

# Transect Report

## Overview

This report provides summary statistics and figures for ongoing transect sampling. The first section of the report focuses on the current sampling (Winter 2020-2021) and how the collected data compare to last year's sampling (Winter 2019-2020). So far 12 days have been sampled this season. The second half of the report gives summaries of all of the data that have been collected since the beginning of the project (2010-05-27). In total, 105 days have been sampled over this entire project.

## Definition of Localities

LOCALITY	LOCATION
BT	Big Trout
CK	Cedar Key
CR	Corrigan's Reef
HB	Horseshoe Beach
LC	Lone Cabbage
LT	Little Trout
NN	No Name

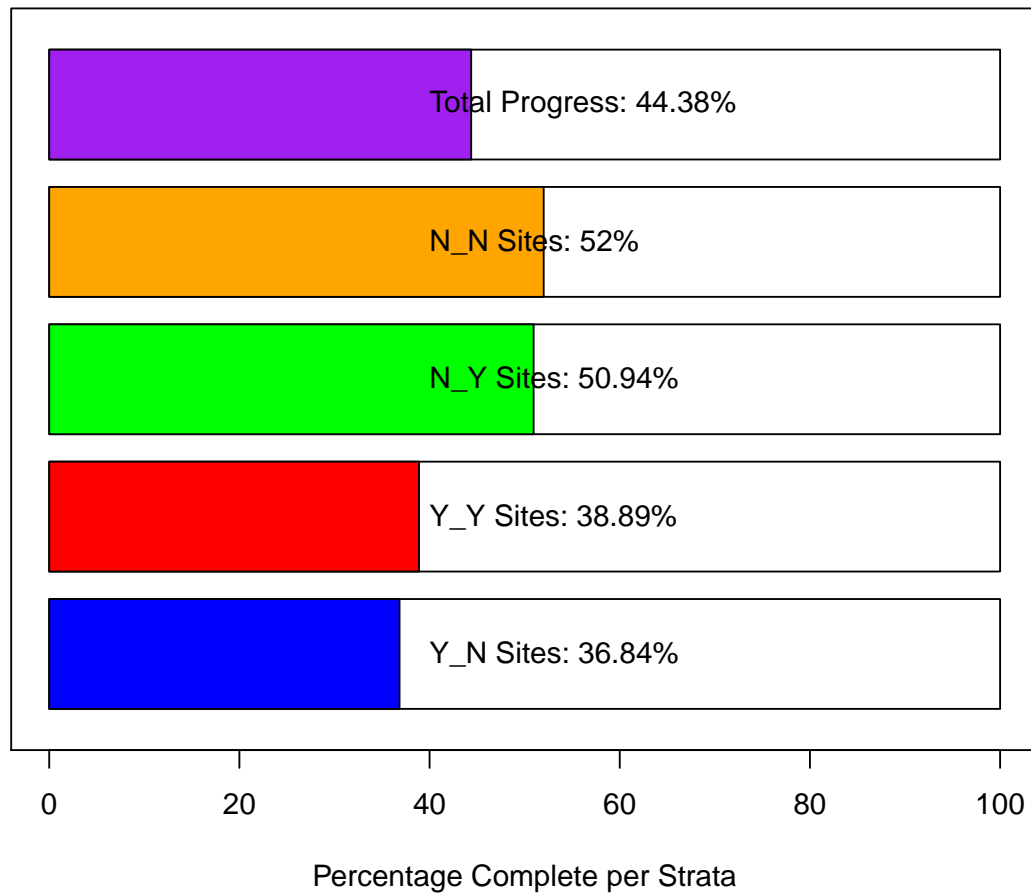
## Definition of Strata

STRATA	DEFINITION
Y_N	Yes Harvest, No Rock
Y_Y	Yes Harvest, Yes Rock
N_N	No Harvest, No Rock
N_Y	No Harvest, Yes Rock
N_PILOT	No Harvest, Pilot Rocks

## Current Sampling

Here, we provide a progress bar showing how much of the sampling has been completed for this season, plus summary tables and plots comparing live counts and density of oysters between this current season and last year. **The current sampling period is period 22, and last year's sampling period is period 20.**

### Field Sites– Strata Progress



## Summary Tables for Periods 18, 20 and 22

These summary tables provide summary statistics on live counts and oyster densities for just periods **18 (Winter 2018-2019)**, **20 (Winter 2019-2020)** and **22 (Winter 2020-2021)**.

Summary statistics include:

- Locality or Strata or Period - Mean
- Median
- Standard Deviation (SD)
- Variance (Var)
- Coefficient of variation (CV)
- Standard Error (SE)
- Lower 95% Confidence Interval assuming normal distribution (L95)
- Upper 95% Confidence Interval assuming normal distribution (U95)
- Bootstrap Mean (Bstrap Mean)
- Lower 95% Confidence Interval from Bootstrap Values (L95 Bstrap)
- Upper 95% Confidence Interval from Bootstrap Values (U95 Bstrap)

### Summary of Live Counts for Periods 18, 20 and 22

#### Live Oyster Counts by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	1805	897	2435	5931263	1.35	734	366	3245	1854	759	3498
LC	1355	880	1575	2480317	1.16	155	1051	1659	1359	1085	1680
LT	1054	877	645	416505	0.61	167	728	1381	1062	780	1387
NN	720	649	644	414522	0.89	204	321	1119	703	403	1131

#### Live Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	1123	816	1299	1687484	1.16	186	760	1487	1119	841	1510
N_PILOT	356	356	NA	NA	NA	NA	NA	NA	178	13	346
N_Y	2194	1436	2126	4519300	0.97	434	1343	3044	2206	1497	3134
Y_N	901	698	796	632829	0.88	113	680	1121	902	691	1122
Y_Y	1956	1506	2349	5520147	1.20	607	767	3145	1977	1002	3237

#### Live Oyster Counts by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
18	982	695	935	874733	0.95	120	748	1217	984	770	1227
20	1844	1253	2125	4517189	1.15	310	1236	2451	1850	1298	2540
22	1155	679	1269	1609202	1.10	228	709	1602	1160	781	1619

#### Live Density by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	262	218	207	42972	0.79	63	140	385	262	161	381
LC	172	153	129	16544	0.75	13	147	196	172	148	196
LT	274	239	152	23145	0.56	39	197	351	272	201	346
NN	215	154	234	54714	1.09	74	70	360	214	108	366

#### Live Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	234	185	176	30838	0.75	25	185	283	234	185	283
N_PILOT	102	102	NA	NA	NA	NA	NA	NA	51	2	99
N_Y	147	136	99	9743	0.67	20	108	187	149	110	187
Y_N	198	185	150	22392	0.76	21	157	240	197	155	238

Y_Y	119	112	89	7937	0.75	23	74	164	119	78	163
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Live Density by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
18	177	155	131	17117	0.74	17	144	210	177	144	211
20	258	203	188	35185	0.73	27	204	312	257	206	310
22	125	121	67	4458	0.53	12	101	148	124	103	146

## Summary of Dead Counts for Periods 18, 20 and 22

### Dead Oyster Counts by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	348	178	333	111065	0.96	100	151	545	347	178	530
LC	120	67	123	15180	1.02	12	96	144	120	98	144
LT	240	210	202	40850	0.84	52	137	342	240	146	351
NN	100	68	100	10018	1.00	32	38	162	101	50	168

### Dead Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	213	135	220	48338	1.03	31	151	275	212	157	273
N_PILOT	9	9	NA	NA	NA	NA	NA	NA	5	1	9
N_Y	74	54	91	8199	1.23	18	38	110	73	43	109
Y_N	134	83	129	16610	0.96	18	98	169	134	101	169
Y_Y	127	56	144	20777	1.14	37	54	200	127	66	202

### Dead Oyster Counts by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
18	133	55	192	36903	1.44	25	85	182	133	91	185
20	148	107	140	19727	0.95	20	108	188	149	113	191
22	185	108	164	27054	0.89	30	127	243	185	131	241

### Dead Oyster Density by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	55	51	37	1332	0.66	11.0	34	77	55	36	78
LC	20	11	22	501	1.10	2.2	16	25	20	16	25
LT	58	47	40	1570	0.68	10.2	38	78	57	40	79
NN	28	16	26	668	0.91	8.2	12	45	29	14	44

### Dead Oyster Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	43.8	37.0	34.0	1159	0.78	4.86	34.2	53.3	44.0	34.4	53.6
N_PILOT	2.6	2.6	NA	NA	NA	NA	NA	NA	1.5	1.0	2.0
N_Y	5.2	3.8	4.7	22	0.89	0.96	3.4	7.1	5.3	3.7	7.2
Y_N	29.1	22.0	25.9	671	0.89	3.66	21.9	36.2	29.1	22.3	36.0
Y_Y	8.6	7.9	6.6	43	0.76	1.70	5.3	12.0	8.6	5.5	12.0

### Dead Oyster Density by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
18	26	16	31	980	1.19	4.0	19	34	26	19	34
20	28	18	26	698	0.95	3.9	20	35	28	21	37
22	30	15	31	980	1.04	5.6	19	41	30	19	42

## Summary Plots for Periods 18, 20 and 22

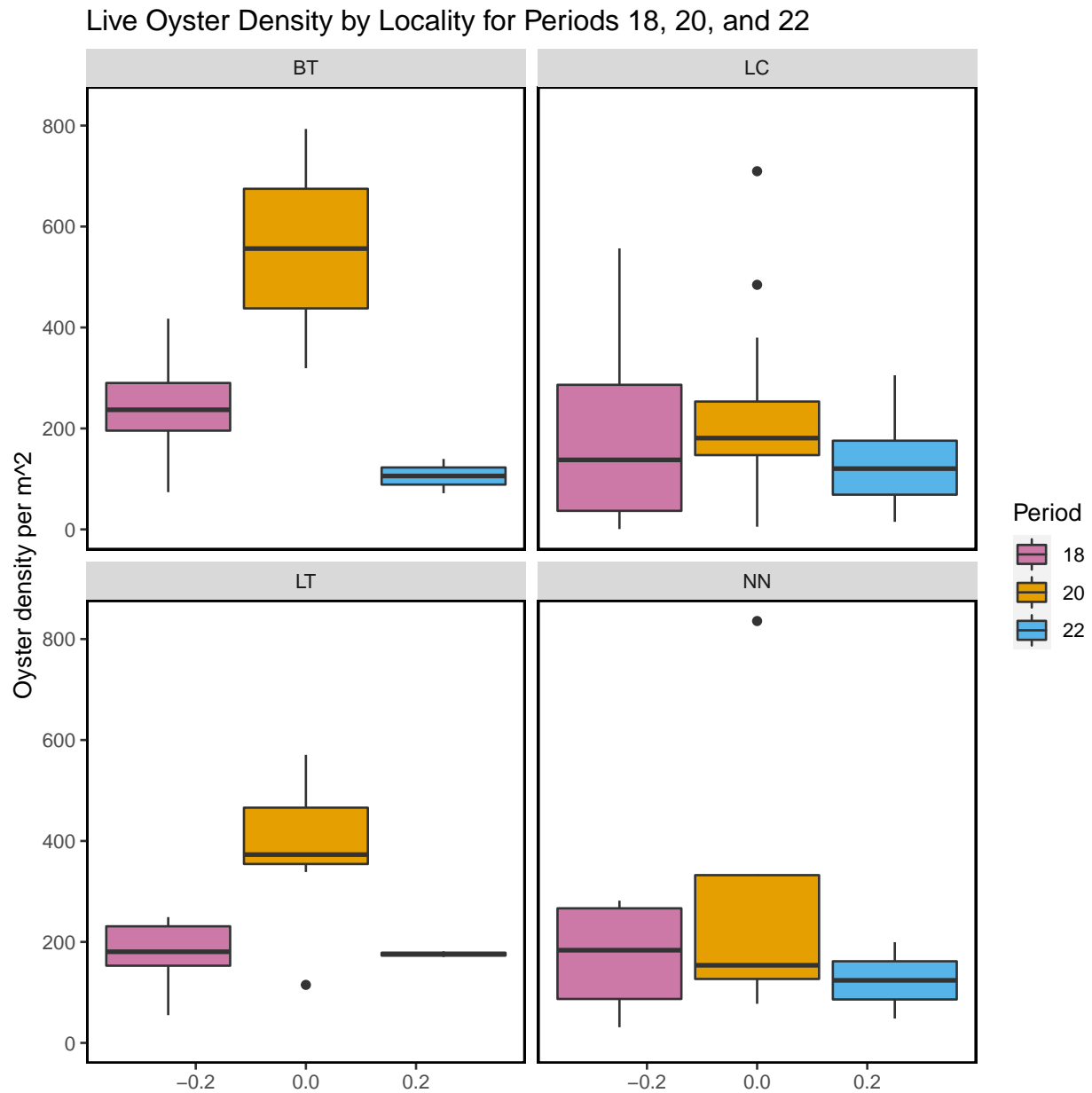


Figure- Calculated live oyster density by locality for periods 18 (Winter 2018-2019), 20 (Winter 2019-2020) and 22 (Winter 2020-2021) with the last sample date of period 22 as 2020-12-29.

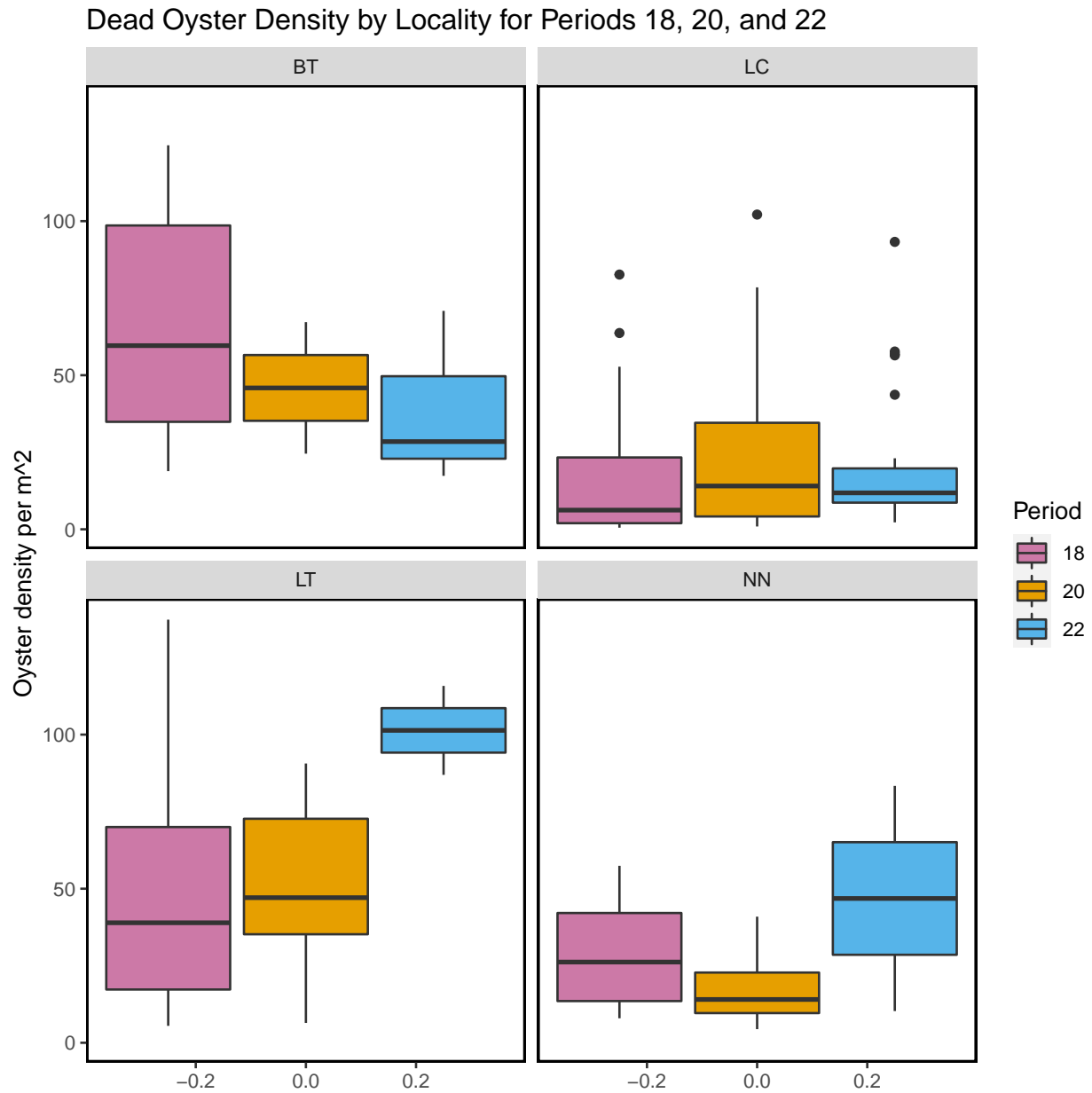


Figure- Calculated dead oyster density by locality for periods 18 (Winter 2018-2019), 20 (Winter 2019-2020) and 22 (Winter 2020-2021) with the last sample date of period 22 as 2020-12-29.

