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 2022-2023) and how the collected data compare to last year's sampling (Winter 2021-2022). So far 9 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, 153 days have been sampled over this entire project.

Definition of Localities

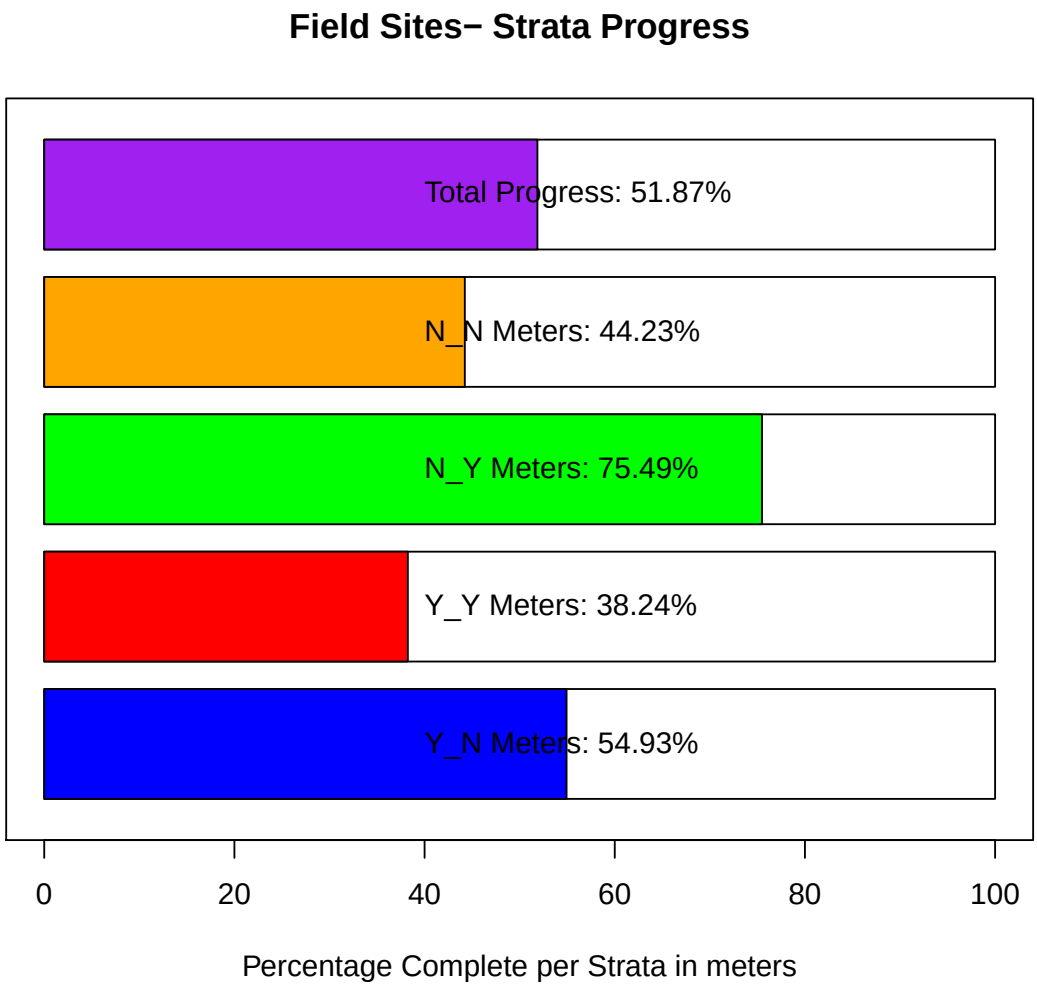
LOCALITY	LOCATION
BT	Big Trout
CK	Cedar Key
CR	Corrigan's Reef
HB	Horseshoe Beach
LC	Lone Cabbage
LT	Little Trout
NN	No Name

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



Summary Tables for Periods 20, 22, 24, and 26

These summary tables provide summary statistics on live counts and oyster densities for just periods **20 (Winter 2019-2020), 22 (Winter 2020-2021), 24 (Winter 2021-2022), and 26 (Winter 2022-2023).**

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)

Data are aggregated by station and period and then summarized in the tables below. Live counts are the number of live oysters summarized by locality, strata, and period, and density is the number of live oysters per square meter summarized by locality, strata, and period.

Summary of Live Counts for Periods 20, 22, 24, and 26

Live Oyster Counts by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	1331	766	2188	4789476	1.64	607	141	2521	1337	563	2638
LC	1877	1125	2068	4276466	1.10	188	1508	2245	1869	1532	2224
LT	1097	877	582	338863	0.53	150	802	1392	1088	840	1407
NN	842	714	639	408613	0.76	202	446	1238	843	514	1240

Live Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	1083	767	1185	1403189	1.09	154	781	1385	1092	837	1456
N_PILOT	2180	3009	1582	2501624	0.73	913	390	3970	2179	356	3174
N_Y	3650	3674	2182	4759072	0.60	412	2842	4458	3658	2871	4467
Y_N	706	612	645	416654	0.91	88	534	878	707	552	890
Y_Y	3900	3320	2737	7492380	0.70	707	2514	5285	3854	2498	5168

Live Oyster Counts by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
20	1844	1253	2125	4517189	1.2	310	1236	2451	1834	1279	2515
22	1334	702	1693	2867783	1.3	242	860	1808	1337	922	1847
24	1729	942	1845	3403035	1.1	266	1207	2251	1728	1225	2282
26	2283	776	2381	5670178	1.0	615	1078	3488	2295	1171	3460

Live Density by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	235	205	192	37004	0.82	53.4	131	340	236	153	345
LC	166	161	109	11948	0.66	9.9	146	185	166	148	186
LT	320	321	129	16749	0.40	33.4	255	386	318	259	383
NN	233	174	230	52911	0.99	72.7	91	376	236	122	392

Live Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	239	192	163	26724	0.69	21	197	280	239	200	283
N_PILOT	143	147	39	1557	0.28	23	98	188	142	102	180
N_Y	179	180	83	6878	0.46	16	148	209	179	150	208
Y_N	156	149	131	17096	0.84	18	121	191	156	124	195
Y_Y	154	156	77	5927	0.50	20	115	193	155	117	191

Live Density by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
20	256	203	187	35057	0.73	27	203	310	257	210	310
22	137	121	93	8638	0.68	13	111	163	137	112	165
24	185	181	92	8385	0.49	13	159	211	186	160	212
26	174	174	117	13582	0.67	30	115	233	175	120	231

Summary of Dead Counts for Periods 20, 22, 24, and 26

Dead Oyster Counts by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	163	98	175	30535	1.07	48	68	258	165	97	269
LC	175	128	182	33036	1.04	16	143	208	175	144	209
LT	206	137	151	22760	0.73	39	130	282	207	139	287
NN	102	72	94	8760	0.92	30	44	160	102	57	165

Dead Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	171	115	167	27877	0.97	22	129	214	172	133	216
N_PILOT	136	127	131	17150	0.97	76	-13	284	136	47	270
N_Y	196	166	143	20537	0.73	27	143	249	195	144	247
Y_N	119	79	126	15834	1.05	17	86	153	120	87	152
Y_Y	338	232	291	84644	0.86	75	190	485	338	214	487

Dead Oyster Counts by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
20	148	107	140	19727	0.95	20	108	188	148	111	190
22	191	128	193	37399	1.01	28	137	245	190	140	247
24	192	130	194	37816	1.01	28	137	247	192	143	249
26	131	115	131	17265	1.00	33	67	196	131	76	198

Dead Oyster Density by Locality

Locality	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
BT	36	28	23	534	0.64	6.4	23	48	36	25	48
LC	21	12	22	466	1.02	2.0	17	25	21	18	25
LT	56	50	30	881	0.53	7.7	41	71	55	41	70
NN	27	21	22	500	0.83	7.1	13	41	27	15	41

Dead Oyster Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	37.9	32.5	26.5	700	0.70	3.4	31.2	45	38.0	31.6	45
N_PILOT	7.6	7.6	5.0	25	0.66	2.9	1.9	13	7.6	2.6	13
N_Y	9.9	9.6	6.4	42	0.65	1.2	7.5	12	10.0	7.8	12
Y_N	26.2	16.9	25.5	650	0.97	3.4	19.4	33	26.3	19.9	33
Y_Y	12.2	12.1	5.0	25	0.41	1.3	9.7	15	12.2	9.9	15

Dead Oyster Density by Period

Period	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
20	28	18	26	682	0.94	3.8	20.2	35	28	20.7	35
22	28	14	28	807	1.00	4.1	20.5	36	28	20.8	37
24	26	19	21	438	0.81	3.0	19.8	32	26	20.0	32
26	14	10	15	225	1.06	3.8	6.9	22	14	8.2	22

Summary Plots for Periods 20, 22, 24, and 26

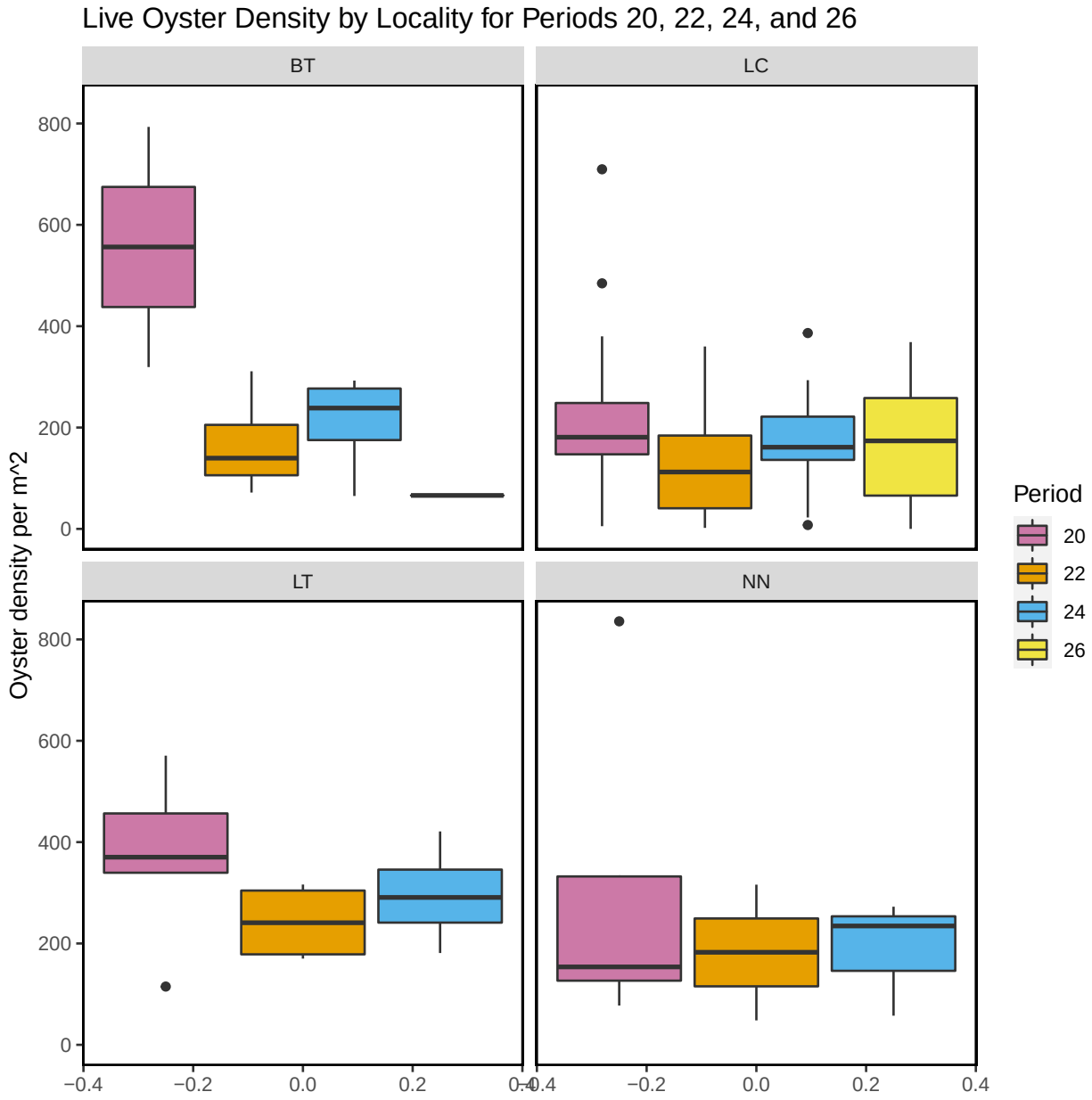


Figure- Calculated live oyster density by locality for periods 20 (Winter 2019-2020), 22 (Winter 2020-2021), 24 (Winter 2021-2022), and 26 (Winter 2022-2023) with the last sample date of period 26 as 2023-01-07.

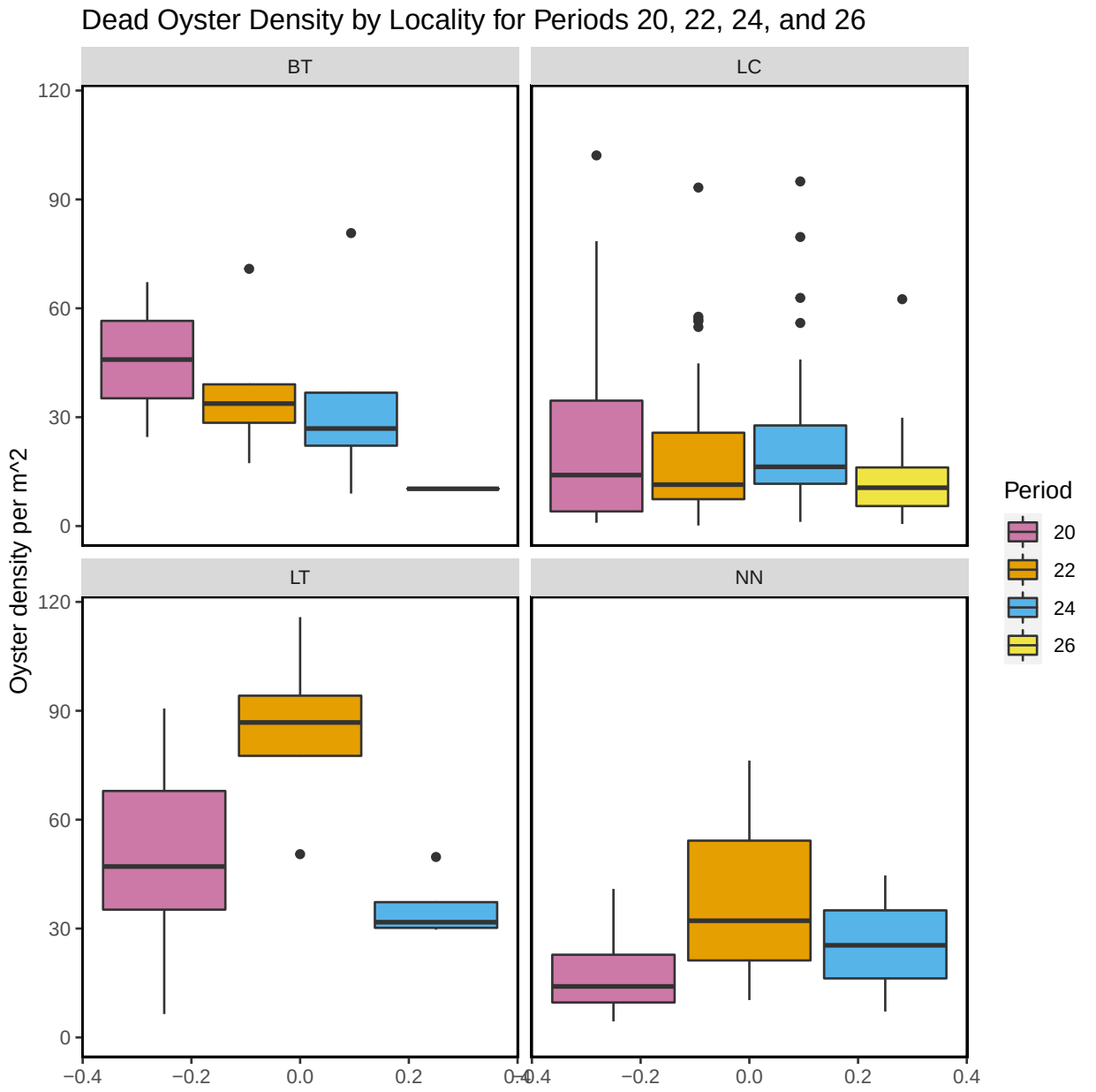


Figure- Calculated dead oyster density by locality for periods 20 (Winter 2019-2020), 22 (Winter 2020-2021), 24 (Winter 2021-2022), and 26 (Winter 2022-2023) with the last sample date of period 26 as 2023-01-07.

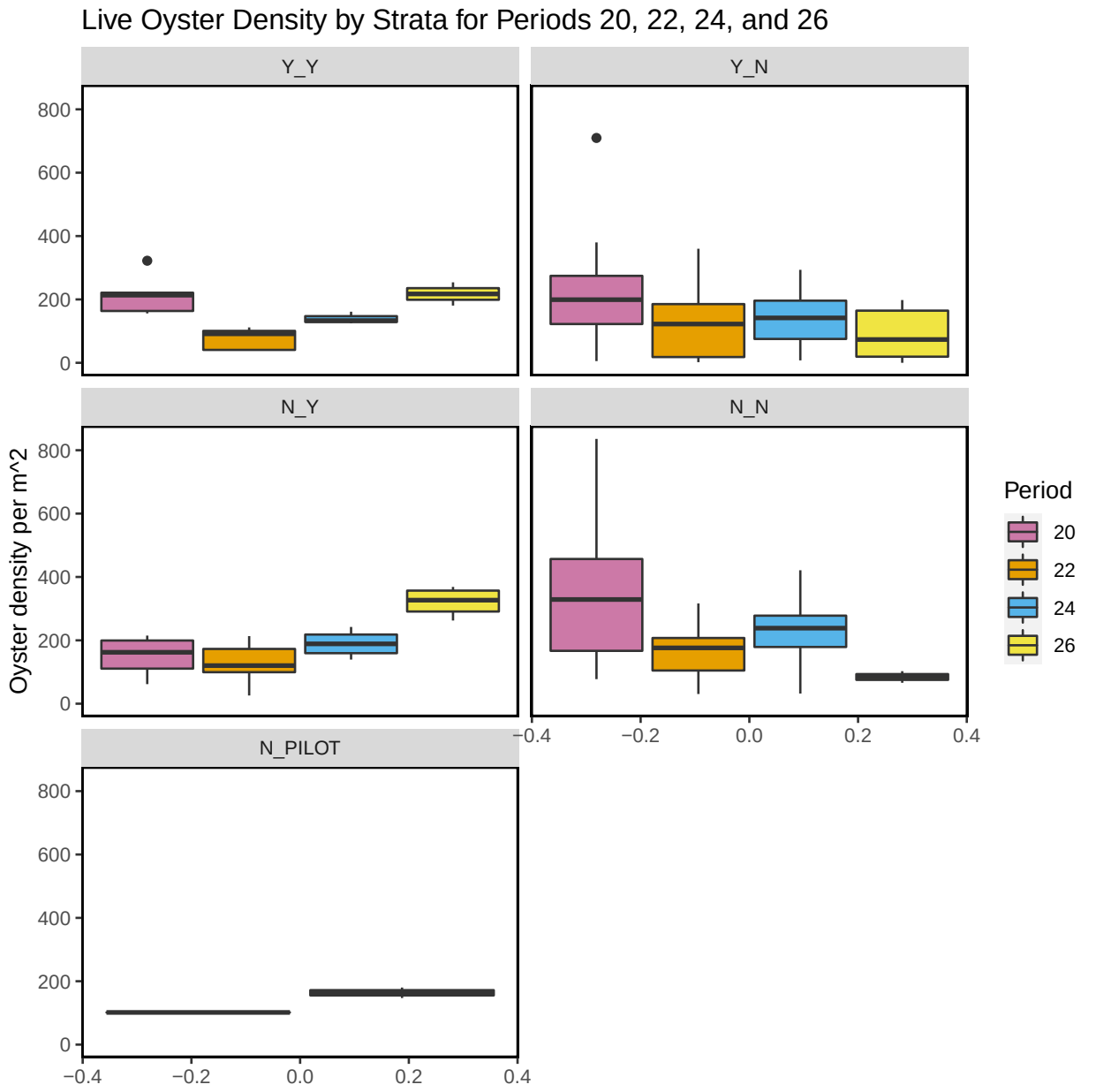


Figure- Calculated live oyster density by strata for periods 20 (Winter 2019-2020), 22 (Winter 2020-2021), 24 (Winter 2021-2022), and 26 (Winter 2022-2023) with the last sample date of period 26 as 2023-01-07.

