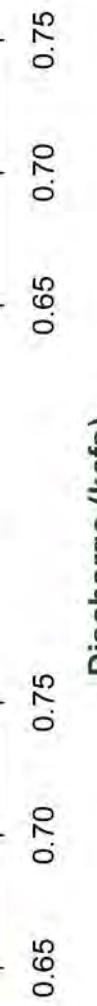


Bayesian  
Peterson  
No sampling or no releases  
Discharge

Capture Probability

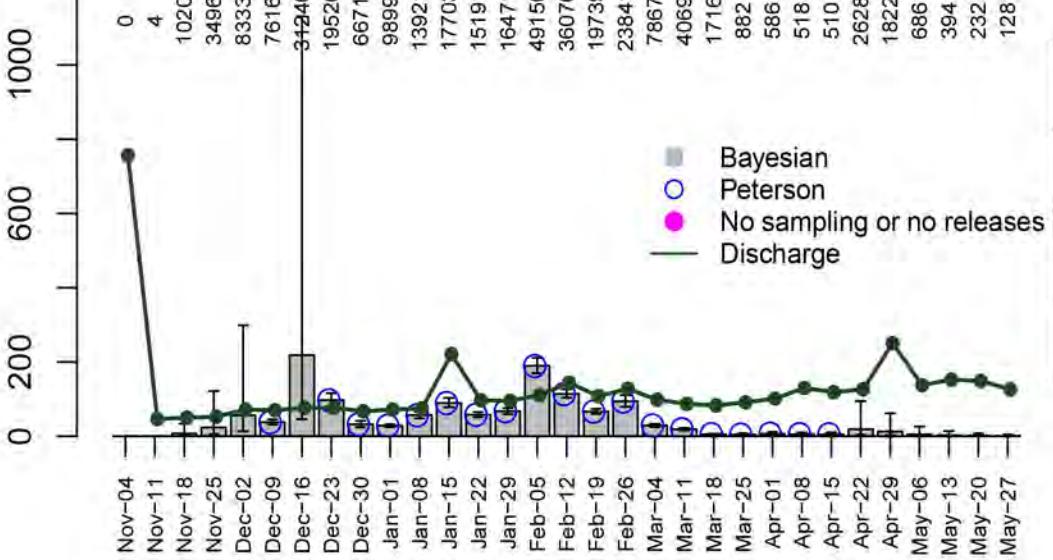


First Date of Week

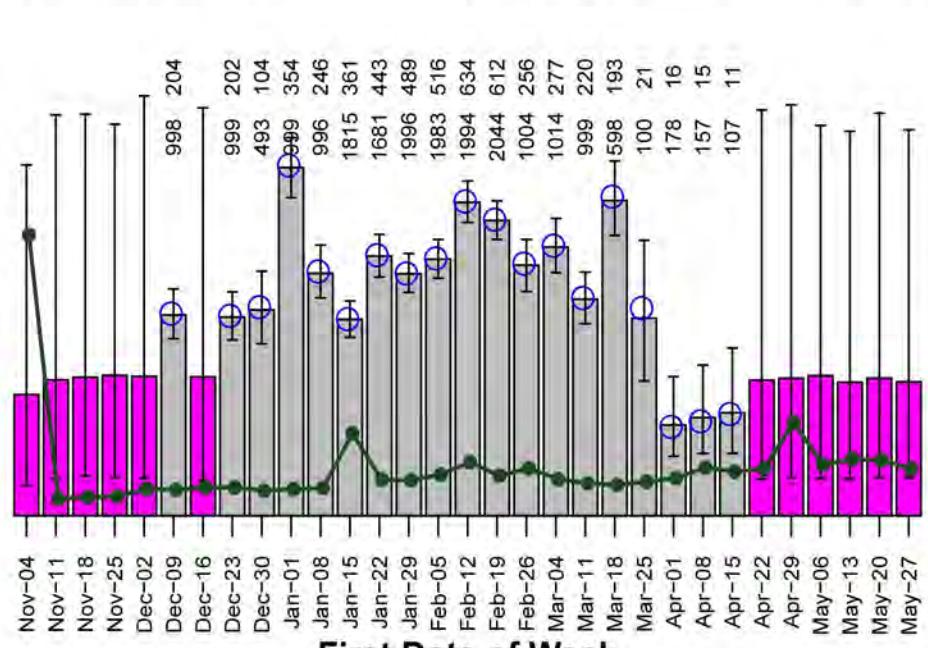


# steep riffle\_2010 Ntot=1400 (1180 - 2287) cv=25%

Abundance ('000s)



Capture Probability



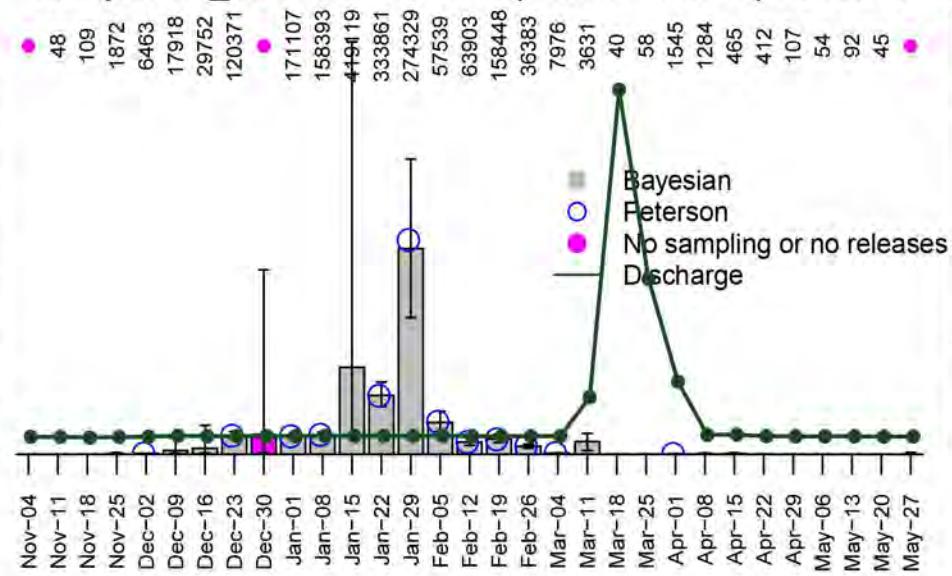
First Date of Week

Discharge (kcfs)

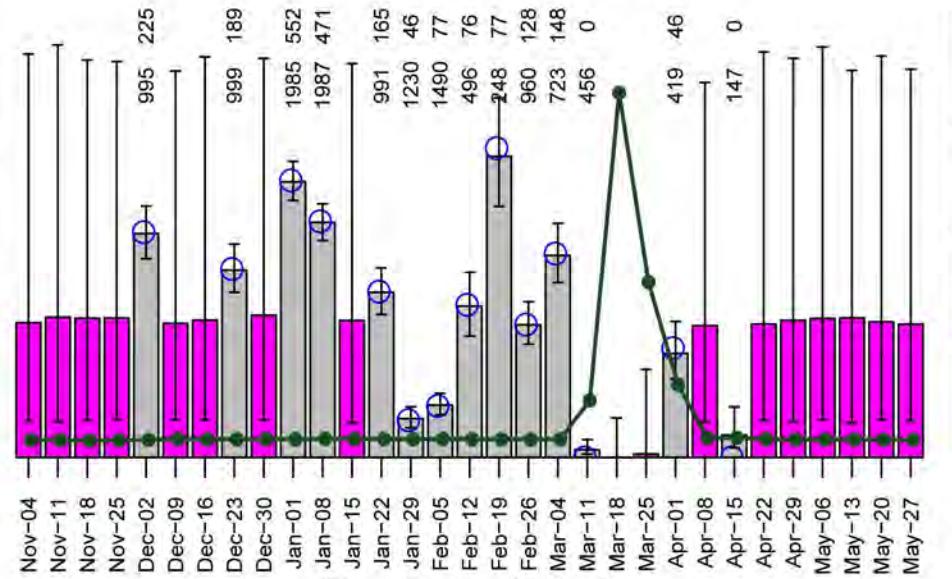
Discharge (kcfs)

# steep riffle\_2011 Ntot=18770 (14524 - 30713) cv=28%

Abundance ('000s)



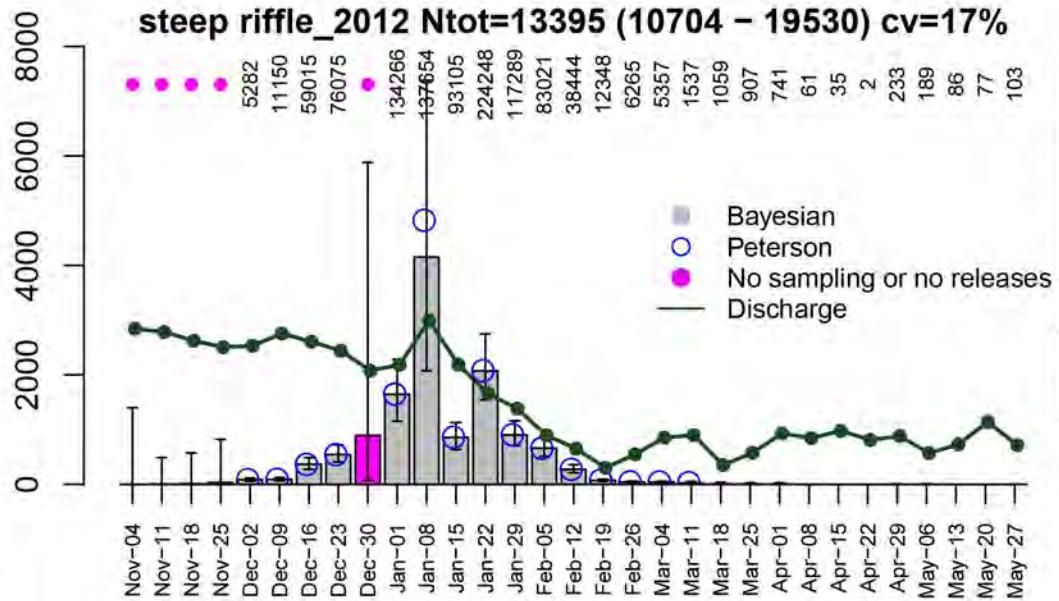
Capture Probability



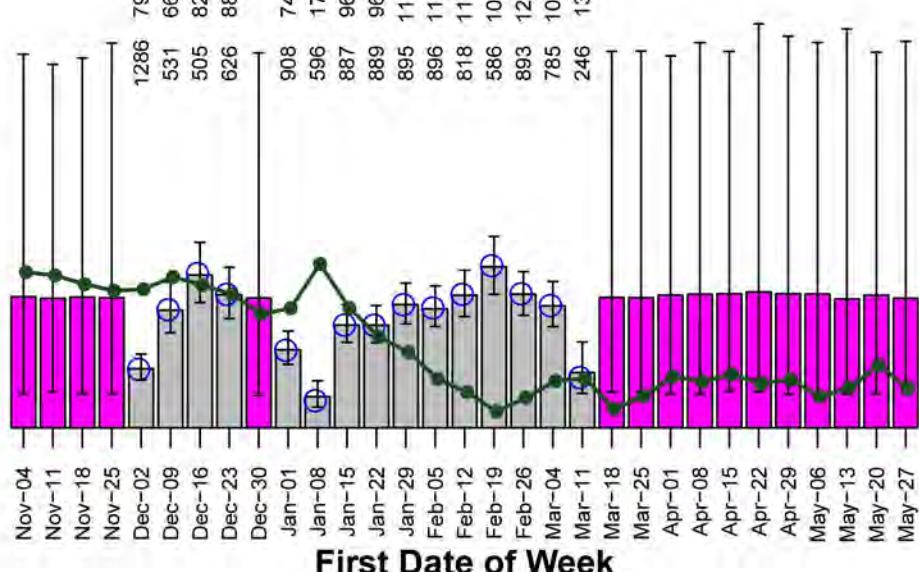
Discharge (kcfs)

# steep riffle\_2012 Ntot=13395 (10704 – 19530) cv=17%

Abundance ('000s)



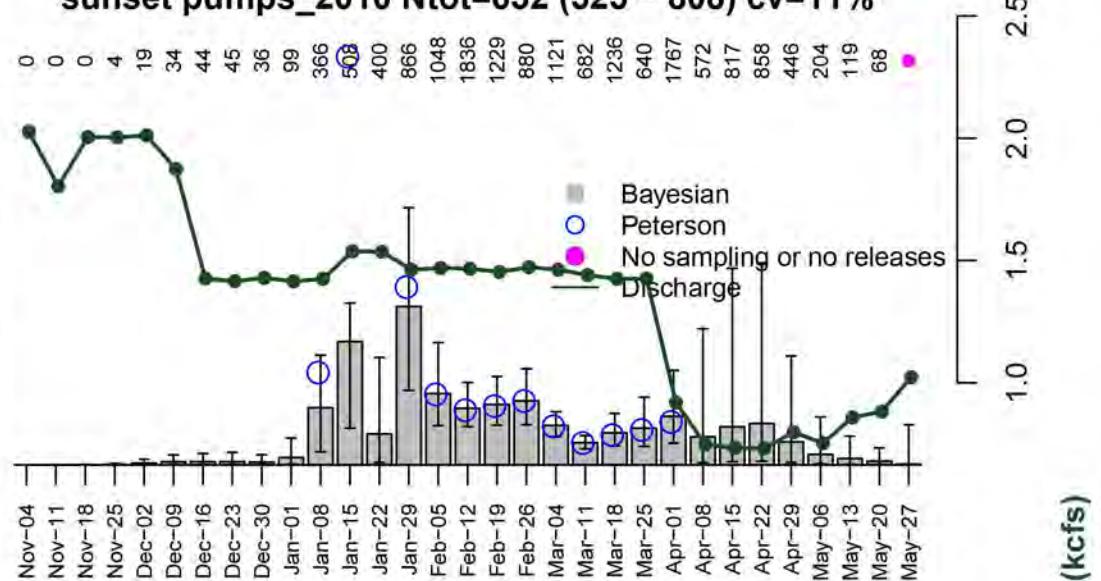
Capture Probability



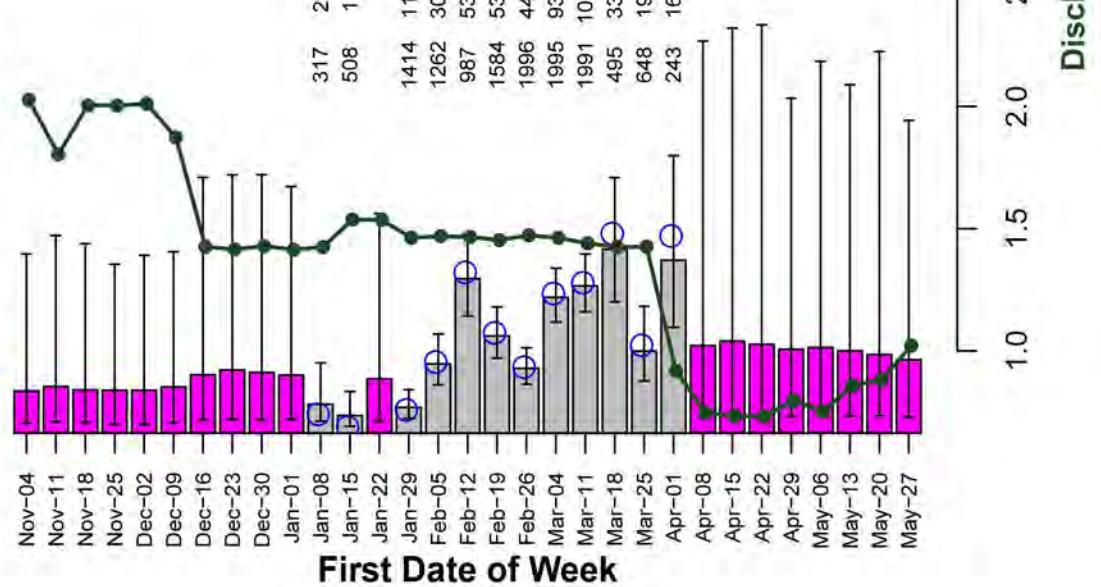
Discharge (kcfs)

