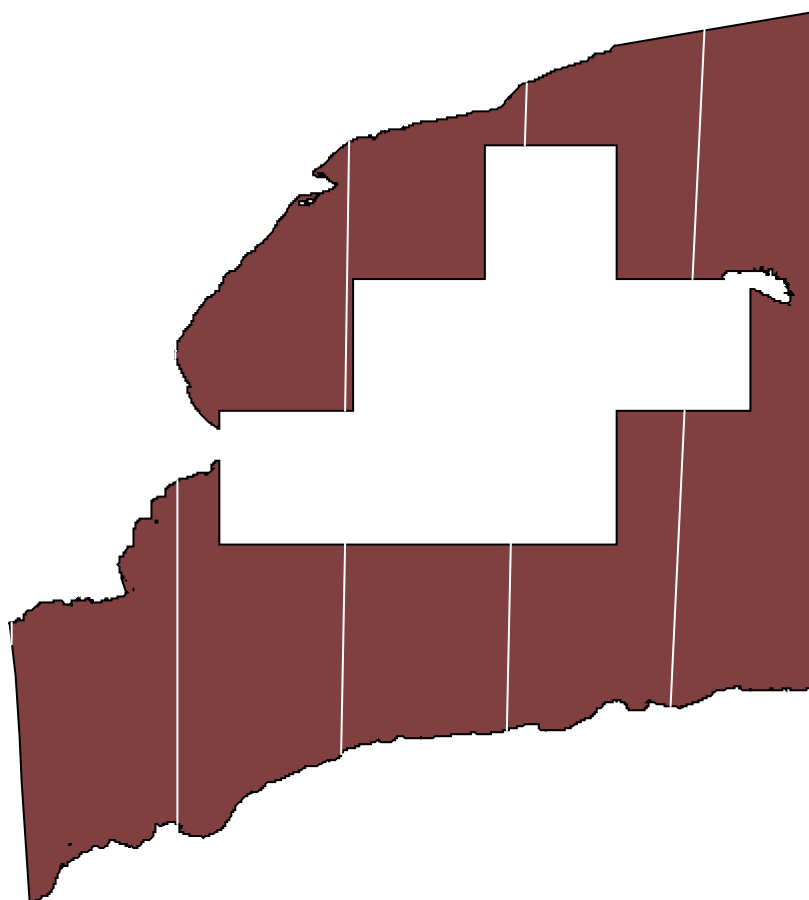


APPENDIX 1 - ICCAT-GBYP AERIAL SURVEY DESIGN FOR 2013

PRIMARY SURVEY TRACKS (MANDATORY PART)

Area A_outside



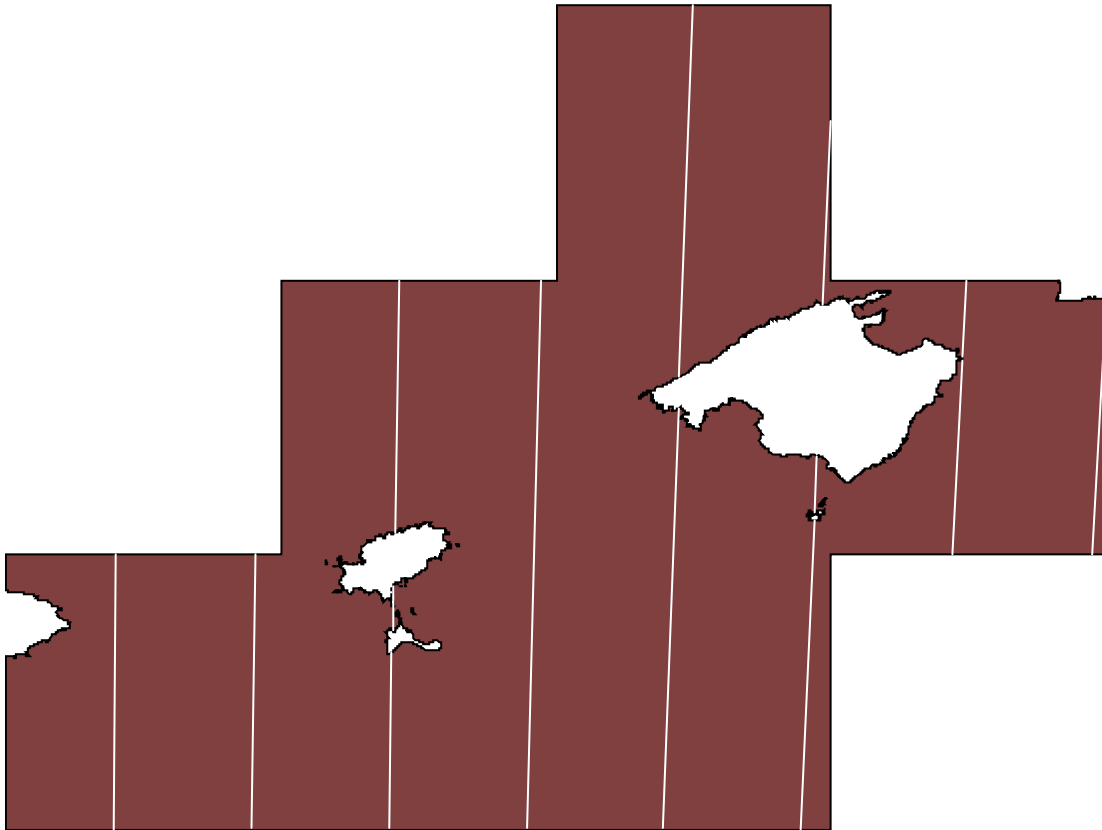
Type of sampler: Line
Number of samplers: 5