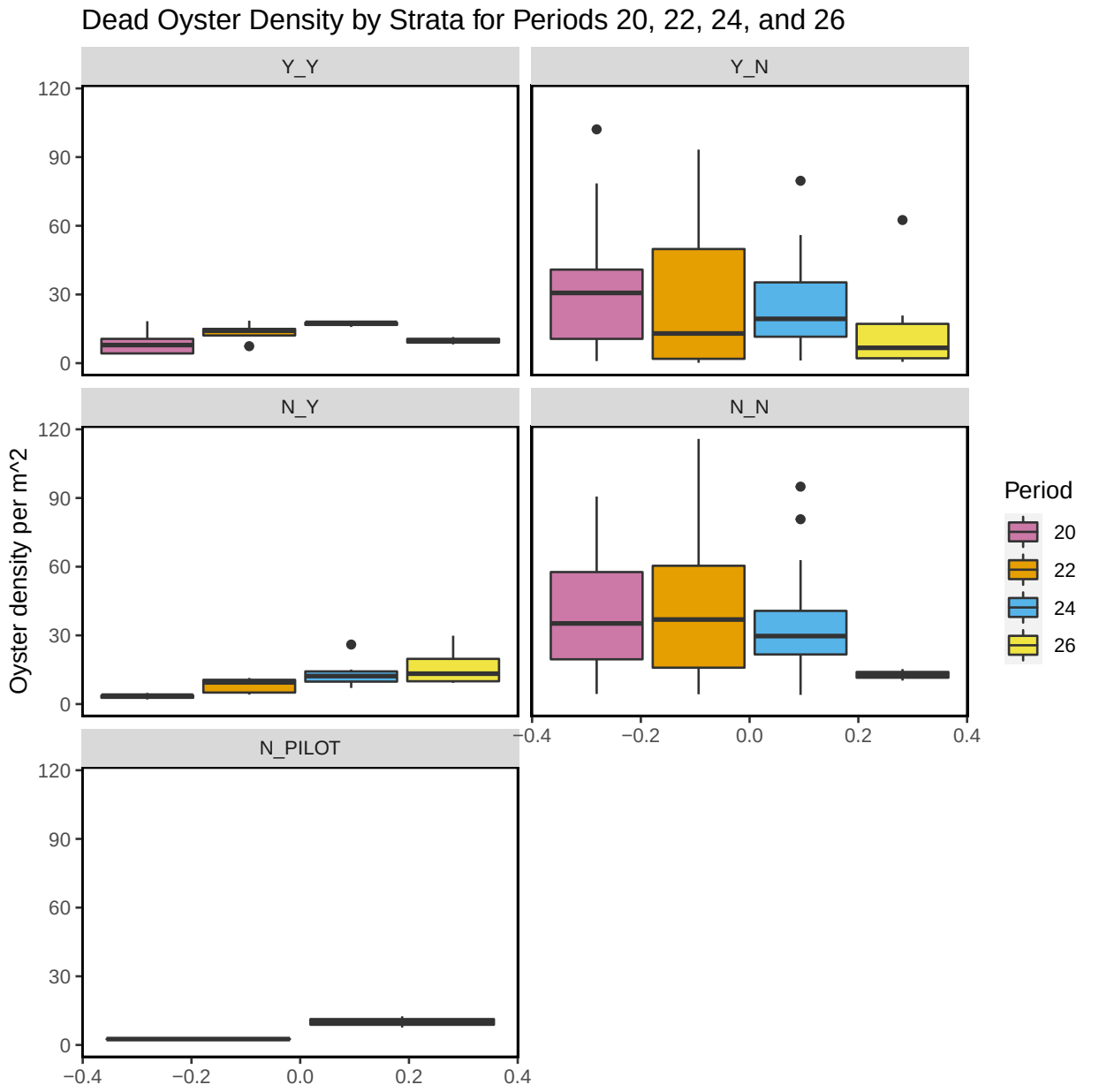


Figure- Calculated dead oyster density by strata for periods 20 (Winter 2019-2020), 22 (Winter 2020-2021), 24 (Winter 2021-2022), and 26 (Winter 2022-2023) with the last sample date of period 26 as 2023-01-07.

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.

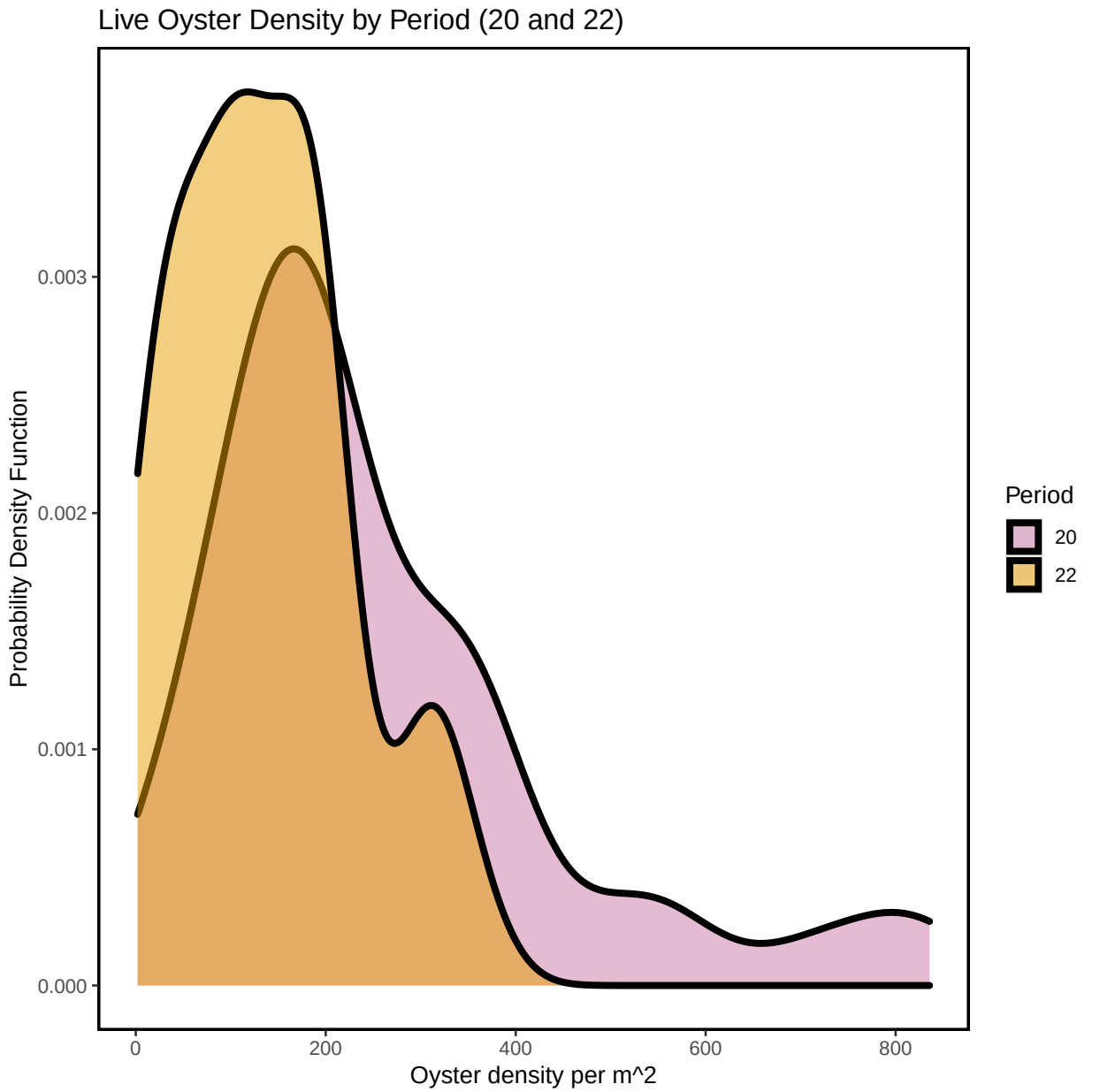


Figure- Calculated live oyster density by periods 20 (Winter 2019-2020) and 22 (Winter 2020-2021) using a probability density function with the last sample date of period 22 as 2023-01-07.

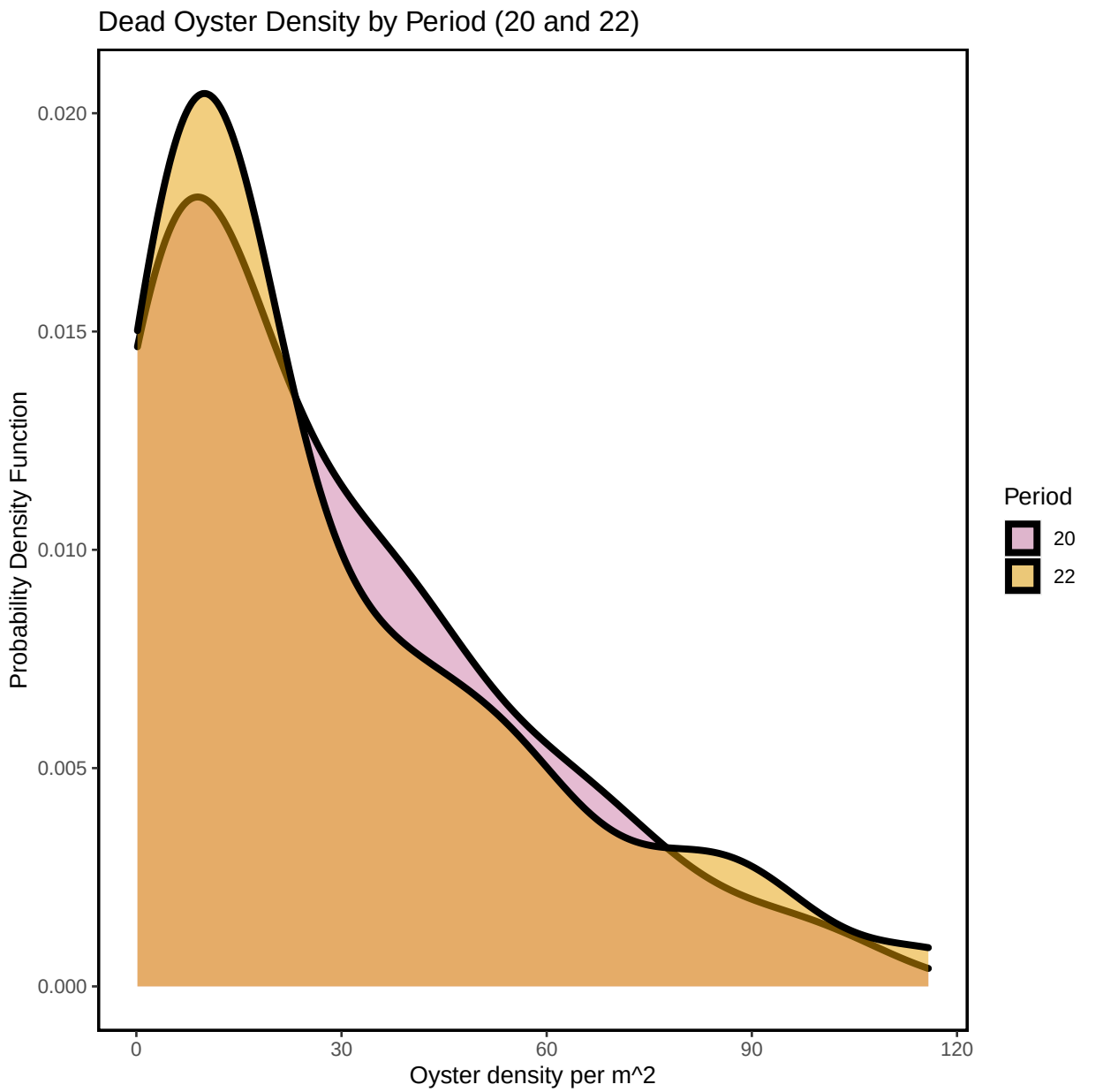


Figure- Calculated dead oyster density by periods 20 (Winter 2019-2020) and 22 (Winter 2020-2021) using a probability density function with the last sample date of period 22 as 2023-01-07.

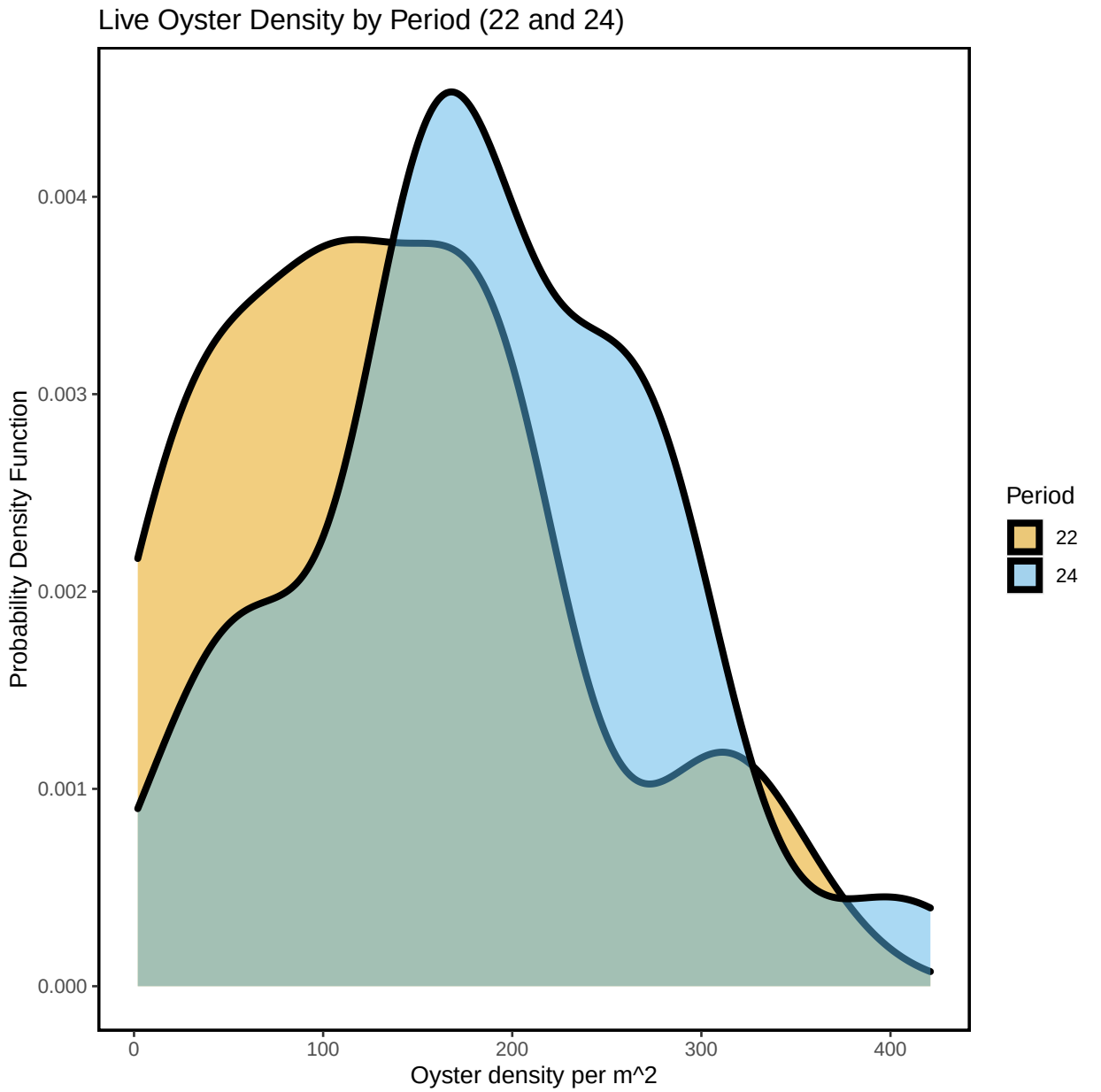


Figure- Calculated live oyster density by periods 22 (Winter 2020-2021) and 24 (Winter 2021-2022) using a probability density function with the last sample date of period 24 as 2023-01-07.

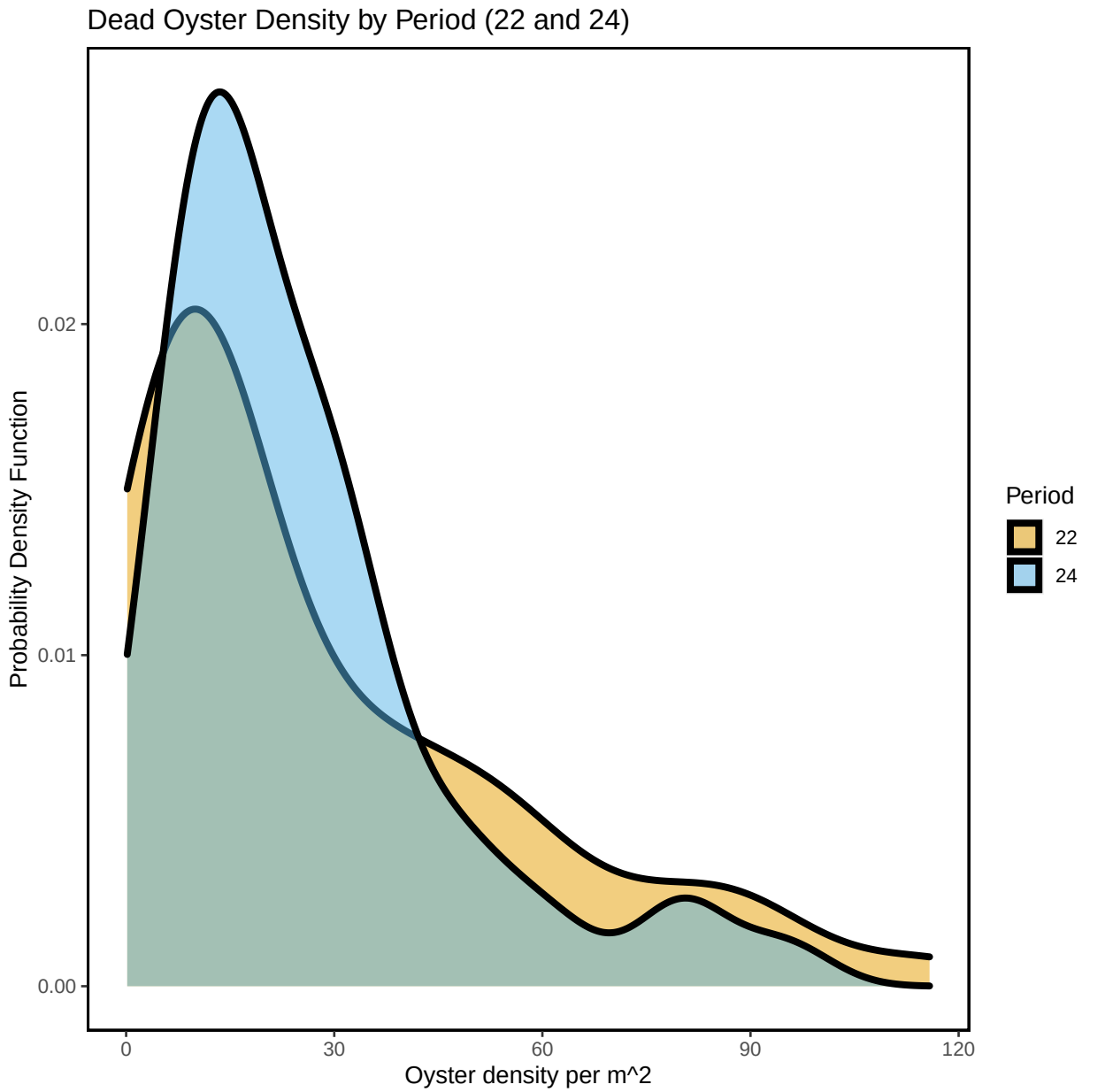


Figure- Calculated dead oyster density by periods 22 (Winter 2020-2021) and 24 (Winter 2021-2022) using a probability density function with the last sample date of period 24 as 2023-01-07.