# sunset pumps\_2010 Ntot=652 (525 – 808) cv=11%

Abundance ('000s)

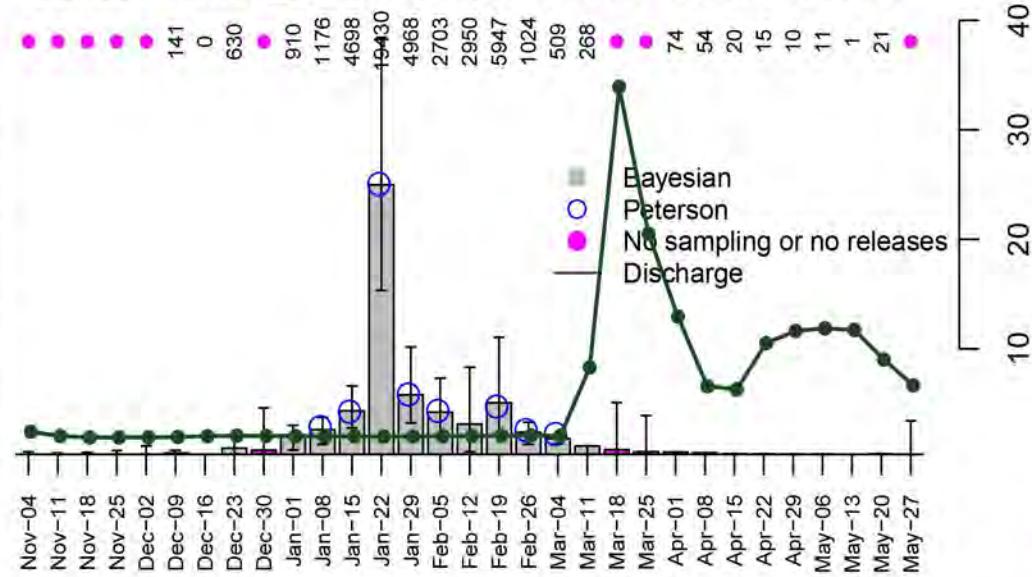


Capture Probability

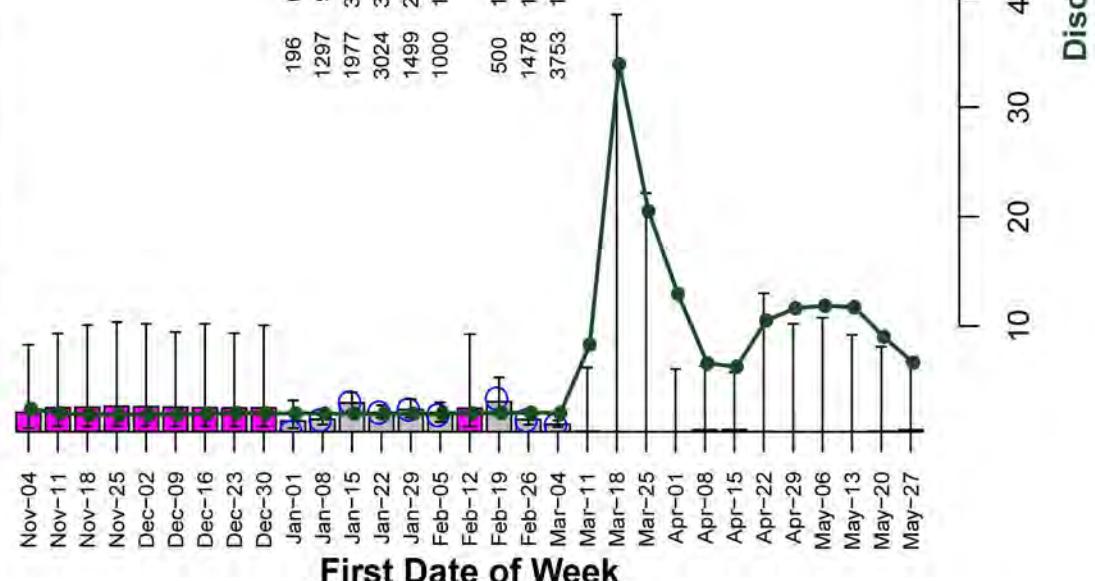


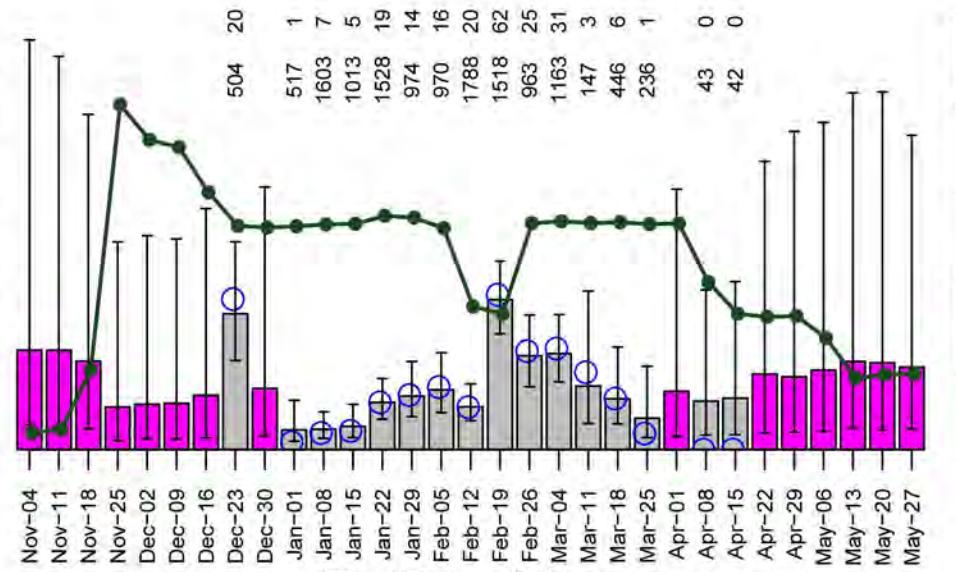
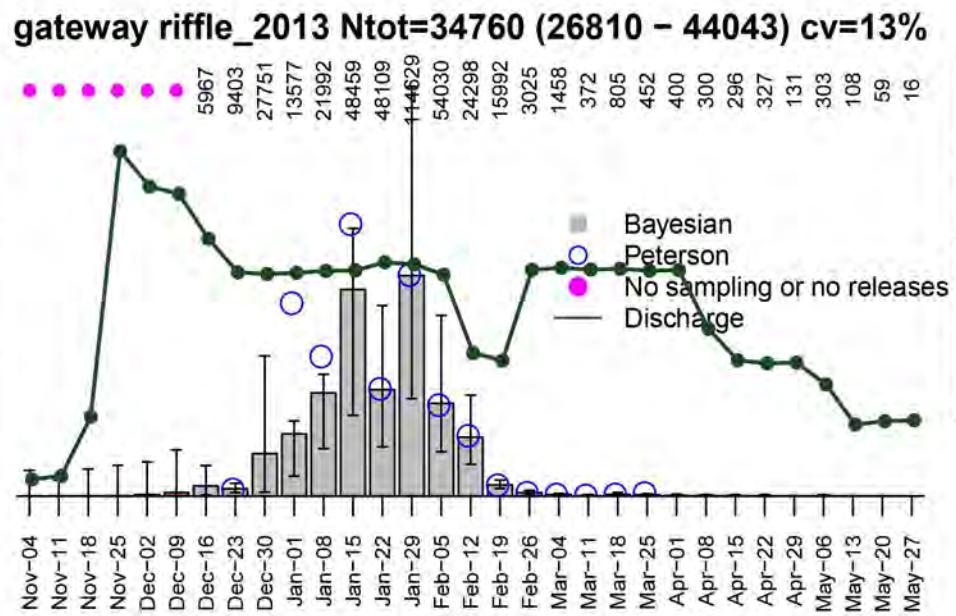
# sunset pumps\_2011 Ntot=3990 (3136 - 5089) cv=12%

Abundance ('000s)



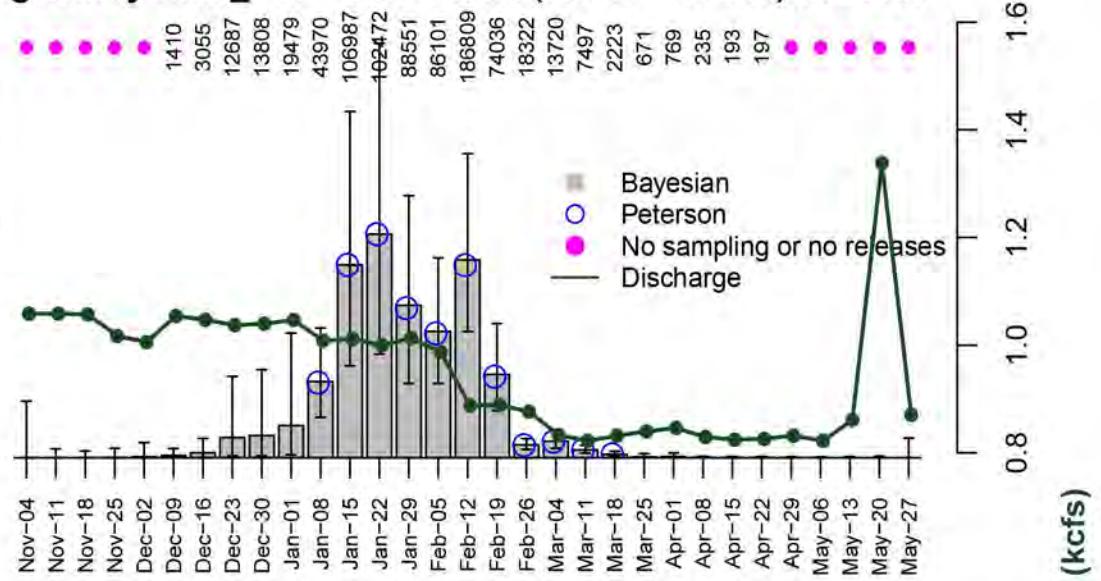
Capture Probability



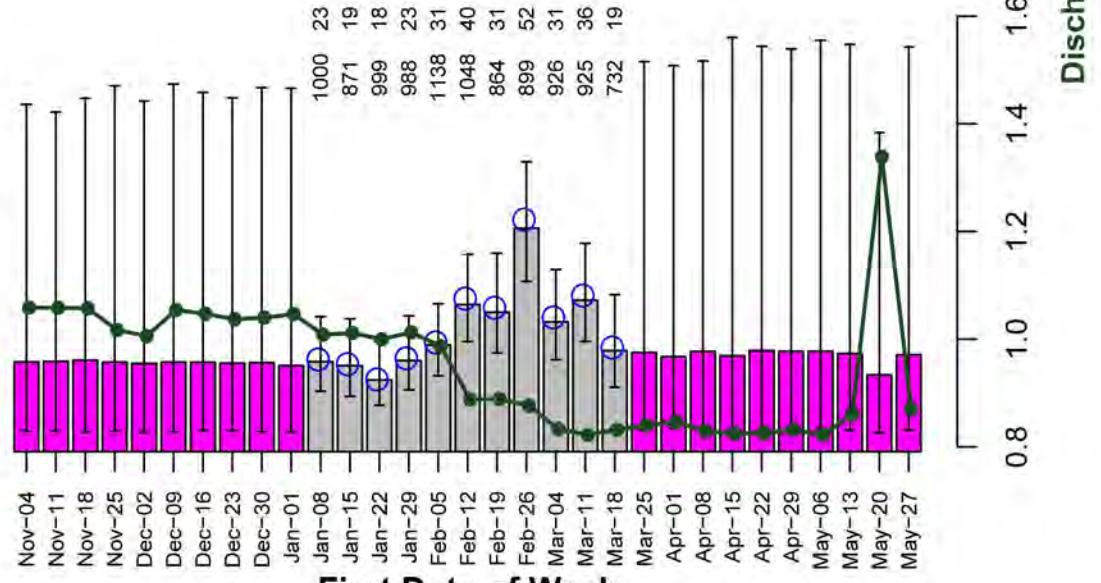


# gateway riffle\_2014 Ntot=31305 (25394 – 39243) cv=11%

Abundance ('000s)

