

# Transect Report Lone Cabbage

## Overview

This report provides summary statistics and figures for ongoing transect sampling. The first section of the report focuses on the current sampling (Winter 2021-2022) and how the collected data compare to last year's sampling (Winter 2020-2021). So far 21 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, 139 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

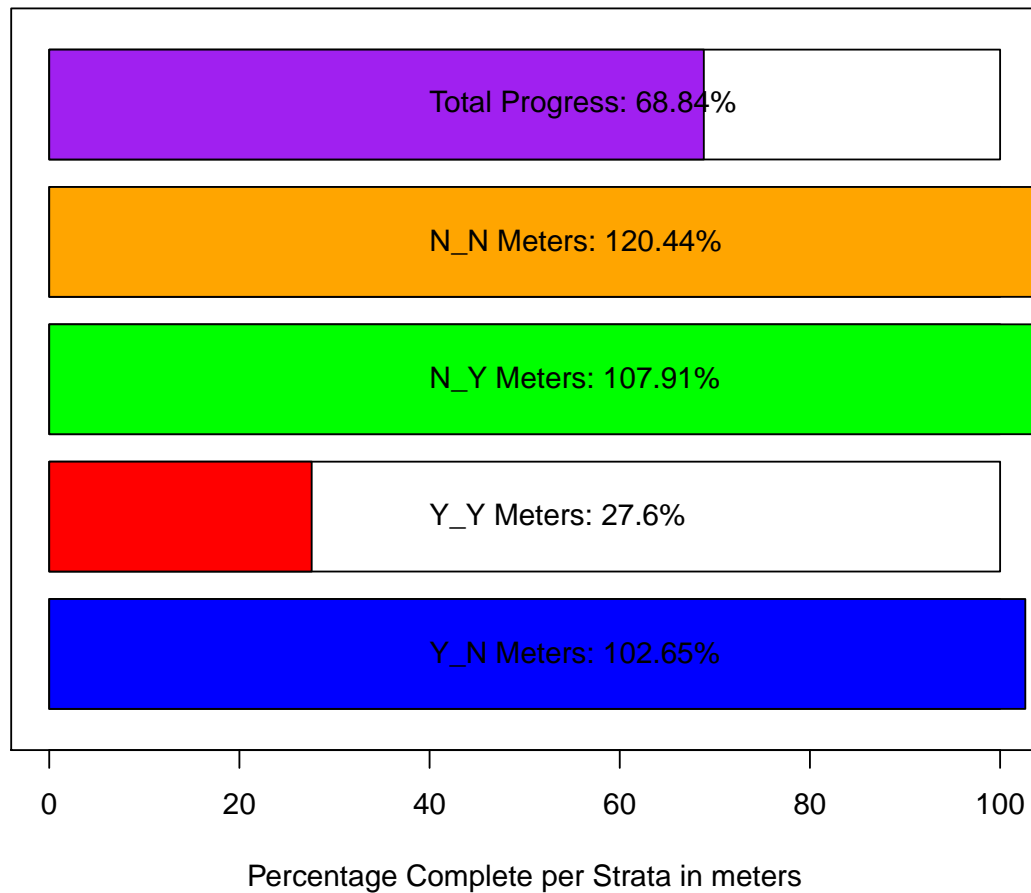
## Definition of Strata

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 24, and last year's sampling period is period 22.**

### Field Sites– Strata Progress



## Summary Tables for Periods 18, 20, 22, and 24

These summary tables provide summary statistics on live counts and oyster densities for just periods **18 (Winter 2018-2019)**, **20 (Winter 2019-2020)**, **22 (Winter 2020-2021)**, and **24 (Winter 2021-2022)**.

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, 22, and 24

### Live Oyster Counts by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	1451	897	2007	4026231	1.38	487	497	2405	1453	744	2482
LC	1533	930	1745	3045977	1.14	143	1251	1814	1533	1264	1807
LT	1037	877	574	329239	0.55	132	779	1295	1038	815	1327
NN	742	702	607	369038	0.82	168	412	1072	741	466	1099

### Live Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	1100	837	1155	1334528	1.05	138	829	1370	1097	867	1391
N_PILLOT	2180	3009	1582	2501624	0.73	913	390	3970	2172	356	3174
N_Y	2624	2898	2143	4593759	0.82	352	1933	3315	2628	2021	3363
Y_N	810	638	759	576785	0.94	90	633	986	809	653	1002
Y_Y	2673	2060	2784	7749956	1.04	696	1309	4037	2670	1468	4042

### 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	765	1253
20	1844	1253	2125	4517189	1.15	310	1236	2451	1853	1315	2525
22	1334	702	1693	2867783	1.27	242	860	1808	1350	896	1880
24	1722	1150	1688	2849017	0.98	267	1199	2246	1717	1222	2276

### Live Density by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	248	218	173	29961	0.70	42.0	165	330	246	174	333
LC	167	158	119	14227	0.71	9.8	148	186	167	148	186
LT	285	300	137	18813	0.48	31.5	223	347	286	226	349
NN	214	164	210	44295	0.99	58.4	99	328	215	121	330

### Live Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	238	206	154	23688	0.65	18	202	274	239	202	275
N_PILLOT	143	147	39	1557	0.28	23	98	188	142	102	180

N_Y	154	146	86	7433	0.56	14	127	182	155	127	182
Y_N	176	153	143	20331	0.81	17	143	209	175	144	210
Y_Y	115	106	85	7218	0.74	21	73	157	115	74	157

# Live Density by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
18	176	155	130	16945	0.74	17	144	209	176	145	208
20	256	203	187	35057	0.73	27	203	310	255	207	310
22	137	121	93	8638	0.68	13	111	163	137	110	163
24	190	185	96	9178	0.50	15	160	219	190	161	219

## Summary of Dead Counts for Periods 18, 20, 22, and 24

### Dead Oyster Counts by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	268	169	288	82962	1.07	70	131	405	272	152	413
LC	149	87	166	27448	1.11	14	122	175	149	124	177
LT	223	141	188	35484	0.84	43	138	308	221	141	306
NN	100	74	90	8047	0.90	25	51	149	101	60	150

### Dead Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	202	132	211	44393	1.04	25	153	251	203	154	257
N_PILOT	136	127	131	17150	0.97	76	-13	284	138	9	270
N_Y	125	68	118	13837	0.94	19	87	162	125	91	164
Y_N	127	81	133	17744	1.04	16	97	158	127	98	156
Y_Y	243	116	288	82848	1.18	72	102	384	241	119	389

### 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	134	90	186
20	148	107	140	19727	0.95	20	108	188	148	111	187
22	191	128	193	37399	1.01	28	137	245	193	141	252
24	191	147	188	35477	0.98	30	133	250	192	139	253

### Dead Oyster Density by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	49	37	33	1085	0.67	8.0	33	65	49	34	66
LC	21	12	22	494	1.06	1.8	17	25	21	17	25
LT	56	47	36	1331	0.65	8.4	40	72	56	40	72
NN	28	17	22	501	0.80	6.2	16	40	28	17	40

### Dead Oyster Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	42.5	35.8	30.9	954	0.73	3.69	35.2	49.7	42.4	35.2	49.9
N_PILOT	7.6	7.6	5.0	25	0.66	2.88	1.9	13.2	7.6	2.6	12.5
N_Y	7.5	5.5	5.7	32	0.75	0.93	5.7	9.4	7.5	5.8	9.5
Y_N	27.3	21.1	25.4	644	0.93	3.01	21.4	33.2	27.3	21.7	33.3
Y_Y	9.5	9.3	6.8	46	0.72	1.70	6.1	12.8	9.5	6.4	12.8

### 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	682	0.94	3.8	20	35	28	21	35
22	28	14	28	807	1.00	4.1	21	36	29	21	37
24	26	18	23	528	0.87	3.6	19	34	27	20	34

## Summary Plots for Periods 18, 20, 22, and 24

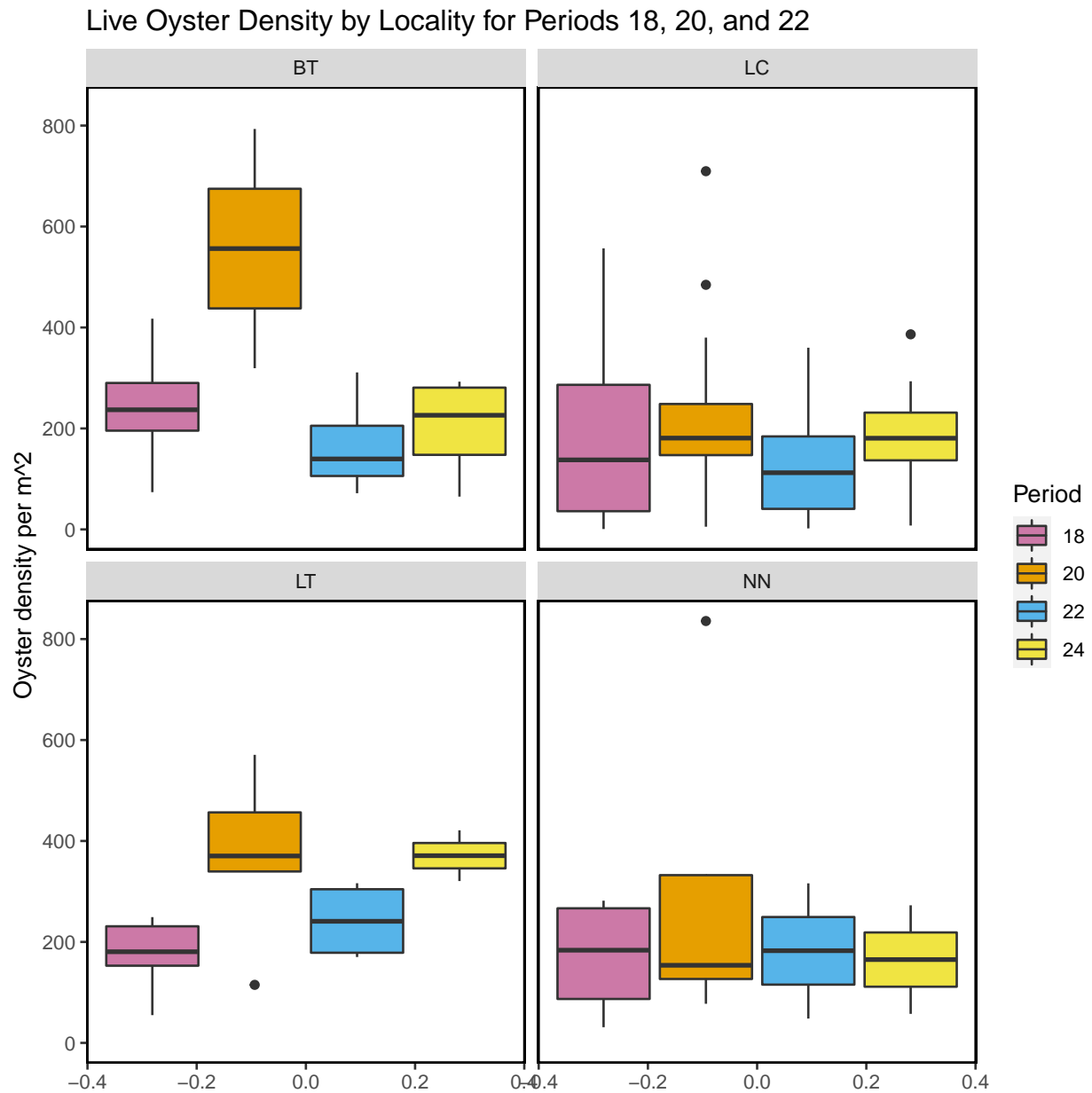


Figure- Calculated live oyster density by locality for periods 18 (Winter 2018-2019), 20 (Winter 2019-2020), 22 (Winter 2020-2021), and 24 (Winter 2021-2022) with the last sample date of period 24 as 2022-01-06.

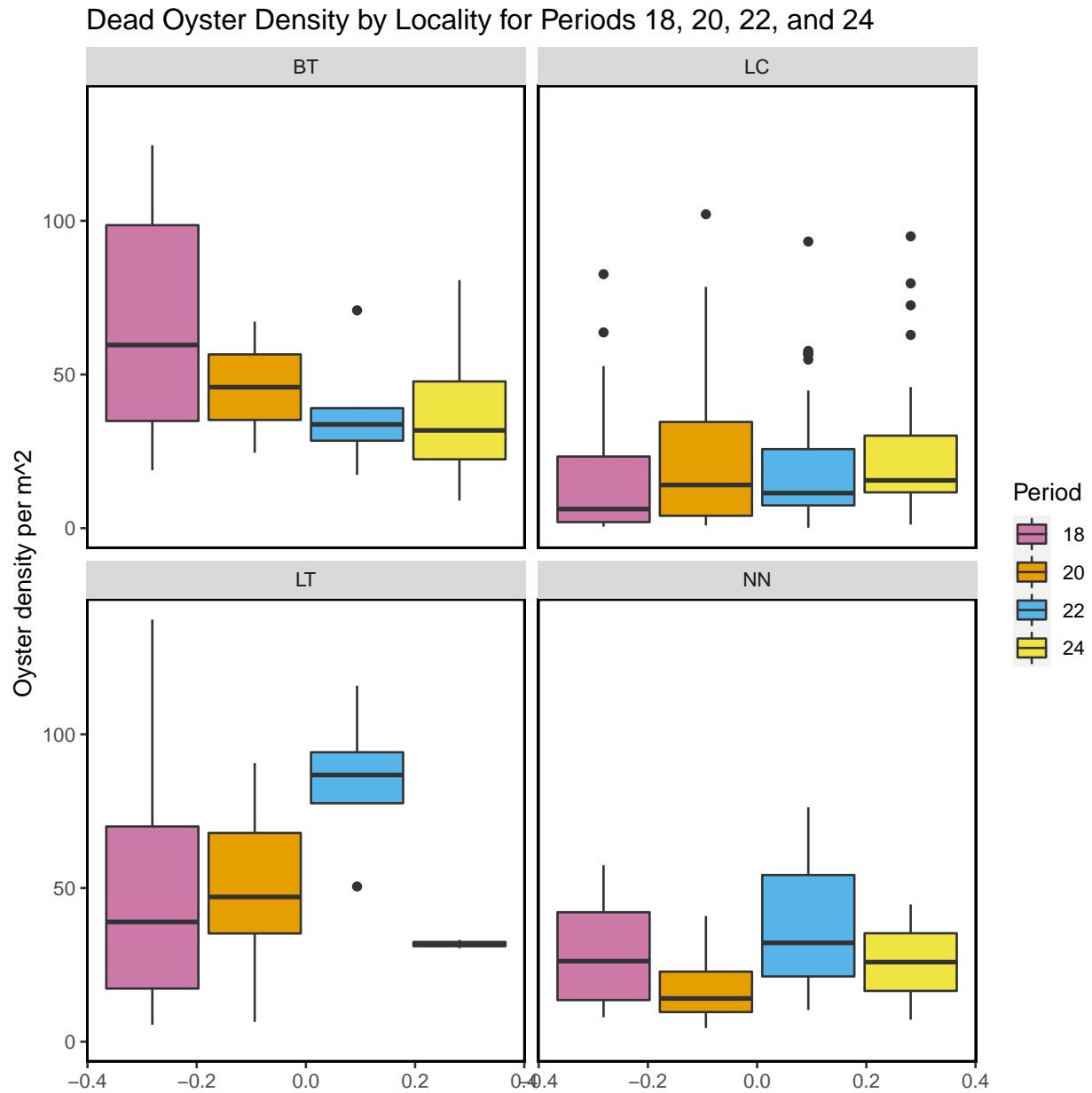


Figure- Calculated dead oyster density by locality for periods 18 (Winter 2018-2019), 20 (Winter 2019-2020), 22 (Winter 2020-2021), and 24 (Winter 2021-2022) with the last sample date of period 24 as 2022-01-06.

Live Oyster Density by Strata for Periods 18, 20, 22, and 24

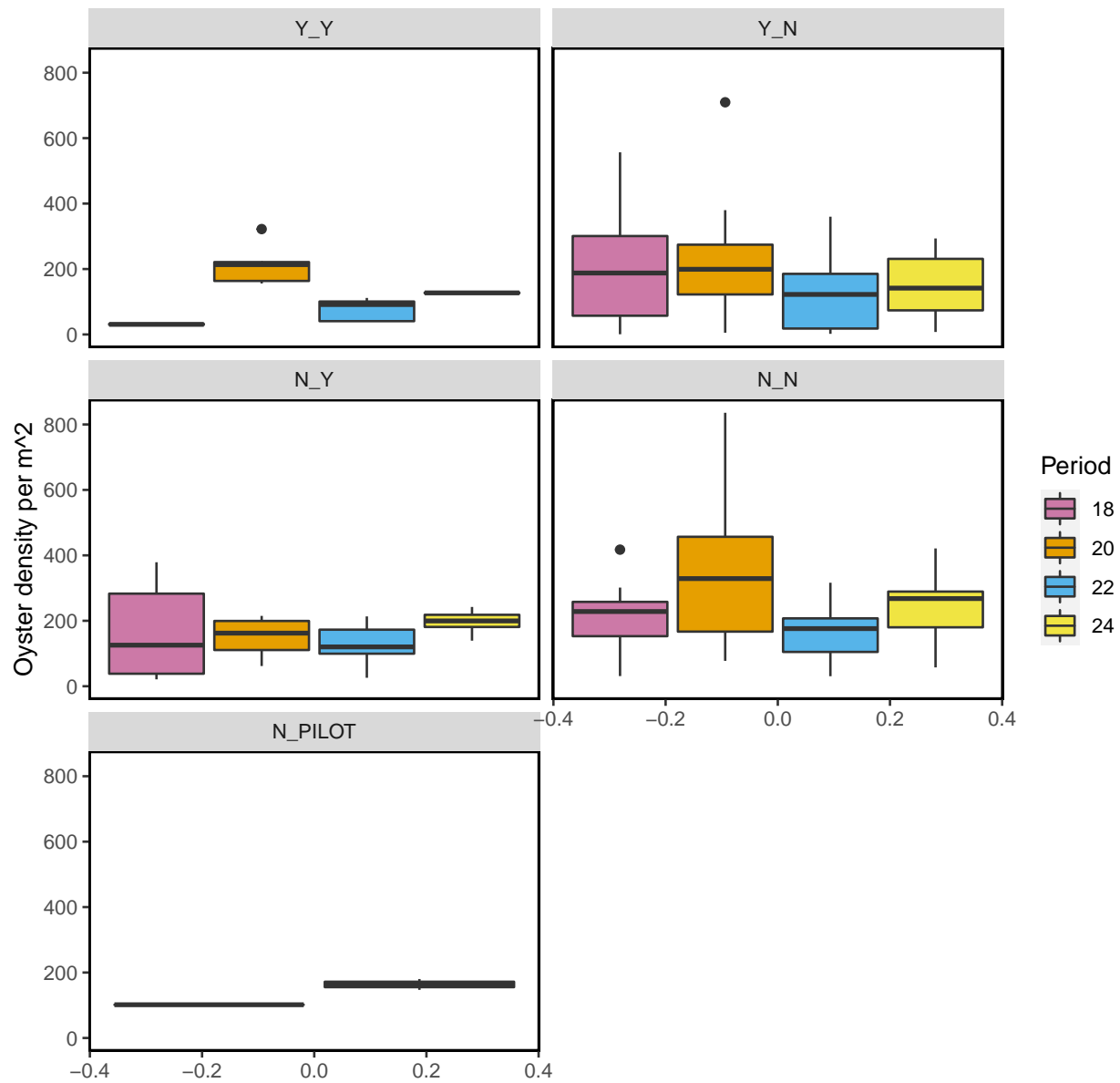


Figure- Calculated live oyster density by strata for periods 18 (Winter 2018-2019), 20 (Winter 2019-2020), 22 (Winter 2020-2021), and 24 (Winter 2021-2022) with the last sample date of period 24 as 2022-01-06.



