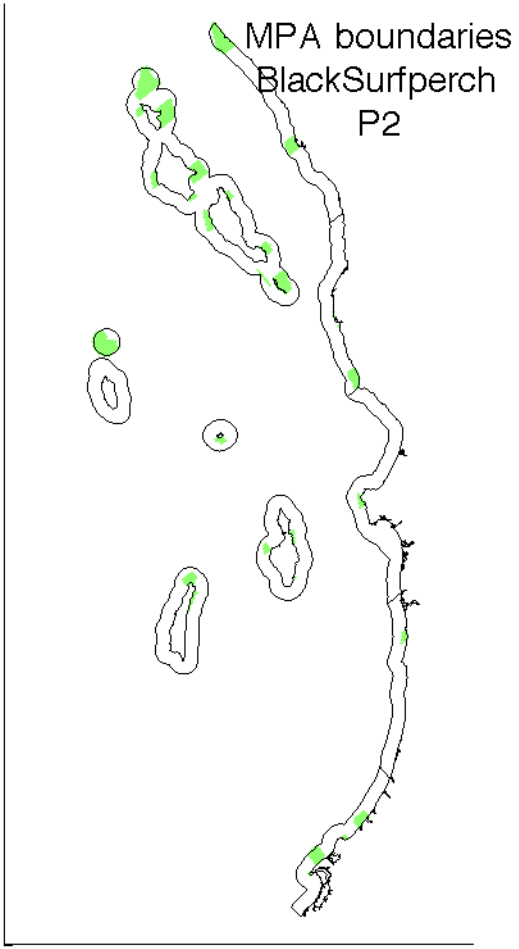
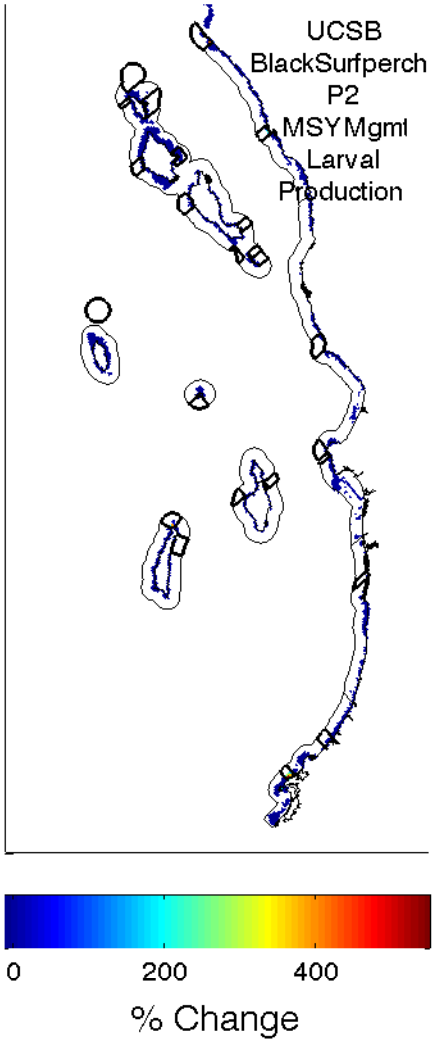
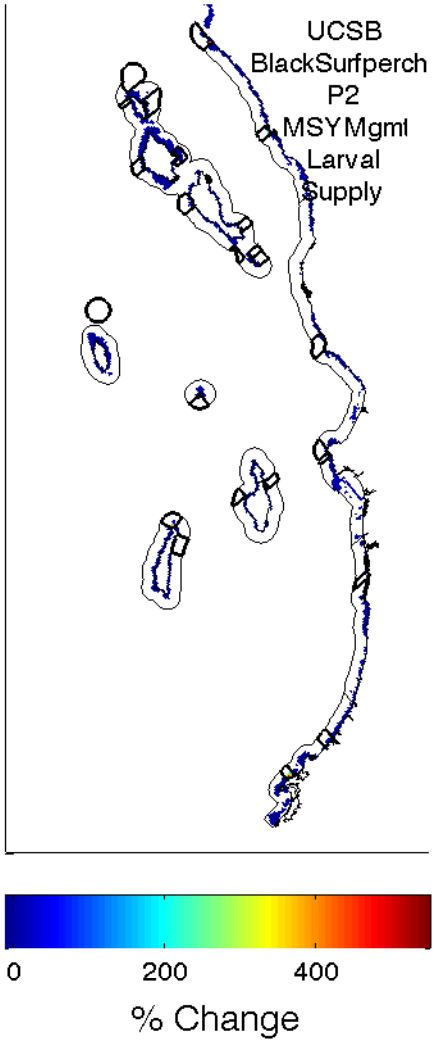
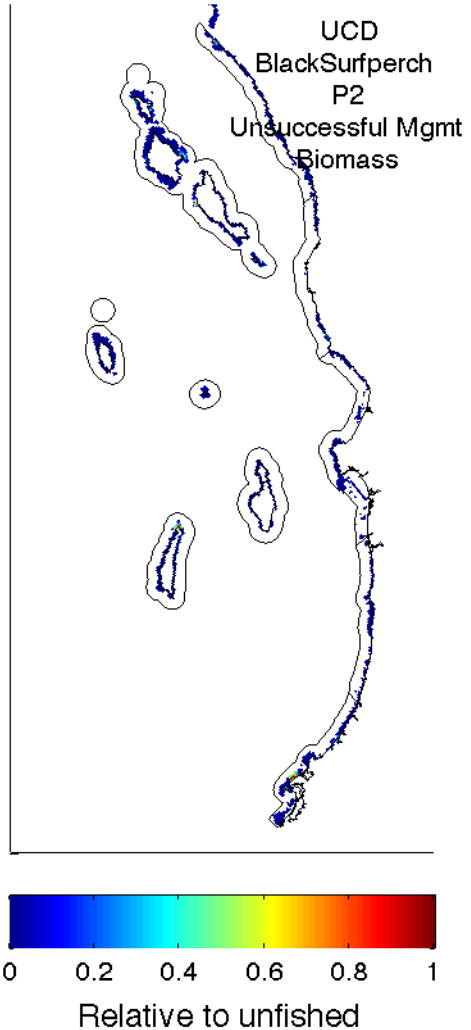
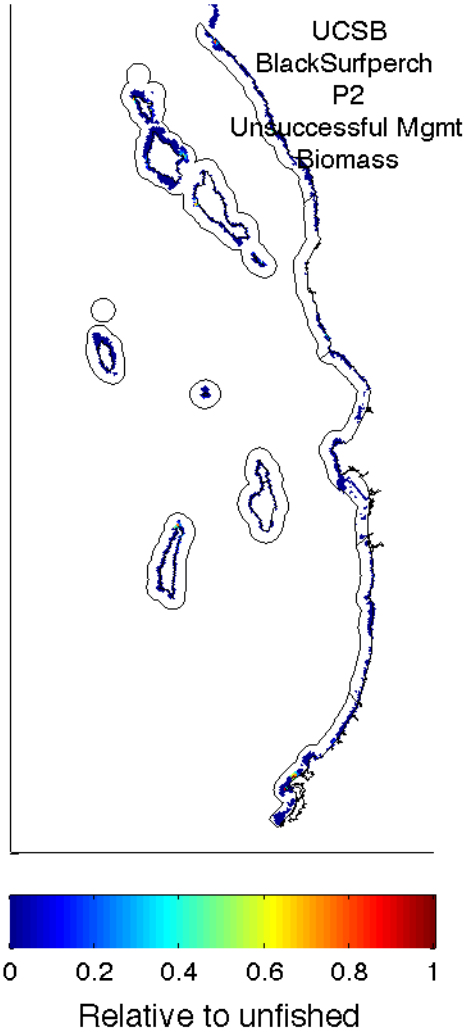
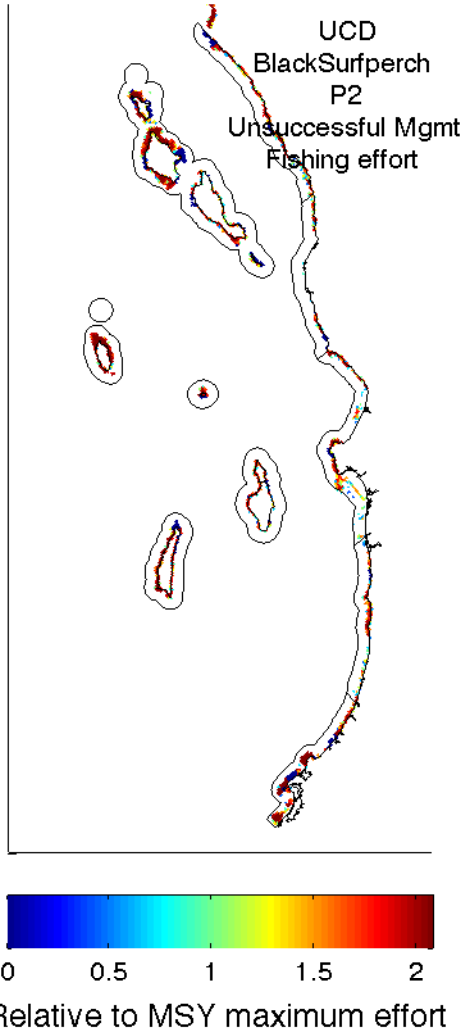

MPA boundaries
BlackSurfperch
P2

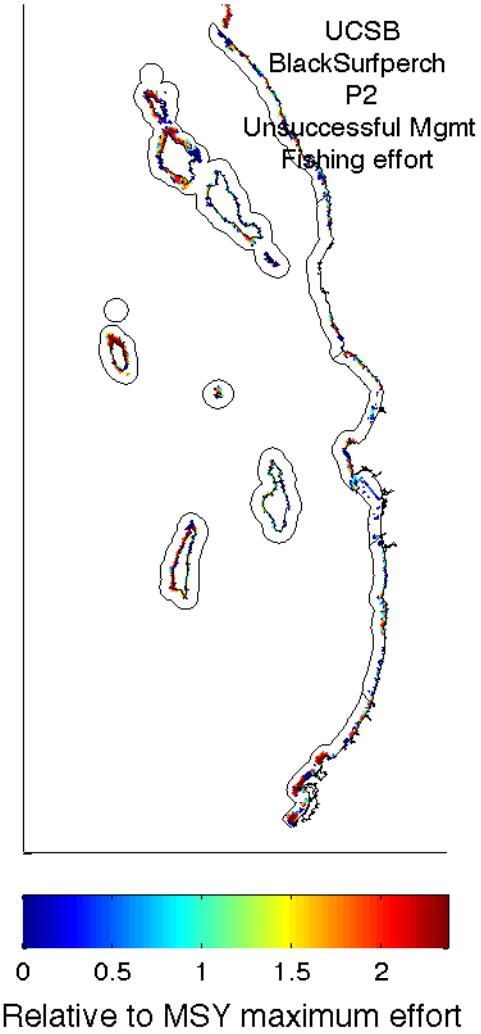

UCSB
BlackSurfperch
P2
MSYMgmt
Larval
Production
0
200
400
% Change

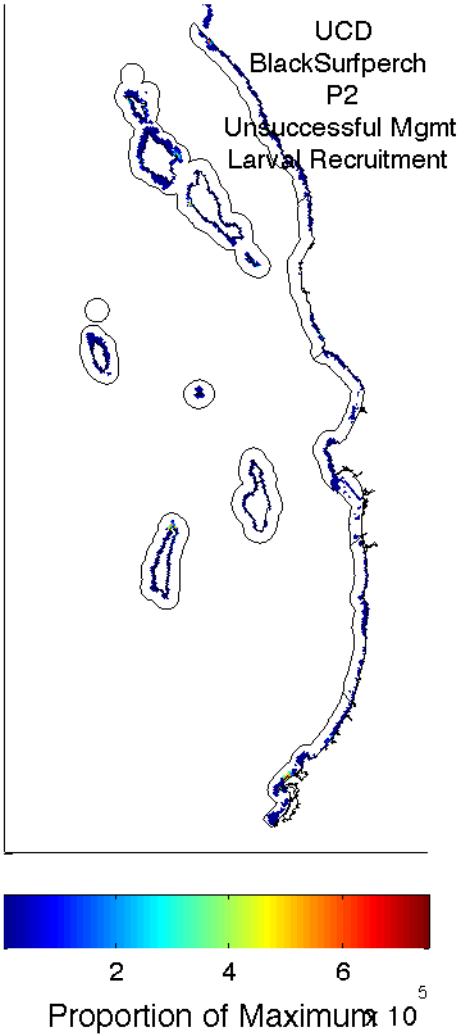

UCSB
BlackSurfperch
P2
MSYMgmt
Larval
Supply
0
200
400
% Change

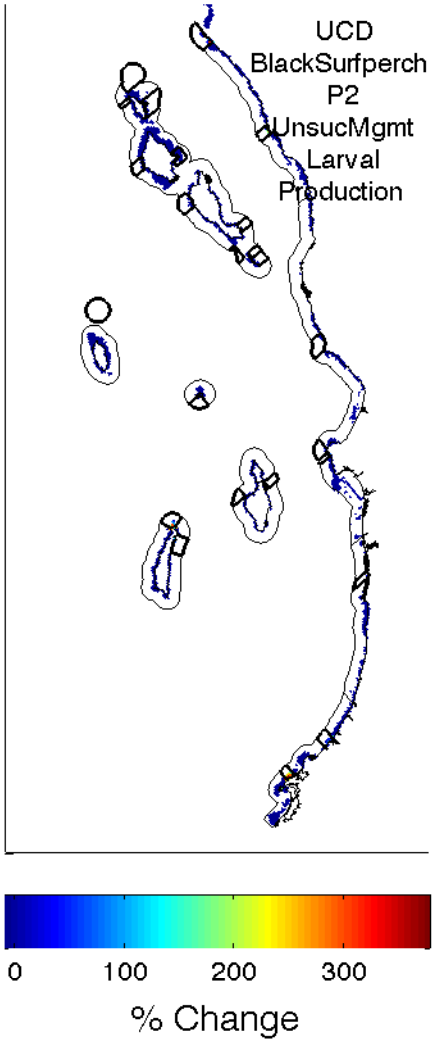

UCD
BlackSurfperch
P2
Unsuccessful Mgmt
Biomass
0
0.2
0.4
0.6
0.8
1
Relative to unfished

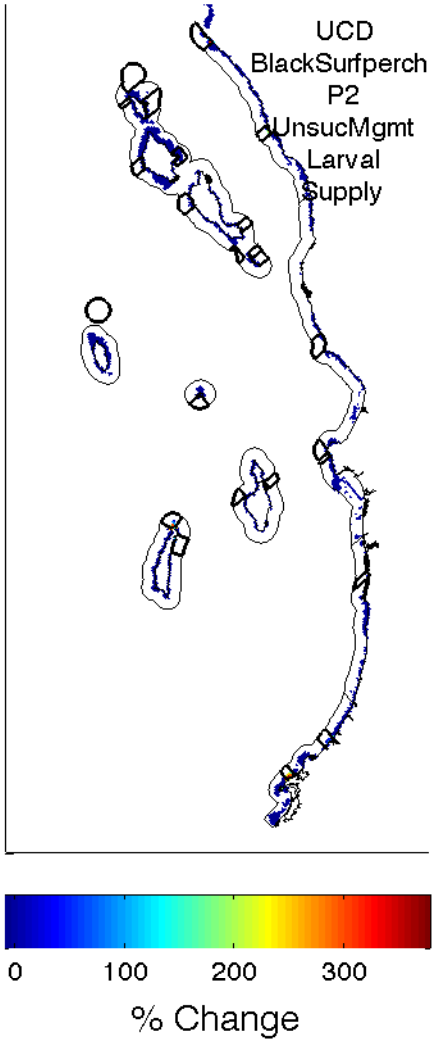

UCSB
BlackSurfperch
P2
Unsuccessful Mgmt
Biomass
0
0.2
0.4
0.6
0.8
1
Relative to unfished

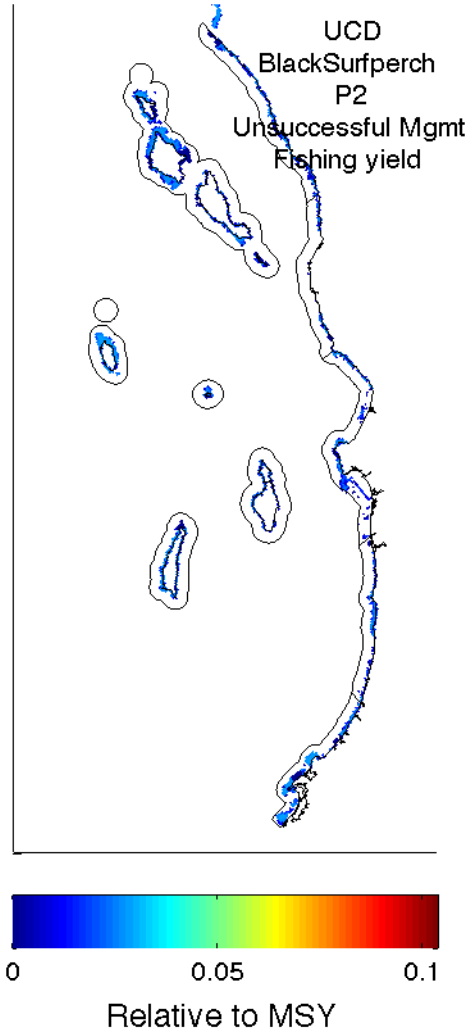

UCD
BlackSurfperch
P2
Unsuccessful Mgmt
Fishing effort
0
0.5
1
1.5
2
Relative to MSY maximum effort

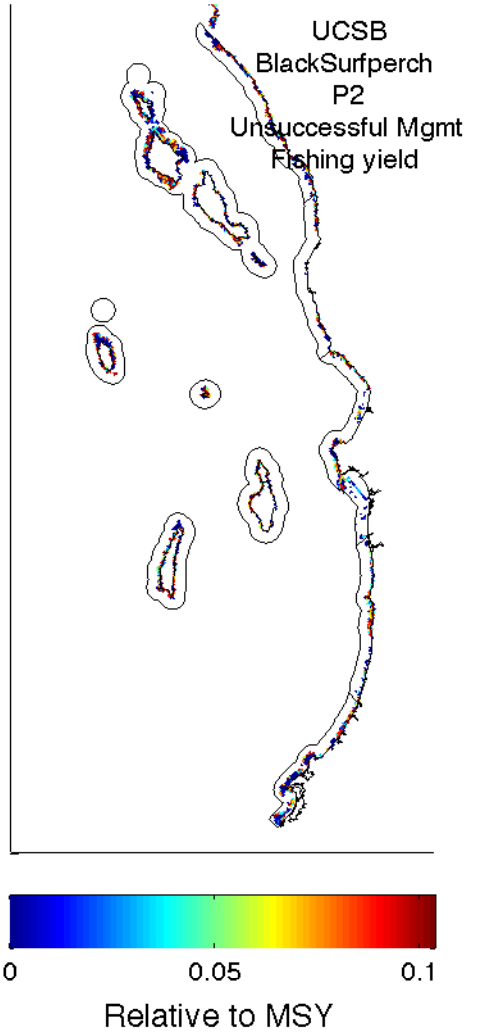

UCSB
BlackSurfperch
P2
Unsuccessful Mgmt
Fishing effort
0
0.5
1
1.5
2
Relative to MSY maximum effort

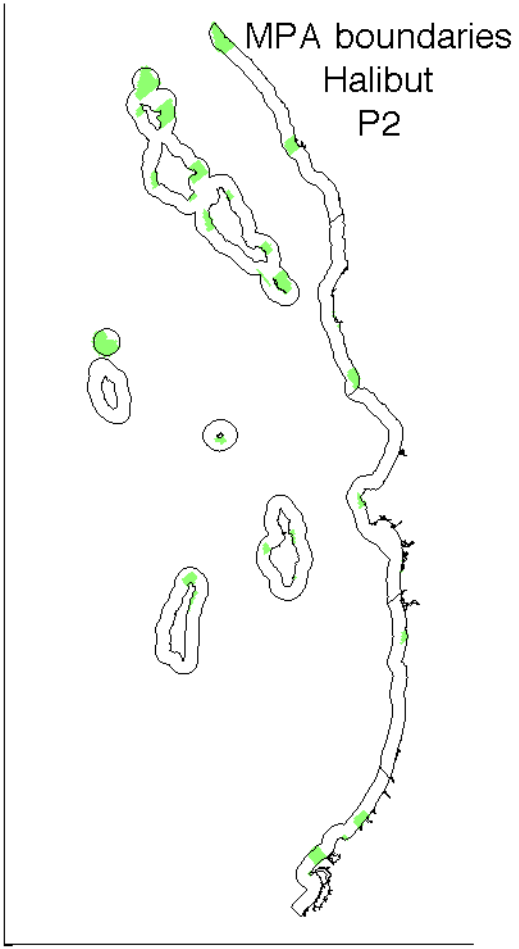

UCD
BlackSurfperch
P2
Unsuccessful Mgmt
Larval Recruitment
2
4
6
Proportion of Maximum
x 10^5

