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 13 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, 131 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

Percentage Complete per Strata in meters
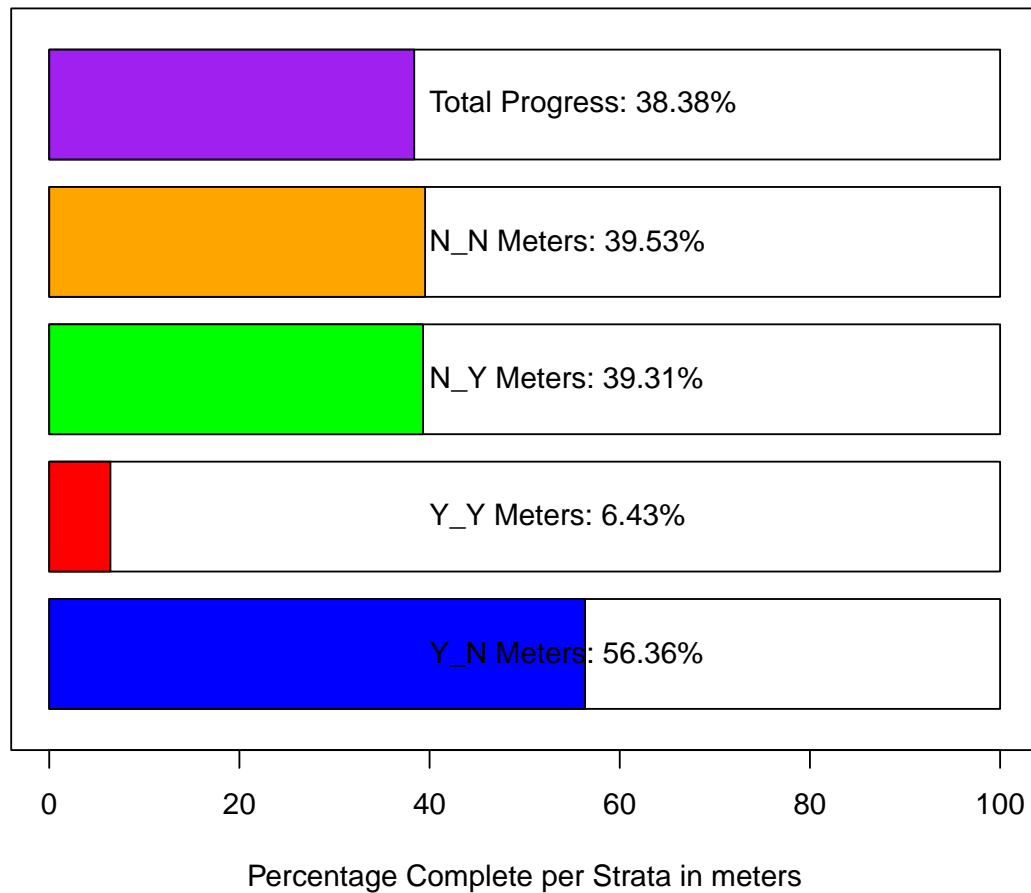
Summary Tables for Periods 18, 20, 22, and 24

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	1575	856	2195	4815993	1.39	587	425	2724	1564	692	2870
LC	1432	869	1664	2769663	1.16	143	1152	1712	1428	1153	1717
LT	1040	868	590	348447	0.57	139	768	1313	1035	809	1308
NN	786	727	649	420847	0.83	196	403	1169	783	470	1191

Live Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	1080	818	1168	1363985	1.08	148	789	1371	1082	846	1380
N_PILOT	2180	3009	1582	2501624	0.73	913	390	3970	2165	356	3174
N_Y	2439	1789	2019	4076080	0.83	351	1750	3128	2448	1834	3158
Y_N	808	644	754	569198	0.93	93	626	990	808	632	985
Y_Y	2455	1506	2859	8175013	1.16	738	1008	3901	2498	1255	4024

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	982	771	1225
20	1844	1253	2125	4517189	1.15	310	1236	2451	1840	1307	2467
22	1334	702	1693	2867783	1.27	242	860	1808	1347	916	1833
24	1463	1102	1301	1693414	0.89	277	919	2007	1459	941	1967

Live Density by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	255	212	184	34019	0.72	49	159	352	260	175	375
LC	166	154	121	14748	0.73	10	145	186	166	146	186
LT	283	275	141	19841	0.50	33	218	348	282	222	343
NN	223	164	224	50283	1.01	68	90	355	221	121	362

Live Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	238	199	159	25168	0.67	20	199	278	239	203	282
N_PILOT	143	147	39	1557	0.28	23	98	188	143	102	180

									Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_Y	152	138	91	8233	0.60	16	121	183	151	121	181
Y_N	177	157	145	21110	0.82	18	142	213	176	144	212
Y_Y	113	101	88	7709	0.78	23	69	157	112	72	160

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	207
20	256	203	187	35057	0.73	27	203	310	257	203	310
22	137	121	93	8638	0.68	13	111	163	137	112	163
24	187	178	94	8801	0.50	20	148	226	185	146	225

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	304	174	306	93661	1.01	82	144	464	305	167	471
LC	131	79	144	20604	1.10	12	107	155	131	109	156
LT	230	176	191	36661	0.83	45	141	318	229	149	323
NN	104	74	96	9216	0.92	29	48	161	106	56	170

Dead Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	199	136	201	40260	1.01	25	149	249	200	153	253
N_PILOT	136	127	131	17150	0.97	76	-13	284	135	9	270
N_Y	101	66	103	10584	1.01	18	66	136	101	70	139
Y_N	123	80	124	15437	1.01	15	93	153	124	93	154
Y_Y	206	104	277	76865	1.34	72	66	347	204	83	359

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	89	183
20	148	107	140	19727	0.95	20	108	188	147	111	190
22	191	128	193	37399	1.01	28	137	245	192	146	249
24	132	122	100	9901	0.76	21	90	173	132	94	177

Dead Oyster Density by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	54	45	34	1130	0.62	9.0	37	72	54	38	71
LC	20	12	22	468	1.08	1.9	16	24	20	16	24
LT	57	49	37	1377	0.65	8.7	40	74	57	41	73
NN	28	17	23	530	0.82	6.9	15	42	28	17	42

Dead Oyster Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	43.3	36.9	31.4	987	0.73	3.99	35.5	51.1	43.3	35.5	52.0
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	6.2	4.9	4.5	20	0.72	0.78	4.7	7.7	6.2	4.8	7.7
Y_N	27.0	19.0	25.4	645	0.94	3.13	20.9	33.1	26.9	20.9	33.1
Y_Y	8.9	7.9	6.6	44	0.74	1.70	5.5	12.2	8.9	5.7	12.1

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	35
20	28	18	26	682	0.94	3.8	20	35	27	20	34
22	28	14	28	807	1.00	4.1	21	36	28	21	36
24	24	15	23	526	0.97	4.9	14	33	23	15	33

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

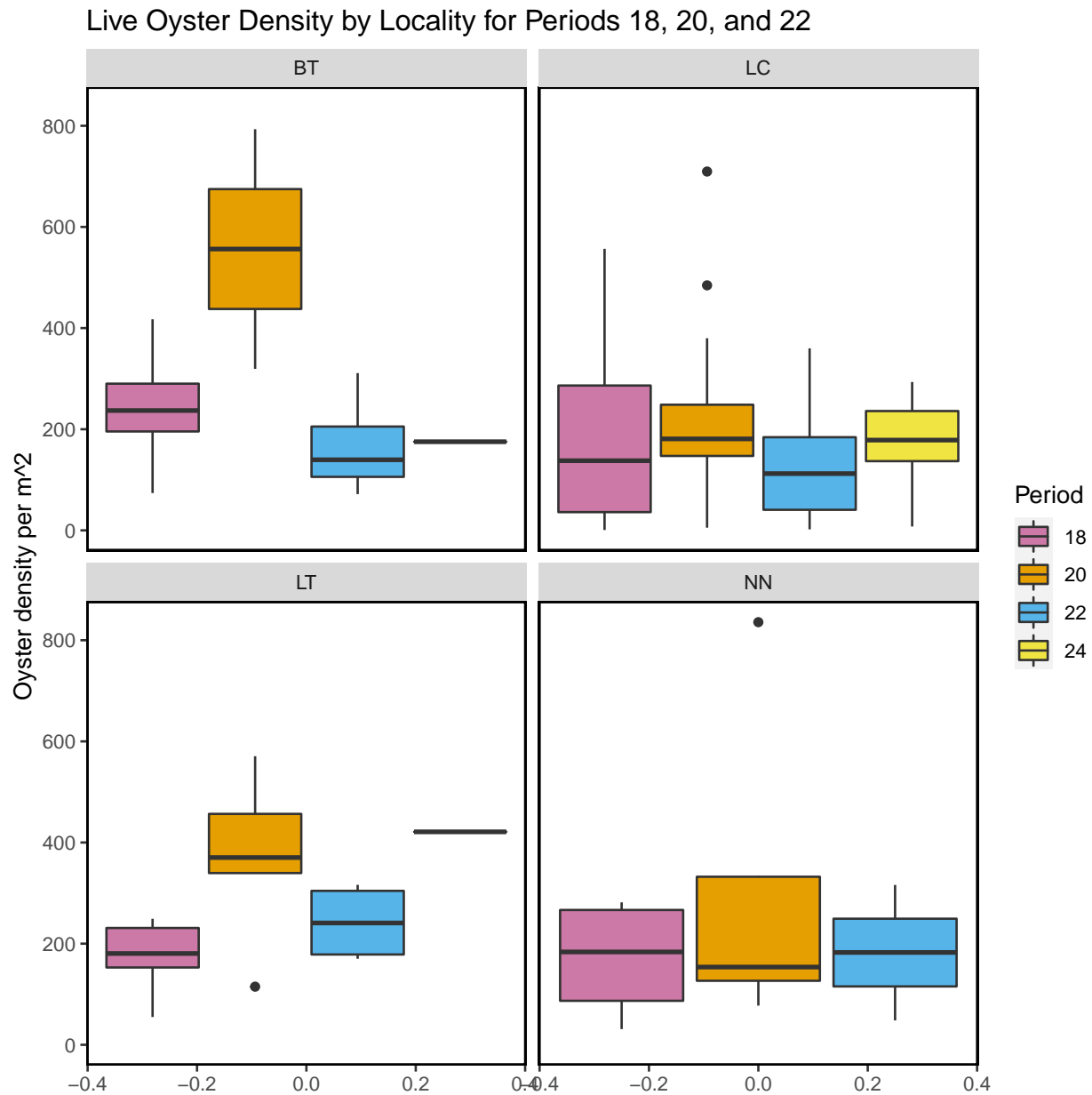Live Oyster Density by Locality for Periods 18, 20, and 22

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 2021-12-08.
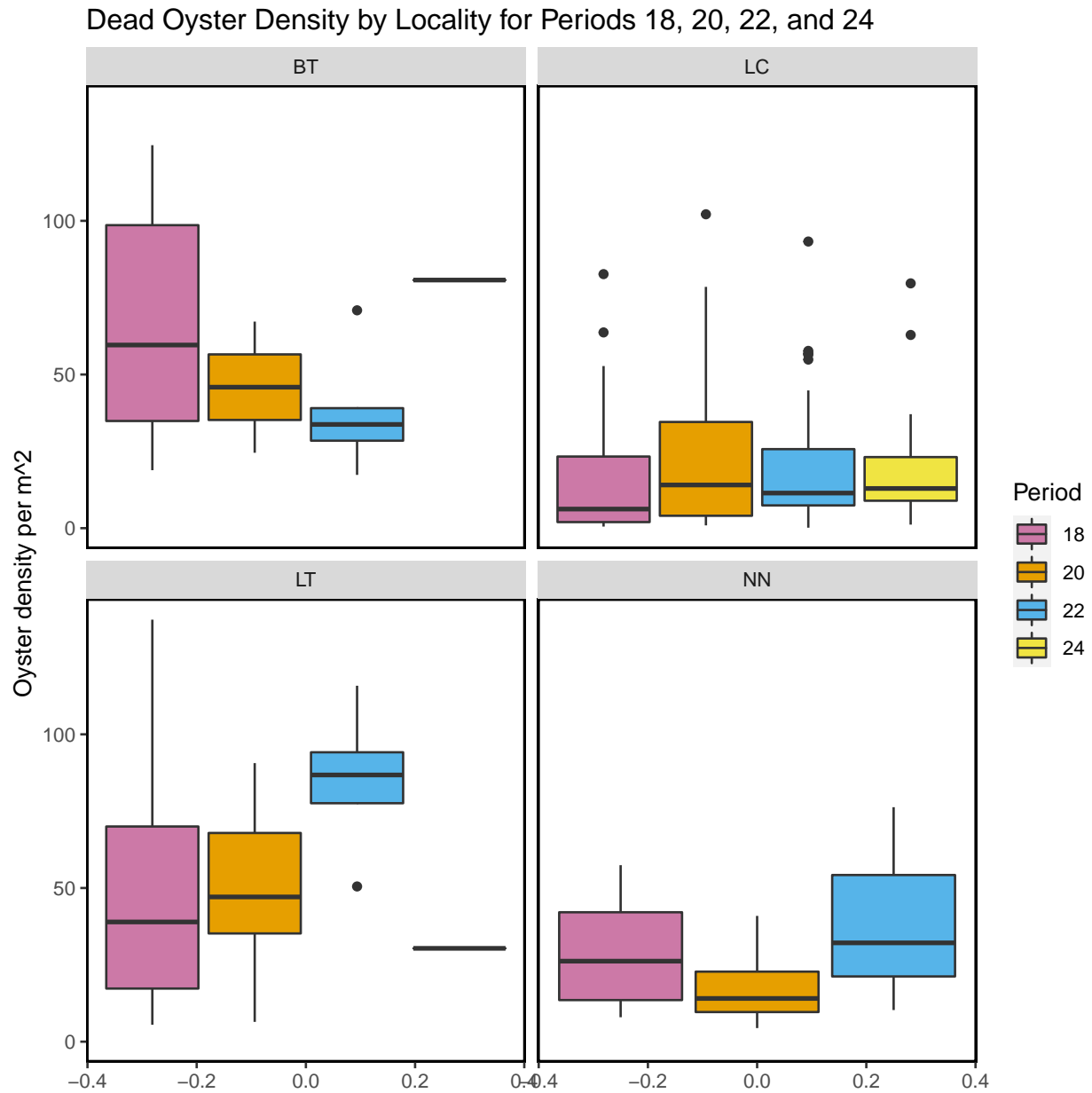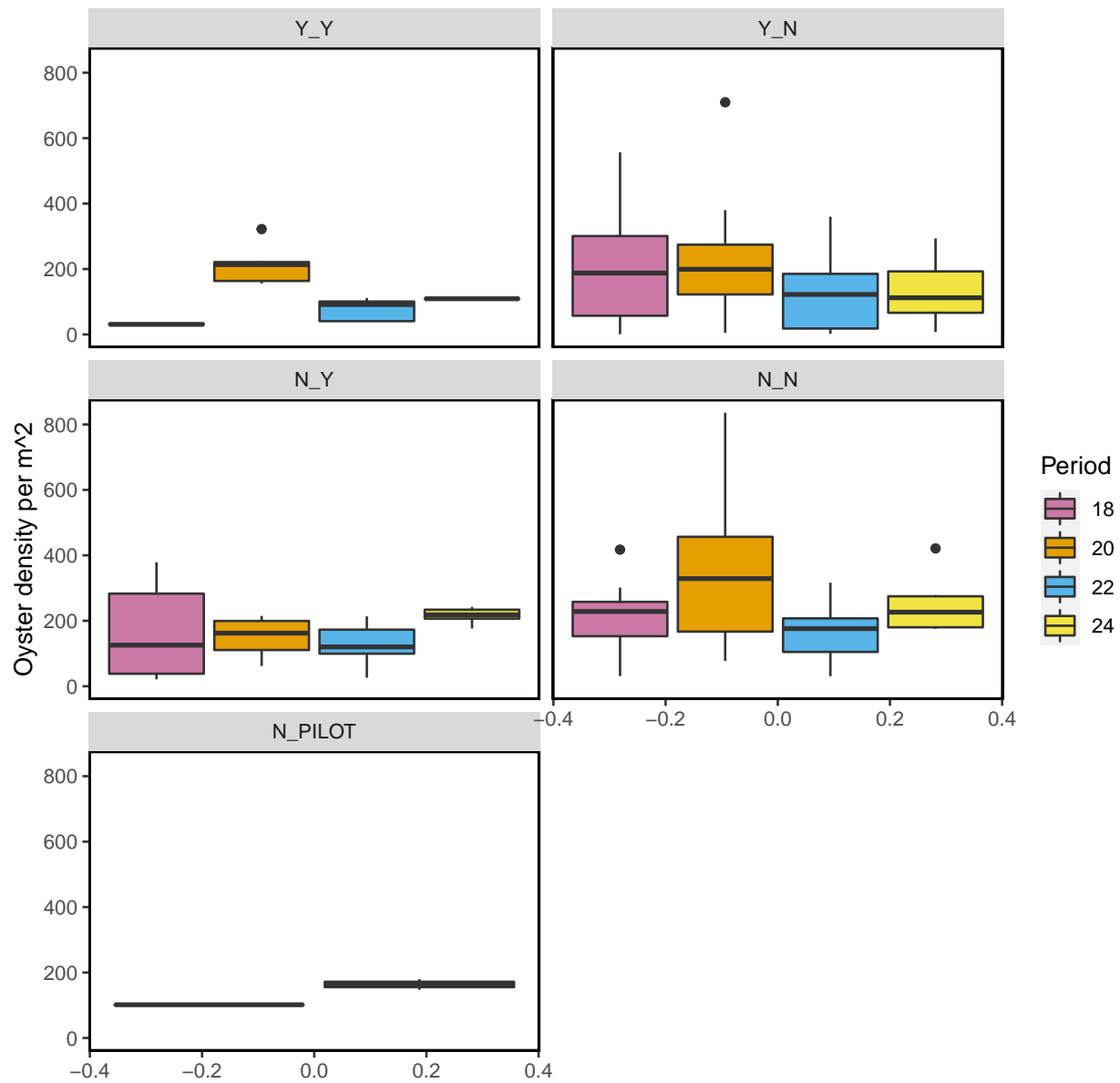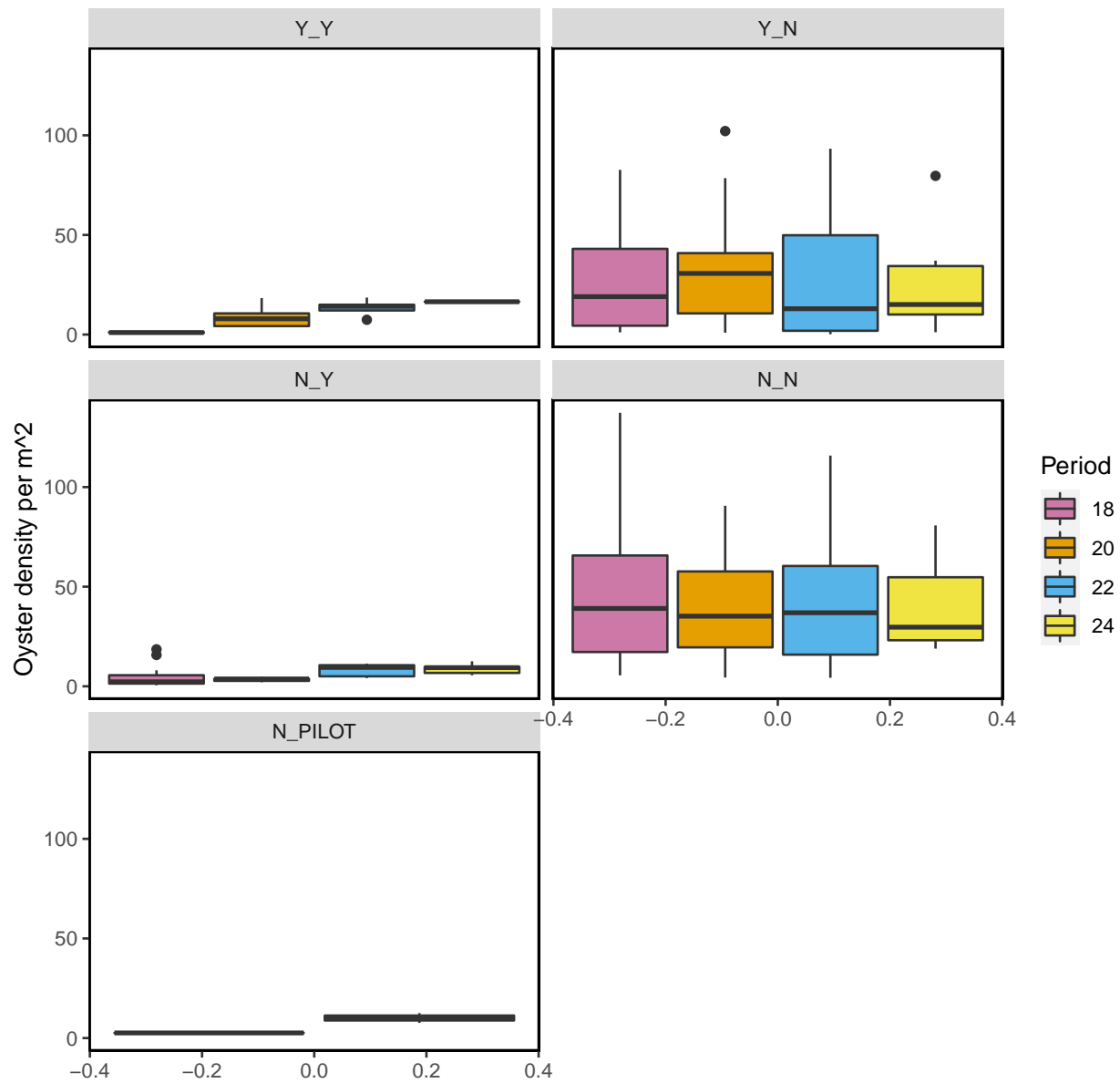
Figure- Calculated dead oyster density by locality for periods 18 (Winter 2018-2019), 20 (Winter 2019-2020), 22 (Winter 2020-2021), and 24 (Winter 2021-2022) with the last sample date of period 24 as 2021-12-08.