Dead Oyster Density by Strata for Periods 18, 20, 22, and 24

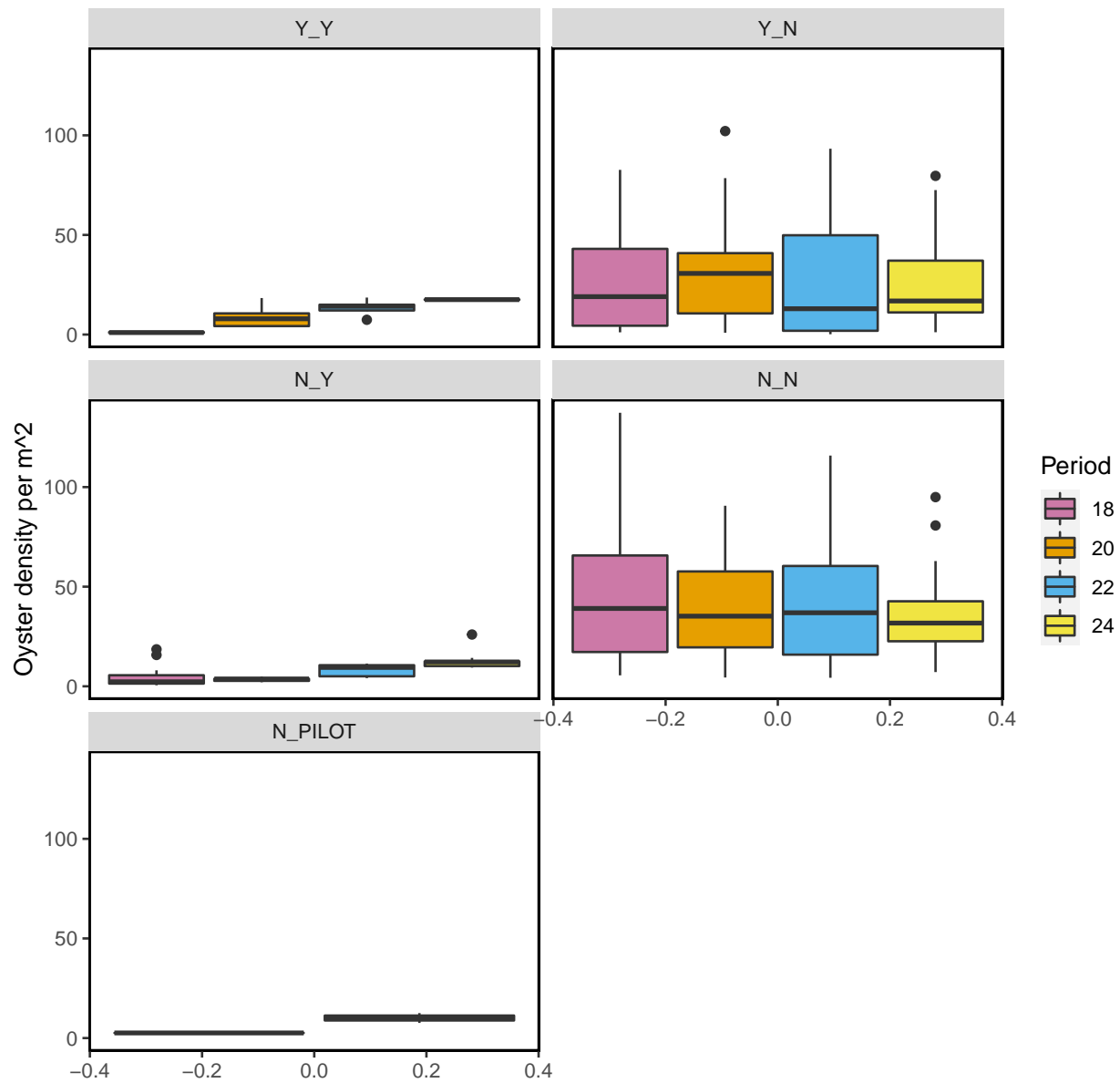


Figure- Calculated dead oyster density by strata for periods 18 (Winter 2018-2019), 20 (Winter 2019-2020), 22 (Winter 2020-2021), and 24 (Winter 2021-2022) with the last sample date of period 24 as 2022-01-06.

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.

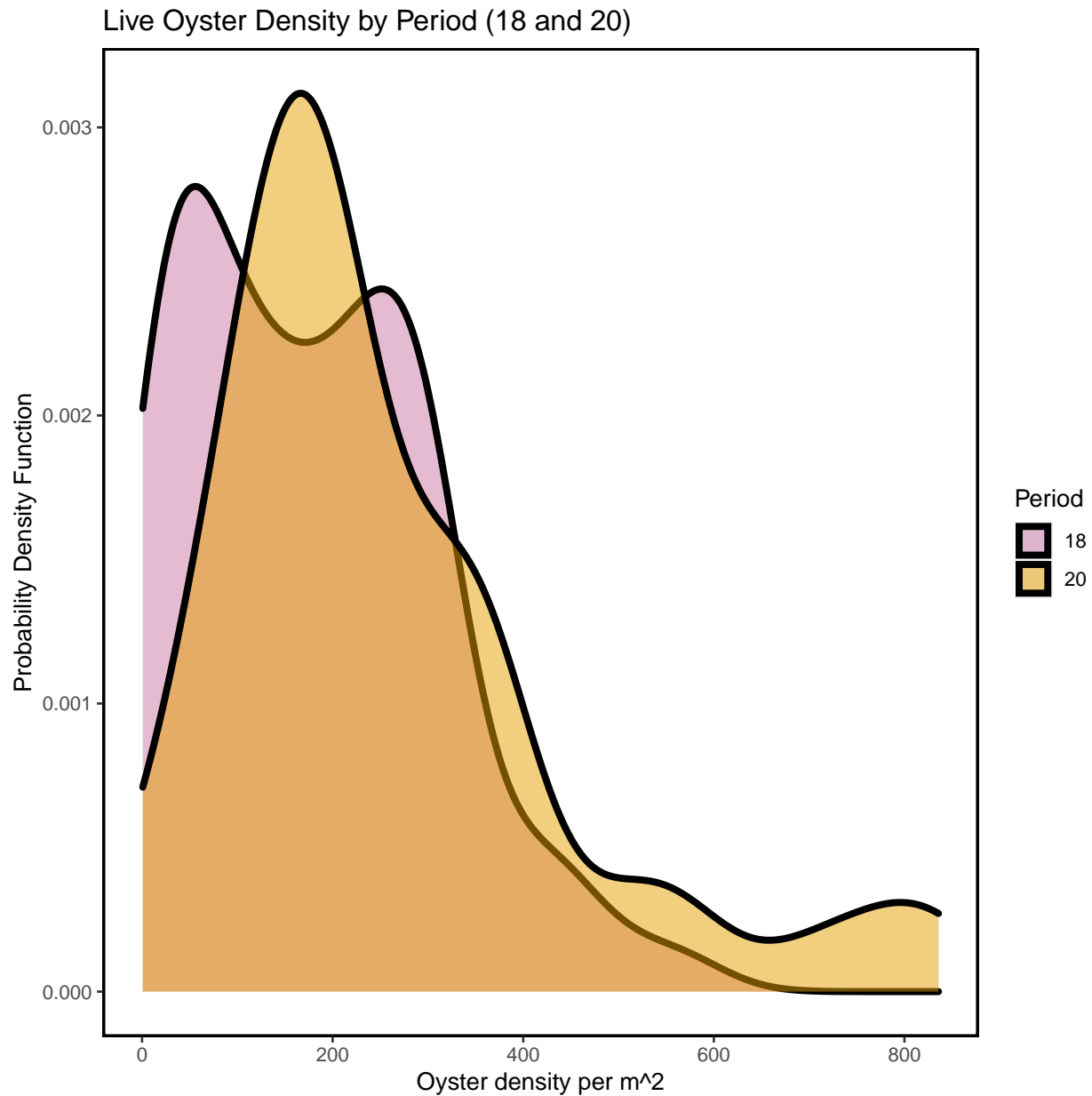


Figure- Calculated live oyster density by periods 18 (Winter 2018-2019) and 20 (Winter 2019-2020) using a probability density function with the last sample date of period 22 as 2022-01-06.

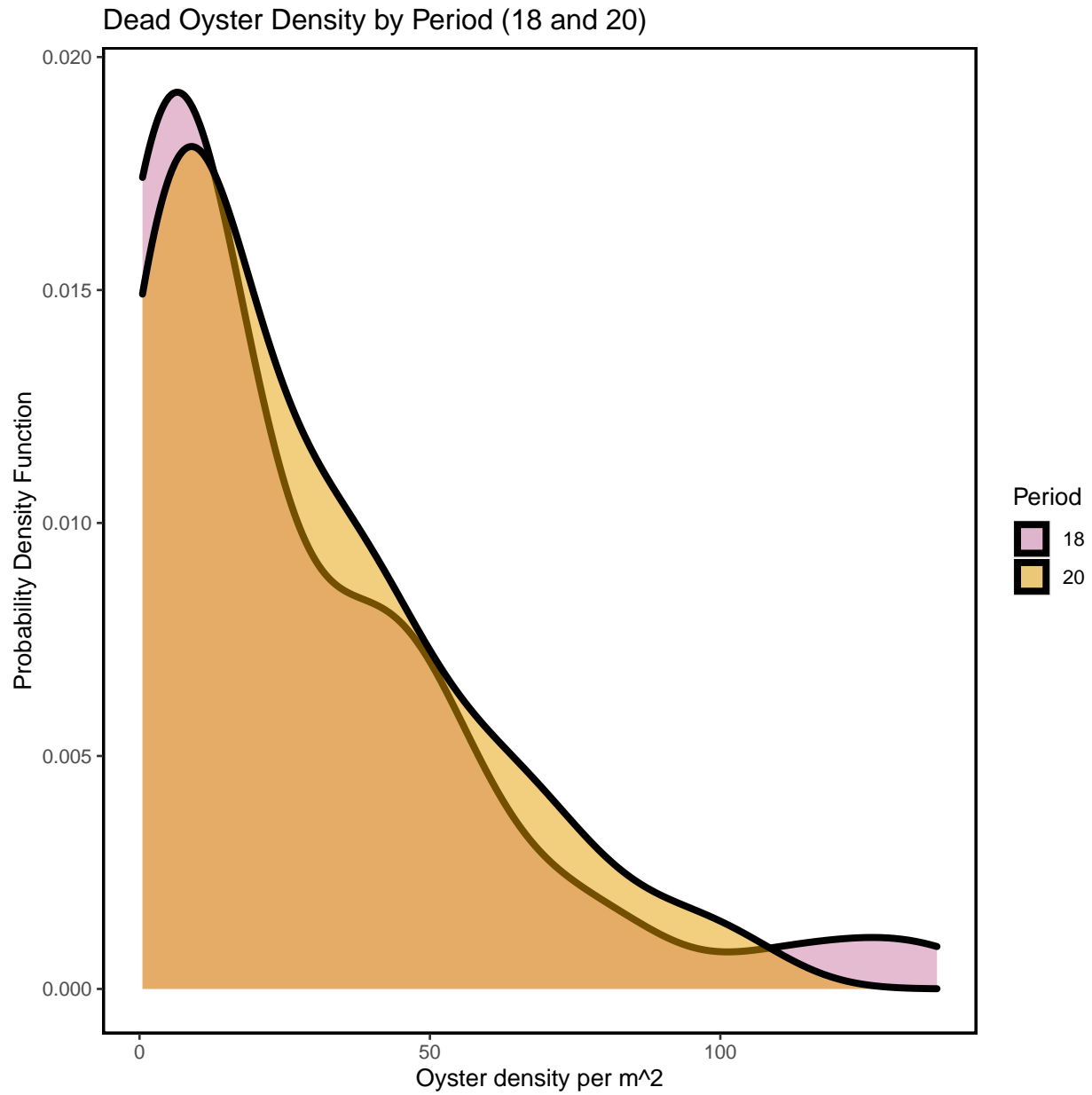


Figure- Calculated dead oyster density by periods 18 (Winter 2018-2019) and 20 (Winter 2019-2020) using a probability density function with the last sample date of period 22 as 2022-01-06.

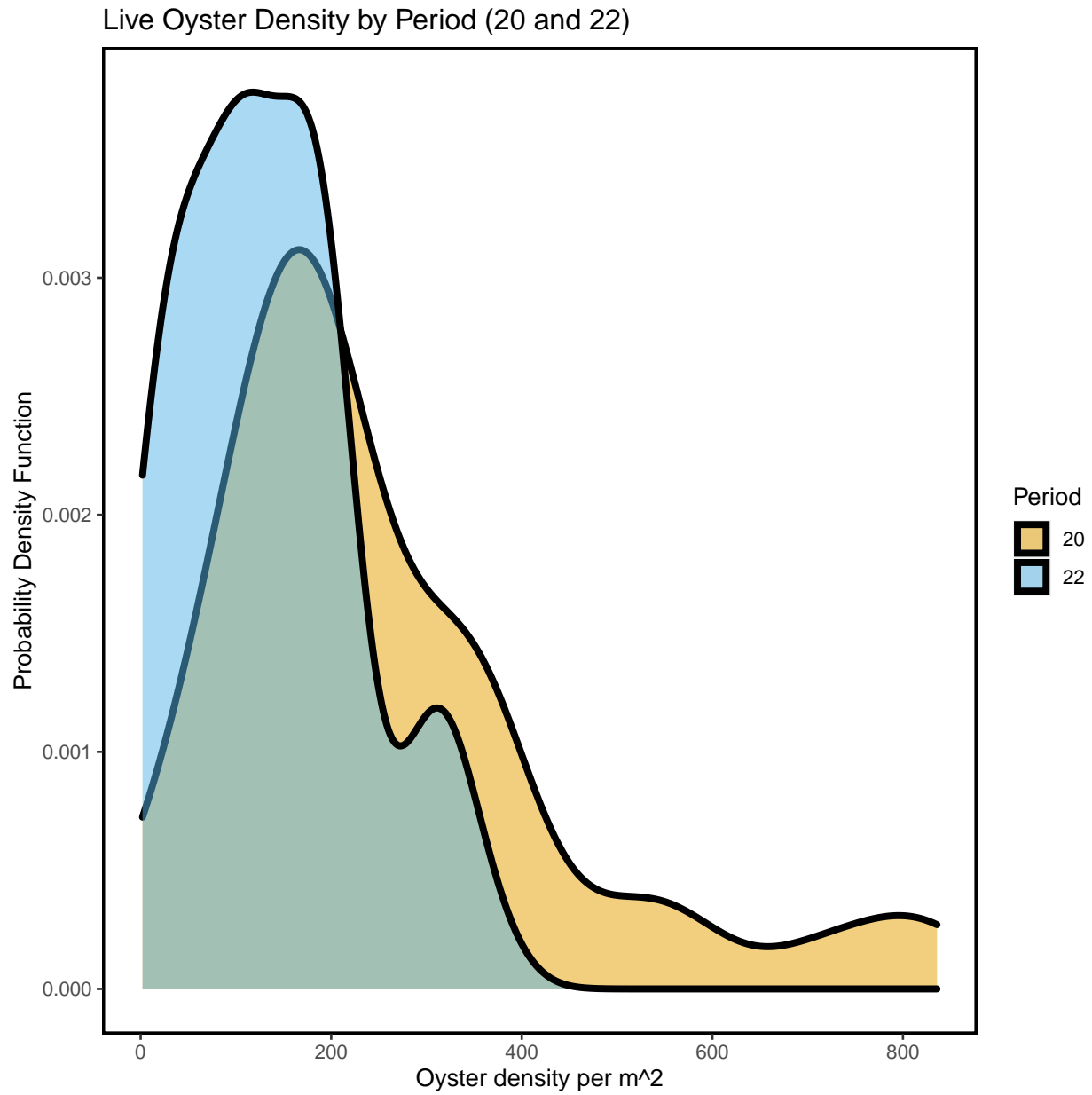


Figure- Calculated live oyster density by periods 20 (Winter 2019-2020) and 22 (Winter 2020-2021) using a probability density function with the last sample date of period 22 as 2022-01-06.

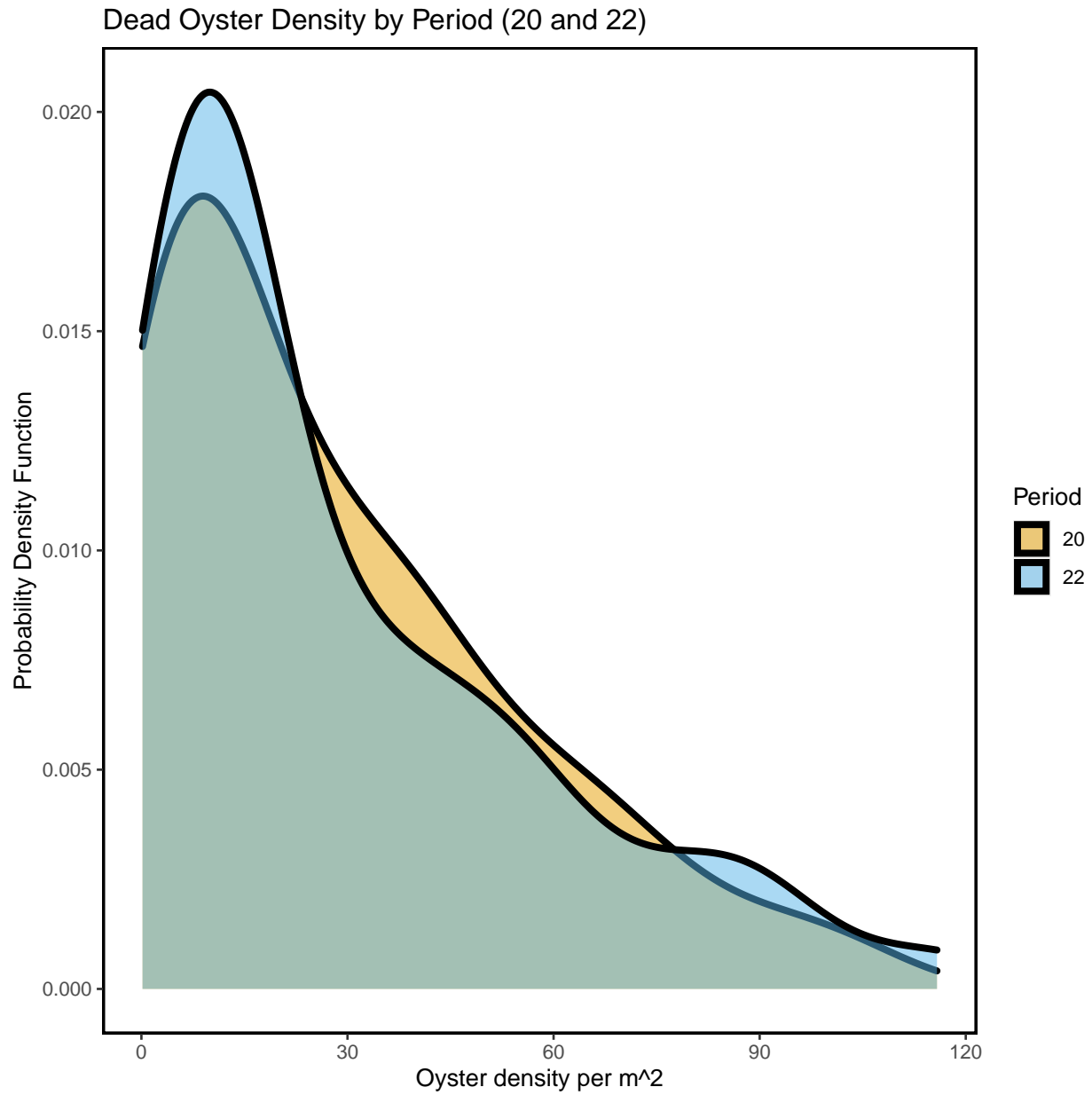


Figure- Calculated dead oyster density by periods 20 (Winter 2019-2020) and 22 (Winter 2020-2021) using a probability density function with the last sample date of period 22 as 2022-01-06.