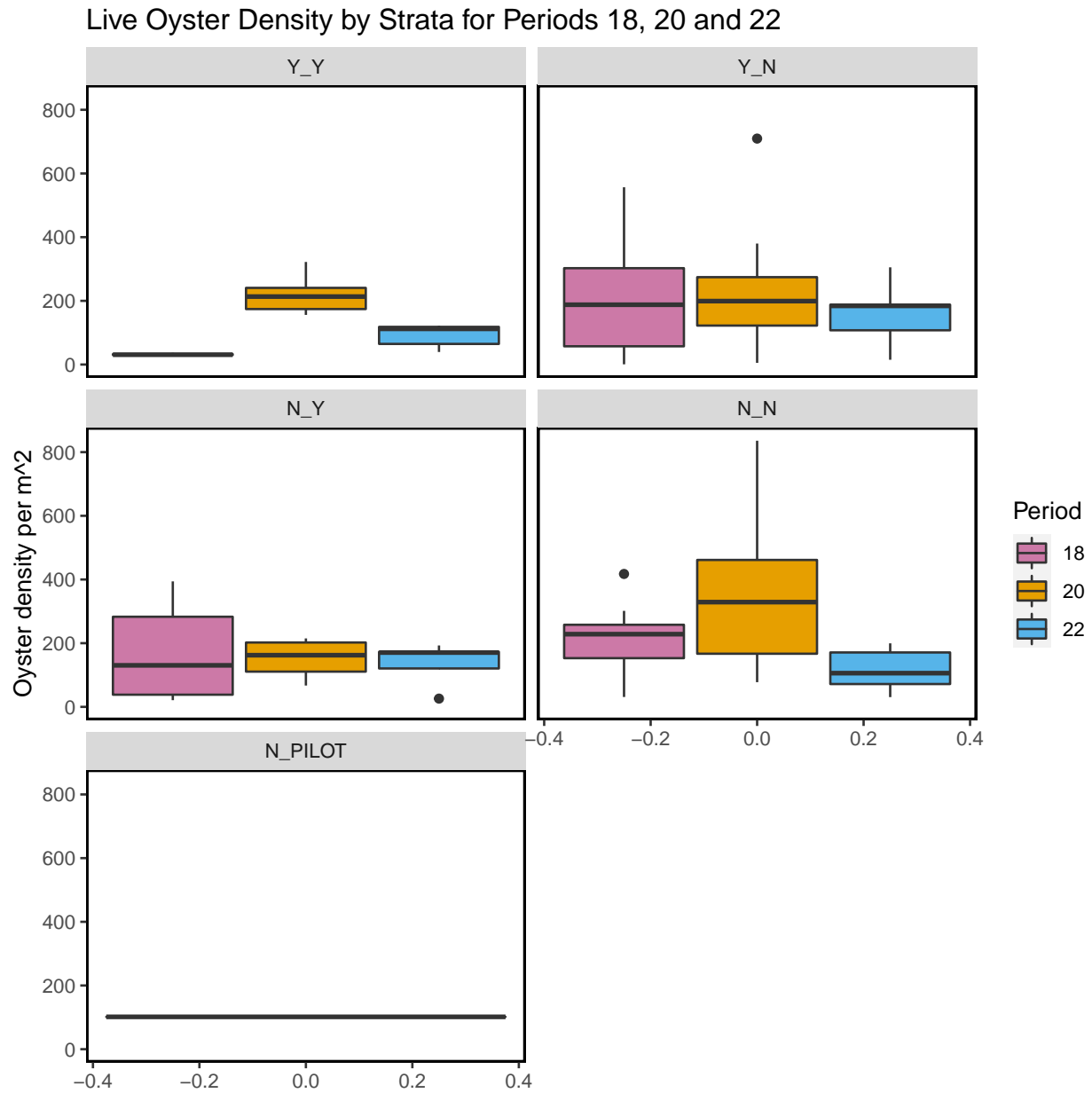


Figure- Calculated live oyster density by strata for periods 18 (Winter 2018-2019), 20 (Winter 2019-2020) and 22 (Winter 2020-2021) with the last sample date of period 22 as 2020-12-29.



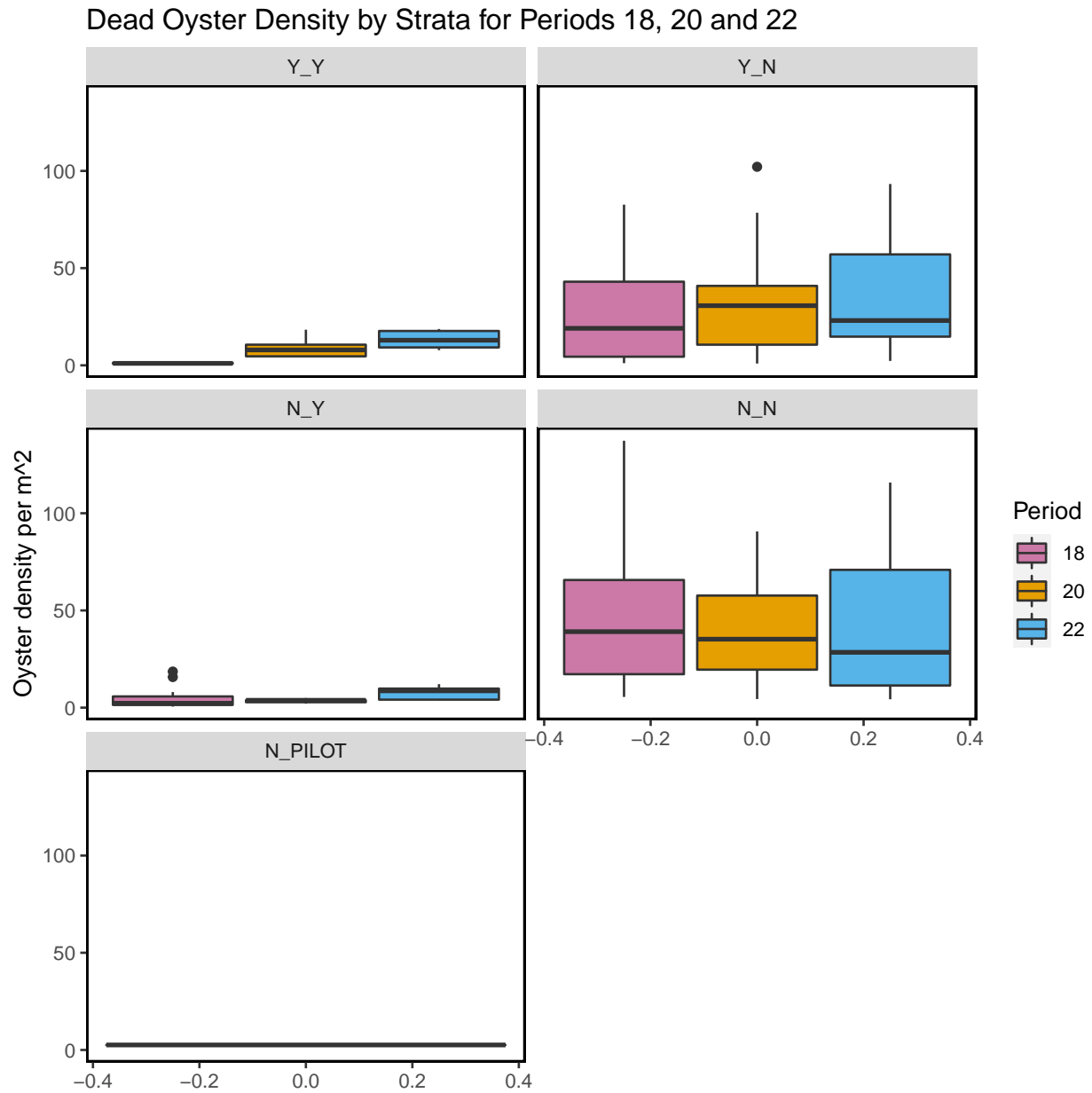


Figure- Calculated dead oyster density by strata for periods 18 (Winter 2018-2019), 20 (Winter 2019-2020) and 22 (Winter 2020-2021) with the last sample date of period 22 as 2020-12-29.

The following summary plot is calculated in R using the `geom_density` ([https://ggplot2.tidyverse.org/reference/geom\\_density.html](https://ggplot2.tidyverse.org/reference/geom_density.html)) statistical function in `ggplot`. The `geom_density` function computes and draws kernel density estimates, which is then represented as a smoothed version of a histogram.

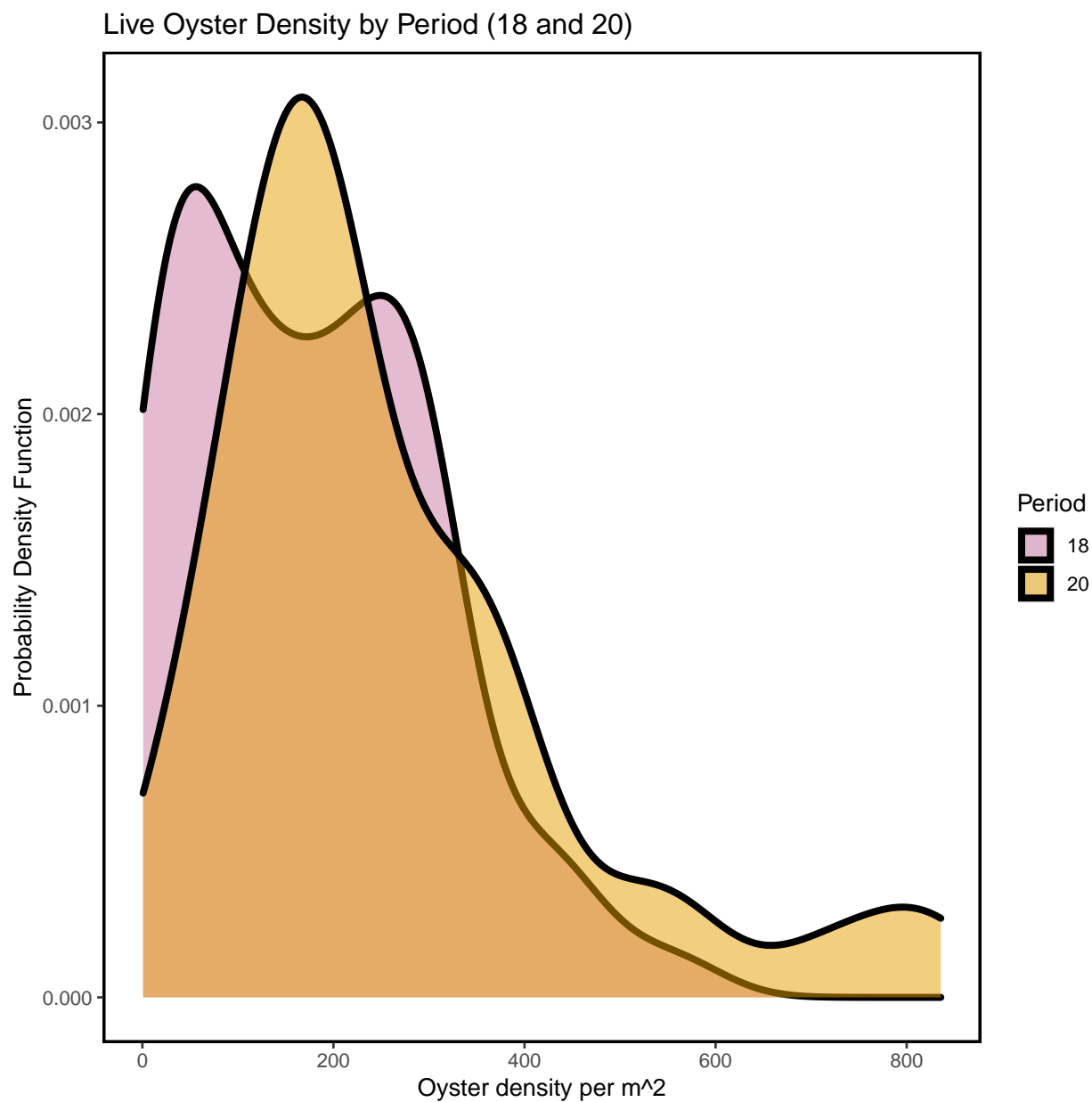


Figure- Calculated live oyster density by periods 18 (Winter 2018-2019) and 20 (Winter 2019-2020) using a probability density function with the last sample date of period 22 as 2020-12-29.

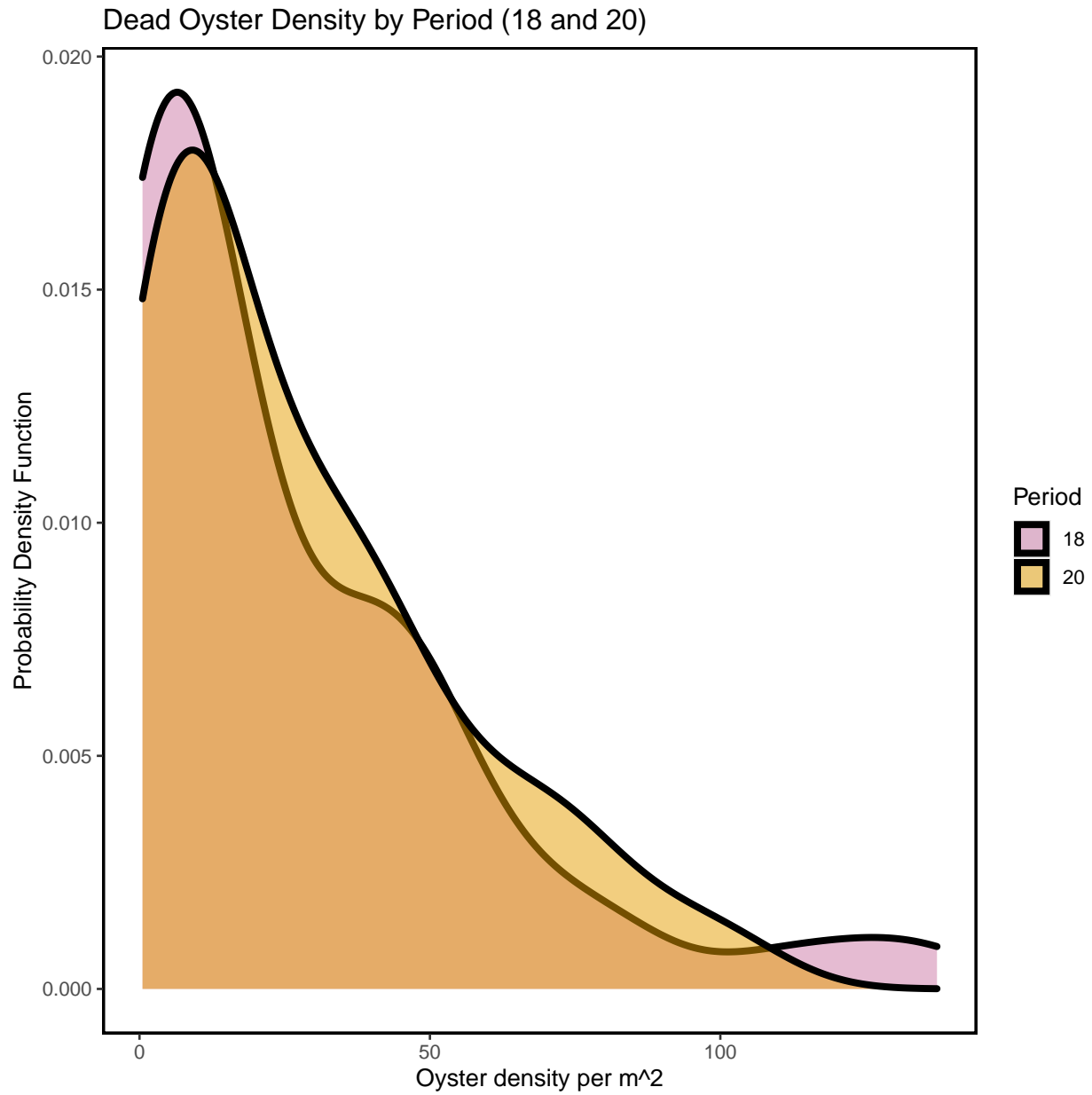


Figure- Calculated dead oyster density by periods 18 (Winter 2018-2019) and 20 (Winter 2019-2020) using a probability density function with the last sample date of period 22 as 2020-12-29.

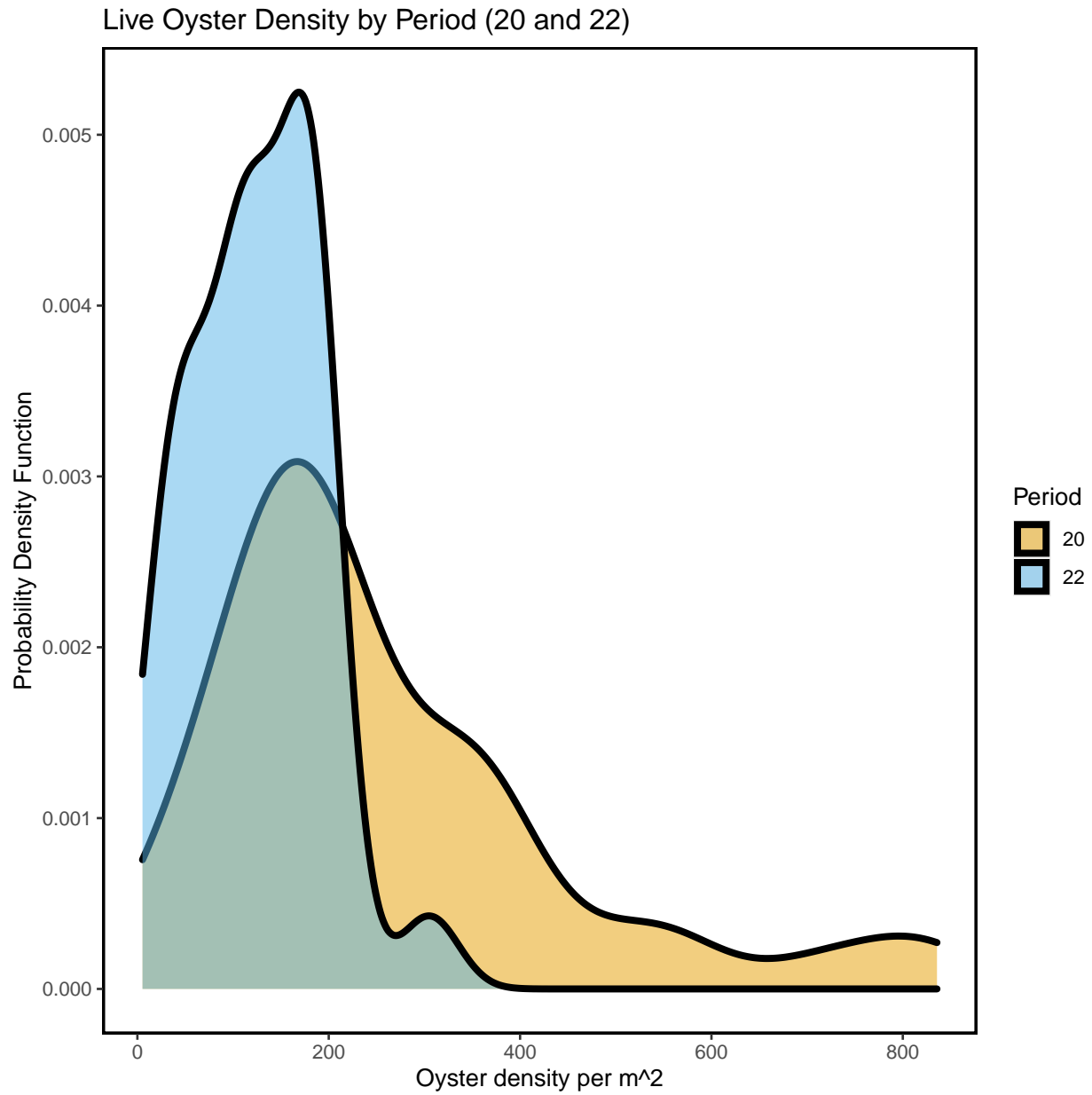


Figure- Calculated live oyster density by periods 20 (Winter 2019-2020) and 22 (Winter 2020-2021) using a probability density function with the last sample date of period 22 as 2020-12-29.