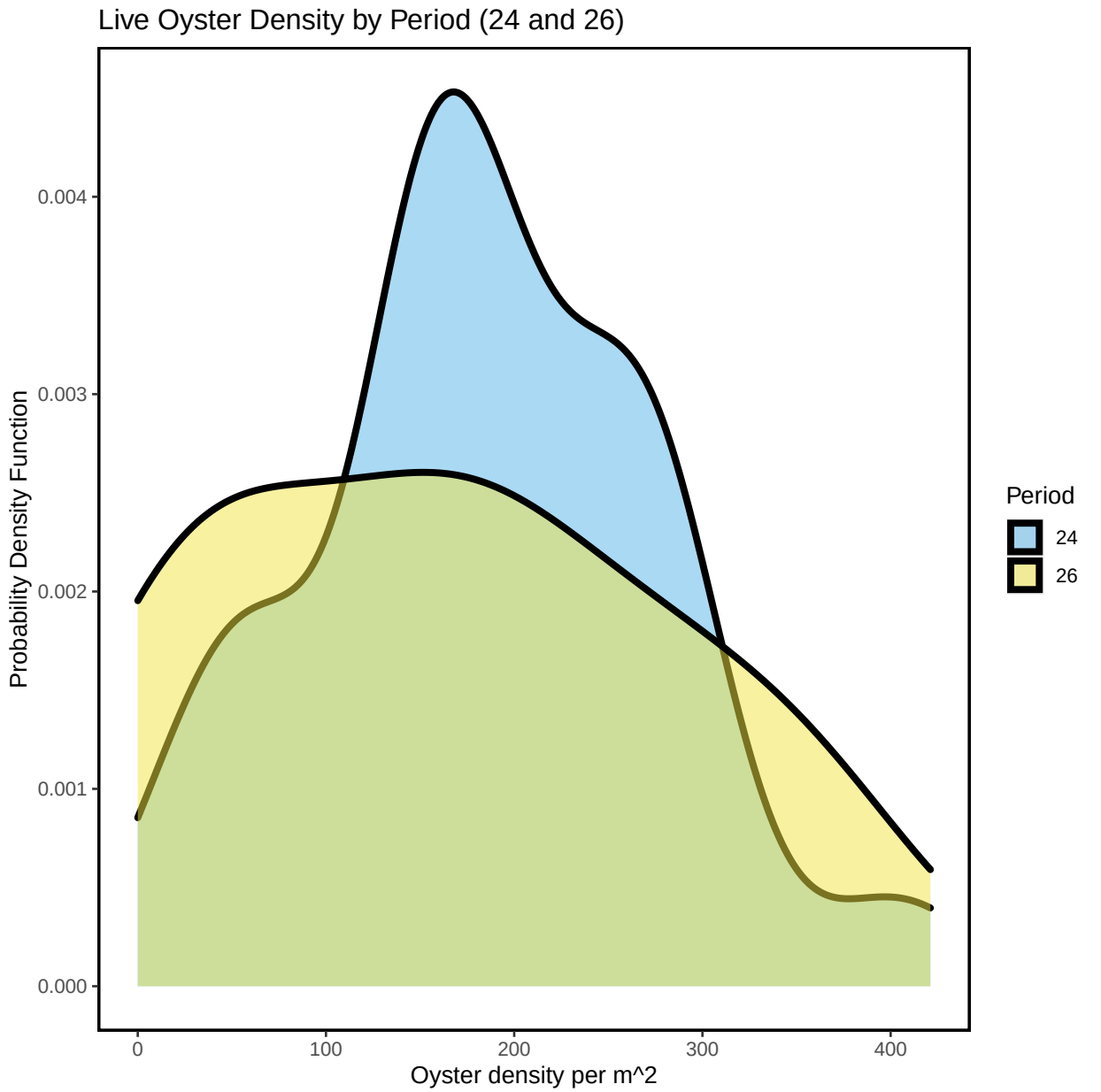


Figure- Calculated live oyster density by periods 24 (Winter 2021-2022) and 26 (Winter 2022-2023) using a probability density function with the last sample date of period 26 as 2023-01-07.

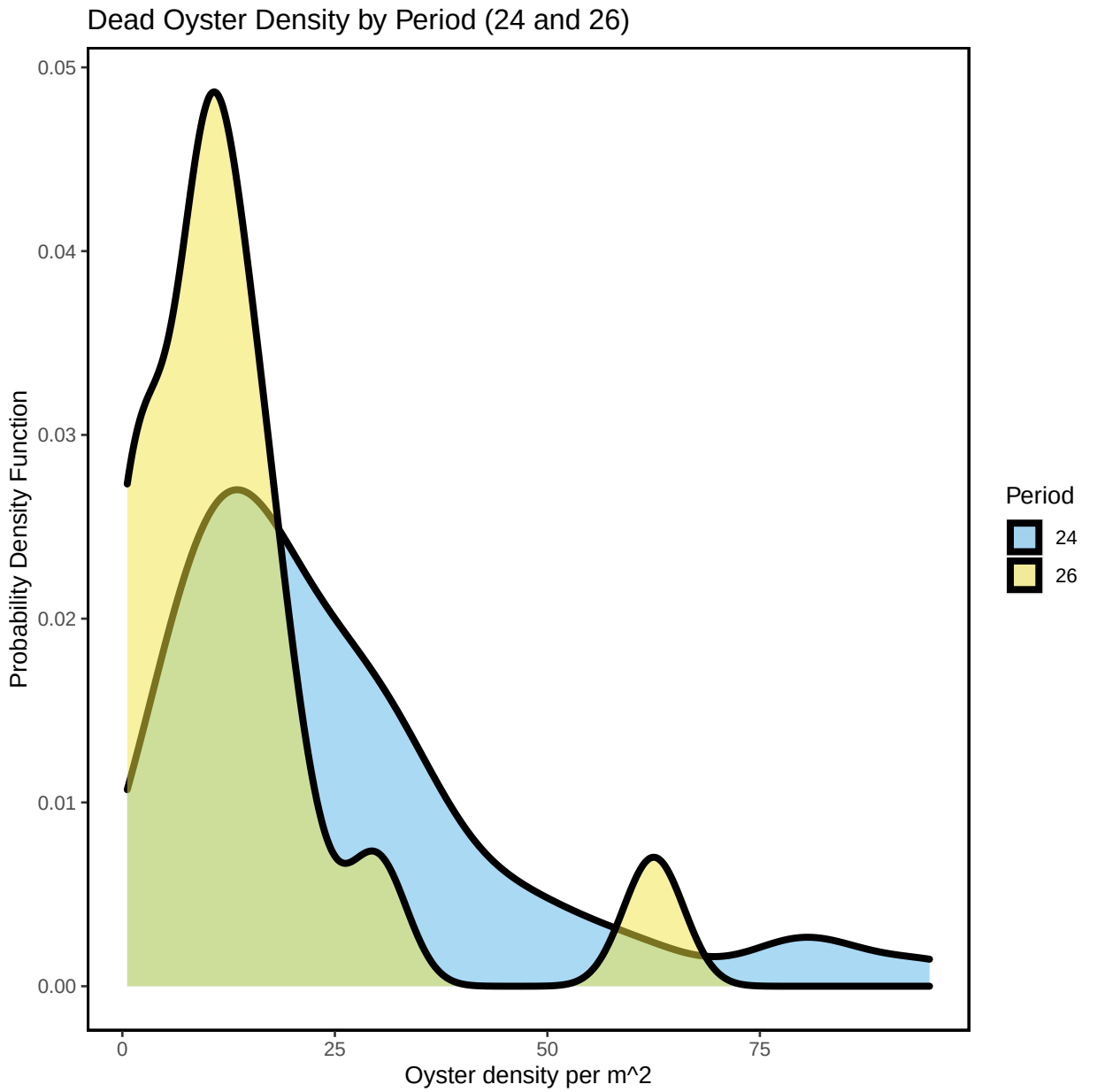


Figure- Calculated dead oyster density by periods 24 (Winter 2021-2022) and 26 (Winter 2022-2023) using a probability density function with the last sample date of period 26 as 2023-01-07.

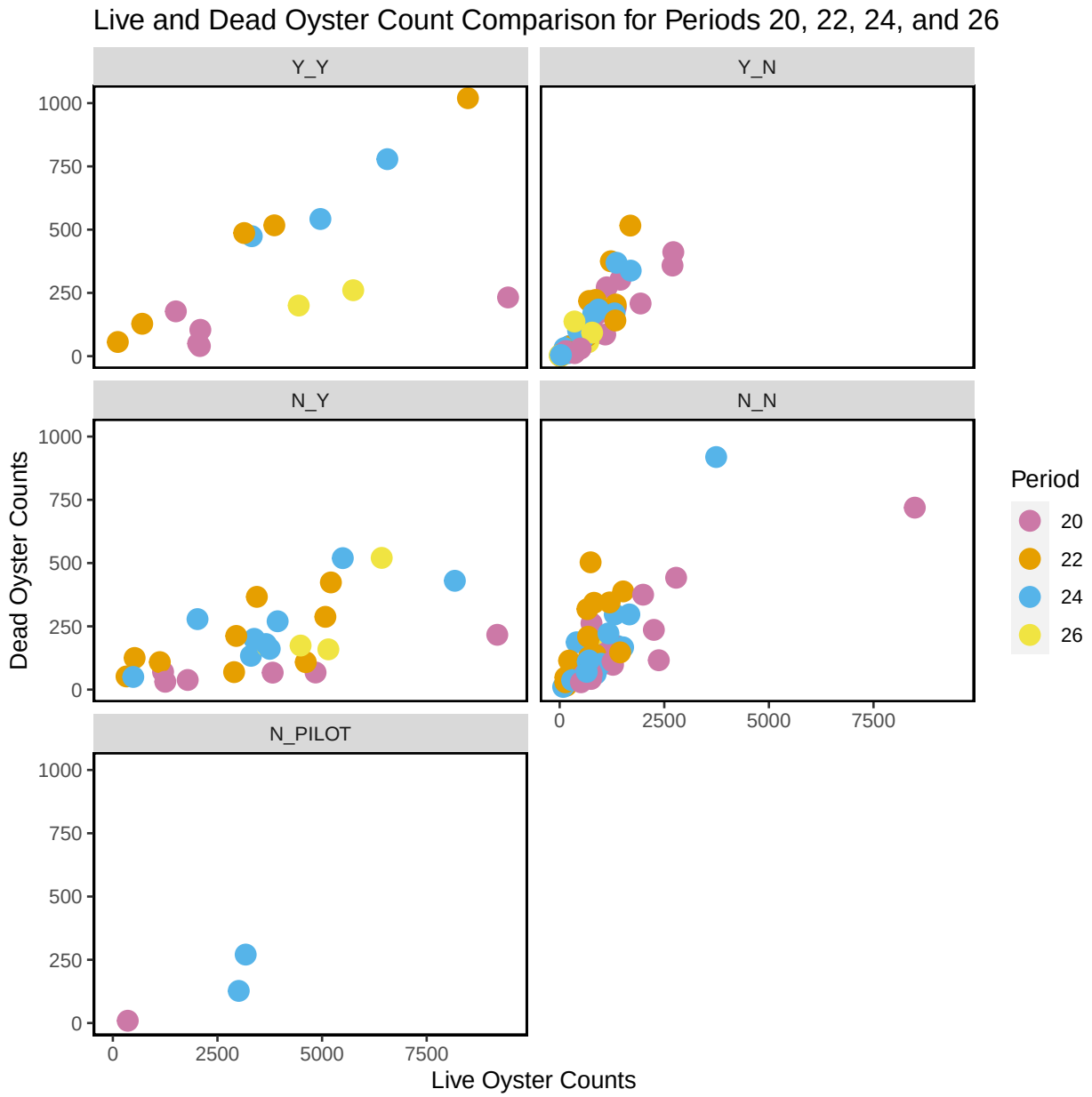


Figure- Live and dead oyster count comparison by periods 20 (Winter 2019-2020), 22 (Winter 2020-2021), 24 (Winter 2021-2022), and 26 (Winter 2022-2023) last sample date of period 26 as 2023-01-07.

Live Counts Double Pass Results

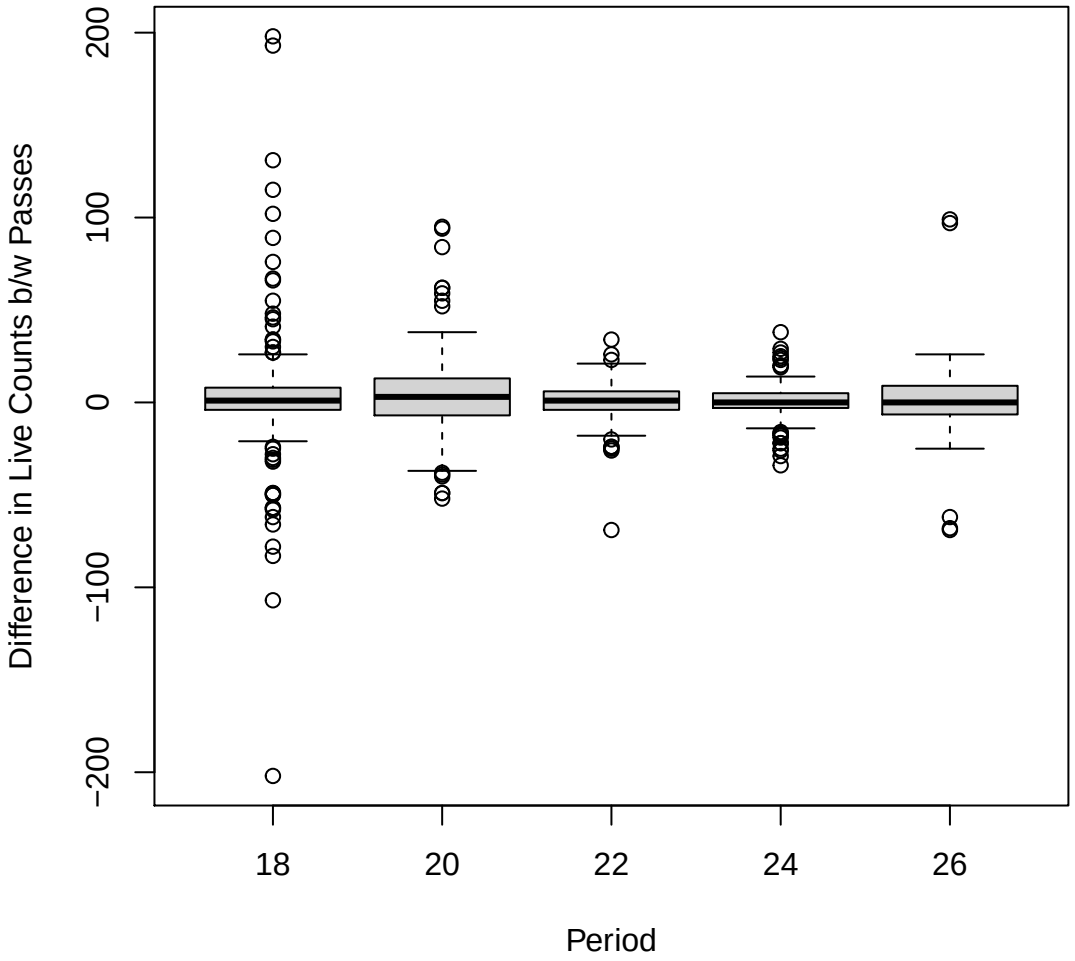


Figure- Boxplot of the difference in live counts between pass 1 and pass 2 (pass 1 live counts - pass 2 live counts) for period 18, 20, 22, 24, and 26

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	-0.44	8.7	-19.5
LC	26	0.85	24.6	28.9

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

Dead Counts Double Pass Results

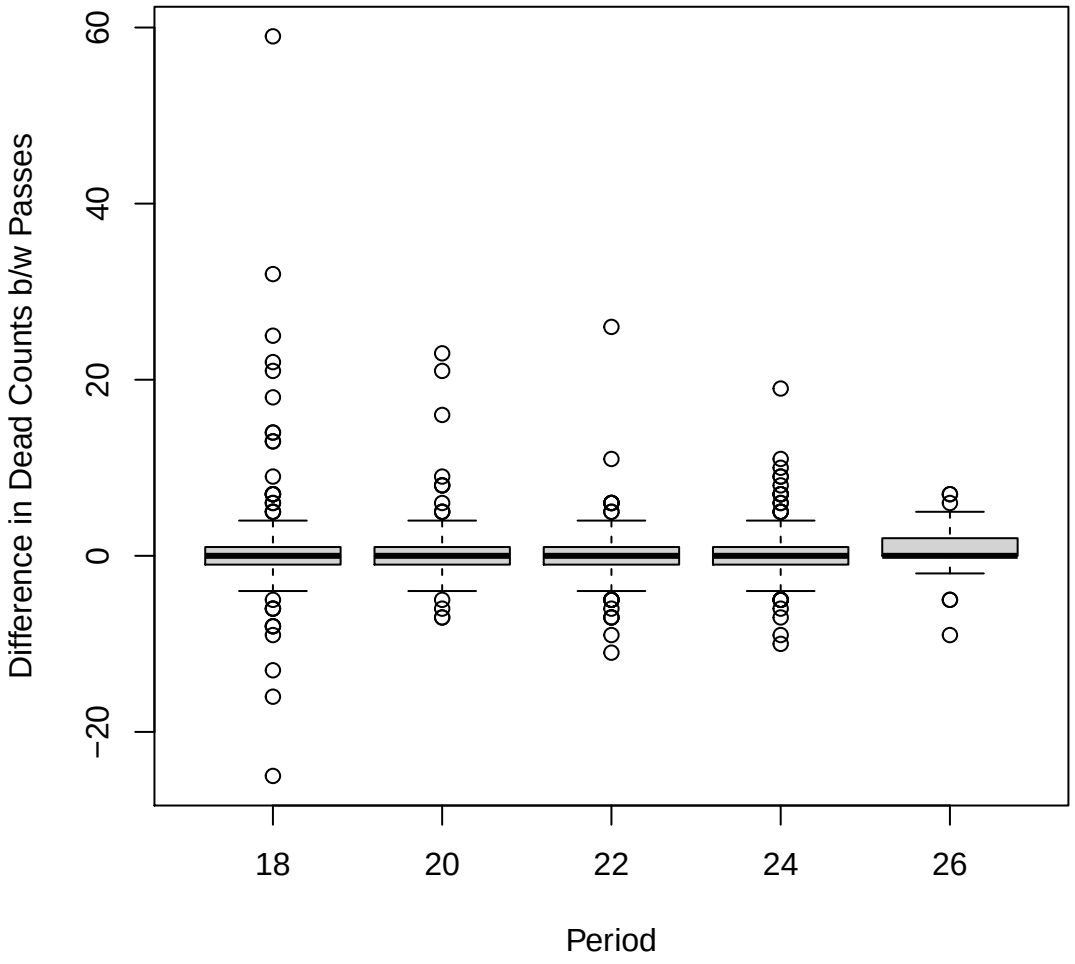


Figure- Boxplot of the difference in dead counts between pass 1 and pass 2 (pass 1 dead counts - pass 2 dead counts) for period 18, 20, 22, 24, and 26