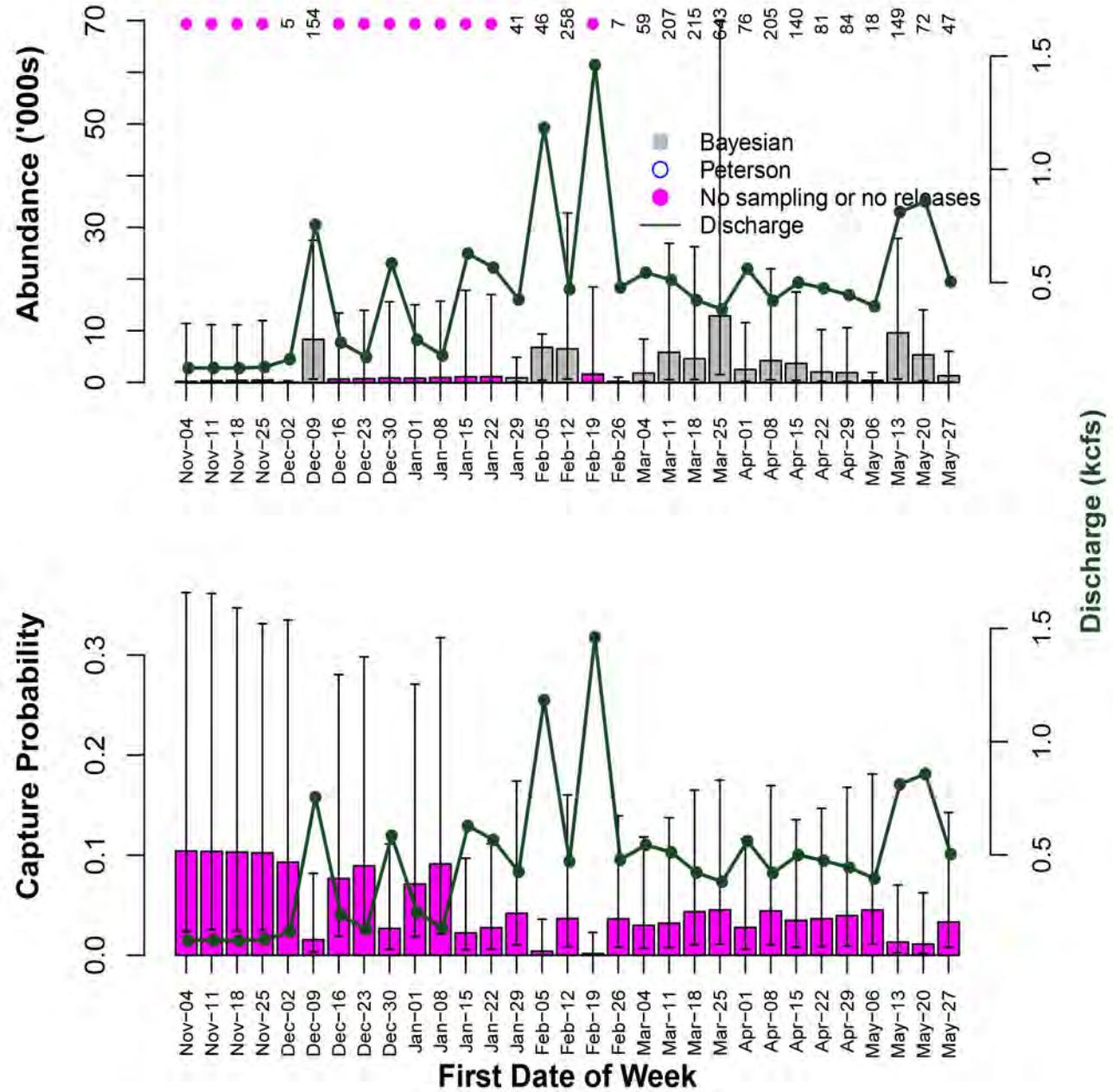


Capture Probability

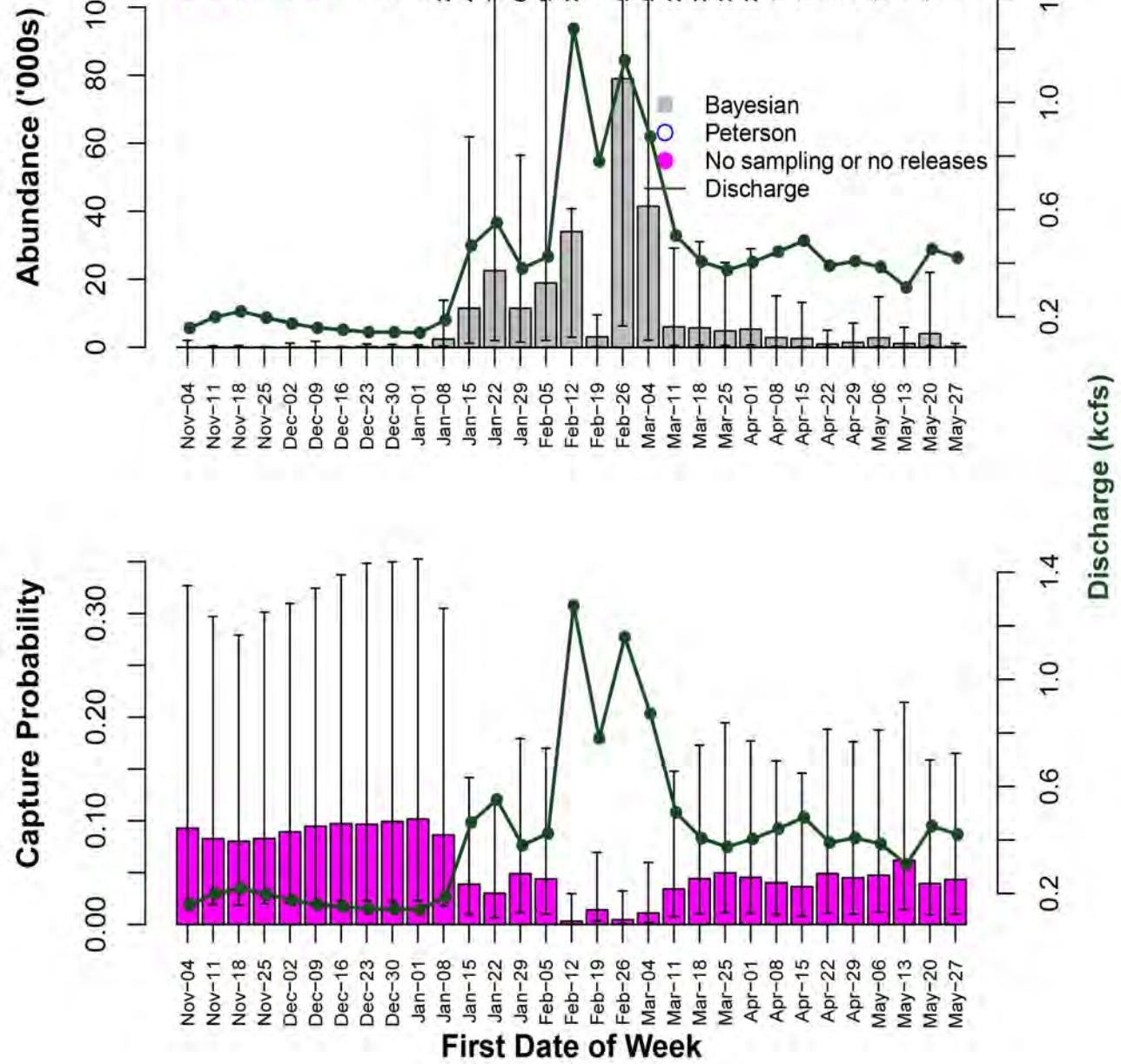


Discharge (kcfs)

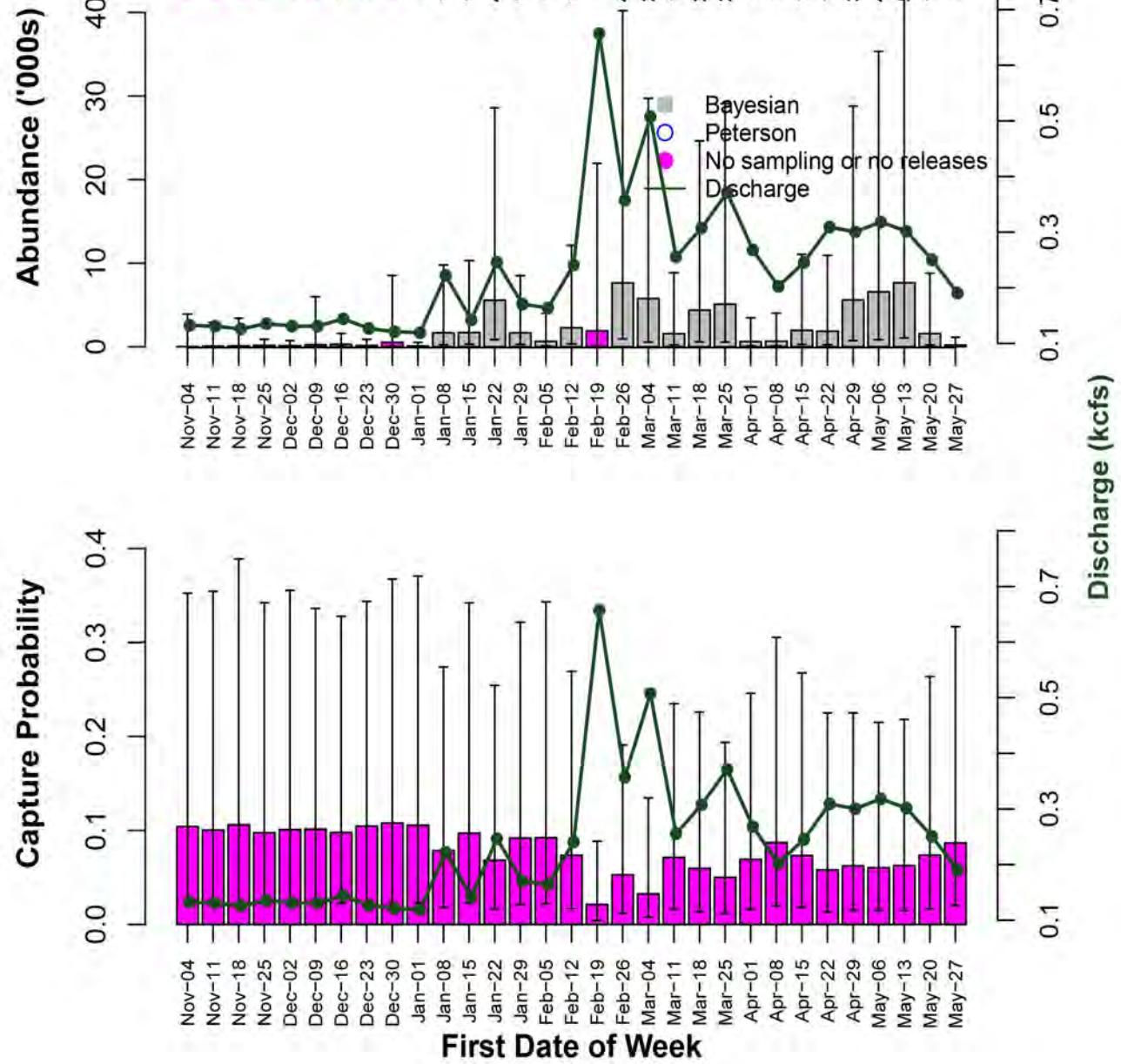
# mill creek\_1996 Ntot=123 (76 – 200) cv=25%