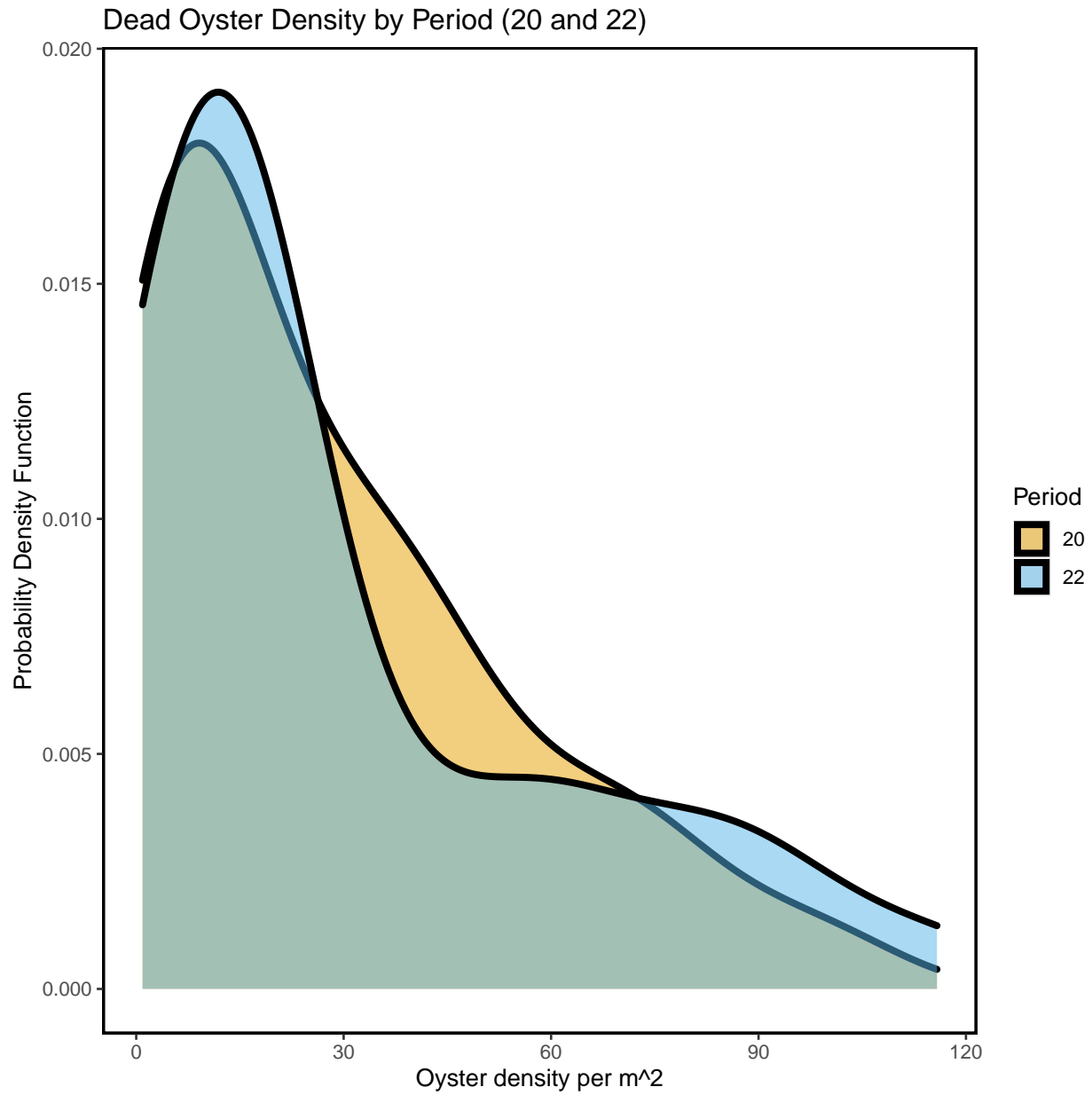


Figure- Calculated dead oyster density by periods 20 (Winter 2019-2020) and 22 (Winter 2020-2021) using a probability density function with the last sample date of period 22 as 2020-12-29.

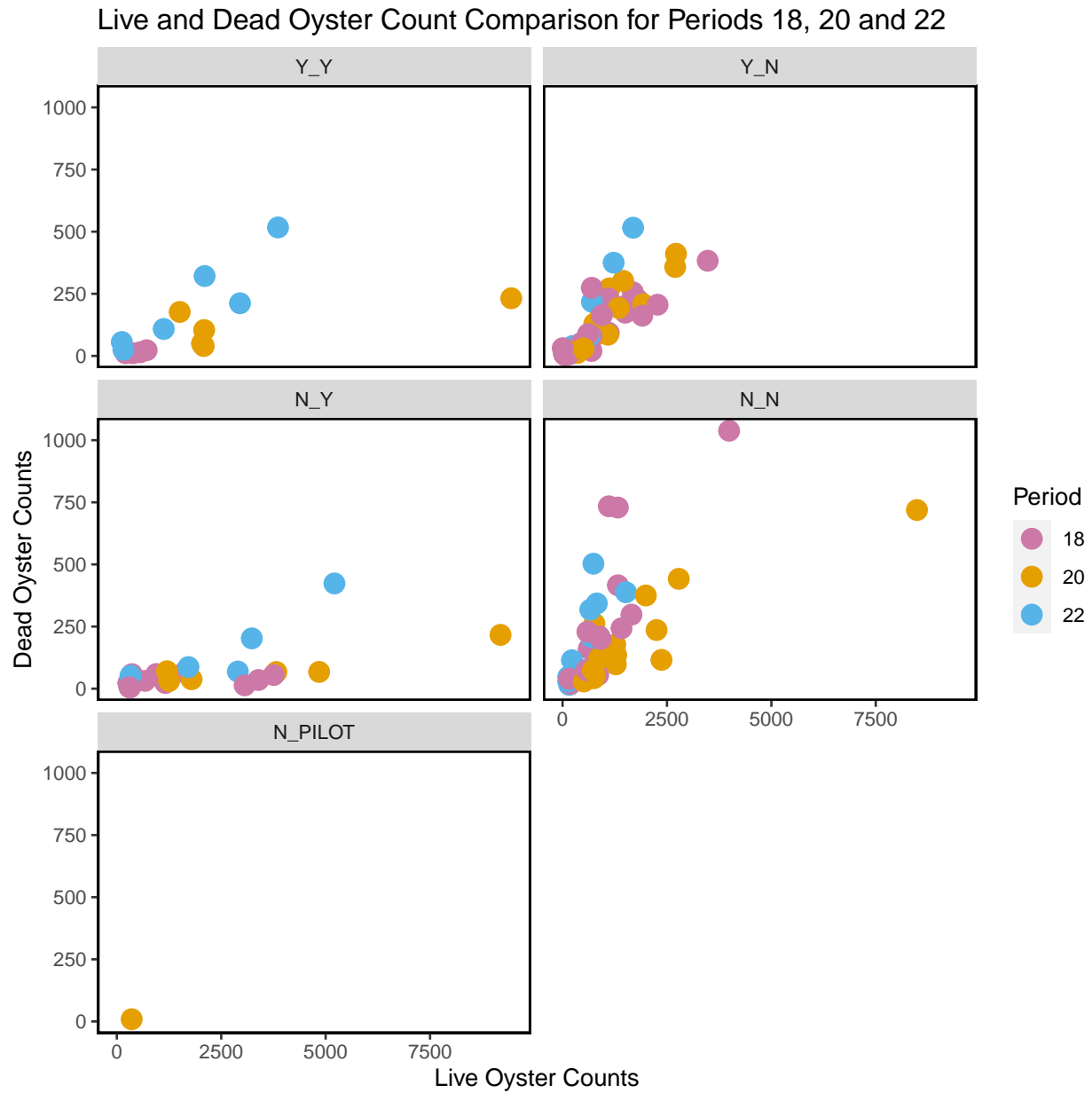


Figure- Live and dead oyster count comparison by periods 18 (Winter 2018- 2019), 20 (Winter 2019-2020) and 22 (Winter 2020-2021), last sample date of period 22 as 2020-12-29.

Live Counts Double Pass Results

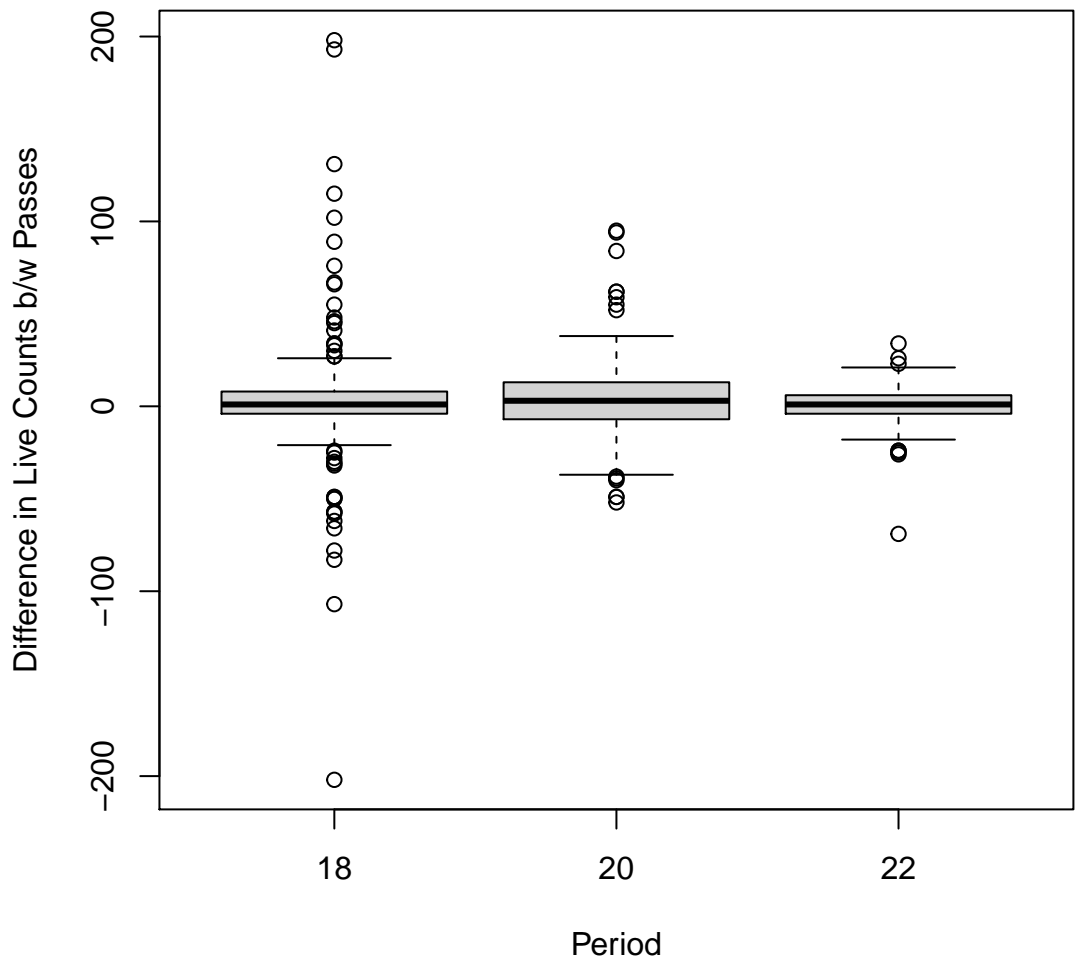


Figure- Boxplot of the difference in live counts between pass 1 and pass 2 (pass 1 live counts - pass 2 live counts) for period 18, 20, and 22

locality	period	CV_1	CV_2
BT	18	0.82	0.83
LC	18	1.34	1.43
NN	18	0.47	0.63
LC	20	0.83	0.80
LT	20	0.61	0.60
BT	22	0.39	0.52
LC	22	0.69	0.73
LT	22	0.47	0.43

Table- Coefficient variation between pass 1 and pass 2, aggregated by locality and period for live counts

Dead Counts Double Pass Results

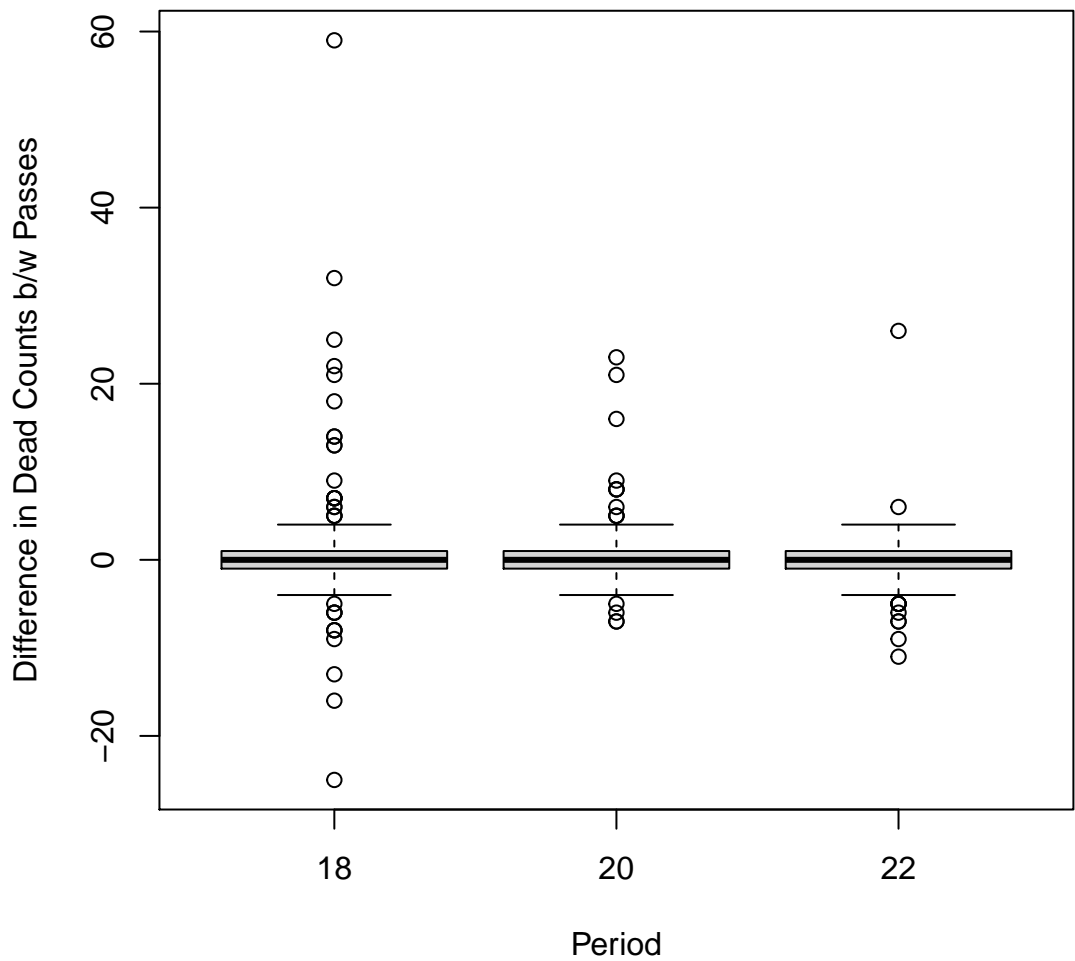


Figure- Boxplot of the difference in dead counts between pass 1 and pass 2 (pass 1 dead counts - pass 2 dead counts) for period 18, 20, and 22

locality	period	CV_1	CV_2
BT	18	0.78	0.82
LC	18	2.35	2.06
NN	18	0.55	0.73
LC	20	1.93	1.62
LT	20	0.76	0.67
BT	22	0.60	0.66
LC	22	0.75	0.78
LT	22	0.79	0.74

Table- Coefficient variation between pass 1 and pass 2, aggregated by locality and period for dead counts



## Sampling for all Periods

Next, we provide summary tables and plots for all transect sampling. These data were collected between 2010-05-27 and 2020-12-29. The following are only for live oysters.