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	1.11
LC	26	0.88	1.27

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 2023-01-07. 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
25	Summer	2022
26	Winter	2022-2023

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	19	640
CK	26	734
CR	46	1375
HB	45	1129
LC	247	14500
LT	21	542
NN	14	357

Effort by Strata

Strata	Number of Transects	Total Length (m)
N_N	134	4379
N_PILOT	15	1050
N_Y	41	4785
Y_N	209	6052
Y_Y	19	3009

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	48	3059
26	16	1037

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	5	122
24	LC	36	2780
24	LT	4	87
24	NN	3	69
26	BT	1	52
26	LC	15	985
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	19	521
24	N_PILOT	2	251
24	N_Y	9	1174
24	Y_N	15	412
24	Y_Y	3	700
26	N_N	2	128
26	N_Y	4	408
26	Y_N	8	177
26	Y_Y	2	324
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

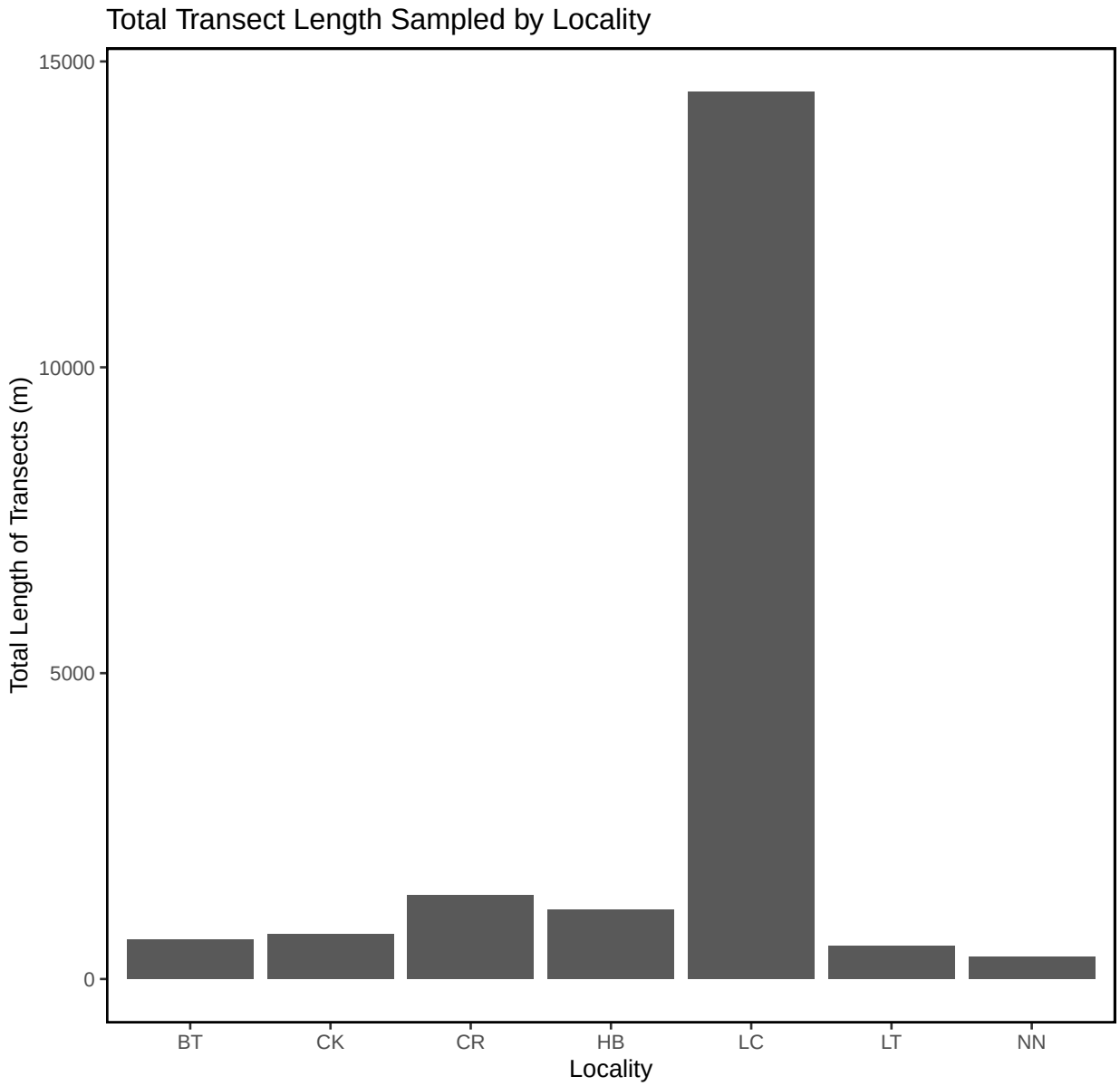


Figure − Bar plot of total transect length in meters sampled by locality for all periods.

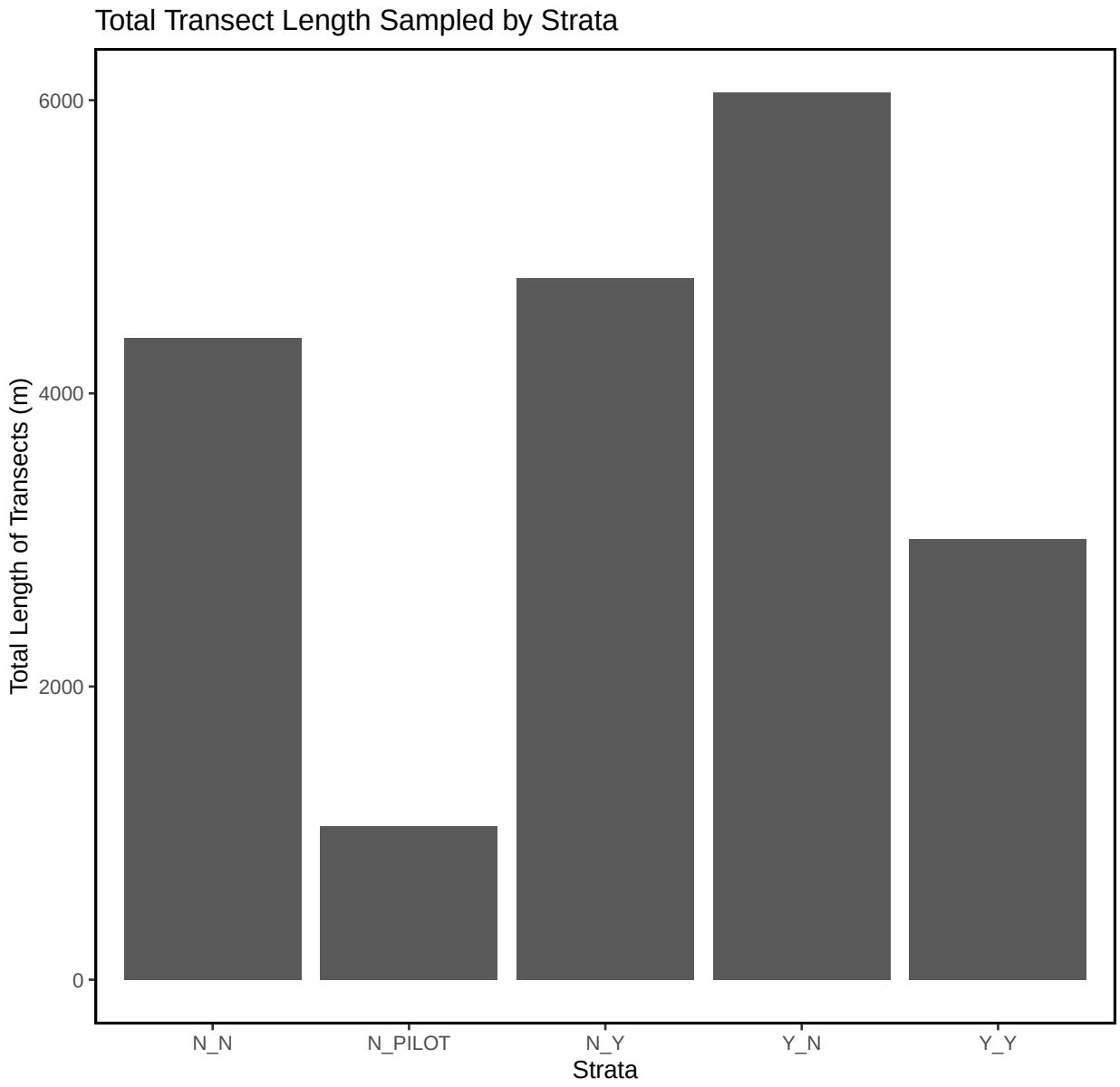
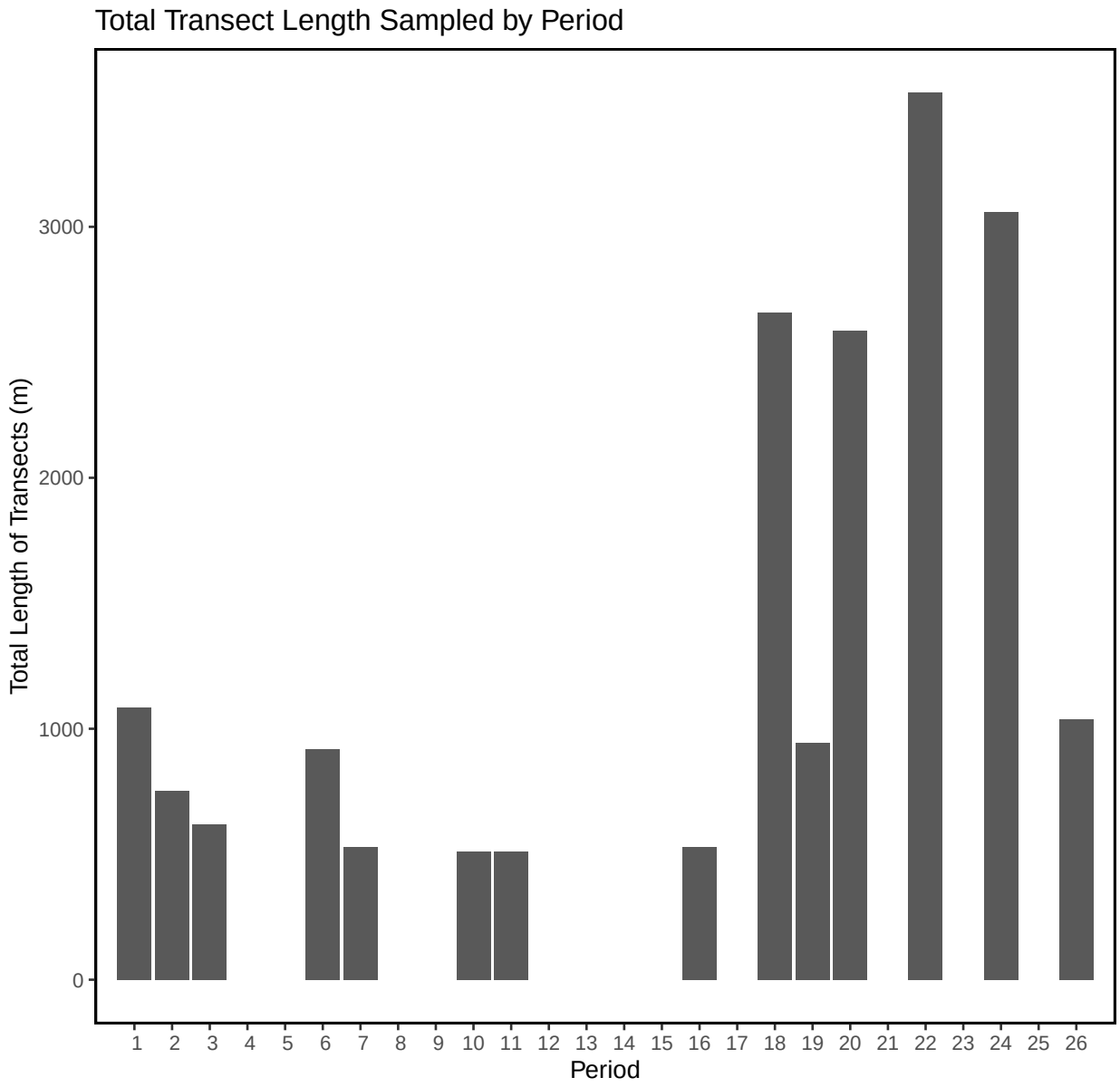


Figure − Bar plot of total transect length in meters sampled by strata for all periods.



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	1372	872	1908	3638919	1.39	438	514	2230	1375	731	2350
CK	857	444	1091	1190933	1.27	214	438	1277	869	491	1314
CR	1026	716	1035	1072162	1.01	153	727	1325	1026	746	1322
HB	902	364	1047	1095622	1.16	158	592	1211	895	602	1186
LC	1311	702	1662	2762957	1.27	107	1102	1520	1314	1120	1537
LT	1026	877	551	303721	0.54	120	790	1262	1022	830	1265
NN	735	674	584	341295	0.79	156	429	1041	723	467	1026

Live Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	989	766	1012	1025017	1.02	88	817	1161	991	831	1172
N_PILOT	1318	1136	925	856059	0.70	239	850	1787	1311	907	1758
N_Y	2912	3060	2212	4892643	0.76	345	2235	3589	2932	2303	3574
Y_N	754	436	882	778347	1.17	62	633	875	757	643	884
Y_Y	3177	2091	2811	7903143	0.88	645	1913	4441	3146	2052	4366

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	1400	1027	1765
2	890	476	945	893727	1.06	176	546	1234	895	571	1242
3	738	296	817	668064	1.11	167	411	1065	735	410	1059
6	433	176	534	284791	1.23	96	245	621	435	267	638
7	50	29	56	3186	1.12	20	11	90	50	18	87
10	1207	1074	671	449607	0.56	237	743	1672	1222	817	1667
11	886	776	678	459708	0.77	240	416	1356	884	498	1335
16	494	366	467	217855	0.95	165	170	817	491	215	804
18	982	695	935	874733	0.95	120	748	1217	976	752	1212
19	555	329	573	328431	1.03	97	365	745	554	373	743
20	1844	1253	2125	4517189	1.15	310	1236	2451	1853	1323	2480
22	1334	702	1693	2867783	1.27	242	860	1808	1342	914	1843
24	1729	942	1845	3403035	1.07	266	1207	2251	1712	1242	2236
26	2283	776	2381	5670178	1.04	615	1078	3488	2276	1186	3477

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	238	218	168	28363	0.71	38.6	162	313	237	167	319
CK	241	112	321	102927	1.33	62.9	118	364	245	135	372
CR	283	178	294	86605	1.04	43.4	198	368	285	204	374
HB	257	101	303	92052	1.18	45.7	168	347	258	175	354
LC	156	132	140	19461	0.90	8.9	138	173	156	139	173
LT	279	261	132	17460	0.47	28.8	222	335	278	228	332
NN	215	174	202	40919	0.94	54.1	109	321	217	128	347

Live Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	253	190	239	56963	0.94	21	212	294	253	213	295
N_PILOT	118	121	59	3467	0.50	15	88	148	118	90	147
N_Y	169	159	97	9362	0.57	15	139	198	168	141	200
Y_N	181	118	209	43681	1.16	15	152	209	181	153	210
Y_Y	128	124	85	7263	0.66	20	90	167	127	92	164

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	394.9	294.7	509.5
2	255	119.0	285.2	81348	1.12	53	151.3	358.9	259.2	165.2	367.4
3	234	85.3	269.3	72523	1.15	55	126.1	341.6	230.6	125.2	343.2
6	121	72.2	150.9	22767	1.25	27	68.1	174.3	121.5	73.5	176.7
7	5	2.9	5.6	31	1.12	2	1.1	8.9	4.9	1.7	8.6
10	124	113.3	67.4	4536	0.54	24	76.9	170.3	123.2	87.2	166.3
11	90	79.5	67.8	4596	0.75	24	43.4	137.4	90.1	50.9	136.8
16	49	36.3	46.4	2154	0.95	16	16.9	81.2	49.8	21.9	81.8
18	176	154.5	130.2	16945	0.74	17	143.7	209.0	176.1	146.7	208.0
19	154	72.7	168.5	28408	1.10	28	97.9	209.6	154.3	102.1	209.5
20	256	202.8	187.2	35057	0.73	27	202.6	309.6	257.2	209.7	308.6
22	137	120.6	92.9	8638	0.68	13	111.2	163.3	137.5	113.4	164.4
24	185	180.6	91.6	8385	0.49	13	159.3	211.1	186.1	161.8	212.0
26	174	173.7	116.5	13582	0.67	30	114.7	232.7	173.4	116.9	233.7

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	249	160	278	77231	1.12	64	123.6	374	250	147	376
CK	78	32	106	11170	1.36	37	4.3	151	79	19	156
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	75
LC	132	73	157	24679	1.19	11	110.5	153	132	112	153
LT	218	141	180	32543	0.83	39	140.5	295	217	144	291
NN	98	72	87	7493	0.88	23	52.5	143	98	61	146

Dead Oyster Counts by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	157	96	189	35865	1.21	19	120	193	157	123	196
N_PILOT	98	89	65	4243	0.67	17	65	131	98	69	132
N_Y	145	70	141	19786	0.97	22	102	188	146	102	187
Y_N	100	56	111	12392	1.11	11	79	121	100	82	121
Y_Y	270	177	290	84120	1.08	67	139	400	272	158	404

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	48
10	80	88	65	4245	0.82	23.0	34.5	125	80	40.4	126
11	50	40	25	620	0.49	8.8	33.2	68	50	35.1	66
16	44	28	41	1708	0.93	14.6	15.6	73	44	18.9	72
18	133	55	192	36903	1.44	24.6	85.1	182	133	90.3	184
19	63	44	67	4548	1.08	11.6	40.0	85	63	41.5	88
20	148	107	140	19727	0.95	20.5	107.6	188	148	110.8	195
22	191	128	193	37399	1.01	27.6	137.2	245	191	142.4	249
24	192	130	194	37816	1.01	28.1	136.8	247	193	142.8	245
26	131	115	131	17265	1.00	32.8	67.1	196	130	76.1	197

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	46	34	33	1076	0.72	7.5	30.9	60	46	31.6	62
CK	21	11	28	757	1.29	9.7	2.3	40	21	5.9	41
CR	18	11	16	247	0.87	5.2	7.8	28	18	9.2	29
HB	13	8	14	201	1.12	4.7	3.4	22	13	5.1	23
LC	18	11	20	413	1.14	1.4	15.0	21	18	14.9	20
LT	54	47	35	1232	0.64	7.7	39.5	70	54	40.1	70
NN	28	21	22	463	0.78	5.7	16.4	39	28	17.5	40

