No model adjustment

OKSIR REGION A

YEAR	MAE
1997	0.32221
1998	0.20925
2000	0.32813
2001	0.21157
2002	0.28971
2004	0.3243
2005	0.38903
2007	0.33652
2008	0.25825
2009	0.30883
2010	0.24382
2011	0.28926
2012	0.42614
2013	0.40081
2015	0.23336

4-YEAR FIELDS

FIELD/YEAR	MEAN ABSOLUTE ERROR
AllrCoug/2018	0.03496
AllrCoug/2019*	0.08885
AllrCoug/2020*	0.13185
AllrCoug/2021*	0.15346
CRO/2018	0.15442
CRO/2019	0.07772
CRO/2020	0.07929
CRO/2021	0.14795
Hansen/2018	0.27728
Hansen/2019	0.17852
Hansen/2020	0.28421
Hansen/2021*	0.14714
HoskGibOth/2018	0.25395
HoskGibOth/2019	0.20119
HoskGibOth/2020*	0.10936
HoskGibOth/2021*	0.15838
Royal/2018	0.25645
Royal/2019	0.21382
Royal/2020	0.24108
Royal/2021	0.30936
ValKoe/2018	0.22896
ValKoe/2019	0.08686
ValKoe/2020*	0.20025
ValKoe/2021*	0.08981
fiveEa/2018	0.25929
fiveEa/2019	0.2209
fiveEa/2020	0.17941
fiveEa/2021	0.17602

- lower than 2.5 cumulative captures per trap

JW Biofix (ξ=69)

OKSIR REGION A

YEAR	MAE	EFFICACY
1997	0.05086	0.00588
1998	0.0377	0.00689
2000	0.01895	0.00583
2001	0.02626	0.00671
2002	0.06403	0.00689
2004	0.10268	0.00613
2005	0.08502	0.00474
2007	0.0638	0.00536
2008	0.05134	0.00587
2009	0.06376	0.00426
2010	0.0469	0.00685
2011	0.03576	0.00592
2012	0.11417	0.00441
2013	0.08382	0.00428
2015	0.08757	0.00707

4-YEAR FIELDS

FIELD/YEAR	MEAN ABSOLUTE ERROR	NET EFFICACY
AllrCoug/2018	0.03079	0.09988
AllrCoug/2019*	0.08886	54835.76196
AllrCoug/2020*	0.01823	0.01761
AllrCoug/2021*	0.06363	0.00919
CRO/2018	0.03987	0.00791
CRO/2019	0.07242	0.06382
CRO/2020	0.07854	118337.87592
CRO/2021	0.04172	0.0094
Hansen/2018	0.10712	0.00539
Hansen/2019	0.05503	0.00601
Hansen/2020	0.03642	0.00508
Hansen/2021*	0.05452	0.00969
HoskGibOth/2018	0.06163	0.00551
HoskGibOth/2019	0.03879	0.00563
HoskGibOth/2020*	0.03311	0.02323
HoskGibOth/2021*	0.14832	0.00856
Royal/2018	0.04292	0.00568
Royal/2019	0.04313	0.00585
Royal/2020	0.03423	0.00651
Royal/2021	0.03514	0.0058
ValKoe/2018	0.04392	0.006
ValKoe/2019	0.0509	0.02568
ValKoe/2020*	0.02858	0.00654
ValKoe/2021*	0.05819	0.0395
fiveEa/2018	0.03027	0.00566
fiveEa/2019	0.03122	0.00622
fiveEa/2020	0.08955	0.00691
fiveEa/2021	0.05199	0.00749

- lower than 2.5 cumulative captures per trap

Location Parameter Optimization

FIELD	MAE	ξ
OKSIR	0.03871	143
AllrCoug	0.03058	54
CRO	0.02944	49
Hansen	0.02698	149
HoskGibOth	0.03487	110
Royal	0.02881	138
ValKoe	0.03665	82
fiveEa	0.02182	57

AllrCoug2019, Hansen2021, Hosk2021, fiveEa2021 excluded for poor data quality (low sample size or late sampling) and/or extremely non-JSB distributed data for the purposes of correct biofix optimization.