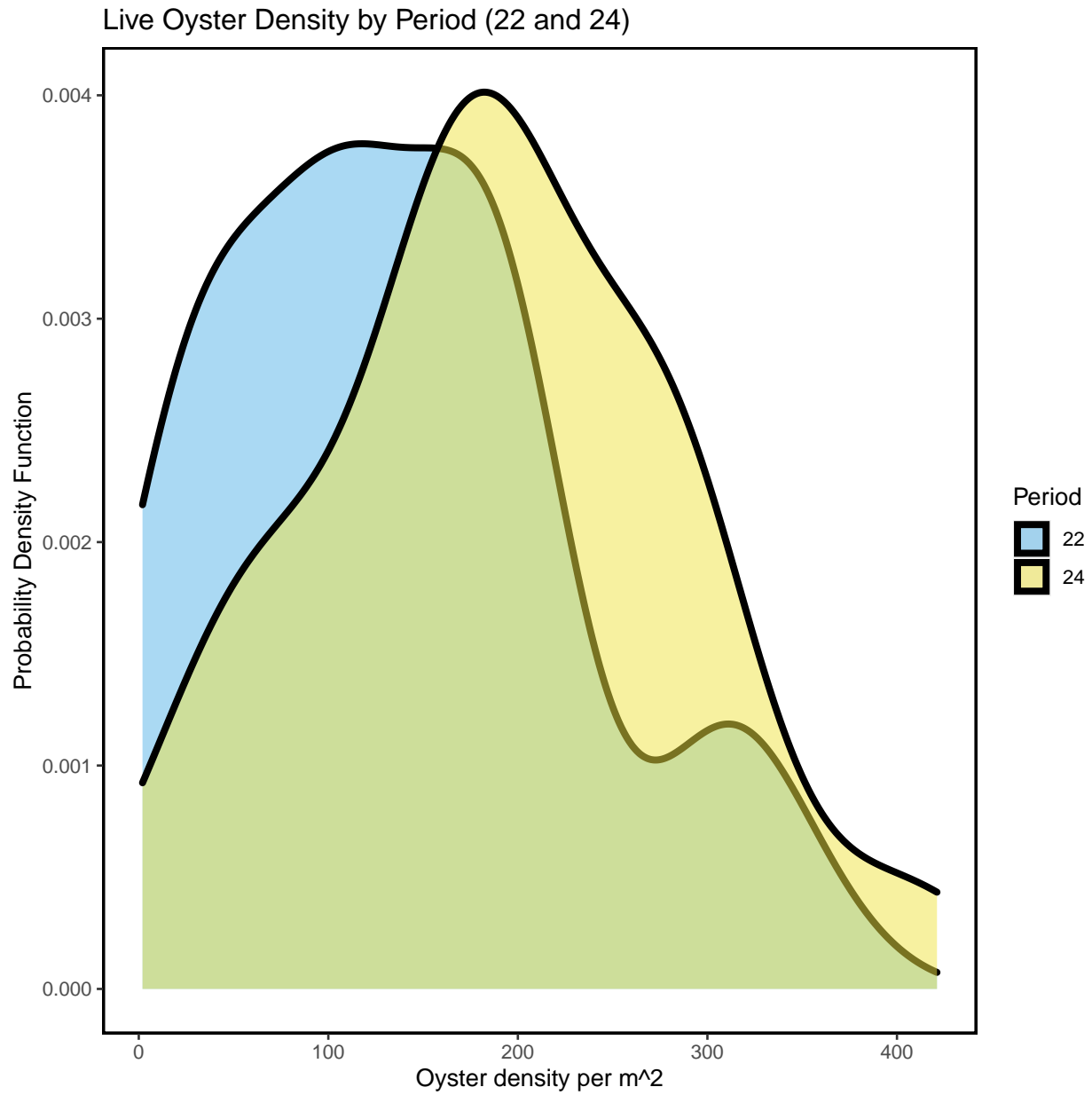


Figure- Calculated live oyster density by periods 22 (Winter 2020-2021) and 24 (Winter 2021-2022) using a probability density function with the last sample date of period 24 as 2022-01-06.

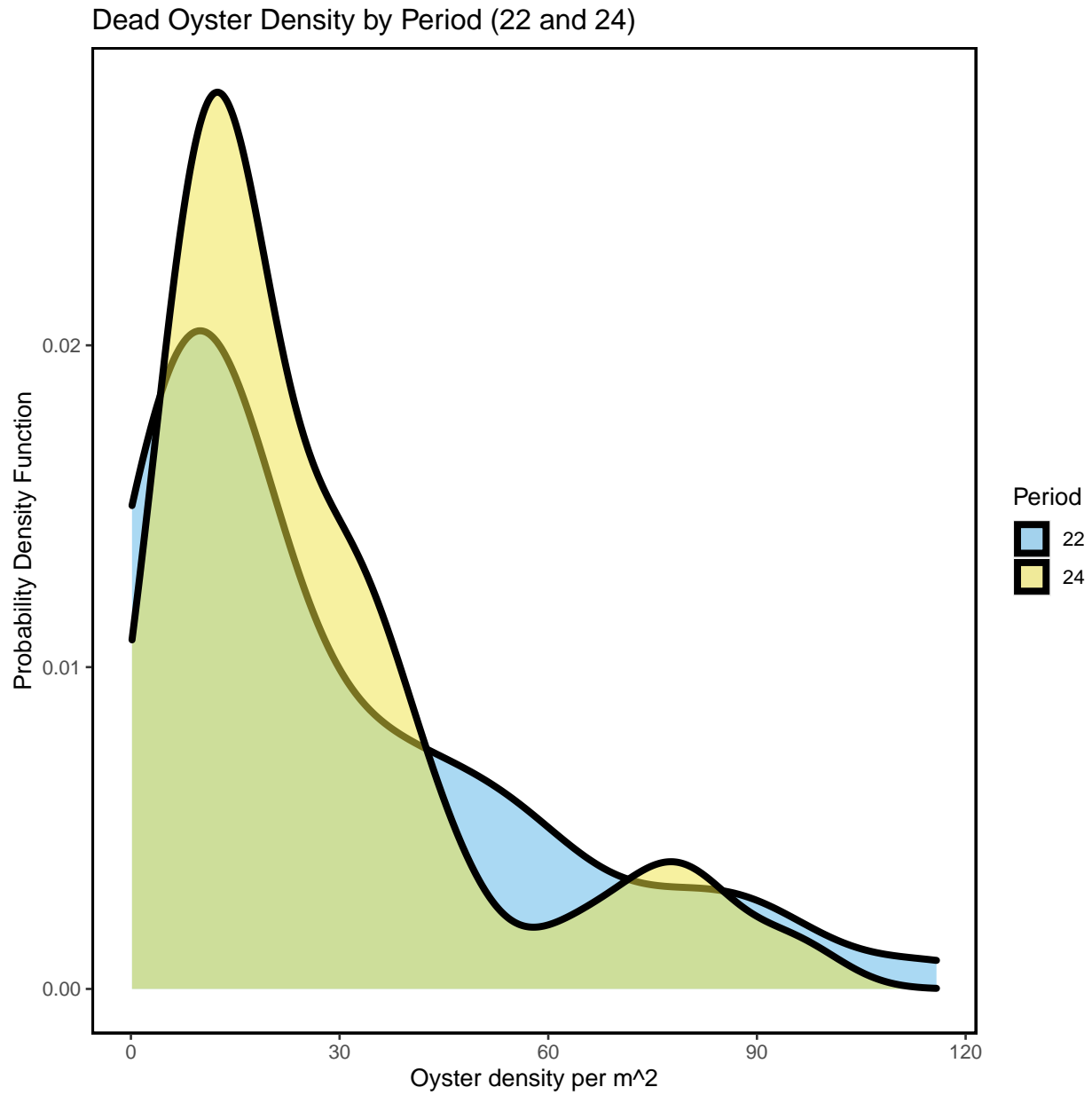


Figure- Calculated dead oyster density by periods 22 (Winter 2020-2021) and 24 (Winter 2021-2022) using a probability density function with the last sample date of period 24 as 2022-01-06.

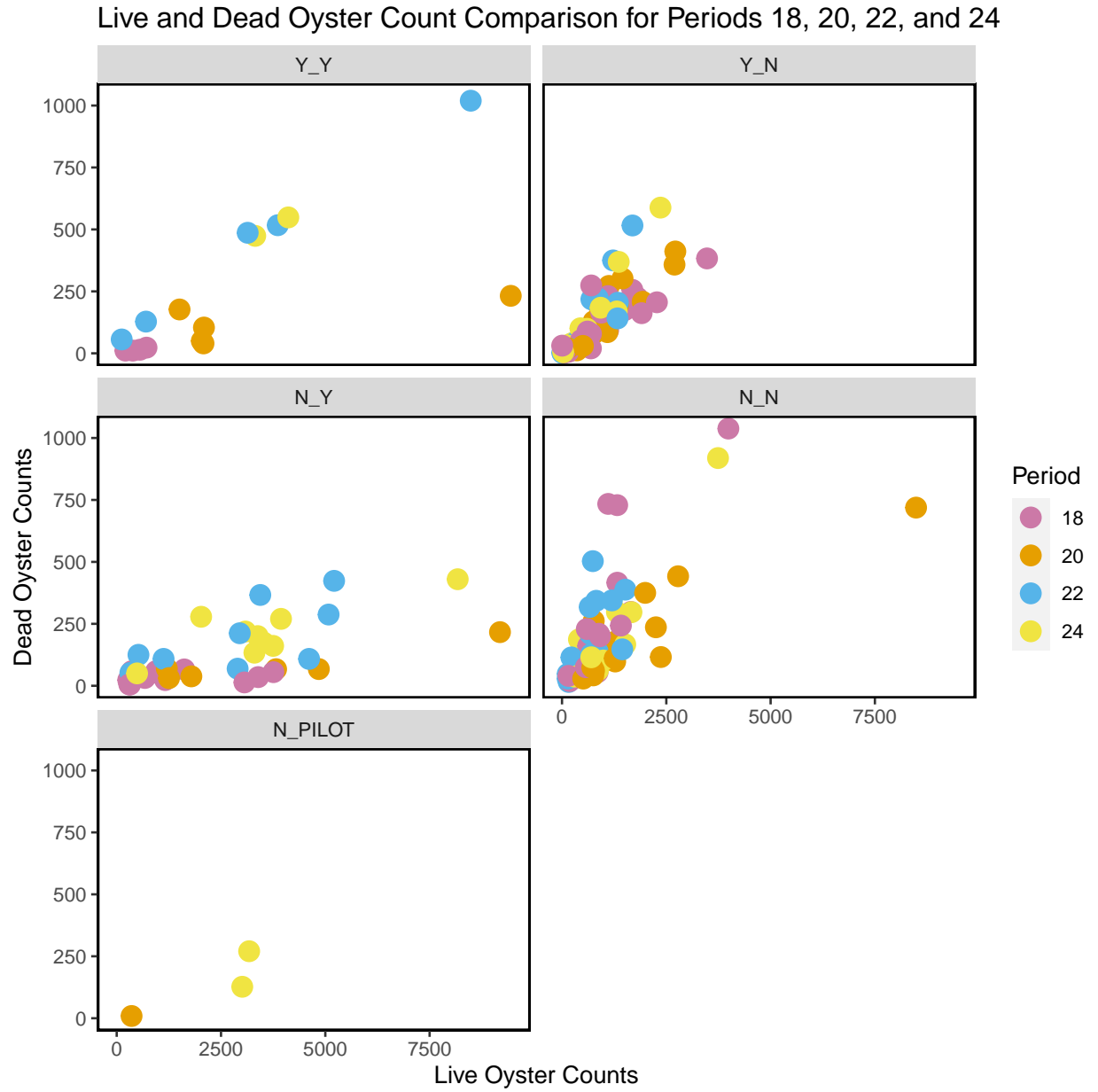


Figure- Live and dead oyster count comparison by periods 18 (Winter 2018- 2019), 20 (Winter 2019-2020), 22 (Winter 2020-2021) and 24 (Winter 2021-2022), last sample date of period 24 as 2022-01-06.



## Live Counts Double Pass Results

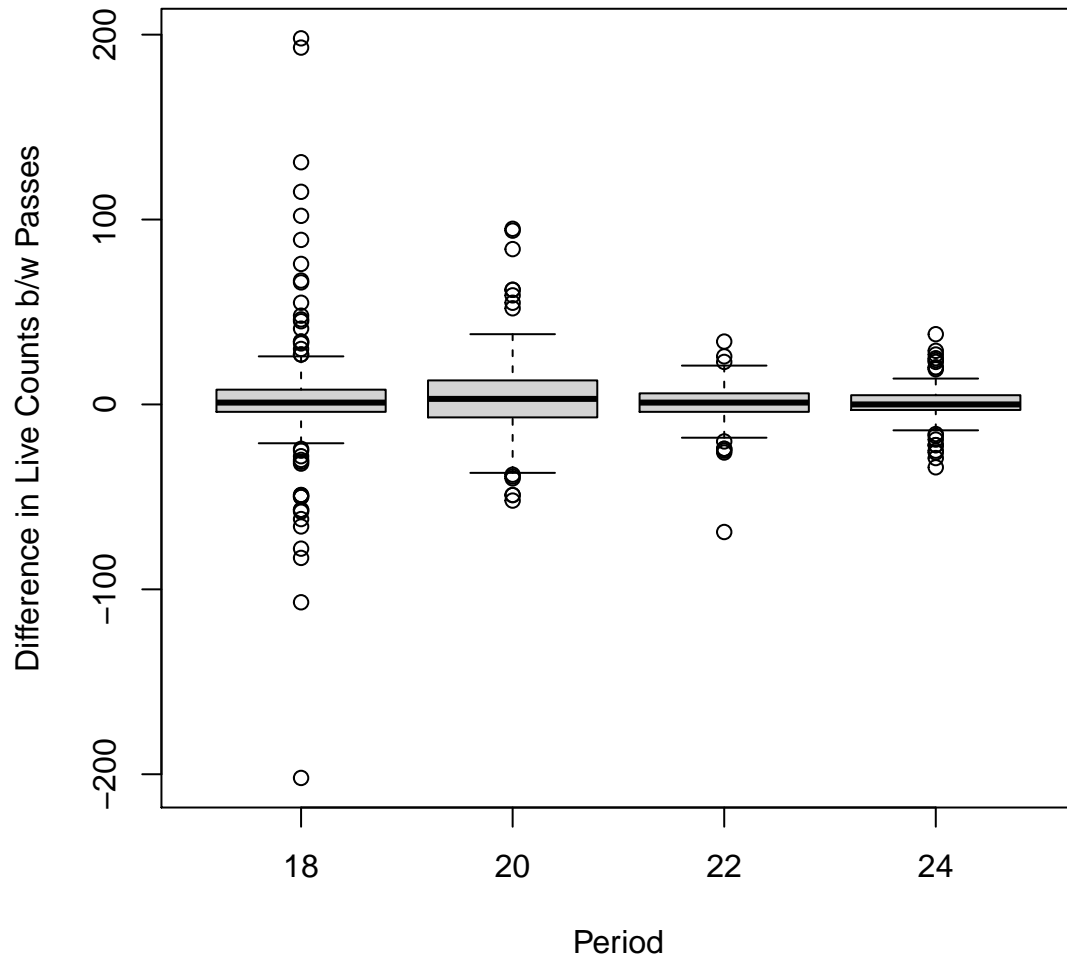


Figure- Boxplot of the difference in live counts between pass 1 and pass 2 (pass 1 live counts - pass 2 live counts) for period 18, 20, 22, and 24

locality	period	mean_difference	sd_difference	CV
BT	18	-5.43	60.0	-11.1
LC	18	3.58	30.0	8.4
NN	18	13.17	15.5	1.2
LC	20	4.33	22.4	5.2
LT	20	2.64	39.2	14.9
BT	22	-1.00	18.9	-18.9
LC	22	0.14	9.0	63.6
LT	22	3.38	10.9	3.2
BT	24	9.23	14.0	1.5
LC	24	-0.19	8.8	-47.2

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

## Dead Counts Double Pass Results

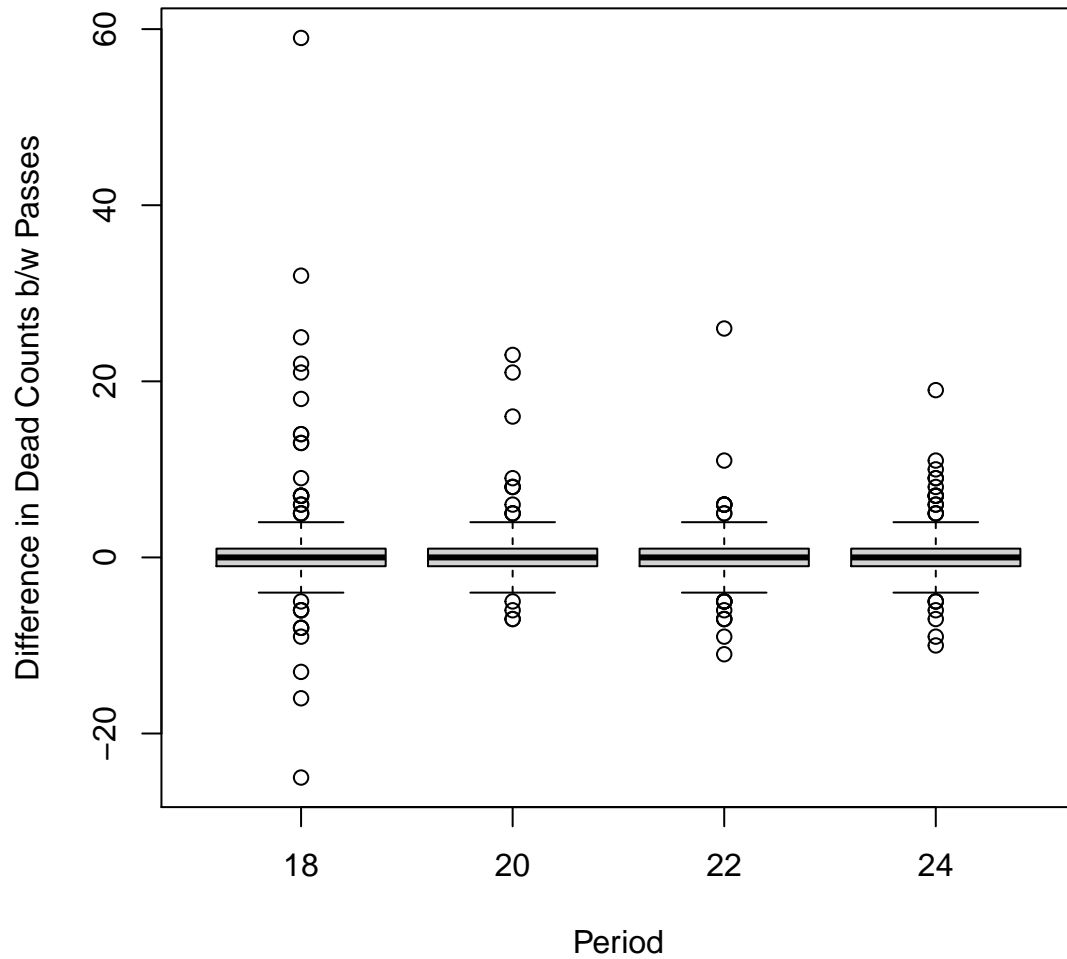


Figure- Boxplot of the difference in dead counts between pass 1 and pass 2 (pass 1 dead counts - pass 2 dead counts) for period 18, 20, 22, and 24