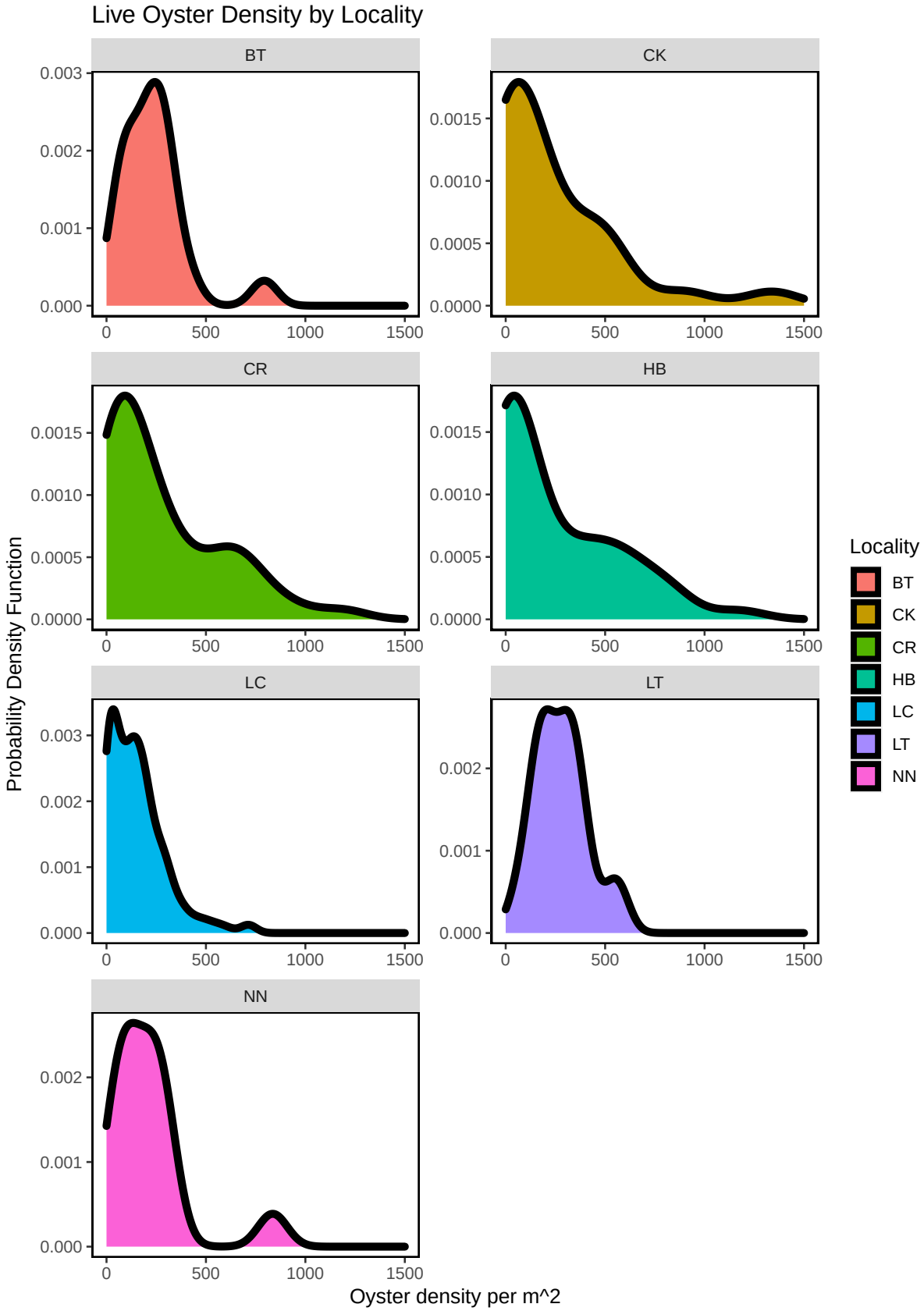
Dead Oyster Density by Strata

Strata	Mean	Median	SD	Var	CV	SE	L95	U95	Bstrap_Mean	L95_Bstrap	U95_Bstrap
N_N	33.1	27.7	30.5	928	0.92	3.0	27.2	39	32.9	27.3	39
N_PILOT	8.7	8.7	4.3	18	0.49	1.1	6.5	11	8.7	6.8	11
N_Y	8.4	8.0	6.6	43	0.78	1.0	6.4	10	8.4	6.4	10
Y_N	22.6	14.3	23.4	548	1.03	2.2	18.3	27	22.6	18.5	27
Y_Y	9.9	10.6	6.4	41	0.65	1.5	7.0	13	9.8	6.9	13

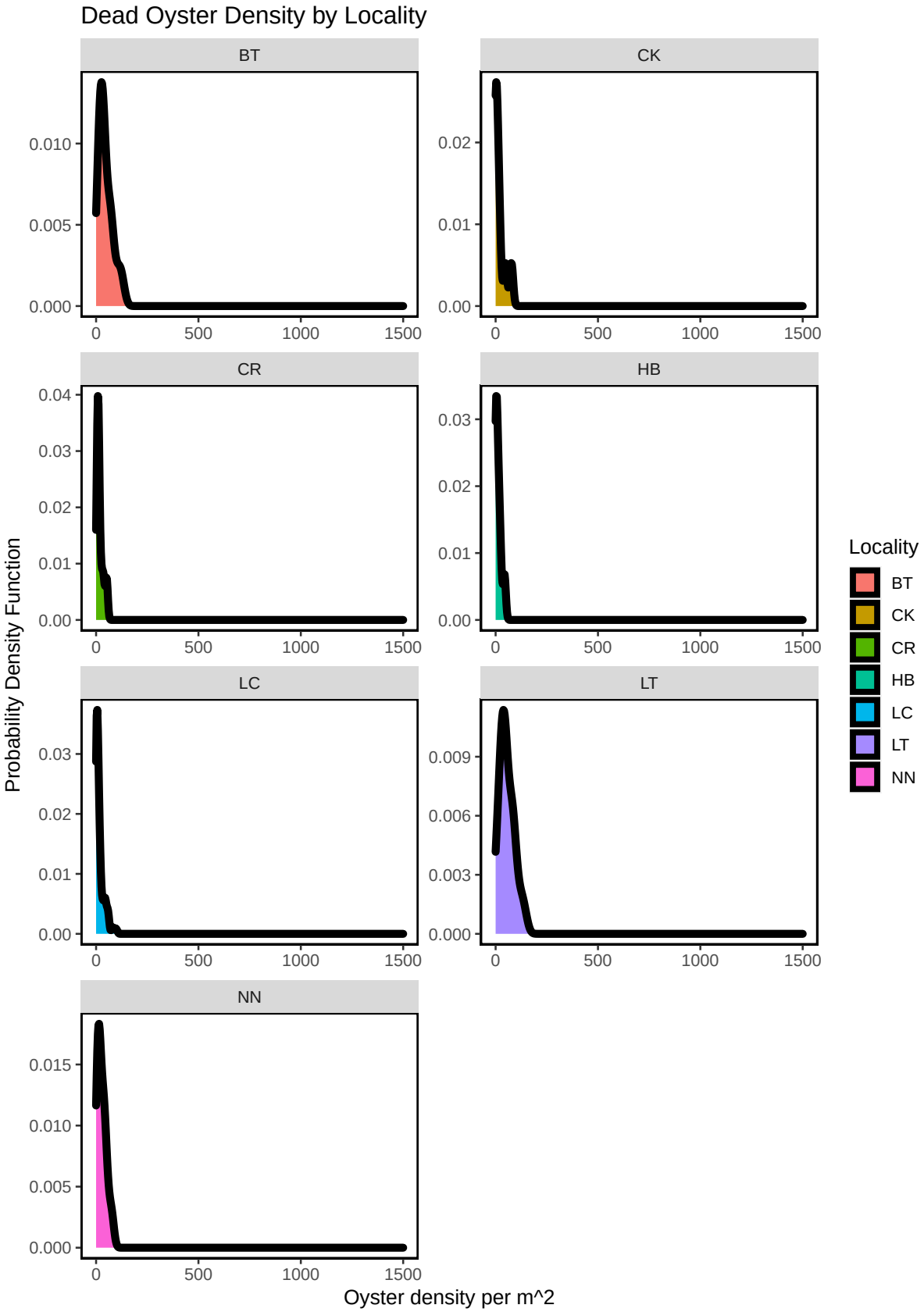
Dead Oyster Density by Period

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	4.9
10	8.2	8.9	6.6	44.0	0.81	2.35	3.58	12.8	8.1	4.4	12.4
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	4.4	2.0	7.1
18	26.4	15.7	31.3	979.8	1.19	4.01	18.50	34.2	26.5	19.4	34.6
19	17.5	10.5	19.3	371.9	1.10	3.31	11.06	24.0	17.4	11.1	23.8
20	27.7	18.4	26.1	681.6	0.94	3.81	20.24	35.2	27.7	20.3	35.0
22	28.5	14.2	28.4	807.0	1.00	4.06	20.53	36.4	28.6	21.0	37.2
24	25.7	19.1	20.9	438.3	0.81	3.02	19.83	31.7	25.8	19.8	31.8
26	14.2	10.4	15.0	225.1	1.06	3.75	6.86	21.6	14.3	8.3	22.2

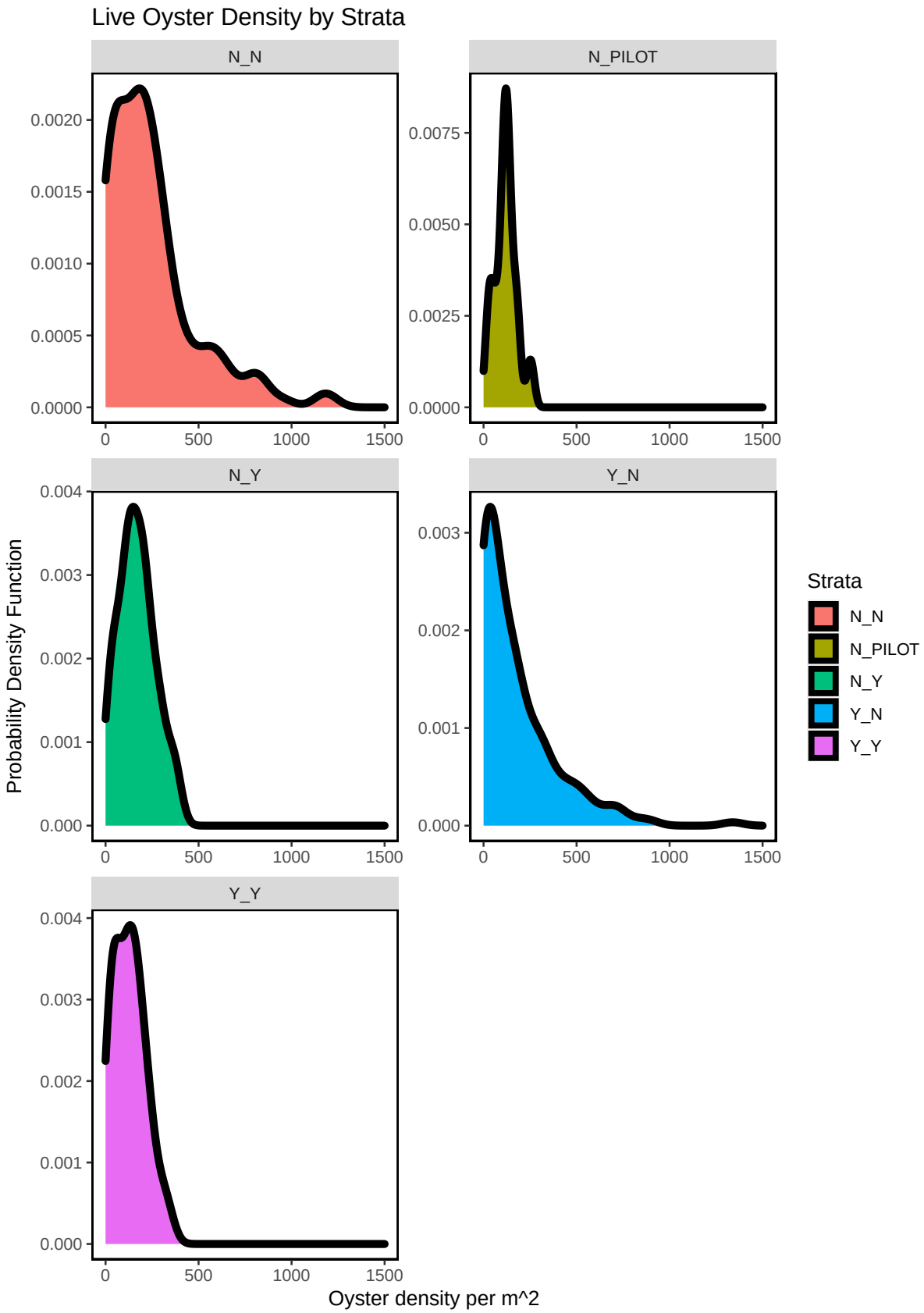
Summary Density Plots for all Periods



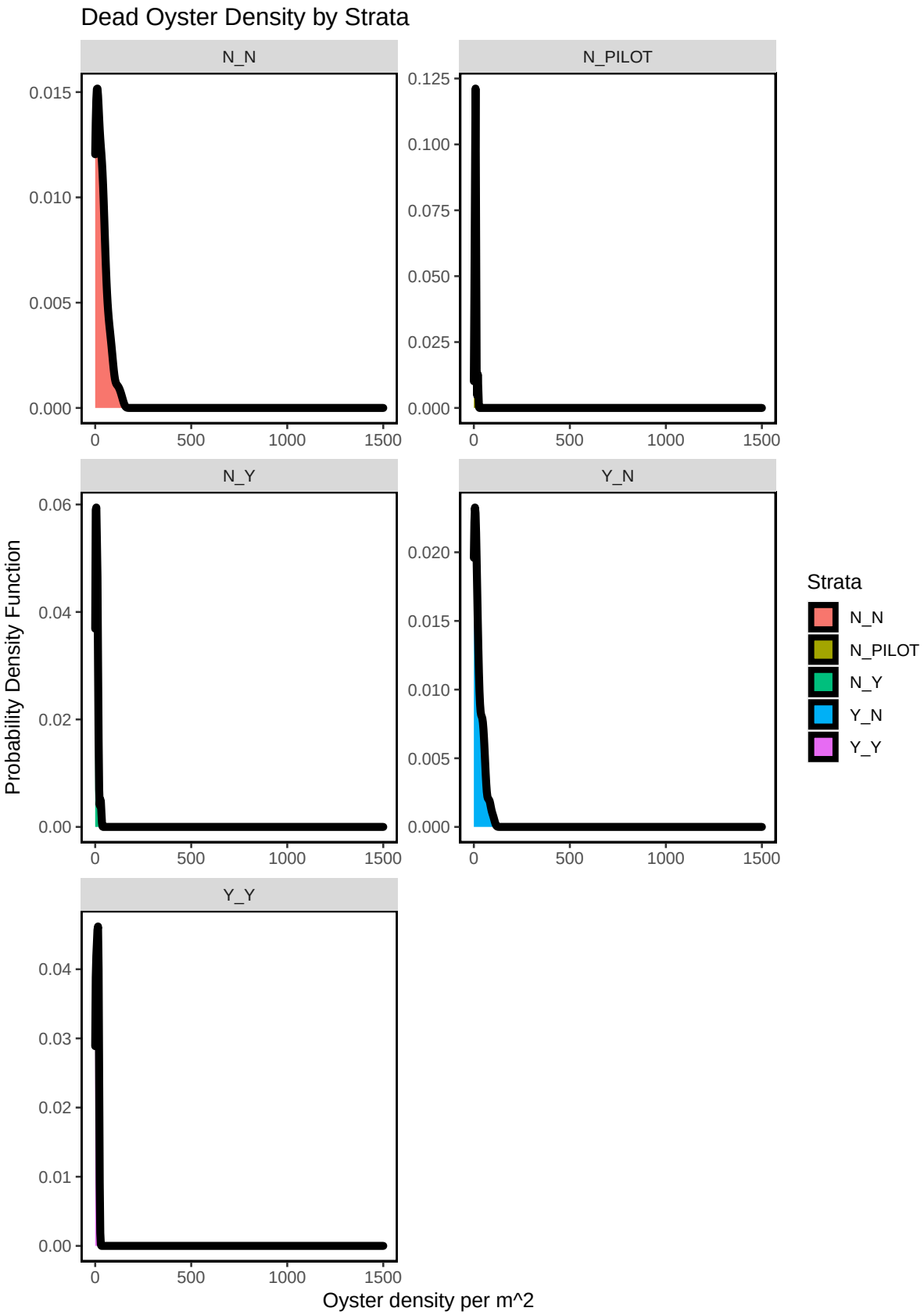
Figure− Calculated live oyster density by locality for all periods including period 22 (current period).



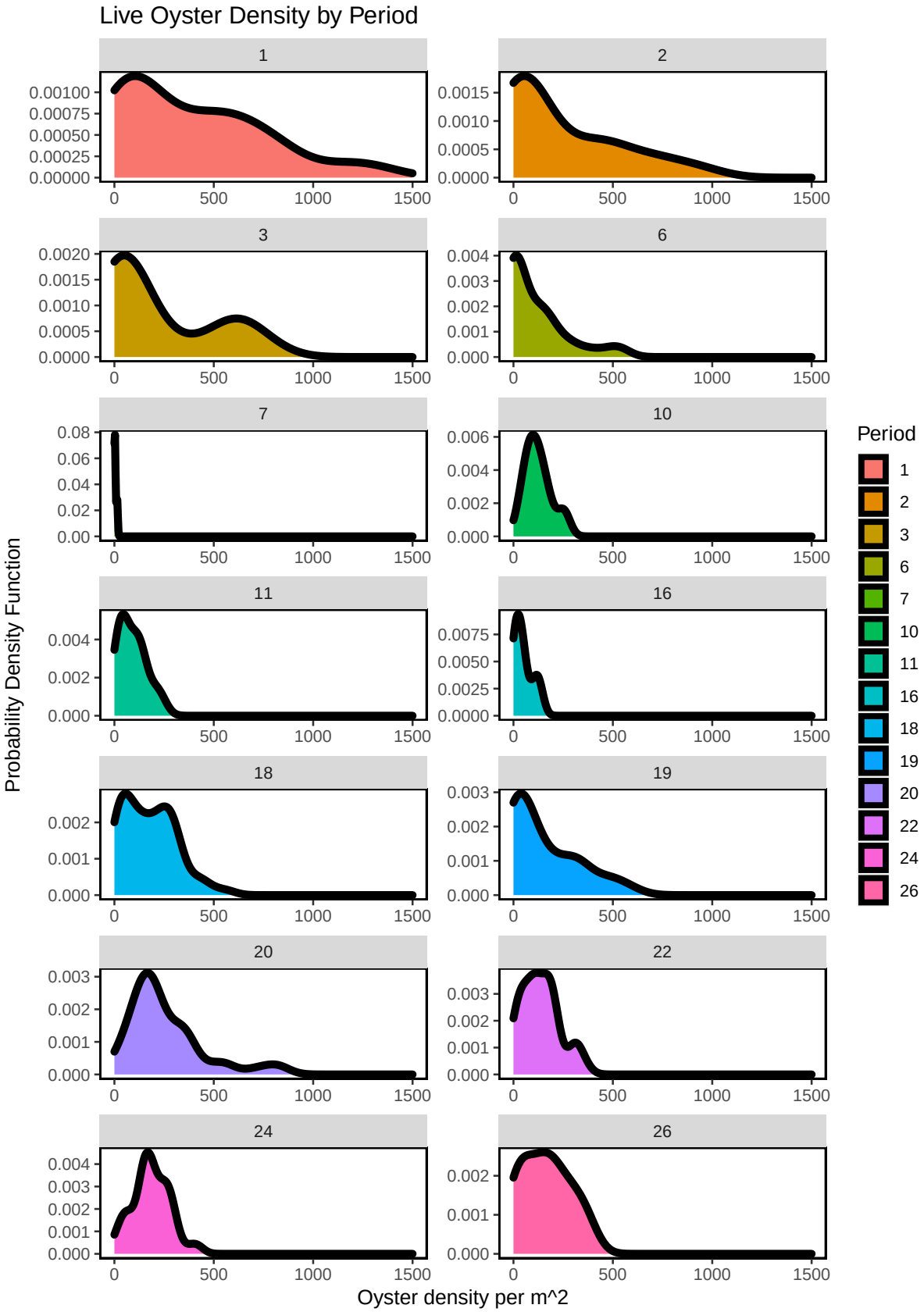
Figure− Calculated dead oyster density by locality for all periods including period 22 (current period).