### Definitions of Periods

PERIOD	SEASON	YEAR
1	Summer	2010
2	Winter	2010-2011
3	Summer	2011
4	Winter	2011-2012
5	Summer	2012
6	Winter	2012-2013
7	Summer	2013
8	Winter	2013-2014
9	Summer	2014
10	Winter	2014-2015
11	Summer	2015
12	Winter	2015-2016
13	Summer	2016
14	Winter	2016-2017
15	Summer	2017
16	Winter	2017-2018
17	Summer	2018
18	Winter	2018-2019
19	Summer	2019
20	Winter	2019-2020
21	Summer	2020
22	Winter	2020-2021

## Summary of Effort for all Periods

These effort summaries show the total number of transects and total number of meters walked per locality, strata, locality per period, and strata per period. **These tables contain all data collected on the transects.**

### Effort by Locality

Locality	Number of Transects	Total Length (m)
BT	11	424
CK	26	712
CR	46	1330
HB	45	1129
LC	183	9099
LT	15	406
NN	10	255

### Effort by Strata

Strata	Number of Transects	Total Length (m)
N_N	106	3537
N_PILOT	13	799
N_Y	24	2502
Y_N	178	5078
Y_Y	15	1437

### Effort by Period

Period	Number of Transects	Total Length (m)
1	42	1086
2	30	753
3	25	619
6	33	874
7	8	528
10	8	512
11	8	511
16	8	528
18	61	2632
19	35	921
20	47	2556
22	31	1833

### Effort by Locality and Period

Period	Locality	Number of Transects	Total Length (m)
1	CK	9	242
1	CR	10	300
1	HB	12	293
1	LC	11	250
10	LC	8	512
11	LC	8	511
16	LC	8	528
18	BT	6	238
18	LC	45	2128
18	LT	6	182
18	NN	4	84
19	CK	9	221
19	CR	9	227

19	HB	9	247
19	LC	8	226
2	CR	9	283
2	HB	11	271
2	LC	10	199
20	BT	2	96
20	LC	34	2163
20	LT	7	171
20	NN	4	126
22	BT	3	90
22	LC	24	1646
22	LT	2	52
22	NN	2	46
3	CR	9	269
3	HB	7	184
3	LC	9	167
6	CK	8	248
6	CR	9	250
6	HB	6	134
6	LC	10	242
7	LC	8	528

Effort by Strata and Period

Period	Strata	Number of Transects	Total Length (m)
1	N_N	8	149
1	Y_N	34	937
10	N_N	4	256
10	N_PILOT	4	256
11	N_N	4	255
11	N_PILOT	4	256
16	N_N	4	264
16	N_PILOT	4	264
18	N_N	18	571
18	N_Y	13	962
18	Y_N	26	723
18	Y_Y	4	376
19	N_N	5	80
19	Y_N	30	841
2	N_N	8	148
2	Y_N	22	605
20	N_N	18	590
20	N_PILOT	1	23
20	N_Y	6	888
20	Y_N	17	602
20	Y_Y	5	454
22	N_N	13	372
22	N_Y	5	652
22	Y_N	7	202
22	Y_Y	6	607
3	N_N	8	147
3	Y_N	17	472
6	N_N	8	178
6	Y_N	25	695
7	N_N	8	528

## Effort Plot Summaries for all Periods

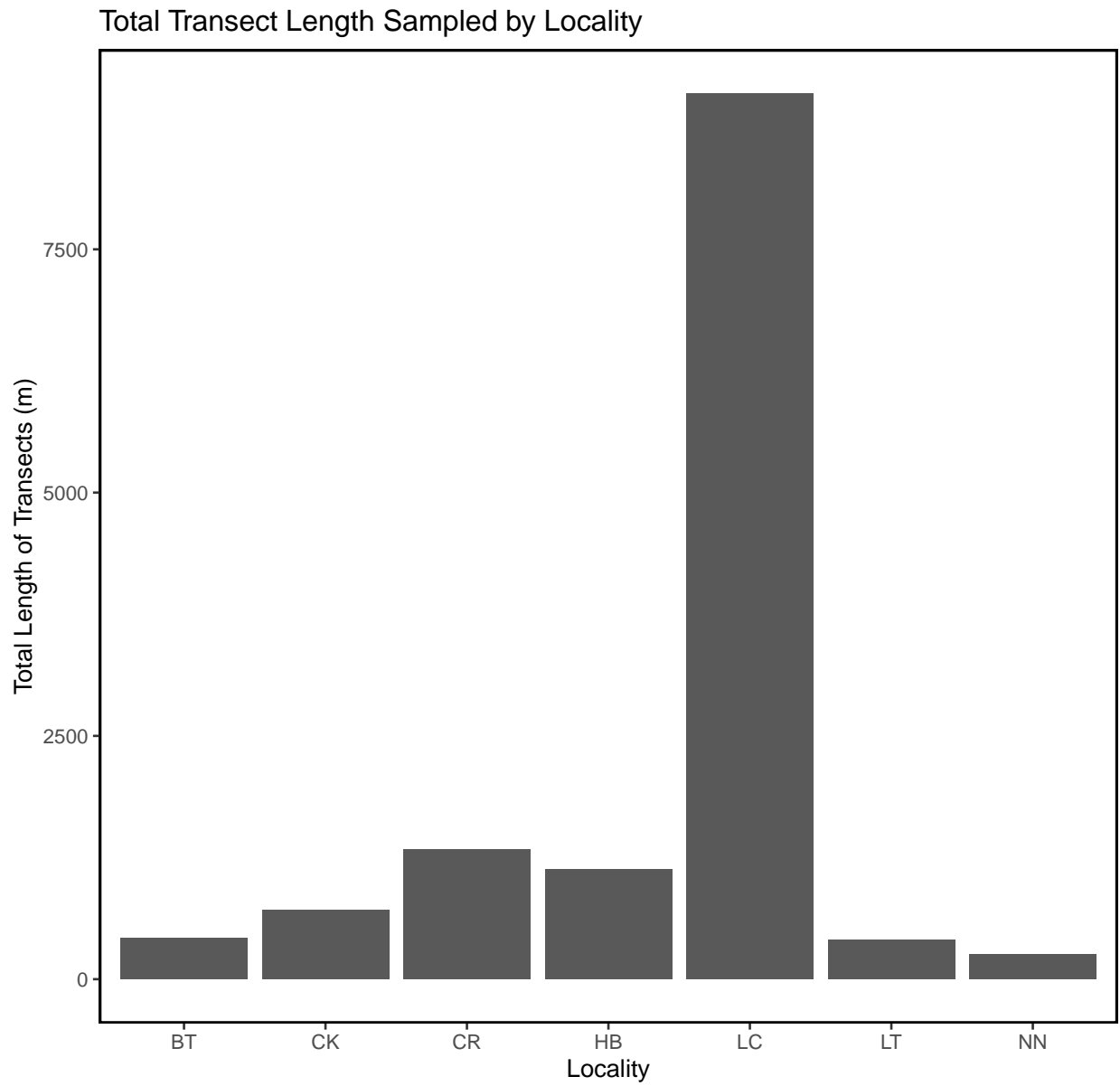


Figure – Bar plot of total transect length in meters sampled by locality for all periods.

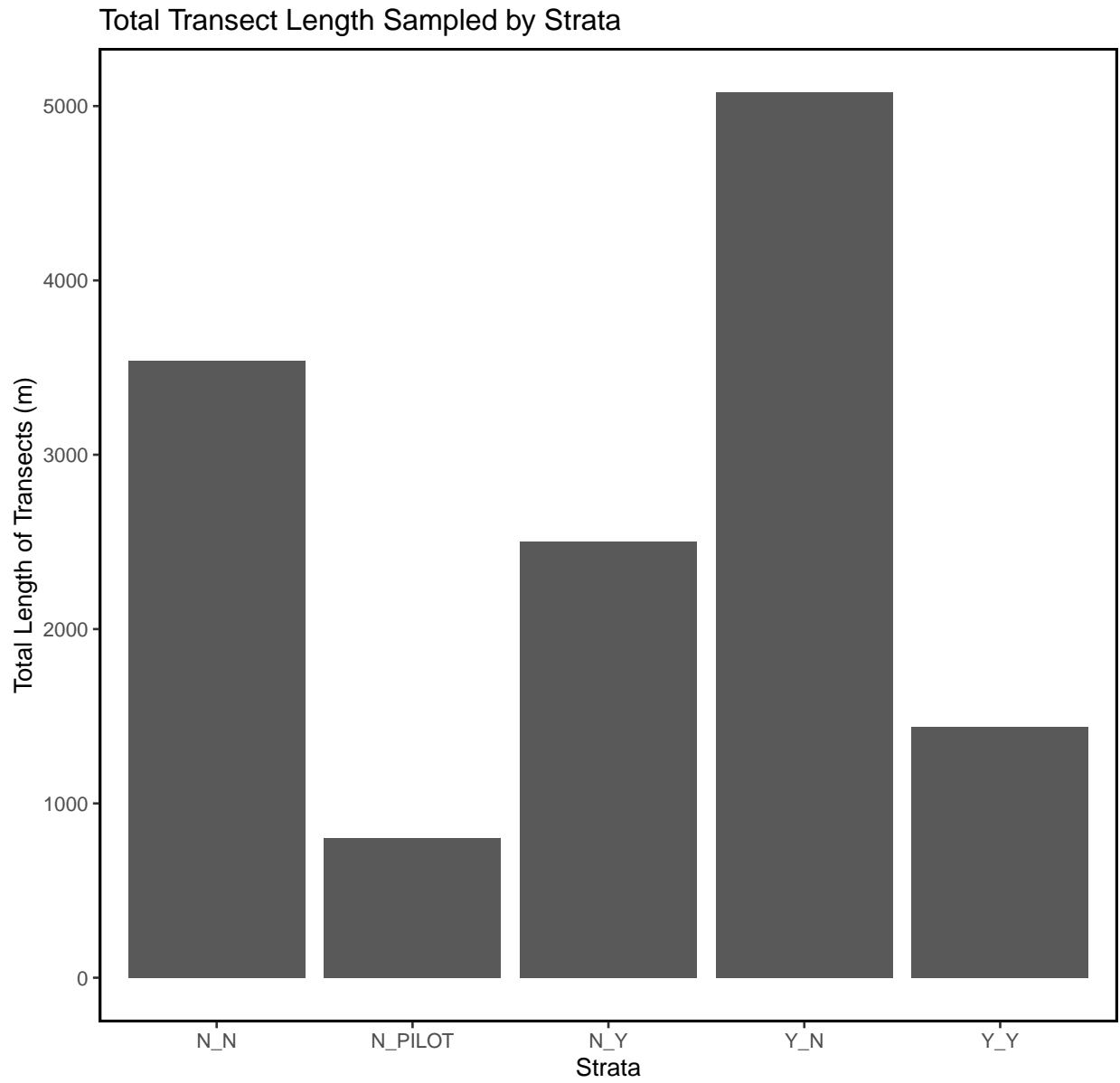
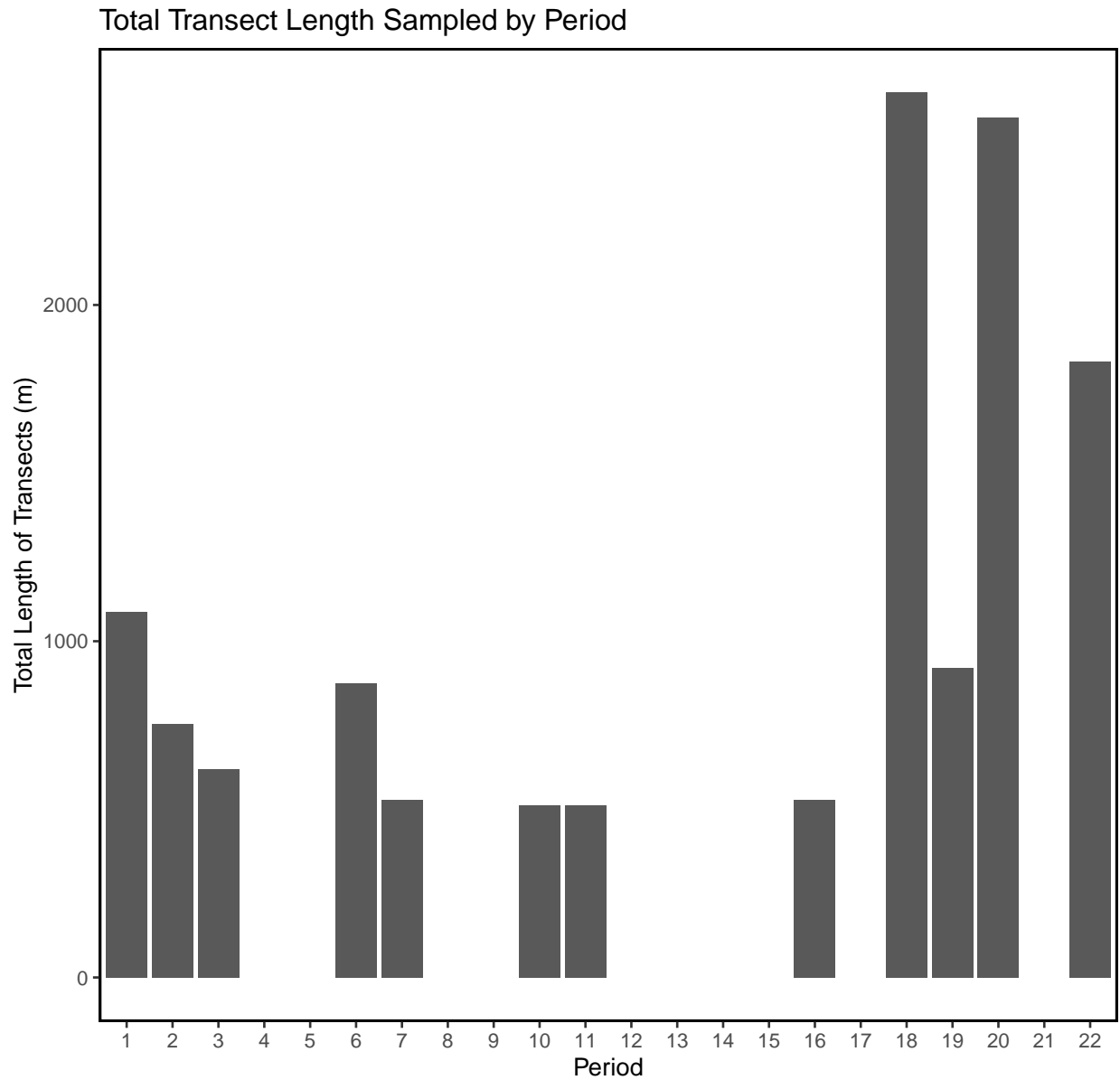


Figure – Bar plot of total transect length in meters sampled by strata for all periods.



Figure– Bar plot of total transect length in meters sampled by period for all periods.

## Summary Tables for all Periods

These summaries display summary statistics of live oysters by locality, strata, and period. These contain all data collected on the oyster transects.

The summary statistics include:

- Locality or Strata or Period - Mean
- Median
- Standard Deviation (SD)
- Variance (Var)
- Coefficient of variation (CV)
- Standard Error (SE)
- Lower 95% Confidence Interval assuming normal distribution (L95)
- Upper 95% Confidence Interval assuming normal distribution (U95)
- Bootstrap Mean (Bstrap Mean)
- Lower 95% Confidence Interval from Bootstrap Values (L95 Bstrap)
- Upper 95% Confidence Interval from Bootstrap Values (U95 Bstrap)

## Live Count Statistics for all Periods

### Live Oyster Counts by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	1805	897	2435	5931263	1.35	734	366	3245	1813	776	3288
CK	857	444	1091	1190933	1.27	214	438	1277	851	477	1279
CR	1026	716	1035	1072162	1.01	153	727	1325	1027	772	1326
HB	902	364	1047	1095622	1.16	158	592	1211	901	588	1200
LC	1038	677	1318	1737645	1.27	98	845	1230	1037	855	1244
LT	1054	877	645	416505	0.61	167	728	1381	1056	766	1403
NN	720	649	644	414522	0.89	204	321	1119	724	409	1160

### Live Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	995	761	1087	1181711	1.09	106	787	1203	996	808	1220
N_PILLOT	1046	1109	627	392853	0.60	174	705	1386	1051	729	1401
N_Y	2194	1436	2126	4519300	0.97	434	1343	3044	2212	1448	3091
Y_N	793	436	928	861984	1.17	70	656	931	789	647	932
Y_Y	1956	1506	2349	5520147	1.20	607	767	3145	1961	961	3235

### Live Oyster Counts by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
1	1404	1018	1288	1657932	0.92	199	1014	1793	1399	1028	1813
2	890	476	945	893727	1.06	176	546	1234	894	587	1242
3	738	296	817	668064	1.11	167	411	1065	742	427	1090
6	433	176	534	284791	1.23	96	245	621	430	264	630
7	50	29	56	3186	1.12	20	11	90	51	18	88
10	1207	1074	671	449607	0.56	237	743	1672	1205	817	1658
11	886	776	678	459708	0.77	240	416	1356	893	456	1347
16	494	366	467	217855	0.95	165	170	817	489	213	829
18	982	695	935	874733	0.95	120	748	1217	977	758	1236
19	555	329	573	328431	1.03	97	365	745	552	381	741
20	1844	1253	2125	4517189	1.15	310	1236	2451	1845	1282	2546
22	1155	679	1269	1609202	1.10	228	709	1602	1160	722	1615

## Live Density Statistics for all Periods

### Live Density by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	262	218	207	42972	0.79	63	140	385	260	159	388
CK	241	112	321	102795	1.33	63	118	365	242	133	367
CR	288	181	294	86231	1.02	43	203	373	288	209	376
HB	257	101	303	92052	1.18	46	168	347	258	175	348
LC	155	121	152	23011	0.98	11	133	177	155	132	178
LT	274	239	152	23145	0.56	39	197	351	272	200	351
NN	215	154	234	54714	1.09	74	70	360	214	106	369

### Live Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	262	183	264	69745	1.01	26	212	313	262	219	315
N_PILOT	111	111	60	3604	0.54	17	79	144	111	83	143
N_Y	147	136	99	9743	0.67	20	108	187	148	111	188
Y_N	192	117	221	48797	1.15	17	159	224	192	162	227
Y_Y	119	112	89	7937	0.75	23	74	164	119	78	161

### Live Density by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
1	393	300.8	362.6	131444	0.92	56	283.8	503.1	393	290.1	501
2	255	119.0	285.2	81348	1.12	53	151.3	358.9	256	160.7	364
3	234	85.3	269.3	72523	1.15	55	126.1	341.6	234	134.9	345
6	122	72.2	150.9	22769	1.24	27	68.6	174.9	123	72.5	180
7	5	2.9	5.6	31	1.12	2	1.1	8.9	5	1.7	9
10	124	113.3	67.4	4536	0.54	24	76.9	170.3	123	82.4	167
11	90	79.5	67.8	4596	0.75	24	43.4	137.4	91	48.3	136
16	49	36.3	46.4	2154	0.95	16	16.9	81.2	48	21.4	79
18	177	154.5	130.8	17117	0.74	17	144.3	210.0	177	146.0	209
19	160	85.6	171.9	29552	1.08	29	102.9	216.8	160	107.6	220
20	258	202.8	187.6	35185	0.73	27	204.4	311.7	259	209.4	316
22	125	120.6	66.8	4458	0.53	12	101.5	148.5	125	102.7	147



## Dead Count Statistics for all Periods

### Dead Oyster Counts by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	348	178	333	111065	0.96	100.5	151.0	545	347	176	557
CK	78	32	106	11170	1.36	37.4	4.3	151	79	18	157
CR	60	47	38	1444	0.63	12.7	35.2	85	60	38	87
HB	44	21	45	2000	1.02	14.9	14.8	73	44	20	73
LC	102	60	112	12502	1.10	9.4	83.7	120	102	86	120
LT	240	210	202	40850	0.84	52.2	137.2	342	239	145	341
NN	100	68	100	10018	1.00	31.7	38.1	162	100	51	164

### Dead Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	156	78	197	38955	1.27	23	111	201	156	113	202
N_PILOT	82	87	46	2136	0.56	13	57	108	83	61	108
N_Y	74	54	91	8199	1.23	18	38	110	73	44	111
Y_N	105	64	116	13559	1.11	13	79	131	105	81	133
Y_Y	127	56	144	20777	1.14	37	54	200	127	65	205

### Dead Oyster Counts by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
7	29	18	30	898	1.03	10.6	8.2	50	29	9.7	50
10	80	88	65	4245	0.82	23.0	34.5	125	80	43.4	123
11	50	40	25	620	0.49	8.8	33.2	68	50	35.1	67
16	44	28	41	1708	0.93	14.6	15.6	73	44	18.5	74
18	133	55	192	36903	1.44	24.6	85.1	182	133	88.1	183
19	63	44	67	4548	1.08	11.6	40.0	85	63	42.2	87
20	148	107	140	19727	0.95	20.5	107.6	188	148	112.8	190
22	185	108	164	27054	0.89	29.5	127.0	243	184	127.7	243