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	1.09	1.07
LT	22	0.69	0.66
BT	24	0.54	0.51
LC	24	1.13	1.10

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 2022-01-06. 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
23	Summer	2021
24	Winter	2021-2022

## 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	17	564
CK	26	734
CR	46	1375
HB	45	1129
LC	228	12942
LT	19	488
NN	13	338

### Effort by Strata

Strata	Number of Transects	Total Length (m)
N_N	127	4138
N_PILOT	15	1050
N_Y	37	4210
Y_N	199	5803
Y_Y	16	2369

### Effort by Period

Period	Number of Transects	Total Length (m)
1	42	1086
2	30	753
3	25	619
6	33	919
7	8	528
10	8	512
11	8	511
16	8	528
18	61	2660
19	35	944
20	47	2586
22	49	3535
24	40	2390

### 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	2156
18	LT	6	182
18	NN	4	84
19	CK	9	221

19	CR	9	249
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	2188
20	LT	7	176
20	NN	4	126
22	BT	5	132
22	LC	37	3228
22	LT	4	96
22	NN	3	78
24	BT	4	98
24	LC	32	2208
24	LT	2	34
24	NN	2	51
3	CR	9	269
3	HB	7	184
3	LC	9	167
6	CK	8	271
6	CR	9	272
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	977
18	Y_N	26	728
18	Y_Y	4	384
19	N_N	5	93
19	Y_N	30	851
2	N_N	8	148
2	Y_N	22	605
20	N_N	18	595
20	N_PILOT	1	23
20	N_Y	6	903
20	Y_N	17	602
20	Y_Y	5	464
22	N_N	20	546
22	N_Y	9	1324
22	Y_N	15	526
22	Y_Y	5	1138

24	N_N	14	408
24	N_PILOT	2	251
24	N_Y	9	1007
24	Y_N	13	341
24	Y_Y	2	383
3	N_N	8	147
3	Y_N	17	472
6	N_N	8	178
6	Y_N	25	740
7	N_N	8	528

## Effort Plot Summaries for all Periods

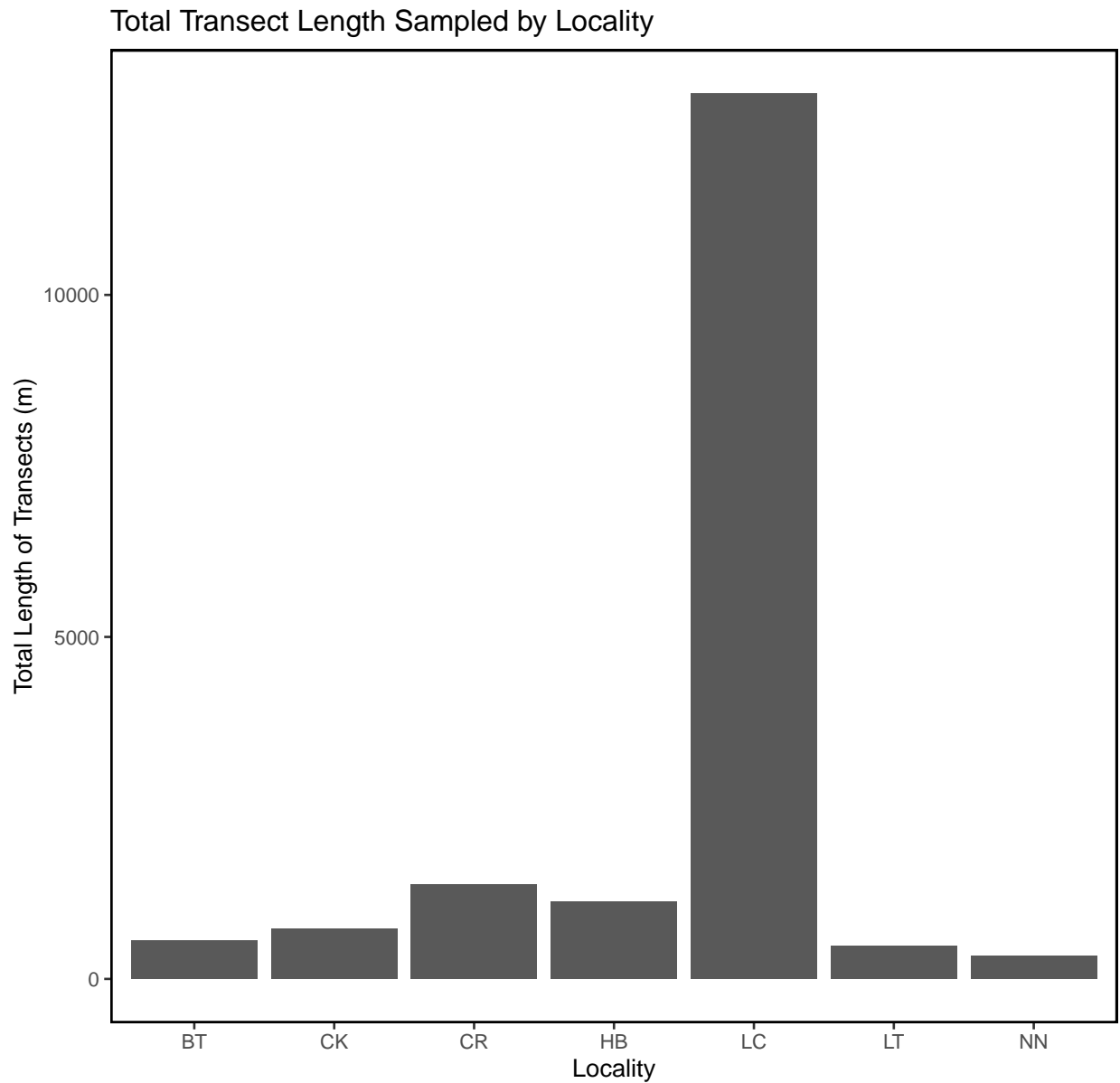


Figure – Bar plot of total transect length in meters sampled by locality for all periods.



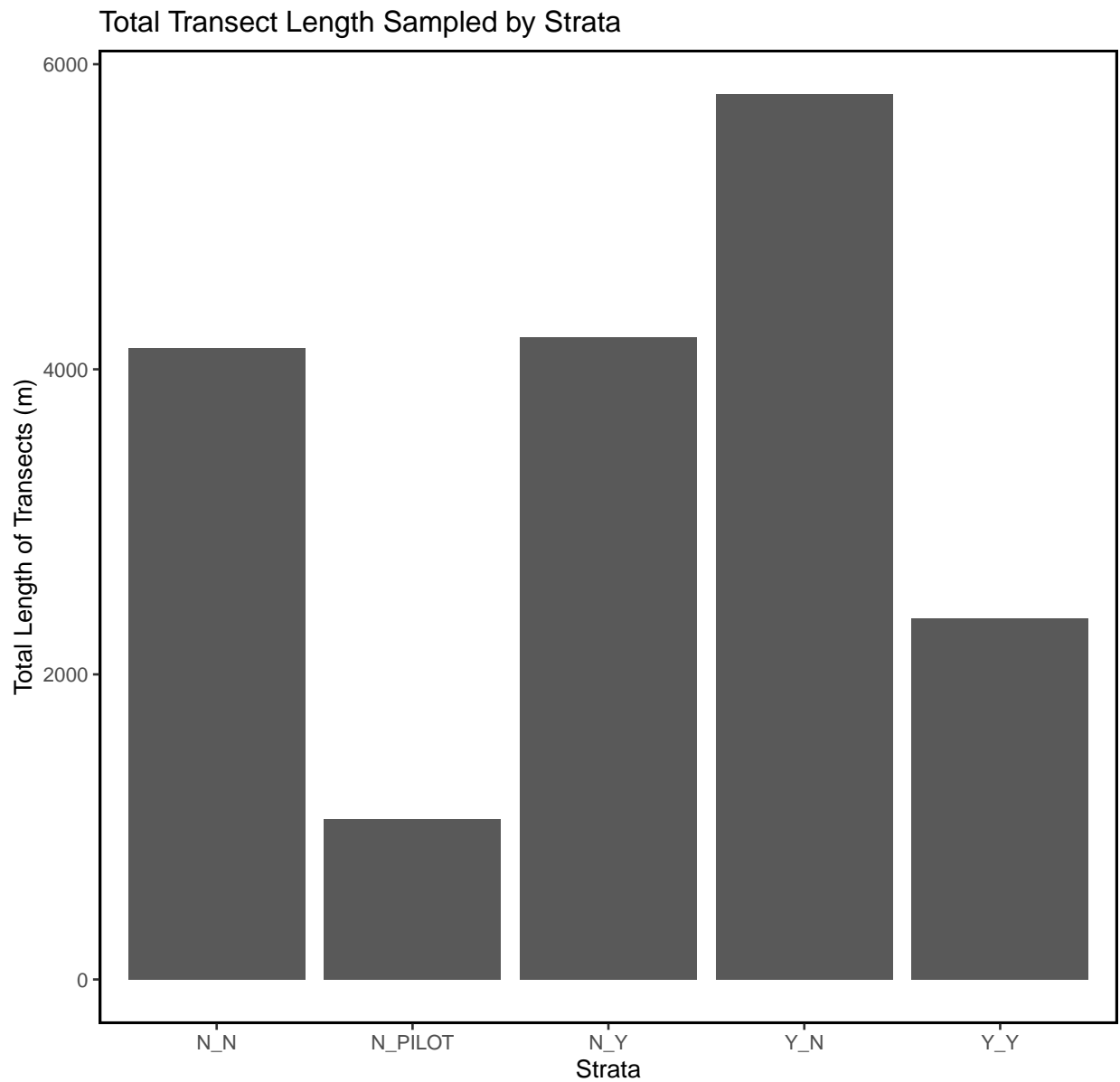
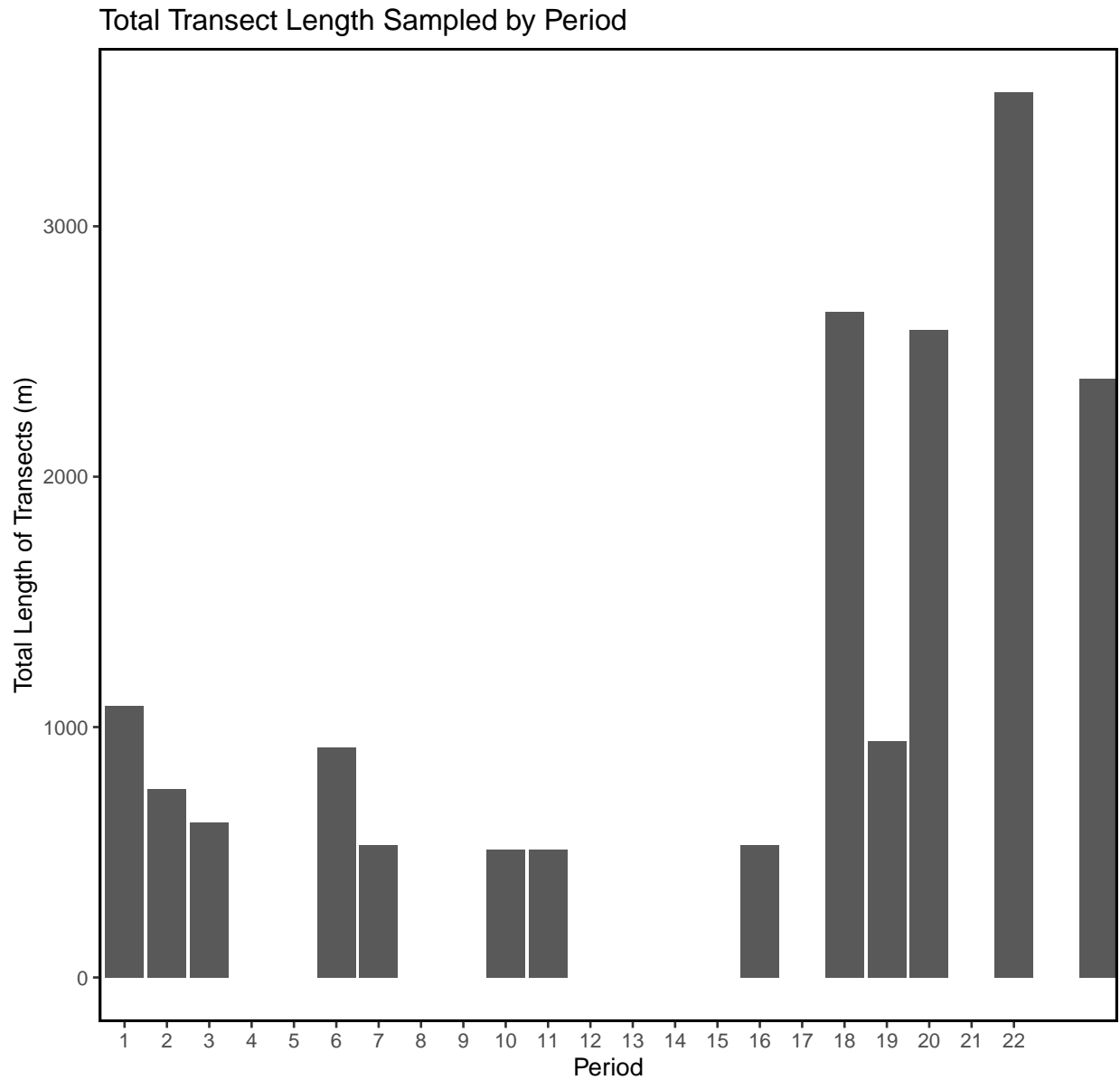


Figure – Bar plot of total transect length in meters sampled by strata for all periods.



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	1451	897	2007	4026231	1.38	487	497	2405	1443	750	2550
CK	857	444	1091	1190933	1.27	214	438	1277	848	479	1302
CR	1026	716	1035	1072162	1.01	153	727	1325	1027	745	1325
HB	902	364	1047	1095622	1.16	158	592	1211	899	610	1216
LC	1218	700	1530	2341016	1.26	102	1018	1418	1224	1038	1427
LT	1037	877	574	329239	0.55	132	779	1295	1043	813	1310
NN	742	702	607	369038	0.82	168	412	1072	749	457	1109

### Live Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	1003	766	1035	1071468	1.03	92	822	1184	1001	844	1200
N_PILLOT	1318	1136	925	856059	0.70	239	850	1787	1310	895	1798
N_Y	2624	2898	2143	4593759	0.82	352	1933	3315	2638	1977	3363
Y_N	772	436	902	813871	1.17	64	645	898	774	655	896
Y_Y	2673	2060	2784	7749956	1.04	696	1309	4037	2649	1497	3973

### 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	1402	1022	1800
2	890	476	945	893727	1.06	176	546	1234	899	579	1243
3	738	296	817	668064	1.11	167	411	1065	743	455	1071
6	433	176	534	284791	1.23	96	245	621	438	267	629
7	50	29	56	3186	1.12	20	11	90	51	18	88
10	1207	1074	671	449607	0.56	237	743	1672	1199	800	1615
11	886	776	678	459708	0.77	240	416	1356	882	508	1344
16	494	366	467	217855	0.95	165	170	817	499	215	801
18	982	695	935	874733	0.95	120	748	1217	990	768	1235
19	555	329	573	328431	1.03	97	365	745	557	387	740
20	1844	1253	2125	4517189	1.15	310	1236	2451	1858	1307	2536
22	1334	702	1693	2867783	1.27	242	860	1808	1343	922	1836
24	1722	1150	1688	2849017	0.98	267	1199	2246	1732	1242	2278

## 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	248	218	173	29961	0.70	42.0	165	330	250	179	336
CK	241	112	321	102927	1.33	62.9	118	364	239	129	366
CR	283	178	294	86605	1.04	43.4	198	368	283	208	371
HB	257	101	303	92052	1.18	45.7	168	347	257	174	354
LC	155	129	142	20160	0.91	9.5	137	174	155	136	175
LT	285	300	137	18813	0.48	31.5	223	347	283	225	347
NN	214	164	210	44295	0.99	58.4	99	328	214	122	332

### Live Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	258	191	243	59228	0.94	22	216	301	259	216	302
N_PILOT	118	121	59	3467	0.50	15	88	148	119	91	148
N_Y	154	146	86	7433	0.56	14	127	182	154	127	181
Y_N	184	114	213	45286	1.16	15	154	214	184	155	215
Y_Y	115	106	85	7218	0.74	21	73	157	115	79	157

### 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	390.6	285.1	502
2	255	119.0	285.2	81348	1.12	53	151.3	358.9	256.2	152.1	360
3	234	85.3	269.3	72523	1.15	55	126.1	341.6	232.8	137.0	341
6	121	72.2	150.9	22767	1.25	27	68.1	174.3	121.1	75.5	175
7	5	2.9	5.6	31	1.12	2	1.1	8.9	5.1	1.7	9
10	124	113.3	67.4	4536	0.54	24	76.9	170.3	123.5	81.9	168
11	90	79.5	67.8	4596	0.75	24	43.4	137.4	91.3	48.9	138
16	49	36.3	46.4	2154	0.95	16	16.9	81.2	49.4	22.0	82
18	176	154.5	130.2	16945	0.74	17	143.7	209.0	176.0	144.7	209
19	154	72.7	168.5	28408	1.10	28	97.9	209.6	153.7	101.8	212
20	256	202.8	187.2	35057	0.73	27	202.6	309.6	256.8	205.4	314
22	137	120.6	92.9	8638	0.68	13	111.2	163.3	136.8	109.9	163
24	190	185.0	95.8	9178	0.50	15	160.0	219.4	189.8	160.1	219

## 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	268	169	288	82962	1.07	70	131.3	405	265	150	415
CK	78	32	106	11170	1.36	37	4.3	151	78	21	149
CR	60	47	38	1444	0.63	13	35.2	85	60	39	85
HB	44	21	45	2000	1.02	15	14.8	73	44	20	72
LC	129	72	154	23611	1.19	11	106.8	151	128	106	151
LT	223	141	188	35484	0.84	43	138.4	308	225	149	319
NN	100	74	90	8047	0.90	25	51.2	149	100	59	153