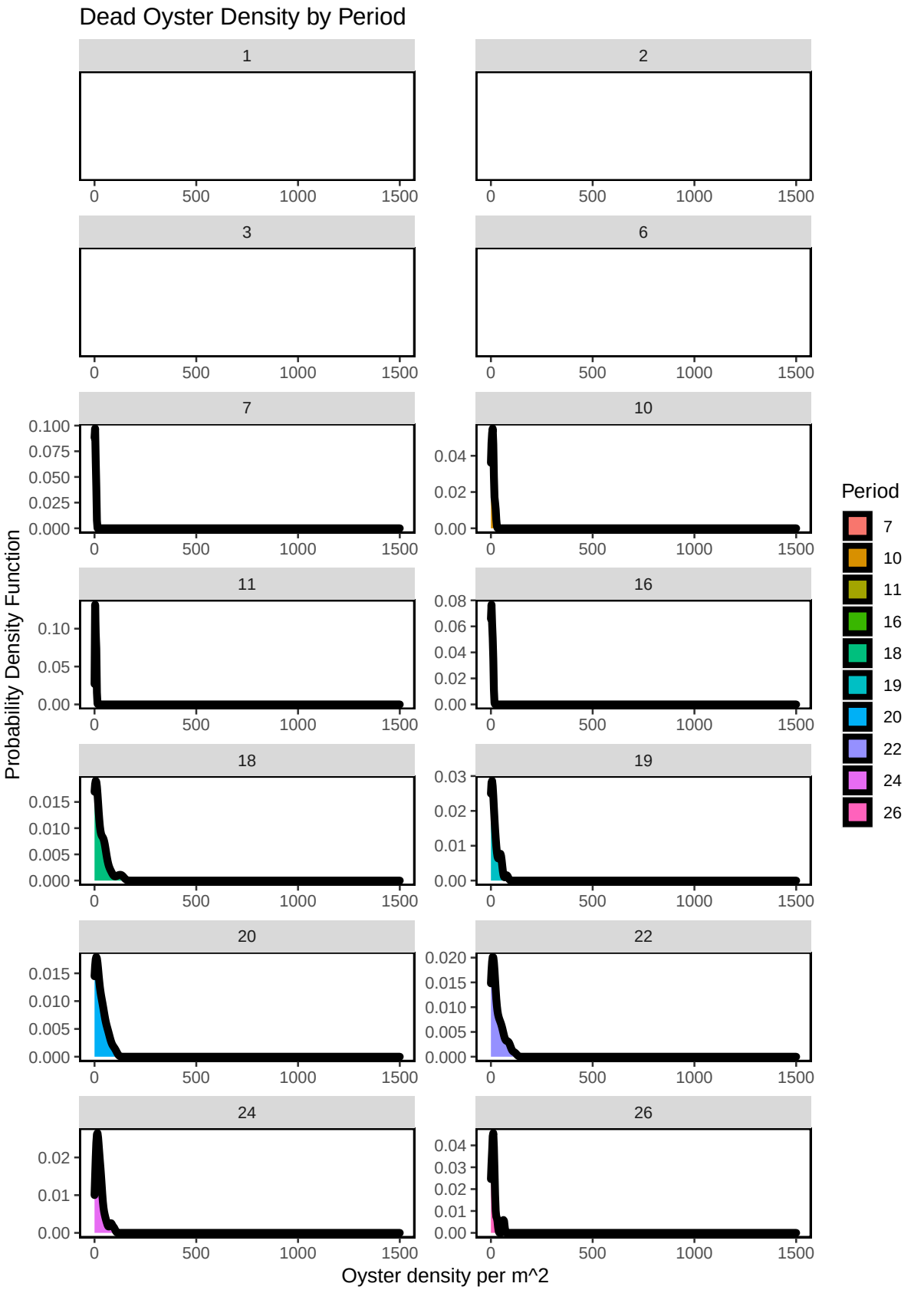
Figure− Calculated live oyster density by strata for all periods including period 22 (current period).



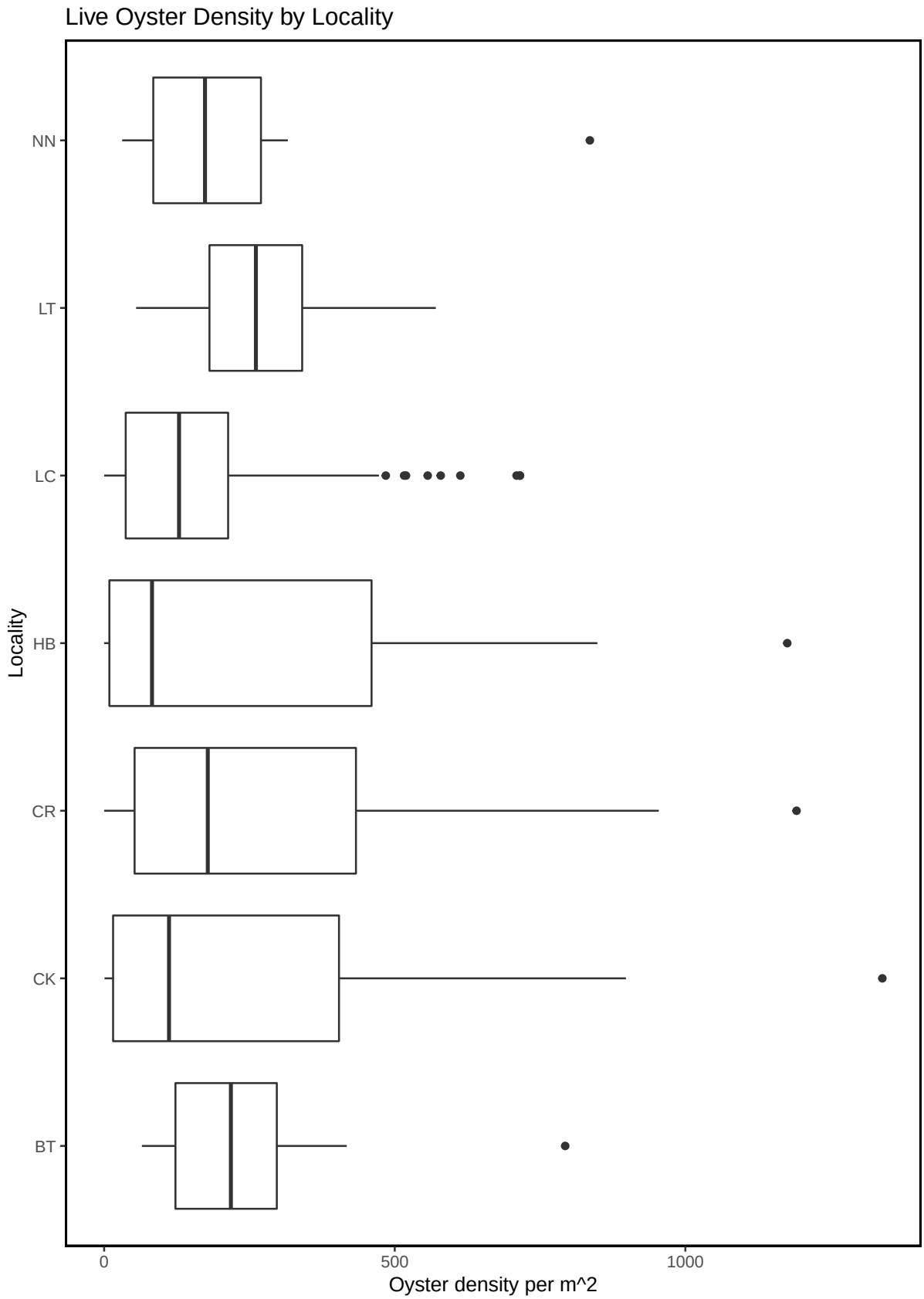
Figure− Calculated dead oyster density by strata for all periods including period 22 (current period).



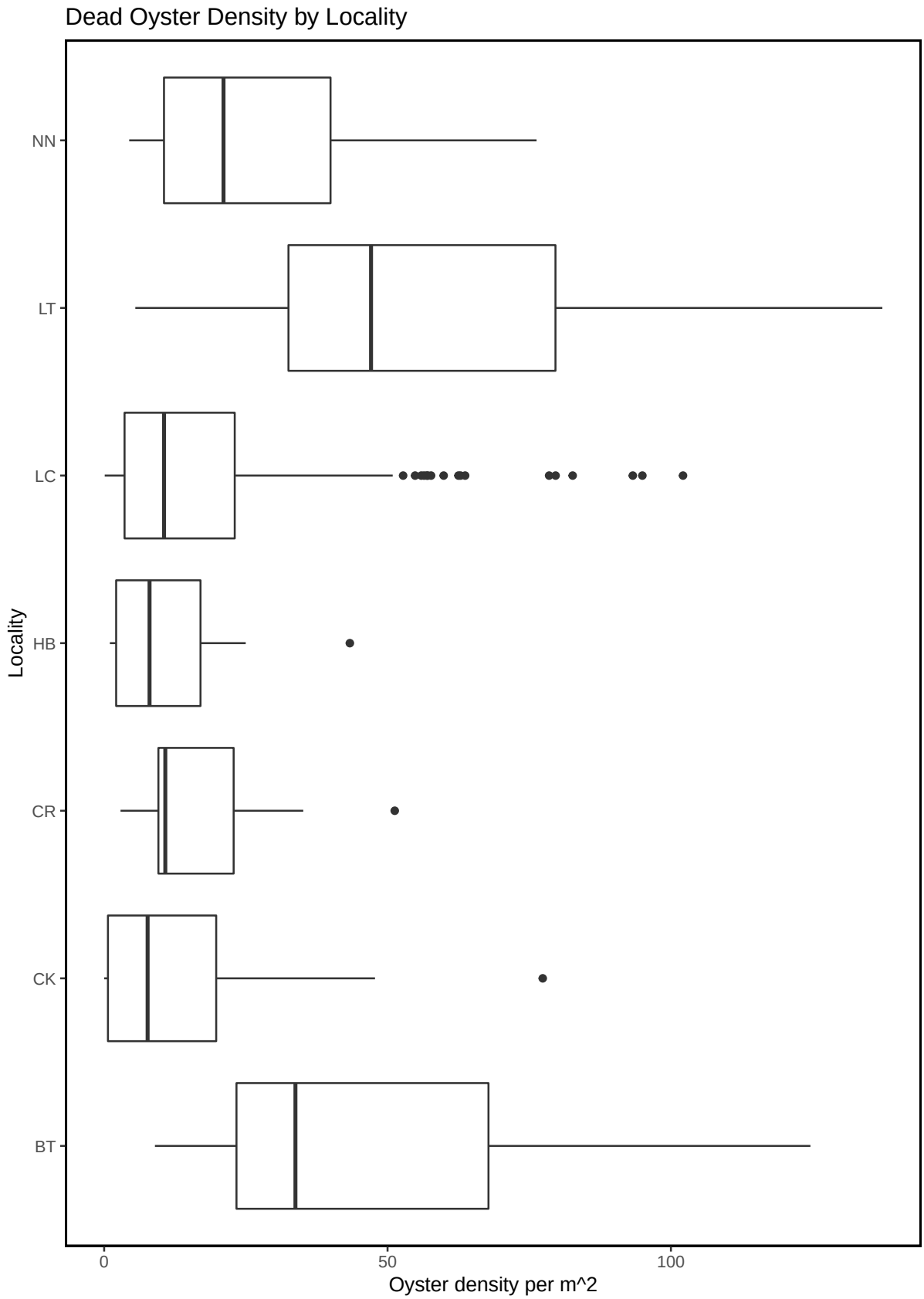
Figure− Calculated live oyster density for all periods including period 24 (current period) using a probability densit



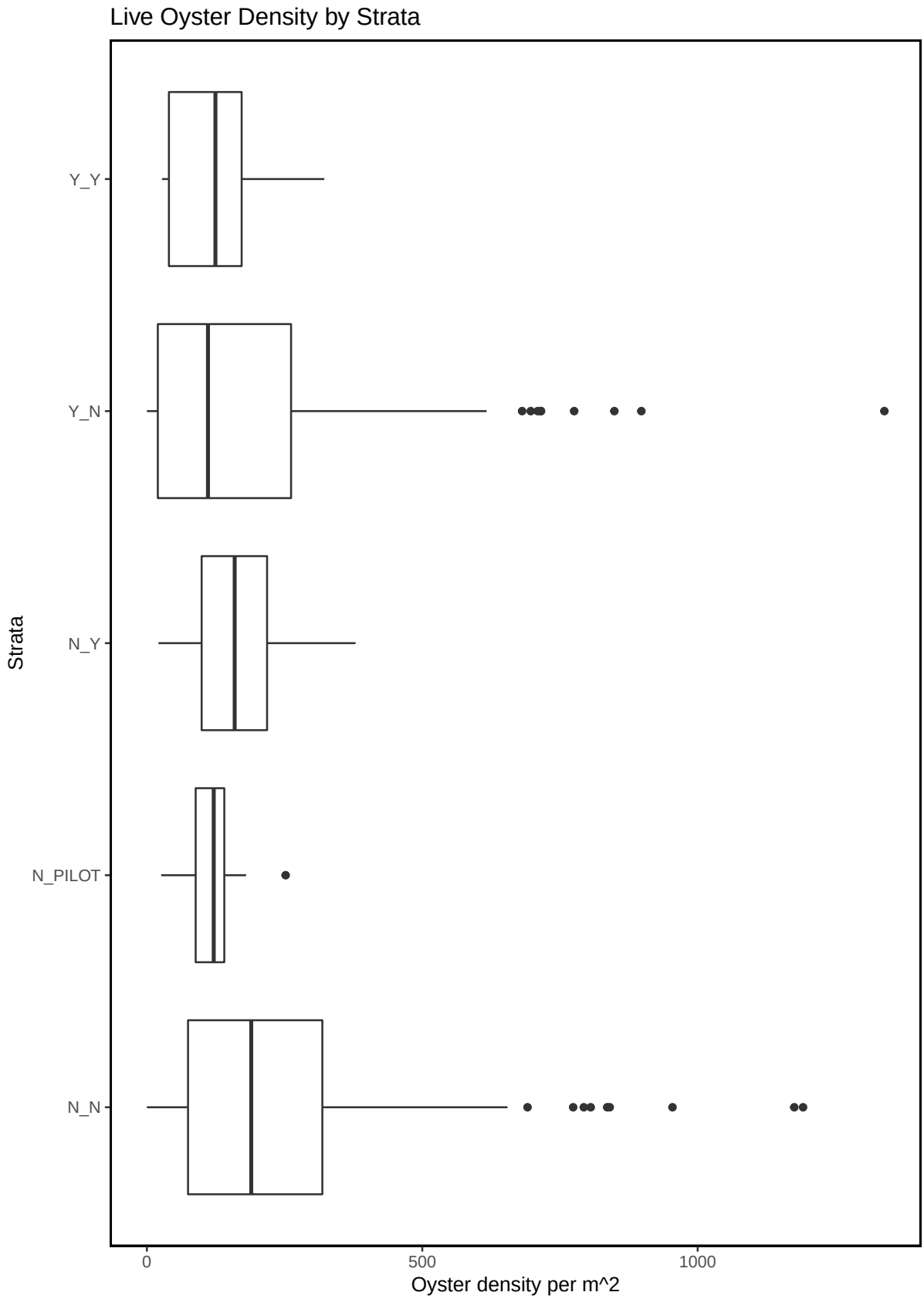
Figure− Calculated Dead oyster density for all periods including period 22 (current period) using a probability densit



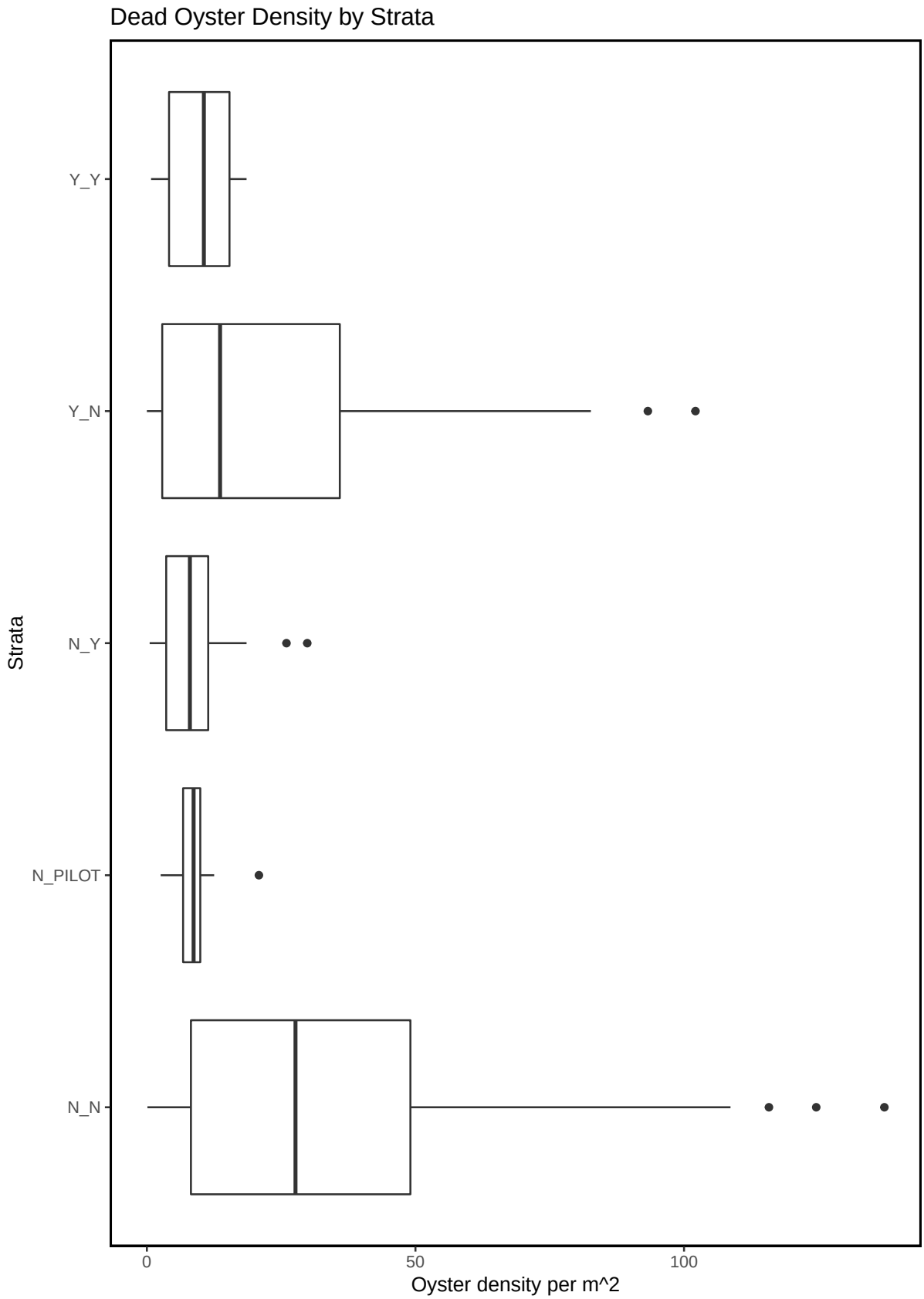
Figure− Box plot depicting live oyster density by locality for all periods including period 22 (current period).