List of samplers:

	x-coord	y-coord
Sampler 1		
	-1.563101	37.24305
	-1.566476	37.40577
	--	--
Sampler 2		
	-0.3102724	35.88547
	-0.3210355	38.47186
	--	--
	-0.3251981	39.38932
	-0.3254681	39.4474
	--	--
	-0.3255058	39.45549
	-0.3255155	39.45758
	--	--
Sampler 3		
	0.9216235	36.41238
	0.9412417	38.00822
	--	--
	0.954243	39.00016
	0.9830336	41.036
	--	--
Sampler 4		
	2.160641	36.59845
	2.201353	38.00745
	--	--
	2.297939	41.00088
	2.314707	41.47761
	--	--

```
Sampler 5
3.404938 36.77493
3.509159 39.00105
--
3.559891 40.00132
3.661959 41.87304
--
```

Area A_inside – previously surveyed sub-area replica 1



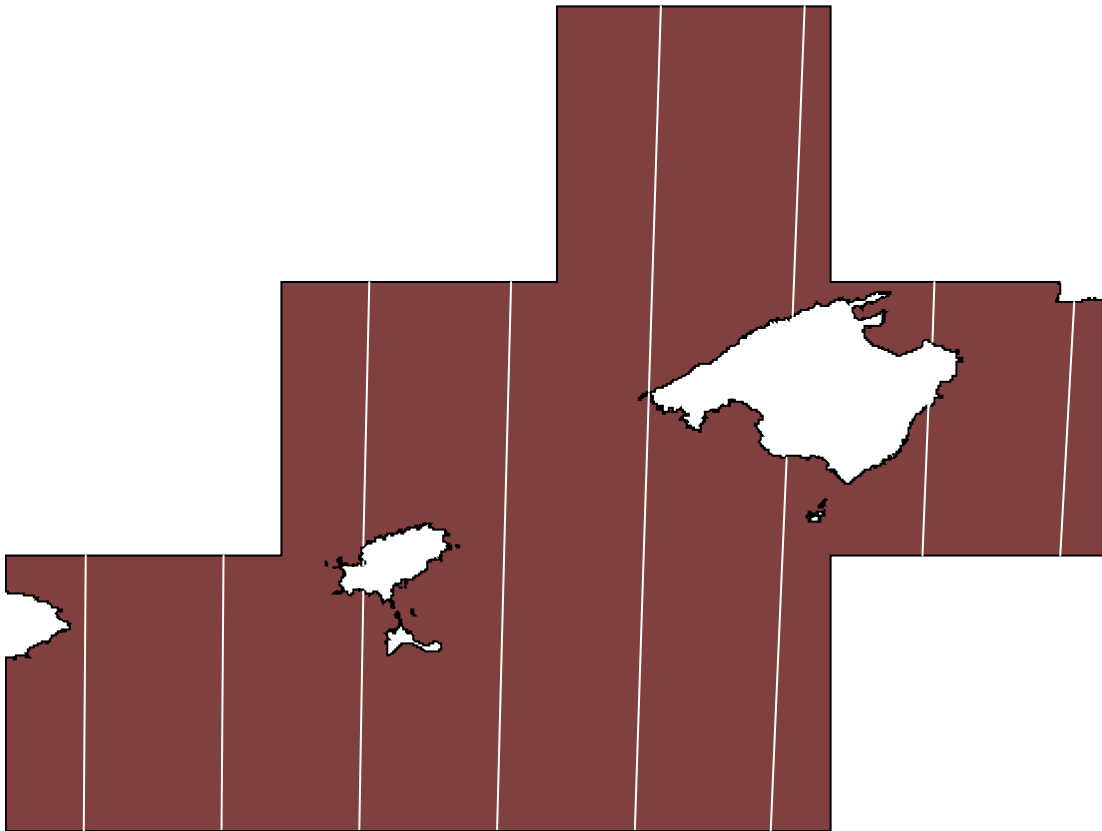
```
Sample layer name: 2 replicas 1
Type of sampler: Line
Number of samplers: 8
```

```
List of samplers:
  x-coord y-coord

Sampler 1
  0.391423 38.00434
  0.3968551 39.00103
  --
Sampler 2
  0.8915886 38.008
  0.9039093 39.00037
  --
Sampler 3
  1.391747 38.00952
  1.40403 38.64886
  --
  1.405622 38.73021
```

```
1.407528 38.82723
--
1.407556 38.82864
1.408732 38.88828
--
1.412527 39.0795
1.431336 40.00106
--
Sampler 4
1.891845 38.00892
1.945662 40.00022
--
Sampler 5
2.391832 38.00619
2.443418 39.53362
--
2.447496 39.64952
2.496836 41.00109
--
Sampler 6
2.891653 38.00133
2.937222 39.12857
--
2.938396 39.15679
2.946968 39.36167
--
2.97038 39.9107
2.999889 40.58183
--
Sampler 7
3.438843 39.00106
3.473799 39.70963
--
3.474433 39.72224
3.488522 40.00068
--
Sampler 8
3.945645 39.00022
3.998329 39.92554
--
```