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 2021-12-08.

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 2021-12-08.

The following summary plot is calculated in R using the `geom_density` (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.
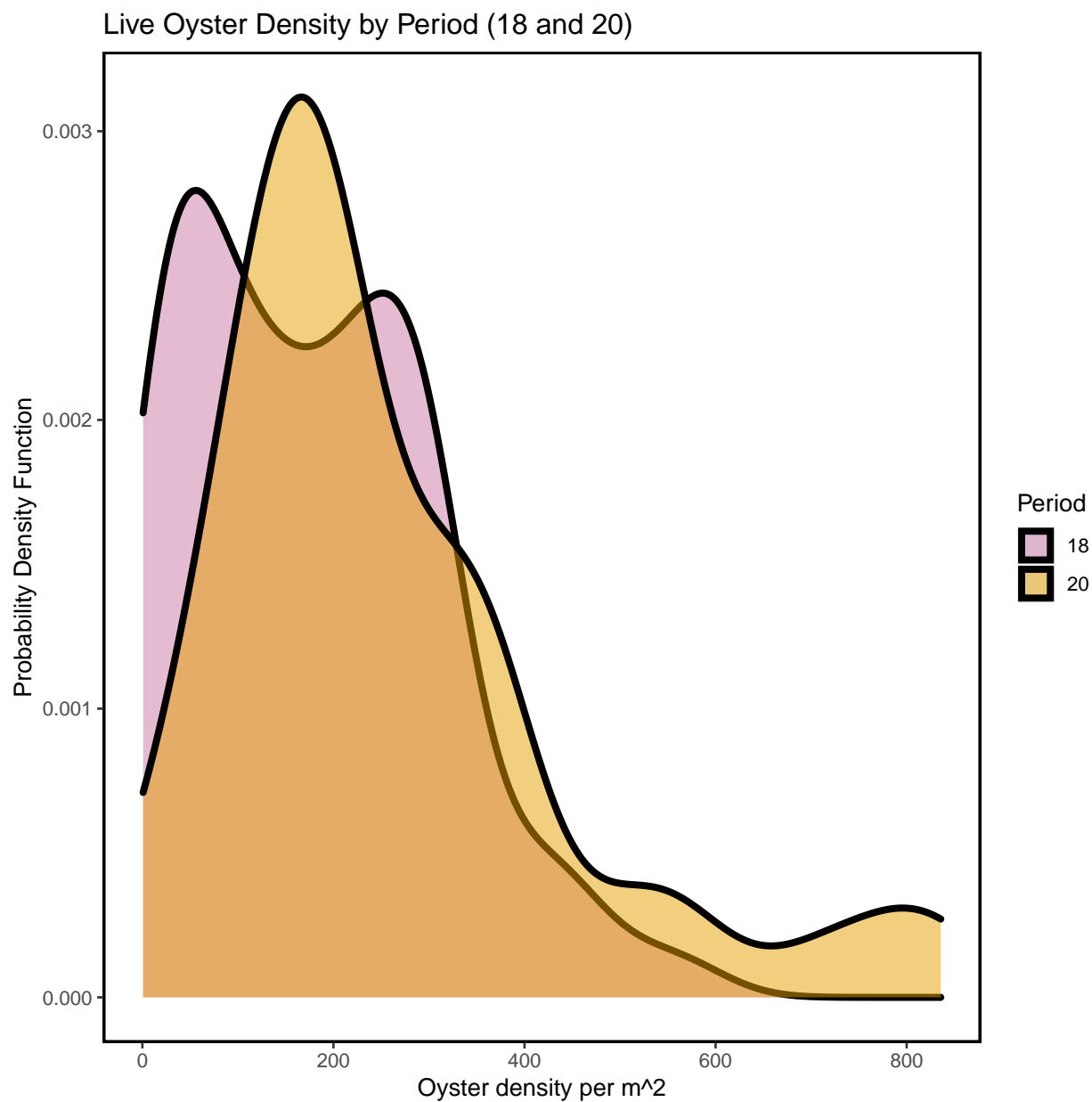

Figure- Calculated live oyster density by periods 18 (Winter 2018-2019) and 20 (Winter 2019-2020) using a probability density function with the last sample date of period 22 as 2021-12-08.
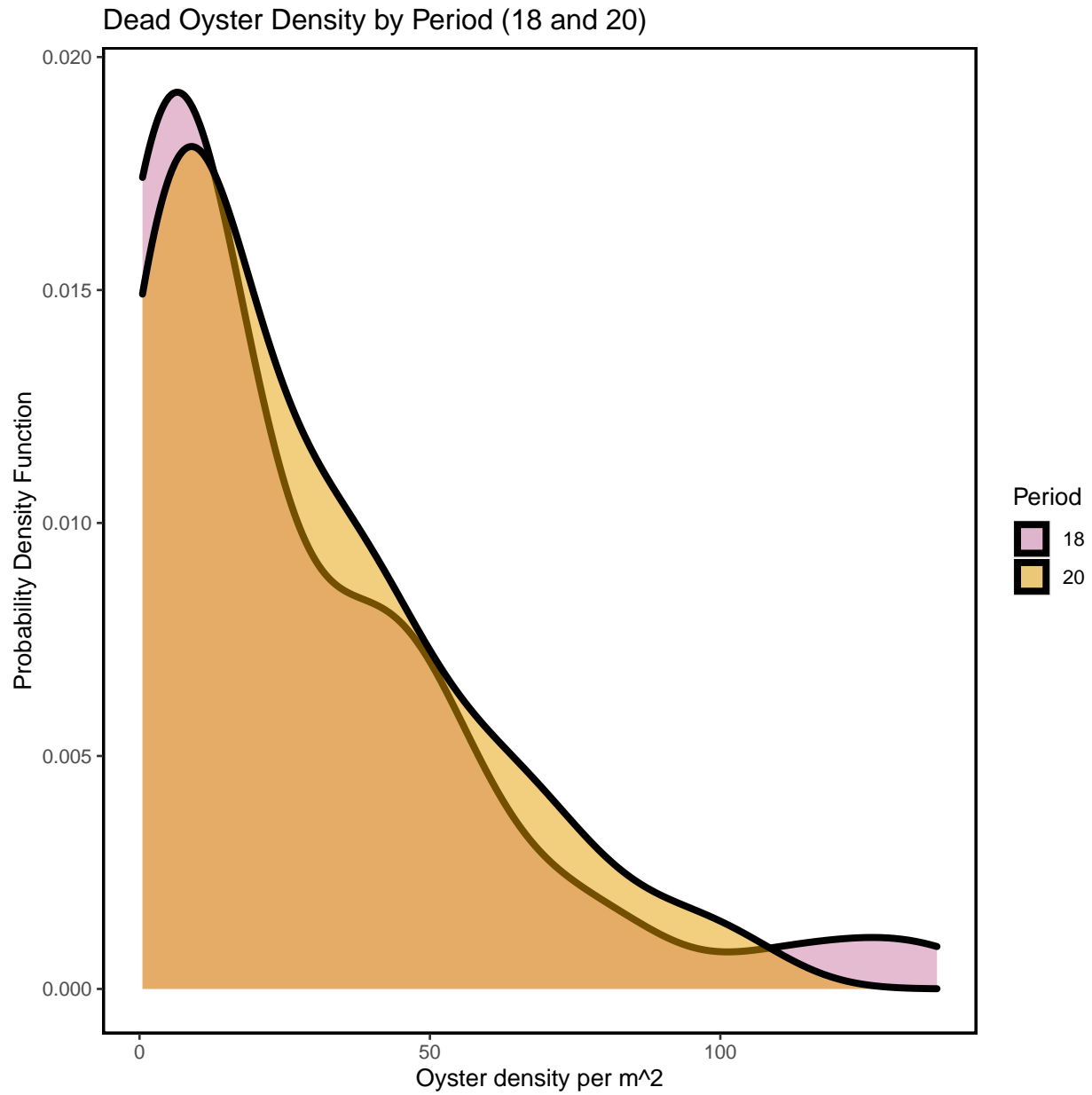
Figure- Calculated dead oyster density by periods 18 (Winter 2018-2019) and 20 (Winter 2019-2020) using a probability density function with the last sample date of period 22 as 2021-12-08.

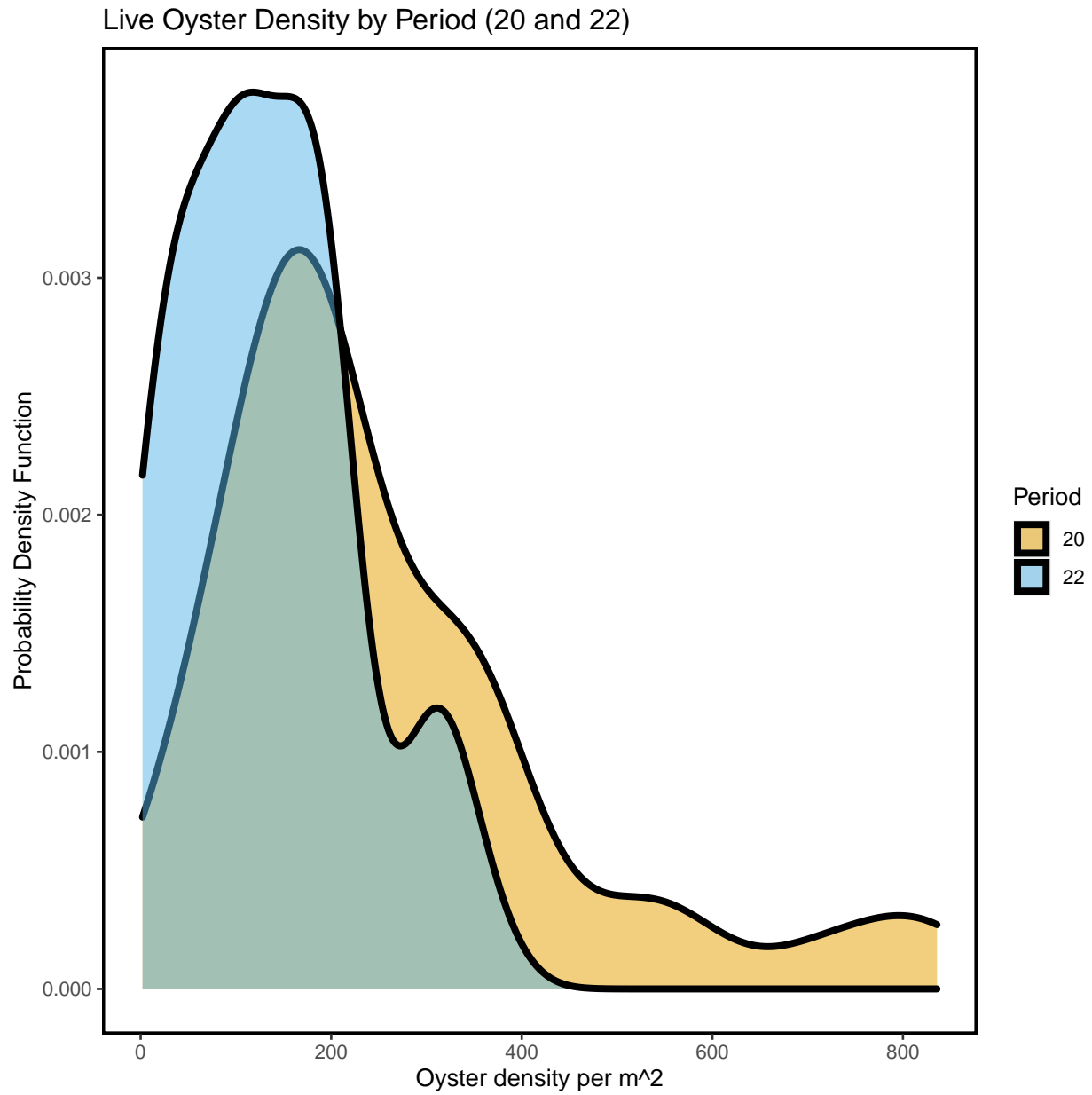# Live Oyster Density by Period (20 and 22)