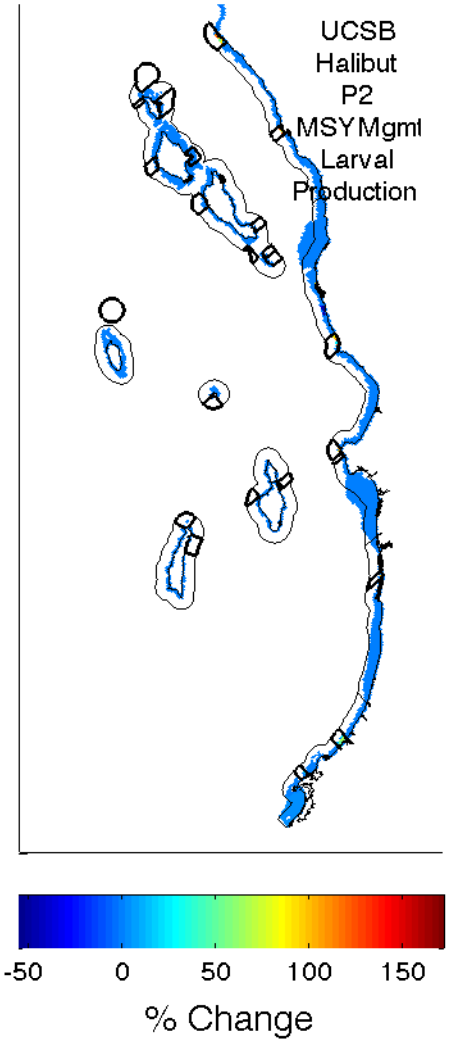

UCD
BlackSurfperch
P2
UnsucMgmt
Larval
Production
0
100
200
300
% Change

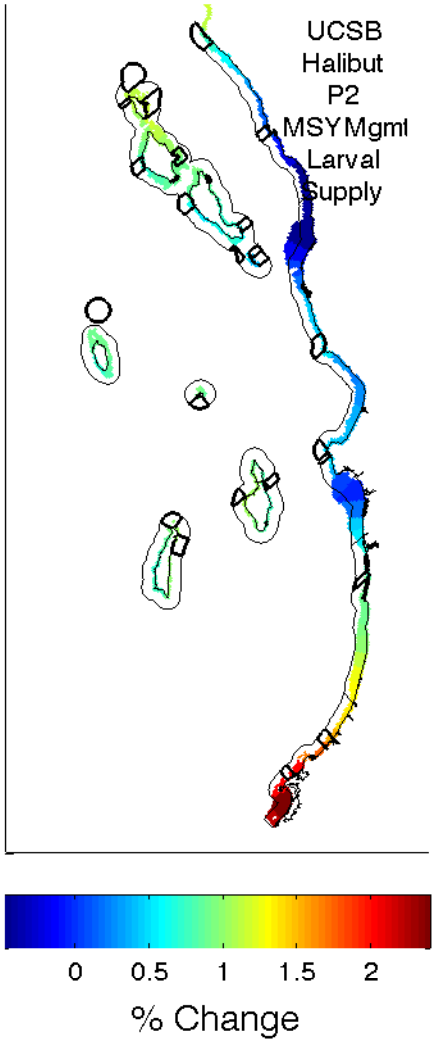

UCD
BlackSurfperch
P2
UnsucMgmt
Larval
Supply
0
100
200
300
% Change

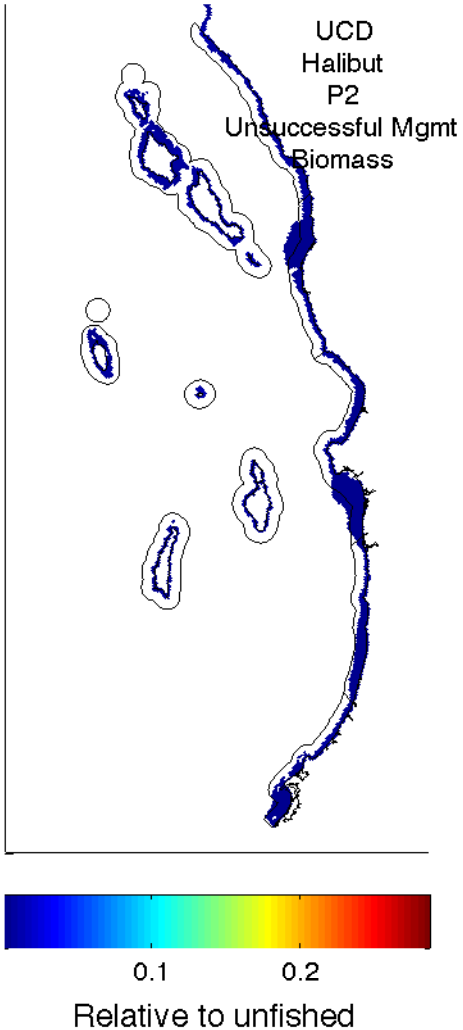

UCD
BlackSurfperch
P2
Unsuccessful Mgmt
Fishing yield
0
0.05
0.1
Relative to MSY

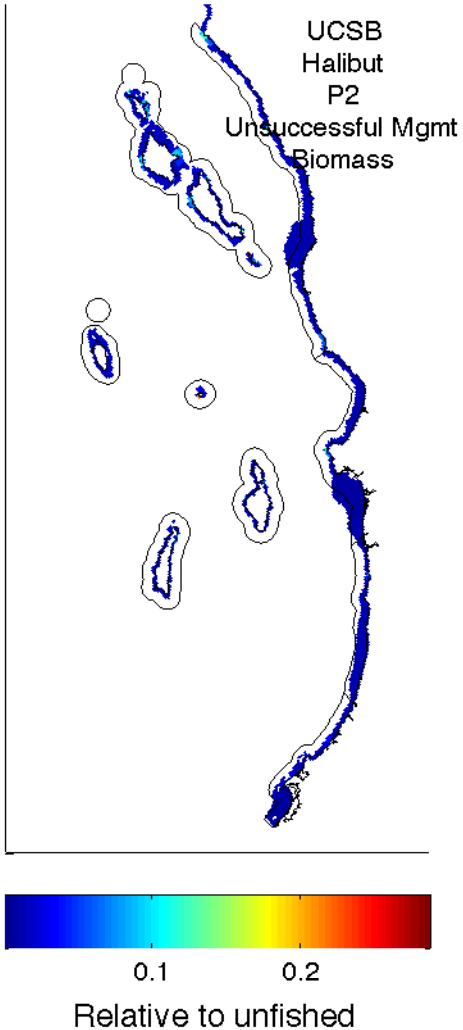

UCSB
BlackSurfperch
P2
Unsuccessful Mgmt
Fishing yield
0
0.05
0.1
Relative to MSY

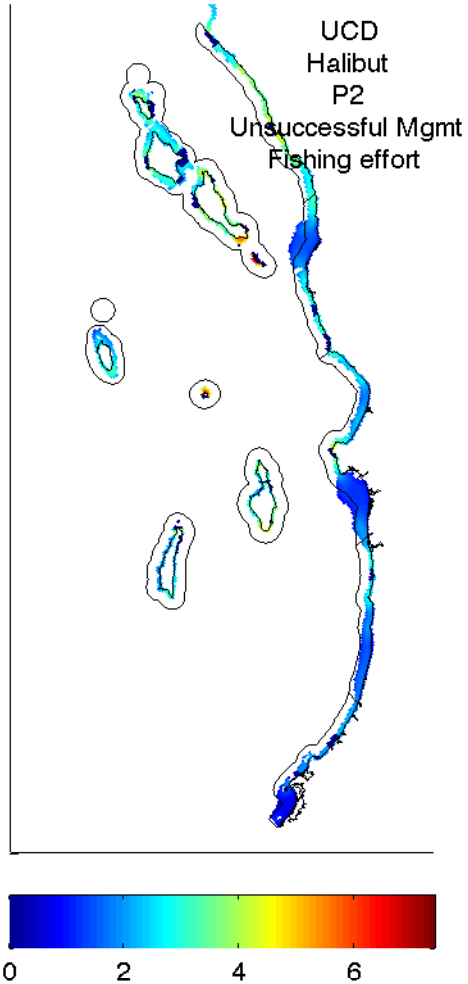

MPA boundaries
Halibut
P2


UCSB
Halibut
P2
MSYMgmt
Larval
Production
-50
0
50
100
150
% Change

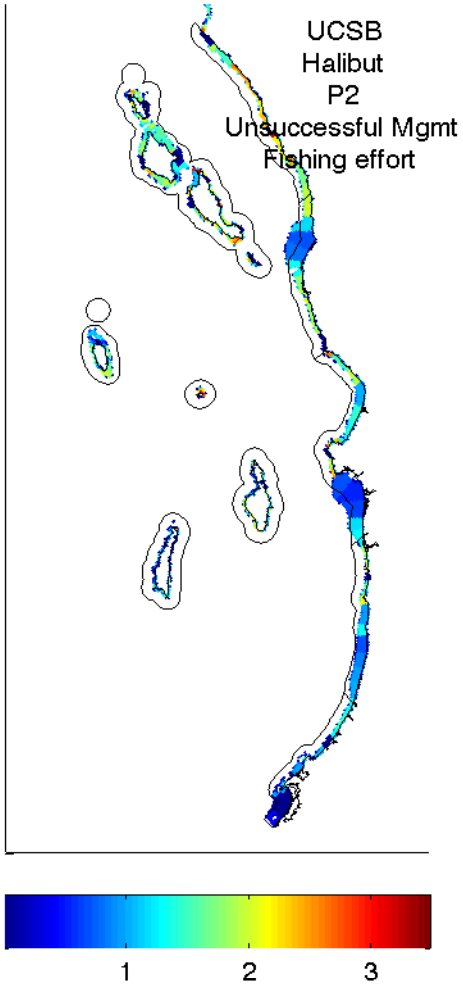

UCSB
Halibut
P2
MSYMgmt
Larval
Supply
0
0.5
1
1.5
2
% Change


UCD
Halibut
P2
Unsuccessful Mgmt
Biomass
0.1
0.2
Relative to unfished

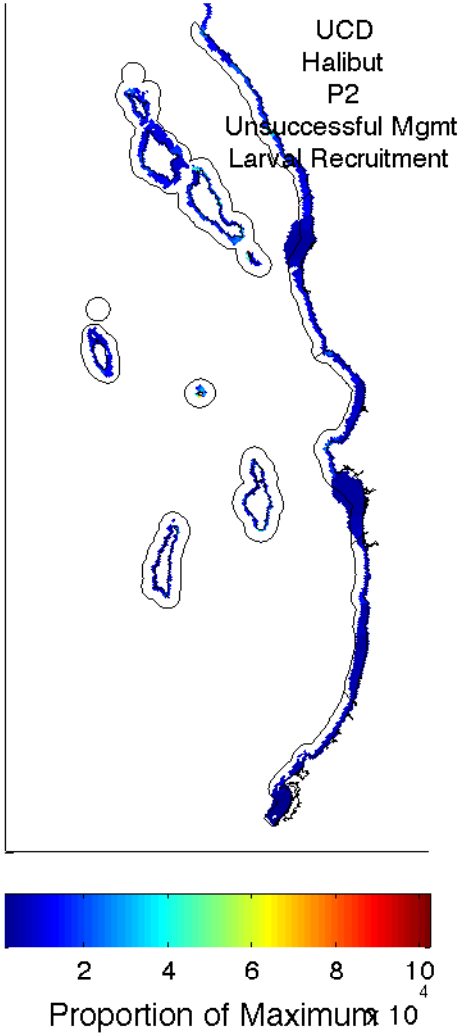

UCSB
Halibut
P2
Unsuccessful Mgmt
Biomass
0.1
0.2
Relative to unfished

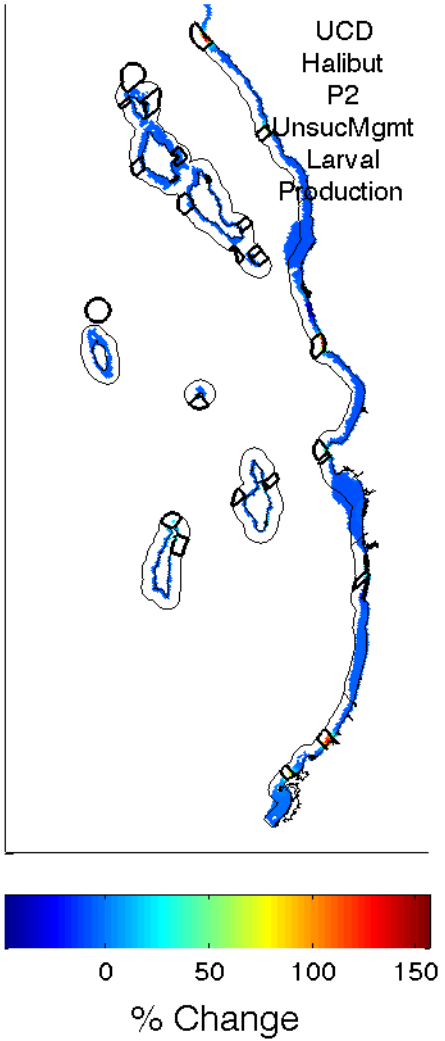


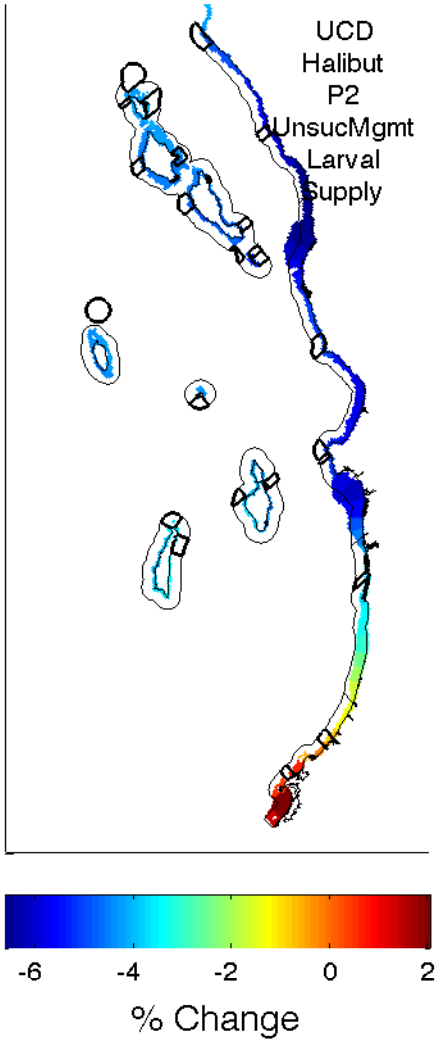
Relative to MSY maximum effort

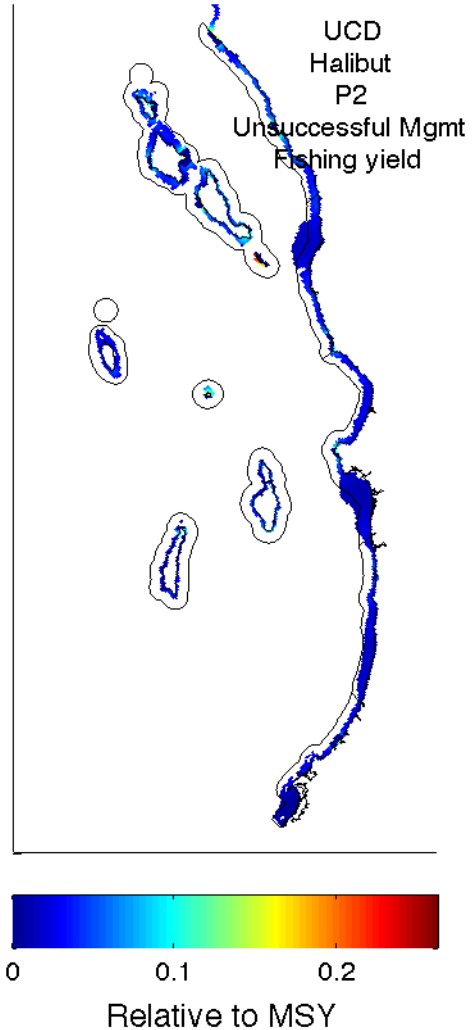


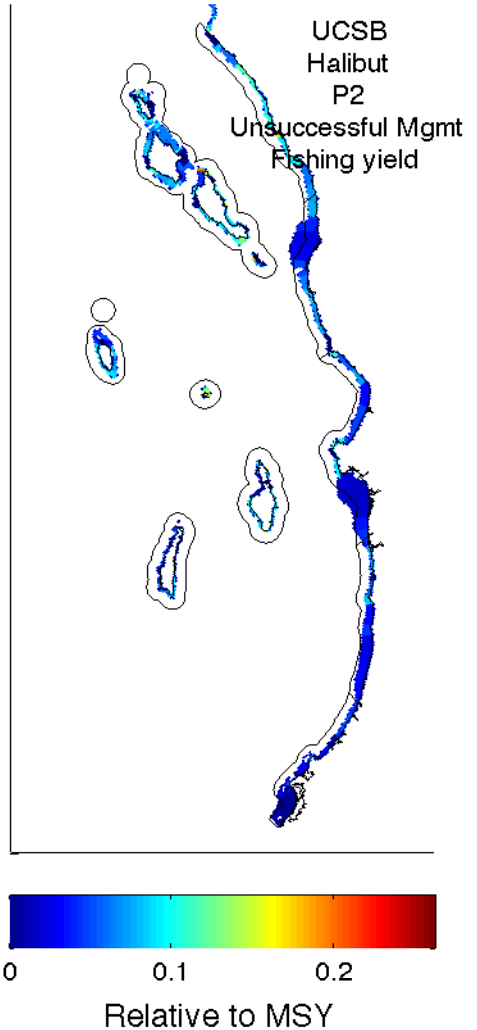
Relative to MSY maximum effort

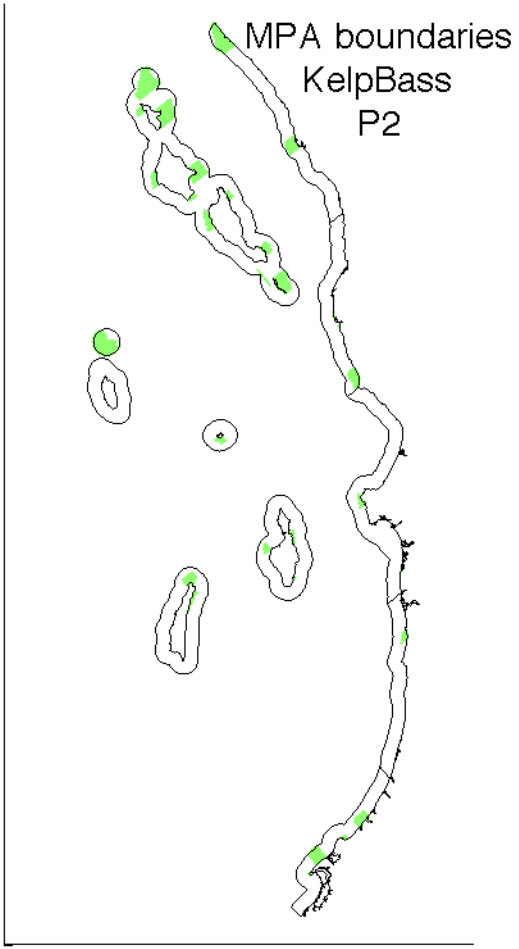

UCD
Halibut
P2
Unsuccessful Mgmt
Larval Recruitment
2
4
6
8
10
Proportion of Maximum
x 10^4