- lower than 2.5 cumulative captures per trap

OKSIR REGION A

YEAR	MAE	EFFICACY
1997	0.01952	0.01467
1998	0.01832	0.02724
2000	0.04976	0.00935
2001	0.02964	0.03022
2002	0.02145	0.03515
2004	0.04197	0.01724
2005	0.04408	0.00641
2007	0.02405	0.00776
2008	0.02483	0.01503
2009	0.03185	0.00599
2010	0.05408	0.03139
2011	0.06076	0.00924
2012	0.0642	0.00611
2013	0.05034	0.00598
2015	0.04573	0.03731

4-YEAR FIELDS

FIELD/YEAR	MEAN ABSOLUTE ERROR	NET EFFICACY
AllrCoug/2018	0.03263	0.04794
AllrCoug/2019*	0.09279	0.09057
AllrCoug/2020*	0.02418	0.01157
AllrCoug/2021*	0.05873	0.00841
CRO/2018	0.03001	0.00661
CRO/2019	0.07531	0.02509
CRO/2020	0.08423	0.06542
CRO/2021	0.03243	0.00722
Hansen/2018	0.06438	0.01297
Hansen/2019	0.03982	0.01469
Hansen/2020	0.02279	0.00722
Hansen/2021*	0.19198	0.01008
HoskGibOth/2018	0.06422	0.00642
HoskGibOth/2019	0.03428	0.00649
HoskGibOth/2020*	0.02800	0.06981
HoskGibOth/2021*	0.18456	0.00914
Royal/2018	0.04085	0.01270
Royal/2019	0.05525	0.01230
Royal/2020	0.03982	0.02344
Royal/2021	0.03126	0.01486
ValKoe/2018	0.04427	0.00630
ValKoe/2019	0.05245	0.03432
ValKoe/2020*	0.02771	0.00698
ValKoe/2021*	0.05720	0.06401
fiveEa/2018	0.03624	0.00541
fiveEa/2019	0.03007	0.00592
fiveEa/2020	0.08703	0.00654
fiveEa/2021	0.04628	0.00699

- lower than 2.5 cumulative captures per trap

Summaries

	UNADJUSTED	ADJUSTED	LOCATION OPTIMIZED
MAE	0.22121	0.056783	0.050915

Parameter tables

δ-efficacy function

p_4	p_3	p_2	p_1	p_0
202079171.5	7736313.0	-34506.4	437.6	0.713

q_4	q_3	q_2	q_1
168914955.9	4317538.2	-1402.0	64.43

γ-efficacy function

p_4	p_3	p_2	p_1	p_0
126265465.6	736221.9	13332.3	334.65	1.698

q_4	q_3	q_2	q_1
120413098.3	-924004.6	65919.7	-317.1

λ-efficacy function

b_4	b_3	b_2	b_1	b_0
0.0011045	0.0022809	35.110340	1.1493792	0.4411979

Density analysis

Field	Count	Area (ha)	Density
AllrCoug/2018	64	225.56	0.283
AllrCoug/2019	67	226.20	0.296
AllrCoug/2020	102	219.51	0.464
AllrCoug/2021	58	221.96	0.261
CRO/2018	265	772.40	0.343
CRO/2019	270	772.42	0.349
CRO/2020	212	703.12	0.301
CRO/2021	185	657.85	0.281
Hansen/2018	95	163.49	0.581
Hansen/2019	80	163.18	0.490
Hansen/2020	75	160.12	0.468
Hansen/2021	76	162.11	0.468
HoskGibOth/2018	118	303.86	0.388
HoskGibOth/2019	138	305.73	0.451
HoskGibOth/2020	72	288.73	0.249
HoskGibOth/2021	73	285.52	0.255
Royal/2018	204	611.93	0.333
Royal/2019	150	611.44	0.245
Royal/2020	149	602.49	0.247
Royal/2021	145	578.74	0.250
ValKoe/2018	86	229.14	0.375
ValKoe/2019	47	229.04	0.205
ValKoe/2020	55	279.43	0.196
ValKoe/2021	57	278.96	0.204
fiveEa/2018	48	90.89	0.528
fiveEa/2019	30	89.33	0.335
fiveEa/2020	30	88.75	0.338
fiveEa/2021	17	67.856	0.250