# mill creek\_2000 Ntot=291 (184 - 432) cv=22%

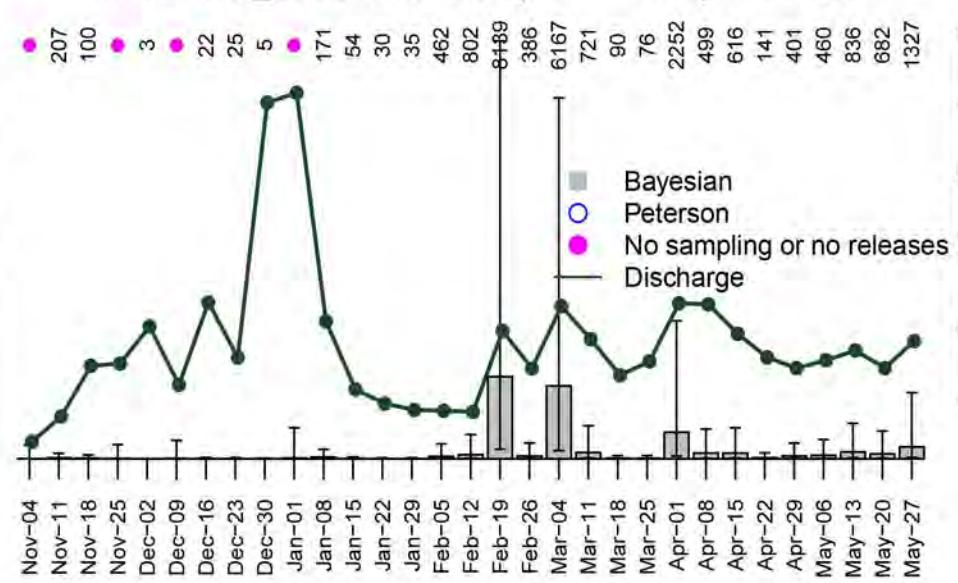


# mill creek\_2001 Ntot=96 (60 - 165) cv=26%

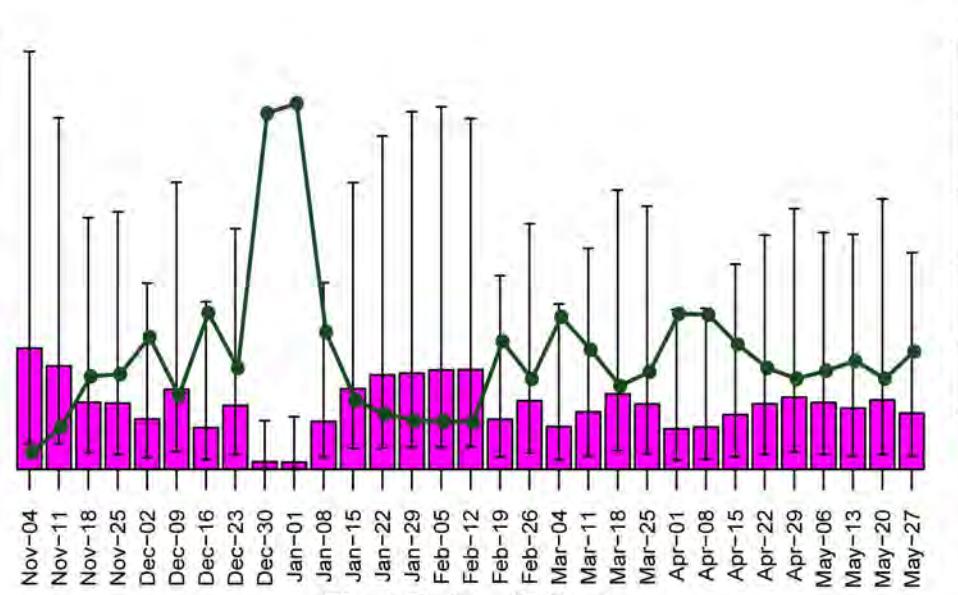


# mill creek\_2002 Ntot=629 (321 - 1471) cv=43%

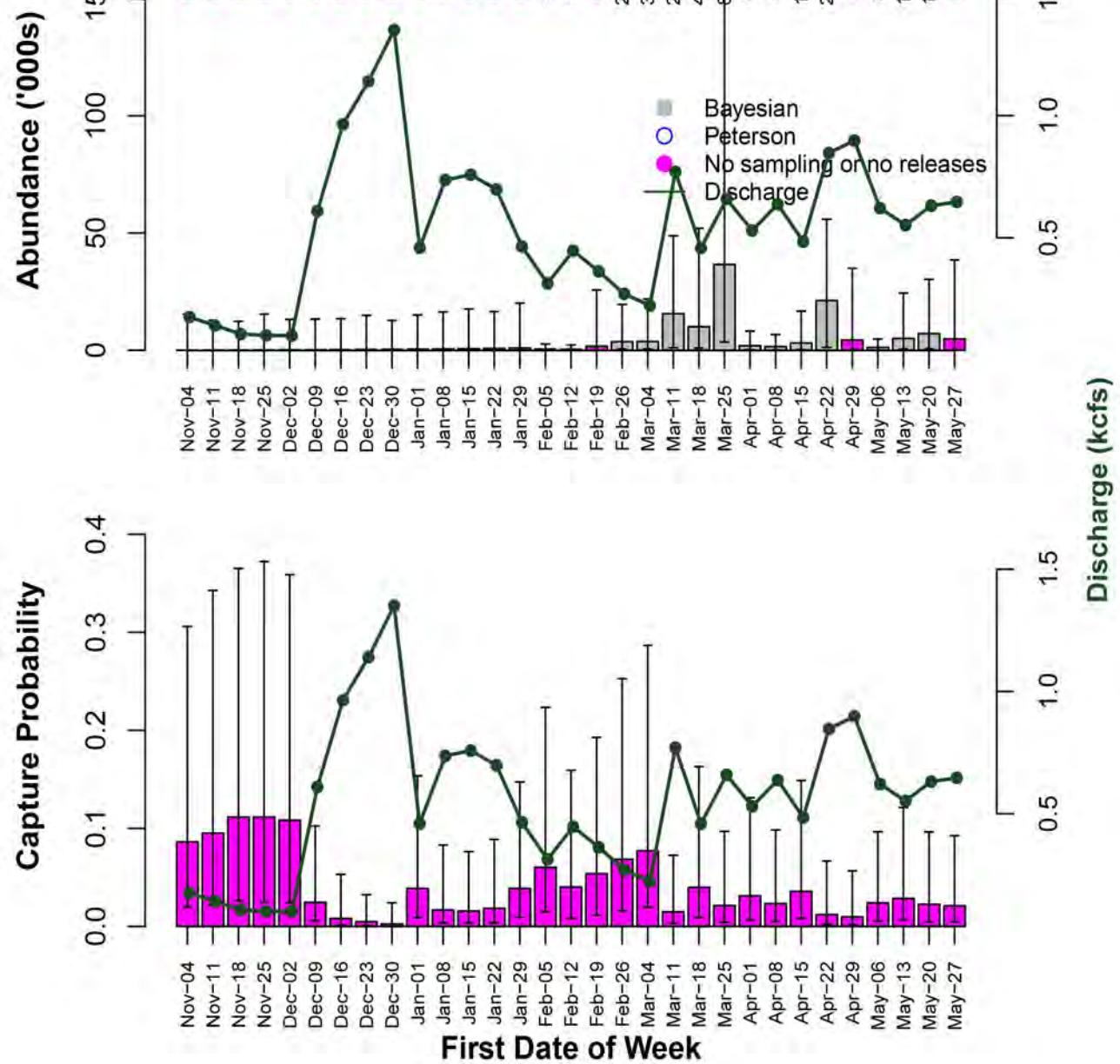
Abundance ('000s)



Capture Probability

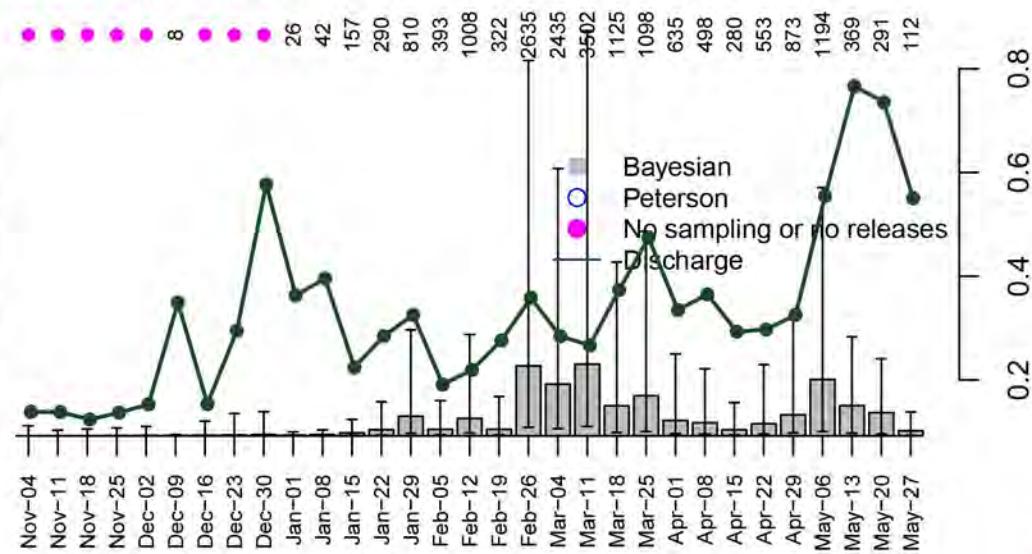


# mill creek\_2003 Ntot=180 (98 - 330) cv=31%

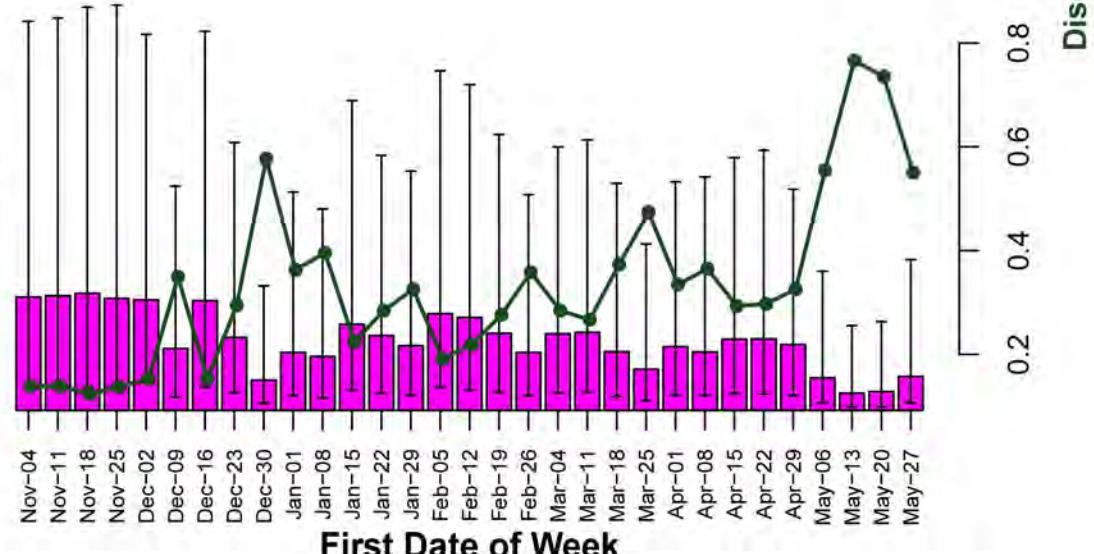


# mill creek\_2005 Ntot=452 (280 - 823) cv=29%

Abundance ('000s)

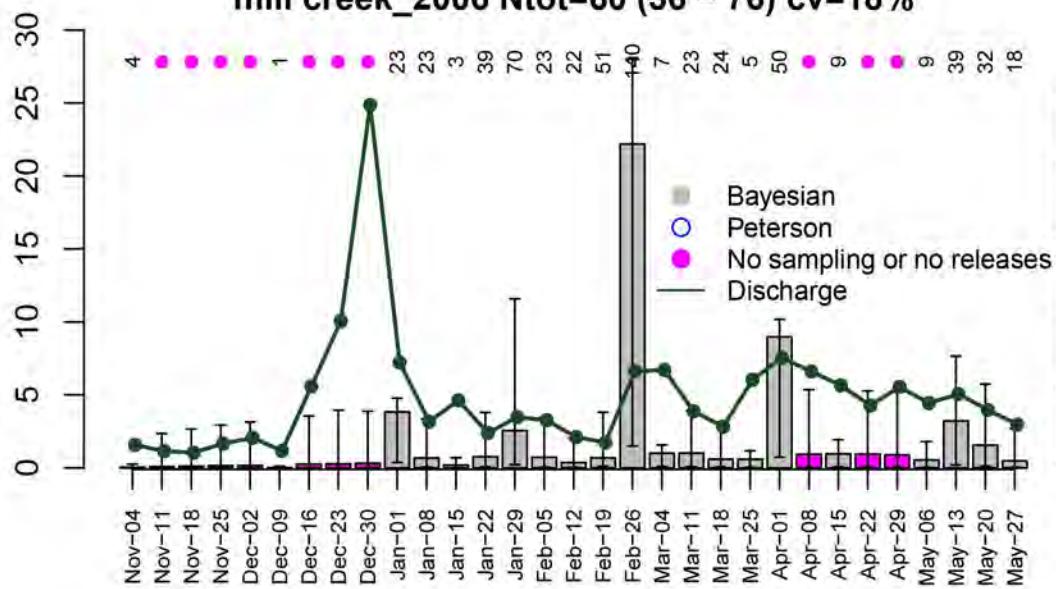


Capture Probability



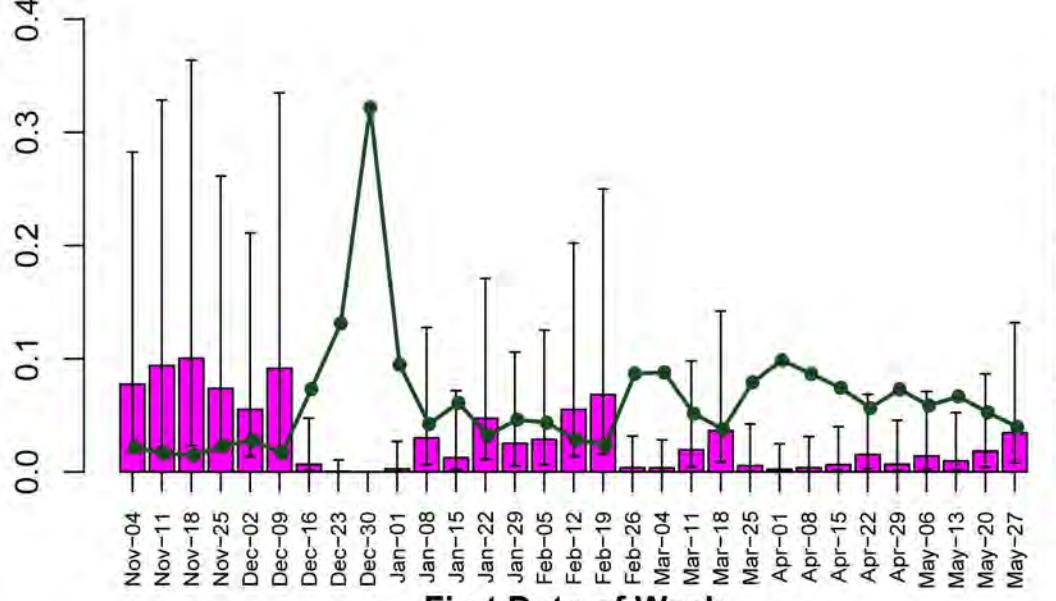
# mill creek\_2006 Ntot=60 (36 - 76) cv=18%

Abundance ('000s)



Discharge (kcfs)

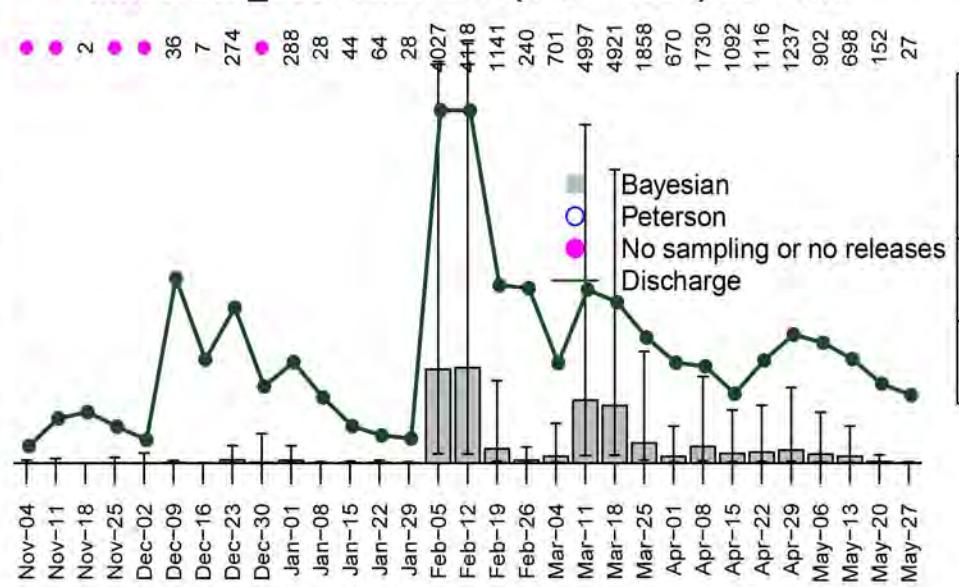
Capture Probability



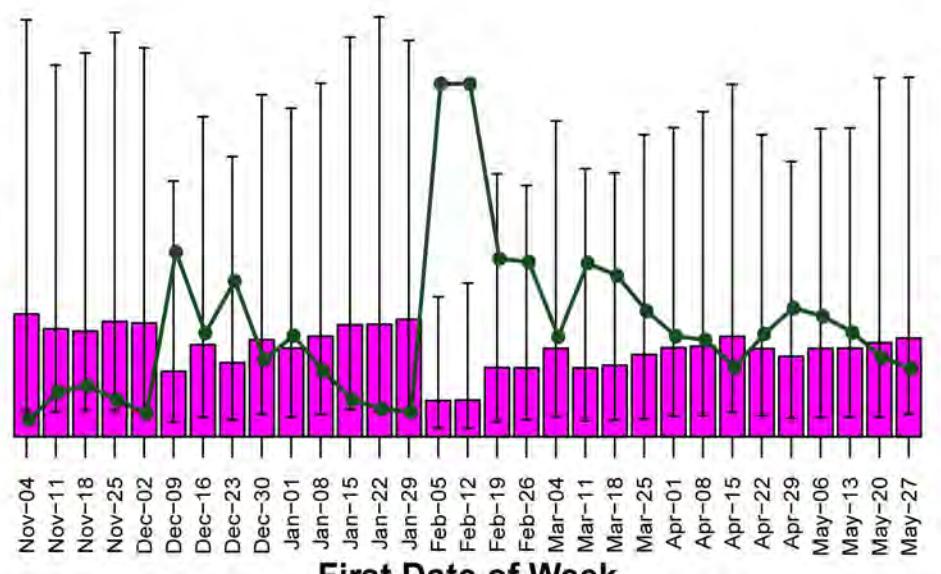
First Date of Week

# mill creek\_2007 Ntot=752 (412 - 1394) cv=32%

Abundance ('000s)