## Dead Density Statistics for all Periods

### Dead Oyster Density by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	55	50.8	37	1332	0.66	11.0	33.8	77	56	36.1	79
CK	21	11.3	28	757	1.29	9.7	2.3	40	21	5.8	41
CR	20	13.8	15	235	0.77	5.1	10.0	30	20	11.8	30
HB	13	8.0	14	201	1.12	4.7	3.4	22	13	5.0	22
LC	17	8.5	21	425	1.23	1.7	13.4	20	17	13.6	20
LT	58	47.1	40	1570	0.68	10.2	38.2	78	58	39.6	78
NN	28	16.1	26	668	0.91	8.2	12.5	45	28	14.4	45

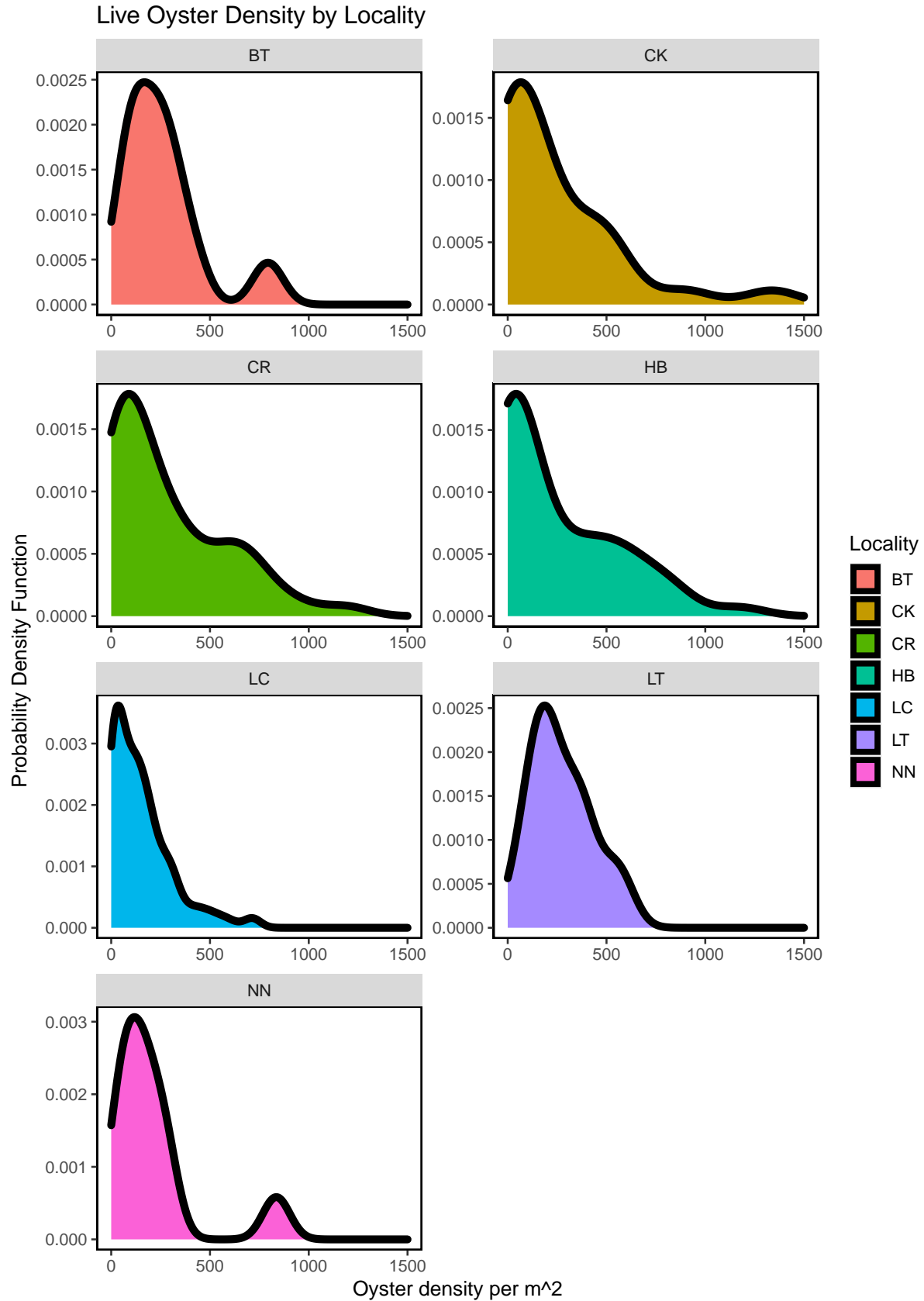
### Dead Oyster Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	32.5	21.0	33.2	1102	1.02	3.86	24.9	40.1	32.7	24.9	39.9
N_PILOT	8.5	8.7	4.5	20	0.53	1.25	6.1	10.9	8.5	6.5	10.9
N_Y	5.2	3.8	4.7	22	0.89	0.96	3.4	7.1	5.3	3.5	7.3
Y_N	23.6	16.1	24.2	586	1.03	2.72	18.2	28.9	23.8	18.4	29.1
Y_Y	8.6	7.9	6.6	43	0.76	1.70	5.3	12.0	8.6	5.5	11.7

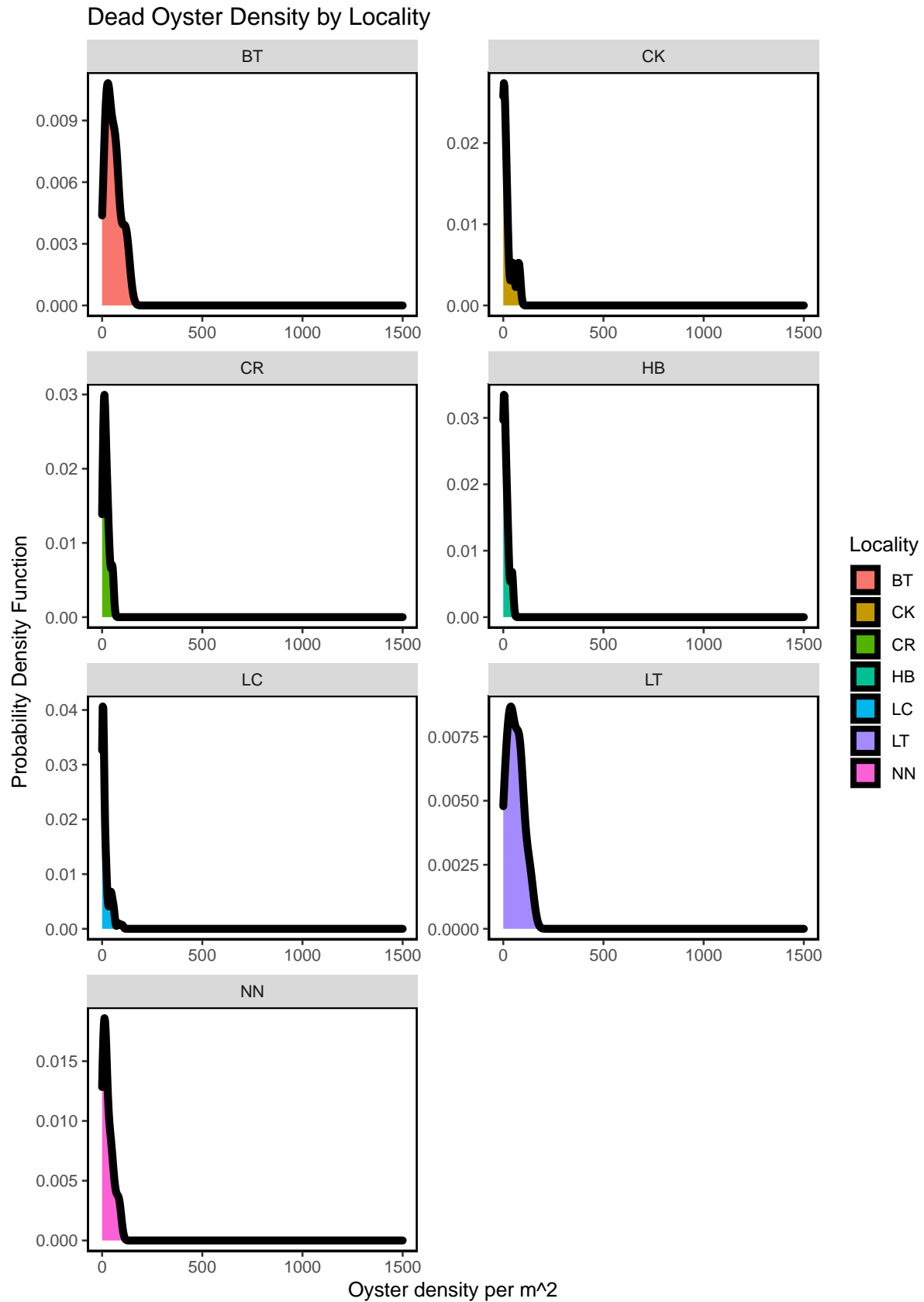
### Dead Oyster Density by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
7	2.9	1.8	3.0	8.9	1.03	1.05	0.82	4.9	2.9	1.1	5.0
10	8.2	8.9	6.6	44.0	0.81	2.35	3.58	12.8	8.3	4.3	12.8
11	5.2	4.1	2.6	6.6	0.49	0.91	3.41	7.0	5.2	3.6	7.1
16	4.4	2.8	4.1	16.9	0.93	1.45	1.55	7.2	4.3	1.8	7.0
18	26.4	15.7	31.3	980.1	1.19	4.01	18.54	34.3	26.4	18.8	34.0
19	18.1	13.1	19.3	370.6	1.07	3.30	11.59	24.5	18.1	12.0	24.7
20	27.9	18.4	26.4	697.6	0.95	3.85	20.38	35.5	28.2	21.2	35.6
22	30.1	15.0	31.3	979.8	1.04	5.62	19.05	41.1	29.9	19.6	41.7

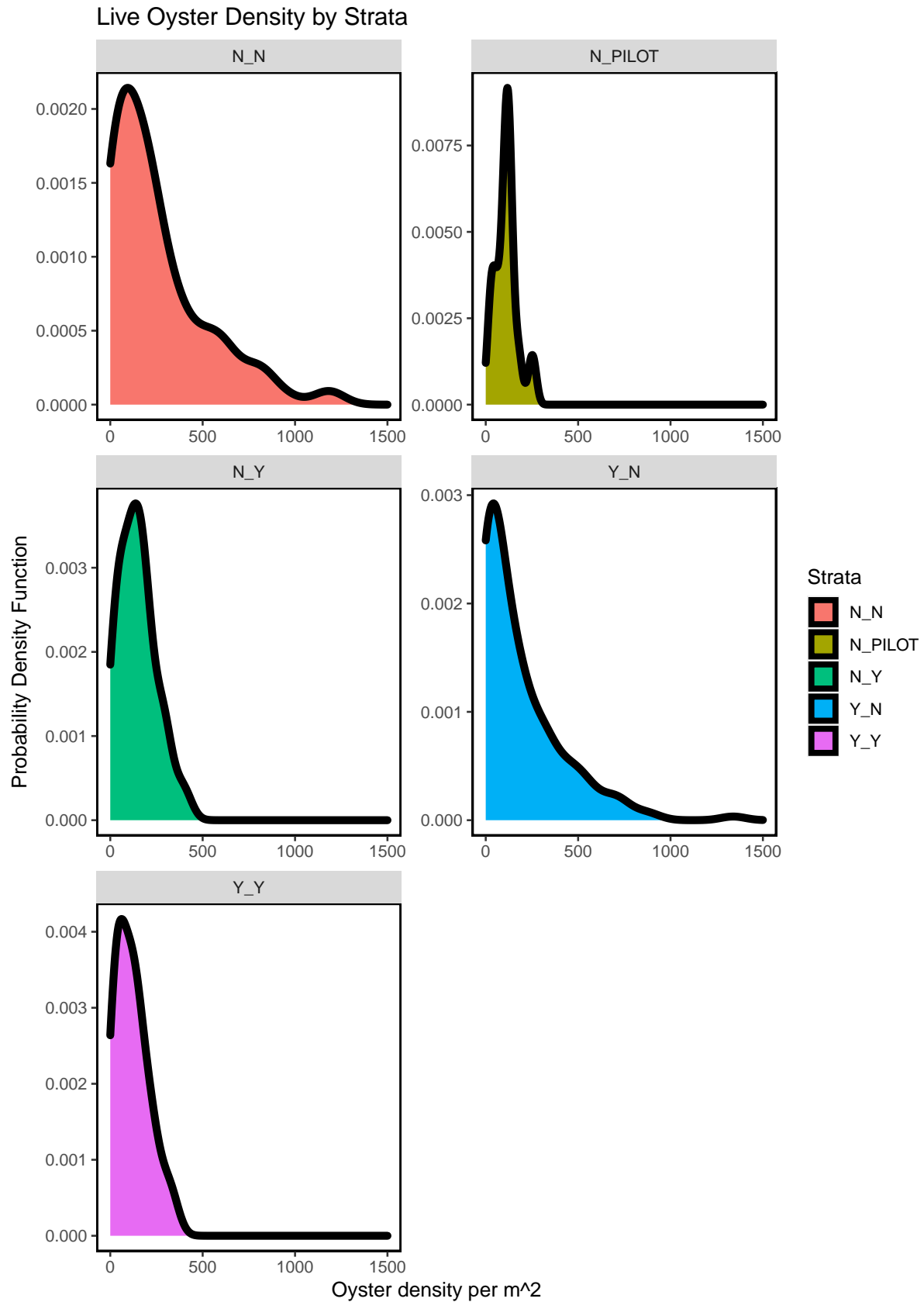
## Summary Density Plots for all Periods



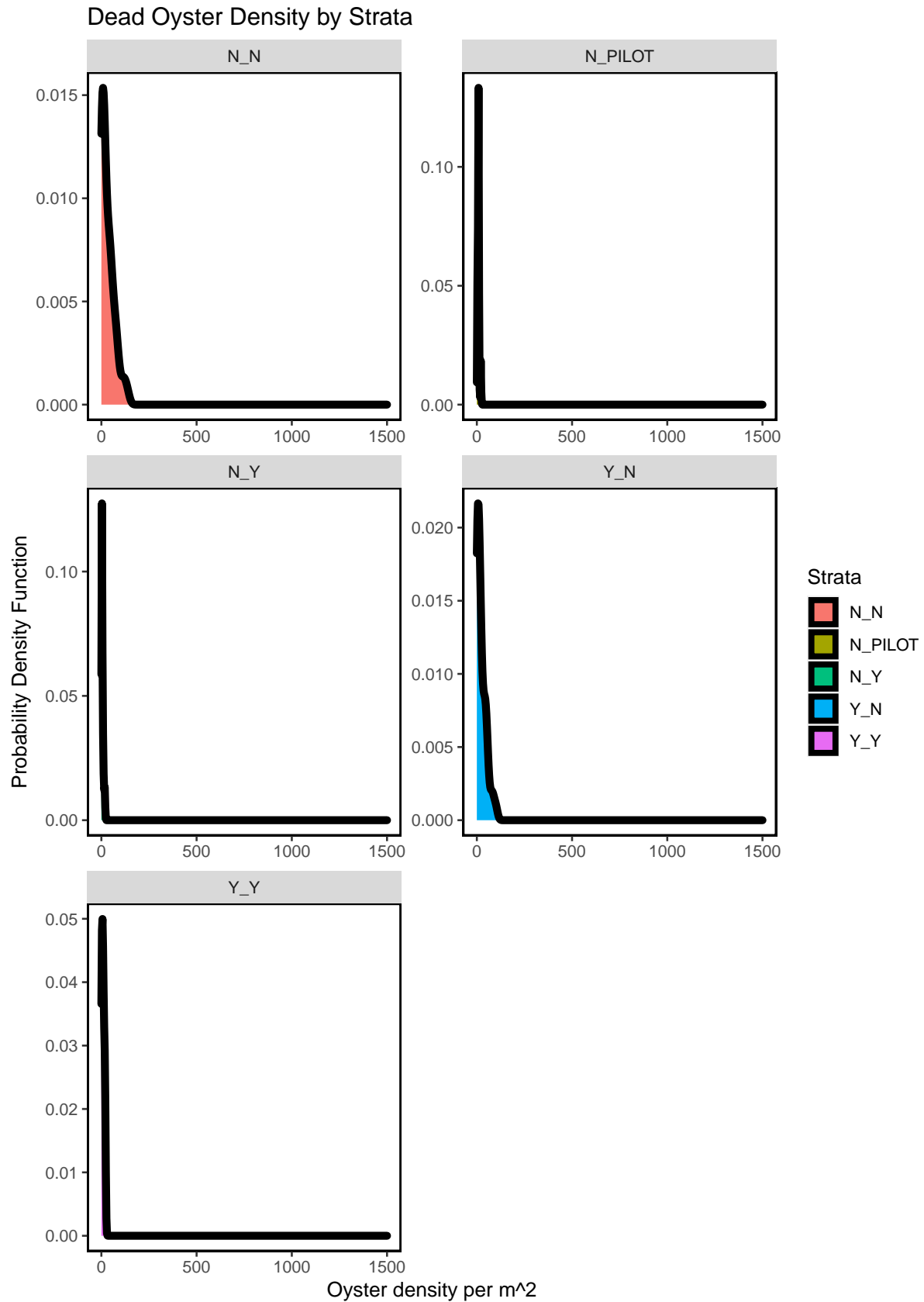
Figure– Calculated live oyster density by locality for all periods including period 22 (current period).