Area A_inside – previously surveyed sub-area replica 2



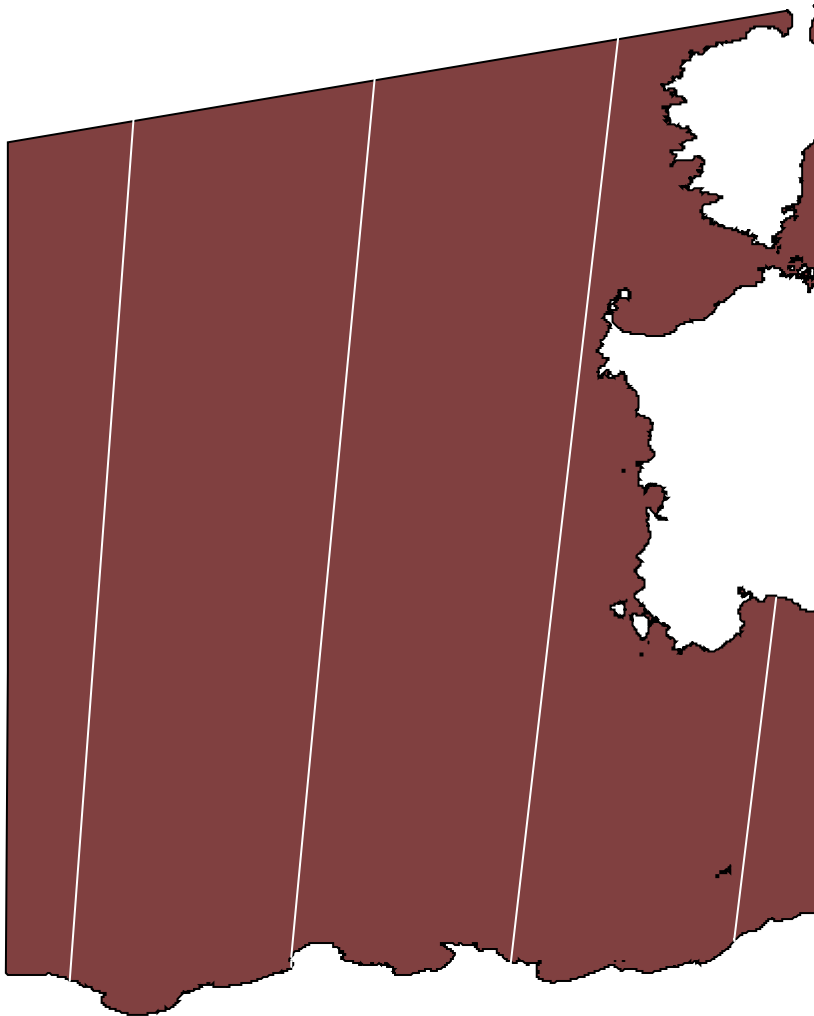
Sample layer name: 2 replicas 2
Type of sampler: Line
Number of samplers: 10

List of samplers:

	x-coord	y-coord
Sampler 1		
	0.2835019	38.00328
	0.2874397	39.00088
	--	--
Sampler 2		
	0.783662	38.00739
	0.7945014	39.0007
	--	--
Sampler 3		
	1.283826	38.00937
	1.299036	38.86301
	--	--
	1.299097	38.86636
	1.299245	38.87447
	--	--
	1.300995	38.97038
	1.301151	38.97888
	--	--
	1.302212	39.03678
	1.320345	40.00094
	--	--

Sampler 4
1.783942 38.00923
1.83469 40.0006
--
Sampler 5
2.283957 38.00696
2.335037 39.5887
--
2.335333 39.5975
2.384193 41.00103
--
Sampler 6
2.783818 38.00256
2.836998 39.36112
--
2.858162 39.87713
2.90617 41.00037
--
Sampler 7
3.329463 39.00095
3.355414 39.54654
--
3.355493 39.54818
3.355504 39.5484
--
3.366599 39.77716
3.377564 40.00071
--
Sampler 8
3.836304 39.00059
3.887403 39.92377
--

Area B

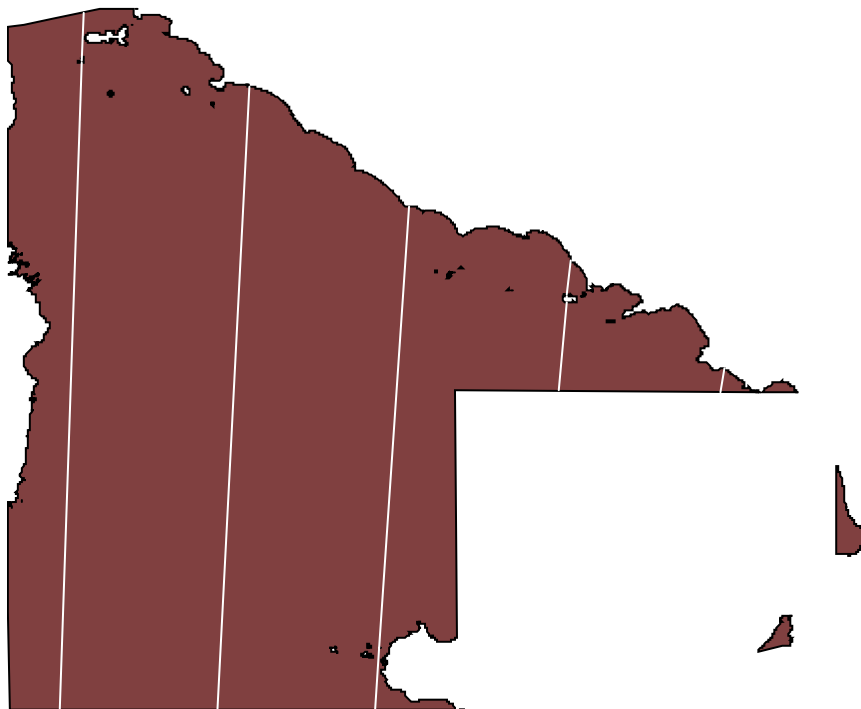


Sample layer name: 1 replica
Type of sampler: Line
Number of samplers: 4

List of samplers:

x-coord	y-coord
Sampler 1	
4.887805	36.8532
5.276323	42.16813
--	--
Sampler 2	
6.250699	36.93431
6.253633	36.97006
--	--
6.25608	36.99982
6.769778	42.43375
--	--
Sampler 3	
7.610588	36.96579
8.273095	42.67877
--	--
Sampler 4	
8.982021	37.09467
8.982916	37.1022
--	--
8.983344	37.10579
9.248452	39.21666
--	--