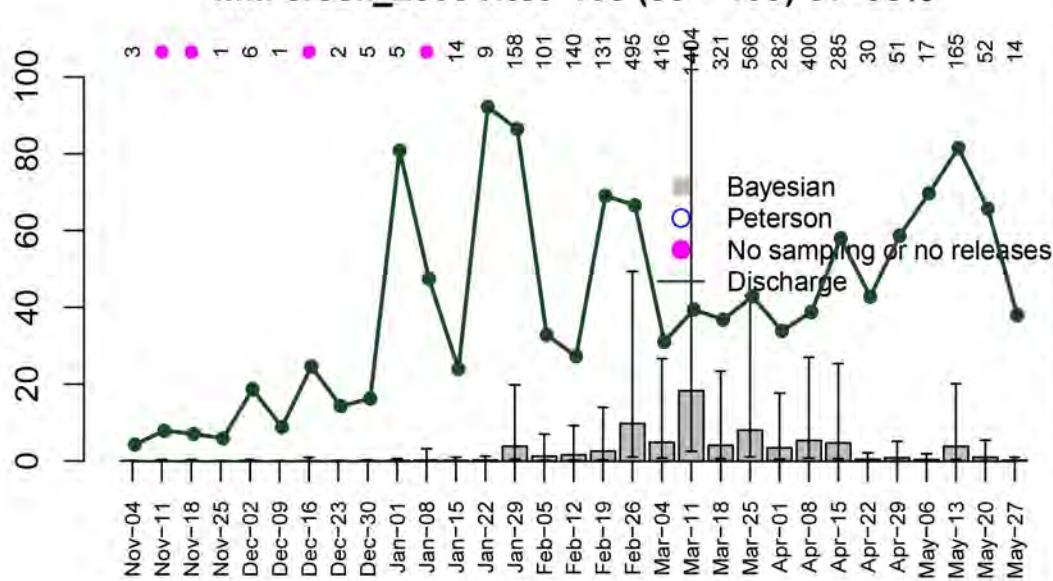


Capture Probability



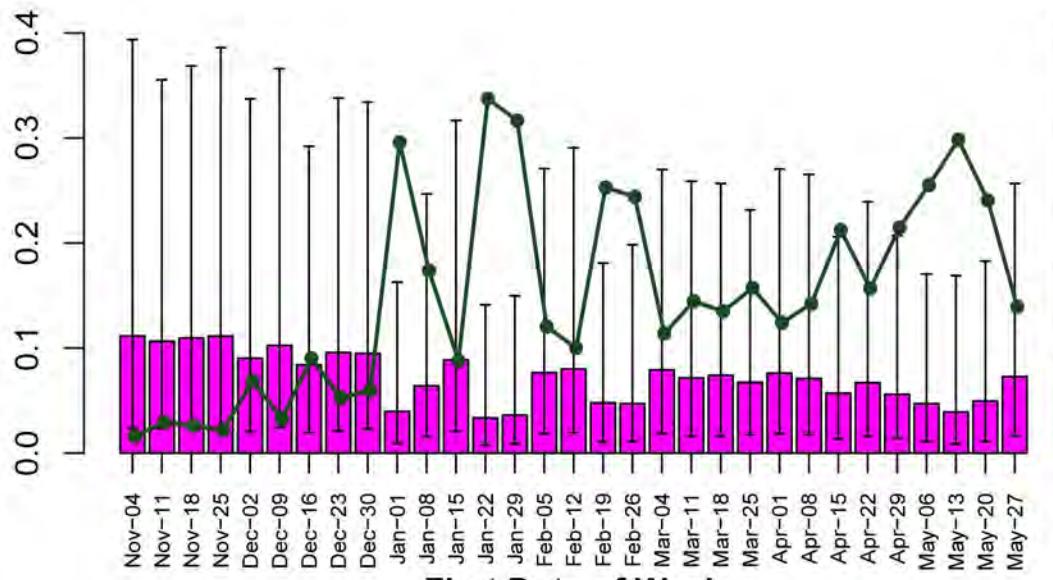
# mill creek\_2008 Ntot=100 (58 - 199) cv=35%

Abundance ('000s)



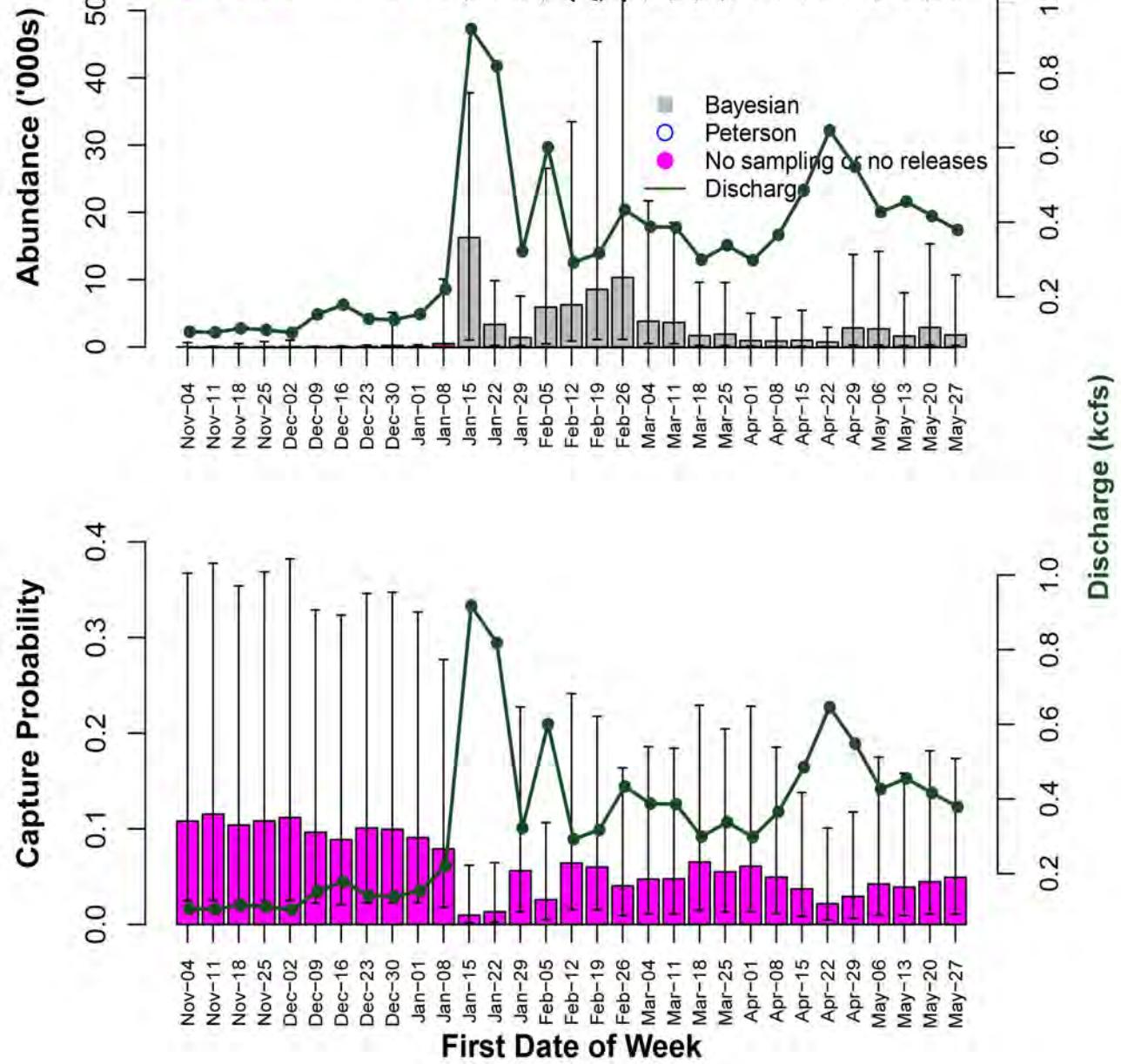
Bayesian  
Peterson  
No sampling or no releases  
Discharge

Capture Probability

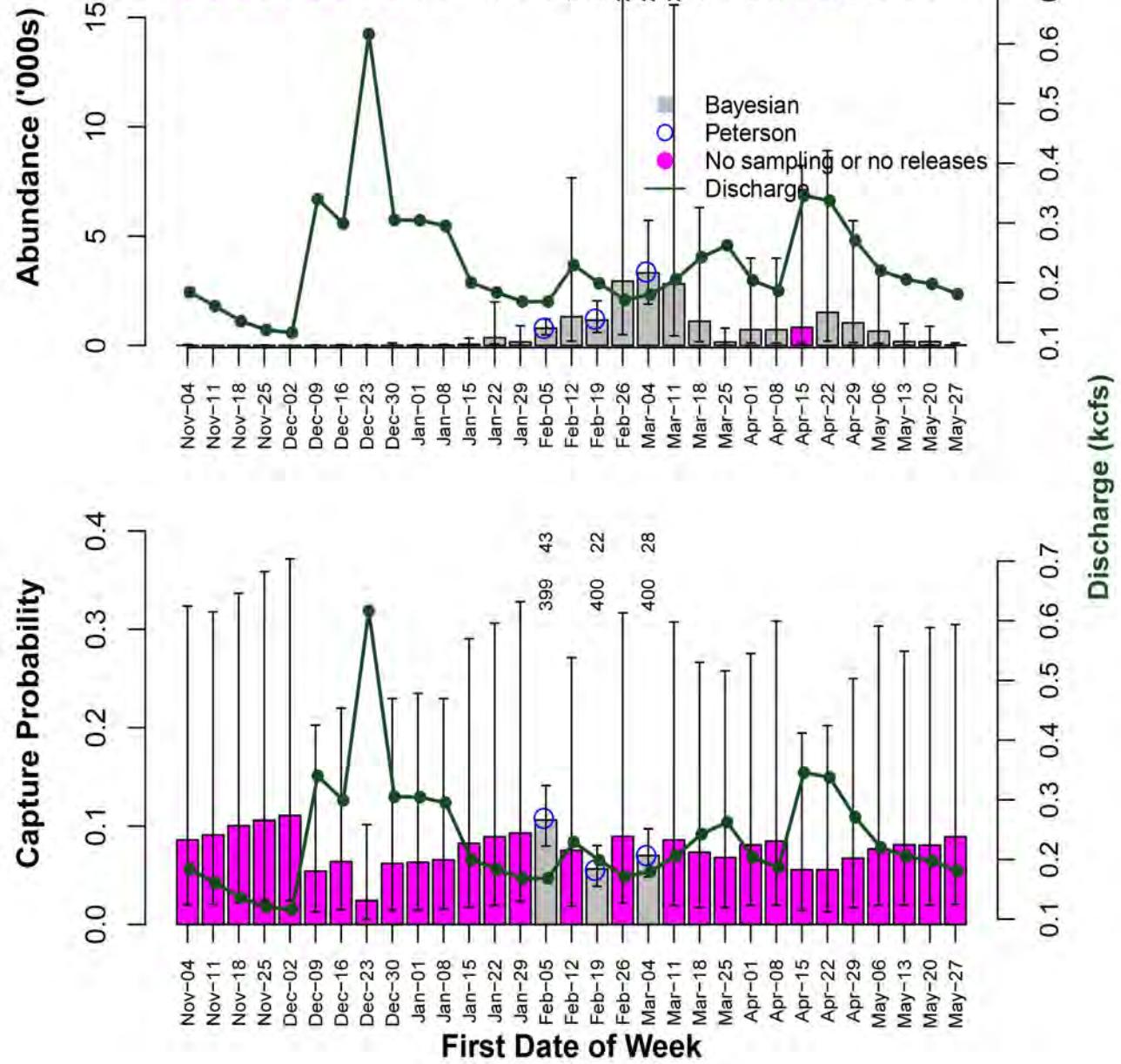


Discharge (kcfs)

# mill creek\_2010 Ntot=103 (62 - 167) cv=25%

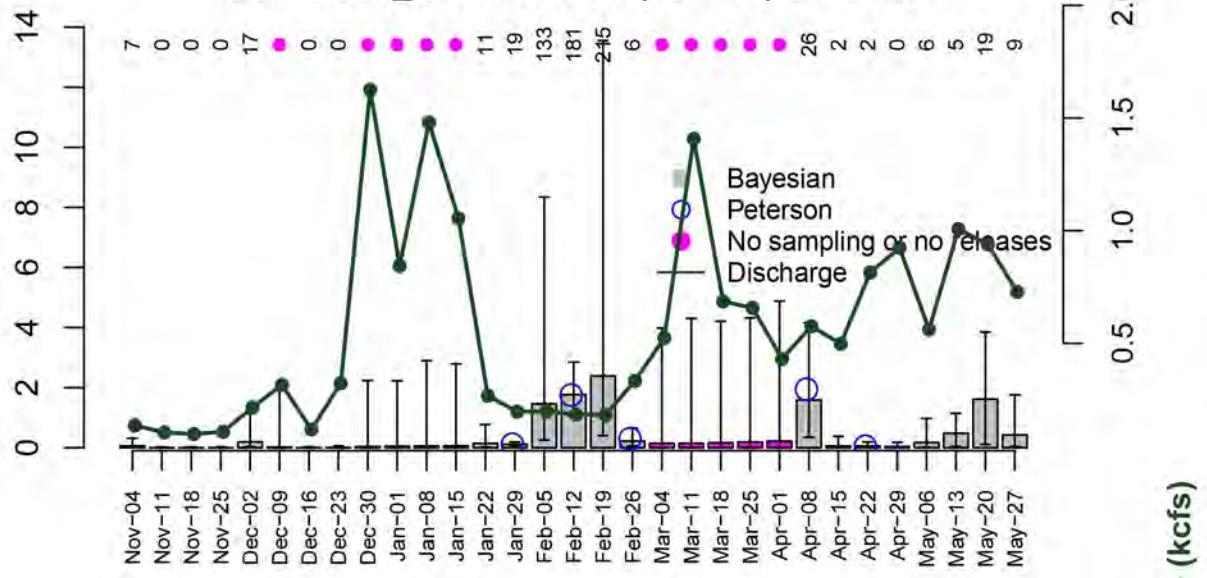


# mill creek\_2022 Ntot=26 (16 - 49) cv=30%

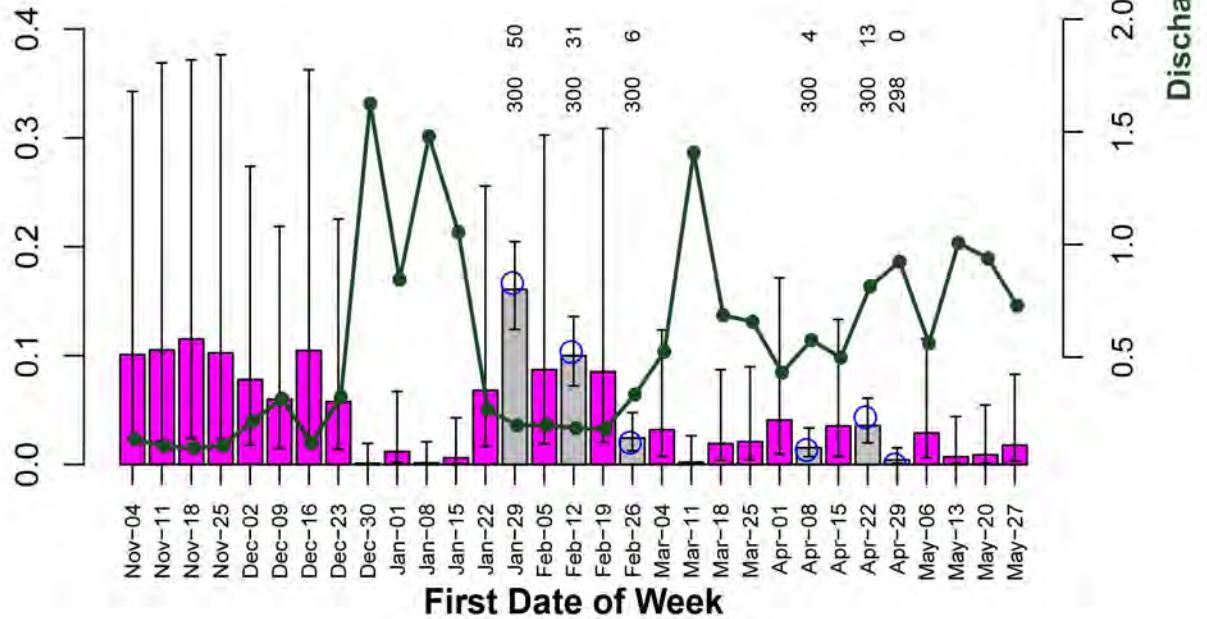


# mill creek\_2023 Ntot=17 (10 – 31) cv=31%

Abundance ('000s)