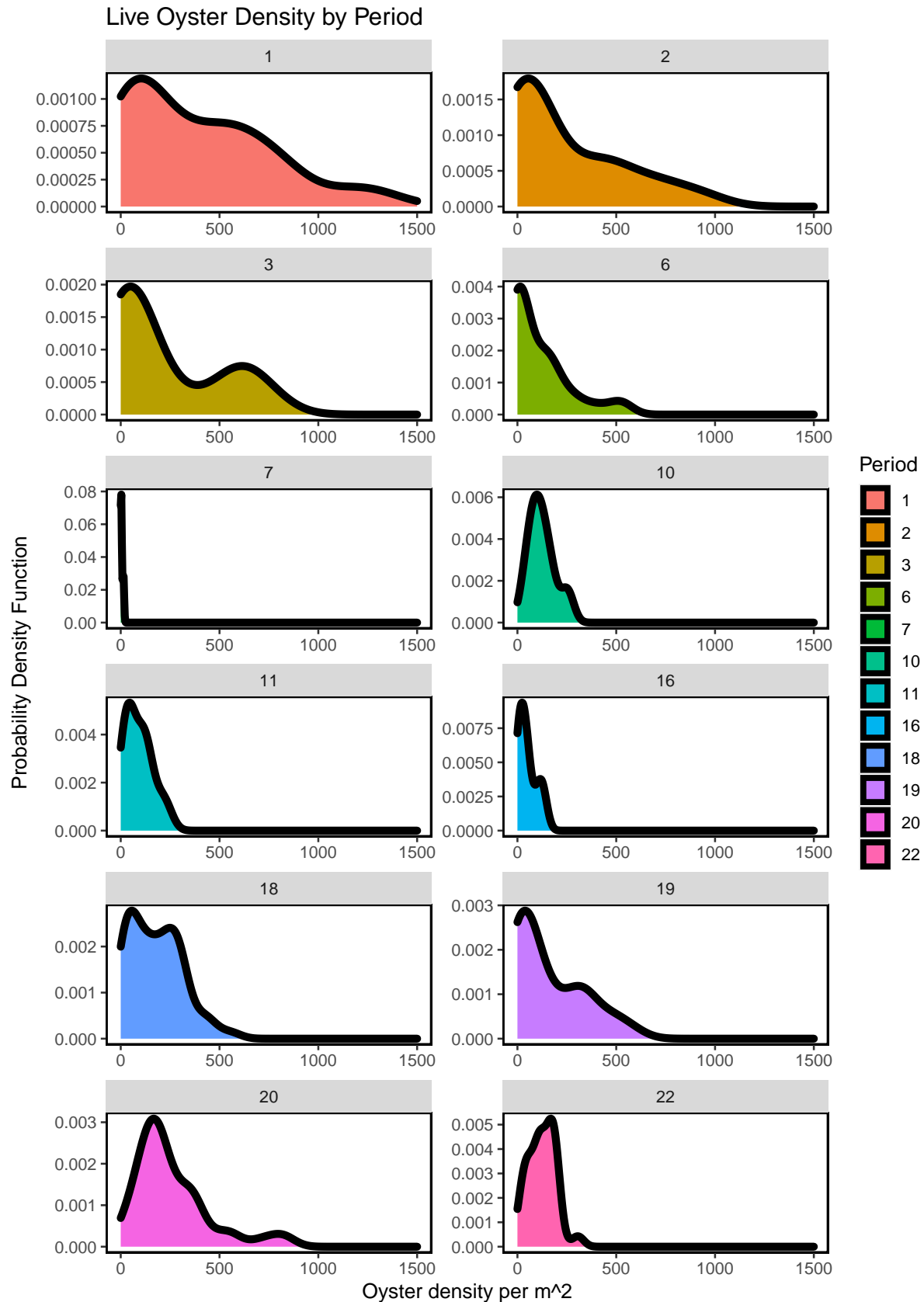
Figure– Calculated dead oyster density by locality for all periods including period 22 (current period).



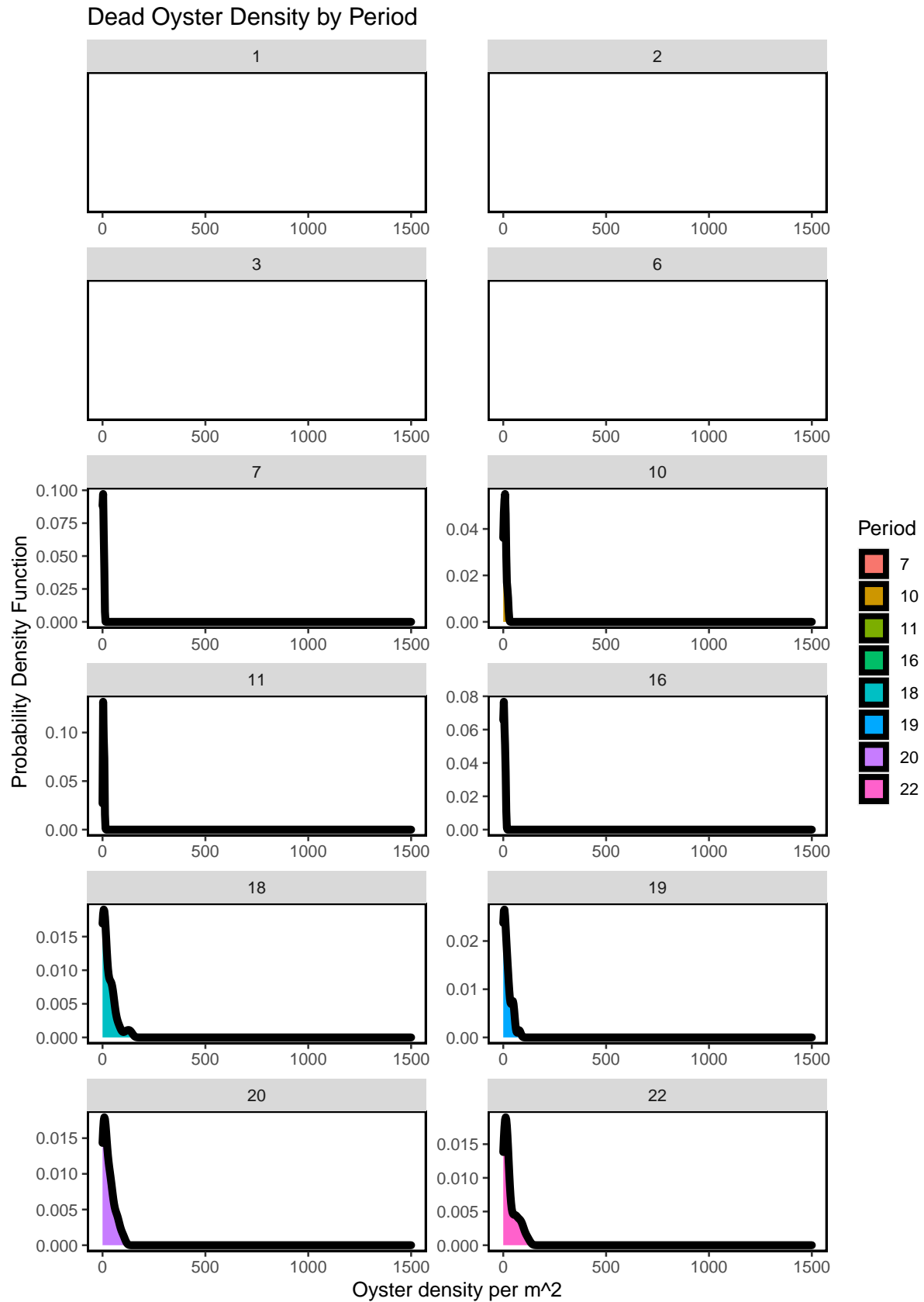
Figure– Calculated live oyster density by strata for all periods including period 22 (current period).



Figure– Calculated dead oyster density by strata for all periods including period 22 (current period).



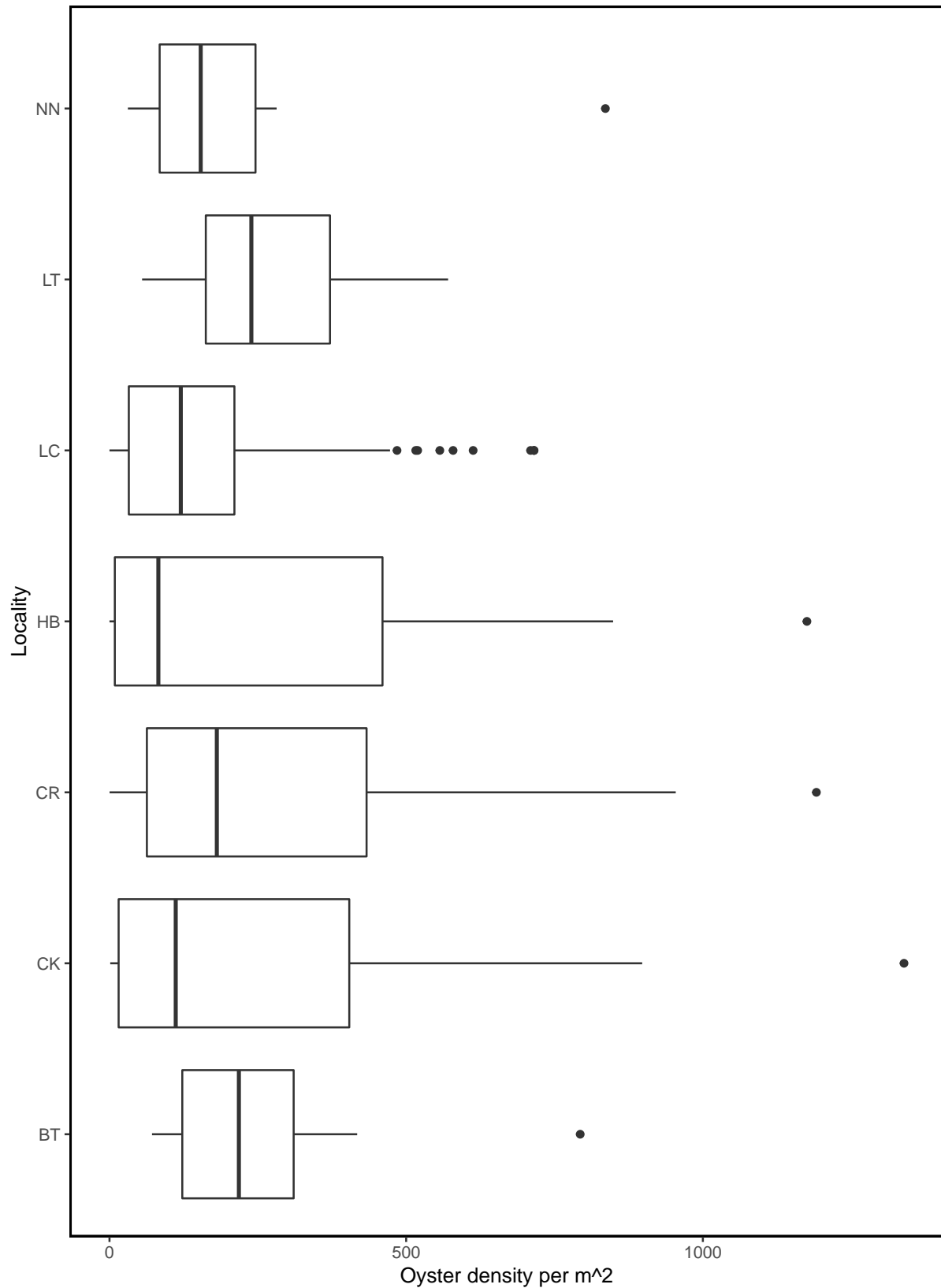
Figure– Calculated live oyster density for all periods including period 22 (current period) using a probability densi



Figure– Calculated Dead oyster density for all periods including period 22 (current period) using a probability densit

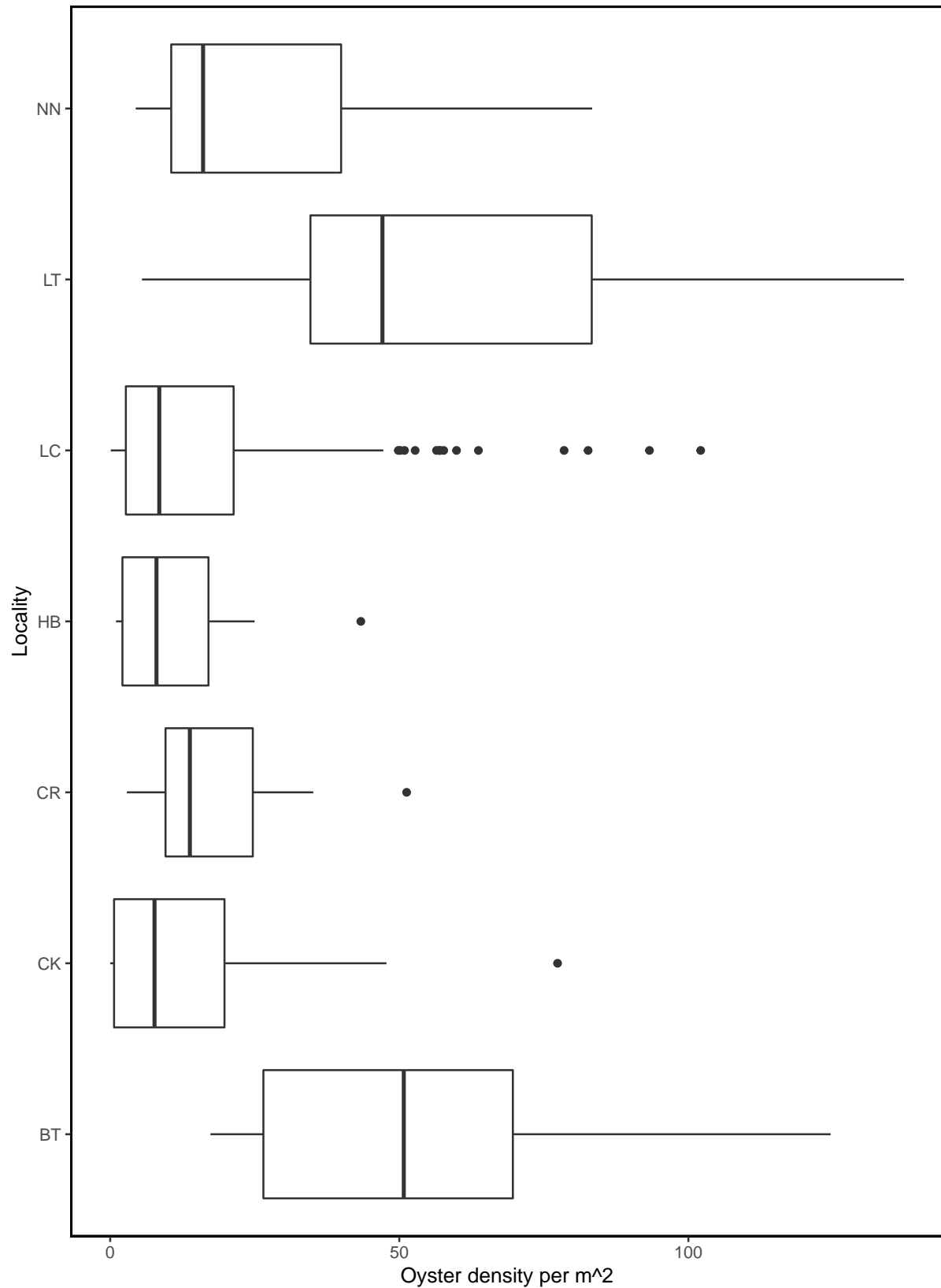


Live Oyster Density by Locality

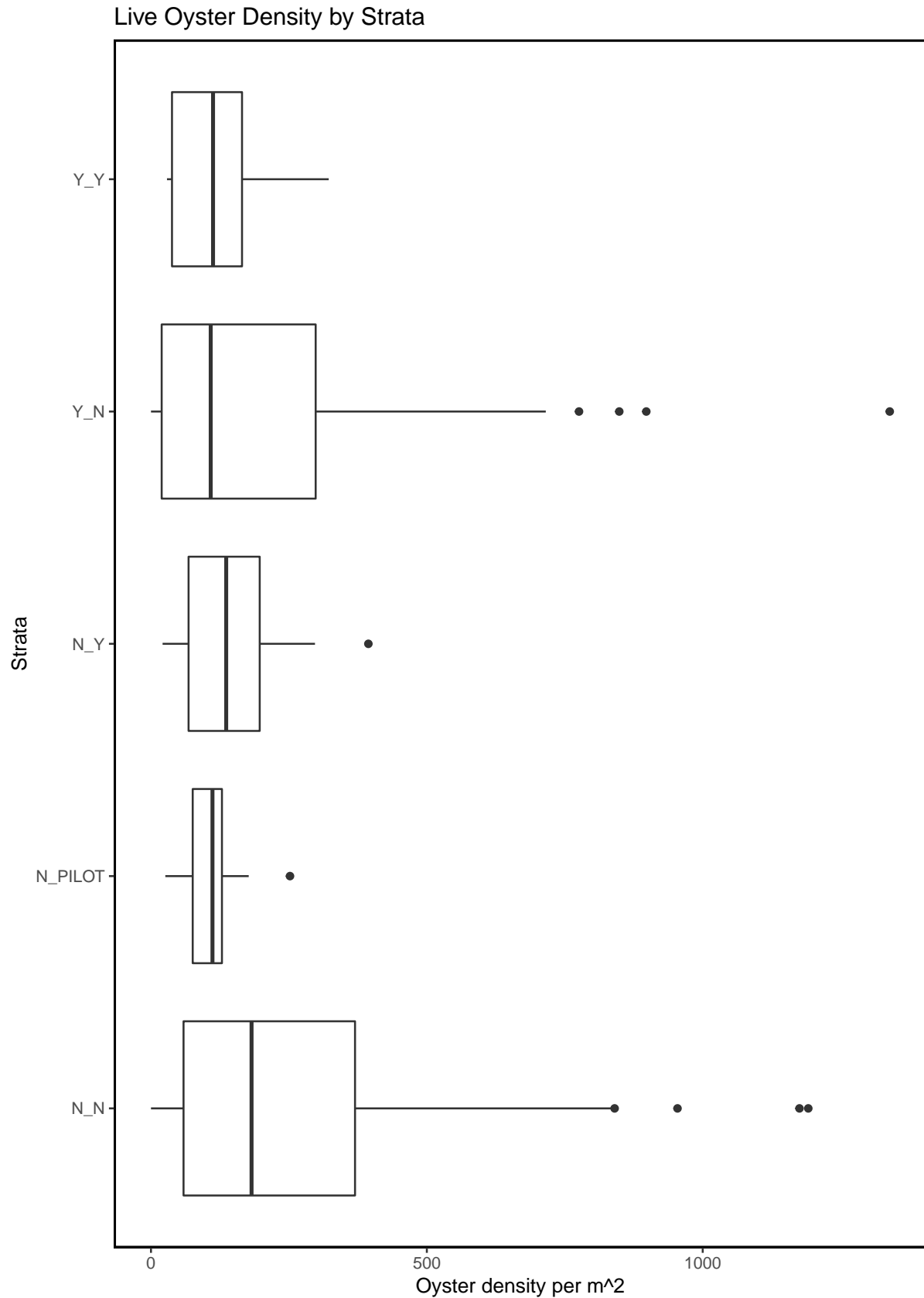


Figure– Box plot depicting live oyster density by locality for all periods including period 22 (current period).