### Dead Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	160	98	195	38020	1.22	20	121	199	159	121	200
N_PILLOT	98	89	65	4243	0.67	17	65	131	97	67	130
N_Y	125	68	118	13837	0.94	19	87	162	125	90	166
Y_N	107	58	122	14954	1.15	12	83	131	107	85	131
Y_Y	243	116	288	82848	1.18	72	102	384	242	122	388

### 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	9.9	50
10	80	88	65	4245	0.82	23.0	34.5	125	80	39.5	126
11	50	40	25	620	0.49	8.8	33.2	68	51	36.4	68
16	44	28	41	1708	0.93	14.6	15.6	73	45	20.4	71
18	133	55	192	36903	1.44	24.6	85.1	182	134	92.9	186
19	63	44	67	4548	1.08	11.6	40.0	85	63	42.3	88
20	148	107	140	19727	0.95	20.5	107.6	188	147	111.5	187
22	191	128	193	37399	1.01	27.6	137.2	245	190	140.6	247
24	191	147	188	35477	0.98	29.8	132.9	250	191	139.4	256

## 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	49	37	33	1085	0.67	8.0	33.5	65	49	34.2	65
CK	21	11	28	757	1.29	9.7	2.3	40	21	5.8	41
CR	18	11	16	247	0.87	5.2	7.8	28	18	9.5	29
HB	13	8	14	201	1.12	4.7	3.4	22	13	5.0	22
LC	18	10	21	443	1.16	1.5	15.2	21	18	15.3	21
LT	56	47	36	1331	0.65	8.4	39.6	72	56	41.3	72
NN	28	17	22	501	0.80	6.2	15.7	40	28	17.2	41

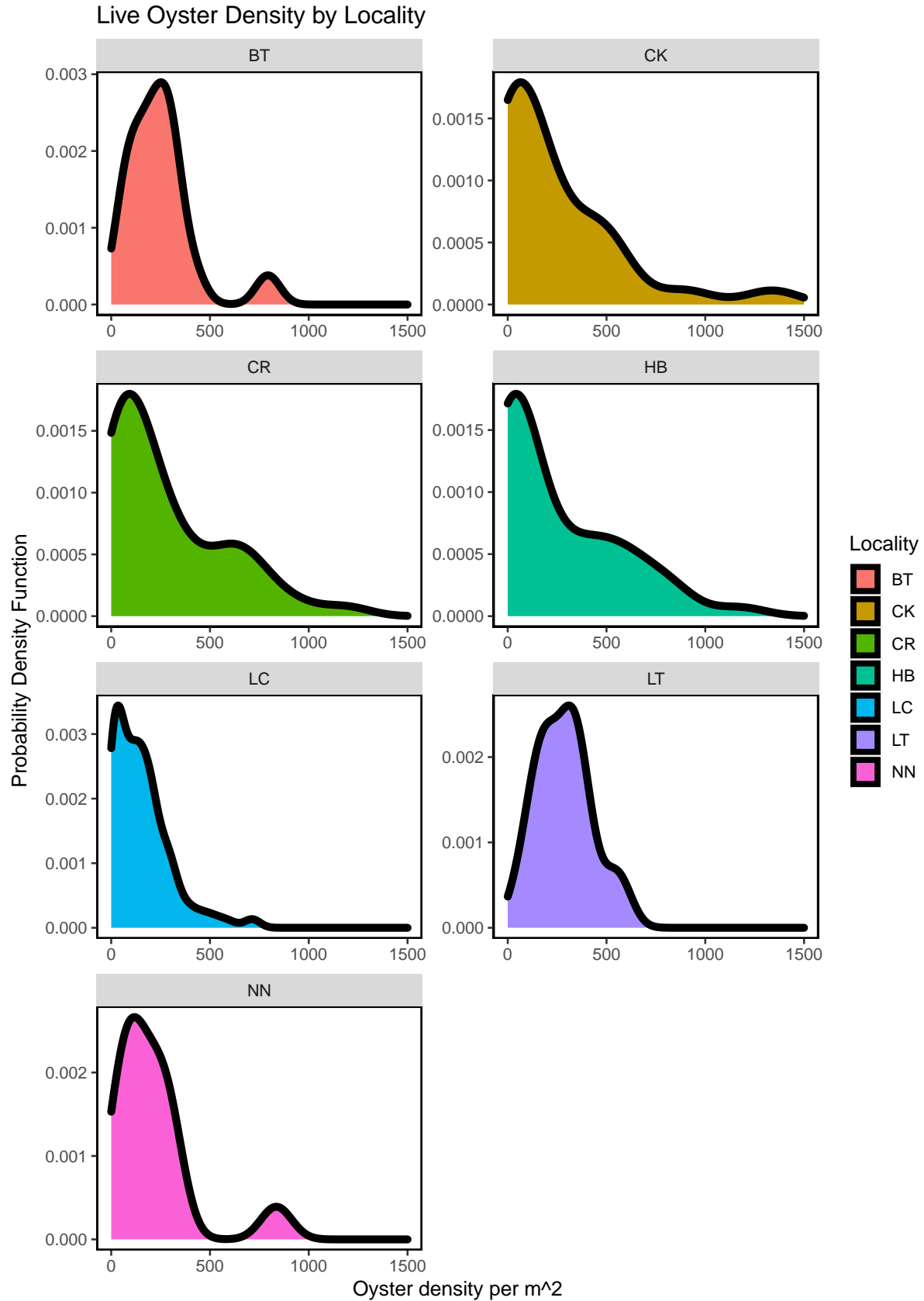
### Dead Oyster Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	33.9	29.0	31.2	973	0.92	3.20	27.6	40.2	33.9	27.8	40.7
N_PILOT	8.7	8.7	4.3	18	0.49	1.11	6.5	10.9	8.7	6.7	11.1
N_Y	7.5	5.5	5.7	32	0.75	0.93	5.7	9.4	7.6	5.8	9.5
Y_N	23.4	14.3	24.1	581	1.03	2.41	18.7	28.2	23.5	18.8	28.0
Y_Y	9.5	9.3	6.8	46	0.72	1.70	6.1	12.8	9.5	6.3	12.7

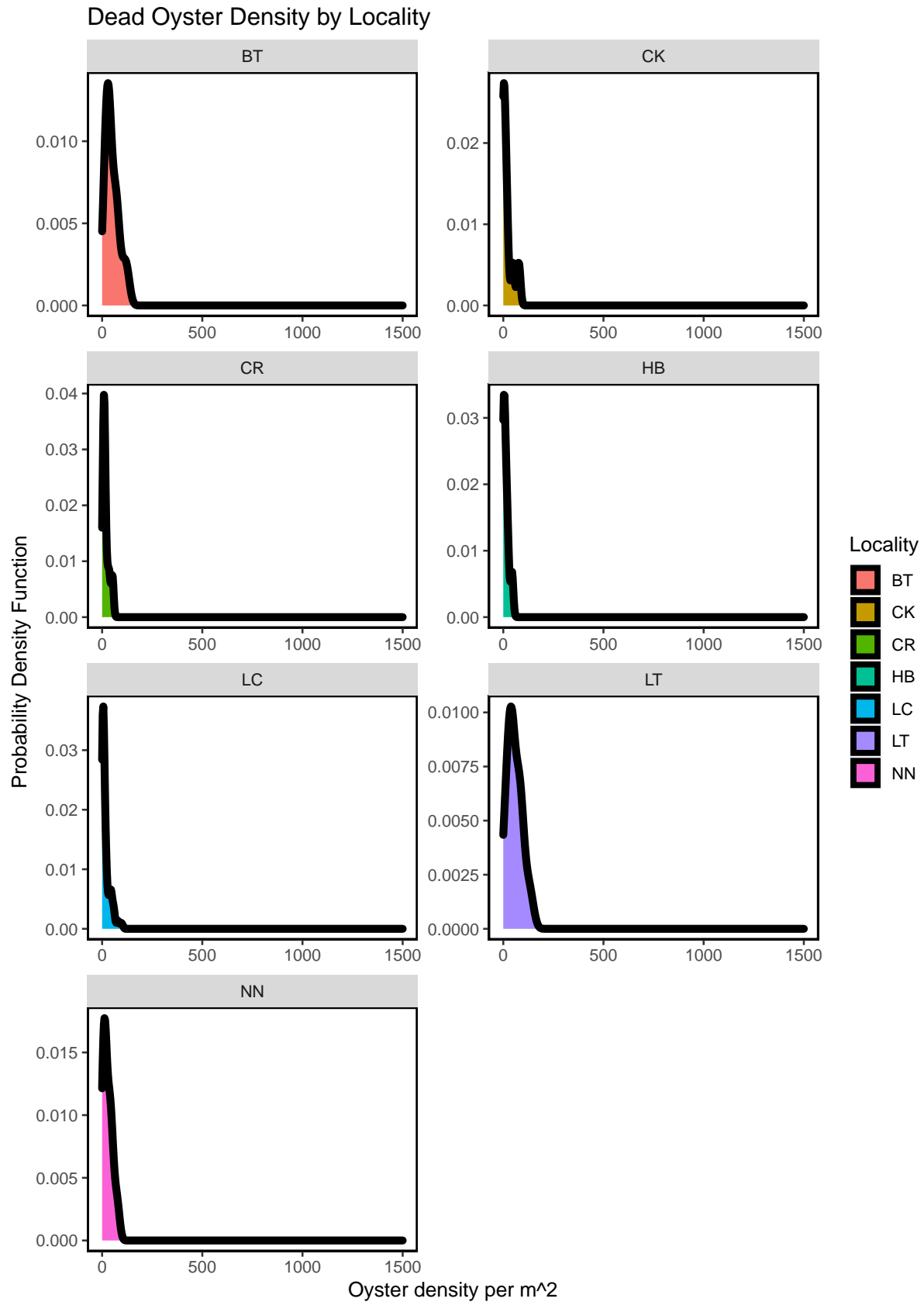
### Dead Oyster Density by Period

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	8.2	4.2	12.9
11	5.2	4.1	2.6	6.6	0.49	0.91	3.41	7.0	5.2	3.6	7.0
16	4.4	2.8	4.1	16.9	0.93	1.45	1.55	7.2	4.4	2.0	7.1
18	26.4	15.7	31.3	979.8	1.19	4.01	18.50	34.2	26.6	19.7	34.5
19	17.5	10.5	19.3	371.9	1.10	3.31	11.06	24.0	17.4	11.3	23.8
20	27.7	18.4	26.1	681.6	0.94	3.81	20.24	35.2	27.5	20.5	35.1
22	28.5	14.2	28.4	807.0	1.00	4.06	20.53	36.4	28.5	21.4	36.8
24	26.5	17.5	23.0	528.1	0.87	3.63	19.36	33.6	26.3	20.0	33.4

## Summary Density Plots for all Periods

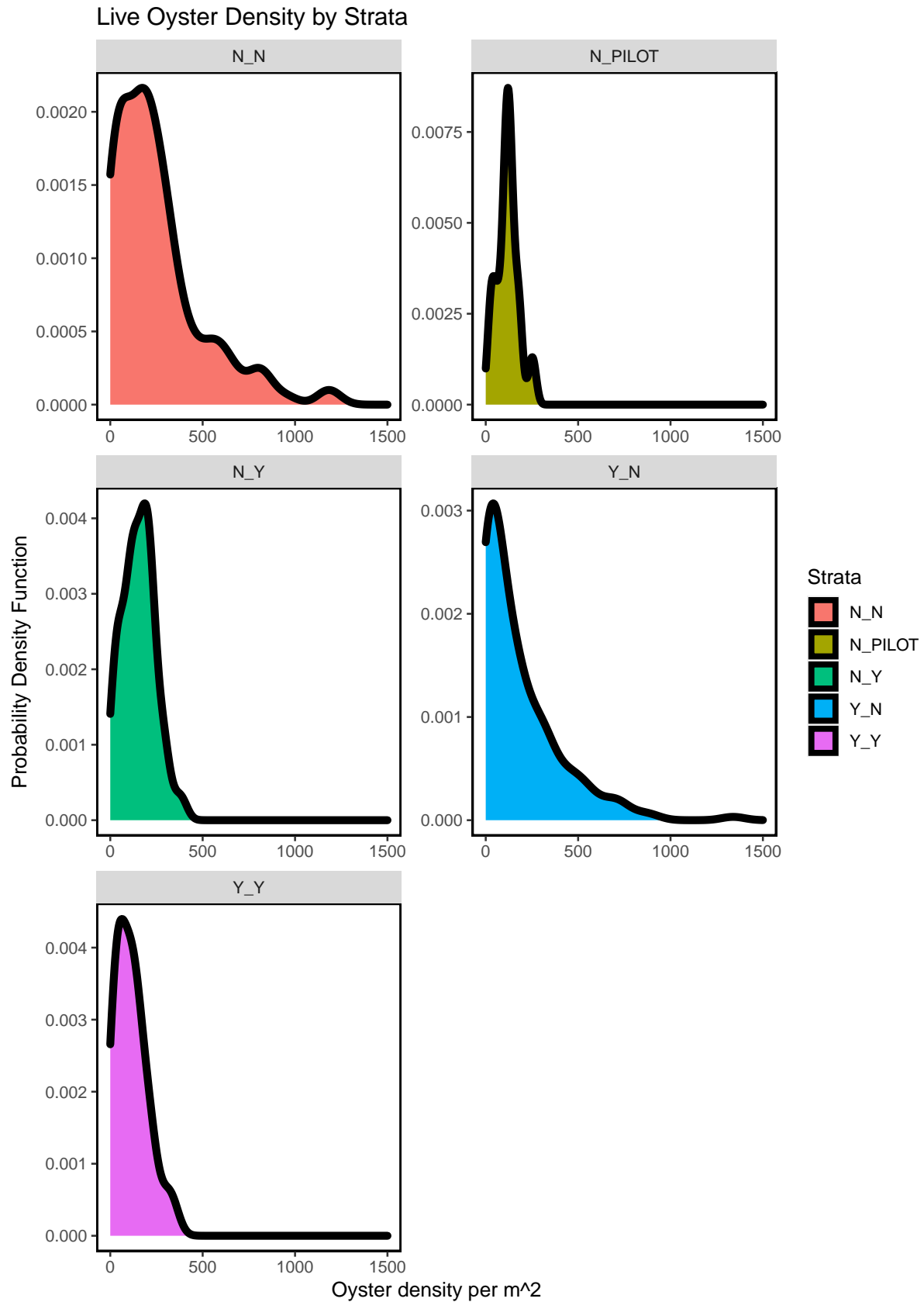


Figure– Calculated live oyster density by locality for all periods including period 22 (current period).

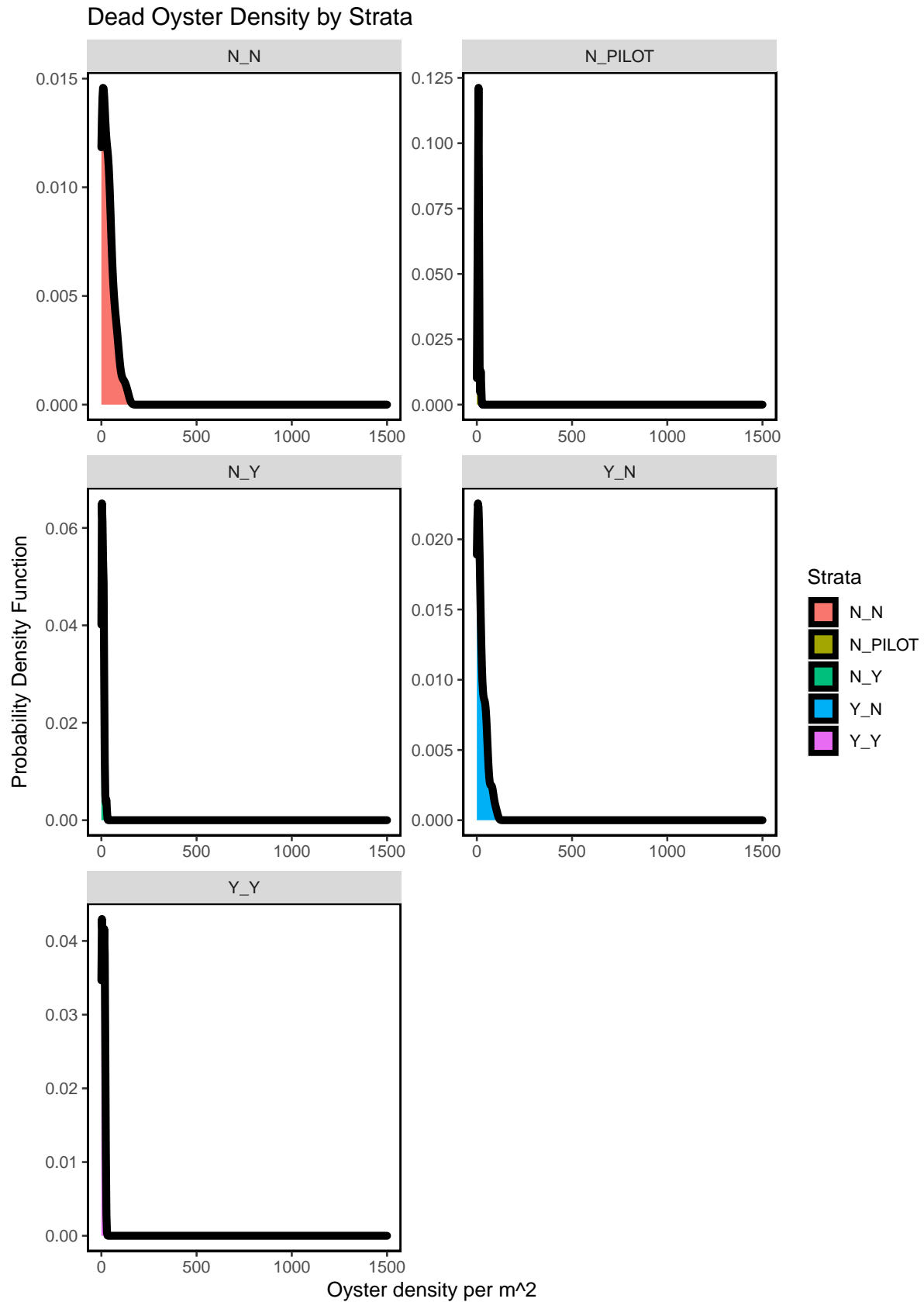


Figure– Calculated dead oyster density by locality for all periods including period 22 (current period).