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 2021-12-08.
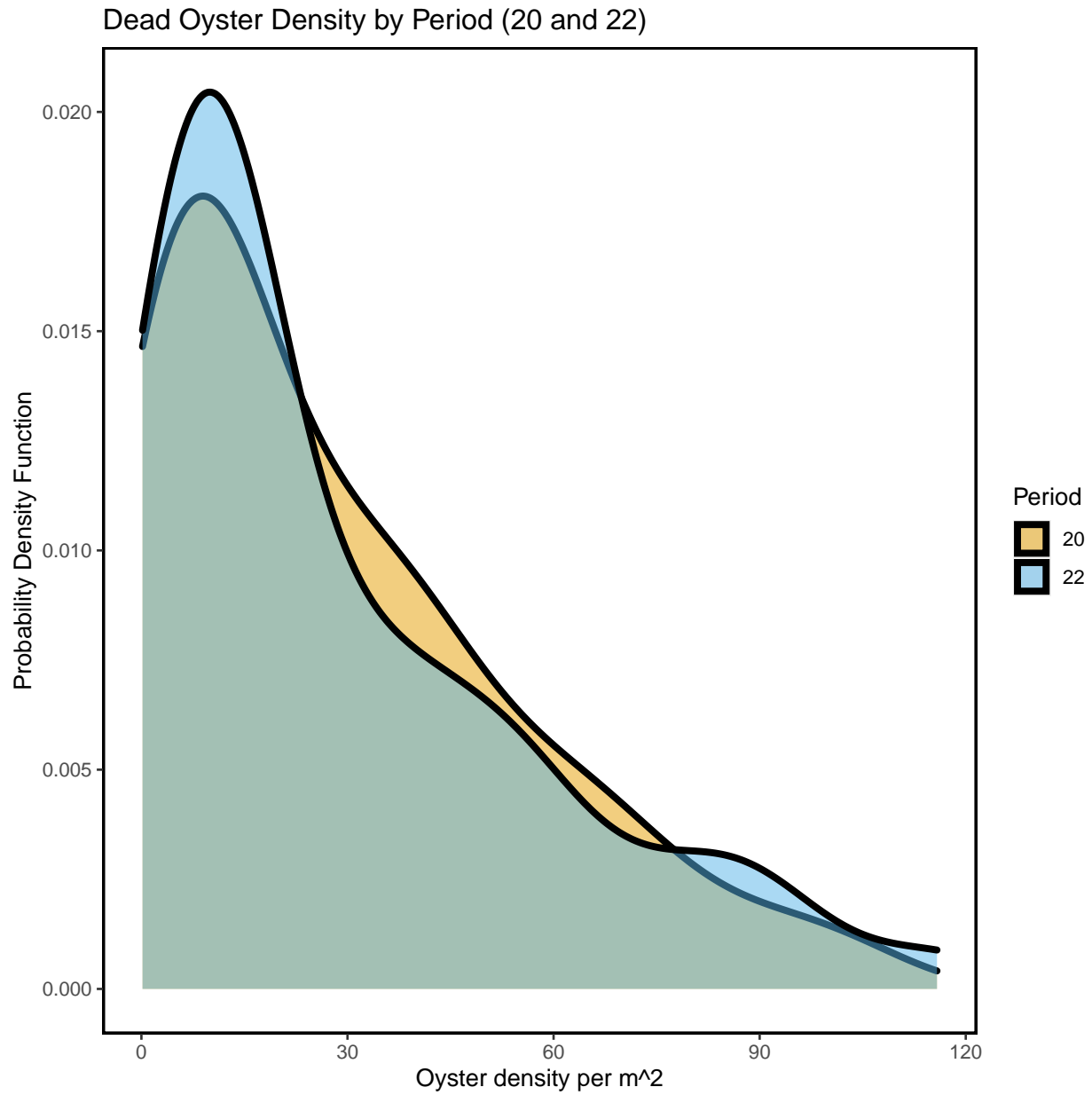
Dead Oyster Density by Period (20 and 22)

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 2021-12-08.
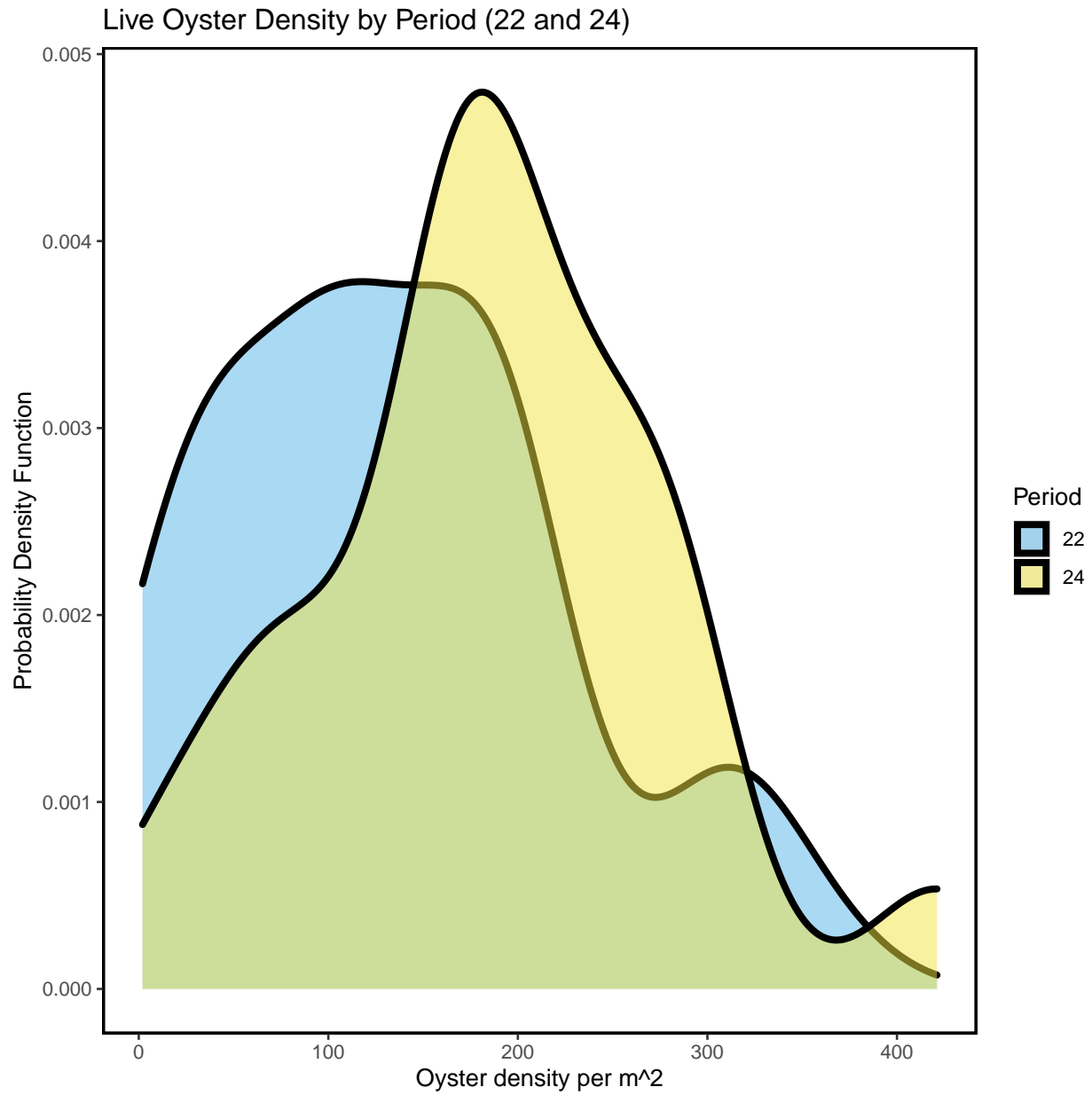
Figure- Calculated live oyster density by periods 22 (Winter 2020-2021) and 24 (Winter 2021-2022) using a probability density function with the last sample date of period 24 as 2021-12-08.
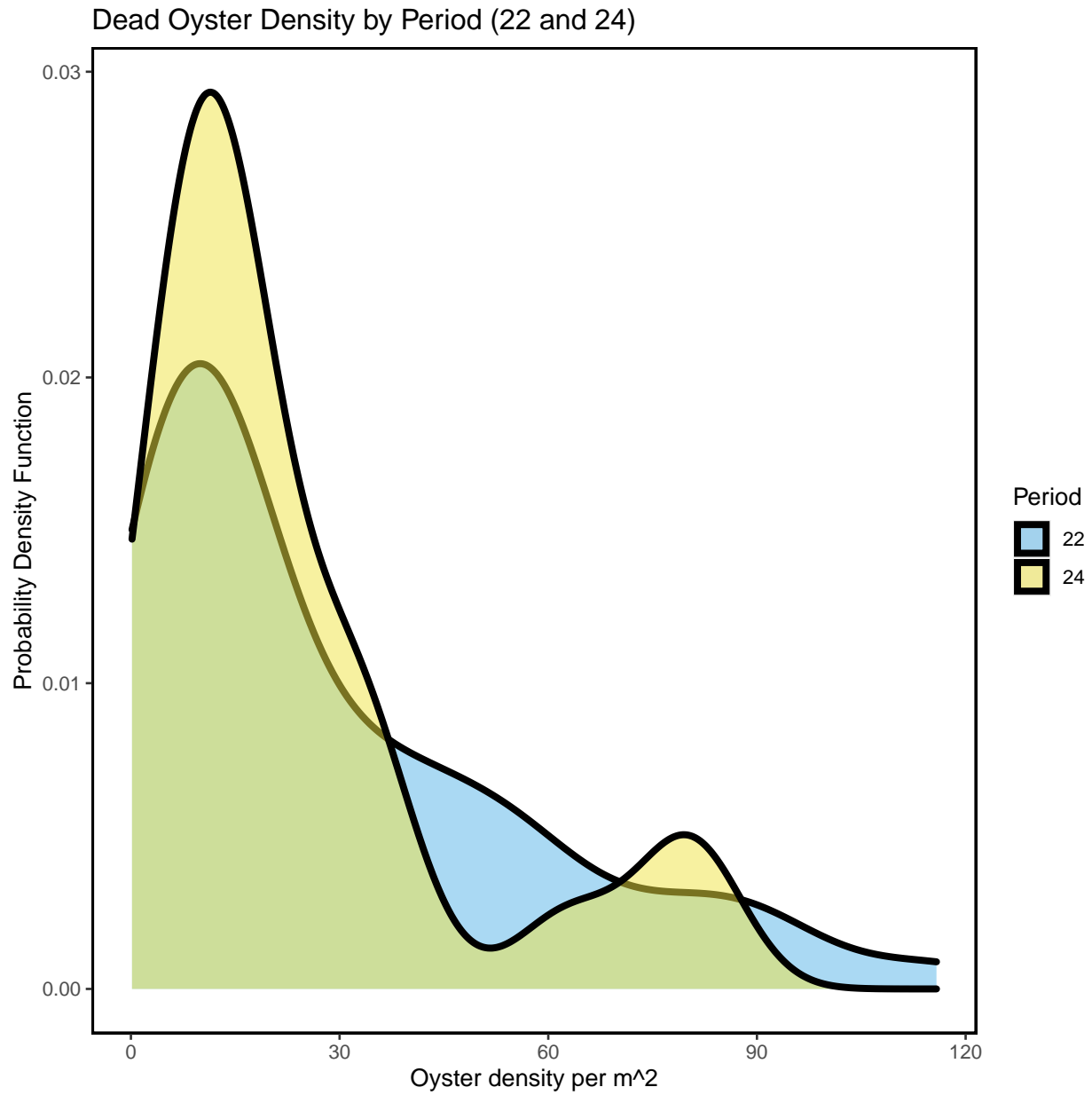
Figure- Calculated dead oyster density by periods 22 (Winter 2020-2021) and 24 (Winter 2021-2022) using a probability density function with the last sample date of period 24 as 2021-12-08.
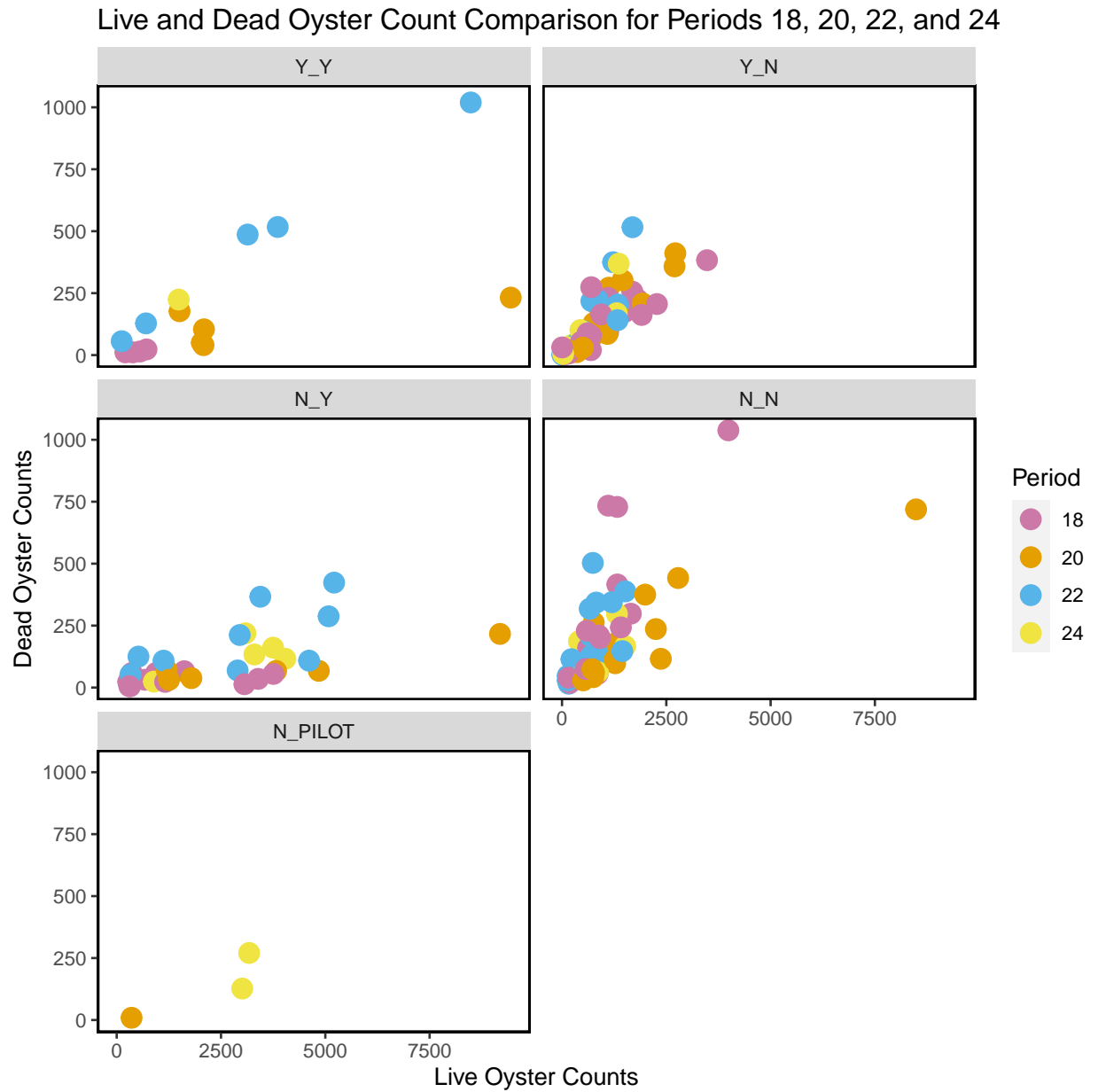
Figure- Live and dead oyster count comparison by periods 18 (Winter 2018- 2019), 20 (Winter 2019-2020), 22 (Winter 2020-2021) and 24 (Winter 2021-2022), last sample date of period 24 as 2021-12-08.