Area C_outside



Sample layer name: 1 replica 1
Type of sampler: Line
Number of samplers: 5

List of samplers:

	x-coord	y-coord
Sampler 1	15.09323	39.99925
	15.11284	40.17643
	--	--
Sampler 2	13.81738	40.00444
	13.88193	40.69832
	--	--
	13.8872	40.75343
	13.91322	41.02216
	--	--
Sampler 3	12.37785	37.5032
	12.40632	37.98946
	--	--
	12.40642	37.99111
	12.6479	41.45361
	--	--
Sampler 4	11.14121	37.50112
	11.39538	42.39201
	--	--


```
Sampler 5
 9.901973 37.50287
10.07031 42.57262
--
10.07144 42.59846
10.0881 42.97124
--
```

Area C_inside – previously surveyed sub-area replica 1



```
Sample layer name: 1 replica 1
Type of sampler: Line
Number of samplers: 7
```

List of samplers:

```
  x-coord  y-coord

Sampler 1
 15.73514 38.25475
 15.88155 39.54096
--
Sampler 2
 15.31239 38.21061
 15.50719 39.99437
--
Sampler 3
 14.89125 38.18121
 14.91848 38.46172
--
 14.92443 38.52215
 15.07821 39.99939
--
Sampler 4
```

```

14.45967 38.03492
14.64866 40.00271
--
Sampler 5
14.0415 38.03212
14.21861 40.00438
--
Sampler 6
13.62163 38.01125
13.78806 40.00439
--
Sampler 7
13.21515 38.17867
13.35708 40.00274
--

```

Area C_inside – previously surveyed sub-area replica 2



```

Sample layer name: 1 replica 2
Type of sampler: Line
Number of samplers: 8

```

```

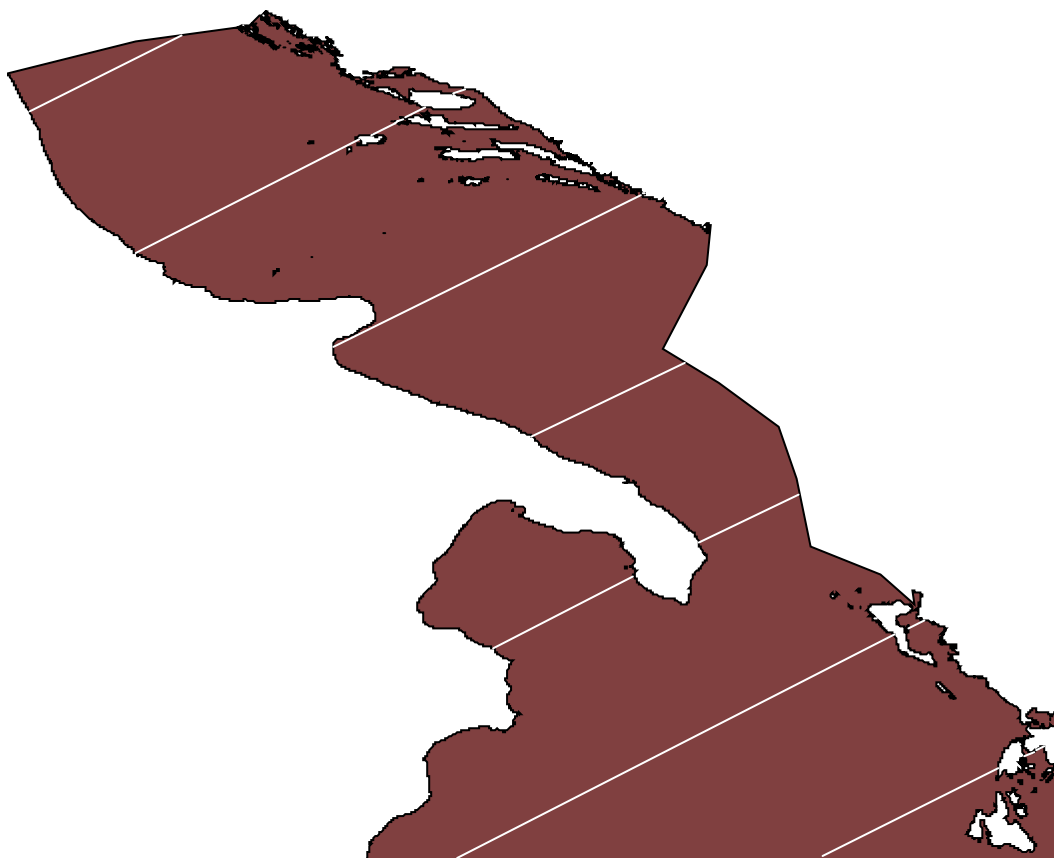
List of samplers:
  x-coord y-coord

Sampler 1
15.8377 38.36669
15.86285 38.59169
--
15.87223 38.67472
15.9648 39.46867
--
Sampler 2
15.40535 38.23707

```

```
15.59982 39.99424
--
Sampler 3
14.97864 38.15178
15.00021 38.37194
--
15.00074 38.37738
15.17082 39.99846
--
Sampler 4
14.55215 38.06082
14.74139 40.00213
--
Sampler 5
14.13092 38.02278
14.31144 40.00416
--
Sampler 6
13.70934 37.97883
13.88101 40.00453
--
Sampler 7
13.30913 38.22543
13.45011 40.00324
--
Sampler 8
13.00153 39.77832
13.0188 40.00029
--
```