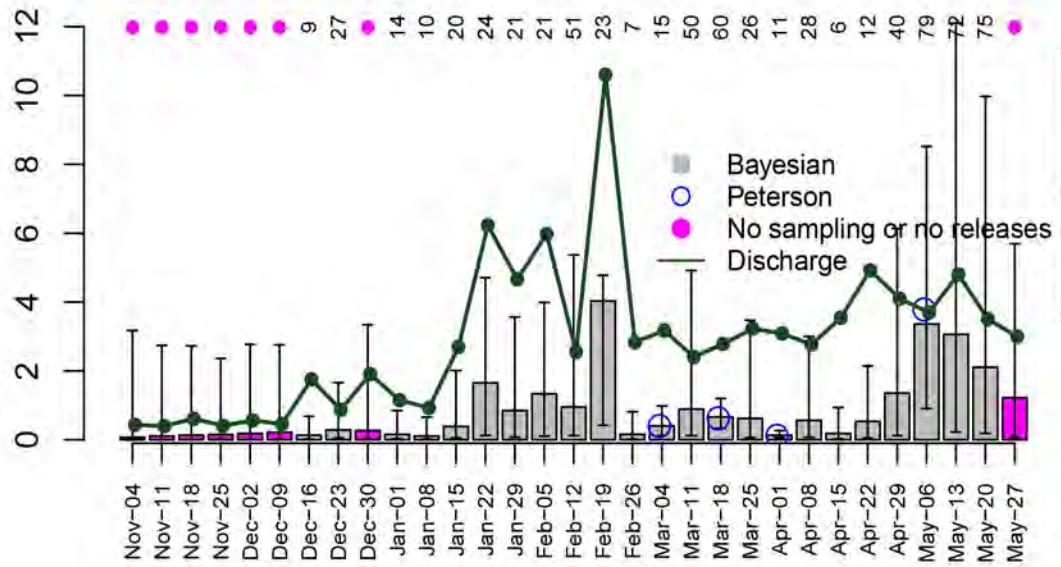
Capture Probability



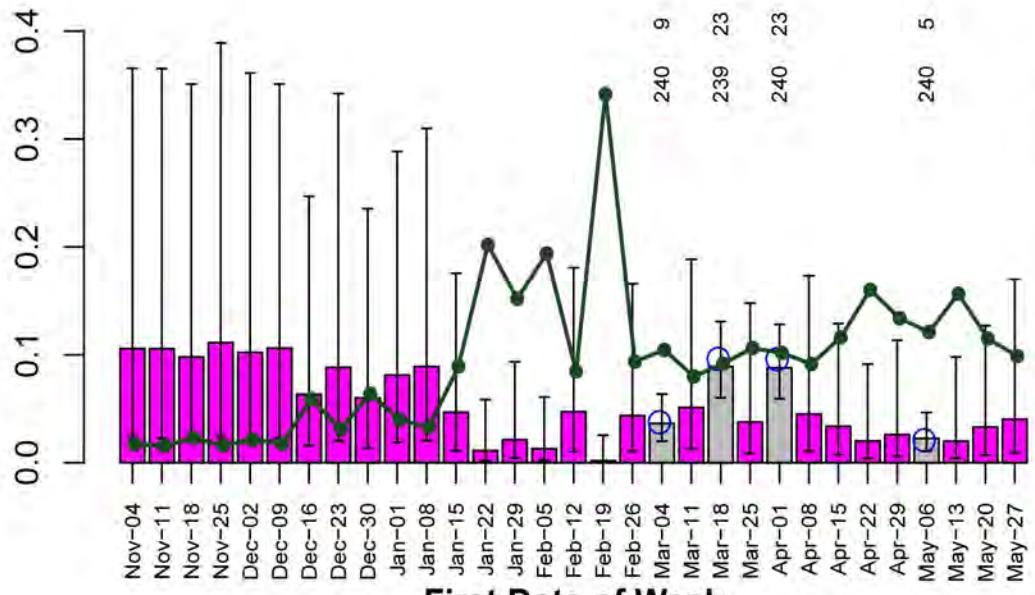
First Date of Week

# mill creek\_2024 Ntot=33 (22 - 48) cv=20%

Abundance ('000s)



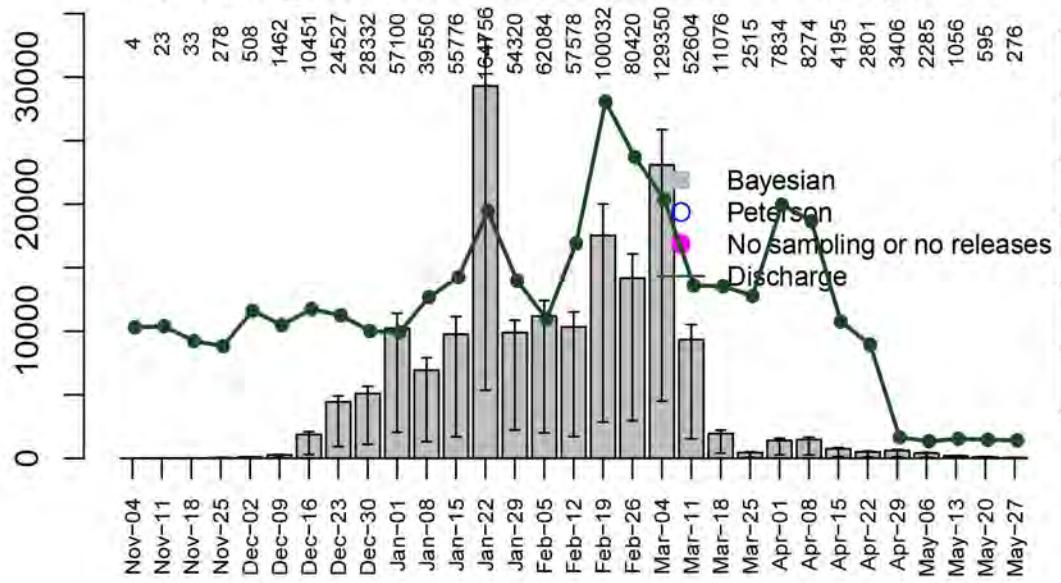
Capture Probability



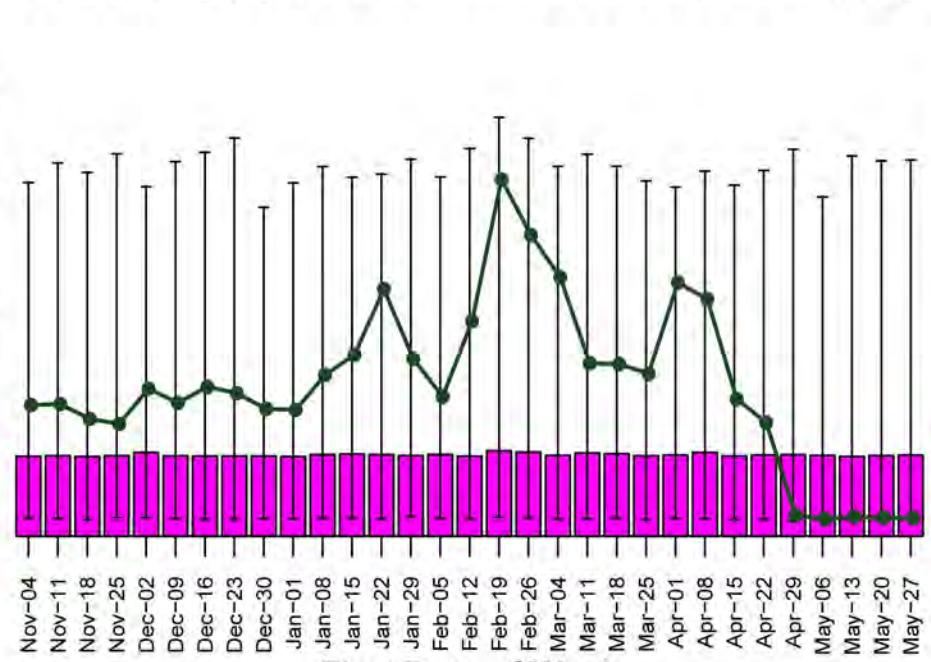
First Date of Week

# hallwood\_2001 Ntot=153300 (121722 - 175278) cv=9%

Abundance ('000s)

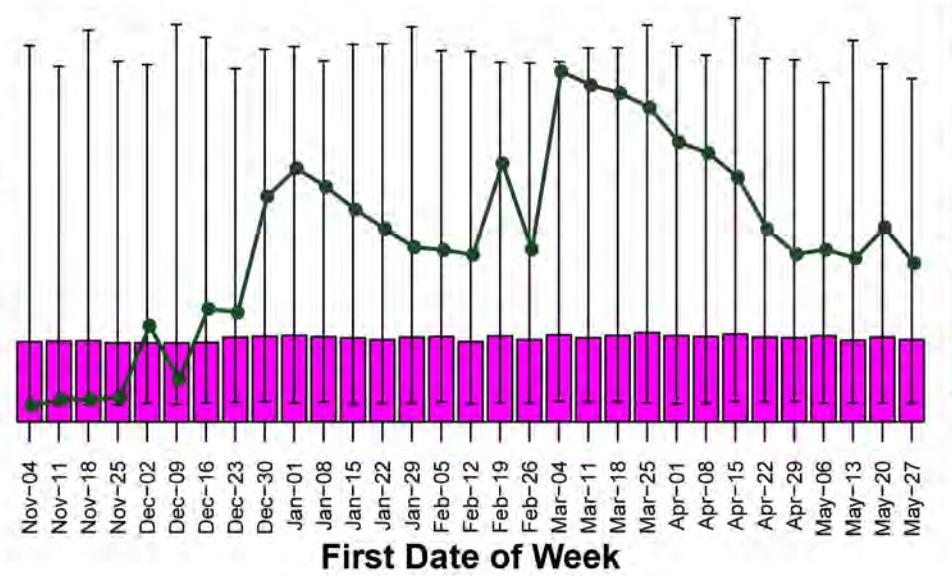
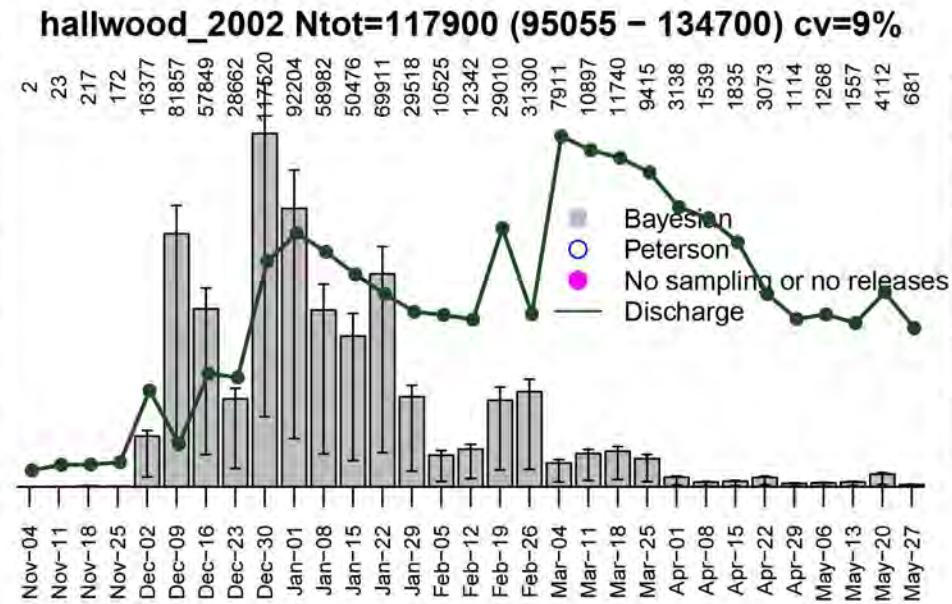


Capture Probability



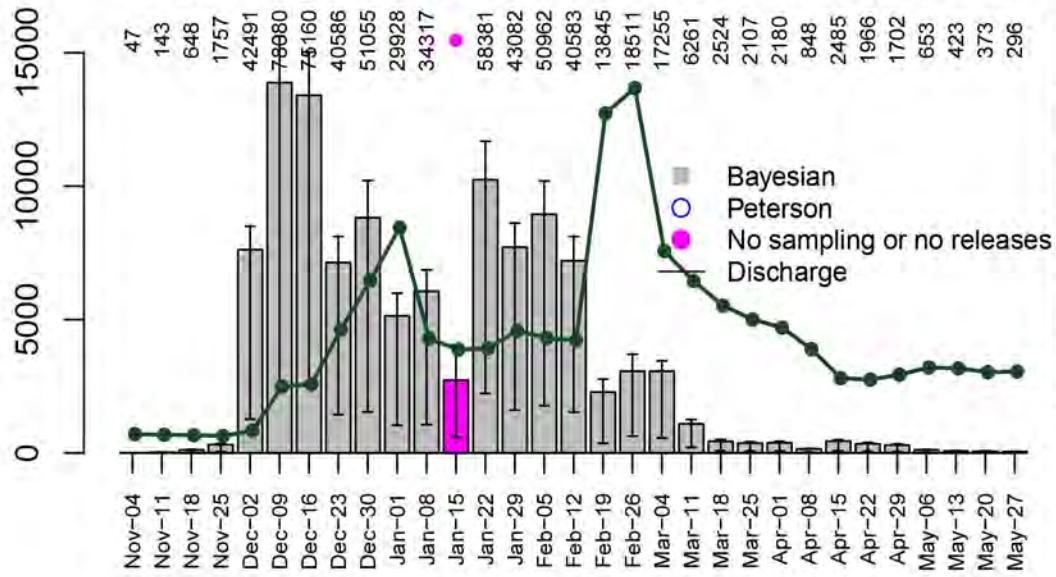
Discharge (kcfs)