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
      LC     24            0.60           8.1  13.5
```

Table- Coefficient variation between pass 1 and pass 2, aggregated by locality and period for live counts
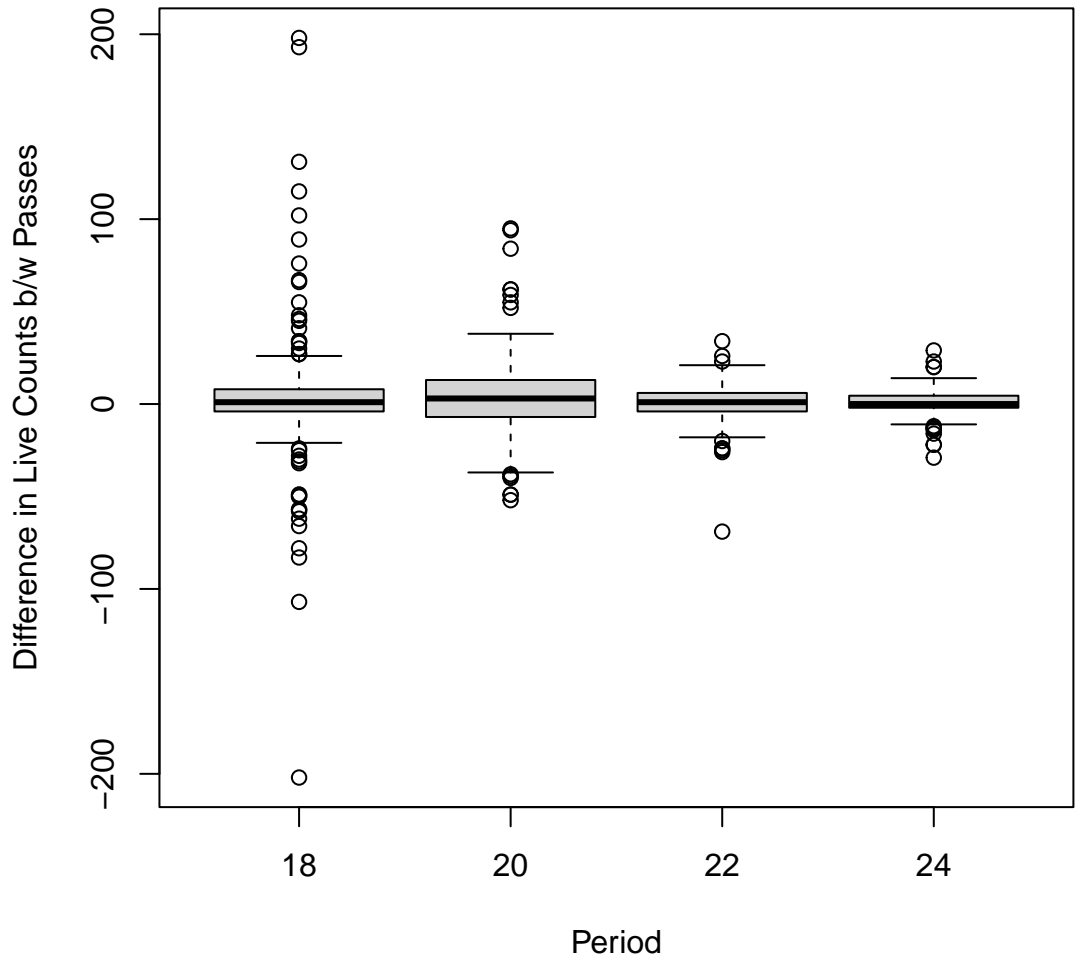
Dead Counts Double Pass Results
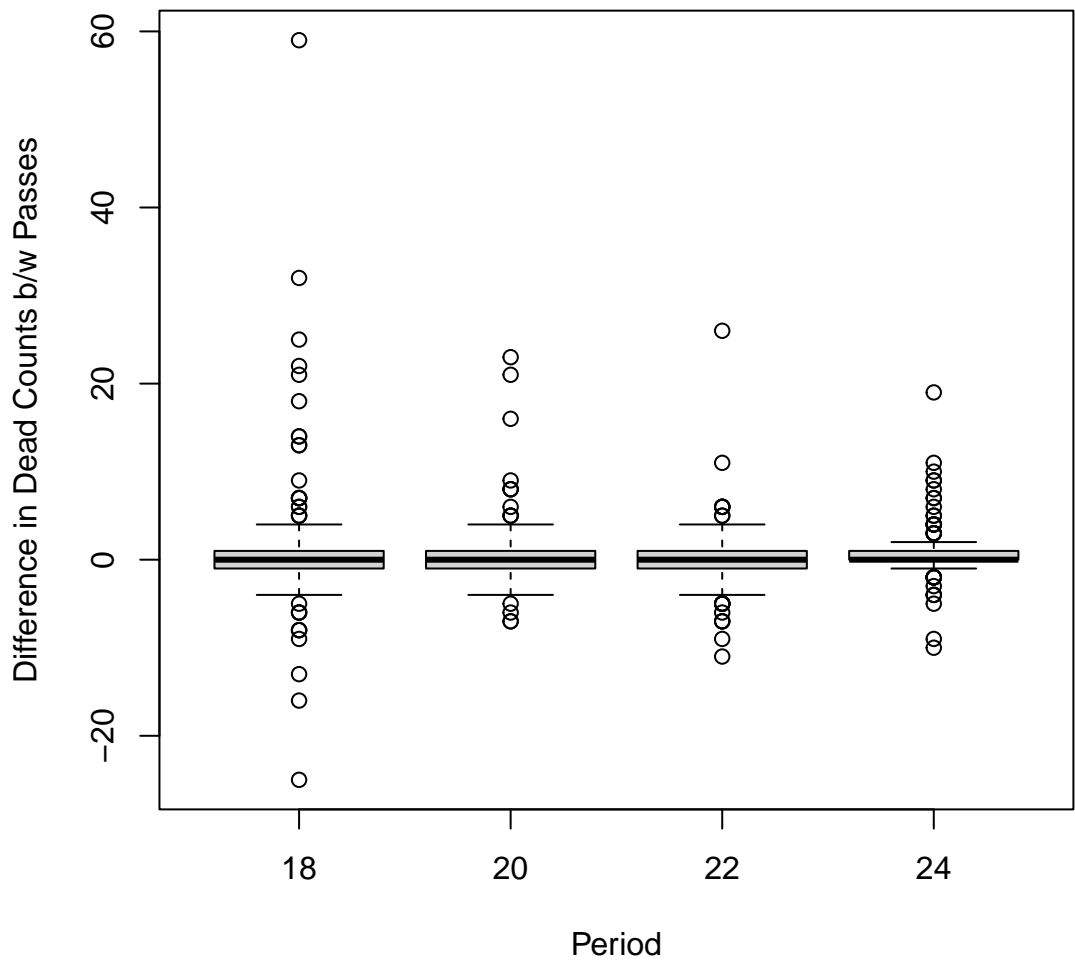
Figure- Boxplot of the difference in dead counts between pass 1 and pass 2 (pass 1 dead counts - pass 2 dead counts) for period 18, 20, 22, and 24

```
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
      LC     24 1.39 1.38
```

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 2021-12-08. 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                   14              481
      CK                   26              734
      CR                   46             1375
      HB                   45             1129
      LC                  216            11826
      LT                   18              468
      NN                   11              288

Effort by Strata
  Strata Number of Transects Total Length (m)
     N_N                  119             3864
 N_PILOT                   15             1050
     N_Y                   33             3662
     Y_N                  194             5649
     Y_Y                   15             2075

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                   22             1120

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	1	15
24	LC	20	1092
24	LT	1	13
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	6	134

```
24 N_PILOT                2             251
24     N_Y                5             458
24     Y_N                8             187
24     Y_Y                1              89
 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
```
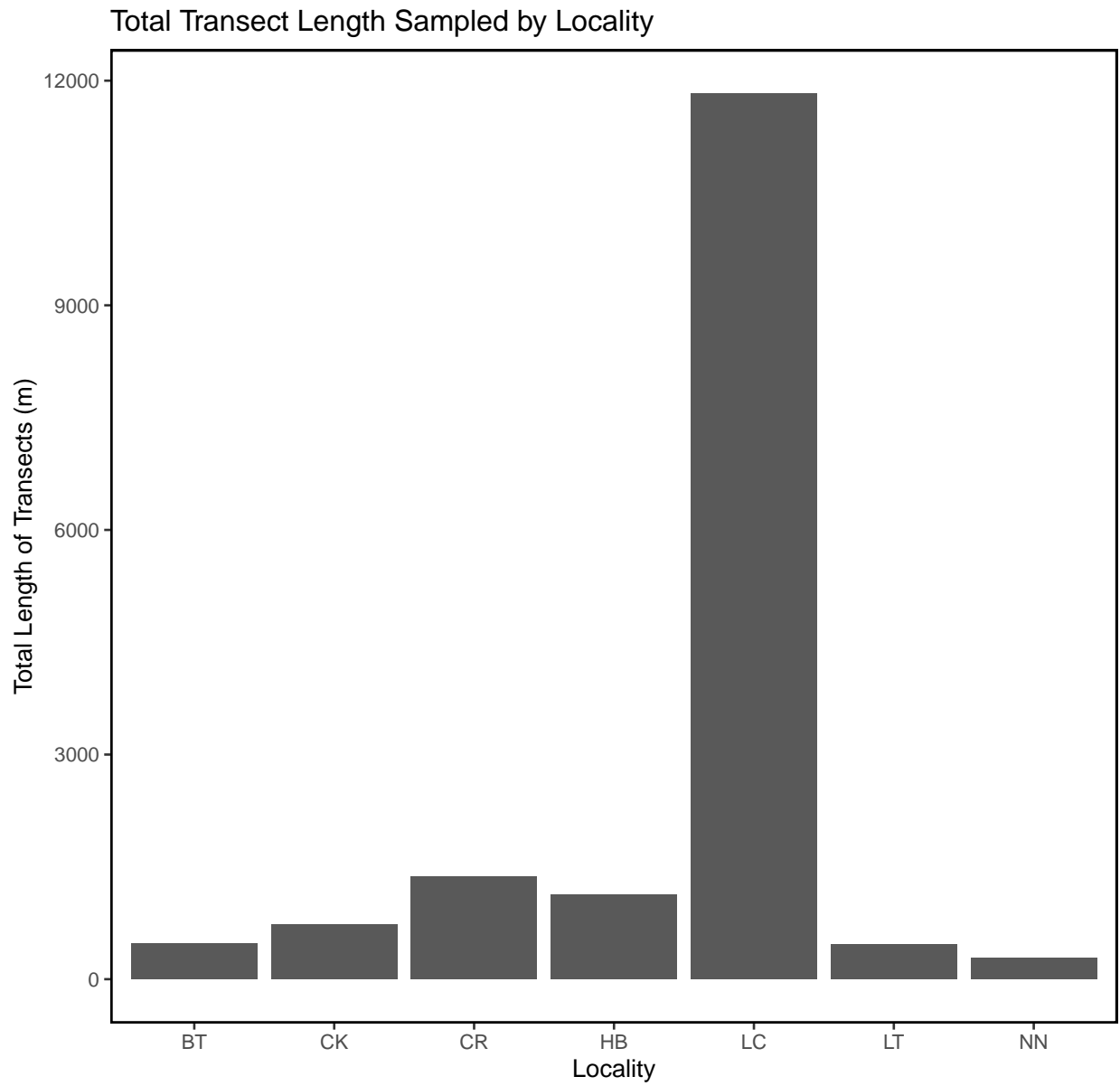
Effort Plot Summaries for all Periods

Total Transect Length Sampled by Locality

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

Total Transect Length Sampled by Strata
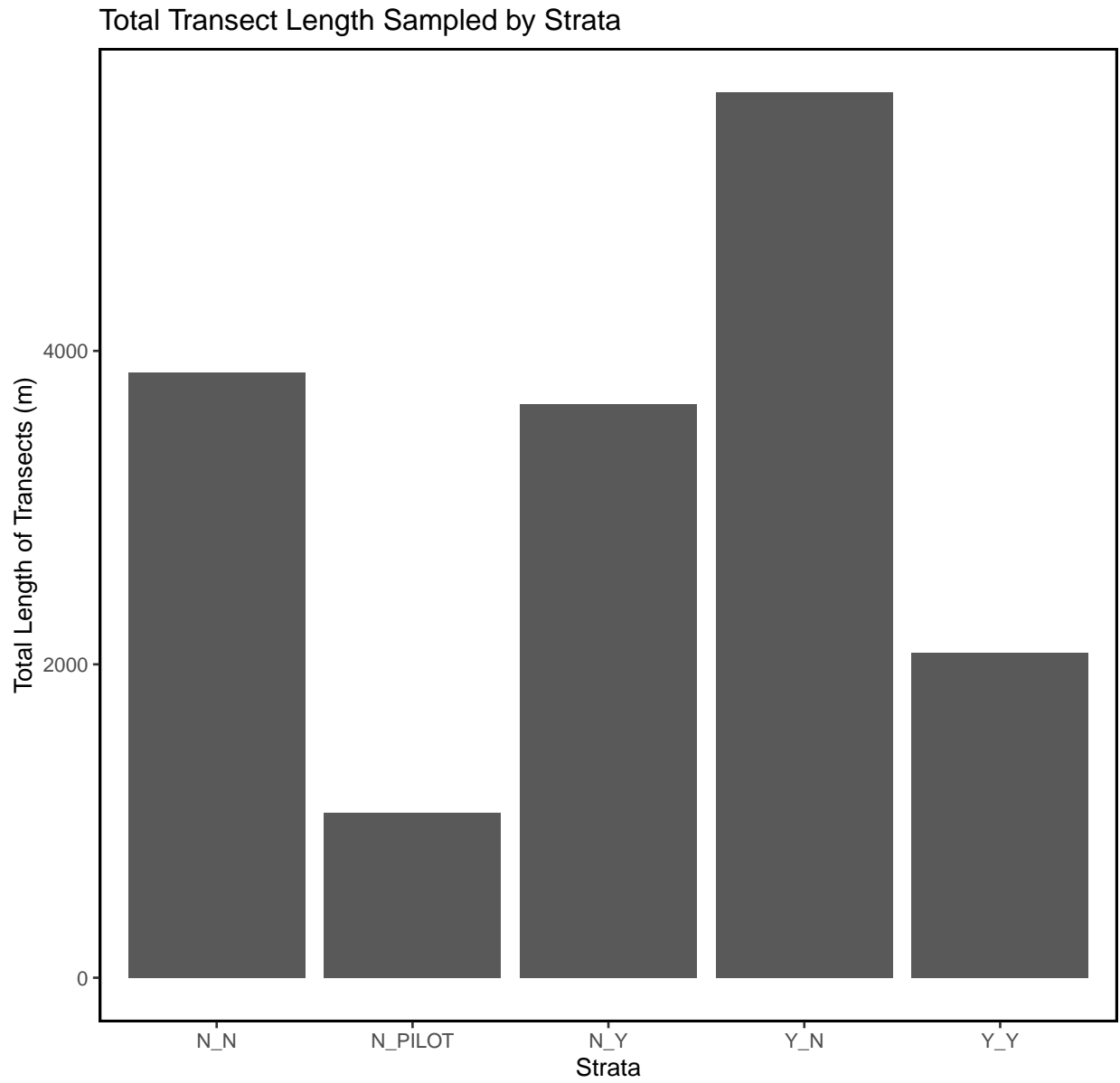
Figure – Bar plot of total transect length in meters sampled by strata for all periods.

Total Transect Length Sampled by Period
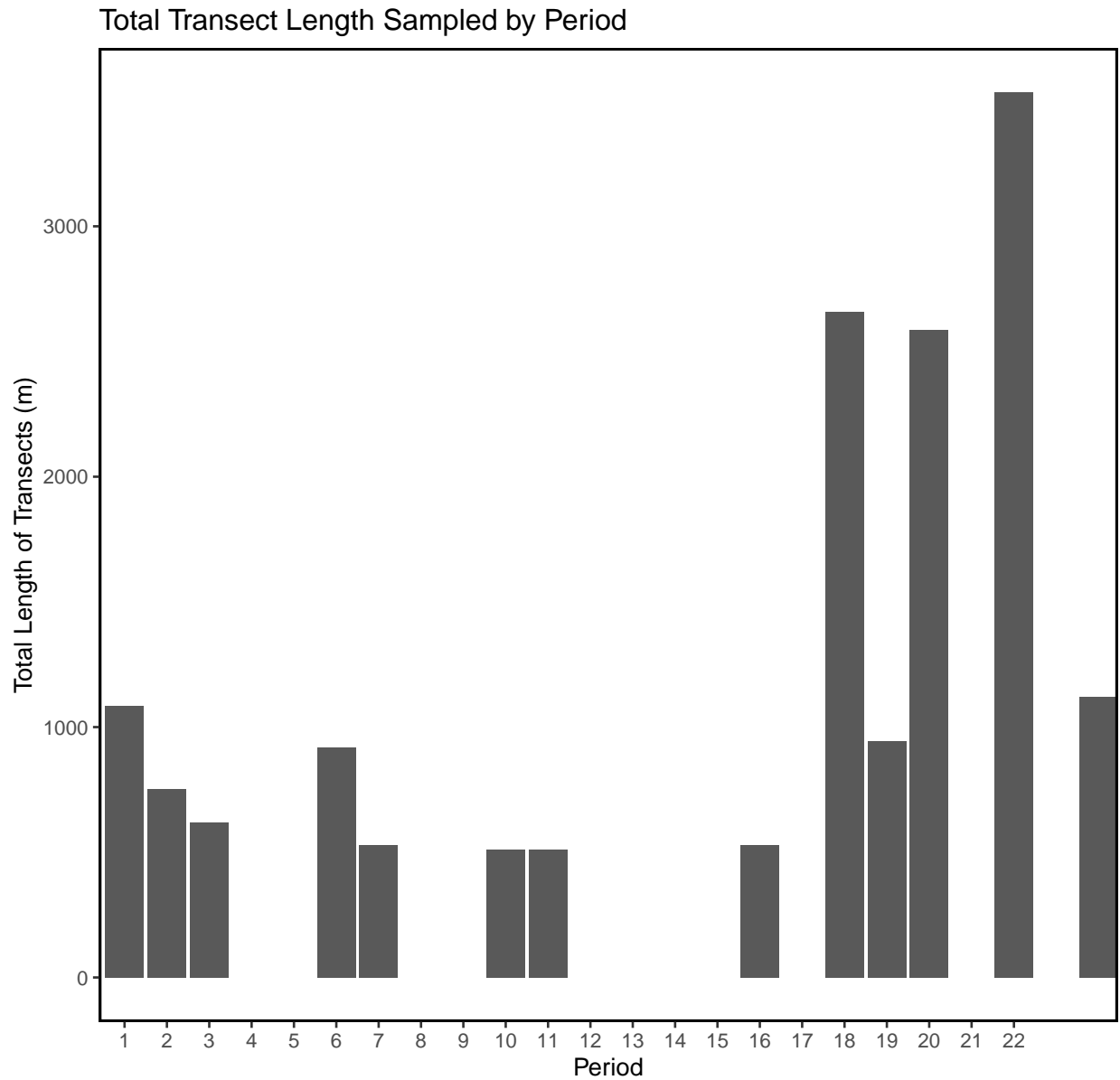
Figure– Bar plot of total transect length in meters sampled by period for all periods.

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	1575	856	2195	4815993	1.39	587	425	2724	1568	687	2732
CK	857	444	1091	1190933	1.27	214	438	1277	840	469	1260
CR	1026	716	1035	1072162	1.01	153	727	1325	1023	747	1337
HB	902	364	1047	1095622	1.16	158	592	1211	904	615	1215
LC	1136	695	1442	2078638	1.27	99	942	1330	1135	949	1333
LT	1040	868	590	348447	0.57	139	768	1313	1033	789	1327
NN	786	727	649	420847	0.83	196	403	1169	781	439	1167

Live Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	986	764	1033	1066109	1.05	95	800	1172	988	827	1176
N_PILOT	1318	1136	925	856059	0.70	239	850	1787	1329	886	1773
N_Y	2439	1789	2019	4076080	0.83	351	1750	3128	2434	1819	3134
Y_N	770	435	904	817434	1.17	65	642	898	772	641	908
Y_Y	2455	1506	2859	8175013	1.16	738	1008	3901	2476	1258	3991

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	1401	1022	1775
2	890	476	945	893727	1.06	176	546	1234	902	570	1252
3	738	296	817	668064	1.11	167	411	1065	739	446	1072
6	433	176	534	284791	1.23	96	245	621	431	251	616
7	50	29	56	3186	1.12	20	11	90	51	17	91
10	1207	1074	671	449607	0.56	237	743	1672	1203	786	1657
11	886	776	678	459708	0.77	240	416	1356	884	513	1361
16	494	366	467	217855	0.95	165	170	817	498	209	809
18	982	695	935	874733	0.95	120	748	1217	979	764	1237
19	555	329	573	328431	1.03	97	365	745	555	375	743
20	1844	1253	2125	4517189	1.15	310	1236	2451	1848	1329	2533
22	1334	702	1693	2867783	1.27	242	860	1808	1339	899	1853
24	1463	1102	1301	1693414	0.89	277	919	2007	1463	926	1992

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	255	212	184	34019	0.72	49.3	159	352	254	167	352
CK	241	112	321	102927	1.33	62.9	118	364	241	134	369
CR	283	178	294	86605	1.04	43.4	198	368	284	206	370
HB	257	101	303	92052	1.18	45.7	168	347	257	177	344
LC	154	122	144	20798	0.94	9.9	134	173	154	135	174
LT	283	275	141	19841	0.50	33.2	218	348	283	220	347
NN	223	164	224	50283	1.01	67.6	90	355	225	124	361

Live Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	260	189	250	62385	0.96	23	215	305	259	216	304
N_PILOT	118	121	59	3467	0.50	15	88	148	119	89	149
N_Y	152	138	91	8233	0.60	16	121	183	152	120	184
Y_N	185	111	215	46198	1.16	16	154	215	185	155	216
Y_Y	113	101	88	7709	0.78	23	69	157	112	72	160

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	288.1	510.1
2	255	119.0	285.2	81348	1.12	53	151.3	358.9	253	155.0	360.6
3	234	85.3	269.3	72523	1.15	55	126.1	341.6	233	136.0	355.8
6	121	72.2	150.9	22767	1.25	27	68.1	174.3	120	68.2	174.7
7	5	2.9	5.6	31	1.12	2	1.1	8.9	5	1.7	8.8
10	124	113.3	67.4	4536	0.54	24	76.9	170.3	123	82.8	169.8
11	90	79.5	67.8	4596	0.75	24	43.4	137.4	91	50.3	137.6
16	49	36.3	46.4	2154	0.95	16	16.9	81.2	49	22.1	82.3
18	176	154.5	130.2	16945	0.74	17	143.7	209.0	177	144.3	209.9
19	154	72.7	168.5	28408	1.10	28	97.9	209.6	154	97.9	215.7
20	256	202.8	187.2	35057	0.73	27	202.6	309.6	257	206.7	312.9
22	137	120.6	92.9	8638	0.68	13	111.2	163.3	137	111.2	161.8
24	187	178.5	93.8	8801	0.50	20	147.7	226.1	187	147.8	223.9

Dead Count Statistics for all Periods

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Dead Oyster Counts by Locality
```