Area D



Sample layer name: 1 replica 1
Type of sampler: Line
Number of samplers: 7

List of samplers:

x-coord y-coord

Sampler 1

13.77964 43.23603
14.83309 43.77377
--

Sampler 2

14.52037 42.24814
16.08814 43.04344
--

16.16424 43.08084
16.3355 43.1646
--

16.33749 43.16557
16.34186 43.1677
--

16.35407 43.17365
16.38474 43.18858
--

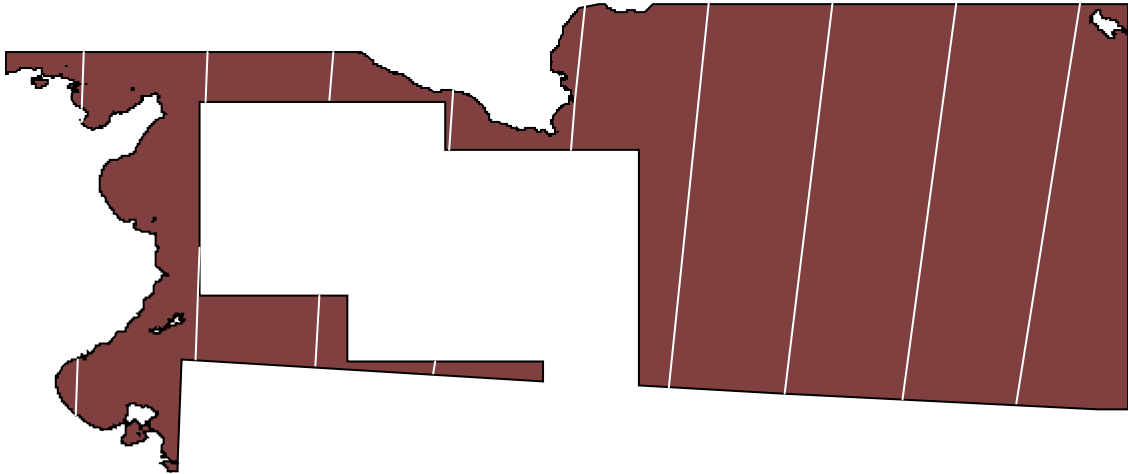
16.40127 43.19662
16.54825 43.26788
--

16.73575 43.3582
16.73887 43.3597
--

16.74341 43.36188
16.82631 43.40159

```
--  
Sampler 3  
15.89519 41.59865  
18.05921 42.6617  
--  
18.06618 42.66498  
18.07535 42.6693  
--  
Sampler 4  
17.29055 40.96358  
18.35831 41.48778  
--  
Sampler 5  
17.01896 39.48829  
17.99896 39.99087  
--  
18.46399 40.22292  
19.16152 40.56333  
--  
Sampler 6  
16.77046 38.01162  
19.82107 39.57911  
--  
19.92211 39.62799  
20.03214 39.68101  
--  
Sampler 7  
19.31865 38.02415  
20.55772 38.64157  
--  
20.73107 38.72564  
20.80436 38.76102  
--  
20.81648 38.76686  
20.87075 38.79298  
--
```

Area E_outside



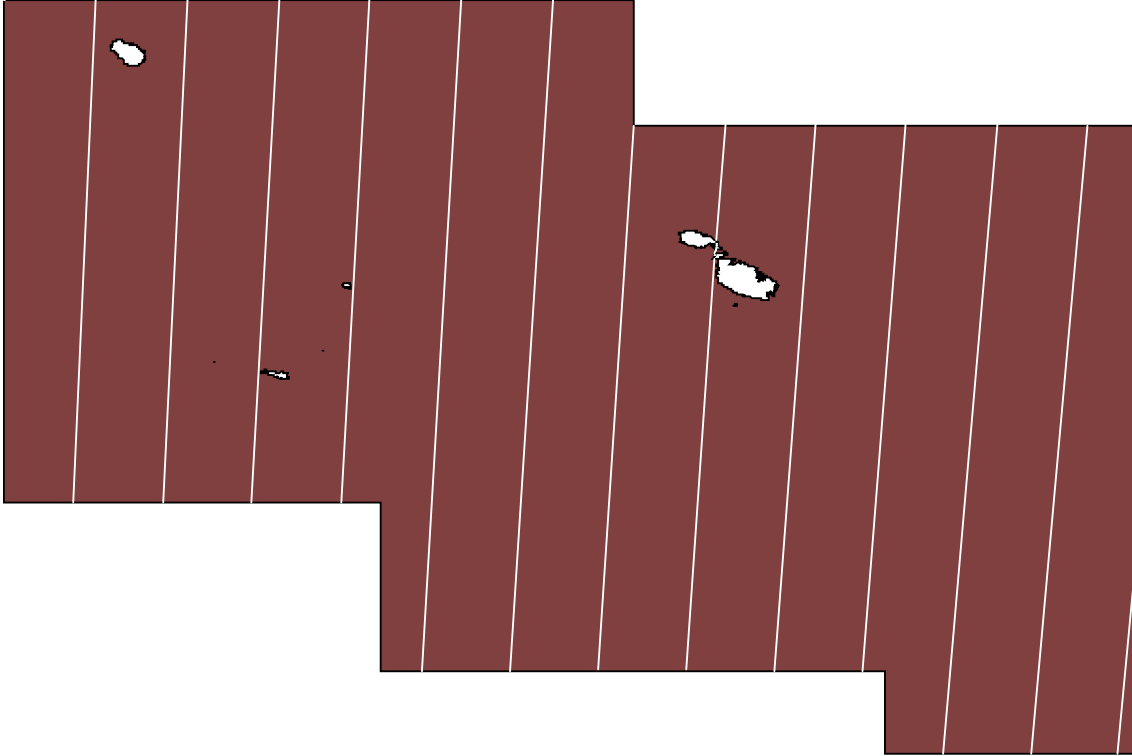
Type of sampler: Line
Number of samplers: 9