0.4 0.8 1.2 1.6

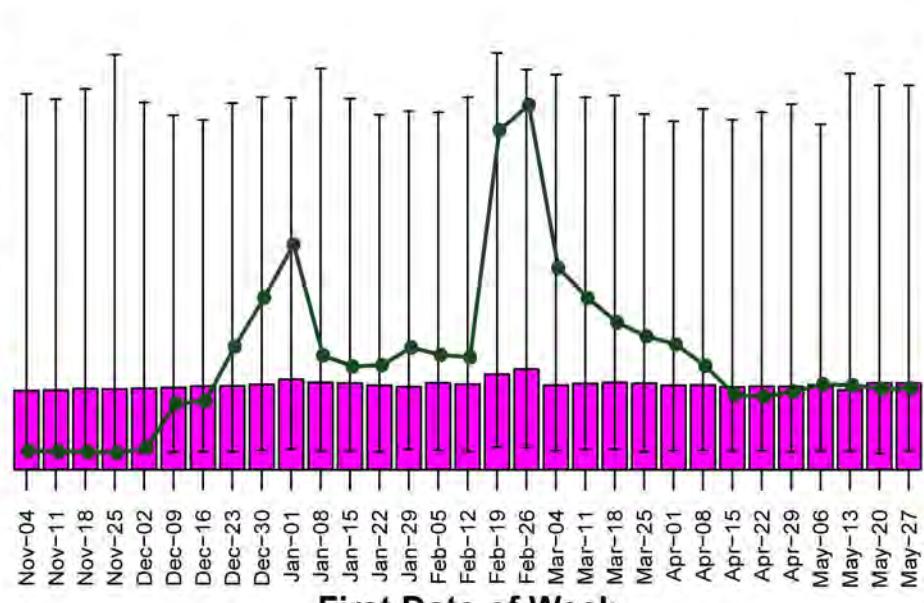


# hallwood\_2004 Ntot=100300 (82006 – 113800) cv=9%

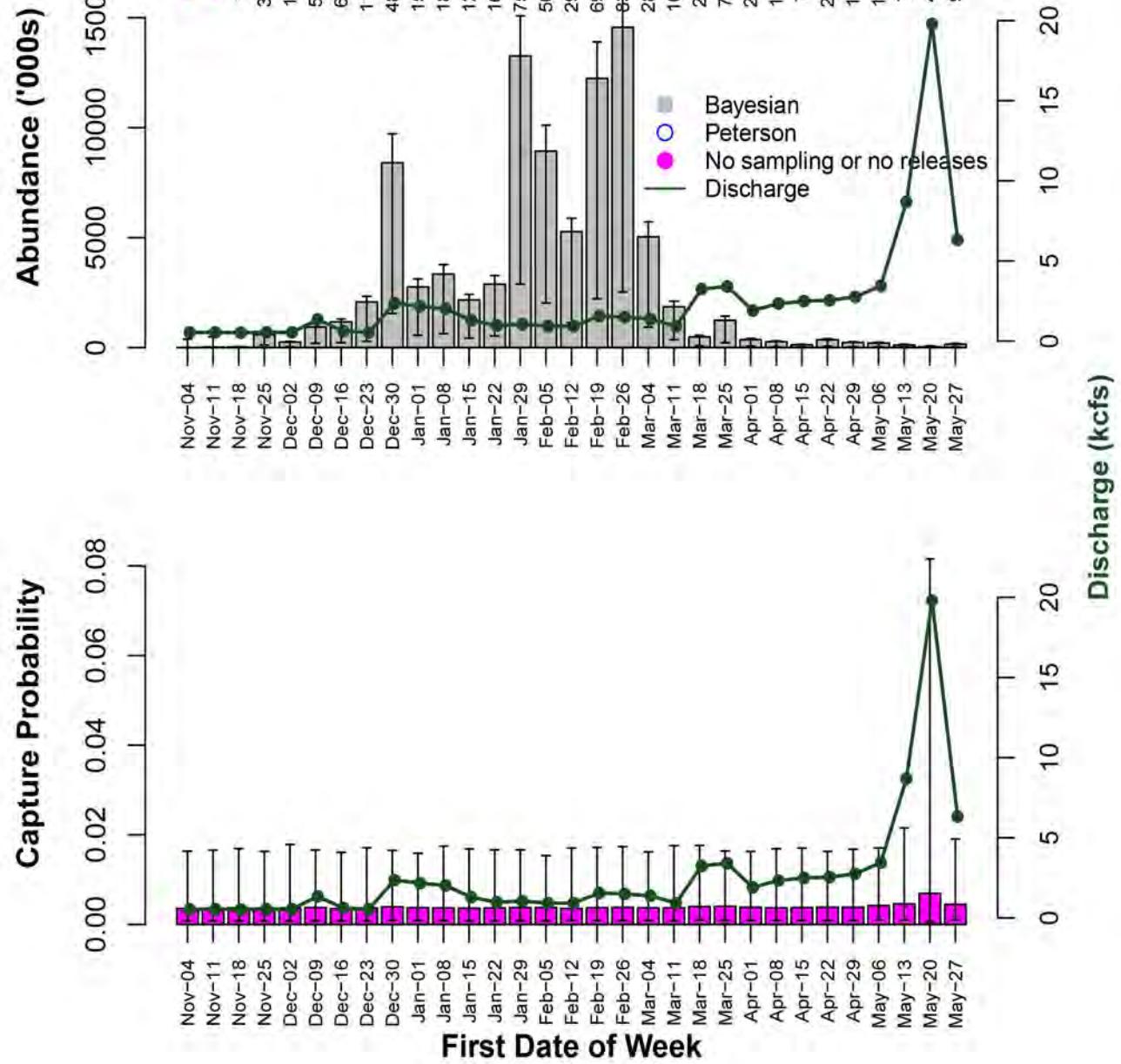
Abundance ('000s)



Capture Probability

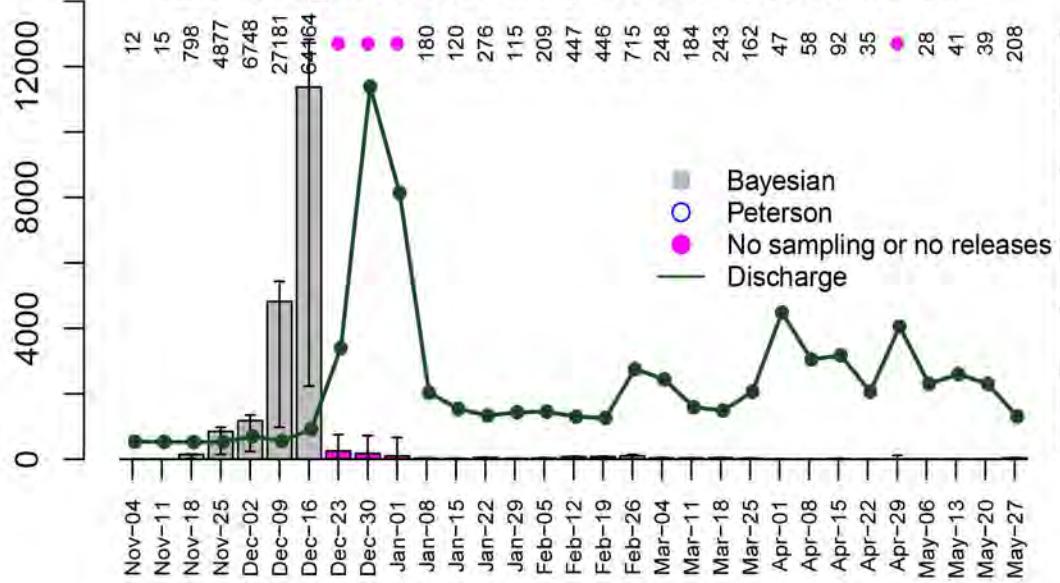


# hallwood\_2005 Ntot=80415 (62647 – 92668) cv=10%



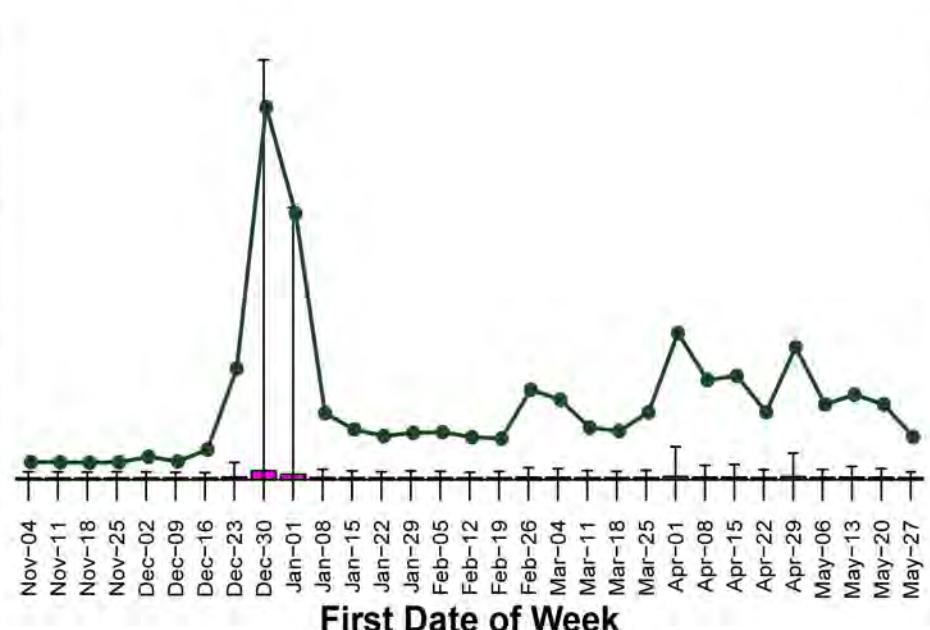
# hallwood\_2006 Ntot=18400 (9394 - 21840) cv=19%

Abundance ('000s)



Bayesian  
Peterson  
No sampling or no releases  
Discharge

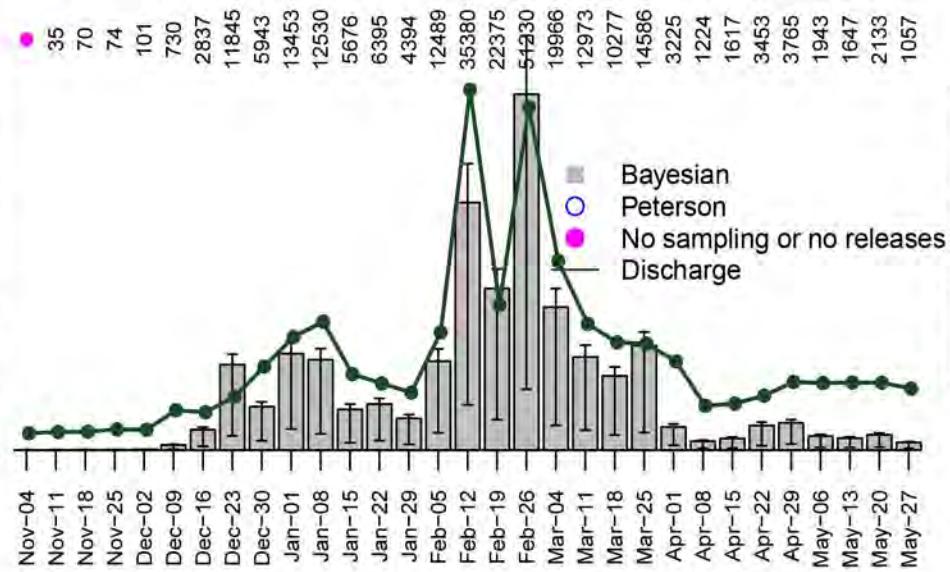
Capture Probability



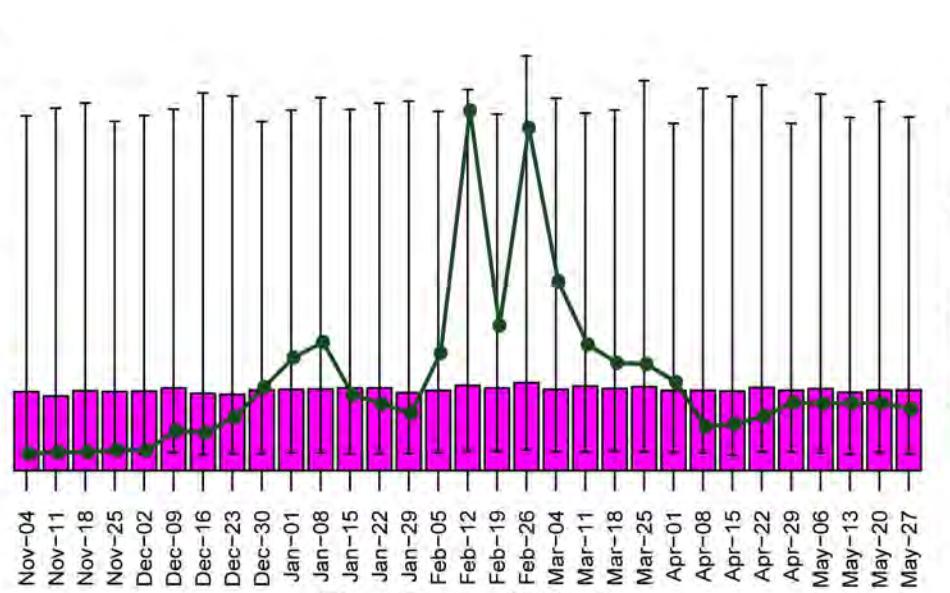
Discharge (kcfs)

# hallwood\_2007 Ntot=41680 (33228 – 47596) cv=9%

Abundance ('000s)