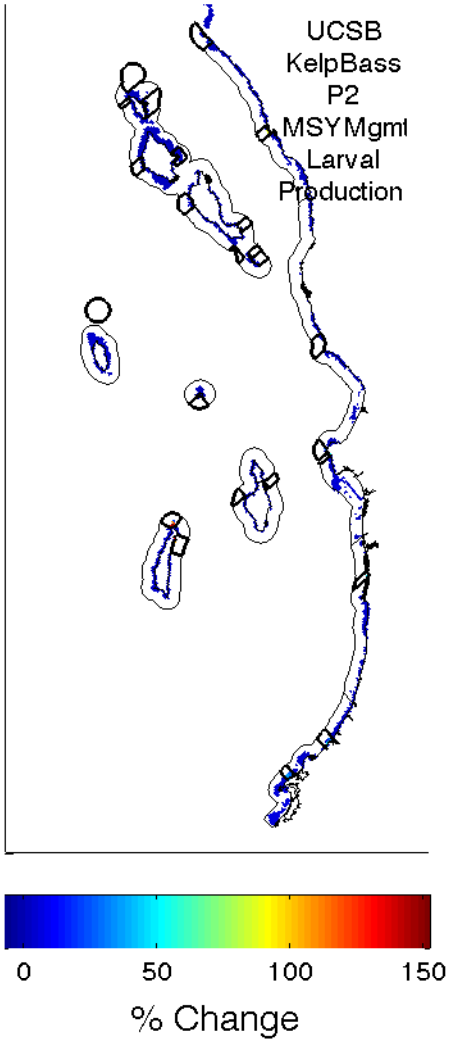

UCD
Halibut
P2
UnsucMgmt
Larval
Production
0
50
100
150
% Change

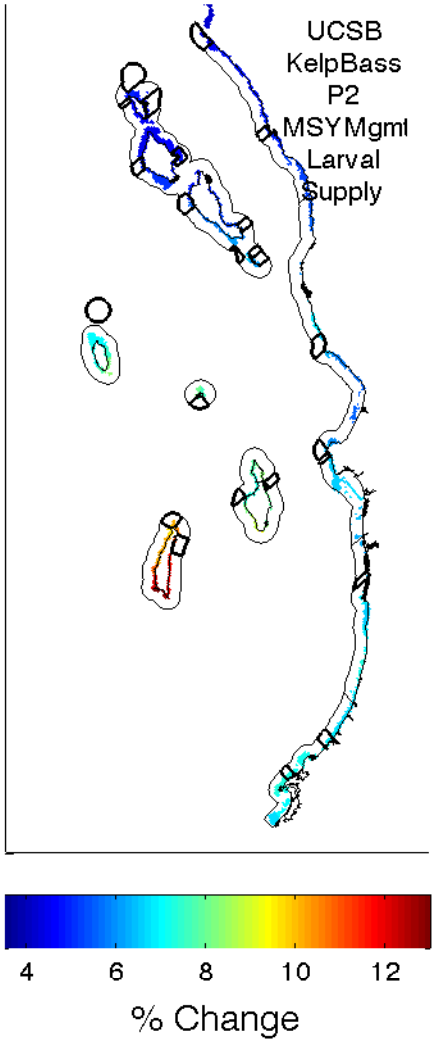

UCD
Halibut
P2
UnsucMgmt
Larval
Supply
-6
-4
-2
0
2
% Change

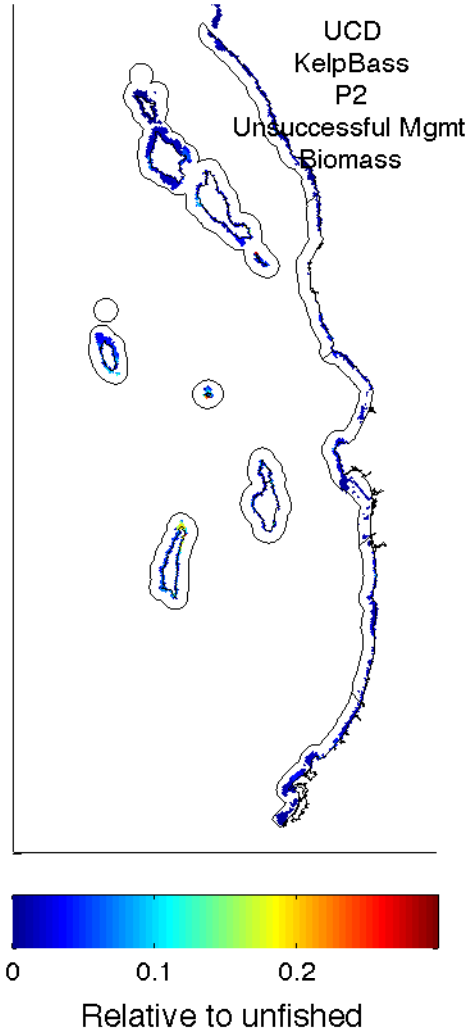

UCD
Halibut
P2
Unsuccessful Mgmt
Fishing yield
0
0.1
0.2
Relative to MSY

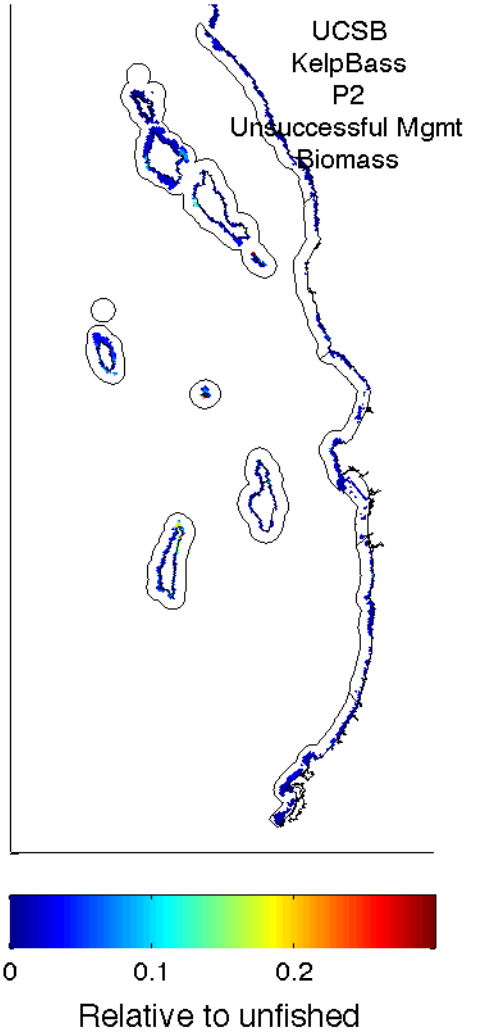

UCSB
Halibut
P2
Unsuccessful Mgmt
Fishing yield
0
0.1
0.2
Relative to MSY

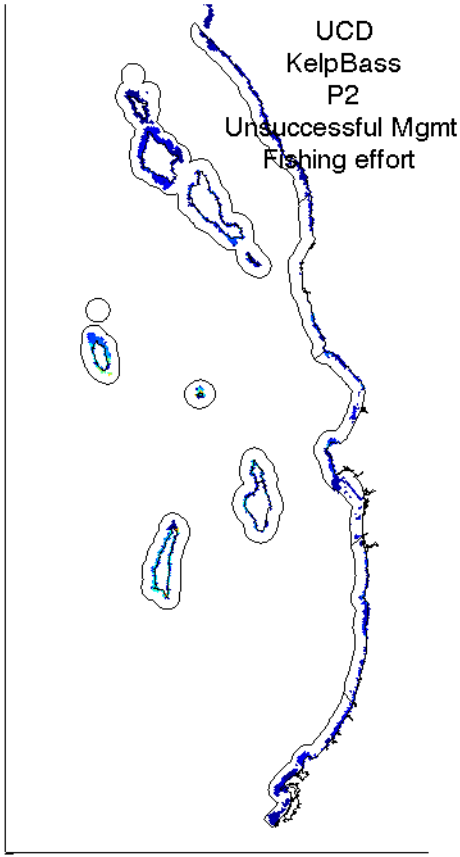

MPA boundaries
KelpBass
P2

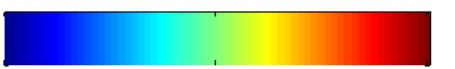

UCSB
KelpBass
P2
MSYMgmt
Larval
Production
0
50
100
150
% Change


UCSB
KelpBass
P2
MSYMgmt
Larval
Supply
4
6
8
10
12
% Change

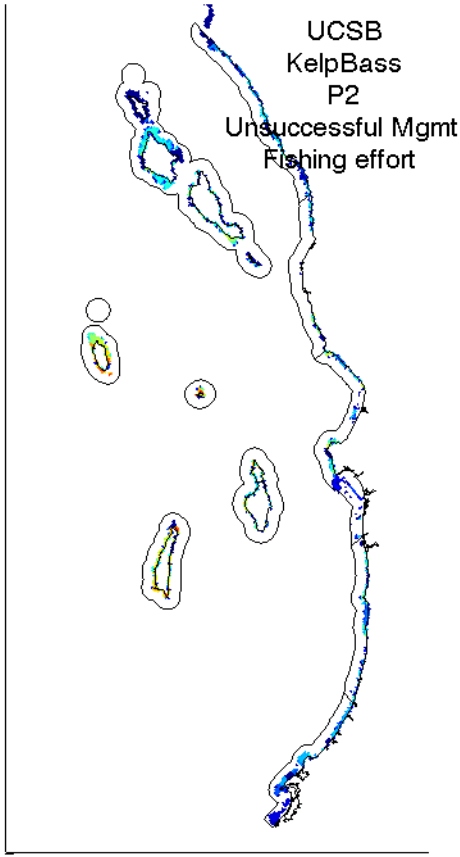

UCD
KelpBass
P2
Unsuccessful Mgmt
Biomass
0
0.1
0.2
Relative to unfished

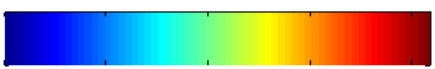

UCSB
KelpBass
P2
Unsuccessful Mgmt
Biomass
0
0.1
0.2
Relative to unfished



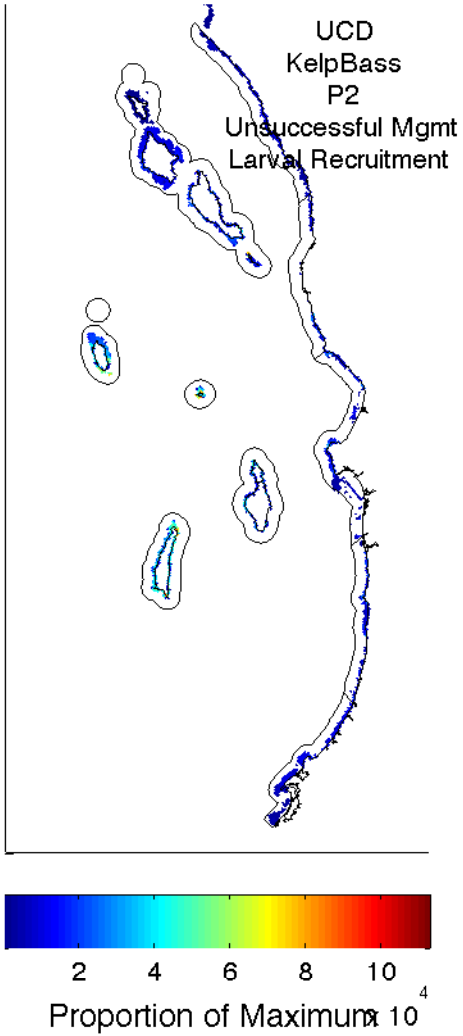


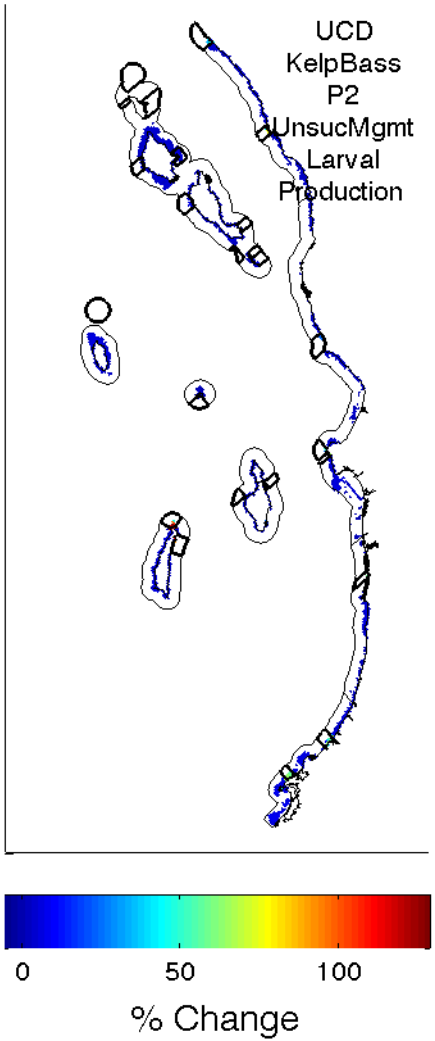
Relative to MSY maximum effort

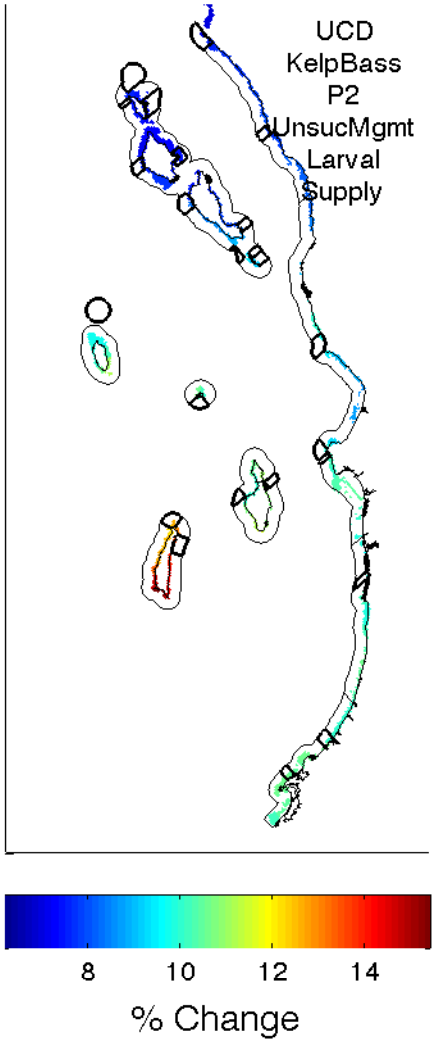


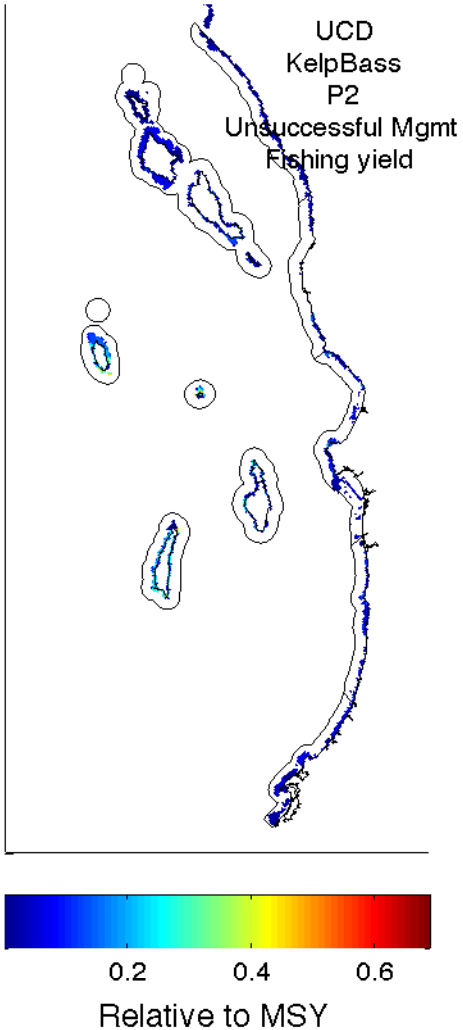


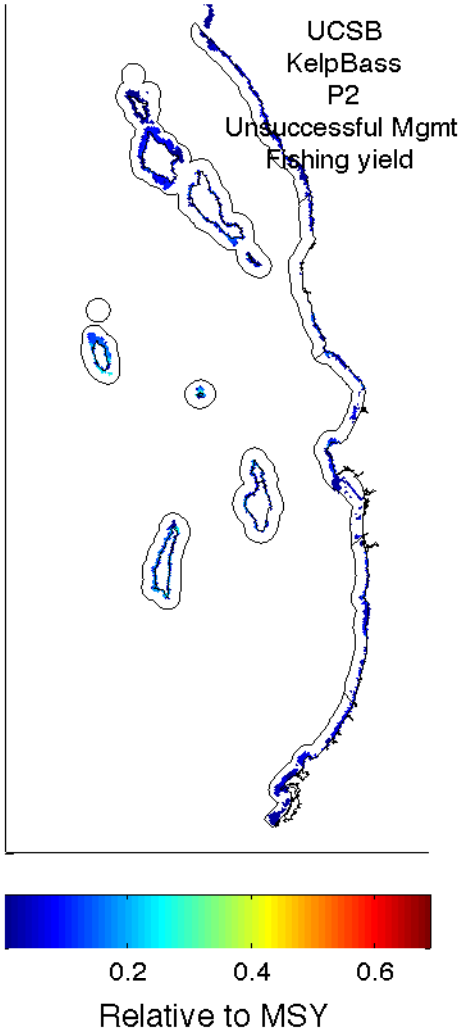
Relative to MSY maximum effort

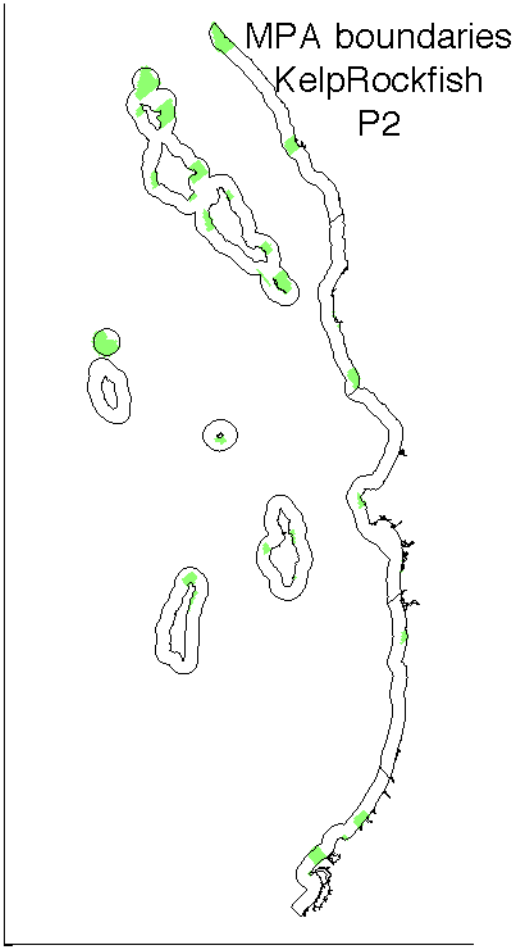

UCD
KelpBass
P2
Unsuccessful Mgmt
Larval Recruitment
2
4
6
8
10
x 10^4
Proportion of Maximum