List of samplers:

	x-coord	y-coord
Sampler 1	19.86359	33.89945
	20.50078	38.00988
--		
Sampler 2	18.67917	33.95458
	19.24254	38.02459
--		
Sampler 3	17.48771	33.99783
	17.9782	38.02486
--		
Sampler 4	16.29326	34.0666
	16.70864	38.01056
--		
Sampler 5	15.29117	36.50402
	15.33797	37.00389
--		
	15.338	37.00428
	15.43361	37.97034
--		
Sampler 6	13.88767	34.21676
	13.89491	34.33421
--		
	14.04307	36.50037

```
14.08978 37.10788
--
Sampler 7
12.67603 34.28833
12.71066 35.00149
--
12.8222 37.00678
12.85314 37.50271
--
Sampler 8
11.45854 34.34786
11.49869 35.50812
--
11.55914 37.00063
11.58229 37.51339
--
Sampler 9
10.22604 33.78933
10.23539 34.36468
--
10.28773 36.78421
10.28816 36.80034
--
10.28842 36.81032
10.28849 36.81324
--
10.29146 36.92529
10.3077 37.51001
--
```

Area E_inside – previously surveyed sub-area replica 1



Sample layer name: 1 replica 1
Type of sampler: Line
Number of samplers: 14

List of samplers:

	x-coord	y-coord
Sampler 1	15.92712	34.00029
	15.99672	34.78966
--		
Sampler 2	15.58002	34.00104
	15.80454	36.50155
--		
Sampler 3	15.23253	34.00076
	15.4458	36.50351
--		
Sampler 4	14.90902	34.33074
	15.08665	36.50435
--		
Sampler 5	14.55966	34.33292
	14.72711	36.50406
--		

Sampler 6

14.20991 34.33407
14.32576 35.96877
--
14.32663 35.98021
14.32714 35.98696
--
14.32728 35.98872
14.32847 36.0044
--
14.32885 36.00942
14.32893 36.01043
--
14.32958 36.01904
14.33 36.02451
--
14.3302 36.02715
14.33031 36.02861
--
14.33117 36.03988
14.3672 36.50263
--

Sampler 7

13.8598 34.33417
14.00695 36.50006
--

Sampler 8

13.50934 34.33323
13.68242 37.00302
--

Sampler 9

13.15854 34.33124
13.31952 37.00539
--

Sampler 10

12.84124 35.0009
12.95627 37.00661
--

Sampler 11

12.48711 35.00215
12.59268 37.00669
--

Sampler 12

12.13265 35.00233
12.22876 37.00561
--

Sampler 13

11.77789 35.00144
11.86455 37.00338
--

Sampler 14

11.49999 36.99846
11.50006 37
--

Area E_inside – previously surveyed sub-area replica 2



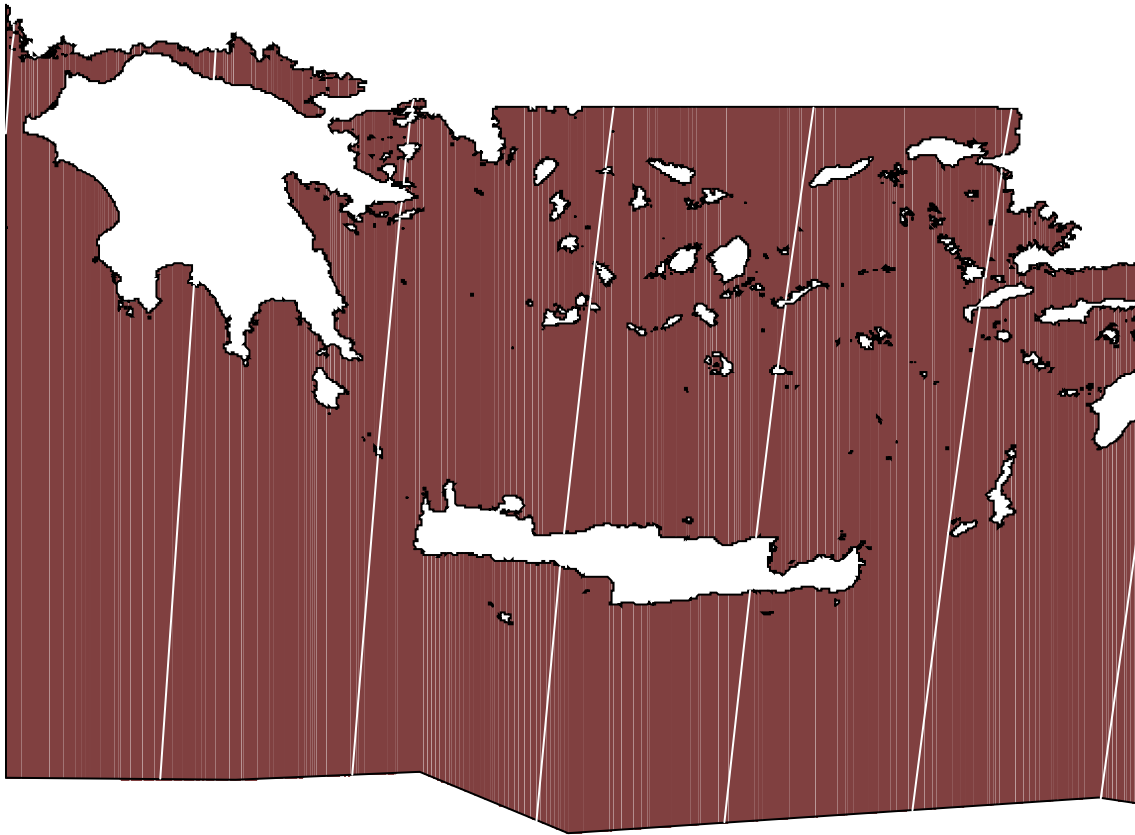
Sample layer name: 1 replica 2
Type of sampler: Line
Number of samplers: 13