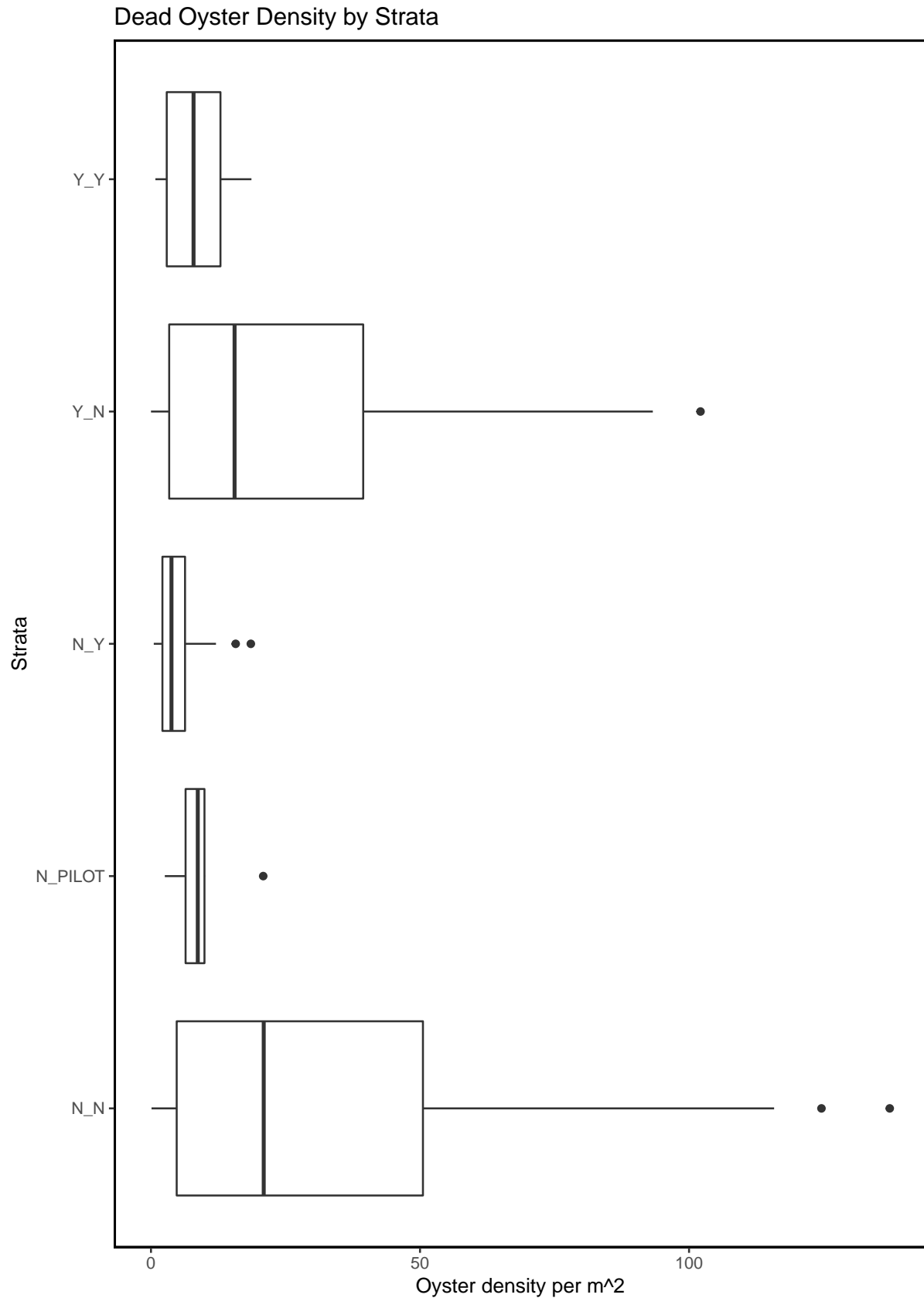
Dead Oyster Density by Locality



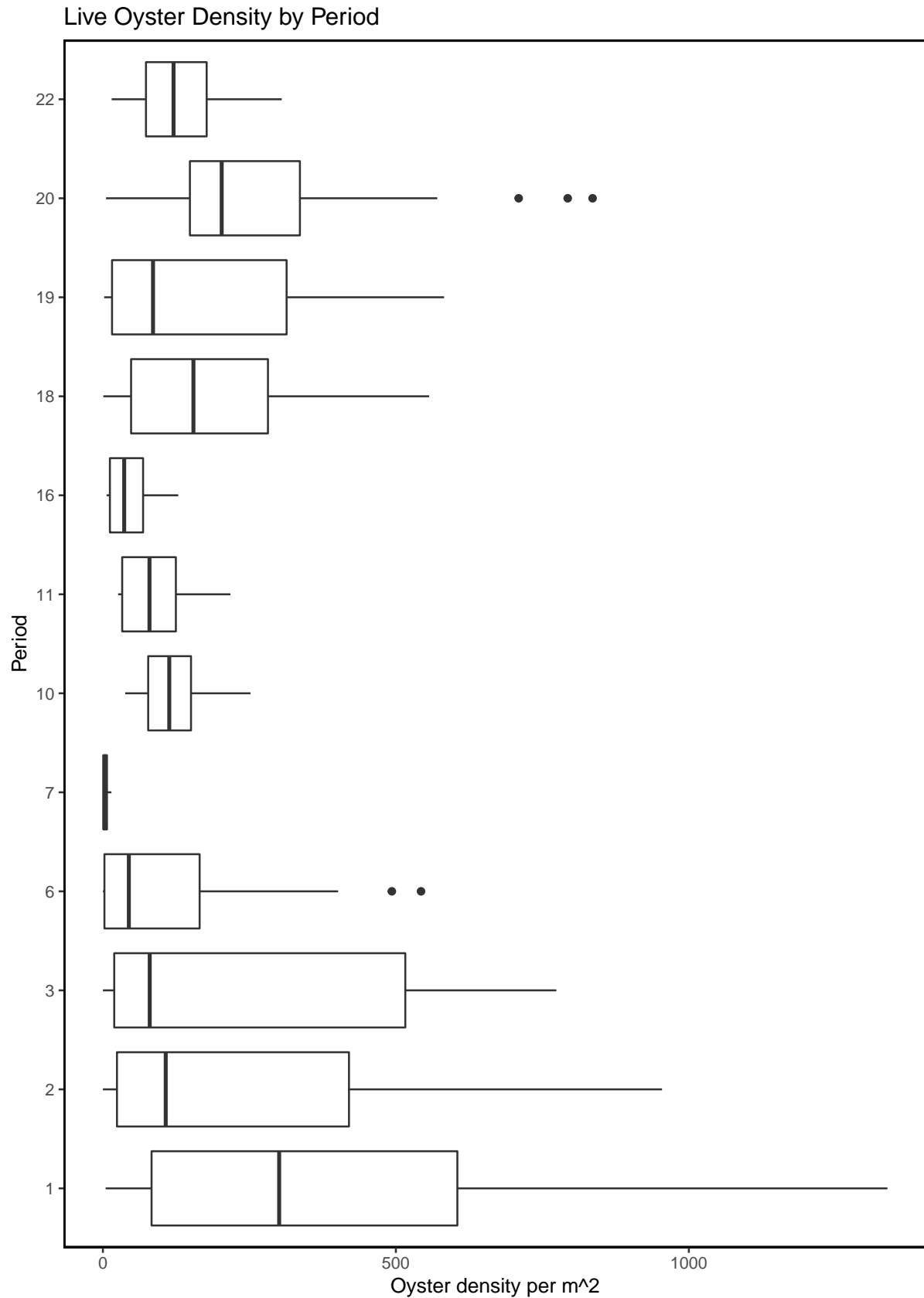
Figure– Box plot depicting dead oyster density by locality for all periods including period 22 (current period).



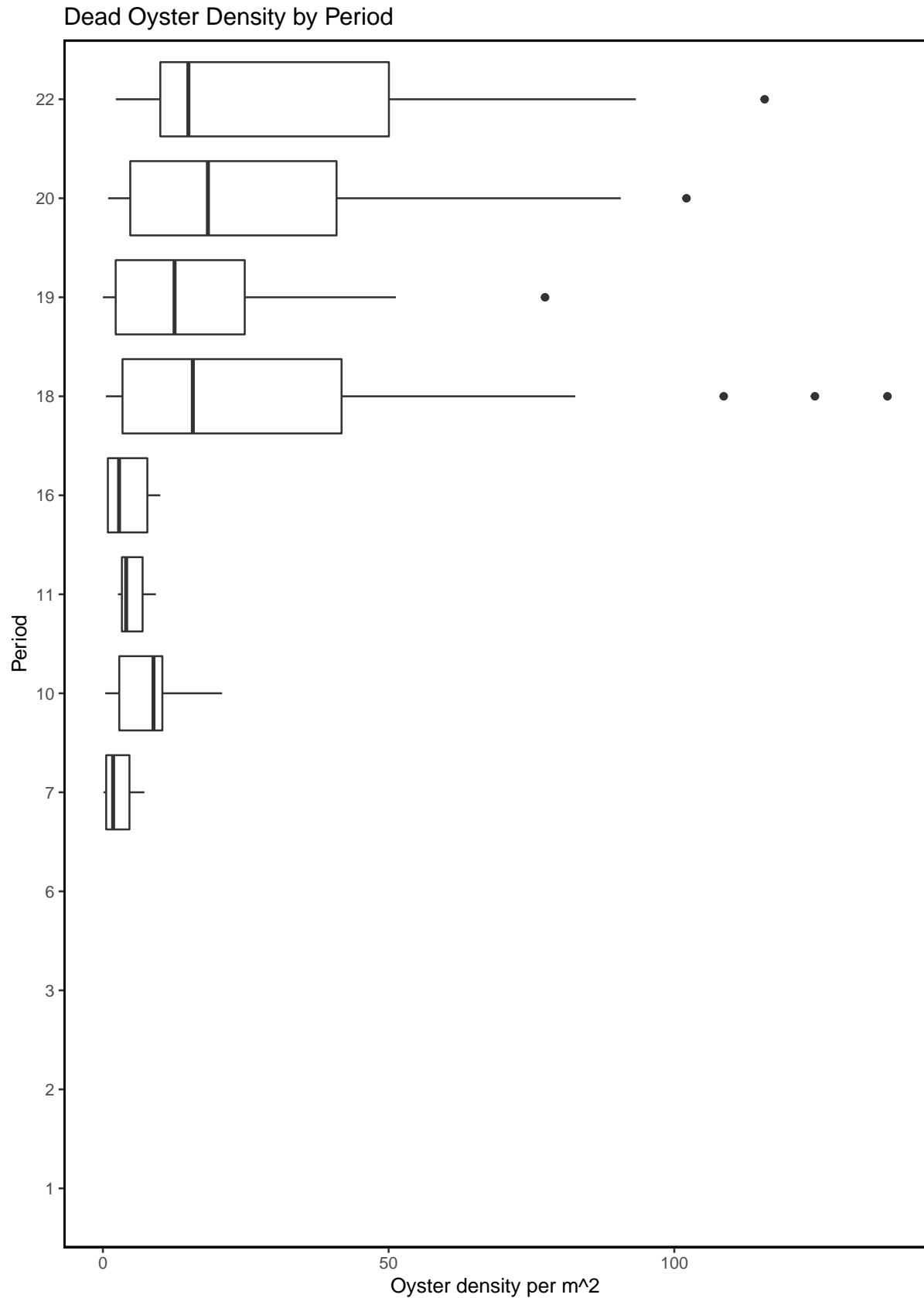
Figure– Box plot depicting live oyster density by strata for all periods including period 22 (current period).



Figure– Box plot depicting dead oyster density by strata for all periods including period 22 (current period).



Figure– Box plot depicting live oyster density by period for all periods including period 22 (current period).



Figure– Box plot depicting dead oyster density by period for all periods including period 22 (current period).

Live Oyster Density by Locality and Period

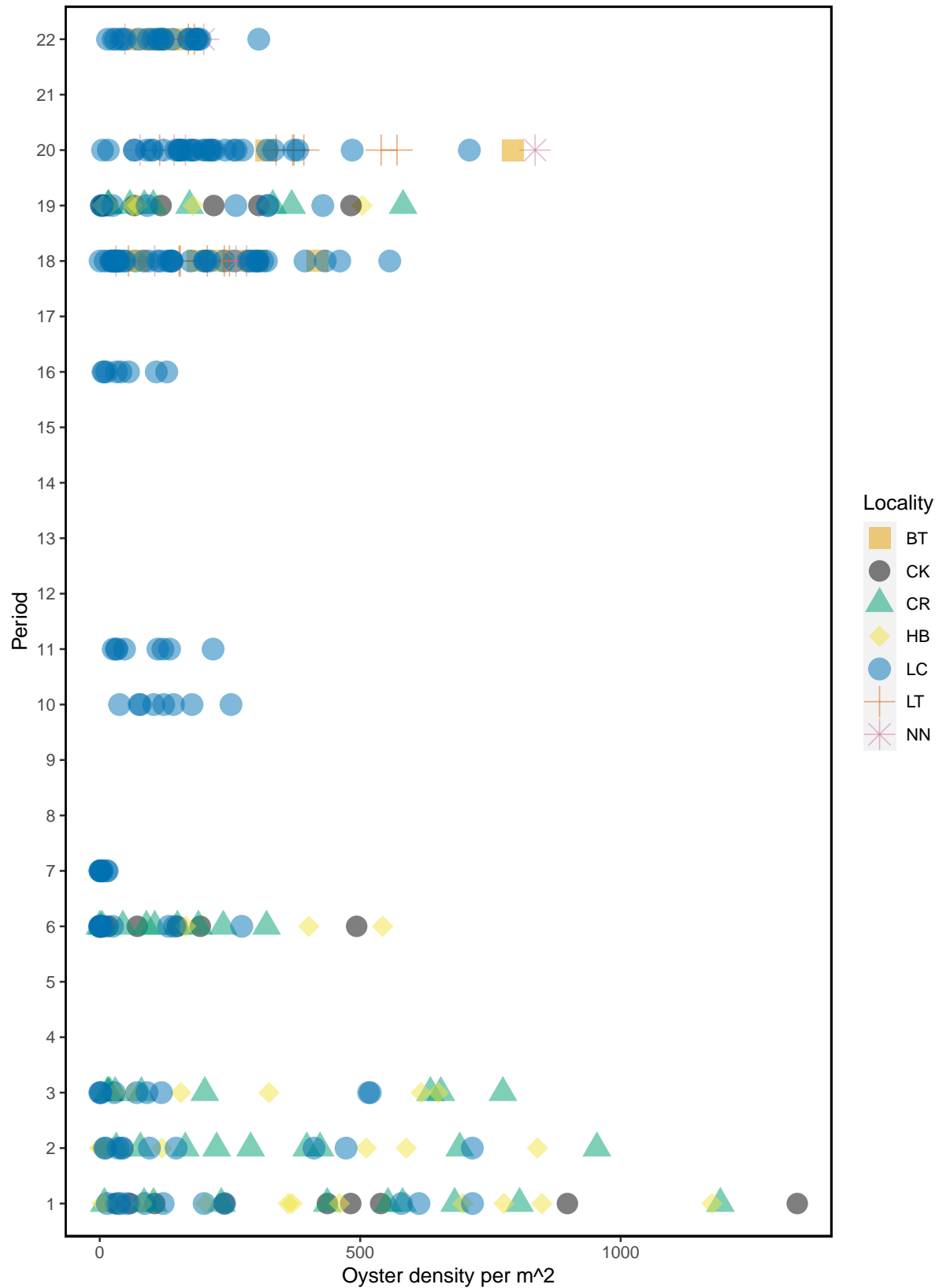
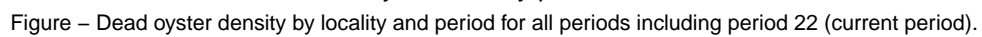


Figure – Live oyster density by locality and period for all periods including period 22 (current period).





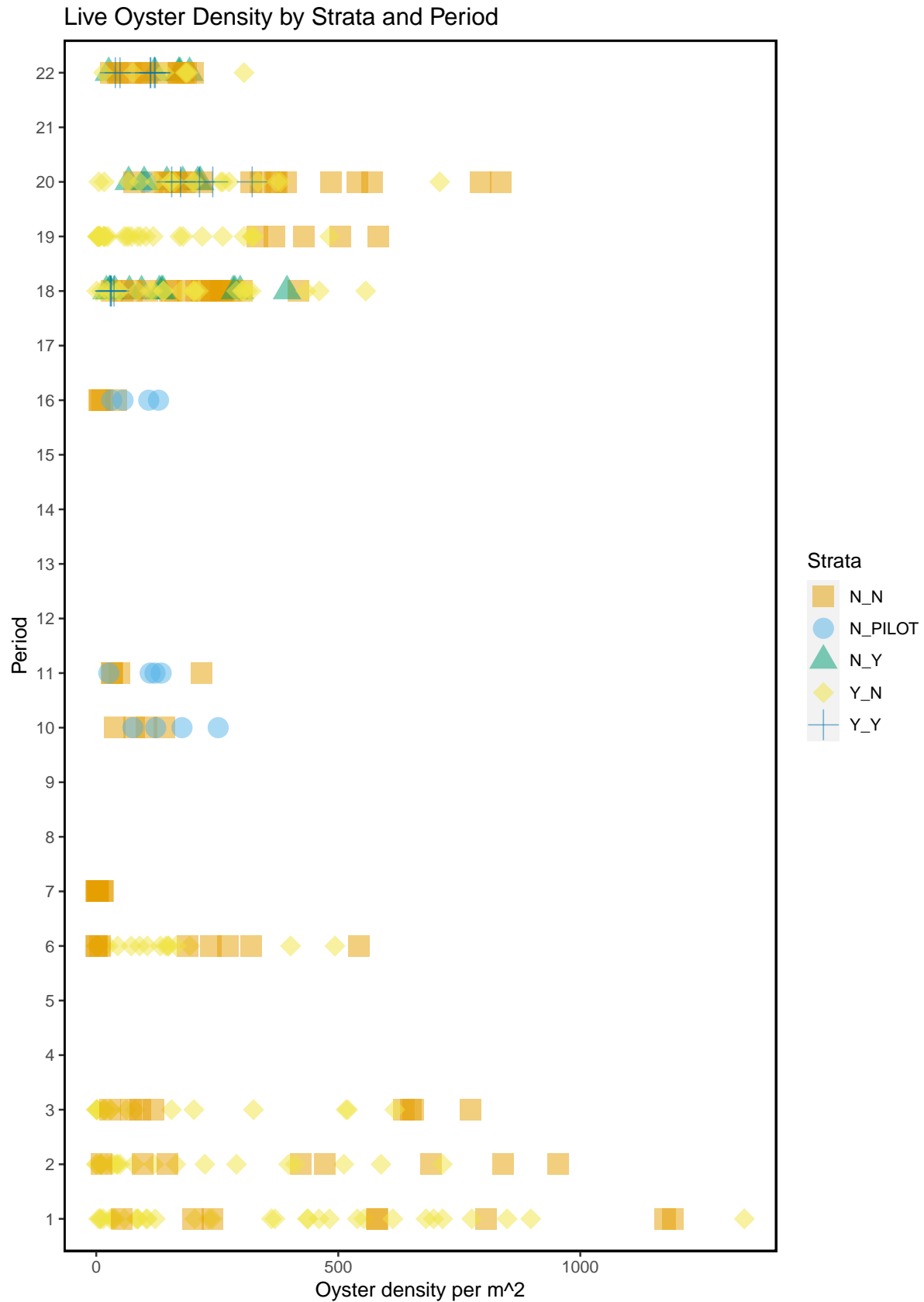


Figure – Live oyster density by strata and period for all periods including period 22 (current period).