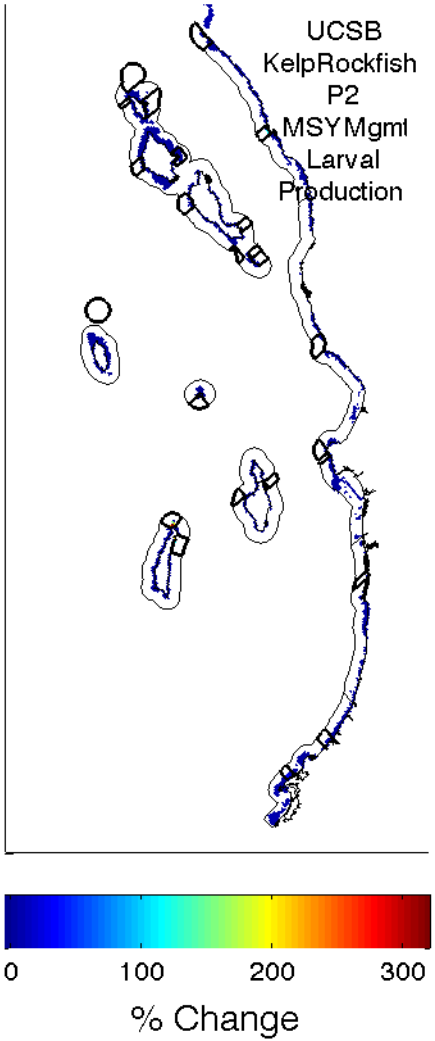

UCD
KelpBass
P2
UnsucMgmt
Larval
Production
0
50
100
% Change

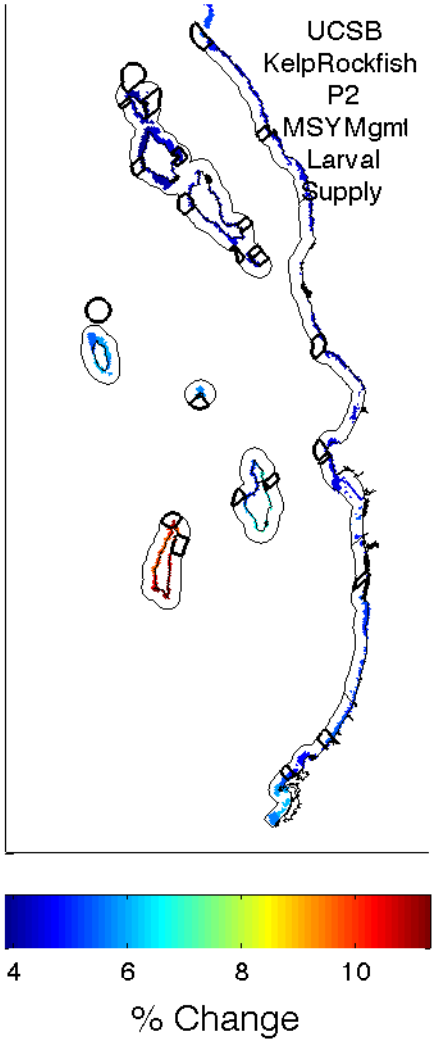

UCD
KelpBass
P2
UnsucMgmt
Larval
Supply
8
10
12
14
% Change

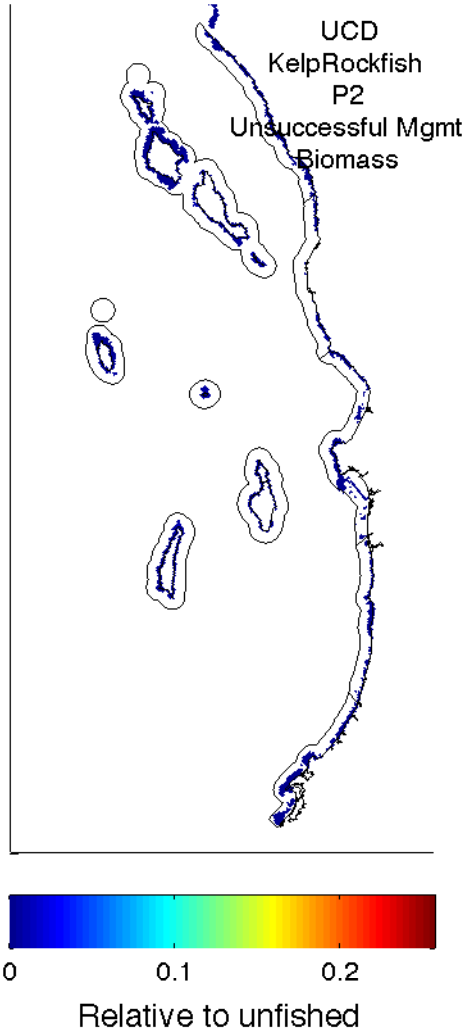

UCD
KelpBass
P2
Unsuccessful Mgmt
Fishing yield
0.2
0.4
0.6
Relative to MSY

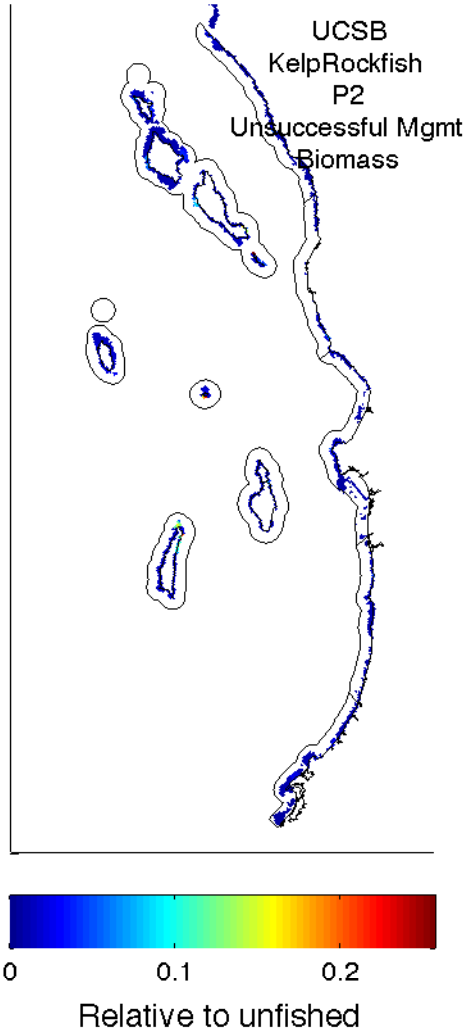

UCSB
KelpBass
P2
Unsuccessful Mgmt
Fishing yield
0.2
0.4
0.6
Relative to MSY

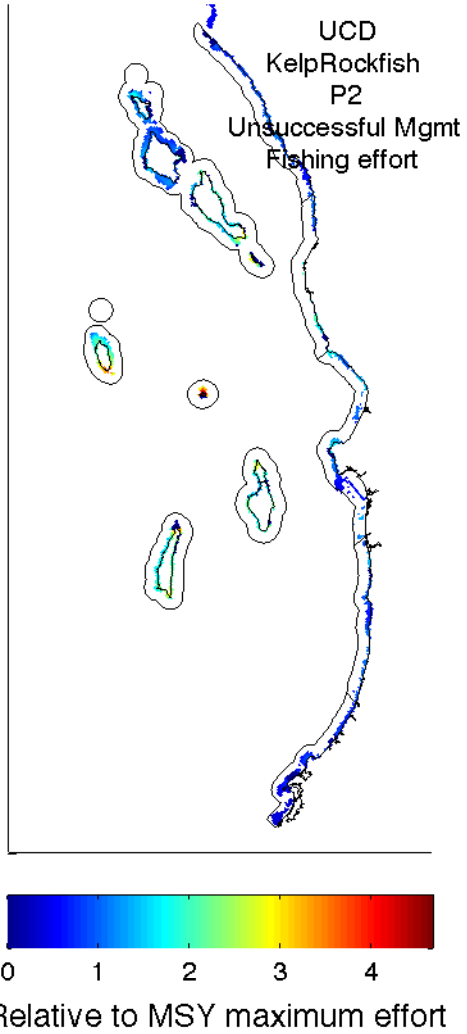

MPA boundaries
KelpRockfish
P2

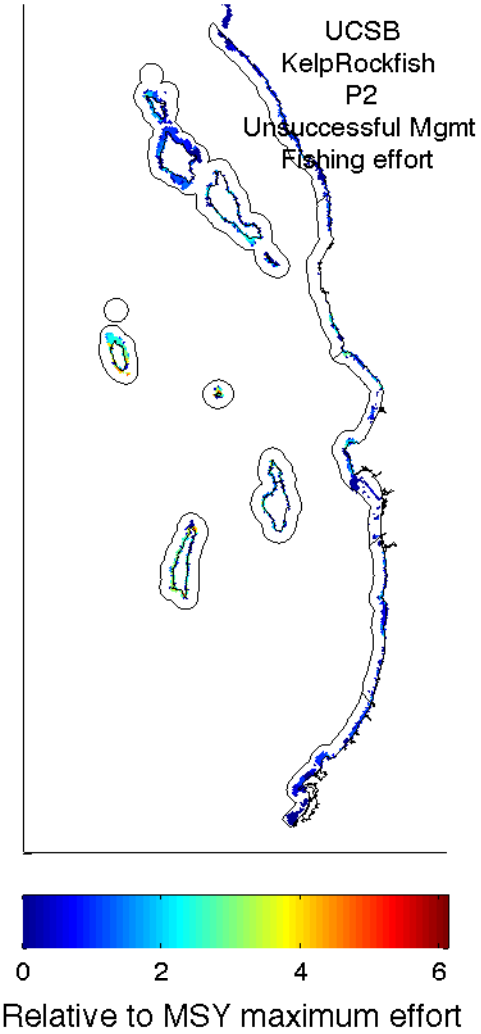

UCSB
KelpRockfish
P2
MSYMgmt
Larval
Production
0
100
200
300
% Change

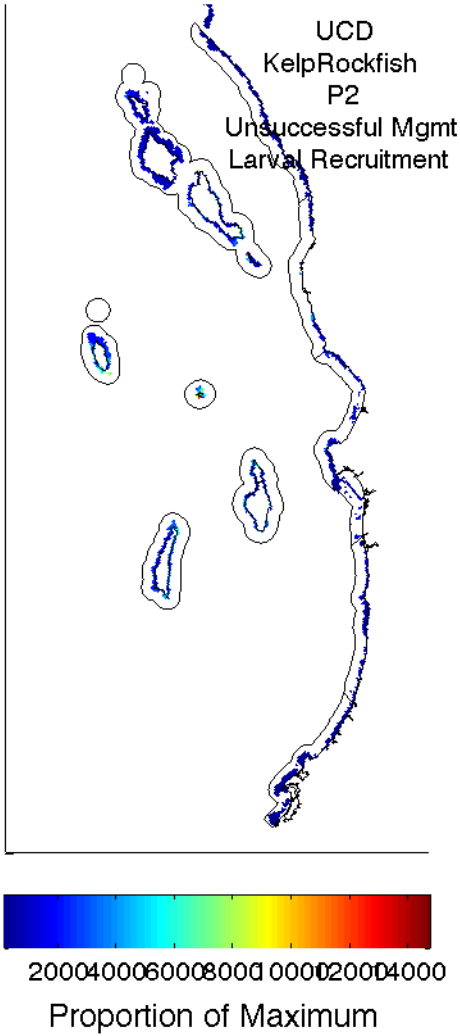

UCSB
KelpRockfish
P2
MSYMgmt
Larval
Supply
4
6
8
10
% Change

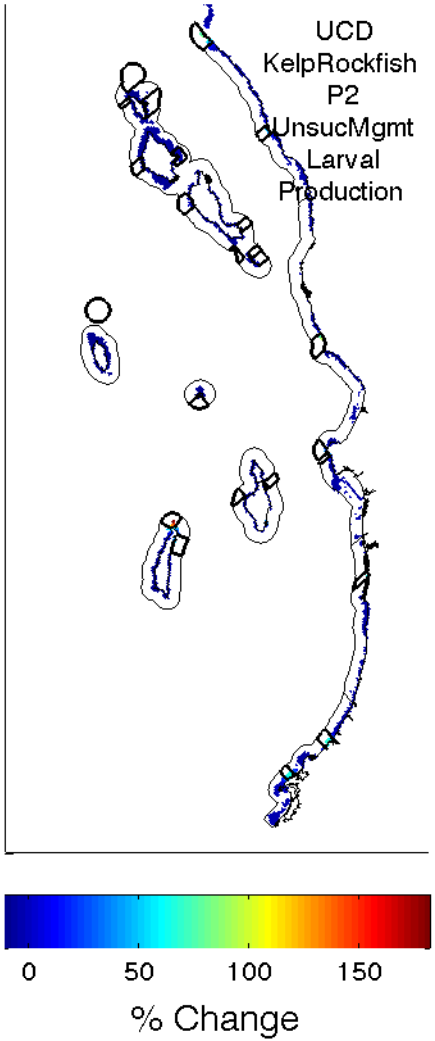

UCD
KelpRockfish
P2
Unsuccessful Mgmt
Biomass
0
0.1
0.2
Relative to unfished

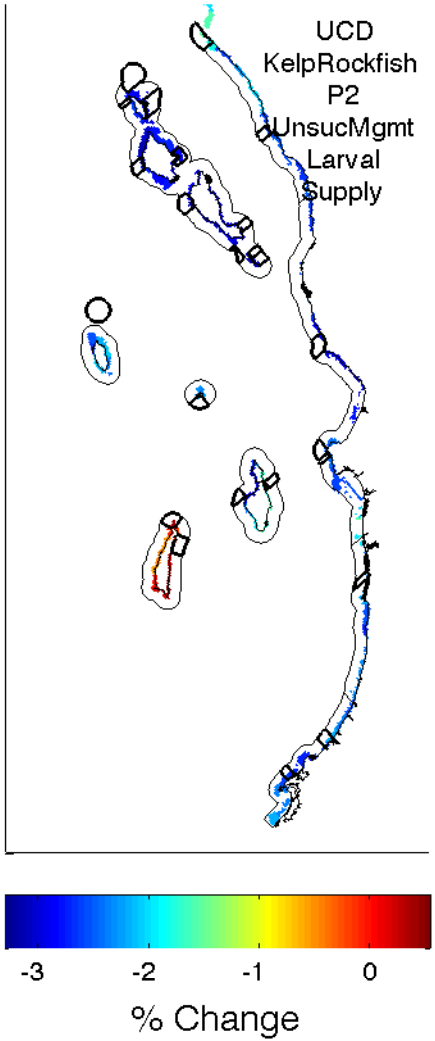

UCSB
KelpRockfish
P2
Unsuccessful Mgmt
Biomass
0
0.1
0.2
Relative to unfished

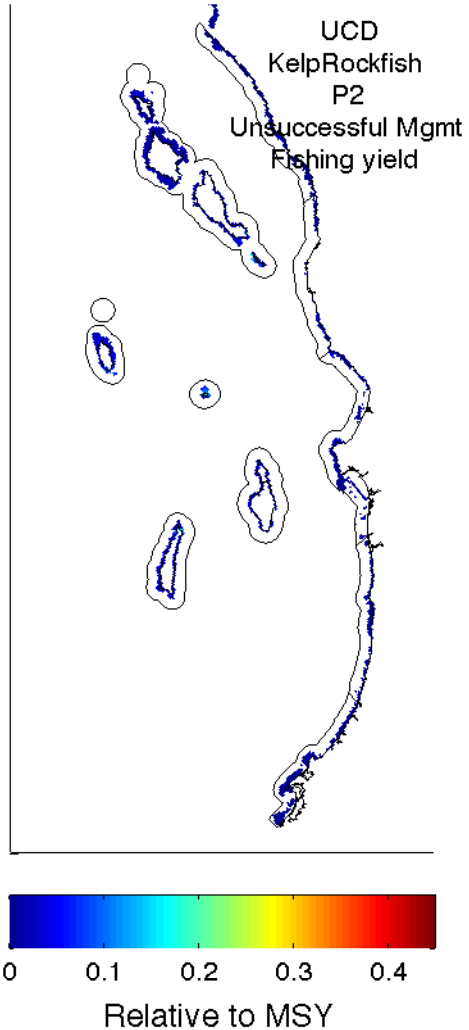

UCD
KelpRockfish
P2
Unsuccessful Mgmt
Fishing effort
0
1
2
3
4
Relative to MSY maximum effort

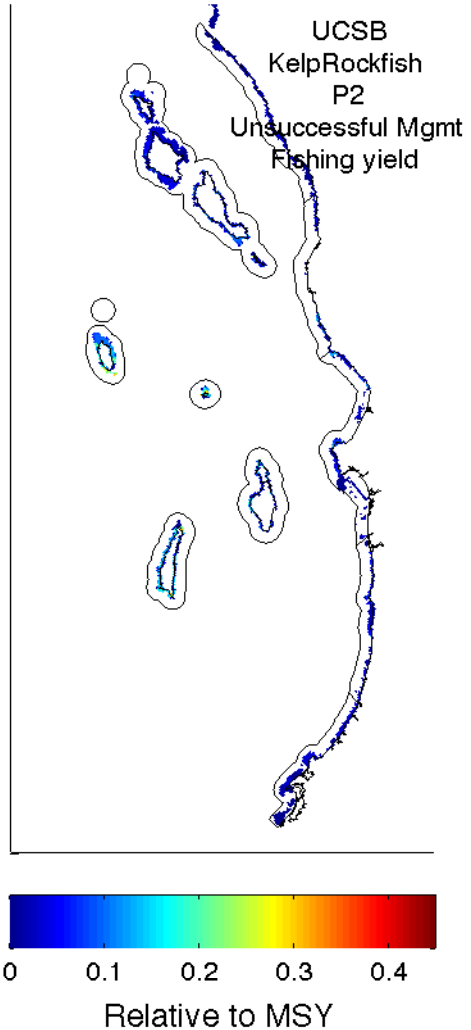

UCSB
KelpRockfish
P2
Unsuccessful Mgmt
Fishing effort
0
2
4
6
Relative to MSY maximum effort

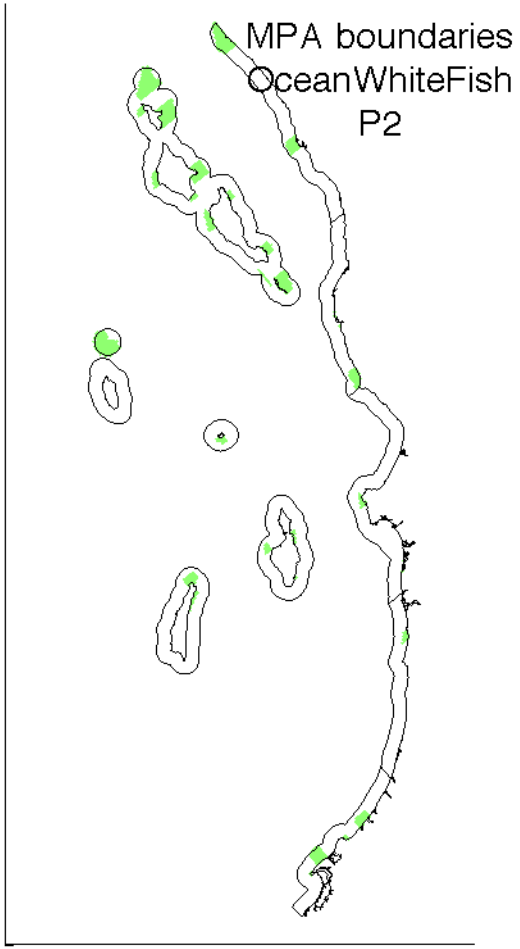

UCD
KelpRockfish
P2
Unsuccessful Mgmt
Larval Recruitment
2000
4000
6000
8000
10000
12000
14000
Proportion of Maximum