Capture Probability

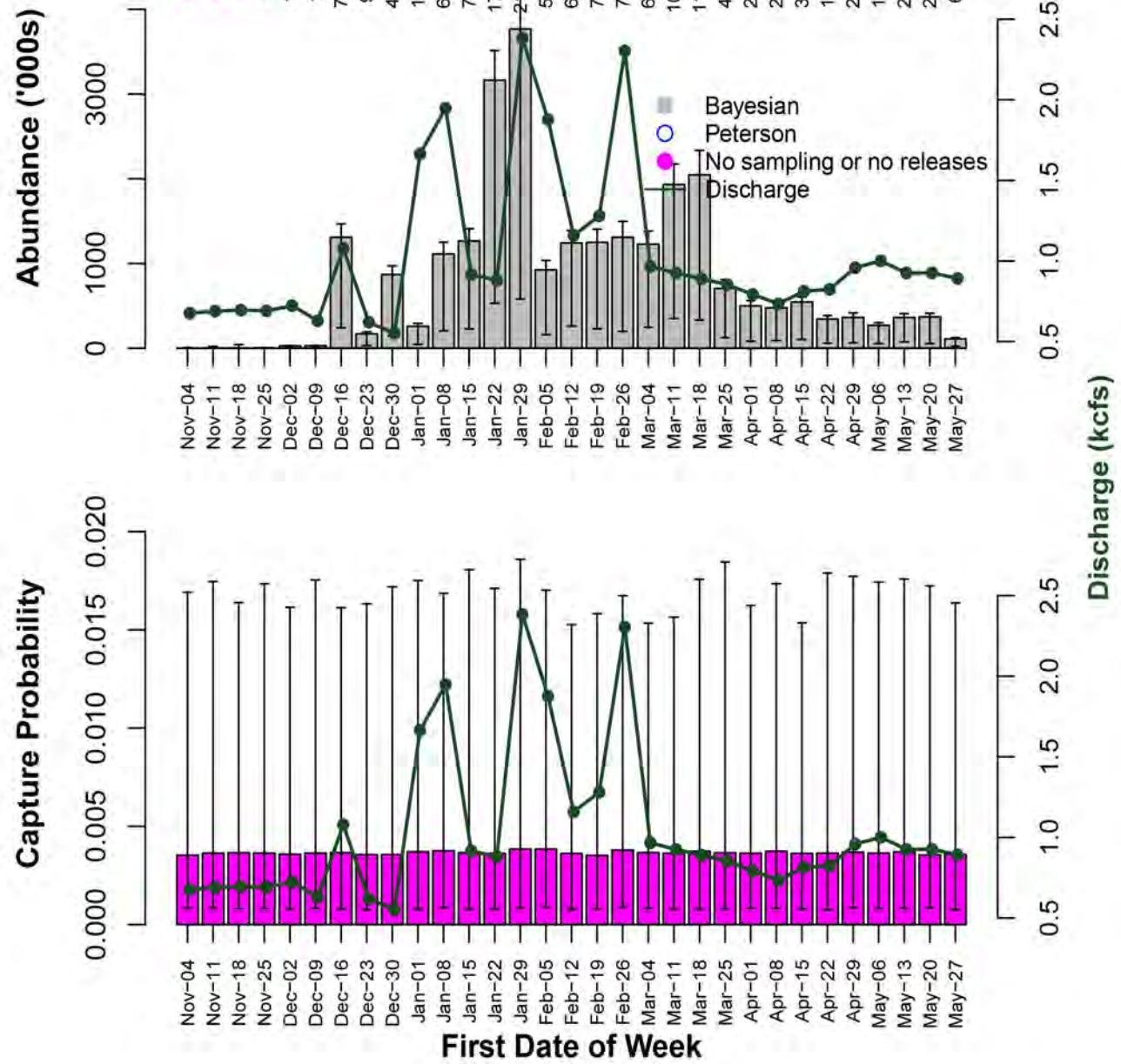


First Date of Week

1 2 3 4

1 2 3 4

# hallwood\_2008 Ntot=23160 (18872 – 26290) cv=8%



# hallwood\_2009 Ntot=8354 (6820 - 9446) cv=8%

Abundance ('000s)

0 200 400 600 800 1000

Nov-04 Nov-11 Nov-18 Nov-25 Dec-02 Dec-09 Dec-16 Dec-23 Dec-30 Jan-01 Jan-08 Jan-15 Jan-22 Jan-29 Feb-05 Feb-12 Feb-19 Feb-26 Mar-04 Mar-11 Mar-18 Mar-25 Apr-01 Apr-08 Apr-15 Apr-22 Apr-29 May-06 May-13 May-20 May-27

1 2 3 4 5 6

Bayesian  
Peterson  
No sampling or no releases  
Discharge

Capture Probability

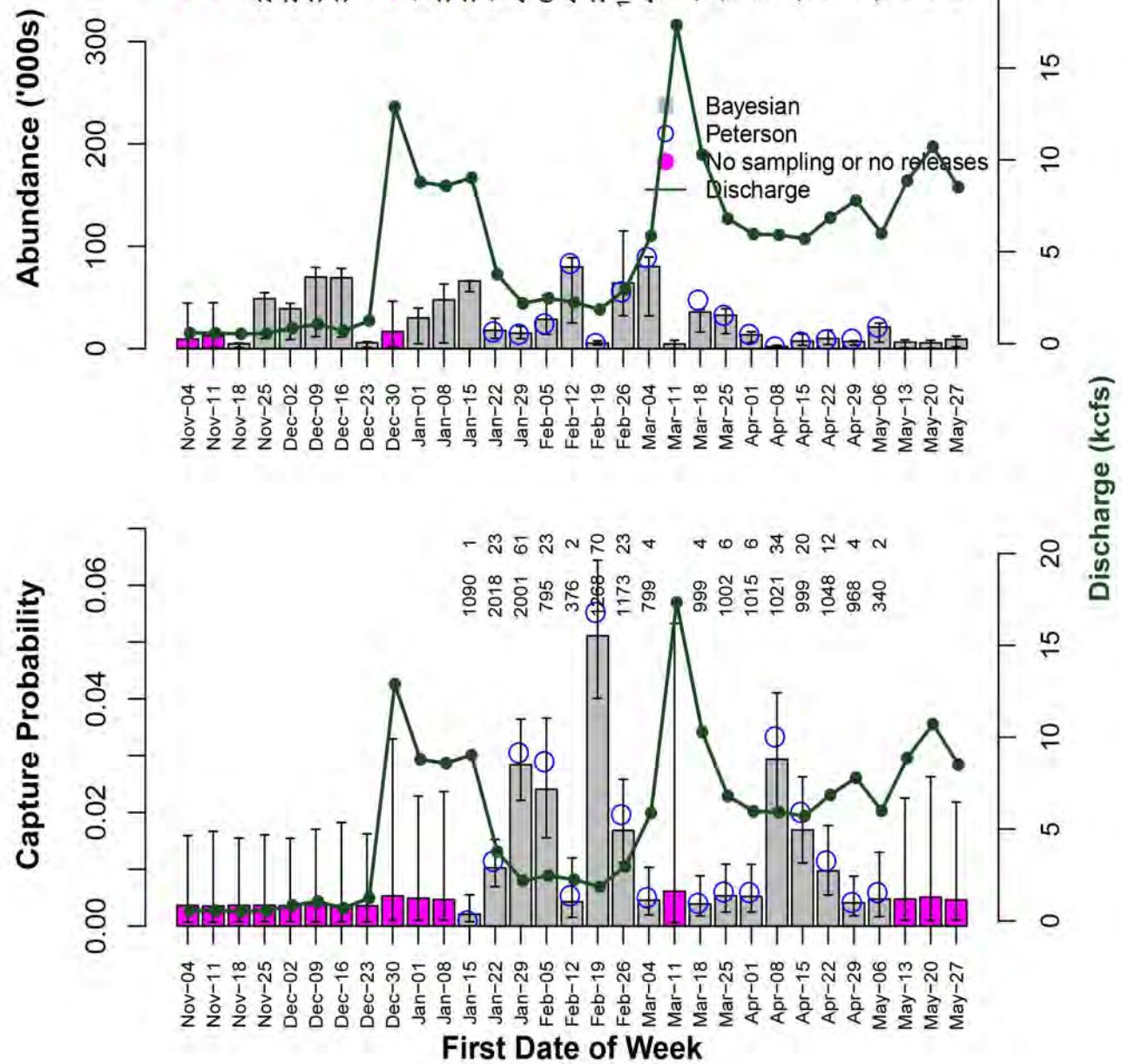
0.000 0.005 0.010 0.015

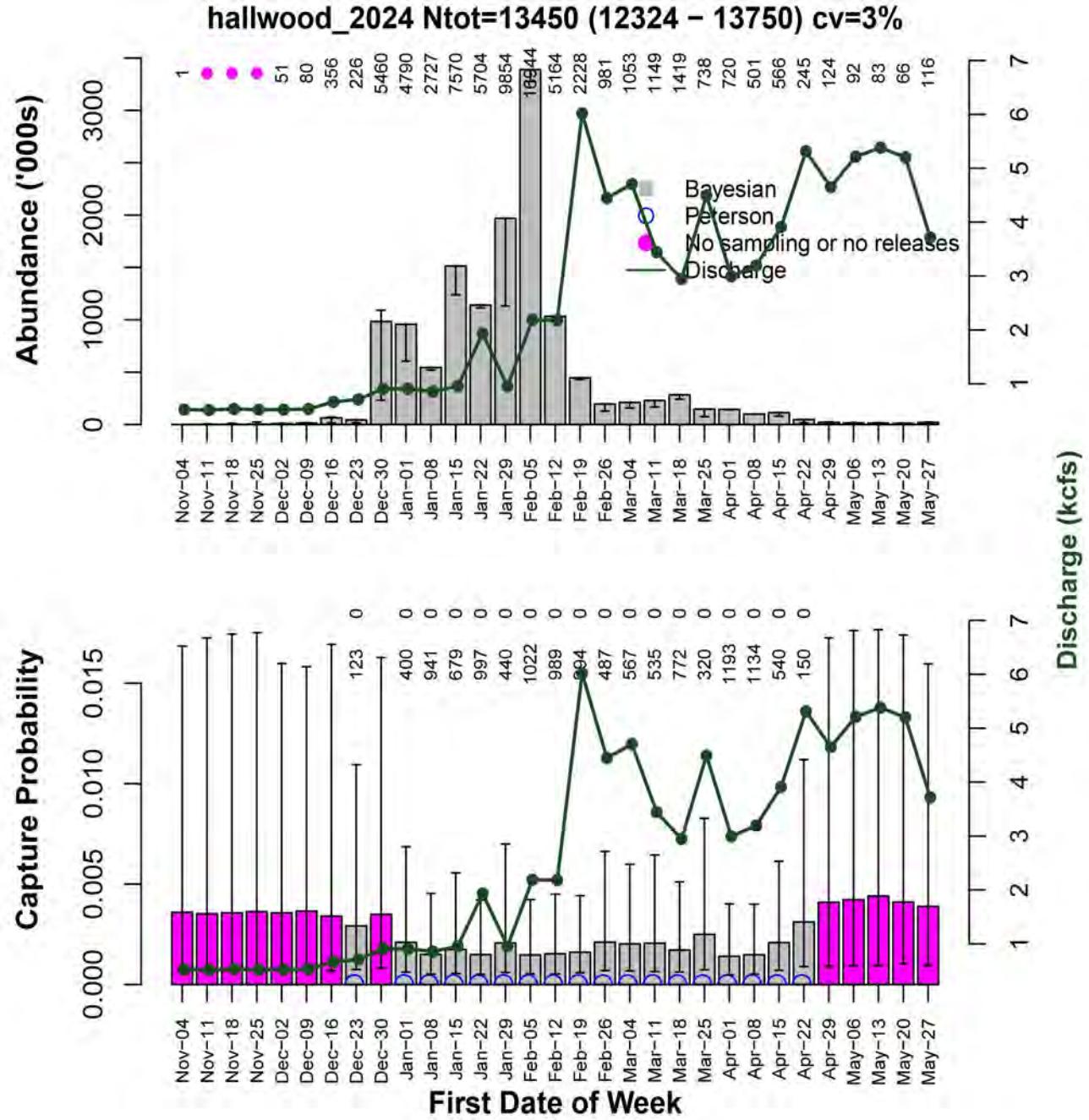
Nov-04 Nov-11 Nov-18 Nov-25 Dec-02 Dec-09 Dec-16 Dec-23 Jan-01 Jan-08 Jan-15 Jan-22 Jan-29 Feb-05 Feb-12 Feb-19 Feb-26 Mar-04 Mar-11 Mar-18 Mar-25 Apr-01 Apr-08 Apr-15 Apr-22 Apr-29 May-06 May-13 May-20 May-27

1 2 3 4 5 6

First Date of Week

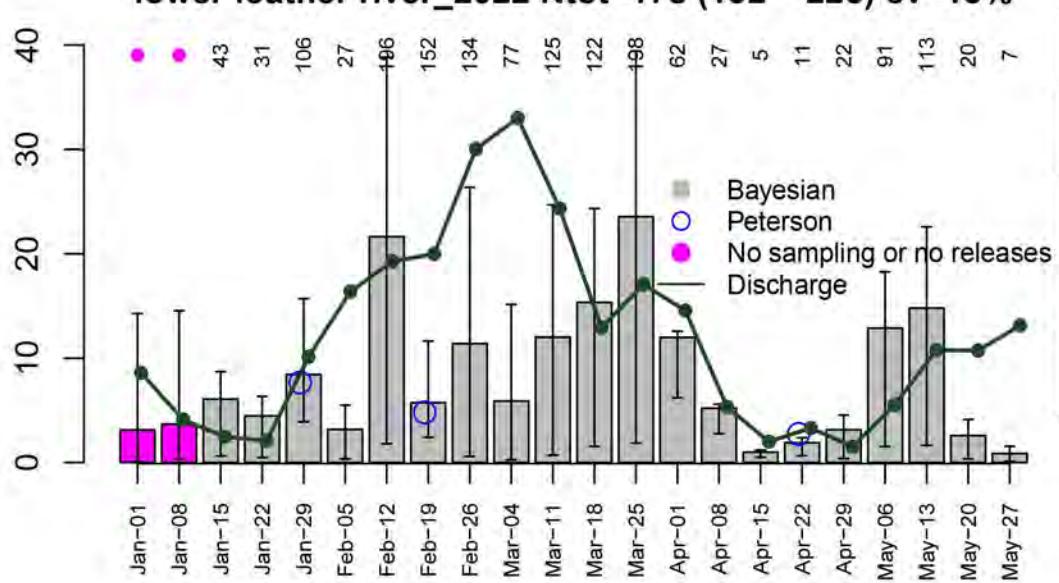
# hallwood\_2023 Ntot=827 (711 - 930) cv=7%





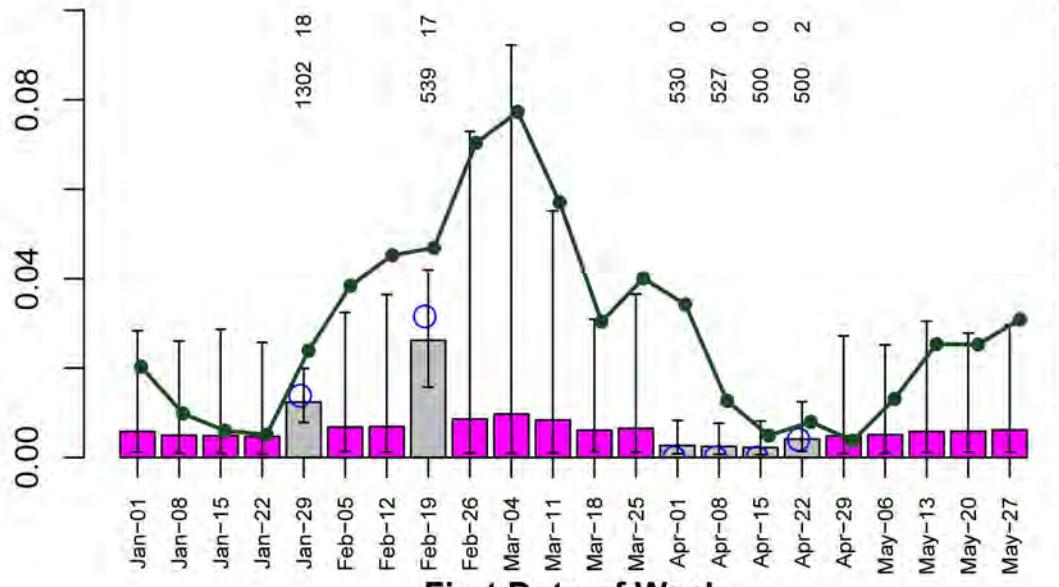
# lower feather river\_2022 Ntot=178 (132 – 225) cv=13%

Abundance ('000s)



Bayesian  
Peterson  
No sampling or no releases  
Discharge

Capture Probability



First Date of Week