List of samplers:

	x-coord	y-coord
Sampler 1	15.77341	34.00075
	15.99972	36.45583
	--	--
Sampler 2	15.42614	34.00105
	15.64568	36.50256
	--	--
Sampler 3	15.07847	34.00031
	15.28675	36.50402
	--	--
Sampler 4	14.75431	34.33184
	14.92742	36.50436
	--	--
Sampler 5	14.40477	34.33356
	14.51217	35.80713
	--	--

```
14.51837 35.88695
14.51848 35.88831
--
14.5189 35.89367
14.51924 35.89803
--
14.51929 35.89865
14.51944 35.90058
--
14.51957 35.90225
14.56772 36.50356
--
Sampler 6
14.05486 34.33424
14.20766 36.50163
--
Sampler 7
13.70459 34.33388
13.88439 37.0012
--
Sampler 8
13.35398 34.33248
13.52171 37.00421
--
Sampler 9
13.00304 34.33002
13.15865 37.00607
--
Sampler 10
12.68441 35.00159
12.79525 37.00679
--
Sampler 11
12.33013 35.00236
12.43151 37.00636
--
Sampler 12
11.97554 35.00207
12.05475 36.75133
--
12.05482 36.75291
12.05519 36.76024
--
12.05628 36.78223
12.05699 36.79655
--
12.05711 36.79901
12.06746 37.00477
--
Sampler 13
11.62064 35.00071
11.70312 37.00203
--
```

Area F



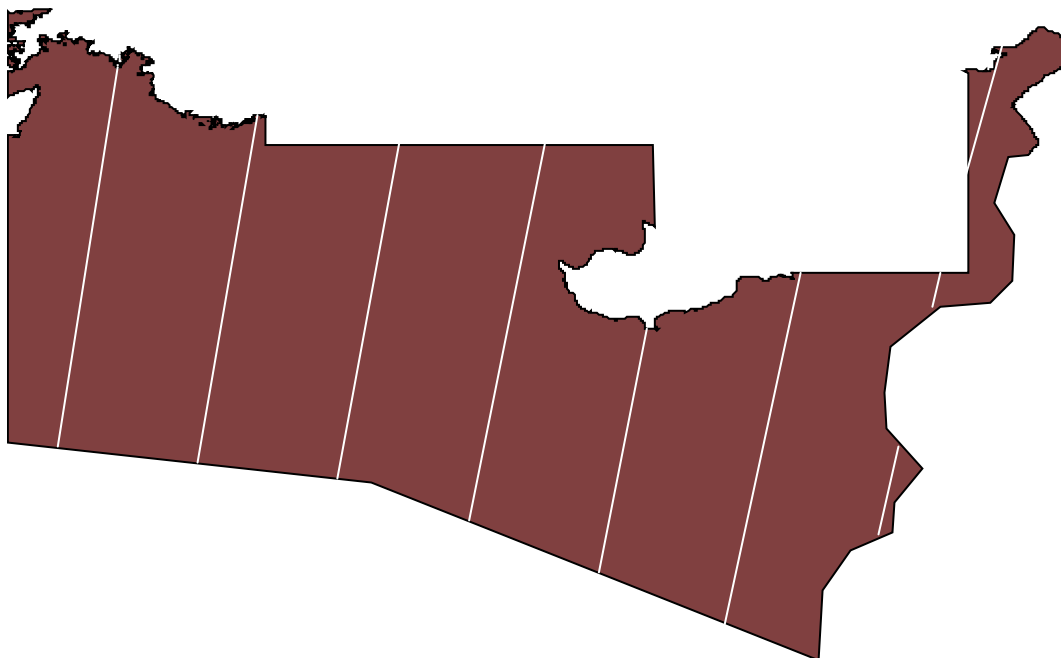
Sample layer name: 1 replica 1
Type of sampler: Line
Number of samplers: 7

List of samplers:

	x-coord	y-coord
Sampler 1		
	27.76764	33.71873
	27.99164	35.30228
	--	--
Sampler 2		
	26.61017	33.65784
	26.82349	35.3622
	--	--
	26.82363	35.36322
	27.02481	36.7658
	--	--
	27.0324	36.81564
	27.05291	36.9493
	--	--
	27.0532	36.95116
	27.05363	36.95391
	--	--
	27.05402	36.95644
	27.15392	37.58702
	--	--
	27.15592	37.59935
	27.159	37.61825

```
--
27.17273 37.70226
27.22026 37.98891
--
Sampler 3
25.44654 33.58066
25.59869 35.00681
--
25.63756 35.34176
25.76141 36.34502
--
25.76854 36.40009
25.81851 36.77898
--
25.8226 36.80943
25.9911 38.00065
--
Sampler 4
24.28573 33.58358
24.43006 35.15993
--
24.45101 35.36861
24.60454 36.78107
--
24.60488 36.78395
24.70271 37.59567
--
24.70704 37.63028
24.75419 38.00031
--
Sampler 5
23.1384 33.86852
23.297 35.84727
--
23.30088 35.89071
23.43769 37.30794
--
23.44104 37.34028
23.44862 37.41302
--
23.45741 37.49678
23.45747 37.49739
--
23.46117 37.53238
23.47651 37.67644
--
23.48706 37.77441
23.50082 37.90085
--
23.51155 37.99844
23.51635 38.04172
--
Sampler 6
21.9595 33.84546
22.16783 36.89106
--
22.27999 38.17444
22.29688 38.35373
--
Sampler 7
20.99934 37.84394
21.03725 38.35715
--
21.03755 38.36109
21.04483 38.45618
--
21.04661 38.47931
21.04883 38.50805
--
```