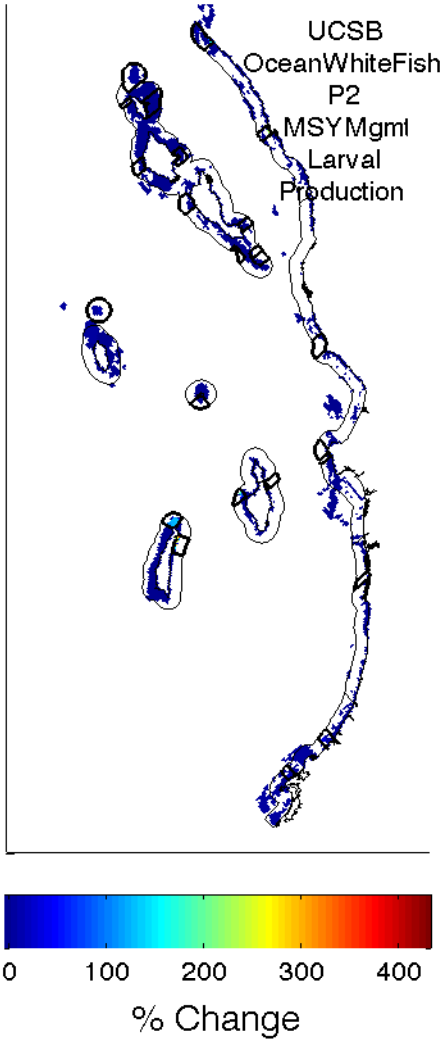

UCD
KelpRockfish
P2
UnsucMgmt
Larval
Production
0
50
100
150
% Change

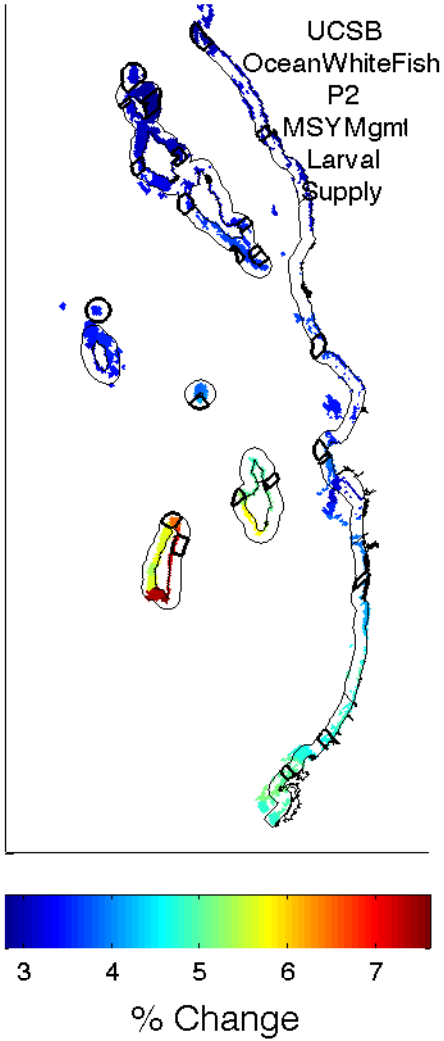

UCD
KelpRockfish
P2
UnsucMgmt
Larval
Supply
-3
-2
-1
0
% Change

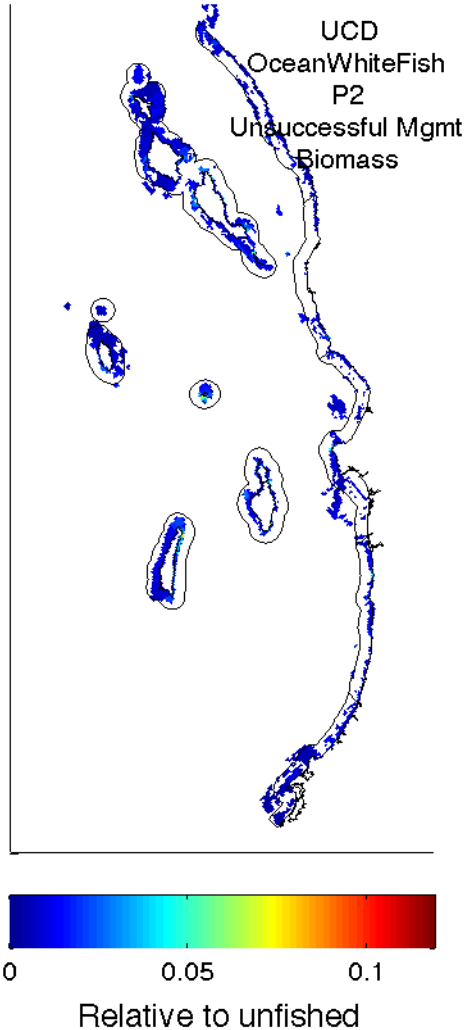

UCD
KelpRockfish
P2
Unsuccessful Mgmt
Fishing yield
0
0.1
0.2
0.3
0.4
Relative to MSY

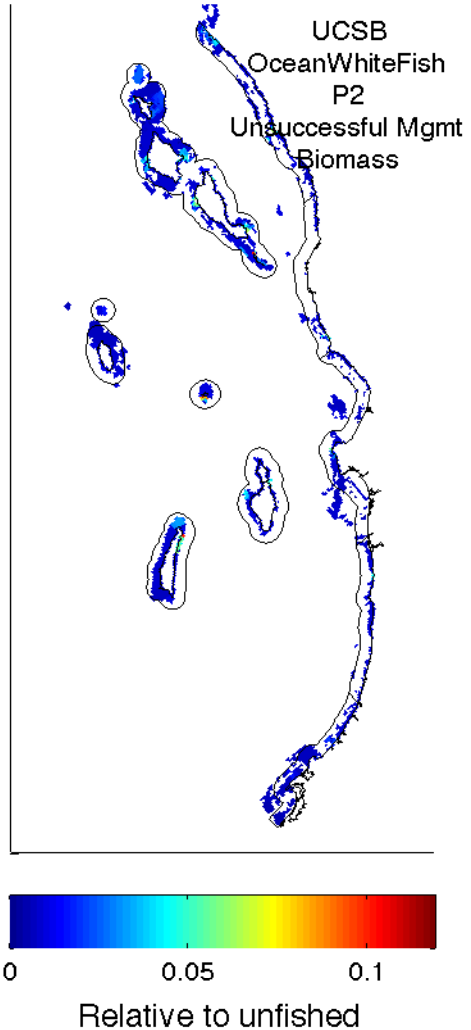

UCSB
KelpRockfish
P2
Unsuccessful Mgmt
Fishing yield
0
0.1
0.2
0.3
0.4
Relative to MSY

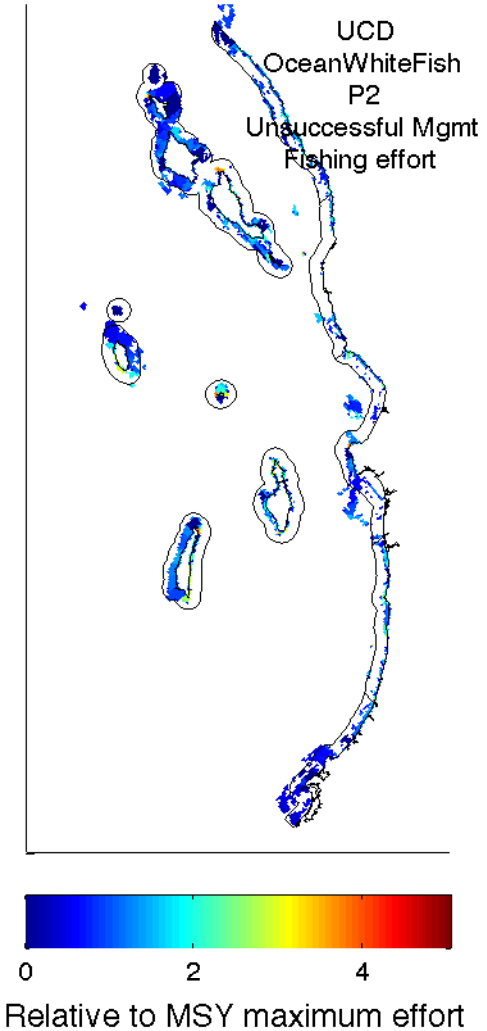

MPA boundaries
OceanWhiteFish
P2

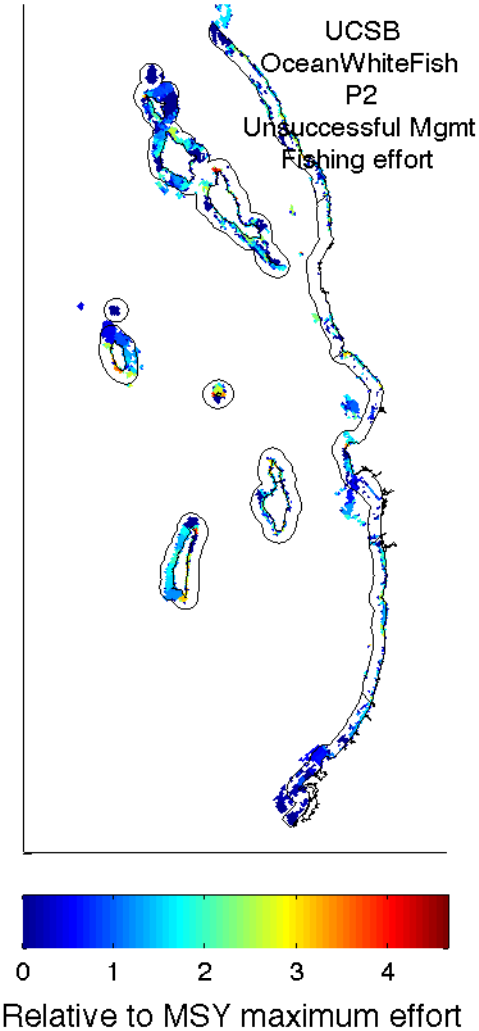

UCSB
OceanWhiteFish
P2
MSYMgmt
Larval
Production
0
100
200
300
400
% Change

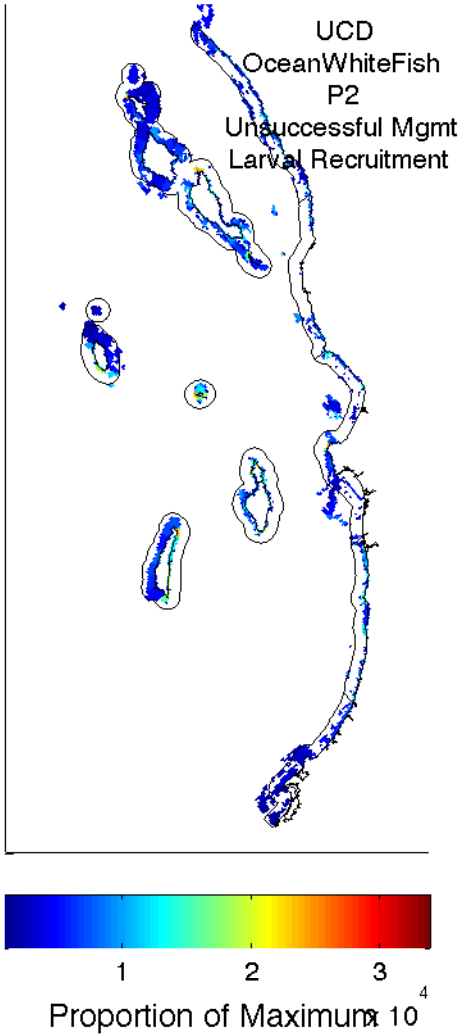

UCSB
OceanWhiteFish
P2
MSYMgmt
Larval
Supply
3
4
5
6
7
% Change

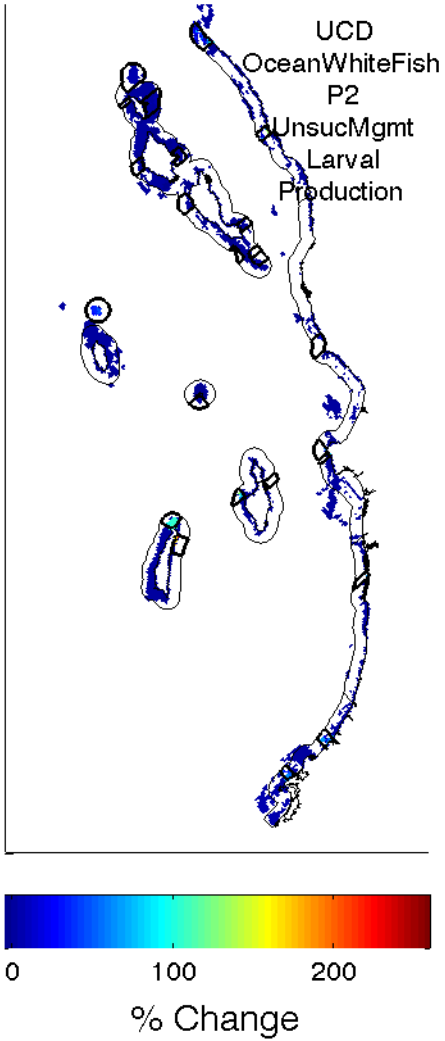

UCD
OceanWhiteFish
P2
Unsuccessful Mgmt
Biomass
0
0.05
0.1
Relative to unfished

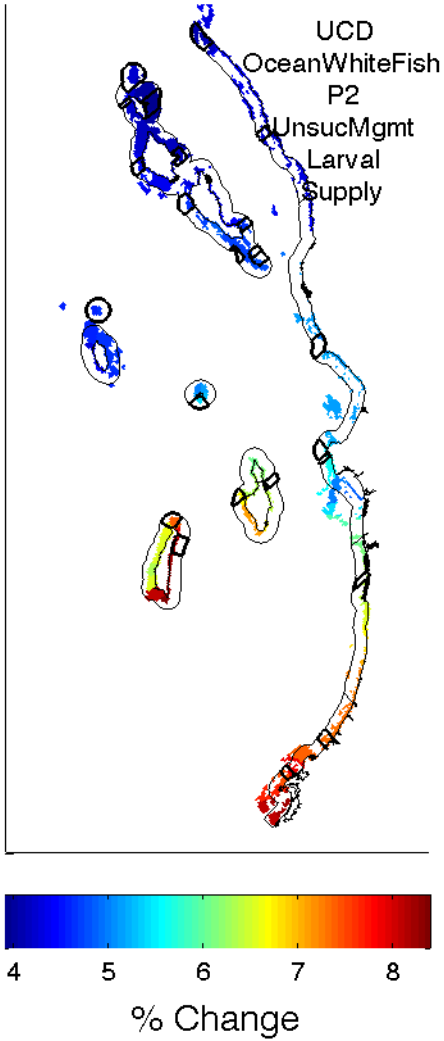

UCSB
OceanWhiteFish
P2
Unsuccessful Mgmt
Biomass
0
0.05
0.1
Relative to unfished

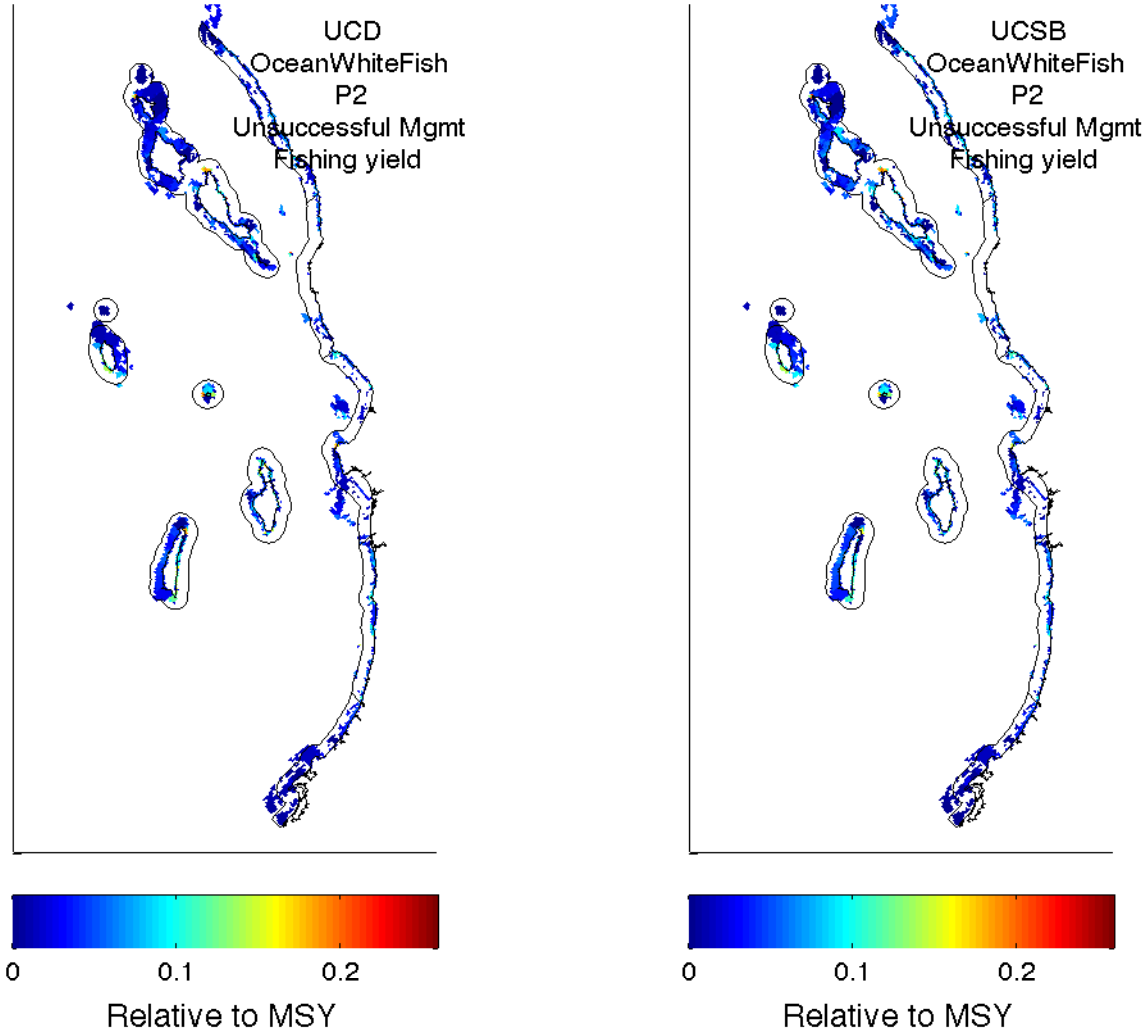

UCD
OceanWhiteFish
P2
Unsuccessful Mgmt
Fishing effort
0
2
4
Relative to MSY maximum effort

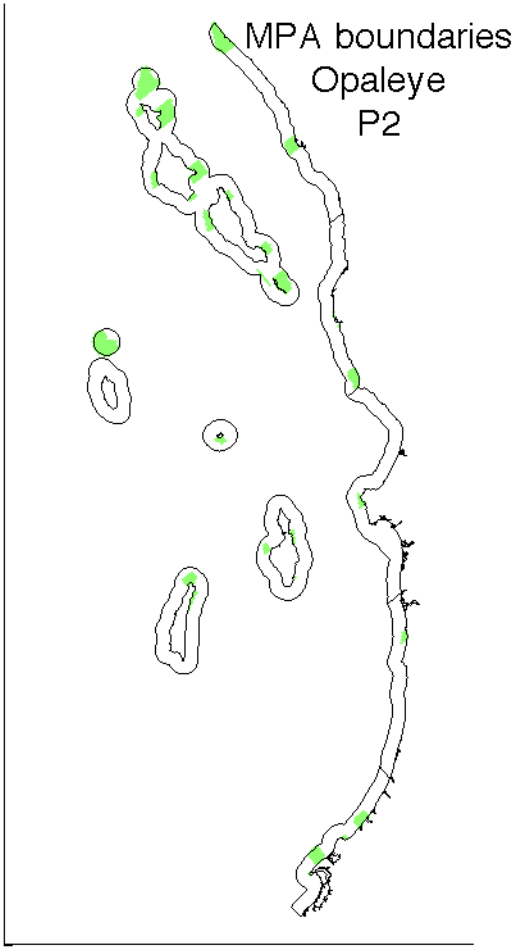

UCSB
OceanWhiteFish
P2
Unsuccessful Mgmt
Fishing effort
0
1
2
3
4
Relative to MSY maximum effort

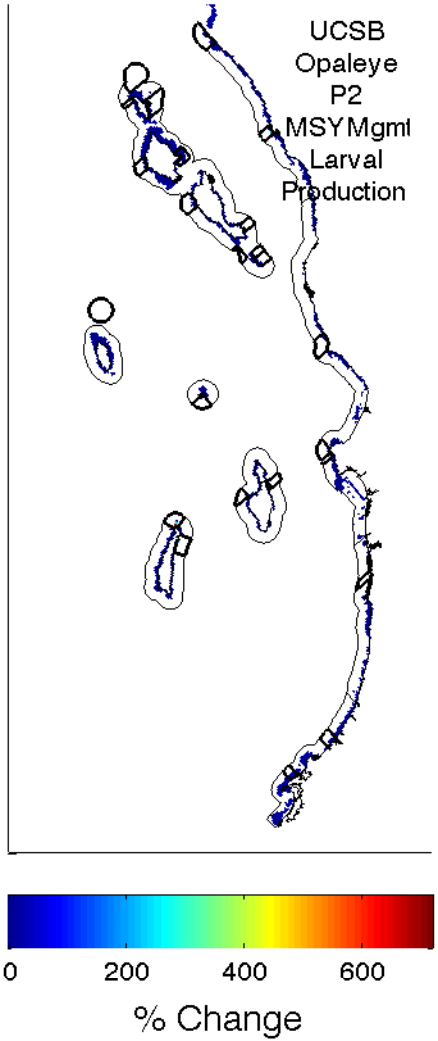

UCD
OceanWhiteFish
P2
Unsuccessful Mgmt
Larval Recruitment
1
2
3
Proportion of Maximum
x 10^4