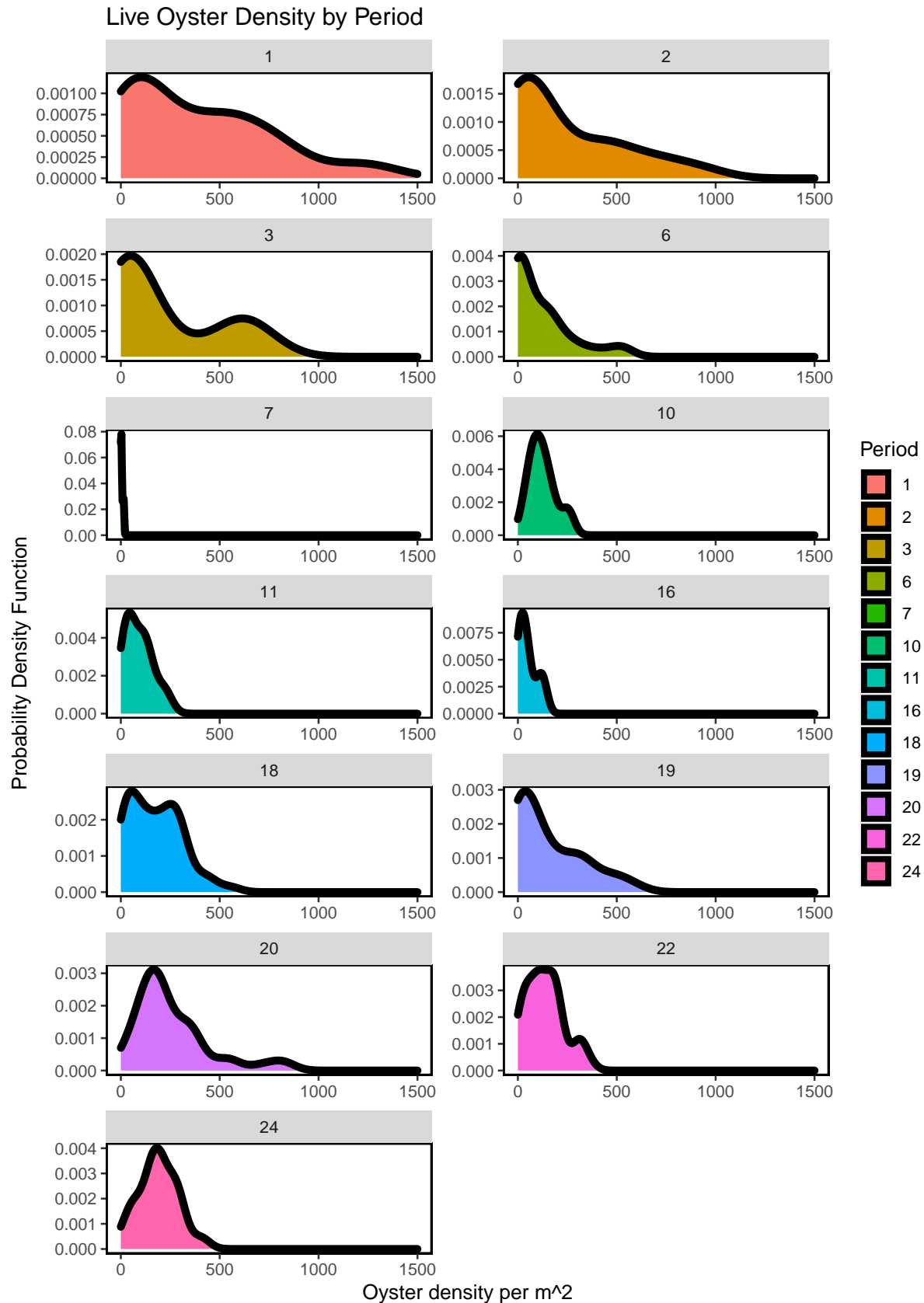




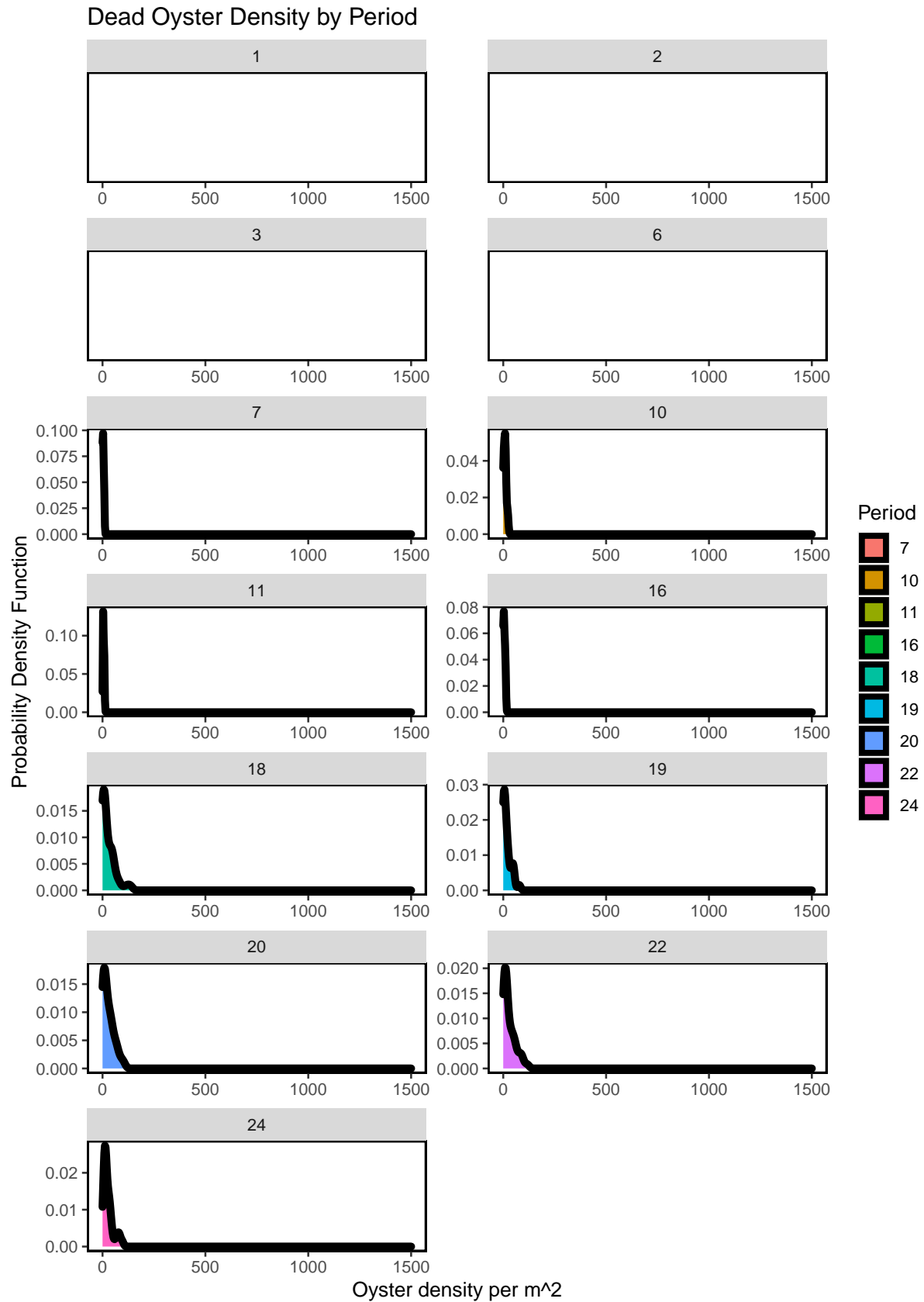
Figure– Calculated live oyster density by strata for all periods including period 22 (current period).



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

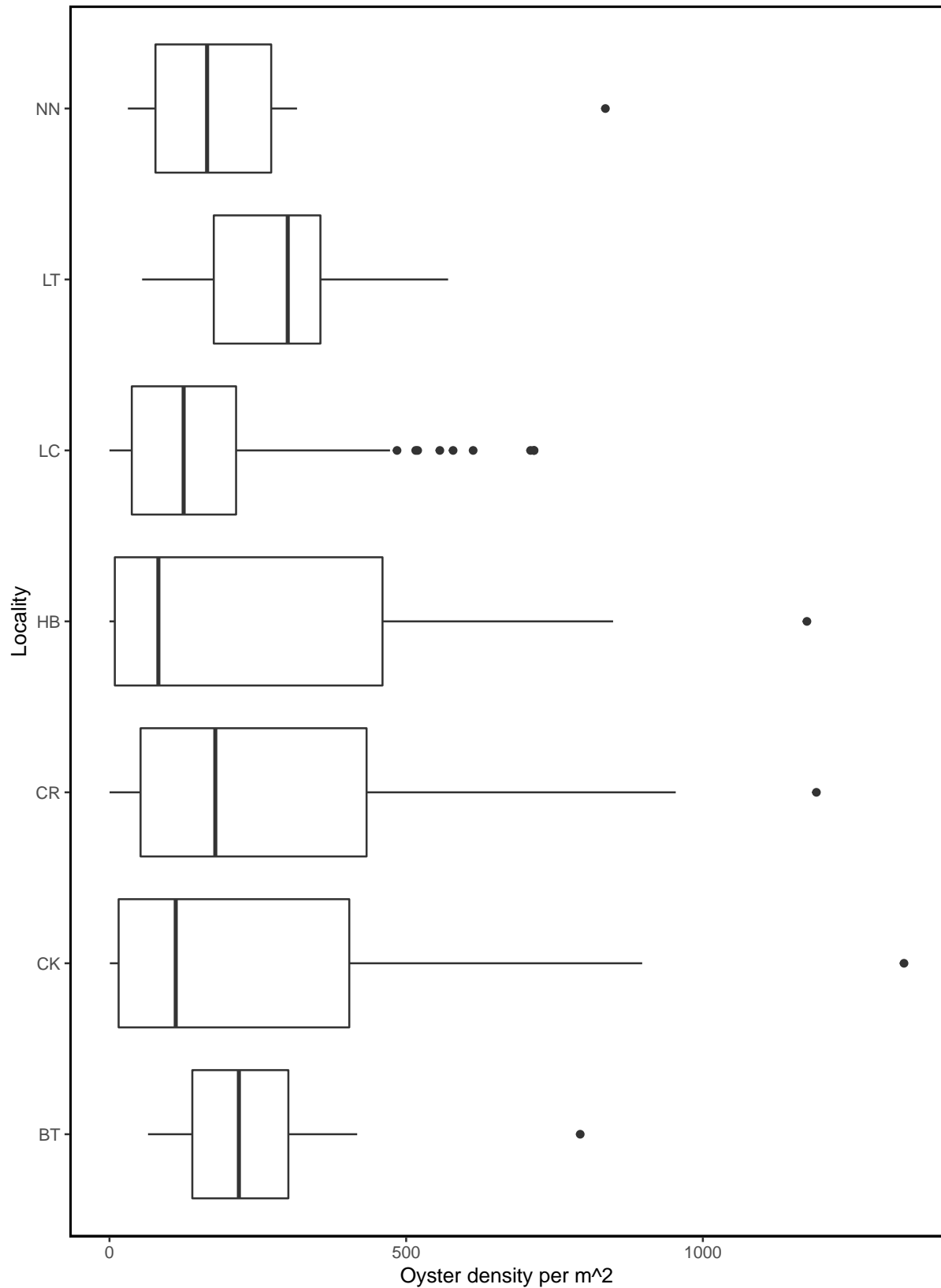


Figure– Calculated live oyster density for all periods including period 22 (current period) using a probability densi



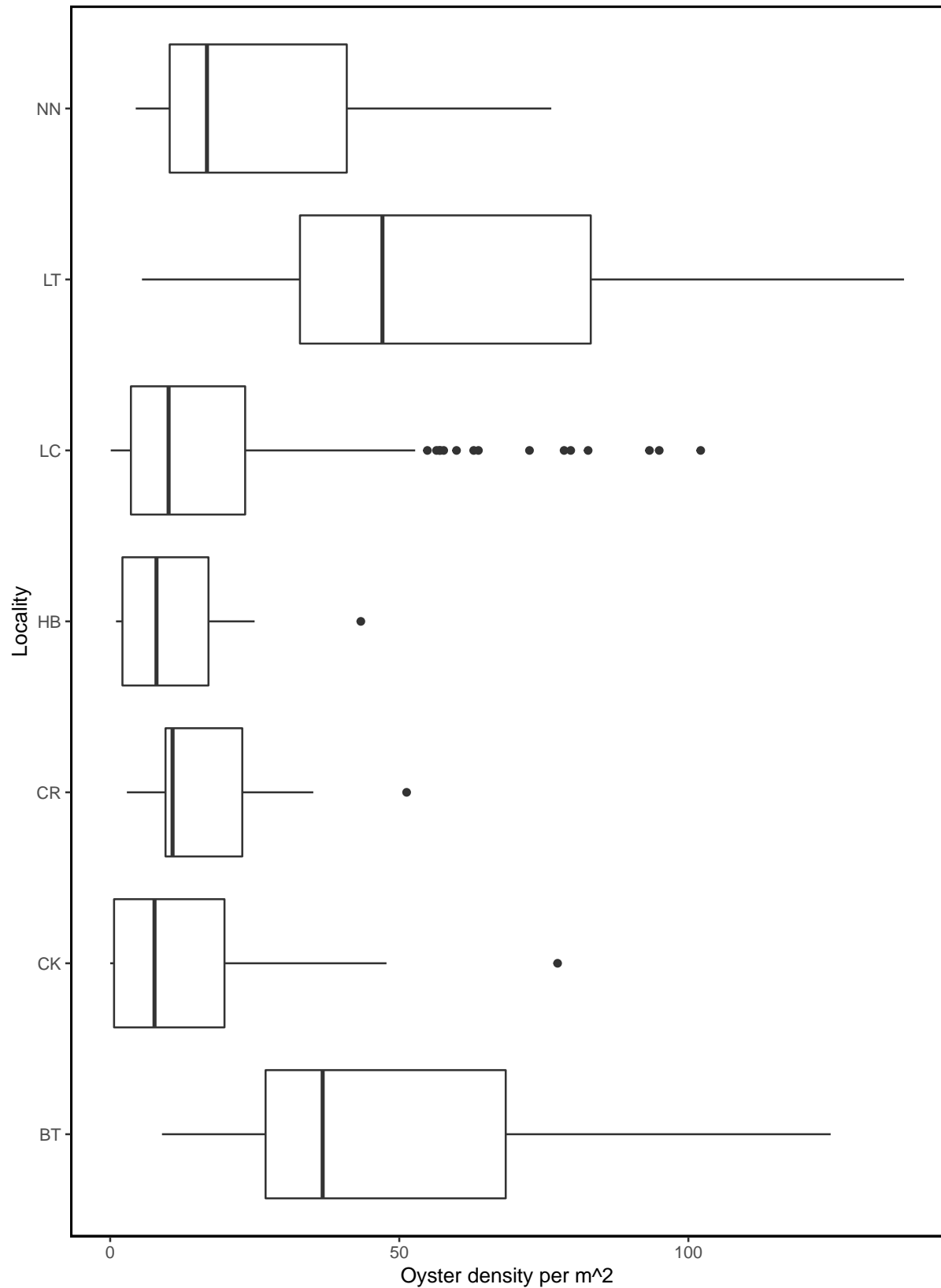
Figure– Calculated Dead oyster density for all periods including period 22 (current period) using a probability densit

Live Oyster Density by Locality

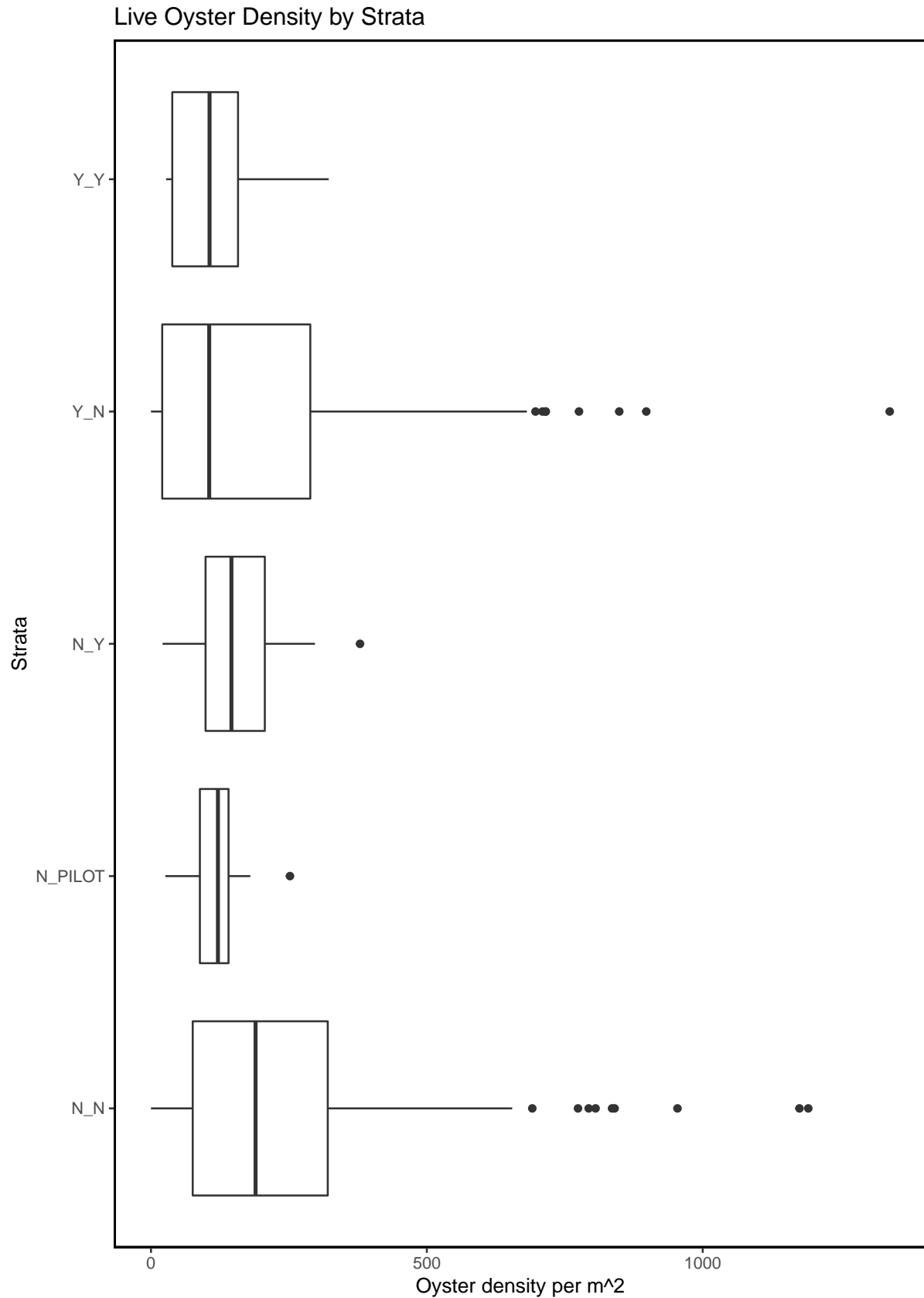


Figure– Box plot depicting live oyster density by locality for all periods including period 22 (current period).