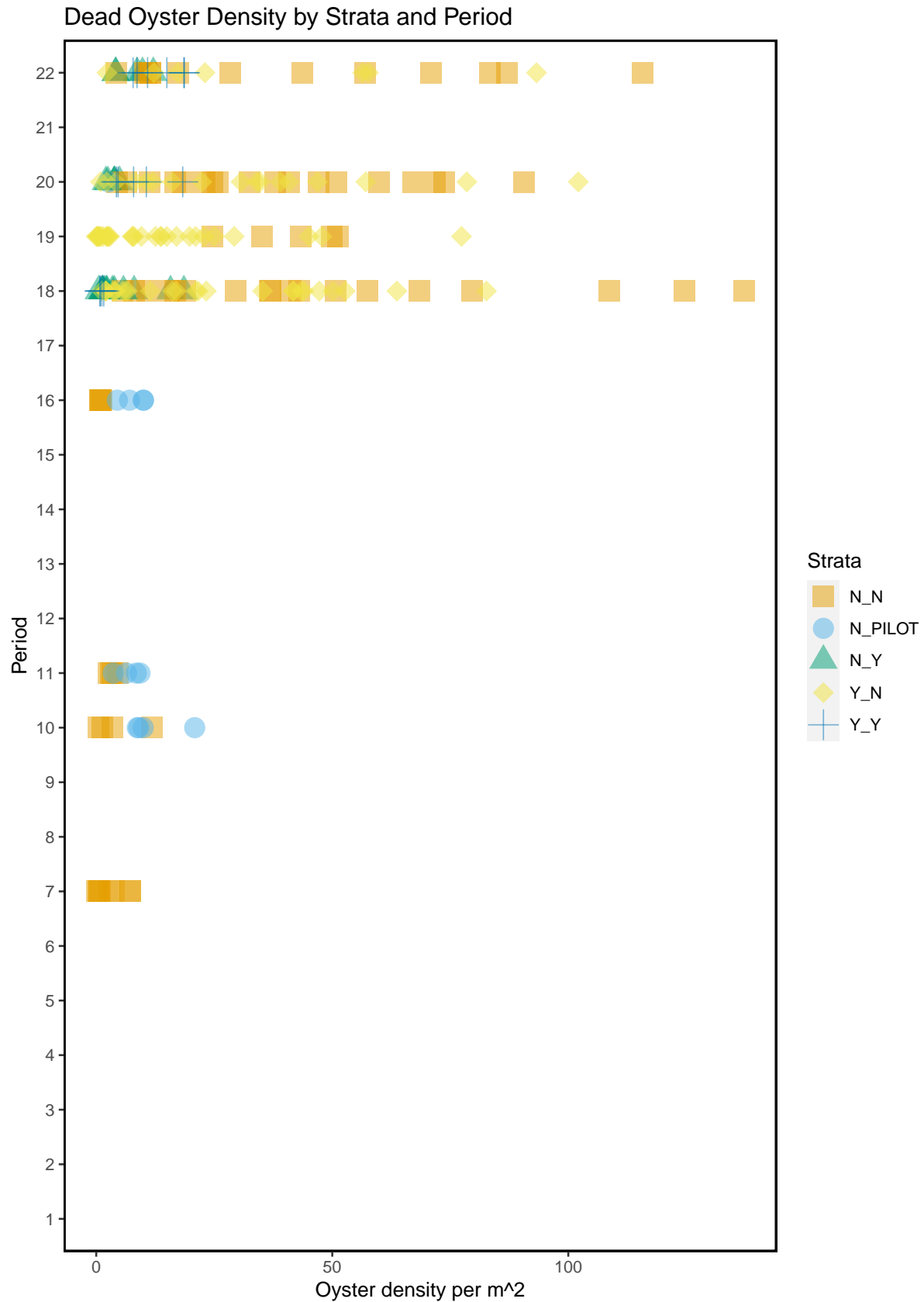


Figure – Dead oyster density by strata and period for all periods including period 22 (current period).

# Live and Dead Count Comparison For All Periods

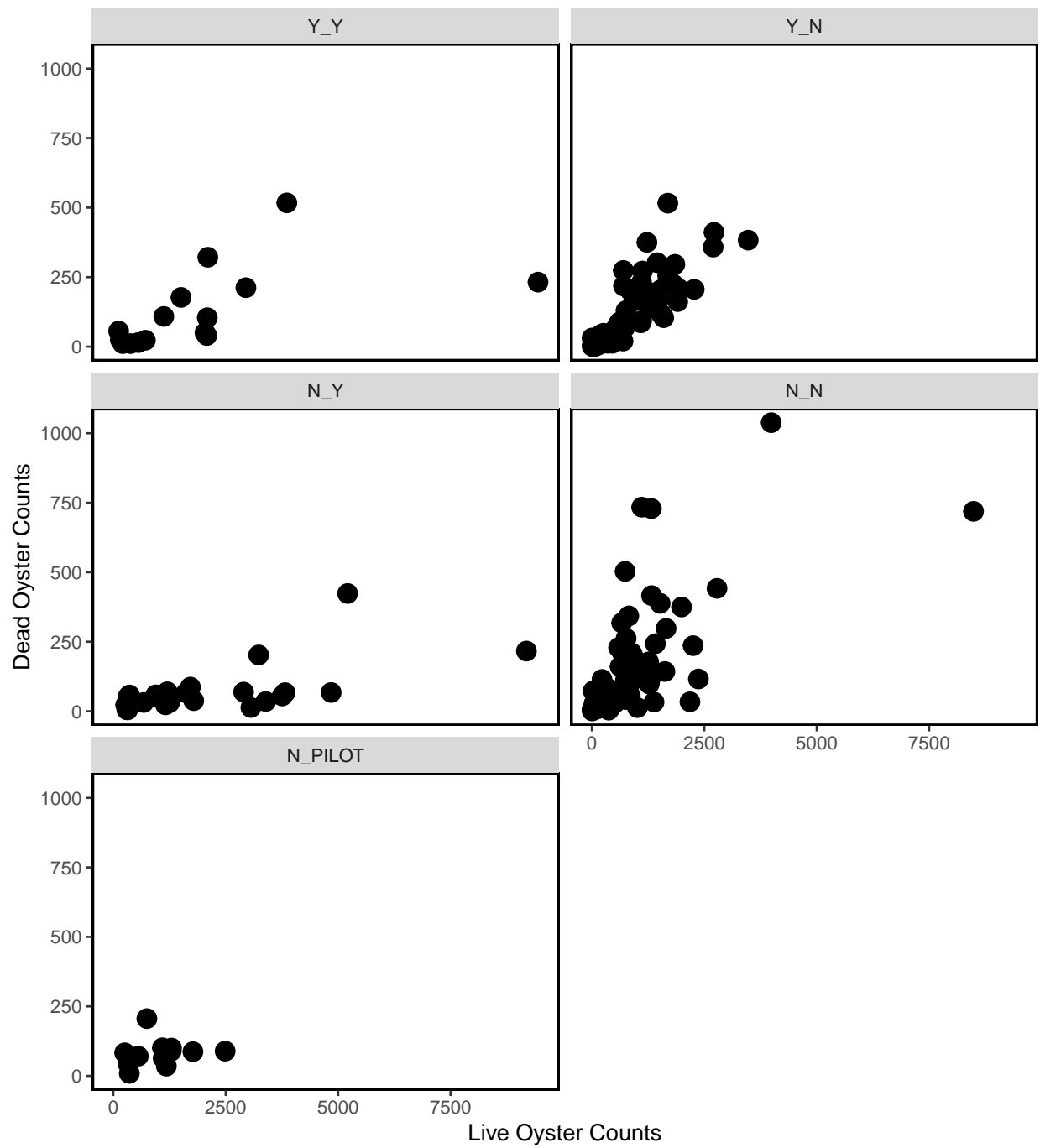


Figure- Live and dead oyster comparison for all periods, last sample date of period 22 is 2020-12-29.

## Summary Plots for Pilot Study Sites

A subset of the oyster transect locations were sampled over time for a pilot study. Here we provide plots of live oyster counts and density for these pilot stations with Lone Cabbage (LCO10B, LCO11A, LCO8B, LCO9A).

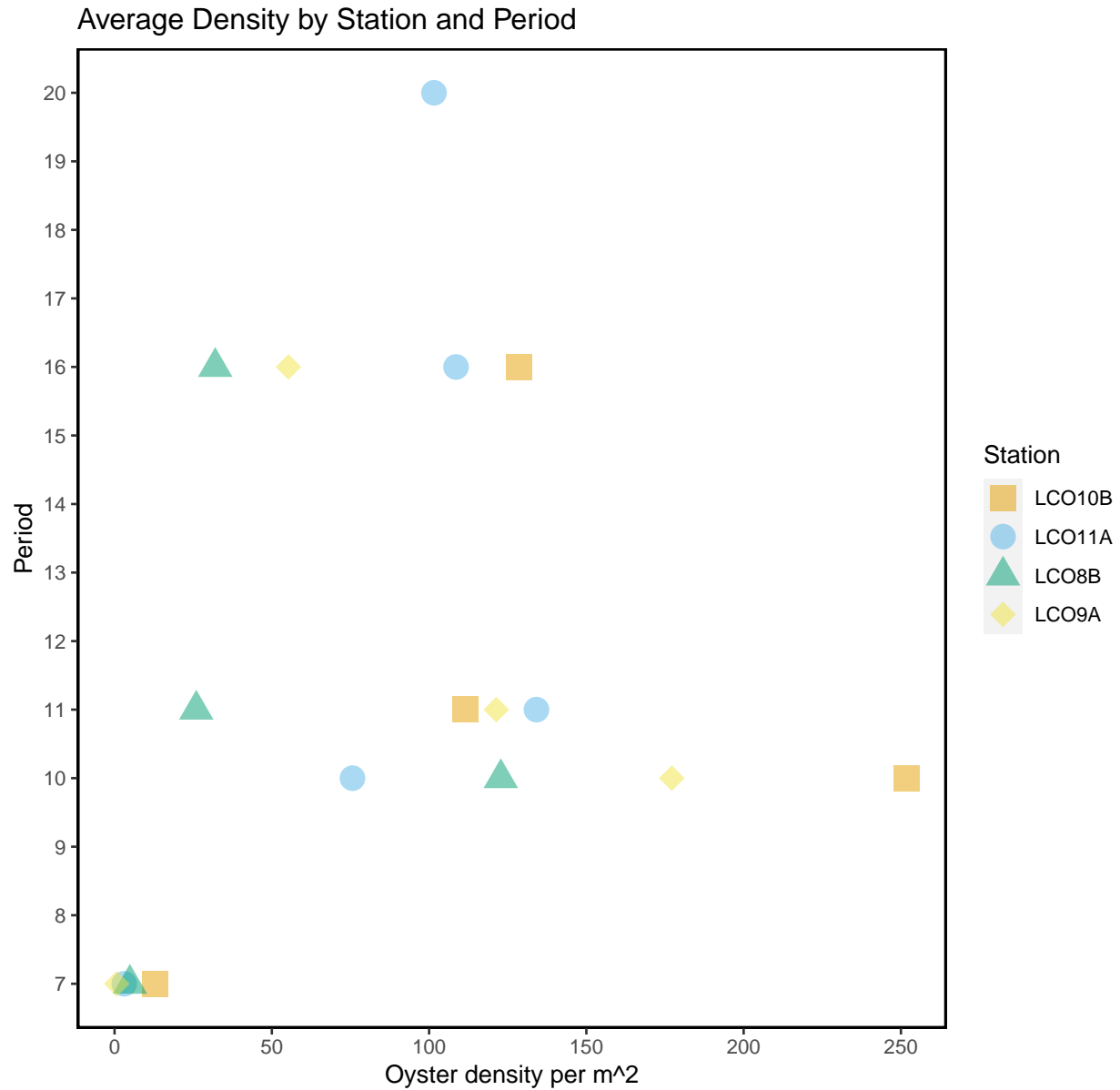


Figure – Average live oyster density comparison by station and period for all stations that were sampled during the pilc

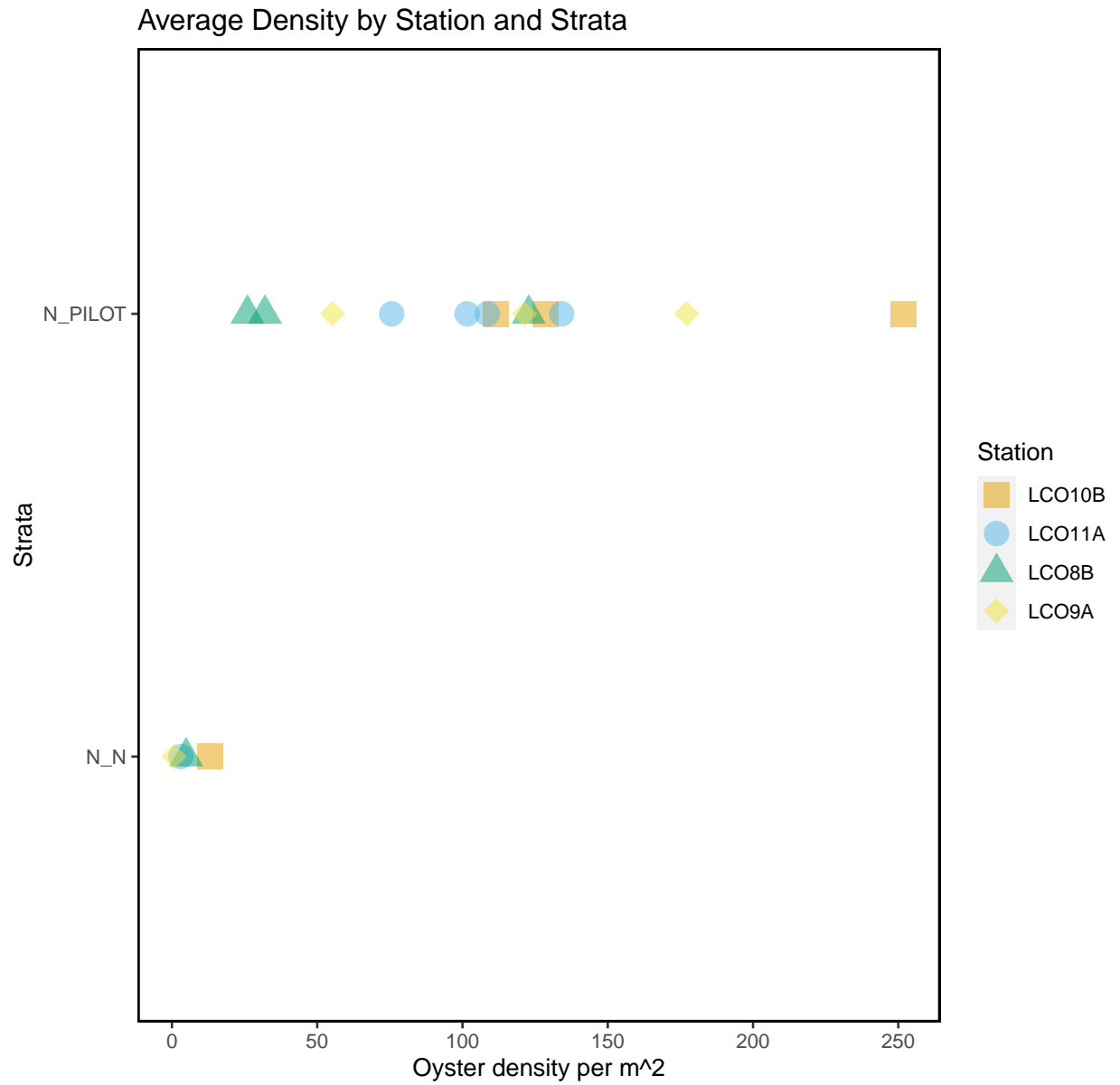


Figure – Average live oyster density comparison by station and strata for all stations that were sampled during the

## Latest Data Entered

Displayed are the entries for the last date of sampling (2020-12-29).

date	station	tran_length	count_live	count_dead	treatment	strata
2020-12-29	LC022	2.5	22	7	rocks	Y_Y
2020-12-29	LC022	5.0	22	12	rocks	Y_Y
2020-12-29	LC022	7.5	8	3	rocks	Y_Y
2020-12-29	LC022	10.0	9	9	rocks	Y_Y
2020-12-29	LC022	12.5	18	14	rocks	Y_Y
2020-12-29	LC022	15.0	26	5	rocks	Y_Y
2020-12-29	LC022	17.5	14	6	rocks	Y_Y
2020-12-29	LC022	19.8	0	0	rocks	Y_Y
2020-12-29	LC021	2.5	7	2	rocks	Y_Y
2020-12-29	LC021	5.0	6	1	rocks	Y_Y
2020-12-29	LC021	7.5	1	0	rocks	Y_Y
2020-12-29	LC021	10.0	0	0	rocks	Y_Y
2020-12-29	LC021	10.5	0	0	rocks	Y_Y
2020-12-29	LC021	2.5	20	4	rocks	Y_Y
2020-12-29	LC021	5.0	69	6	rocks	Y_Y
2020-12-29	LC021	7.5	22	8	rocks	Y_Y
2020-12-29	LC021	10.0	32	4	rocks	Y_Y
2020-12-29	LC021	10.5	0	0	rocks	Y_Y