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	304	174	306	93661	1.01	82	143.6	464	301	161	461
CK	78	32	106	11170	1.36	37	4.3	151	76	16	148
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	45	19	73
LC	114	67	132	17508	1.16	10	94.1	133	114	97	134
LT	230	176	191	36661	0.83	45	141.3	318	229	152	319
NN	104	74	96	9216	0.92	29	47.6	161	105	58	166

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Dead Oyster Counts by Strata
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Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	155	83	185	34151	1.20	20	116	193	155	120	195
N_PILOT	98	89	65	4243	0.67	17	65	131	97	69	133
N_Y	101	66	103	10584	1.01	18	66	136	101	70	139
Y_N	103	53	114	13058	1.11	12	80	126	103	79	126
Y_Y	206	104	277	76865	1.34	72	66	347	206	83	351

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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	30	12	49
10	80	88	65	4245	0.82	23.0	34.5	125	80	41	125
11	50	40	25	620	0.49	8.8	33.2	68	51	35	69
16	44	28	41	1708	0.93	14.6	15.6	73	44	20	71
18	133	55	192	36903	1.44	24.6	85.1	182	133	87	185
19	63	44	67	4548	1.08	11.6	40.0	85	62	42	86
20	148	107	140	19727	0.95	20.5	107.6	188	147	111	186
22	191	128	193	37399	1.01	27.6	137.2	245	193	144	253
24	132	122	100	9901	0.76	21.2	89.9	173	132	93	174

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	54	44.9	34	1130	0.62	9.0	36.9	72	54	38.8	72
CK	21	11.3	28	757	1.29	9.7	2.3	40	22	5.4	41
CR	18	10.8	16	247	0.87	5.2	7.8	28	18	9.7	28
HB	13	8.0	14	201	1.12	4.7	3.4	22	13	5.3	23
LC	17	9.4	20	415	1.18	1.5	14.2	20	17	14.5	21
LT	57	48.8	37	1377	0.65	8.7	40.2	74	57	40.8	74
NN	28	16.7	23	530	0.82	6.9	14.6	42	28	16.0	43

Dead Oyster Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	33.7	28.5	31.7	1003	0.94	3.40	27.1	40.4	33.7	27.7	40.6
N_PILOT	8.7	8.7	4.3	18	0.49	1.11	6.5	10.9	8.7	6.7	11.2
N_Y	6.2	4.9	4.5	20	0.72	0.78	4.7	7.7	6.2	4.8	7.7
Y_N	23.0	13.6	24.0	575	1.04	2.46	18.2	27.8	22.9	18.1	27.9
Y_Y	8.9	7.9	6.6	44	0.74	1.70	5.5	12.2	9.0	5.8	12.1

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	3.0	1.2	5.0
10	8.2	8.9	6.6	44.0	0.81	2.35	3.58	12.8	8.2	4.2	12.5
11	5.2	4.1	2.6	6.6	0.49	0.91	3.41	7.0	5.2	3.6	6.9
16	4.4	2.8	4.1	16.9	0.93	1.45	1.55	7.2	4.4	1.8	7.1
18	26.4	15.7	31.3	979.8	1.19	4.01	18.50	34.2	26.5	19.6	34.3
19	17.5	10.5	19.3	371.9	1.10	3.31	11.06	24.0	17.5	11.5	24.2
20	27.7	18.4	26.1	681.6	0.94	3.81	20.24	35.2	27.8	21.0	35.7
22	28.5	14.2	28.4	807.0	1.00	4.06	20.53	36.4	28.5	21.1	36.6
24	23.7	14.9	22.9	526.2	0.97	4.89	14.11	33.3	23.6	15.0	33.7

Summary Density Plots for all Periods
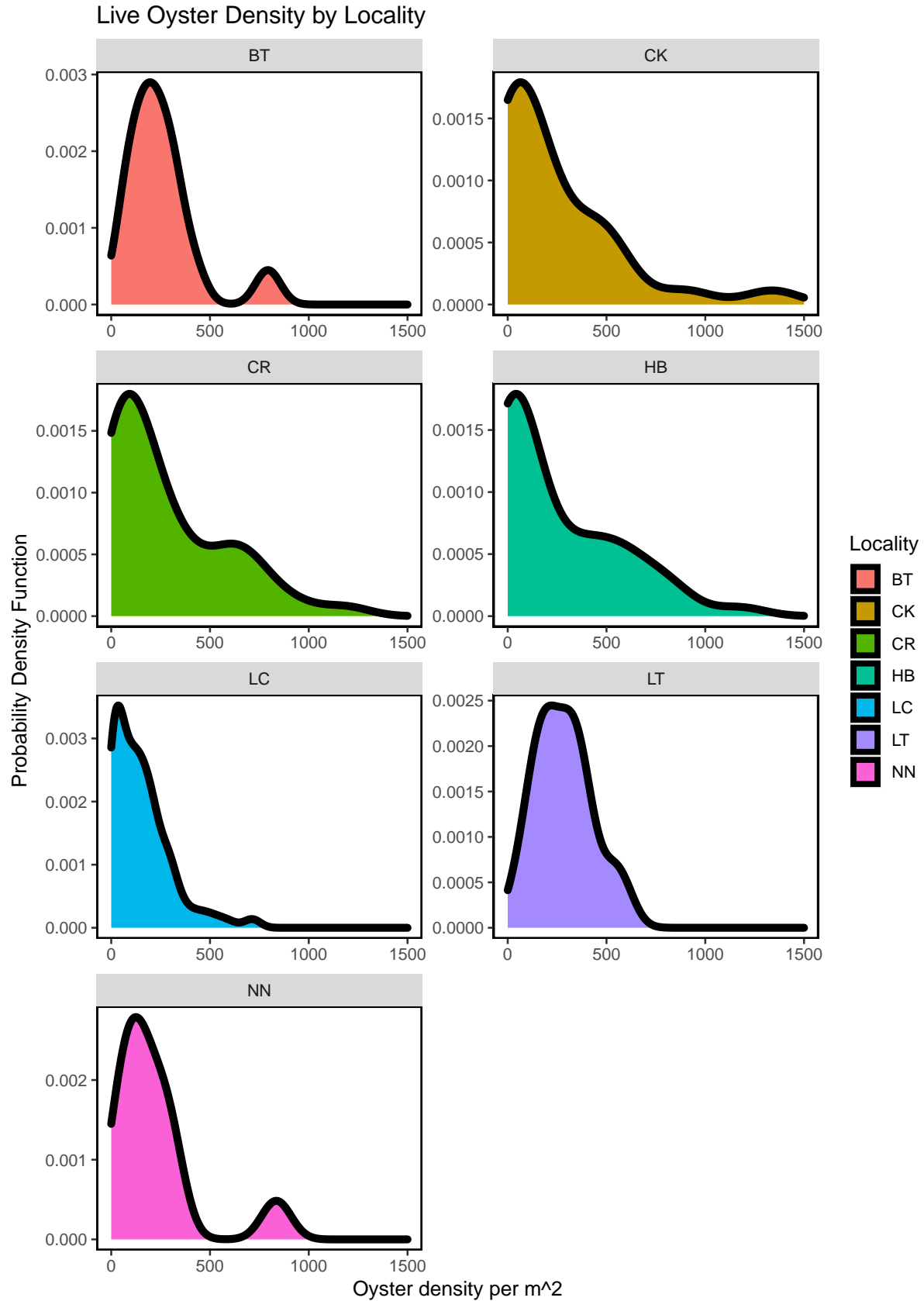
Live Oyster Density by Locality