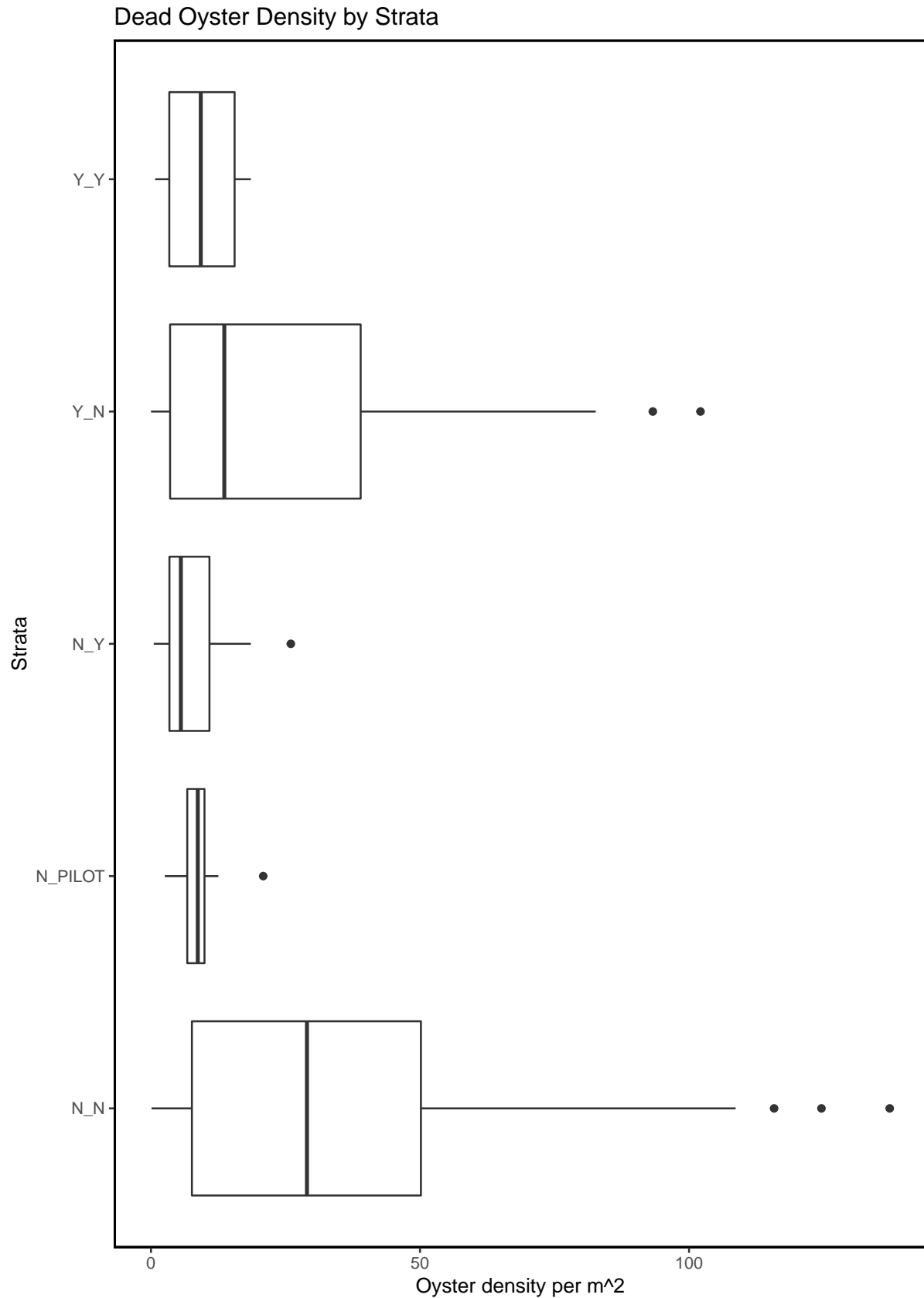
Dead Oyster Density by Locality



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

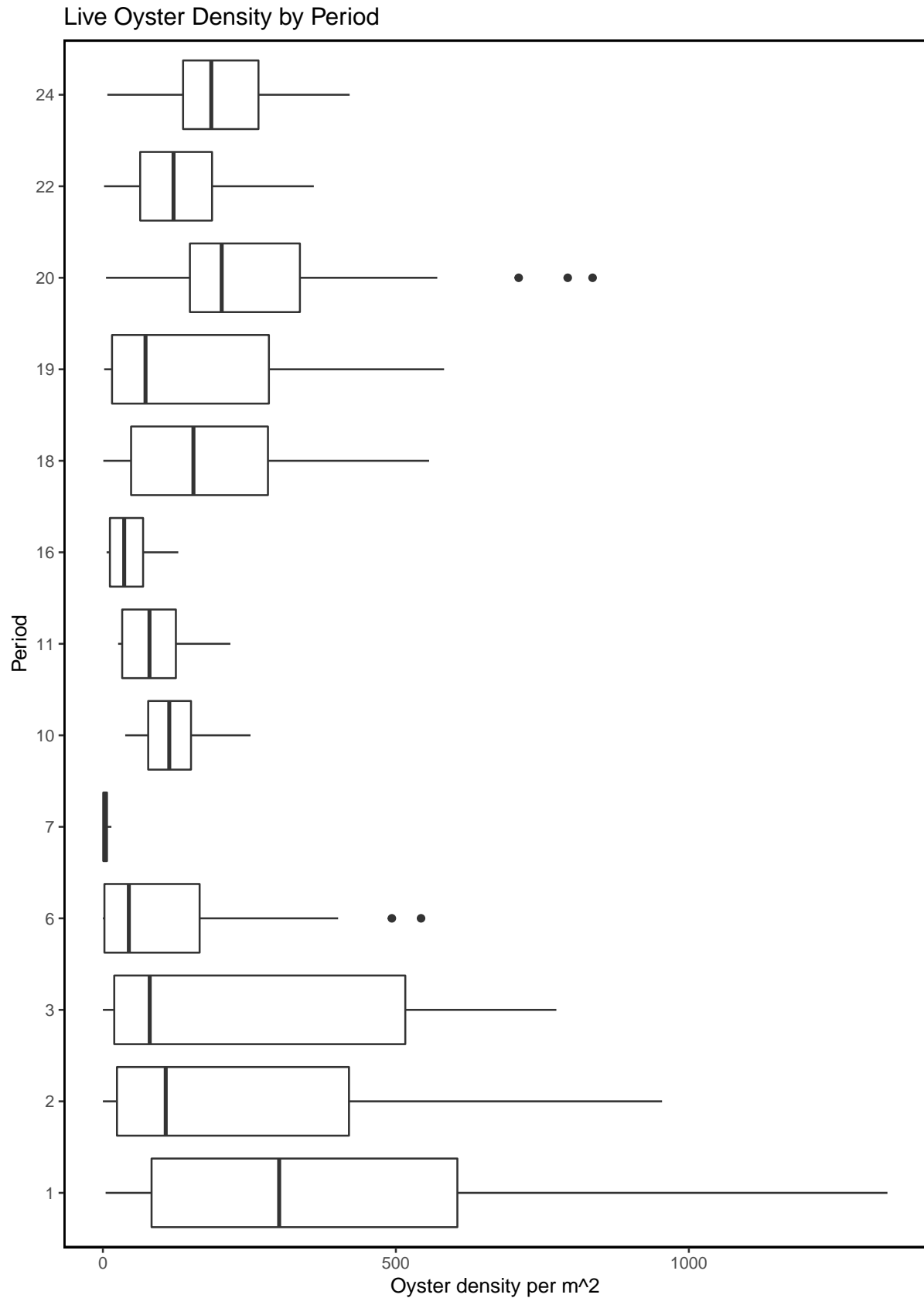


Figure– Box plot depicting live oyster density by strata for all periods including period 22 (current period).

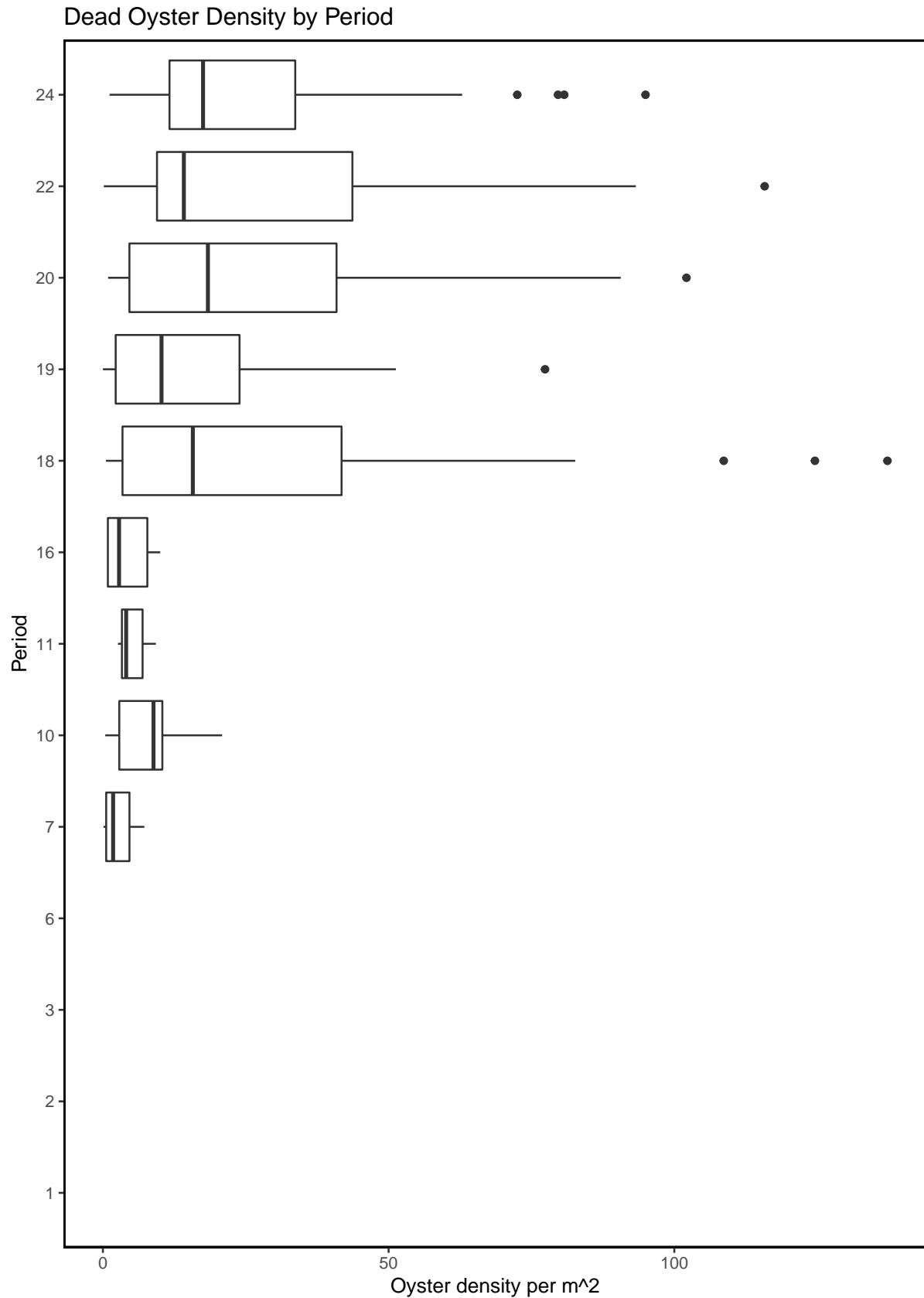


Figure– Box plot depicting dead oyster density by strata for all periods including period 22 (current period).





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

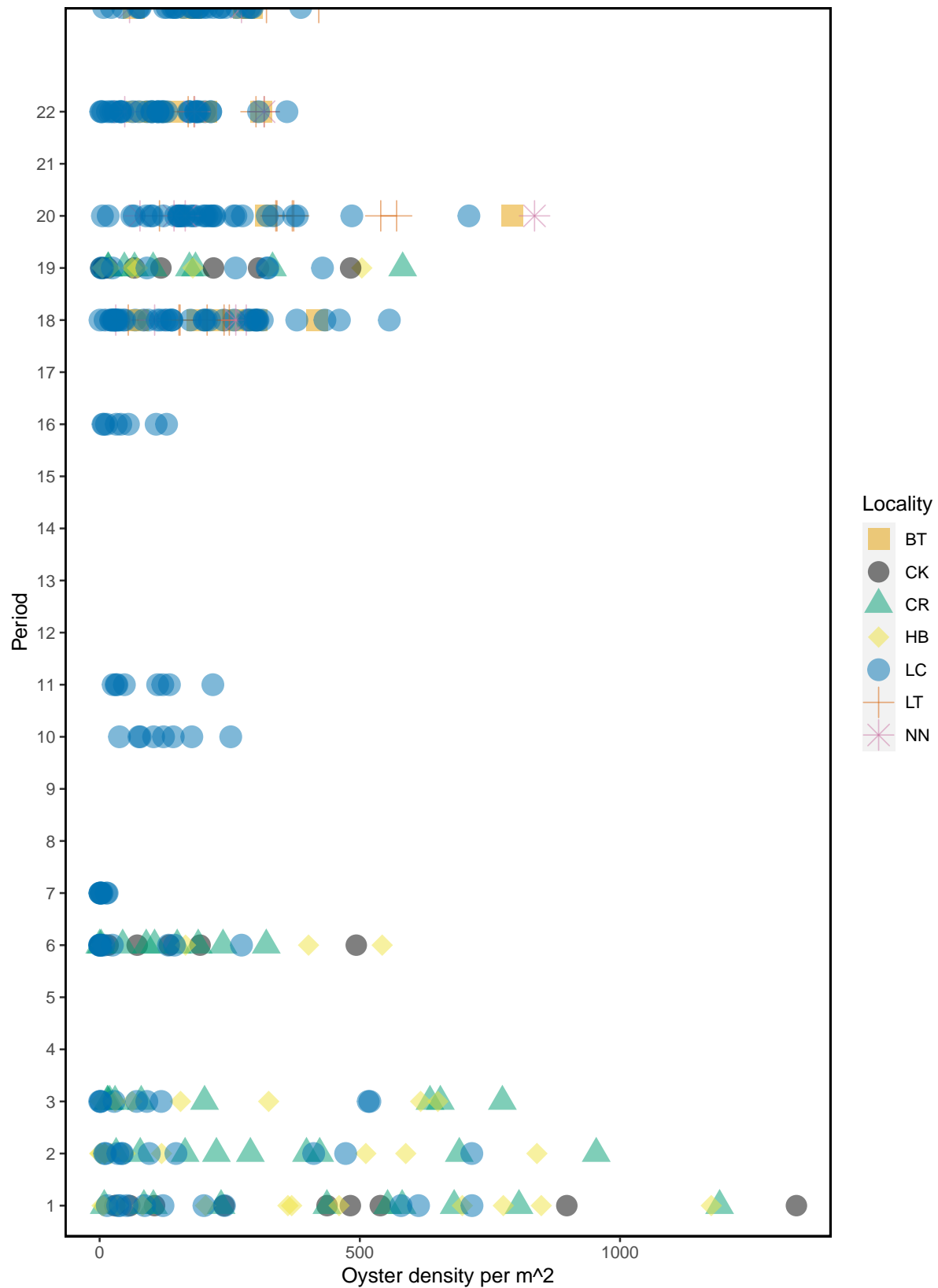


Figure – Live oyster density by locality and period for all periods including period 22 (current period).

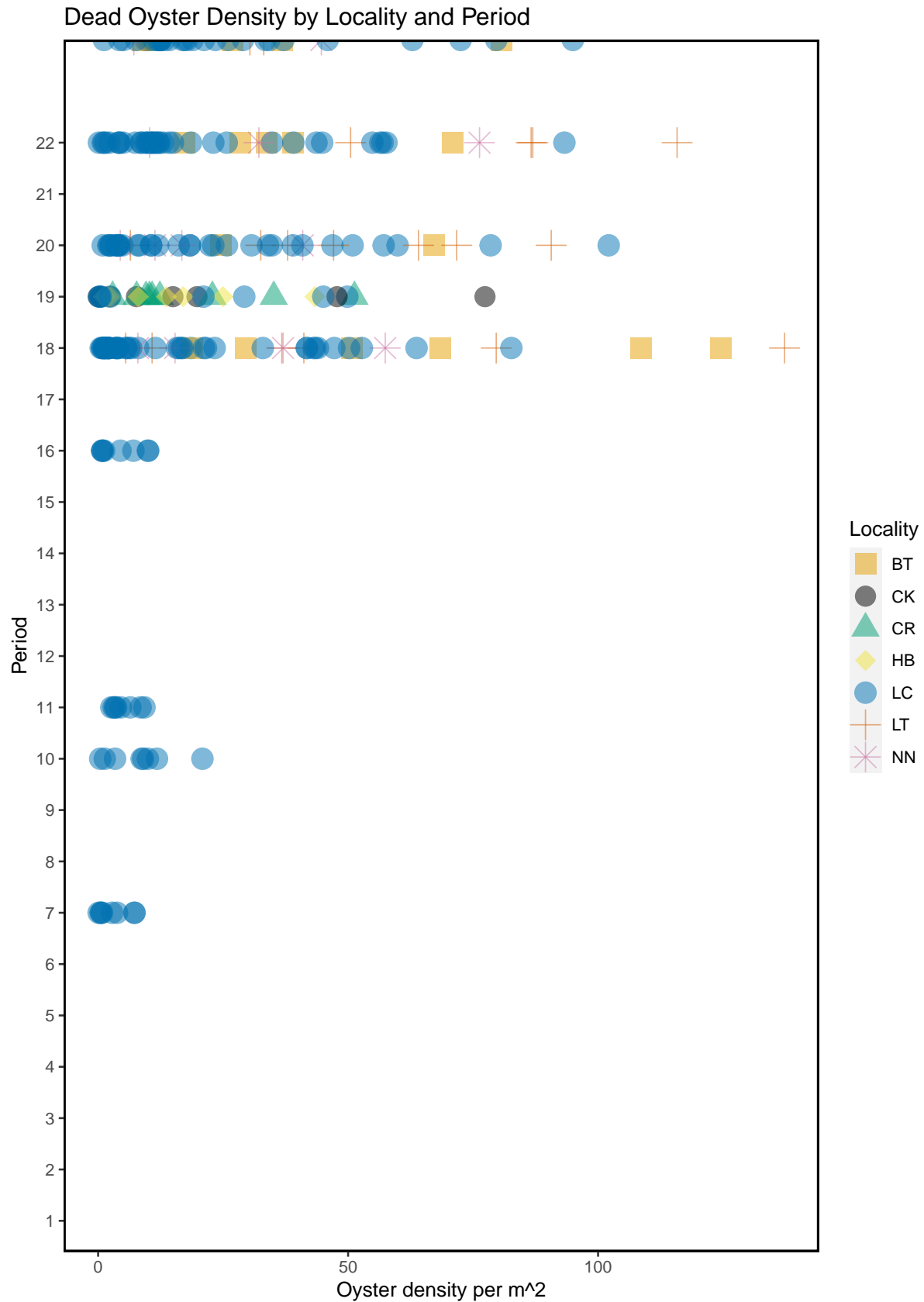


Figure – Dead oyster density by locality and period for all periods including period 22 (current period).