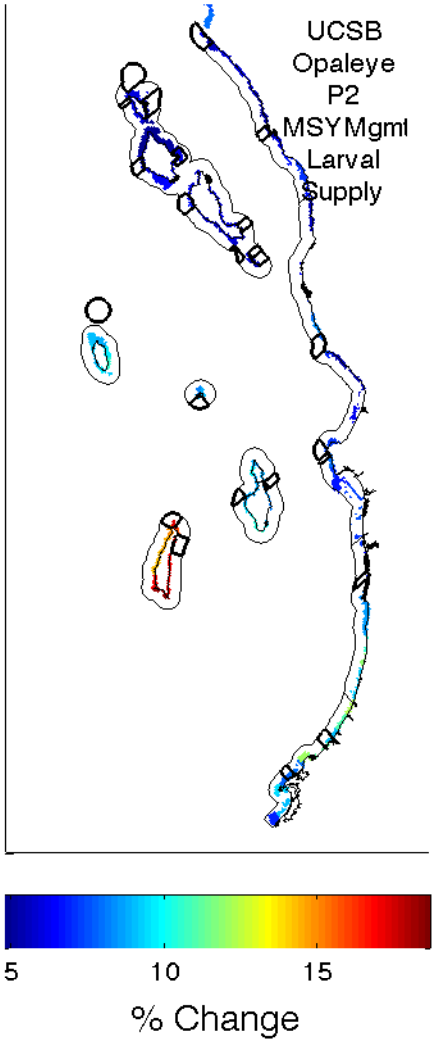

UCD
OceanWhiteFish
P2
UnsucMgmt
Larval
Production
0
100
200
% Change

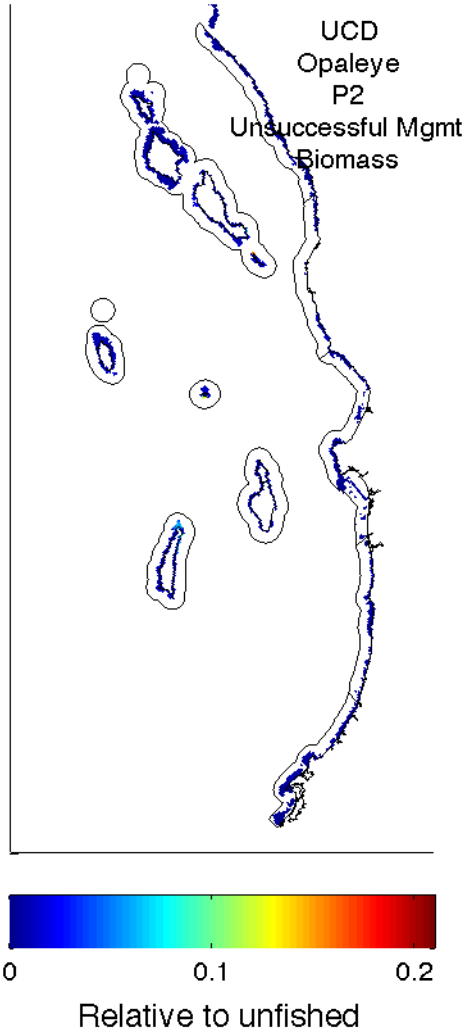

UCD
OceanWhiteFish
P2
UnsucMgmt
Larval
Supply
4
5
6
7
8
% Change

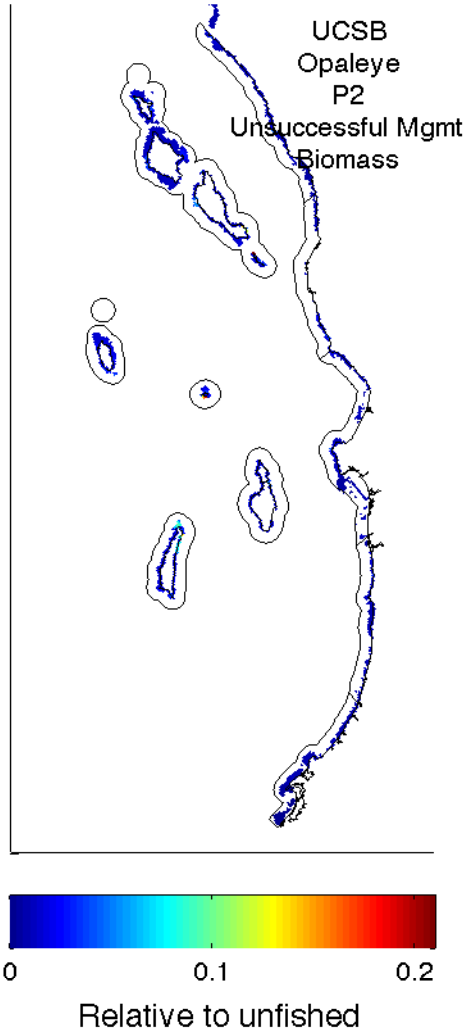

UCD
OceanWhiteFish
P2
Unsuccessful Mgmt
Fishing yield
0
0.1
0.2
Relative to MSY
UCSB
OceanWhiteFish
P2
Unsuccessful Mgmt
Fishing yield
0
0.1
0.2
Relative to MSY

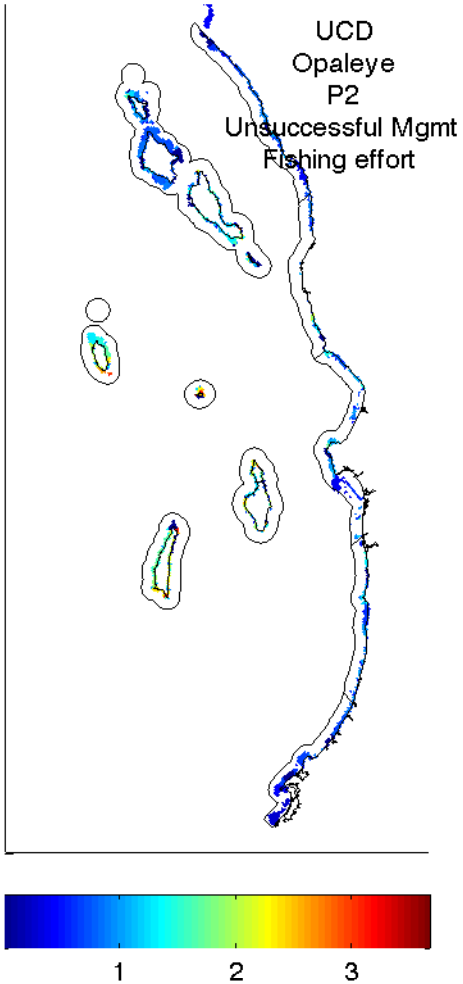

MPA boundaries
Opaleye
P2


UCSB
Opaleye
P2
MSYMgmt
Larval
Production
0
200
400
600
% Change

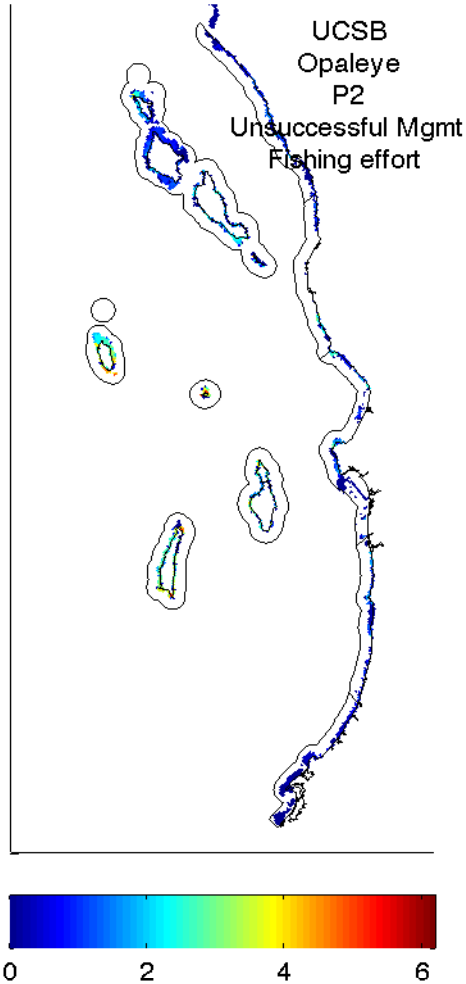

UCSB
Opaleye
P2
MSYMgmt
Larval
Supply
5
10
15
% Change


UCD
Opaleye
P2
Unsuccessful Mgmt
Biomass
0
0.1
0.2
Relative to unfished

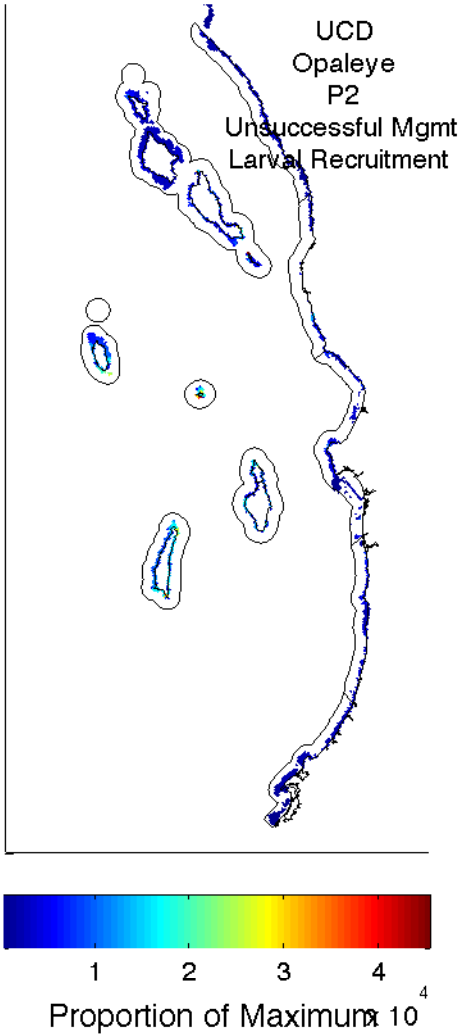

UCSB
Opaleye
P2
Unsuccessful Mgmt
Biomass
0
0.1
0.2
Relative to unfished

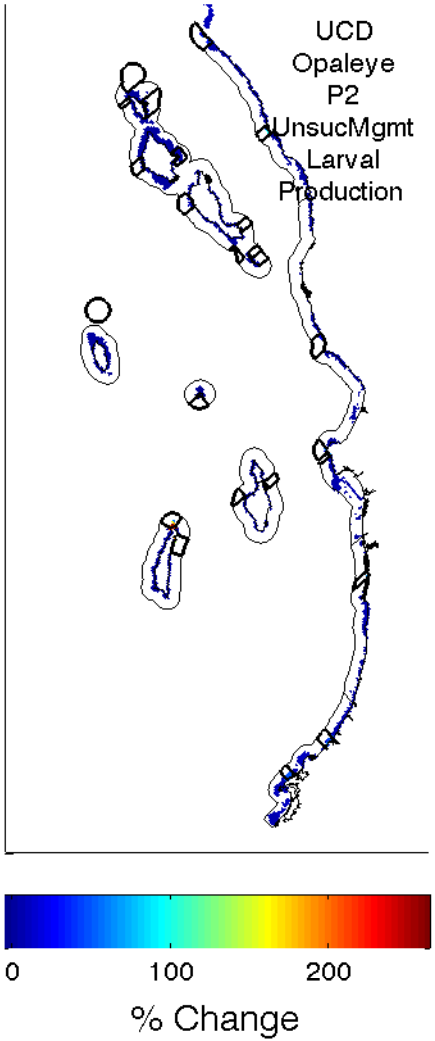


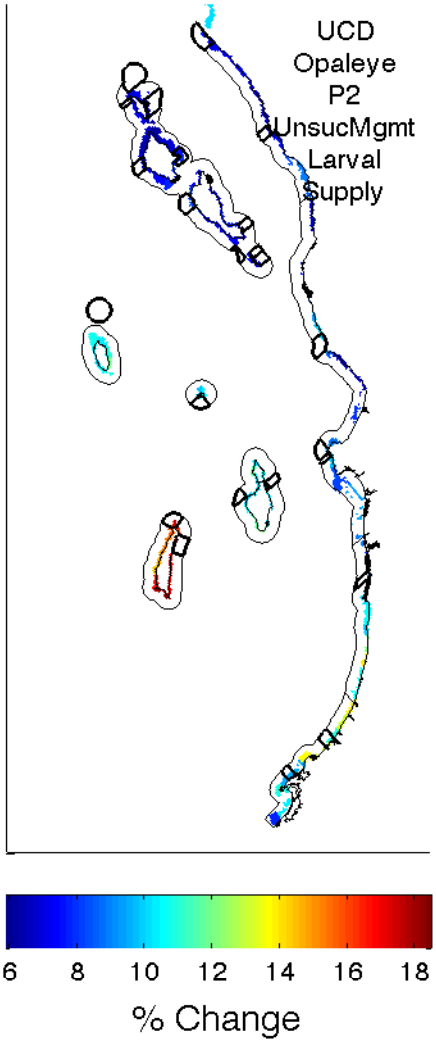
Relative to MSY maximum effort

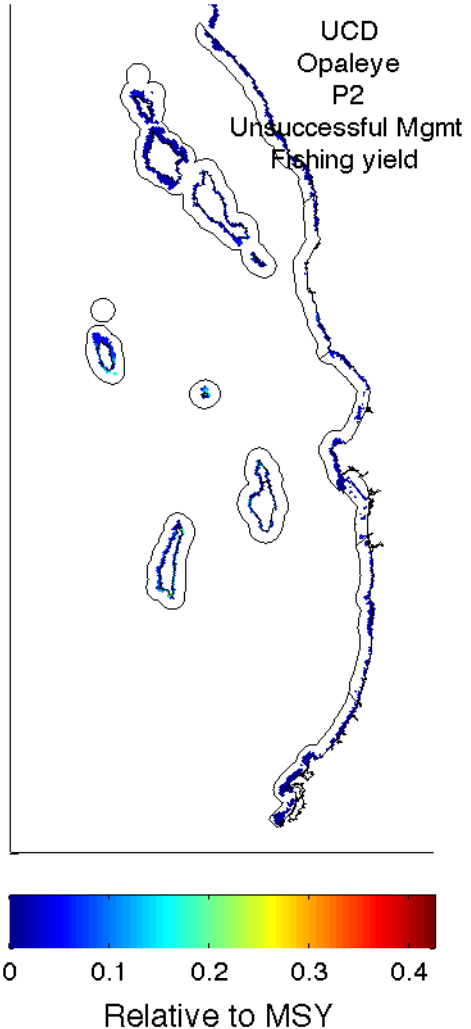


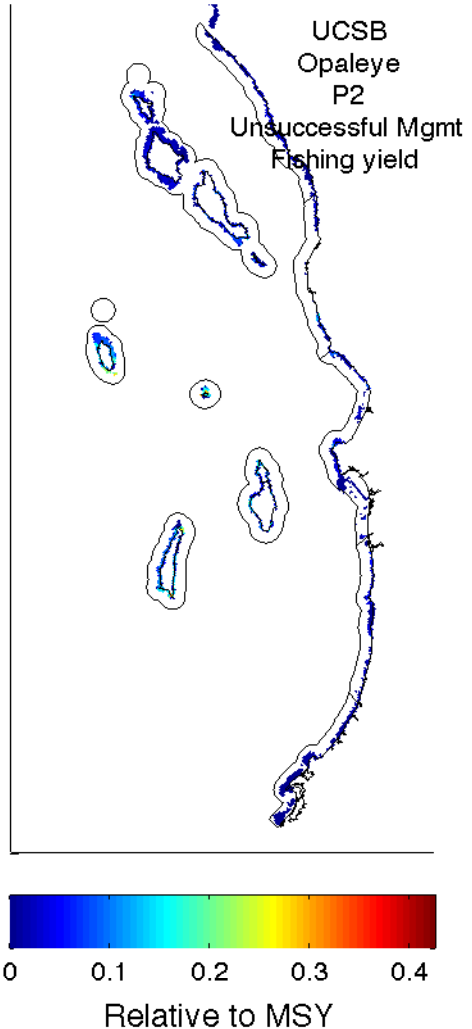
Relative to MSY maximum effort


UCD
Opaleye
P2
Unsuccessful Mgmt
Larval Recruitment
1
2
3
4
x 10^4
Proportion of Maximum

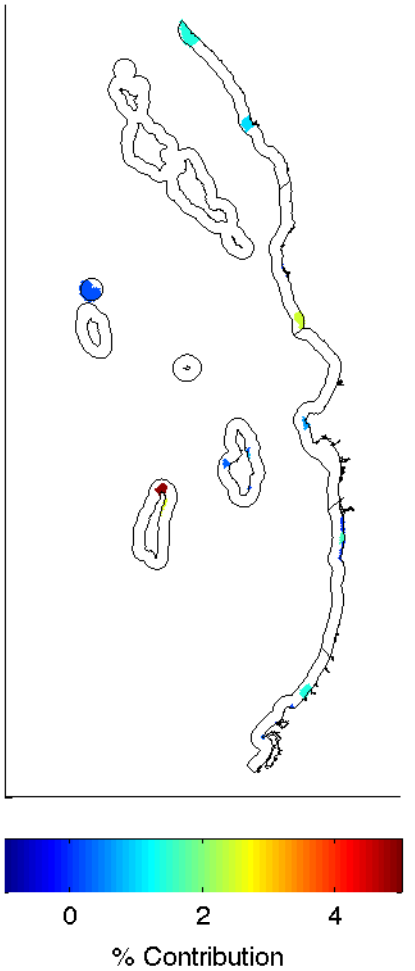

UCD
Opaleye
P2
UnsucMgmt
Larval
Production
0
100
200
% Change


UCD
Opaleye
P2
UnsucMgmt
Larval
Supply
6
8
10
12
14
16
18
% Change

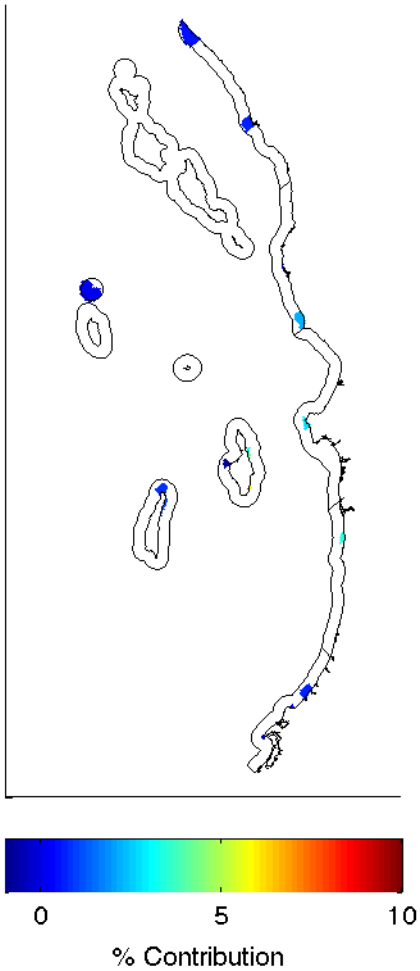

UCD
Opaleye
P2
Unsuccessful Mgmt
Fishing yield
0
0.1
0.2
0.3
0.4
Relative to MSY


UCSB
Opaleye
P2
Unsuccessful Mgmt
Fishing yield
0
0.1
0.2
0.3
0.4
Relative to MSY

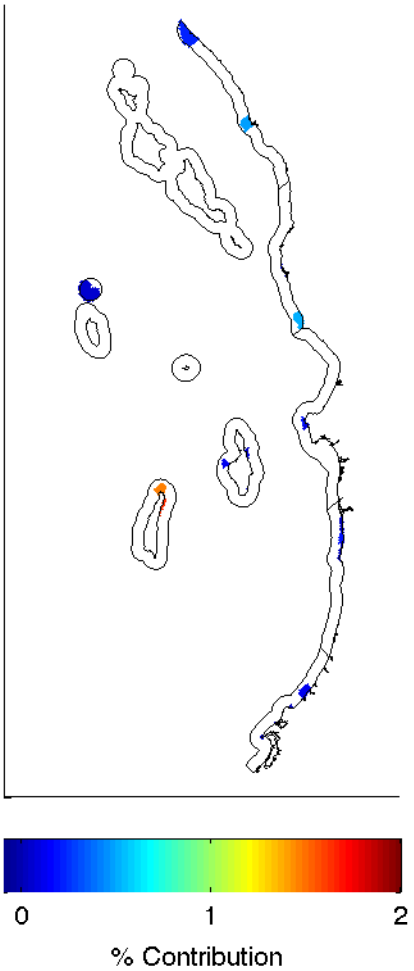
UCD Model
P2
Unsuc Mgmt
Knockout Index



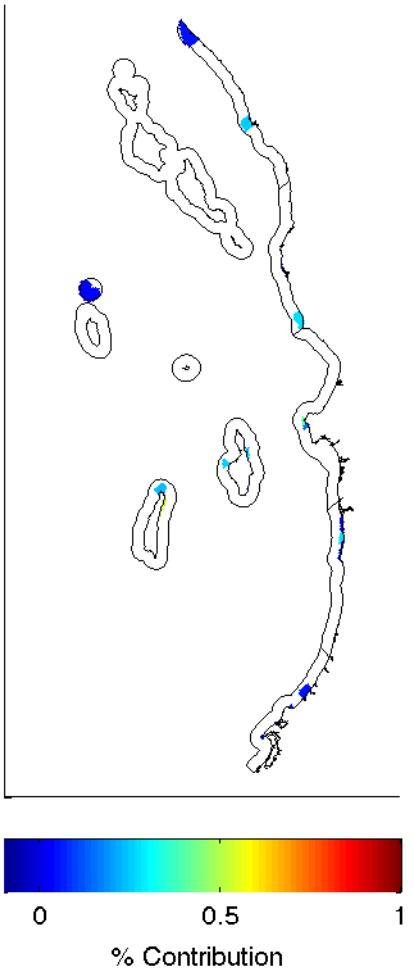
UCD Model
P2
Unsuc Mgmt
Knockout Index, Scaled by Habitat