Area G_outside



Sample layer name: 1 replica 1
Type of sampler: Line
Number of samplers: 7

List of samplers:

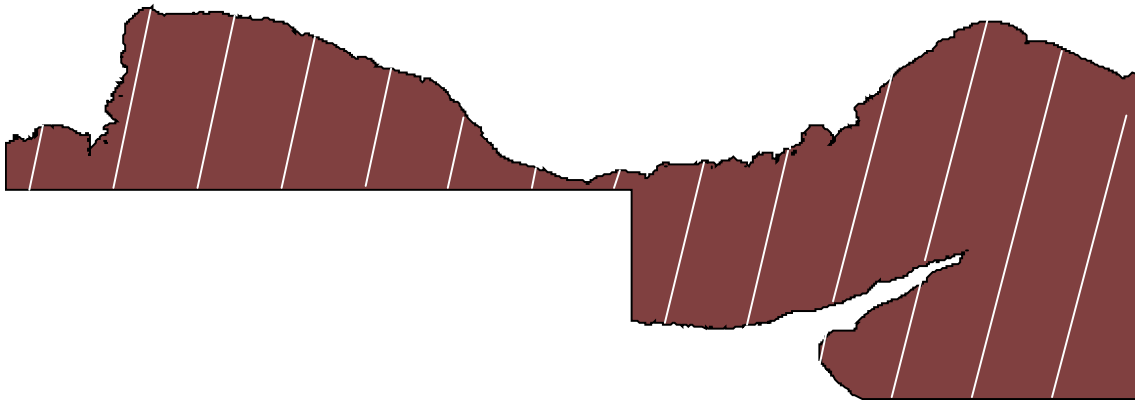
x-coord	y-coord
Sampler 1	
34.74165	32.97469
34.89725	33.66492
--	--
35.15678	34.74582
35.22296	35.00893
--	--
35.37804	35.60765
35.69613	36.76564
--	--
Sampler 2	
33.55055	32.2927
34.13697	35.00587
--	--
Sampler 3	
32.57006	32.69073
32.94802	34.5744
--	--
Sampler 4	
31.57162	33.08515
32.15417	36.01201

```

--
Sampler 5
30.54473 33.4115
31.0267 36.01227
--
Sampler 6
29.47134 33.53749
29.93316 36.2299
--
Sampler 7
28.38629 33.65393
28.85258 36.59667
--
28.86034 36.64021
28.86085 36.64302
--
28.86117 36.64482
28.8701 36.69476
--

```

Area G_inside – previously surveyed sub-area replica 1



```

Sample layer name: 1 replica 1
Type of sampler: Line
Number of samplers: 14

```

```

List of samplers:
  x-coord  y-coord

Sampler 1
35.0224 35.00924
35.37723 36.3596
--
Sampler 2
34.63736 35.00874
35.06723 36.66352
--
Sampler 3
34.2507 35.00673
34.39582 35.5996
--
34.41175 35.66324
34.71144 36.81154
--
Sampler 4

```

```
33.89813 35.15462
33.93987 35.32994
--
33.9722 35.46434
34.25401 36.58548
--
Sampler 5
33.55573 35.35659
33.75495 36.18296
--
33.75716 36.19186
33.76406 36.21968
--
Sampler 6
33.16476 35.35954
33.34654 36.13383
--
Sampler 7
32.91894 36.00458
32.94078 36.09799
--
Sampler 8
32.52238 36.00916
32.54265 36.09816
--
Sampler 9
32.1244 36.01217
32.19877 36.34459
--
Sampler 10
31.72508 36.01359
31.84887 36.57772
--
Sampler 11
31.32447 36.01342
31.47827 36.73059
--
Sampler 12
30.92262 36.01163
31.0939 36.83113
--
Sampler 13
30.5196 36.00822
30.69365 36.86558
--
Sampler 14
30.11544 36.00318
30.17393 36.30683
--
```


Area E – previously surveyed sub-area replica 2



Sample layer name: 1 replica 2
Type of sampler: Line
Number of samplers: 14

List of samplers:

	x-coord	y-coord
Sampler 1	35.14812	35.00908
	35.37708	35.88828
	--	--
Sampler 2	34.76362	35.00907
	35.18118	36.60791
	--	--
Sampler 3	34.37748	35.00755
	34.53806	35.65733
	--	--
	34.54174	35.67189
	34.54281	35.67611
	--	--
	34.54542	35.68642
	34.54655	35.69088
	--	--
	34.54956	35.70276
	34.82878	36.76504
	--	--
Sampler 4	34.00137	35.05357
	34.08451	35.40049
	--	--
	34.1175	35.53585
	34.40975	36.683
	--	--
Sampler 5	33.69374	35.39896
	33.91085	36.2878
	--	--
Sampler 6	33.29052	35.34822
	33.48001	36.14866
	--	--
Sampler 7	32.97691	35.69483
	33.06618	36.07788
	--	--
Sampler 8		

```
32.65239 36.00783
32.66382 36.05765
--
Sampler 9
32.25487 36.01135
32.30317 36.22625
--
Sampler 10
31.85598 36.0133
31.97188 36.53743
--
Sampler 11
31.45579 36.01365
31.59886 36.67585
--
Sampler 12
31.05434 36.0124
31.22579 36.82496
--
Sampler 13
30.65169 36.00952
30.82294 36.84524
--
Sampler 14
30.2479 36.00501
30.30358 36.29122
--
```