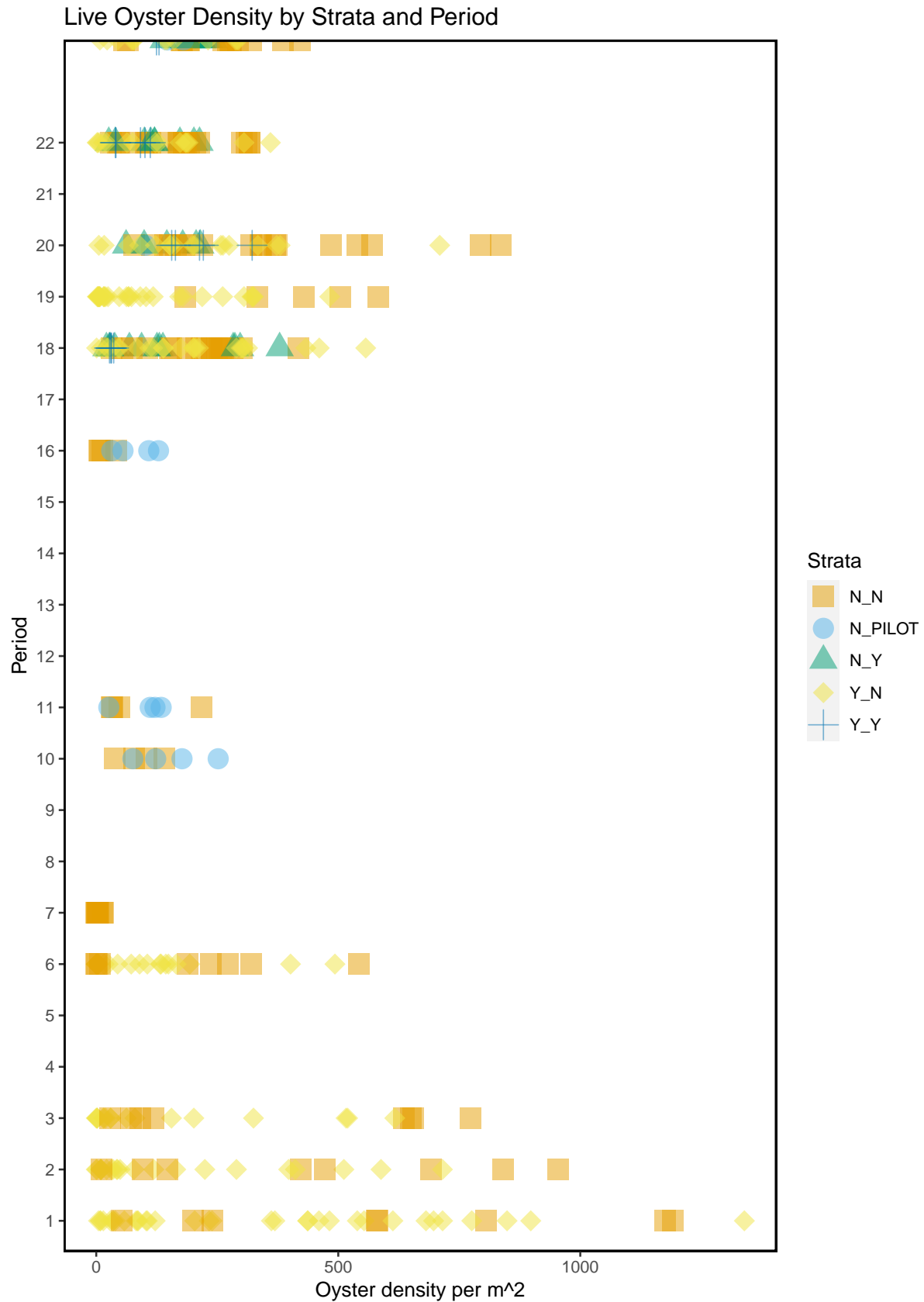


Figure – Live oyster density by strata and period for all periods including period 22 (current period).

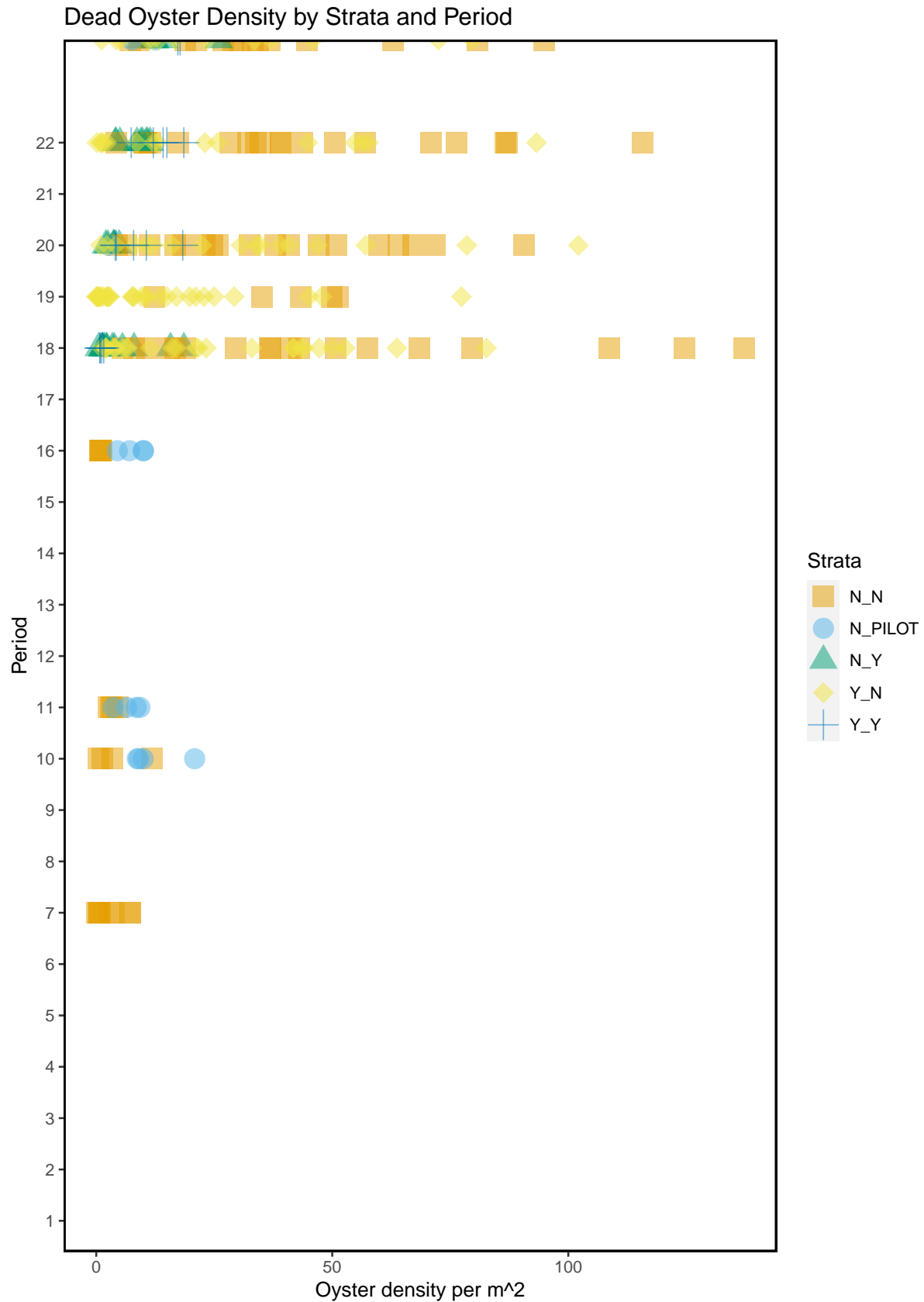


Figure – Dead oyster density by strata and period for all periods including period 22 (current period).

### Live and Dead Count Comparison For All Periods

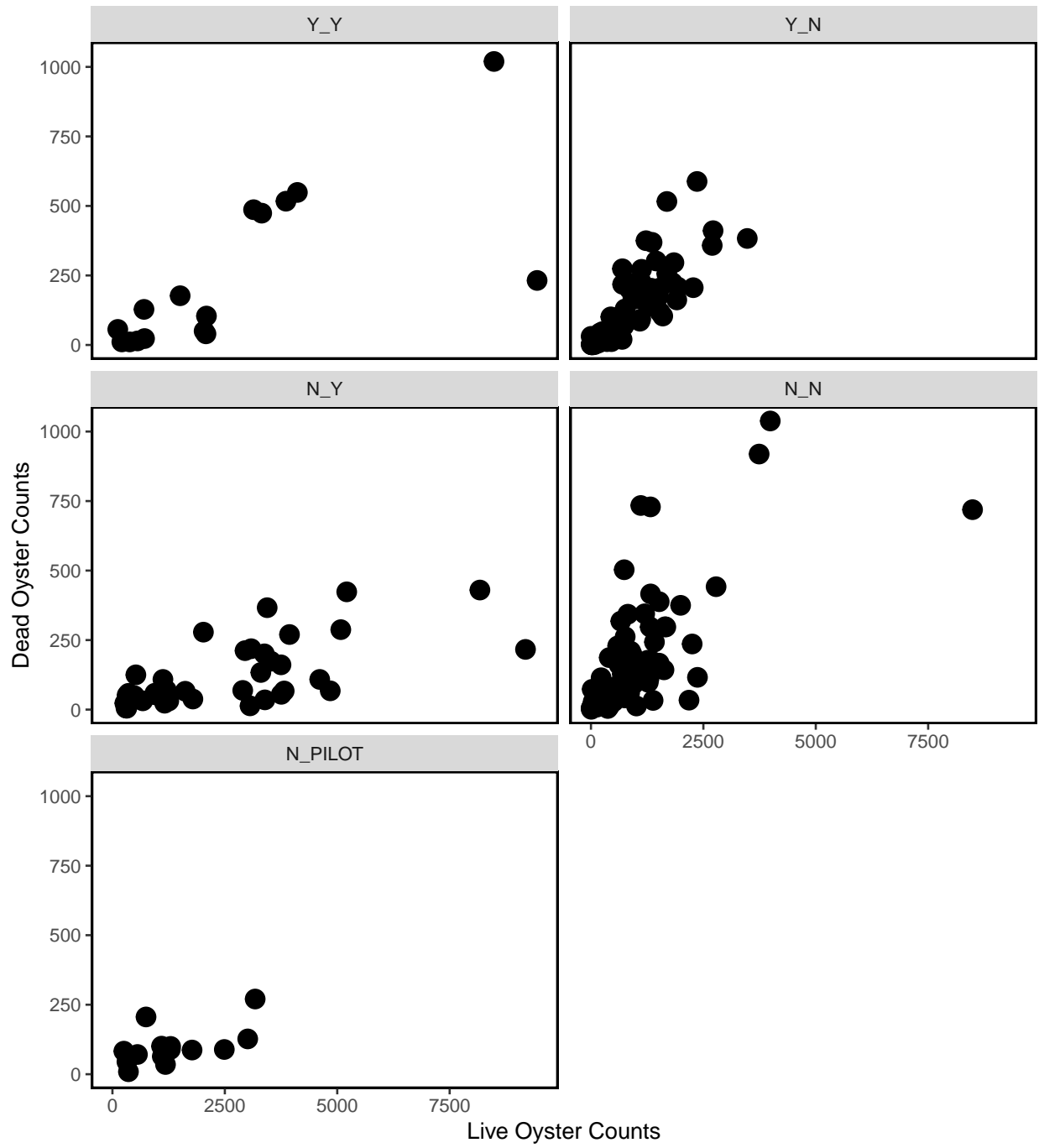


Figure- Live and dead oyster comparison for all periods, last sample date of period 24 is 2022-01-06.

## 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).

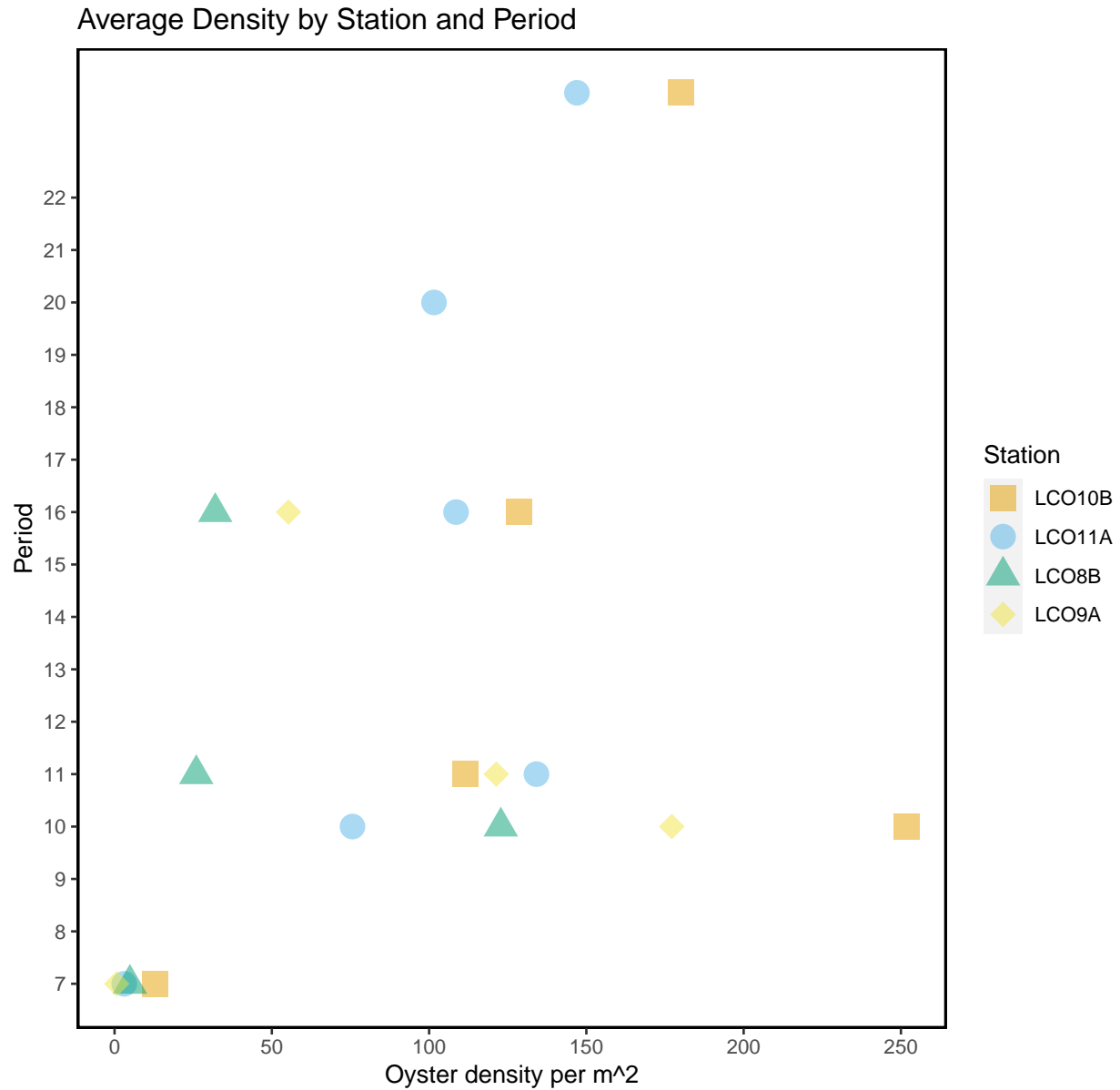


Figure – Average live oyster density comparison by station and period for all stations that were sampled during the pilc



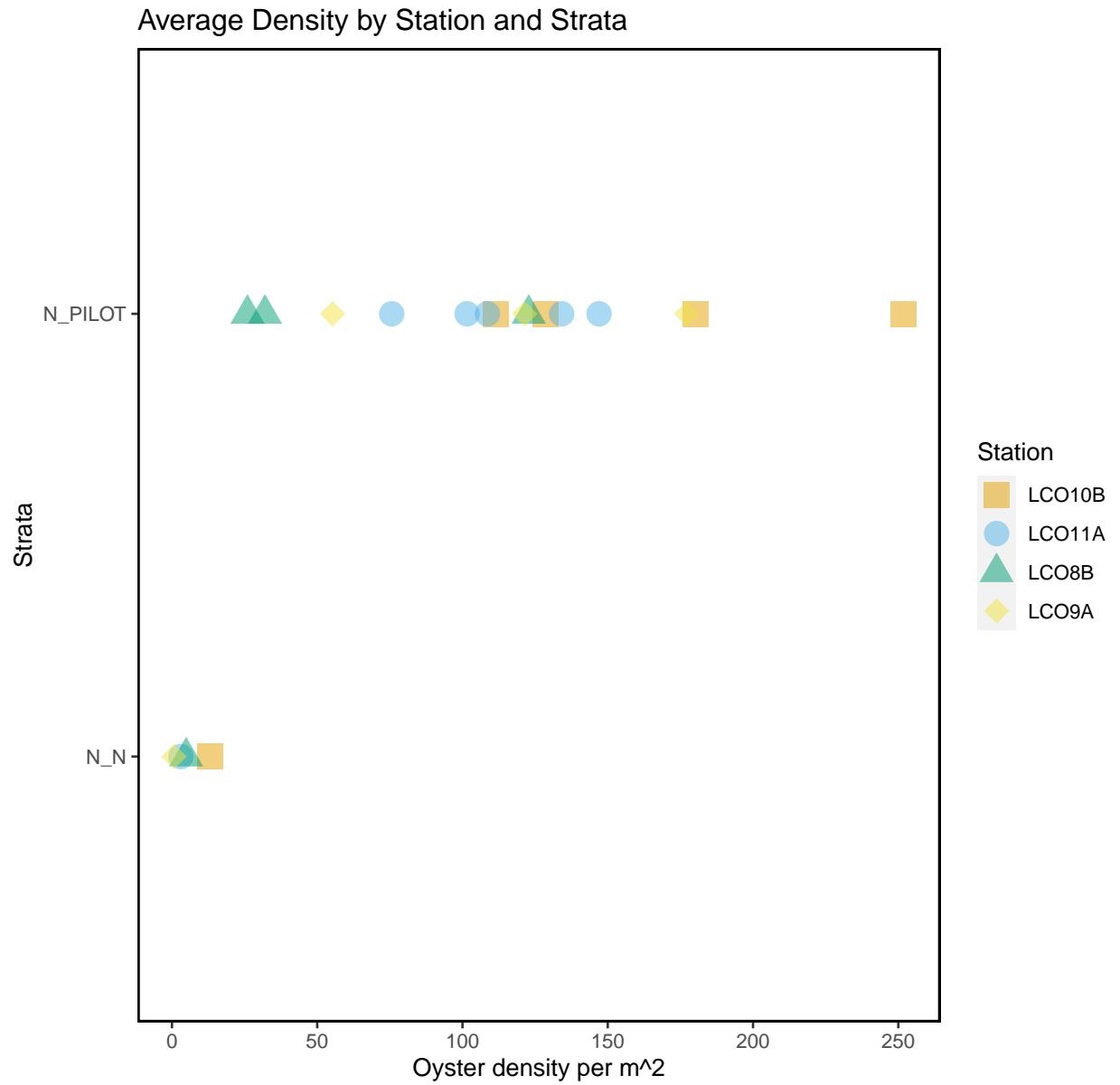


Figure – Average live oyster density comparison by station and strata for all stations that were sampled during the

## Latest Data Entered

Displayed are the entries for the last date of sampling (2022-01-06).

date	station	tran_length	count_live	count_dead	treatment	strata
2022-01-06	LC08A	2.5	89	8	rocks	N_Y
2022-01-06	LC08A	5.0	80	9	rocks	N_Y
2022-01-06	LC08A	7.5	117	10	rocks	N_Y
2022-01-06	LC08A	10.0	177	10	rocks	N_Y
2022-01-06	LC08A	12.5	81	3	rocks	N_Y
2022-01-06	LC08A	15.0	51	3	rocks	N_Y
2022-01-06	LC08A	17.5	78	1	rocks	N_Y
2022-01-06	LC08A	20.0	39	2	rocks	N_Y
2022-01-06	LC08A	22.5	70	2	rocks	N_Y
2022-01-06	LC08A	25.0	136	8	rocks	N_Y
2022-01-06	LC08A	27.5	71	5	rocks	N_Y
2022-01-06	LC08A	28.1	5	0	rocks	N_Y