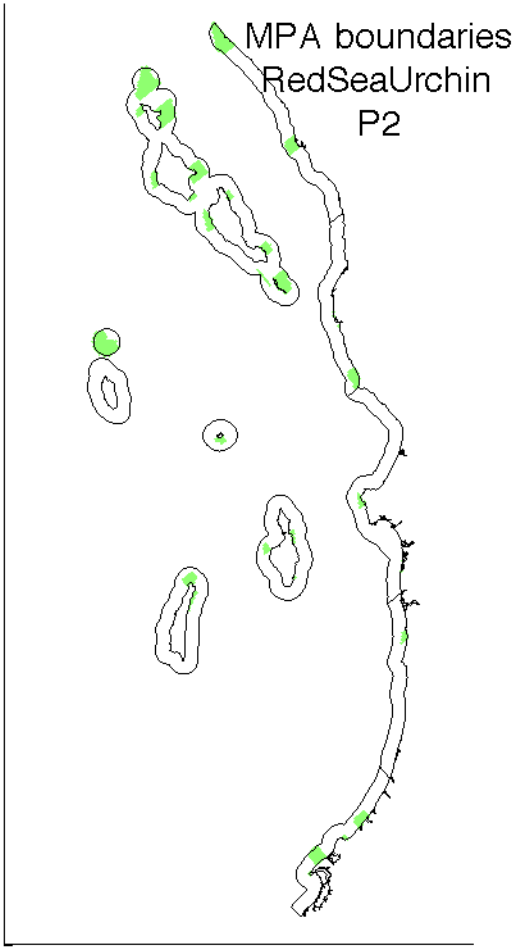


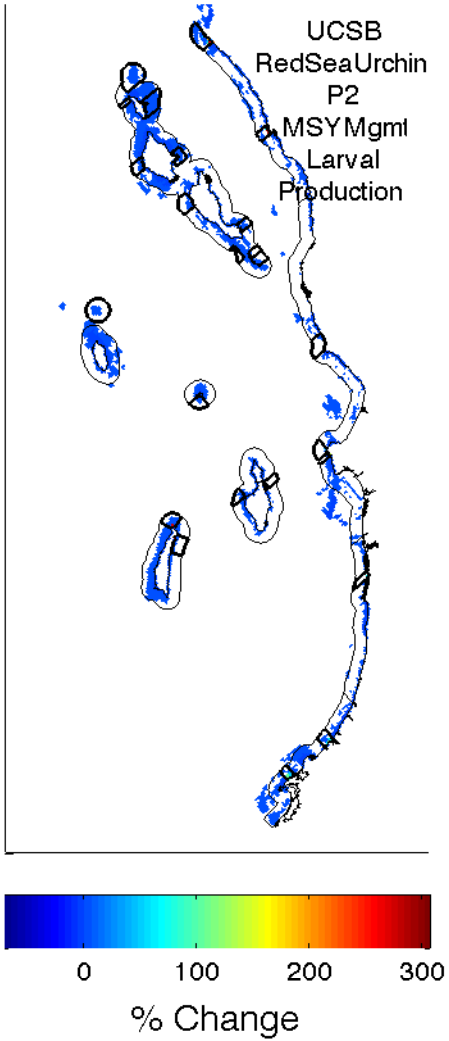
UCSB Model
P2
MSY Mgmt
Knockout Index

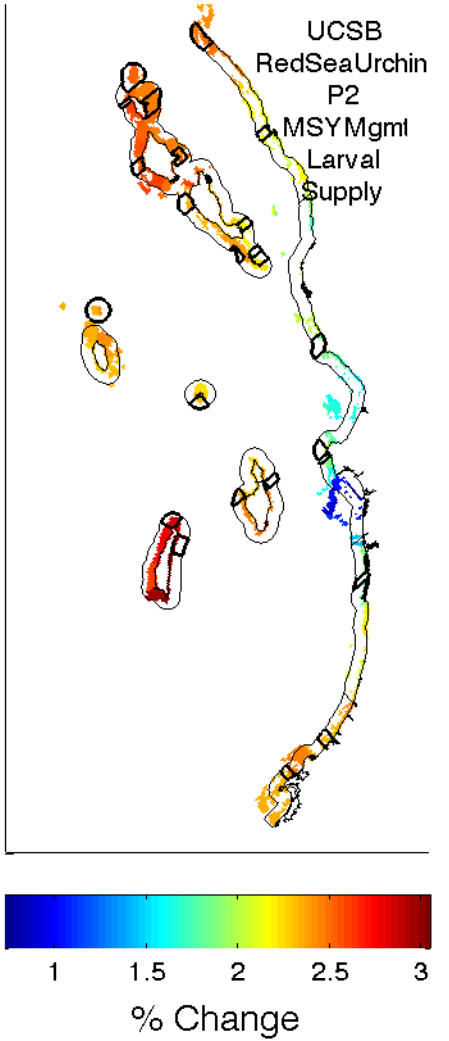


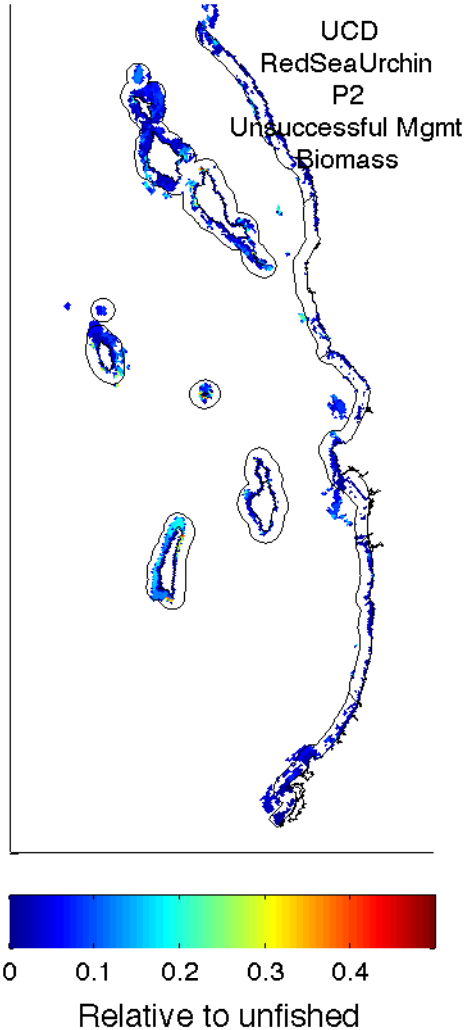
UCSB Model
P2
MSY Mgmt
Knockout Index, Scaled by Habitat

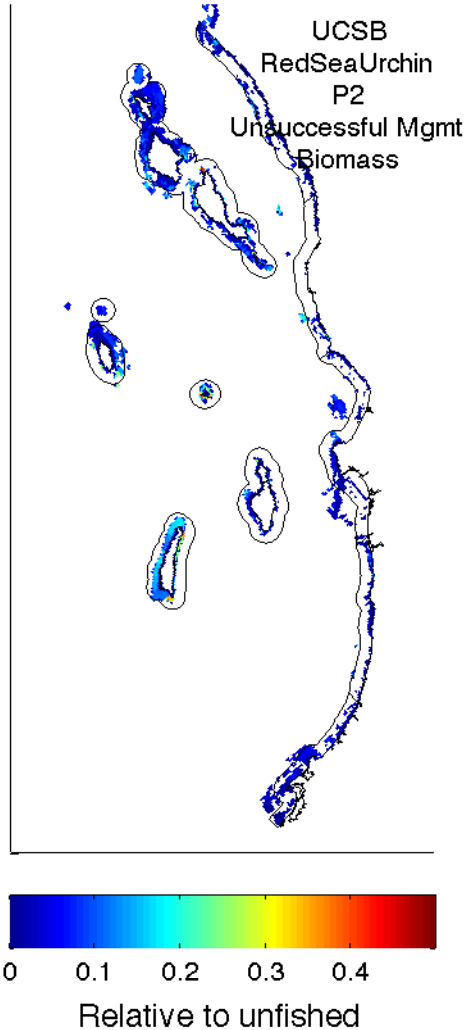


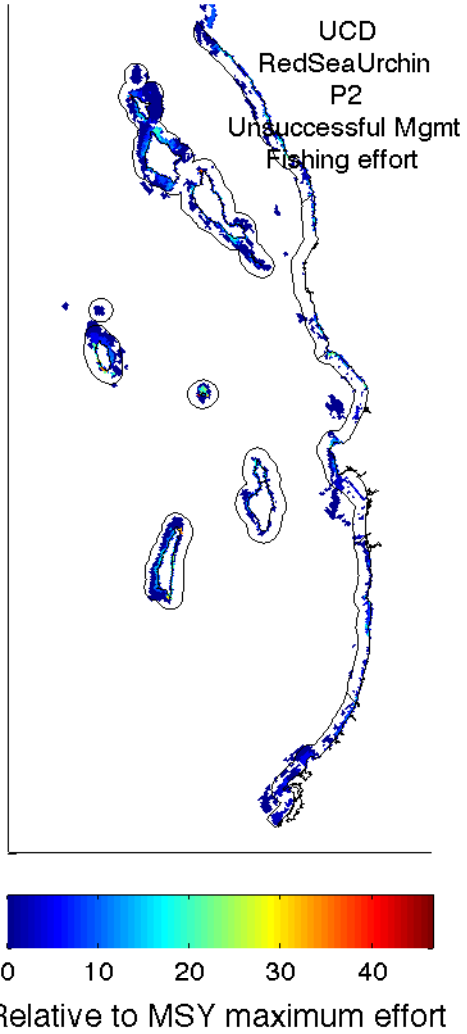

MPA boundaries
RedSeaUrchin
P2

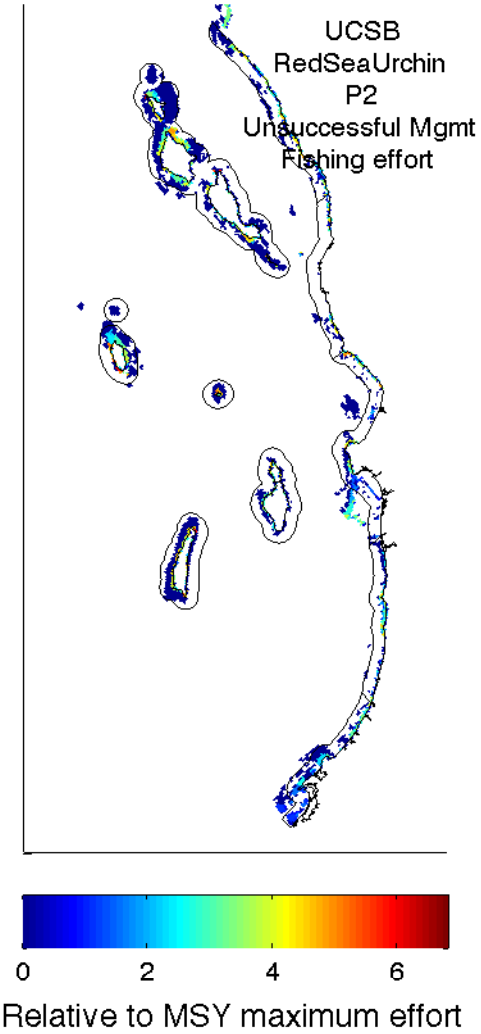

UCSB
RedSeaUrchin
P2
MSYMgmt
Larval
Production
0
100
200
300
% Change

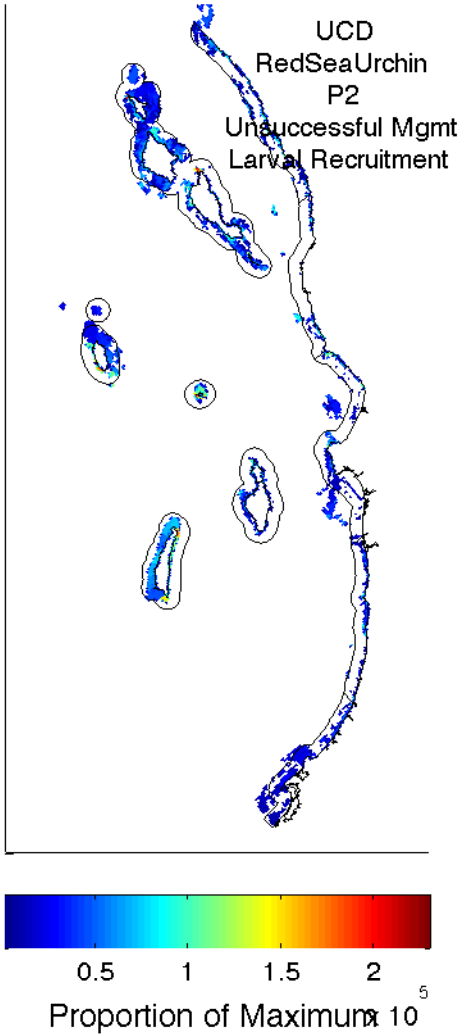

UCSB
RedSeaUrchin
P2
MSYMgmt
Larval
Supply
1
1.5
2
2.5
3
% Change

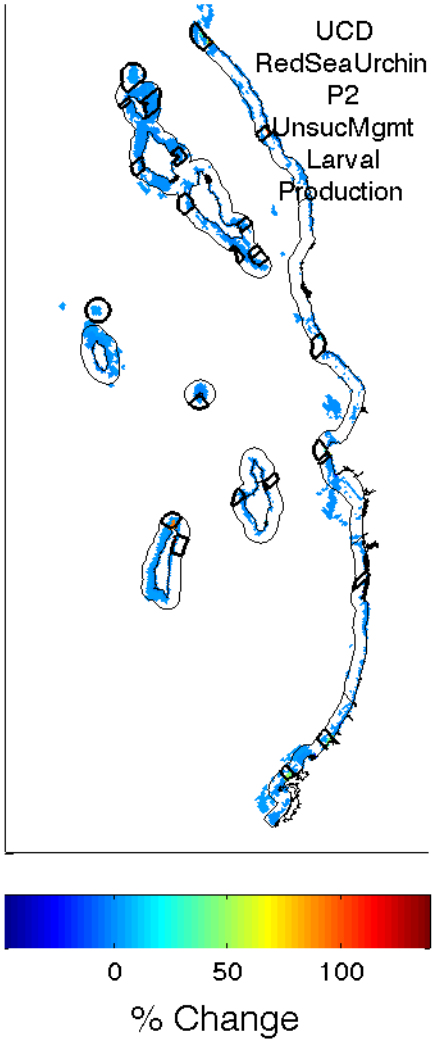

UCD
RedSeaUrchin
P2
Unsuccessful Mgmt
Biomass
0
0.1
0.2
0.3
0.4
Relative to unfished

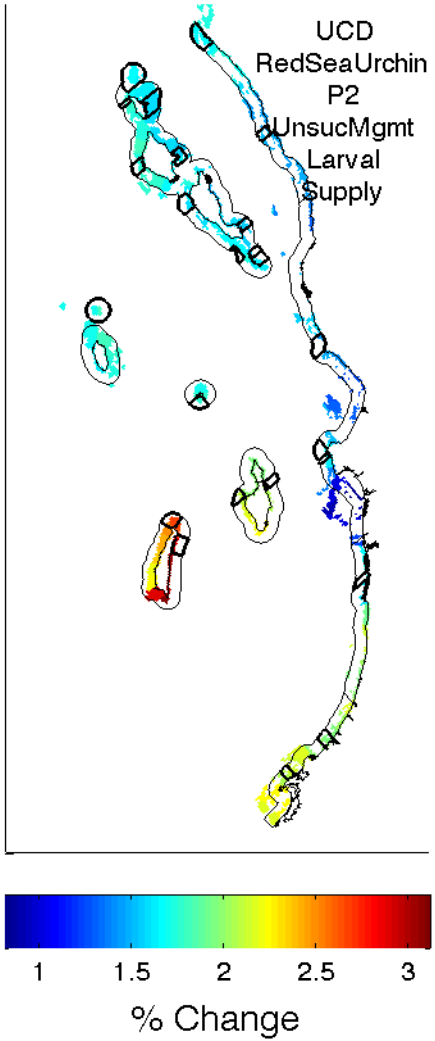

UCSB
RedSeaUrchin
P2
Unsuccessful Mgmt
Biomass
0
0.1
0.2
0.3
0.4
Relative to unfished

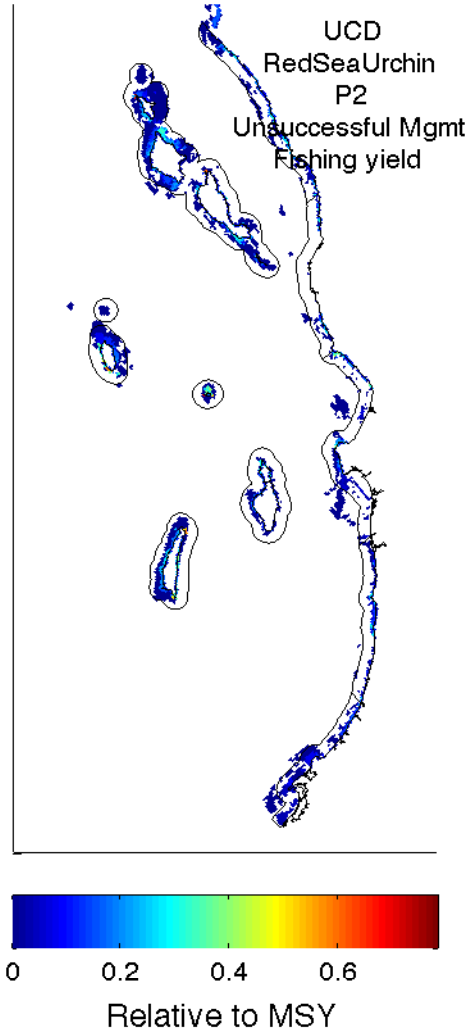

UCD
RedSeaUrchin
P2
Unsuccessful Mgmt
Fishing effort
0
10
20
30
40
Relative to MSY maximum effort

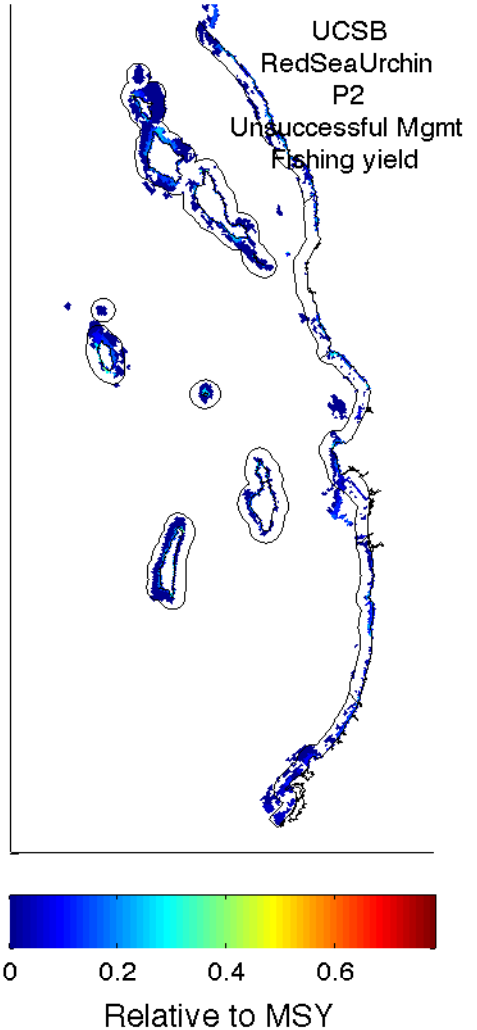

UCSB
RedSeaUrchin
P2
Unsuccessful Mgmt
Fishing effort
0
2
4
6
Relative to MSY maximum effort