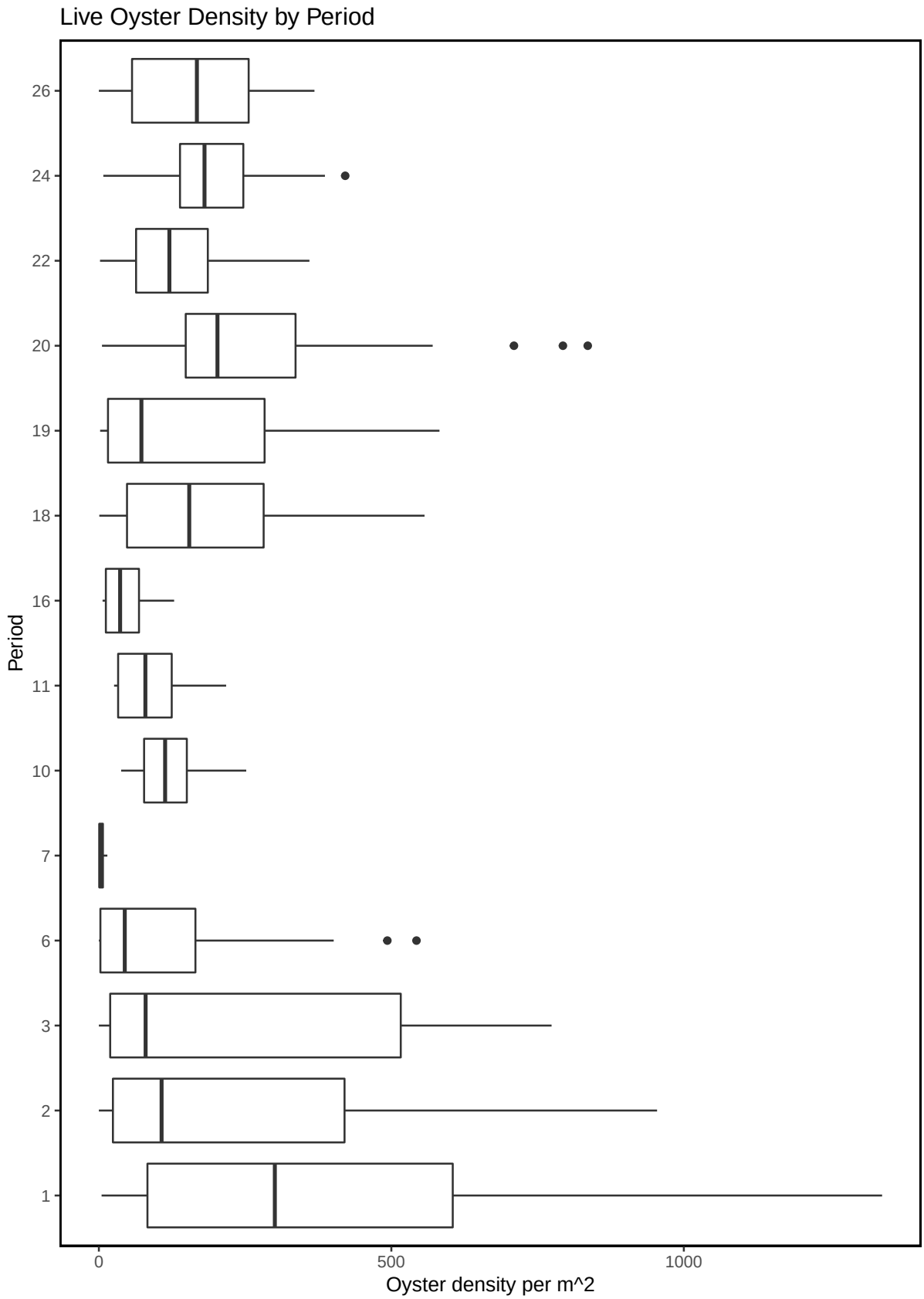
Figure− Box plot depicting dead oyster density by locality for all periods including period 22 (current period).



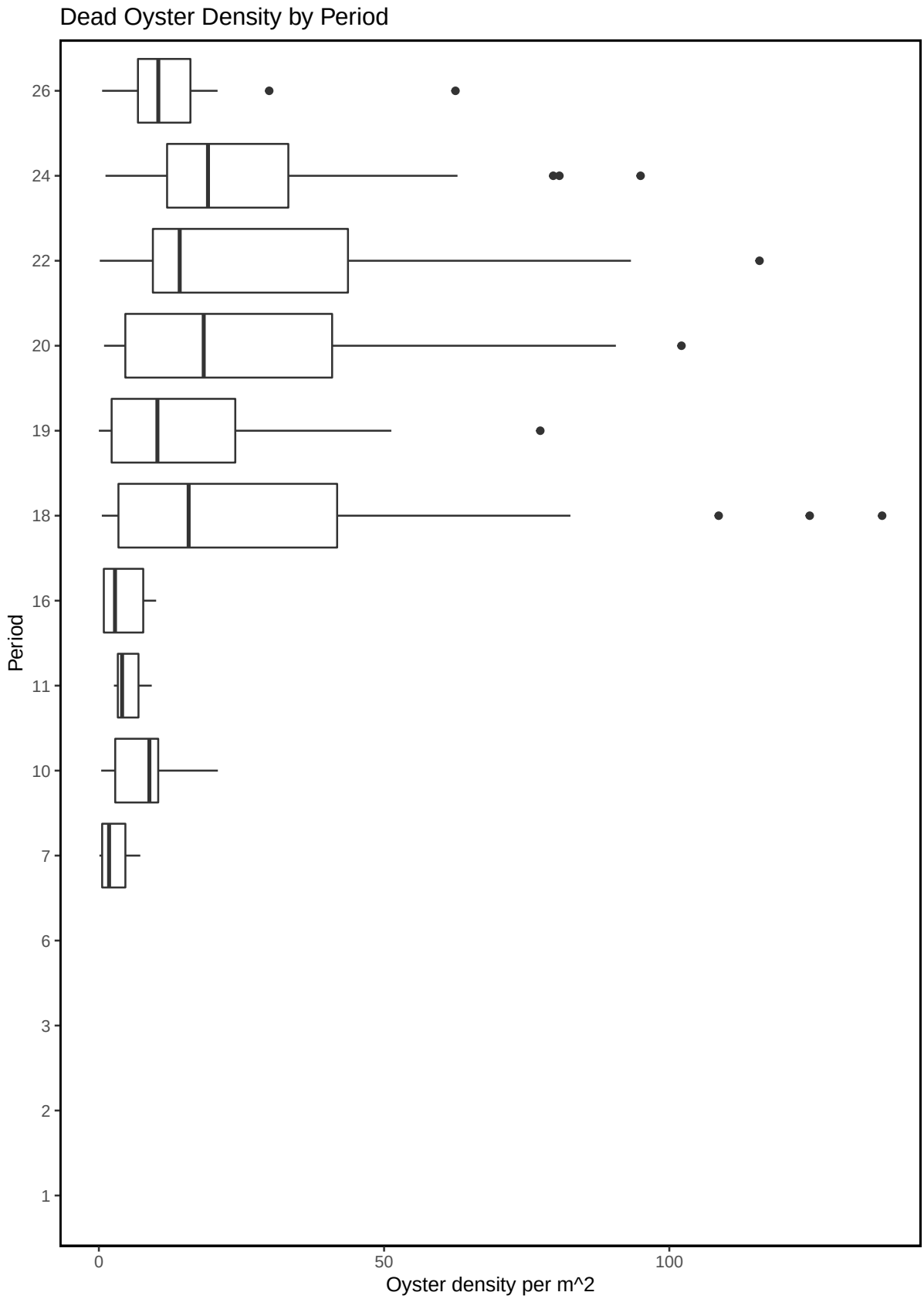
Figure− Box plot depicting live oyster density by strata for all periods including period 22 (current period).



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).

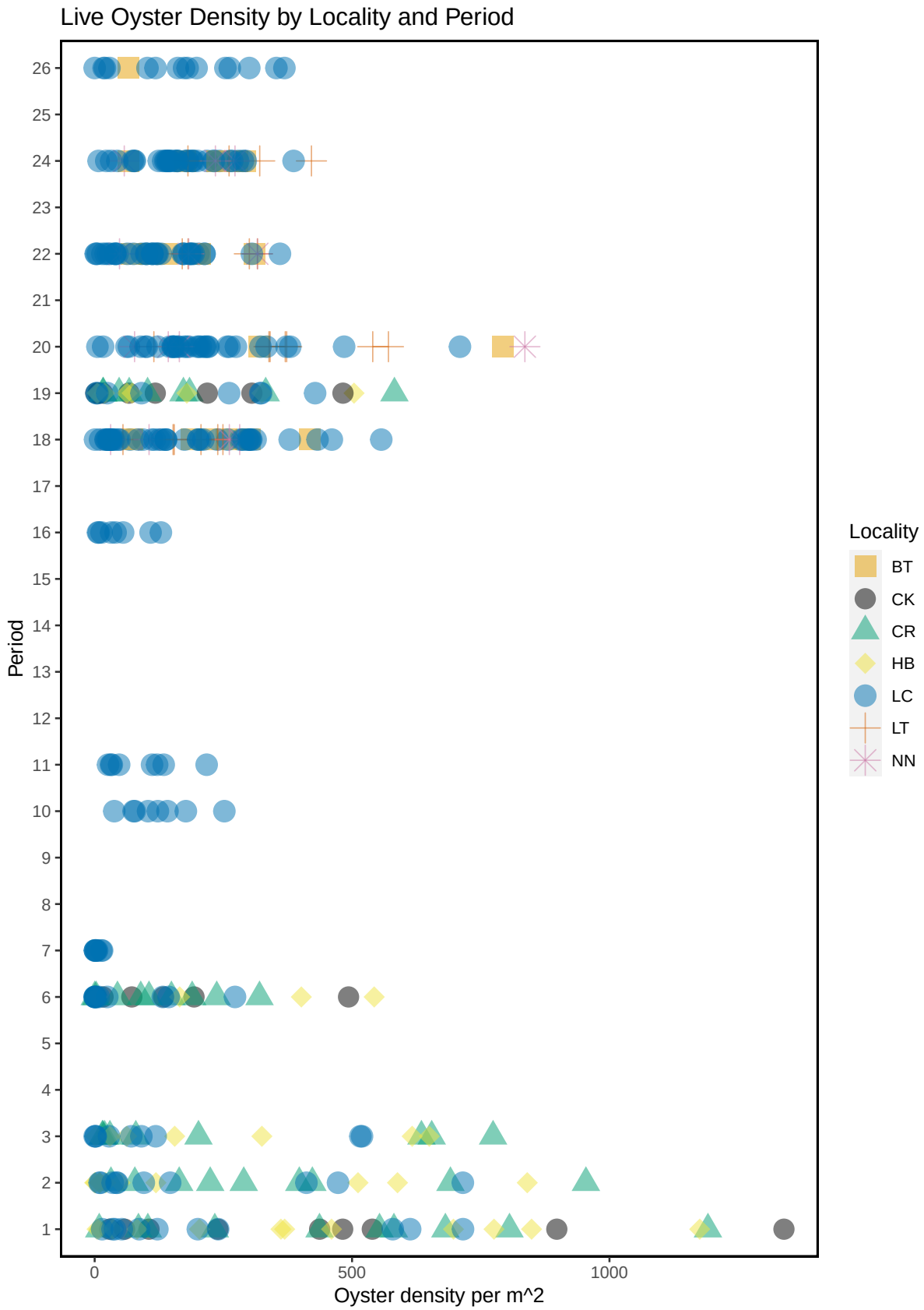


Figure − Live oyster density by locality and period for all periods including period 22 (current period).

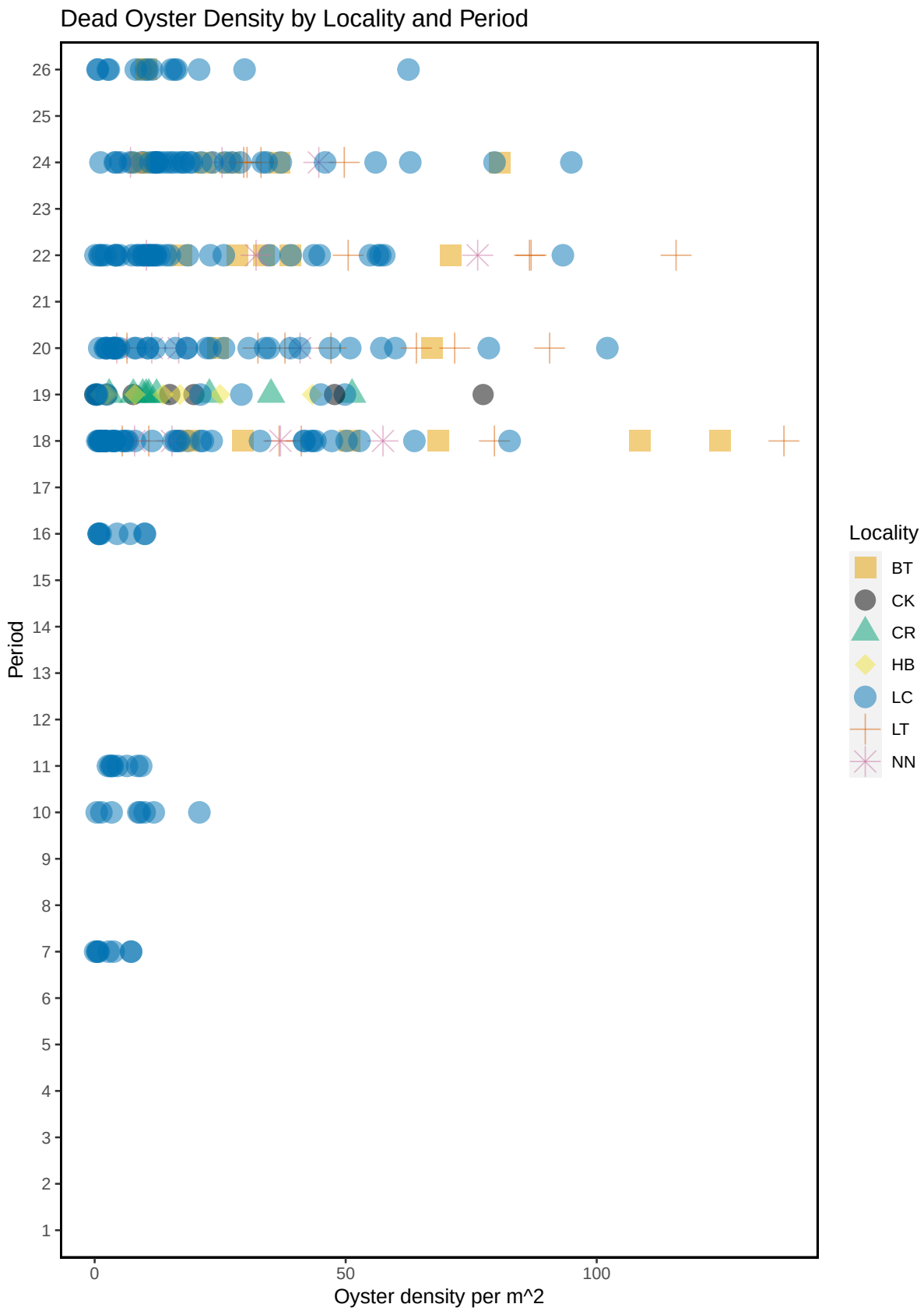


Figure − Dead oyster density by locality and period for all periods including period 22 (current period).

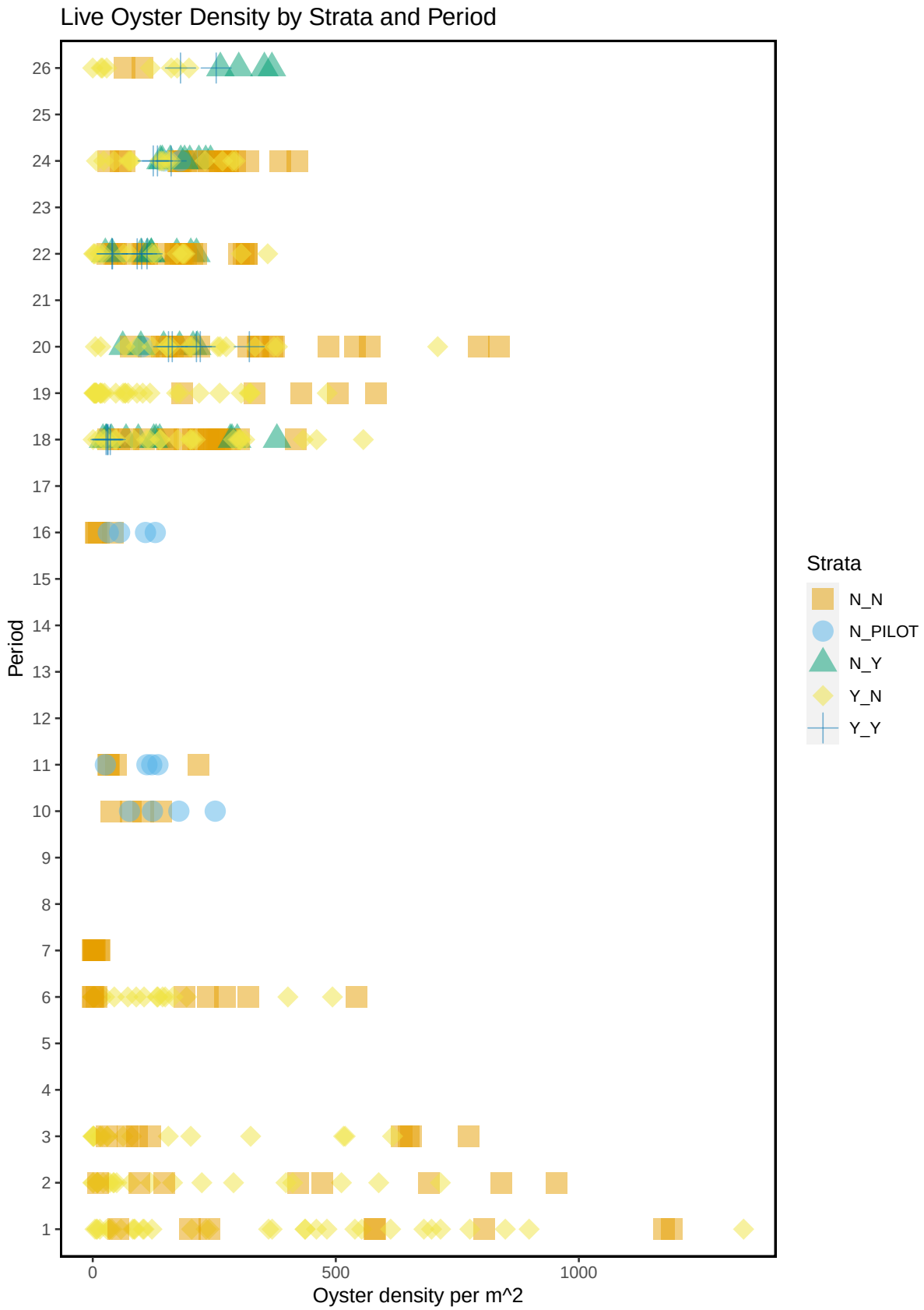


Figure − Live oyster density by strata and period for all periods including period 22 (current period).