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).
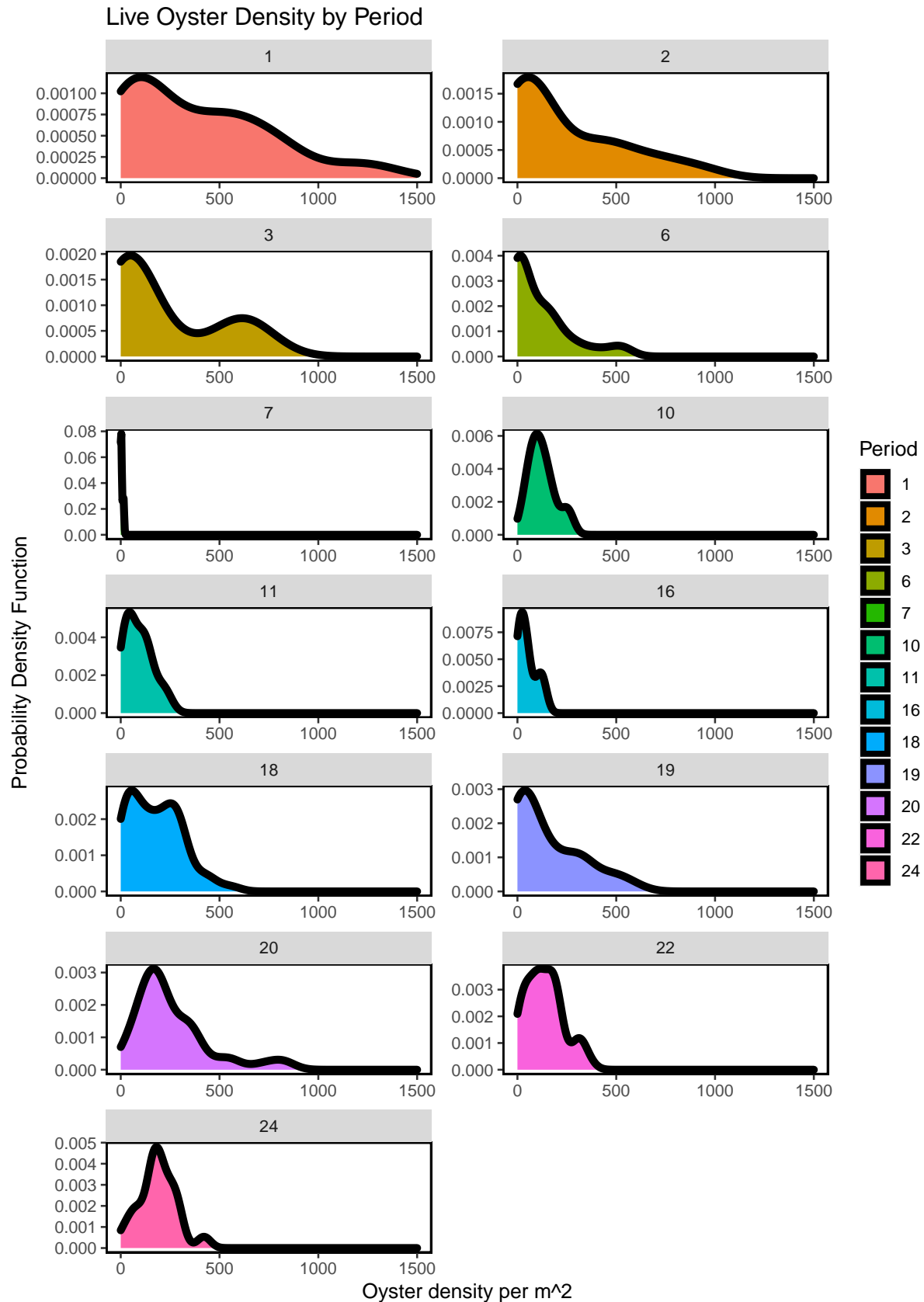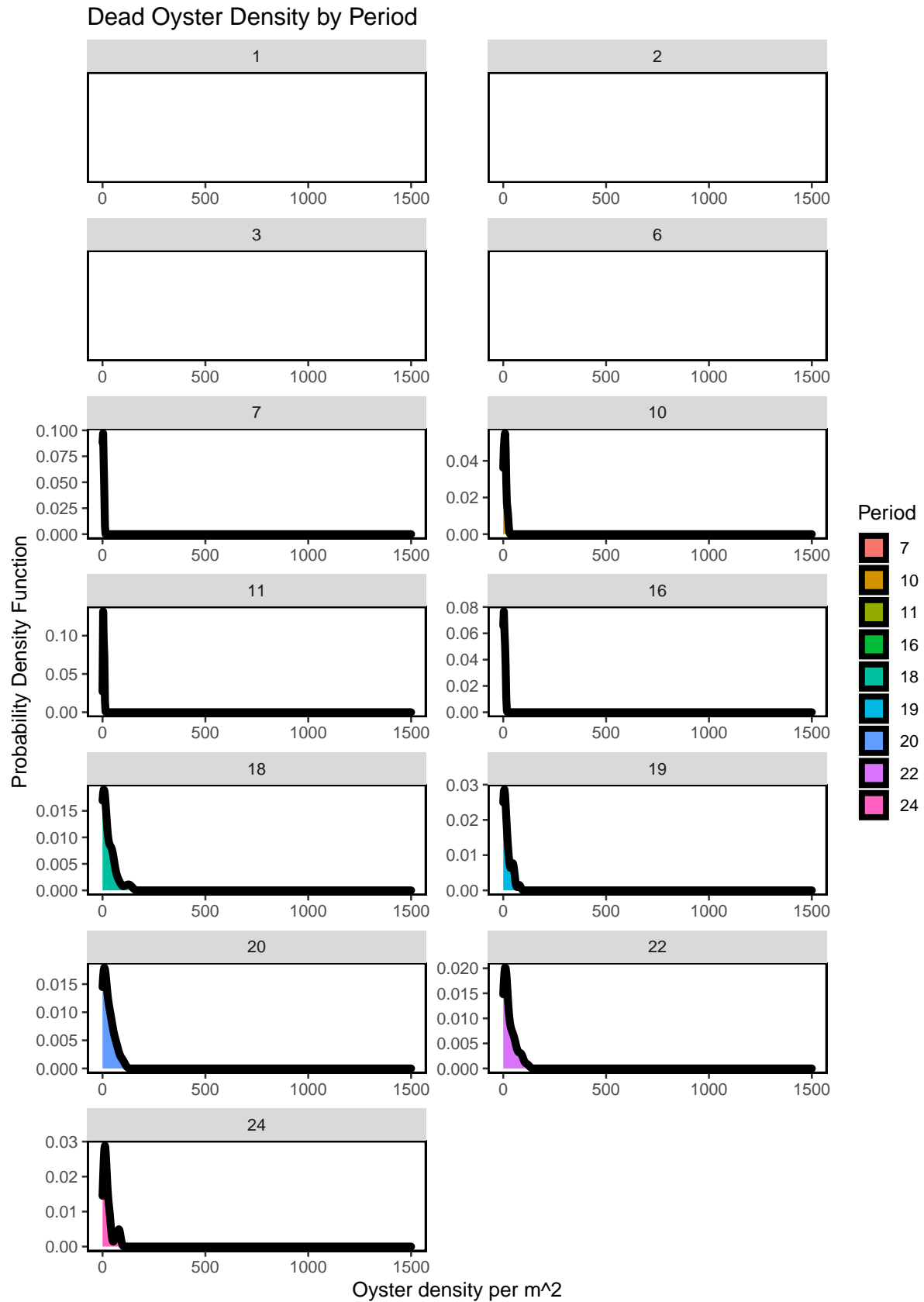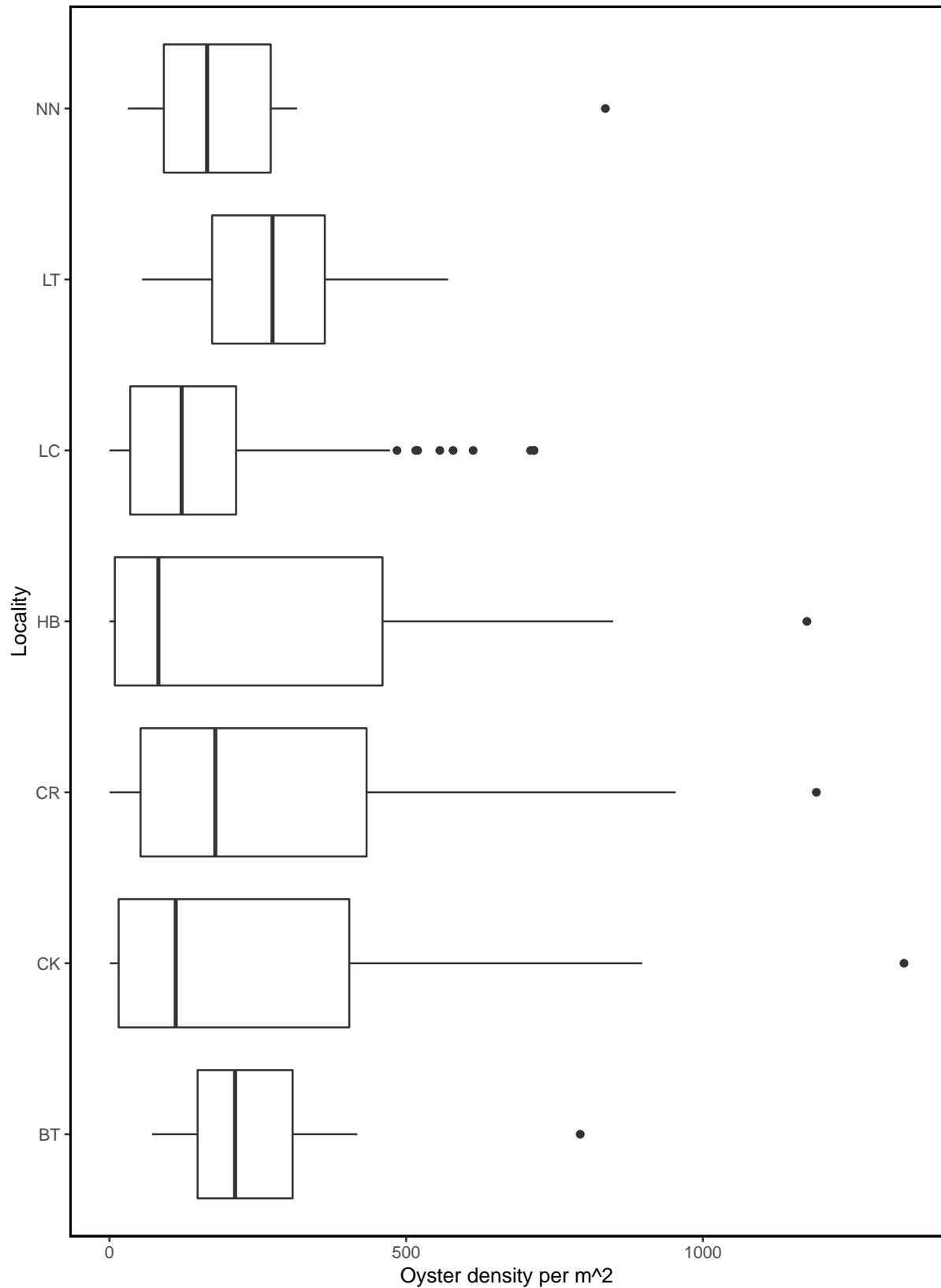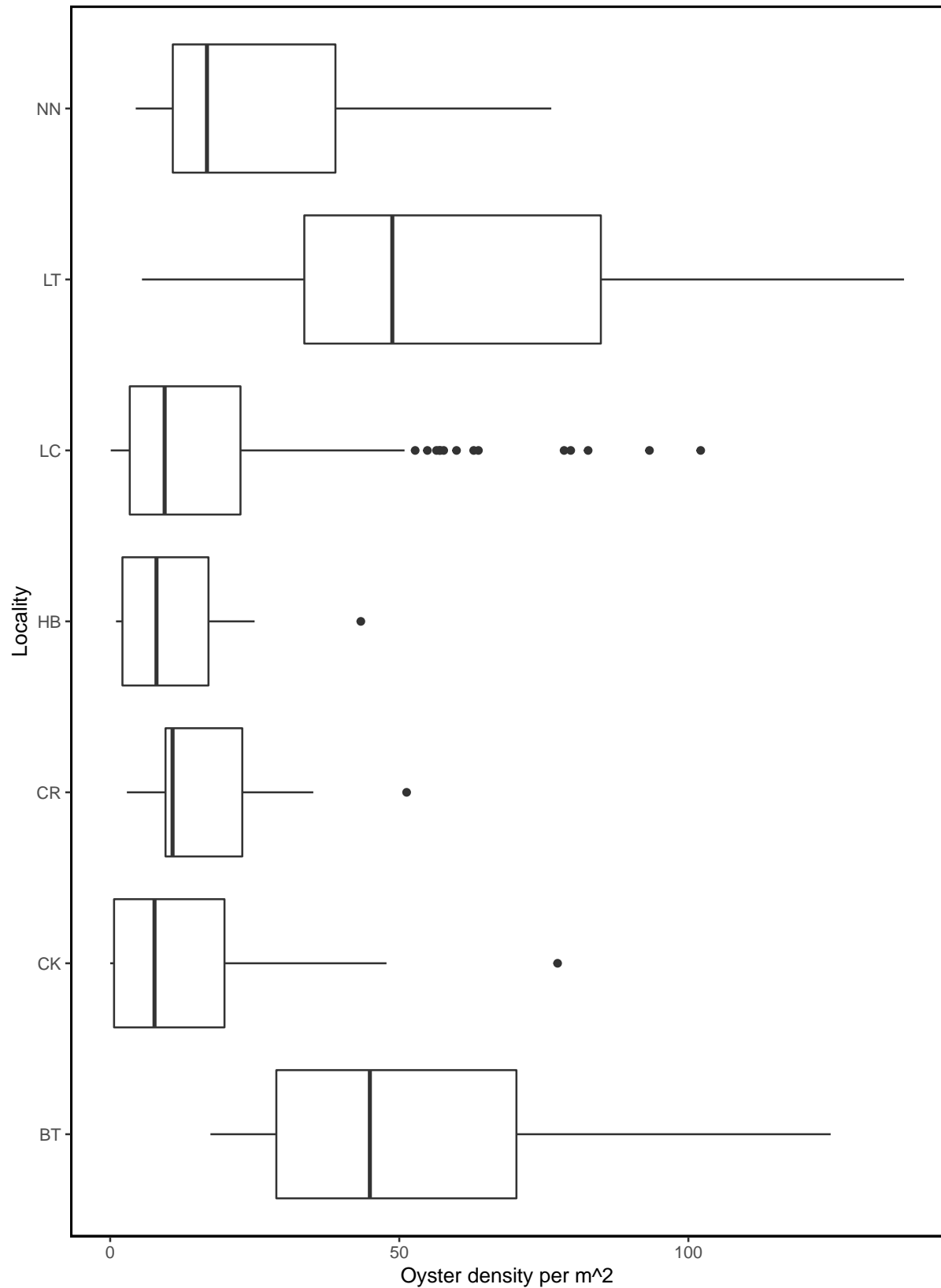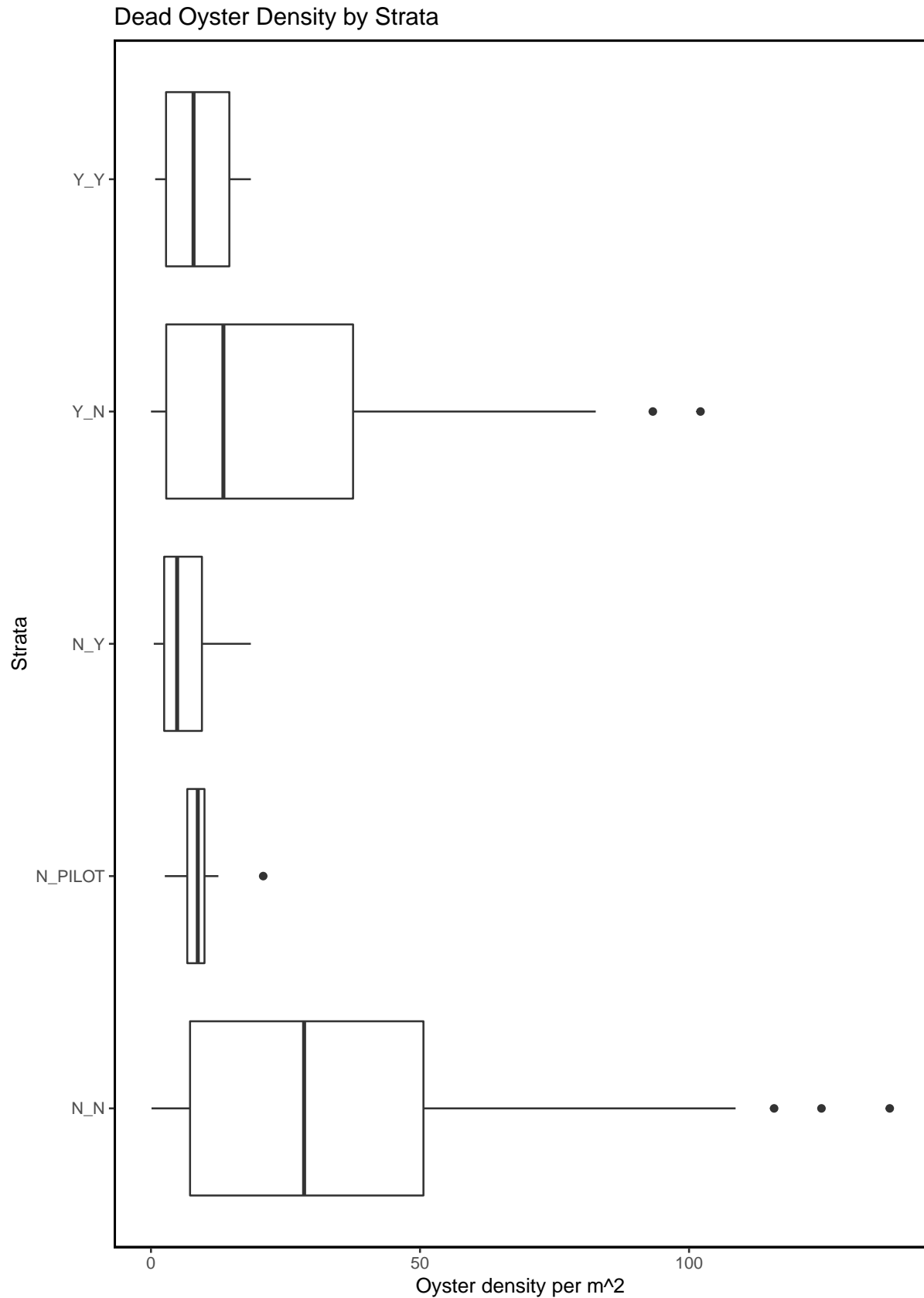
Live Oyster Density by Strata

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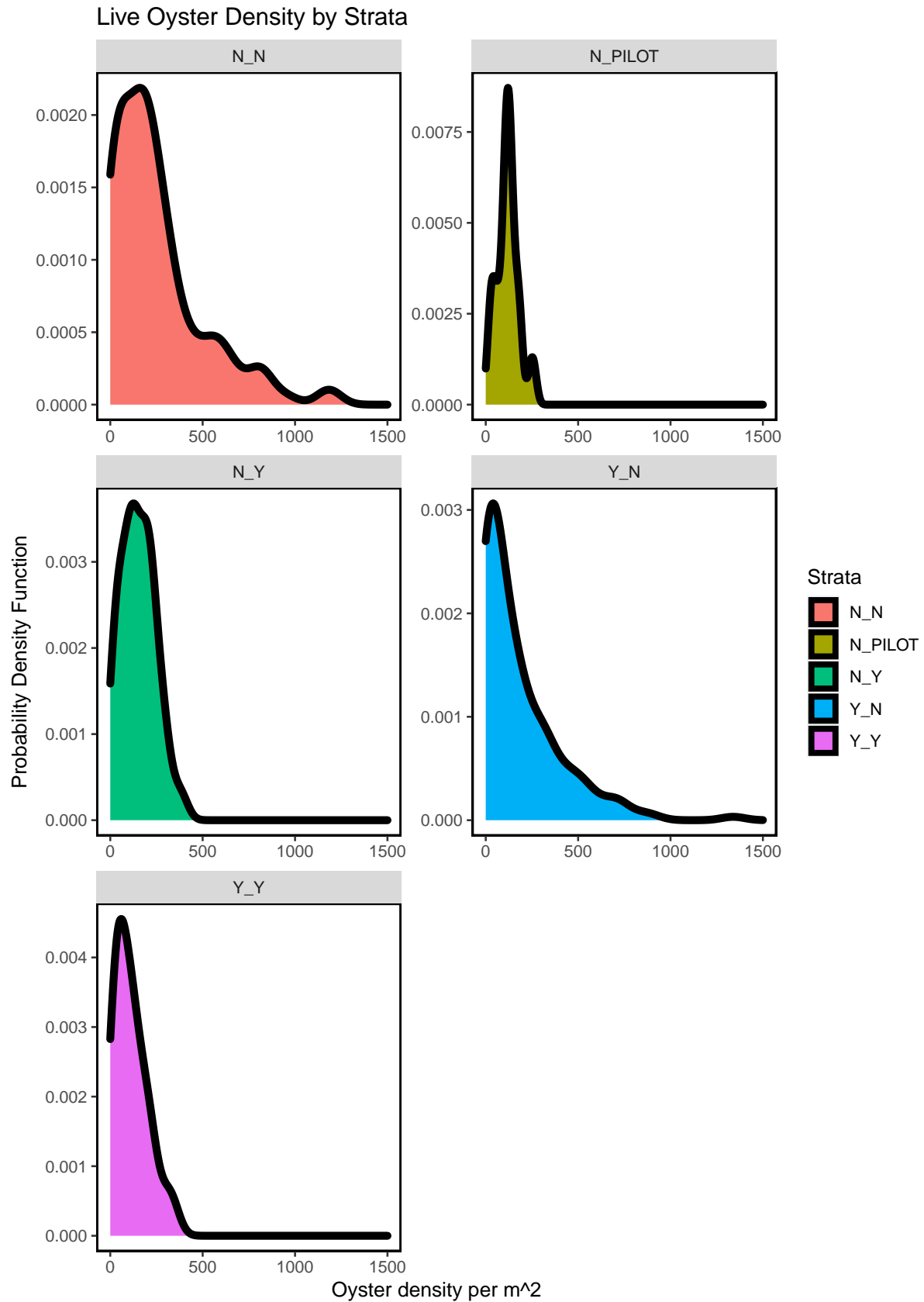
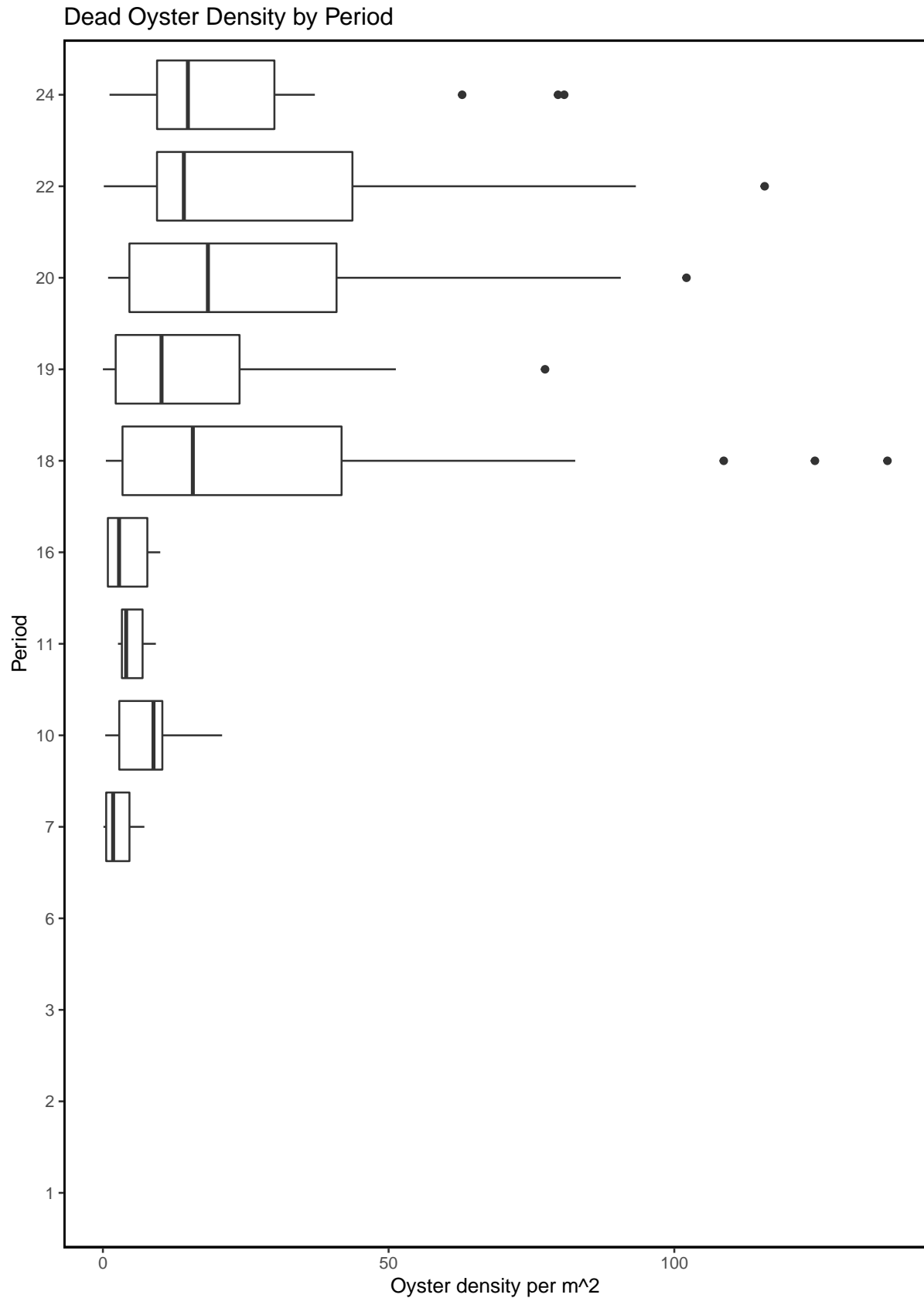Figure– Calculated dead oyster density by strata for all periods including period 22 (current period).
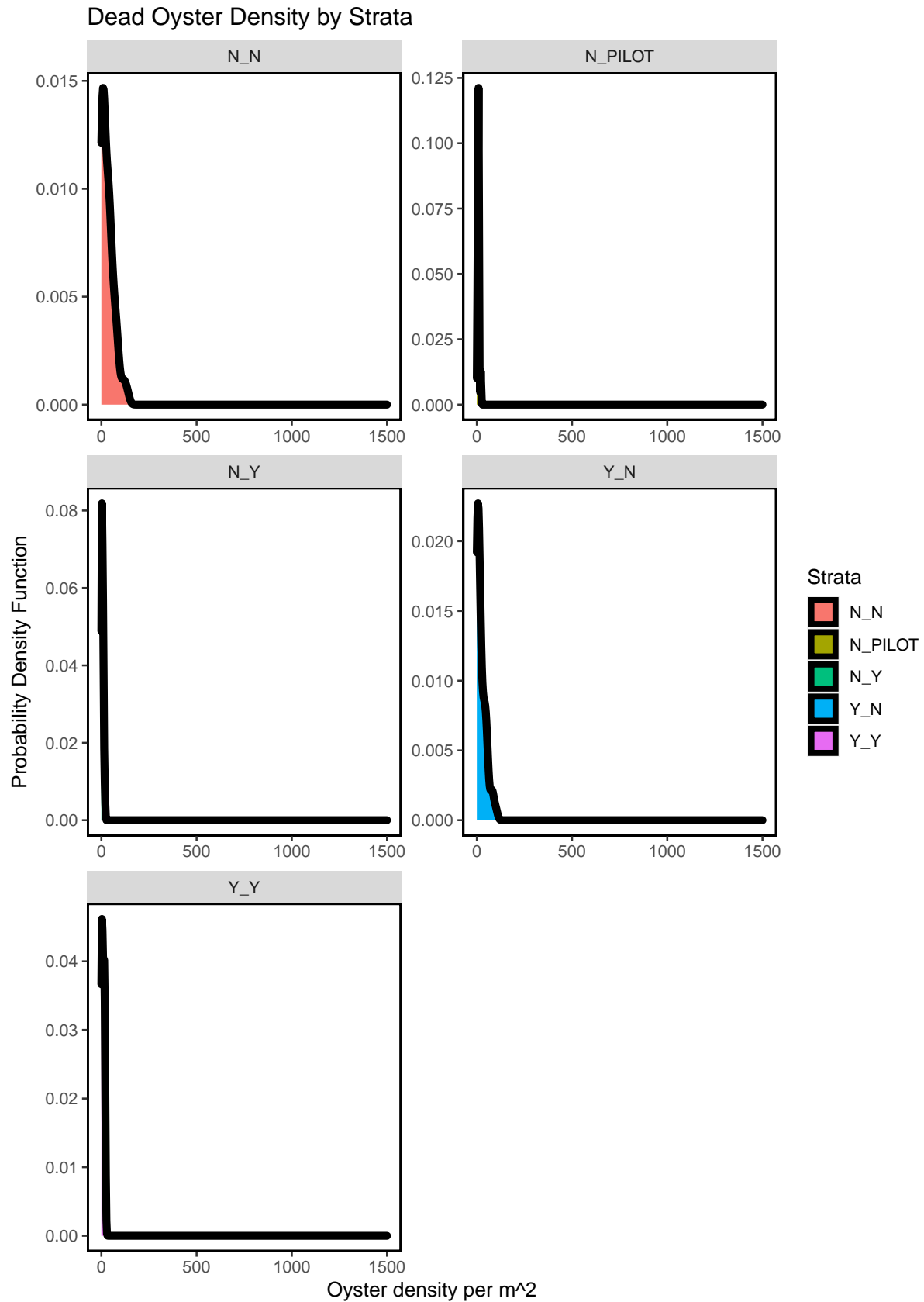
Figure– Calculated live oyster density for all periods including period 22 (current period) using a probability density