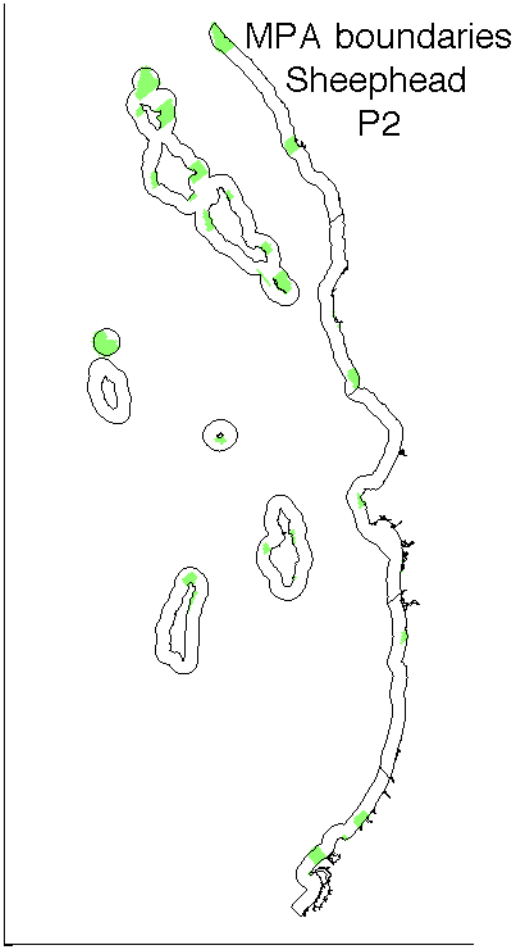

UCD
RedSeaUrchin
P2
Unsuccessful Mgmt
Larval Recruitment
0.5
1
1.5
2
Proportion of Maximum
x 10^5

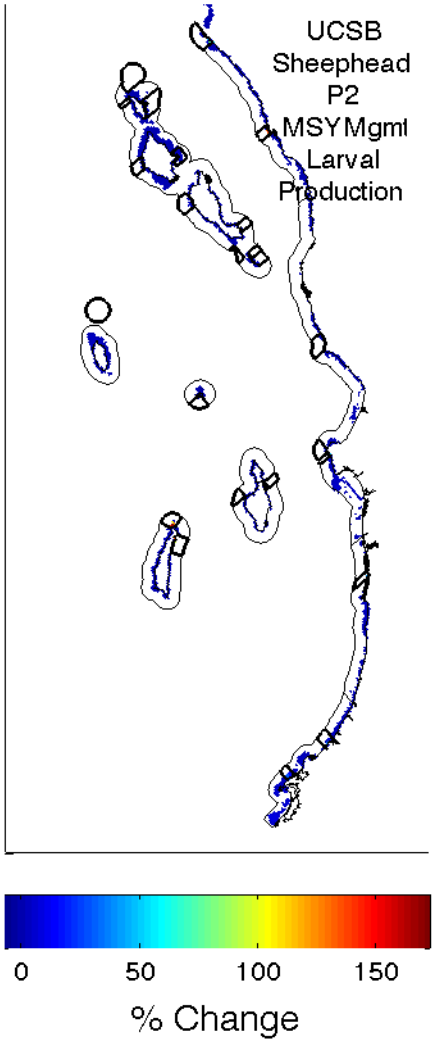

UCD
RedSeaUrchin
P2
UnsucMgmt
Larval
Production
0
50
100
% Change

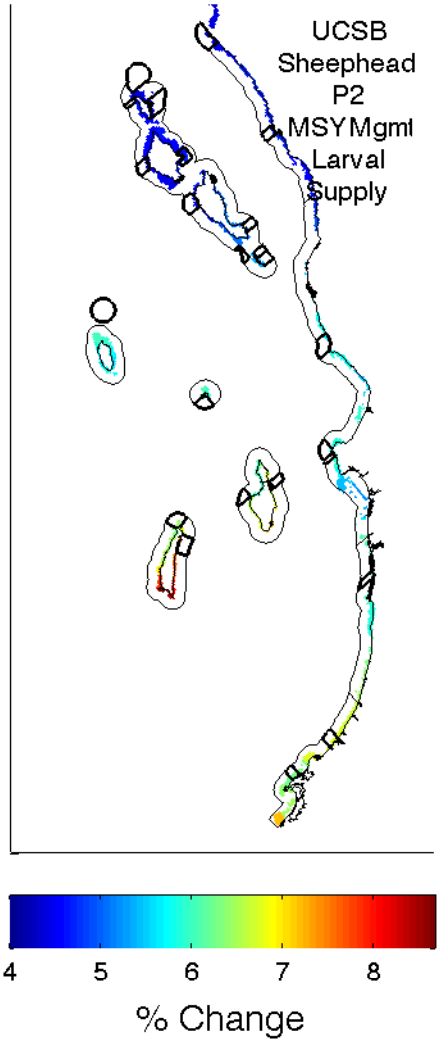

UCD
RedSeaUrchin
P2
UnsucMgmt
Larval
Supply
1
1.5
2
2.5
3
% Change

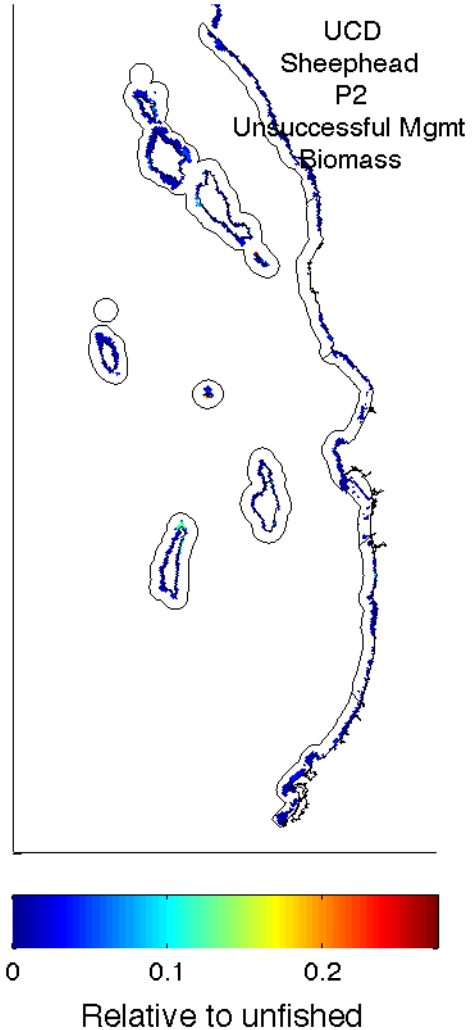

UCD
RedSeaUrchin
P2
Unsuccessful Mgmt
Fishing yield
0
0.2
0.4
0.6
Relative to MSY

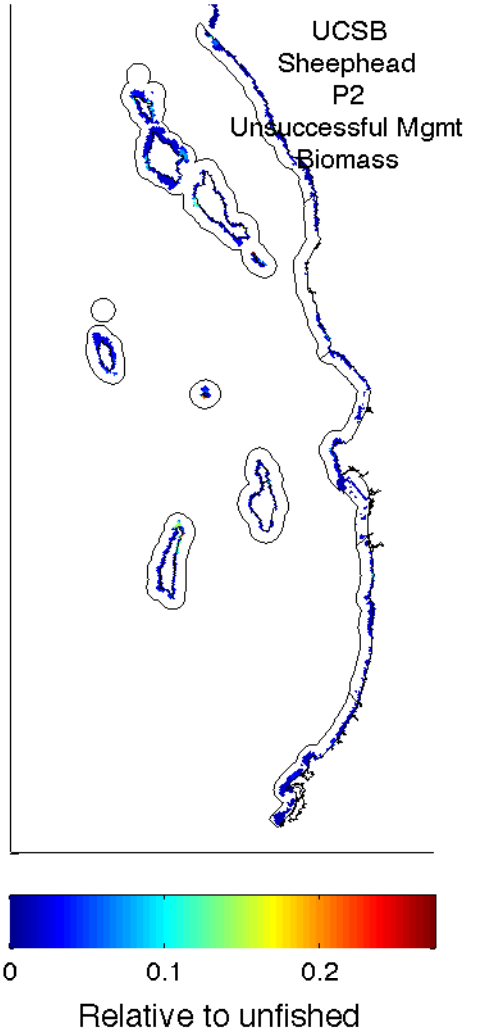

UCSB
RedSeaUrchin
P2
Unsuccessful Mgmt
Fishing yield
0
0.2
0.4
0.6
Relative to MSY

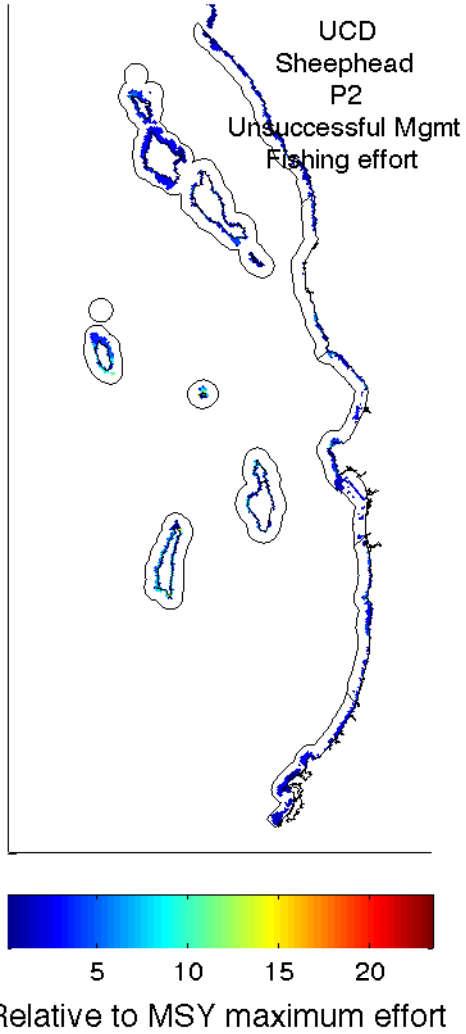

MPA boundaries
Sheephead
P2

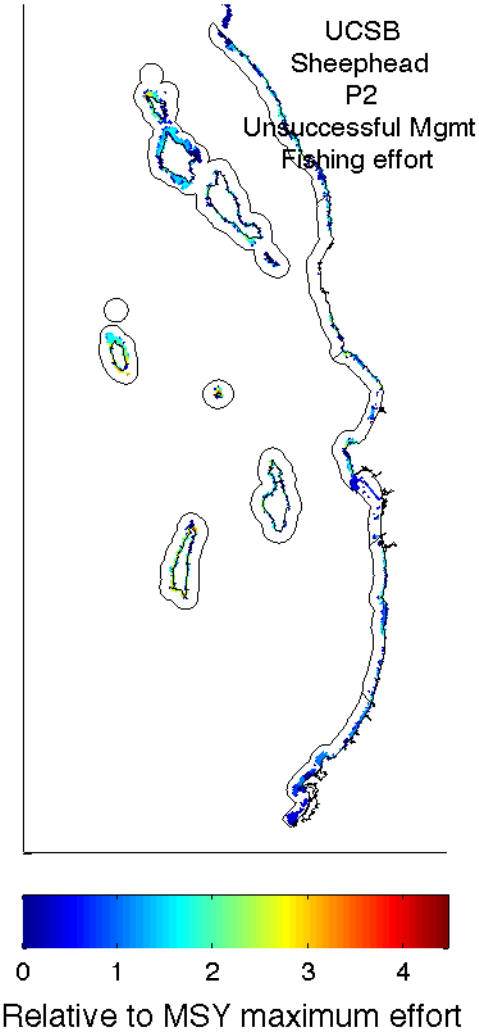

UCSB
Sheephead
P2
MSY Mgmt
Larval
Production
0
50
100
150
% Change

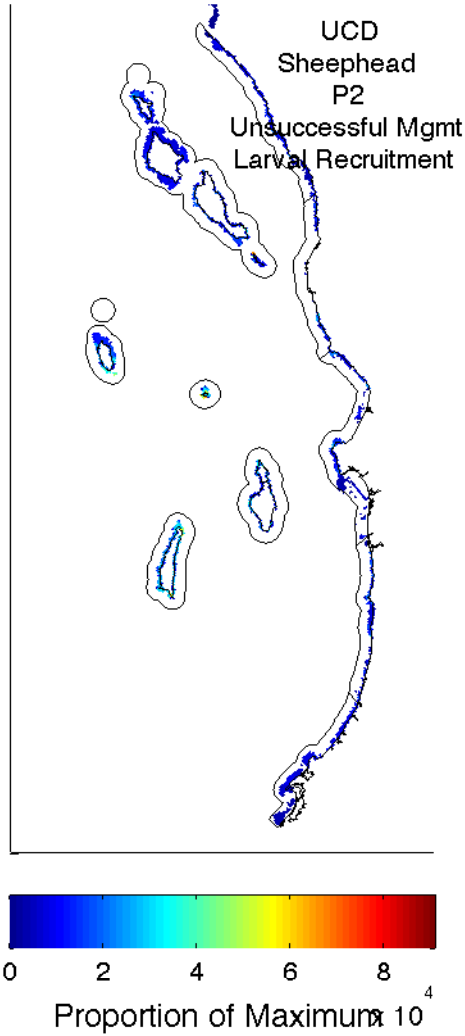

UCSB
Sheephead
P2
MSY Mgmt
Larval
Supply
4
5
6
7
8
% Change

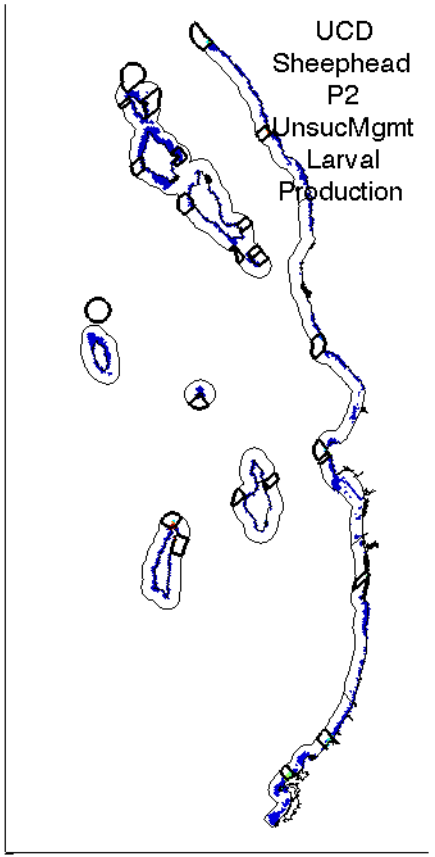

UCD
Sheephead
P2
Unsuccessful Mgmt
Biomass
0
0.1
0.2
Relative to unfished

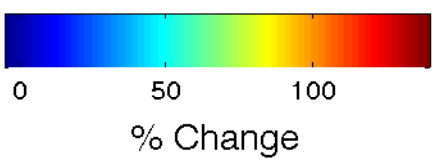

UCSB
Sheephead
P2
Unsuccessful Mgmt
Biomass
0
0.1
0.2
Relative to unfished

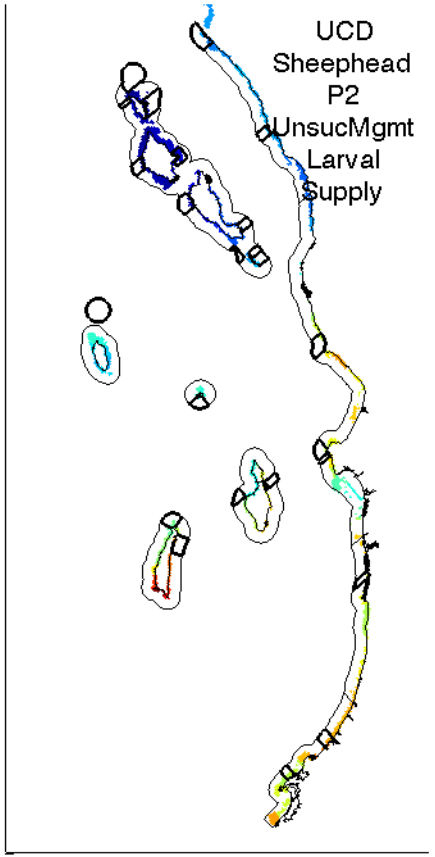

UCD
Sheephead
P2
Unsuccessful Mgmt
Fishing effort
5
10
15
20
Relative to MSY maximum effort

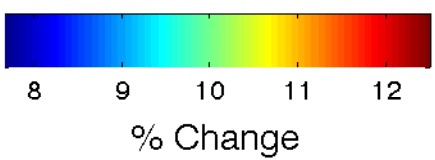

UCSB
Sheephead
P2
Unsuccessful Mgmt
Fishing effort
0
1
2
3
4
Relative to MSY maximum effort

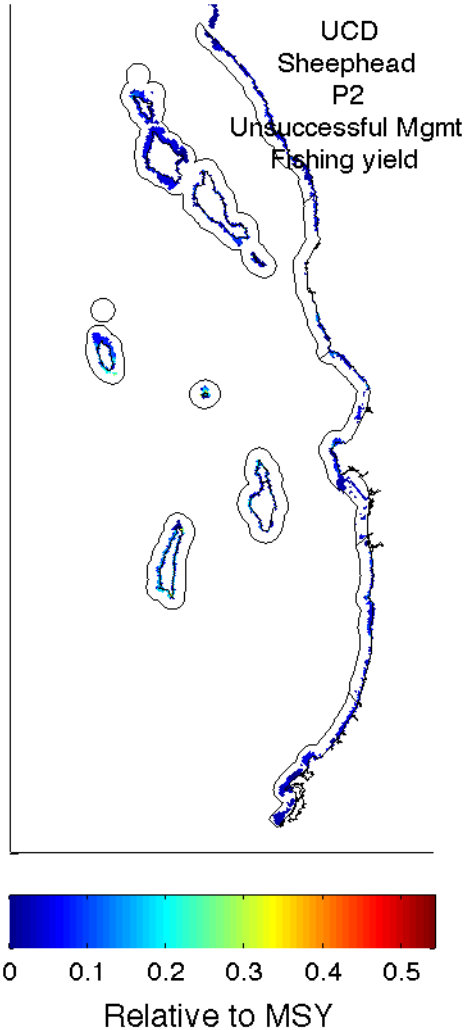

UCD
Sheephead
P2
Unsuccessful Mgmt
Larval Recruitment
0
2
4
6
8
x 10^4
Proportion of Maximum

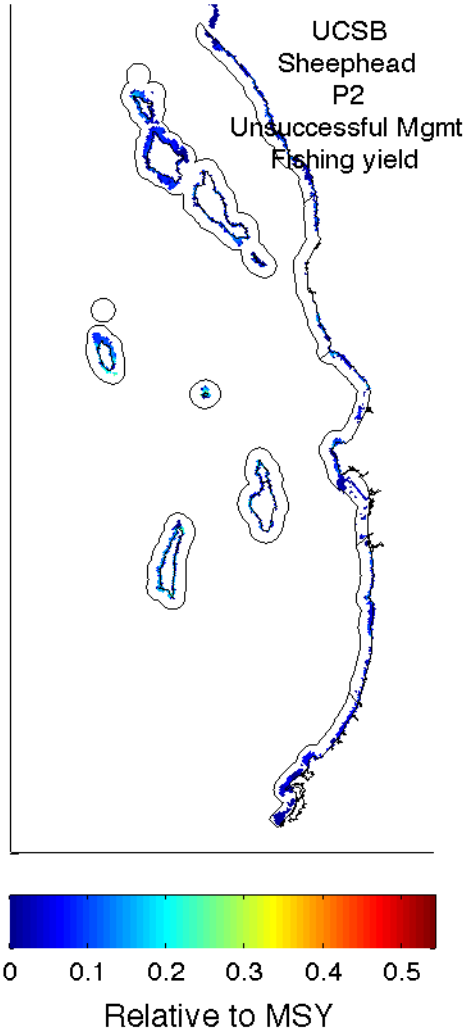

UCD
Sheephead
P2
UnsucMgmt
Larval
Production


0
50
100
% Change


UCD
Sheephead
P2
UnsucMgmt
Larval
Supply


8
9
10
11
12
% Change


UCD
Sheephead
P2
Unsuccessful Mgmt
Fishing yield
0
0.1
0.2
0.3
0.4
0.5
Relative to MSY


UCSB
Sheephead
P2
Unsuccessful Mgmt
Fishing yield
0
0.1
0.2
0.3
0.4
0.5
Relative to MSY