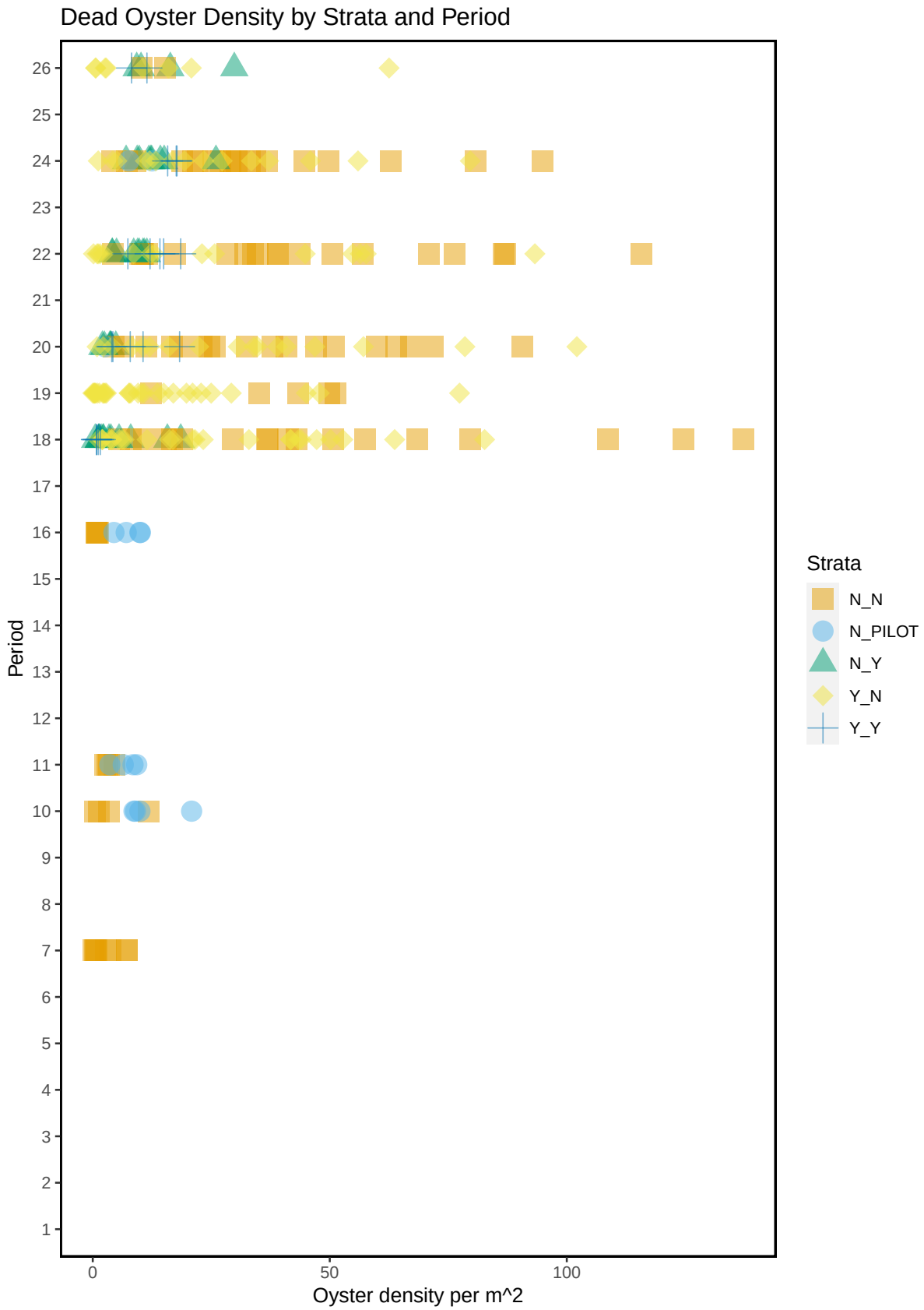


Figure − Dead oyster density by strata and period for all periods including period 22 (current period).

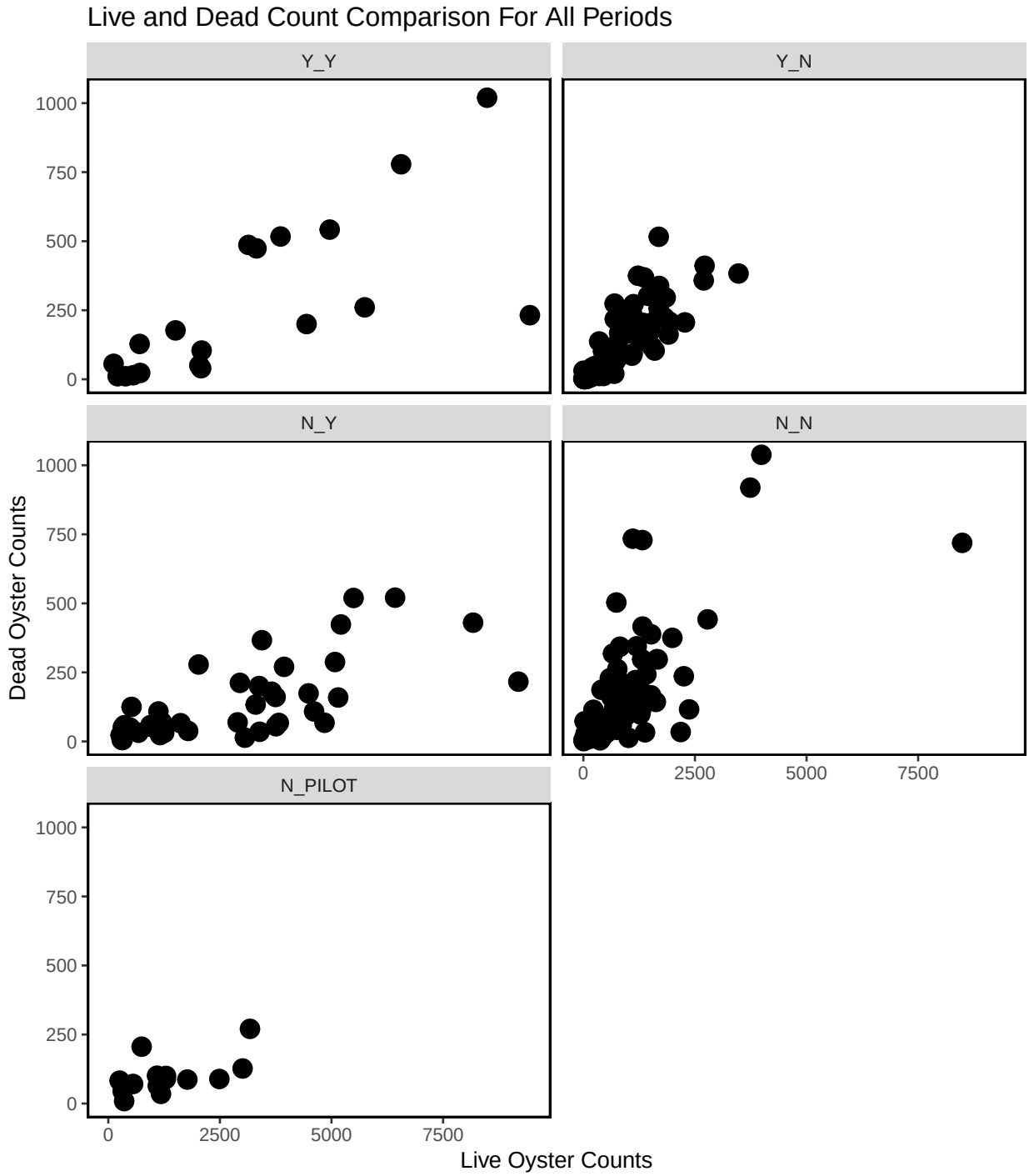


Figure- Live and dead oyster comparison for all periods, last sample date of period 26 is 2023-01-07.

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).

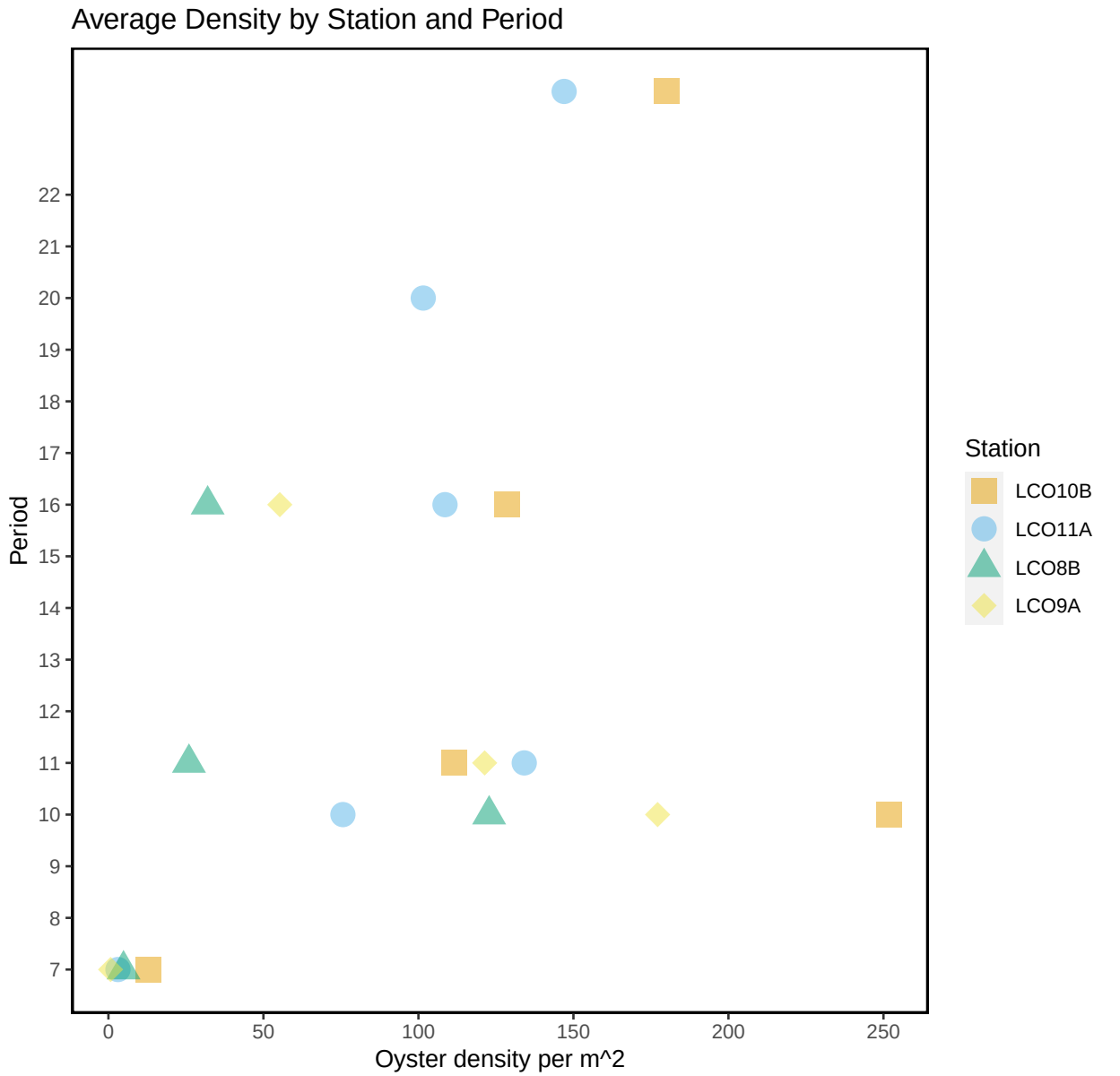


Figure − Average live oyster density comparison by station and period for all stations that were sampled during the pilc

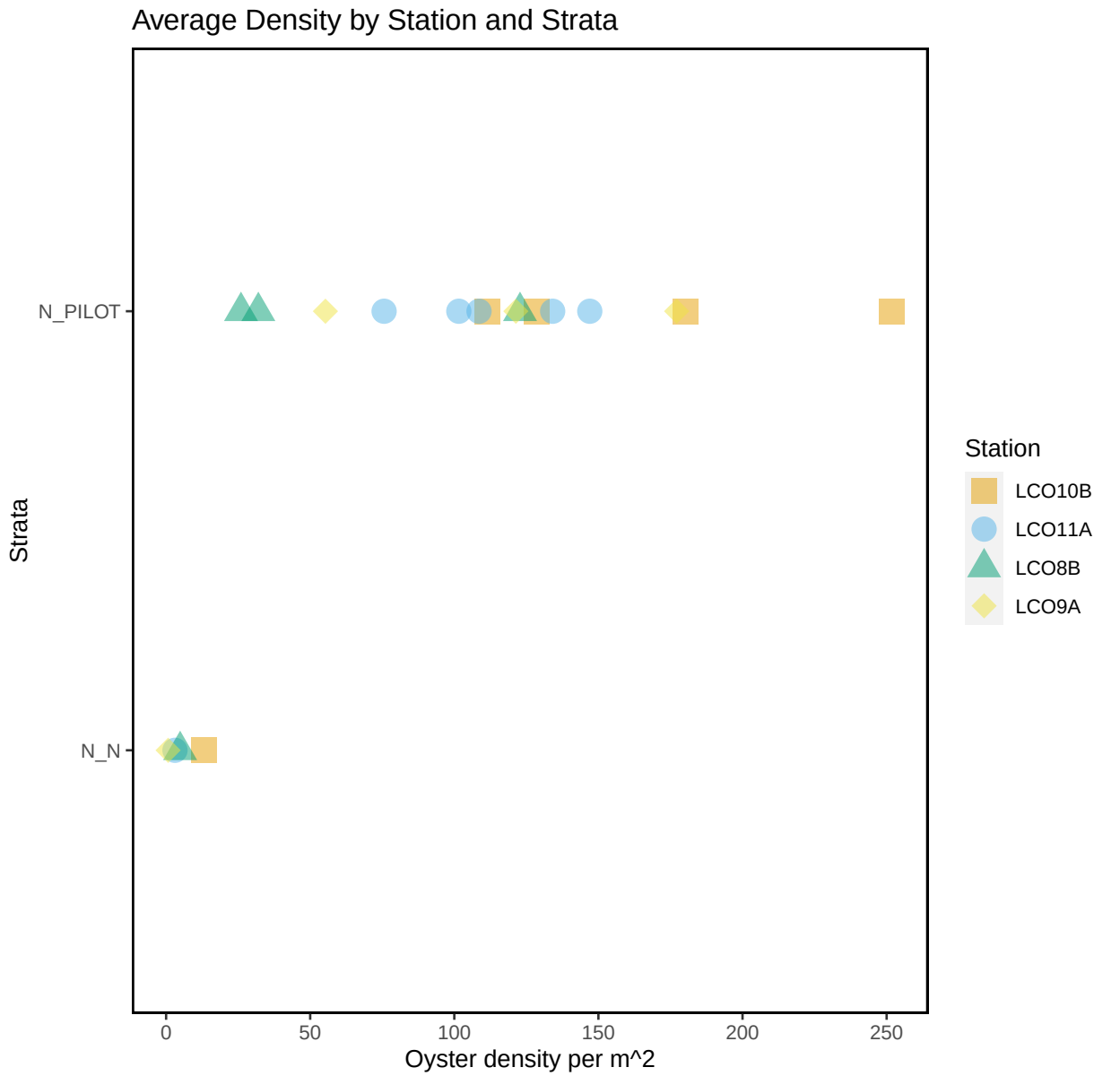


Figure − Average live oyster density comparison by station and strata for all stations that were sampled during th

Latest Data Entered

Displayed are the entries for the last date of sampling (2023-01-07).

date	station	tran_length	count_live	count_dead	treatment	strata
2023-01-07	LCO19	2.5	69	8	rocks	Y_Y
2023-01-07	LCO19	5.0	61	3	rocks	Y_Y
2023-01-07	LCO19	7.5	104	5	rocks	Y_Y
2023-01-07	LCO19	10.0	68	6	rocks	Y_Y
2023-01-07	LCO19	12.5	82	5	rocks	Y_Y
2023-01-07	LCO19	15.0	90	7	rocks	Y_Y
2023-01-07	LCO19	17.5	99	9	rocks	Y_Y
2023-01-07	LCO19	20.0	93	5	rocks	Y_Y
2023-01-07	LCO19	22.0	122	7	rocks	Y_Y
2023-01-07	LCO19	24.1	145	7	rocks	Y_Y
2023-01-07	LCO19	2.5	219	1	rocks	Y_Y
2023-01-07	LCO19	5.0	220	4	rocks	Y_Y
2023-01-07	LCO19	7.5	162	4	rocks	Y_Y
2023-01-07	LCO19	10.0	197	3	rocks	Y_Y
2023-01-07	LCO19	12.5	176	2	rocks	Y_Y
2023-01-07	LCO19	15.0	250	1	rocks	Y_Y
2023-01-07	LCO19	17.5	220	5	rocks	Y_Y
2023-01-07	LCO19	20.0	139	3	rocks	Y_Y
2023-01-07	LCO19	22.0	98	7	rocks	Y_Y
2023-01-07	LCO19	23.1	75	3	rocks	Y_Y
2023-01-07	LCO19	2.5	258	5	rocks	Y_Y
2023-01-07	LCO19	5.0	144	6	rocks	Y_Y
2023-01-07	LCO19	7.5	112	5	rocks	Y_Y
2023-01-07	LCO19	10.0	126	5	rocks	Y_Y
2023-01-07	LCO19	12.5	152	5	rocks	Y_Y
2023-01-07	LCO19	15.0	111	5	rocks	Y_Y
2023-01-07	LCO19	17.5	108	5	rocks	Y_Y
2023-01-07	LCO19	20.0	110	6	rocks	Y_Y
2023-01-07	LCO19	22.0	28	4	rocks	Y_Y
2023-01-07	LCO19	22.9	69	6	rocks	Y_Y
2023-01-07	LCO19	2.5	47	3	rocks	Y_Y
2023-01-07	LCO19	5.0	49	5	rocks	Y_Y
2023-01-07	LCO19	7.5	52	6	rocks	Y_Y
2023-01-07	LCO19	10.0	66	6	rocks	Y_Y
2023-01-07	LCO19	12.5	2	0	rocks	Y_Y
2023-01-07	LCO19	15.0	16	0	rocks	Y_Y
2023-01-07	LCO19	17.5	5	0	rocks	Y_Y
2023-01-07	LCO19	20.0	17	3	rocks	Y_Y
2023-01-07	LCO19	22.0	4	2	rocks	Y_Y
2023-01-07	LCO19	22.1	0	0	rocks	Y_Y
2023-01-07	LCO19	2.5	54	8	rocks	Y_Y
2023-01-07	LCO19	5.0	24	3	rocks	Y_Y
2023-01-07	LCO19	7.5	53	4	rocks	Y_Y
2023-01-07	LCO19	10.0	88	8	rocks	Y_Y
2023-01-07	LCO19	12.5	5	0	rocks	Y_Y
2023-01-07	LCO19	15.0	14	0	rocks	Y_Y
2023-01-07	LCO19	17.5	4	1	rocks	Y_Y
2023-01-07	LCO19	20.0	17	1	rocks	Y_Y
2023-01-07	LCO19	22.0	3	2	rocks	Y_Y

2023-01-07	LCO19	22.1	0	0	rocks	Y_Y
2023-01-07	LCO19	2.5	5	0	rocks	Y_Y
2023-01-07	LCO19	5.0	40	8	rocks	Y_Y
2023-01-07	LCO19	7.5	37	0	rocks	Y_Y
2023-01-07	LCO19	10.0	6	2	rocks	Y_Y
2023-01-07	LCO19	12.5	81	3	rocks	Y_Y
2023-01-07	LCO19	15.0	8	0	rocks	Y_Y
2023-01-07	LCO19	17.5	53	5	rocks	Y_Y
2023-01-07	LCO19	20.0	37	9	rocks	Y_Y
2023-01-07	LCO19	22.0	8	0	rocks	Y_Y
2023-01-07	LCO19	22.5	0	0	rocks	Y_Y
2023-01-07	LCI9	2.5	0	0	control	Y_N
2023-01-07	LCI9	5.0	5	0	control	Y_N
2023-01-07	LCI9	7.5	19	2	control	Y_N
2023-01-07	LCI9	10.0	1	0	control	Y_N
2023-01-07	LCI9	12.5	17	4	control	Y_N
2023-01-07	LCI9	15.0	3	0	control	Y_N
2023-01-07	LCI9	17.5	0	0	control	Y_N
2023-01-07	LCI9	20.0	8	2	control	Y_N
2023-01-07	LCI57	2.5	75	34	control	Y_N
2023-01-07	LCI57	5.0	5	19	control	Y_N
2023-01-07	LCI57	7.5	78	23	control	Y_N
2023-01-07	LCI57	10.0	91	33	control	Y_N
2023-01-07	LCI57	12.5	97	26	control	Y_N
2023-01-07	LCI57	14.4	8	2	control	Y_N