Dead Oyster Density by Period

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).
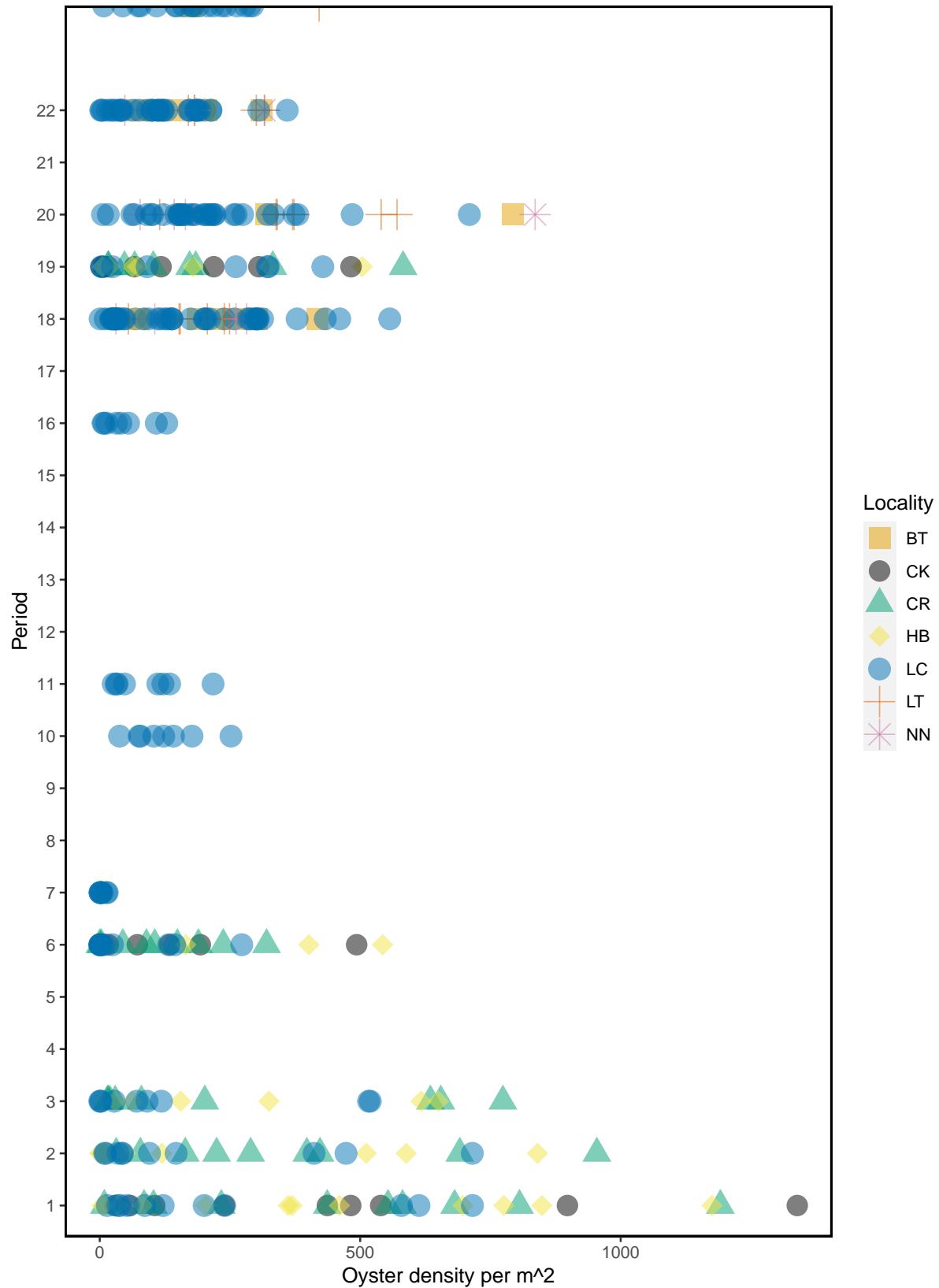
Live Oyster Density by Strata

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

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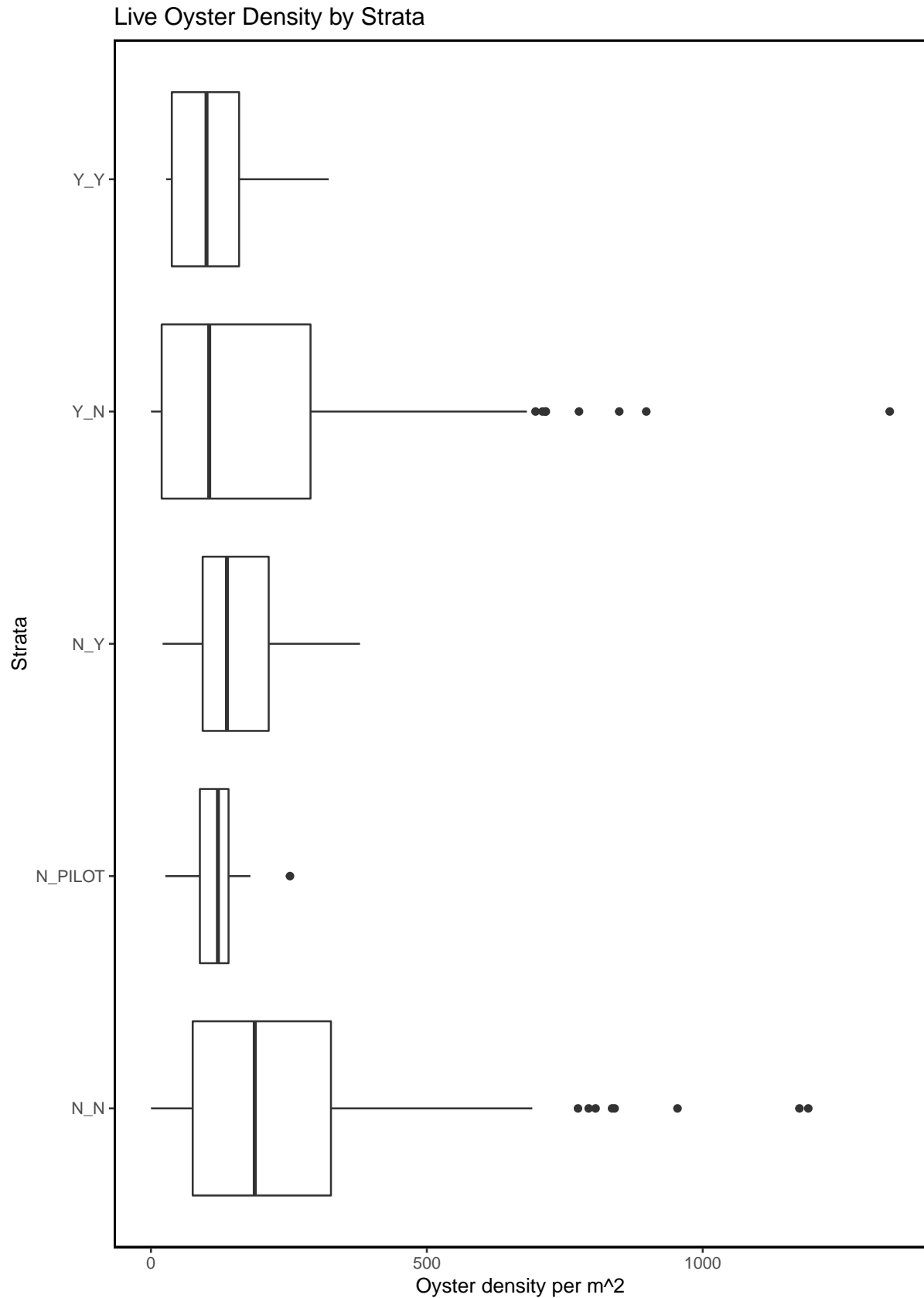
Figure– Box plot depicting dead oyster density by strata for all periods including period 22 (current period).

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

Dead Oyster Density by Period

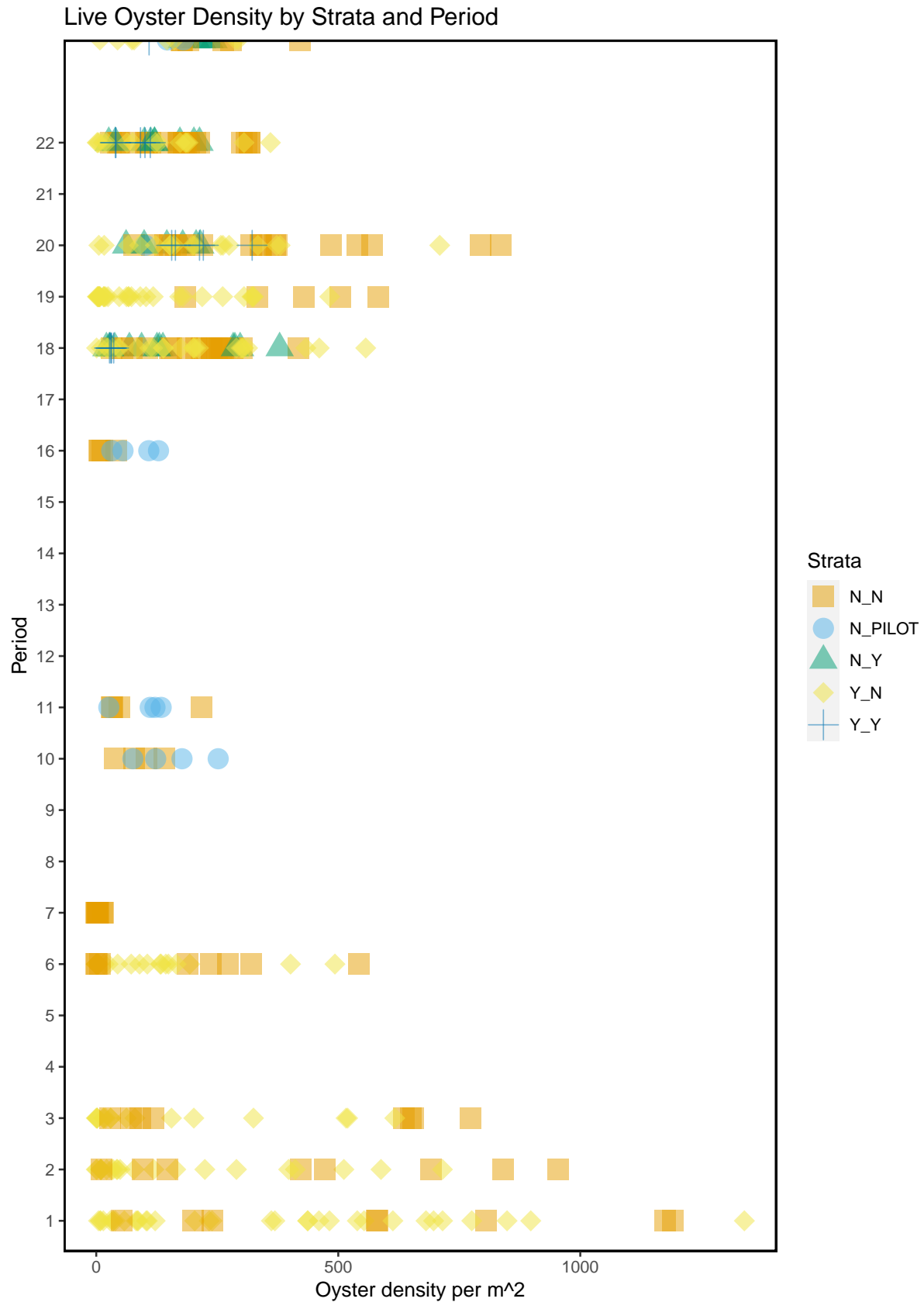Figure– Box plot depicting dead oyster density by period for all periods including period 22 (current period).

Figure – Live oyster density by locality and period for all periods including period 22 (current period).
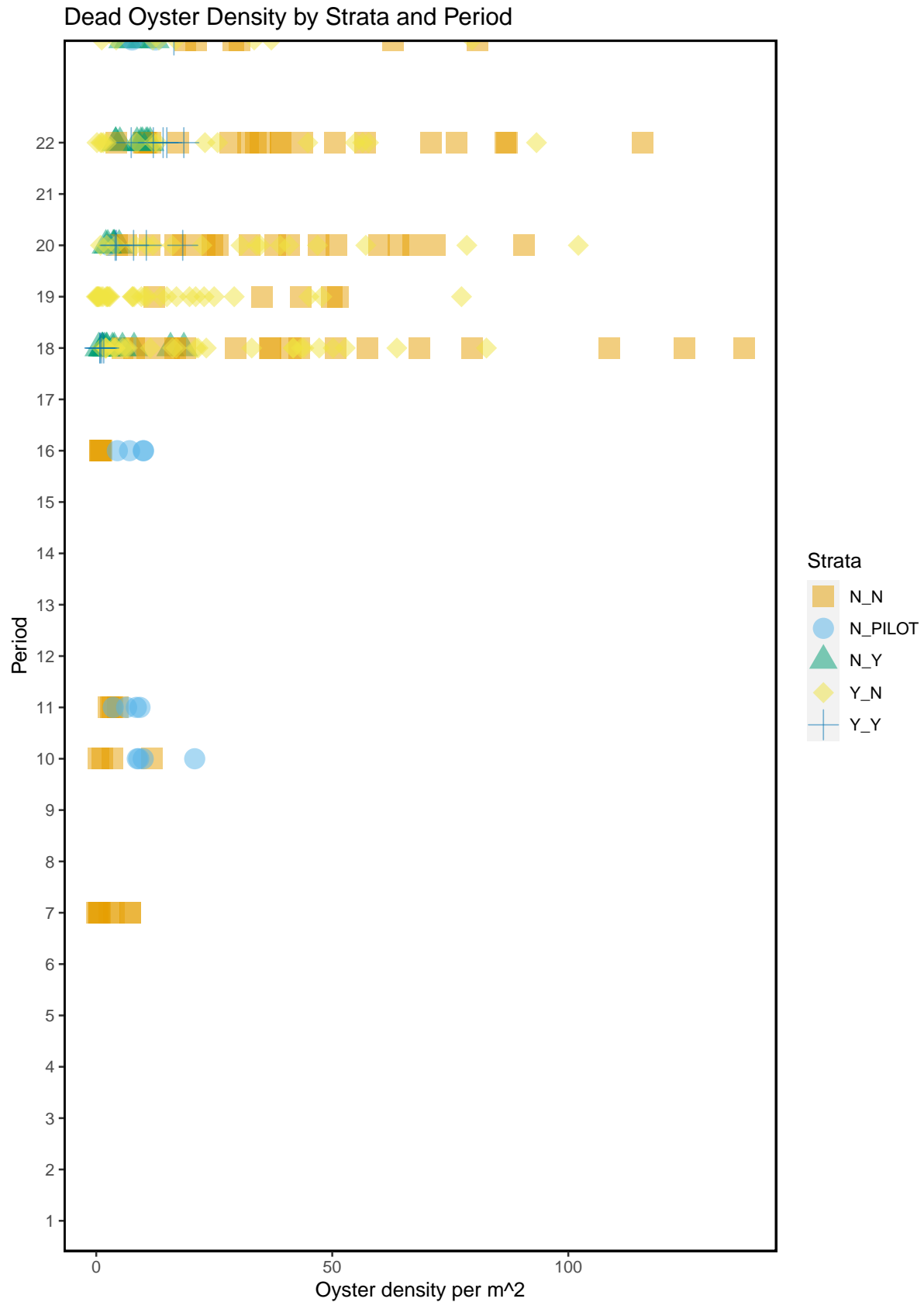
Dead Oyster Density by Locality and Period

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

Live Oyster Density by Strata and Period

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

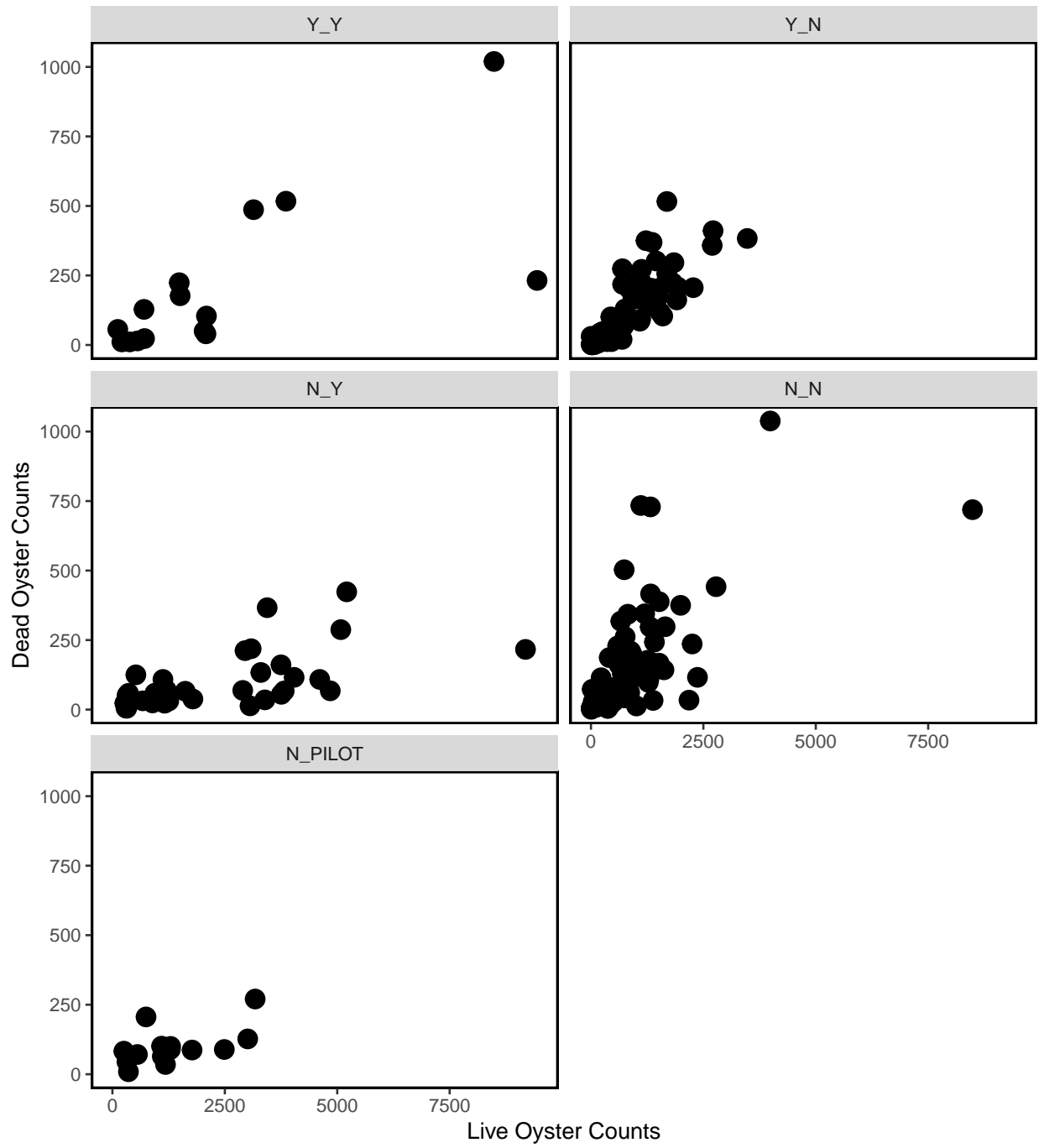Figure – Dead oyster density by strata and period for all periods including period 22 (current period).

Figure- Live and dead oyster comparison for all periods, last sample date of period 24 is 2021-12-08.

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).
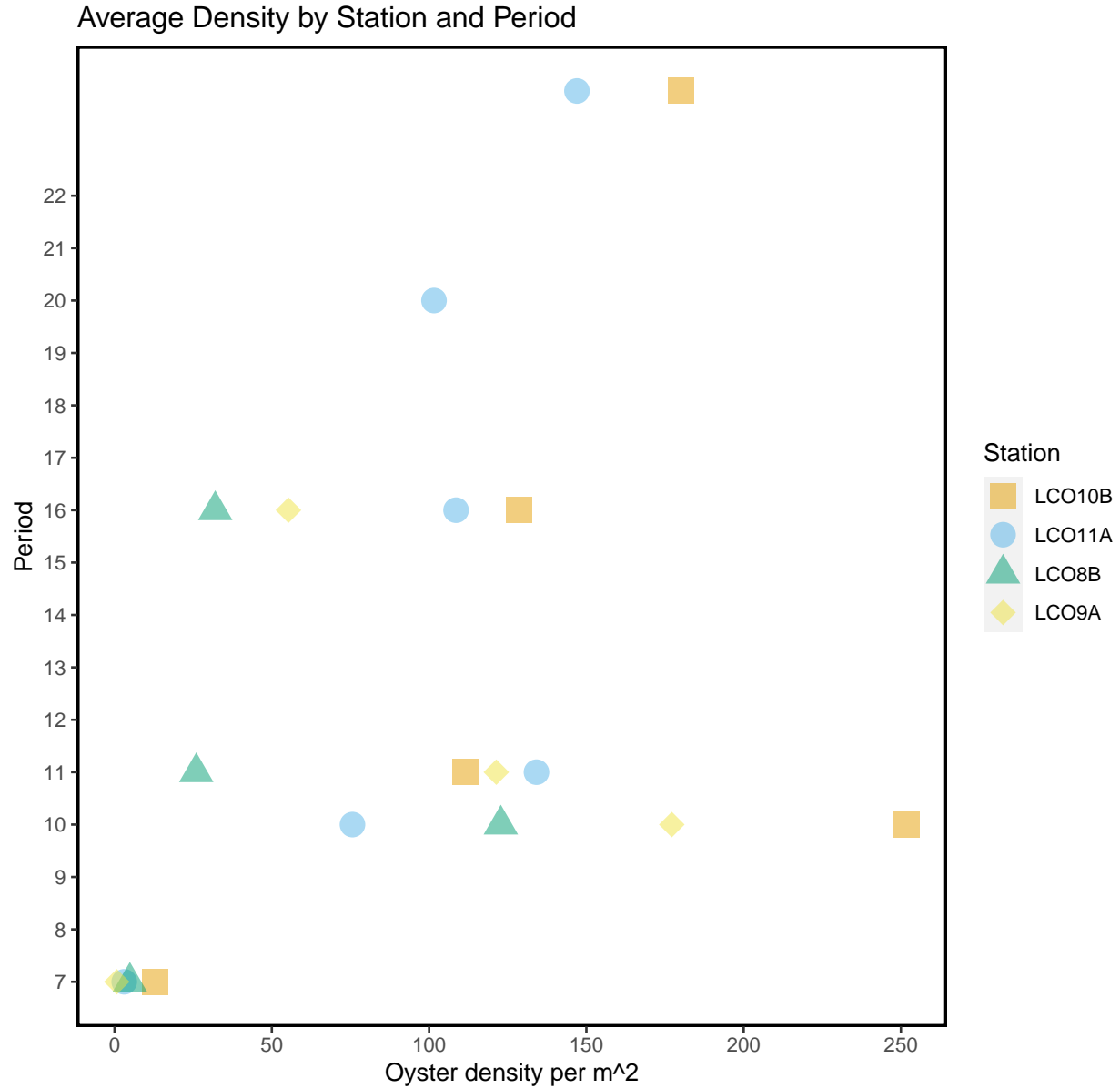
Average Density by Station and Period

Figure – Average live oyster density comparison by station and period for all stations that were sampled during the pilo
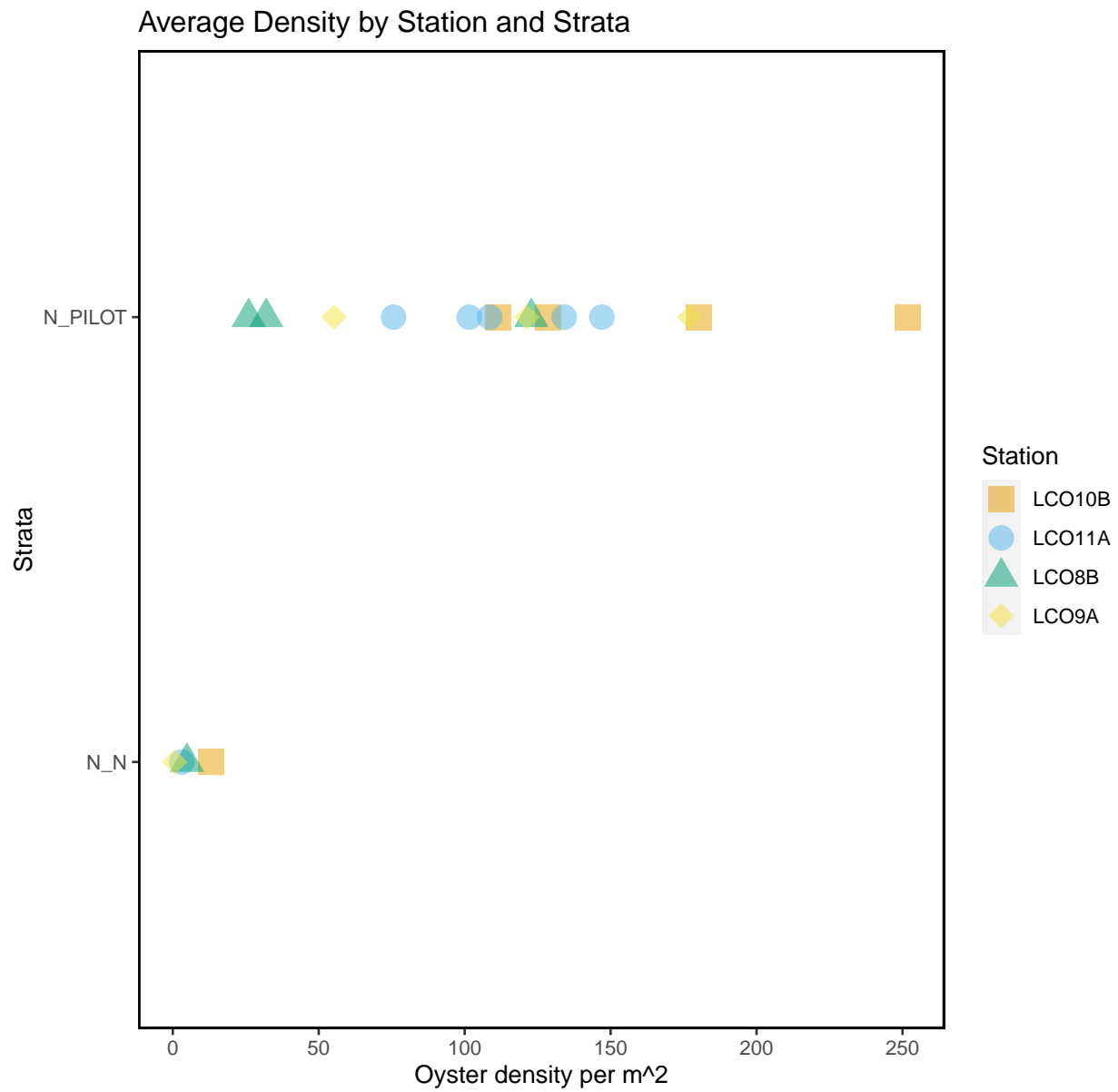
Average Density by Station and Strata

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

Latest Data Entered

Displayed are the entries for the last date of sampling (2021-12-08).

date	station	tran_length	count_live	count_dead	treatment	strata
2021-12-08	LTI15	2.5	88	10	control	N_N
2021-12-08	LTI15	5.0	162	13	control	N_N
2021-12-08	LTI15	7.5	147	11	control	N_N
2021-12-08	LTI15	10.0	233	11	control	N_N
2021-12-08	LTI15	12.5	158	12	control	N_N
2021-12-08	LTI15	13.4	72	5	control	N_N
2021-12-08	LCI52	2.5	67	30	control	Y_N
2021-12-08	LCI52	5.0	121	41	control	Y_N
2021-12-08	LCI52	7.5	166	32	control	Y_N
2021-12-08	LCI52	10.0	108	33	control	Y_N
2021-12-08	LCI52	12.5	121	44	control	Y_N
2021-12-08	LCI52	15.0	46	11	control	Y_N
2021-12-08	LCI52	17.5	101	35	control	Y_N
2021-12-08	LCI52	20.0	87	41	control	Y_N
2021-12-08	LCI52	22.5	92	34	control	Y_N
2021-12-08	LCI52	25.0	184	57	control	Y_N
2021-12-08	LCI52	27.5	166	29	control	Y_N
2021-12-08	LCI52	30.0	74	20	control	Y_N
2021-12-08	LCI52	30.4	1	0	control	Y_N
2021-12-08	LCI52	2.5	62	28	control	Y_N
2021-12-08	LCI52	5.0	131	22	control	Y_N
2021-12-08	LCI52	7.5	179	25	control	Y_N
2021-12-08	LCI52	10.0	104	24	control	Y_N
2021-12-08	LCI52	12.5	115	35	control	Y_N
2021-12-08	LCI52	15.0	53	6	control	Y_N
2021-12-08	LCI52	17.5	102	24	control	Y_N
2021-12-08	LCI52	20.0	101	40	control	Y_N
2021-12-08	LCI52	22.5	101	30	control	Y_N
2021-12-08	LCI52	25.0	185	51	control	Y_N
2021-12-08	LCI52	27.5	166	29	control	Y_N
2021-12-08	LCI52	30.0	85	17	control	Y_N
2021-12-08	LCI52	30.4	1	0	control	Y_N