We obtained four Excel files from Marine Region[1] on 10 February 2011. The files contained striped bass creel data collected from Marine Region as reported by anglers or as collected from Fish and Game creel clerks. The file names are as follows:

1. reported dead striped bass sample data 2004-2010.xls
2. reported released alive striped bass sample data 2004-2010.xls
3. sampler examined harvested dead striped bass 2004-2010.xls
4. sampler examined striped bass lengths 2004-2010.xls

Metadata provided from Marine Region was as follows (as sent in e-mail from Ashok Sadrozinski 2/10/2011 11:42 AM, subject = "striped bass sample data extracts"):

> I've extracted the sampler examined retained catch, reported dead catch, and reported release alive striped bass. Note that the length/weight data were obtained from a different RecFIN website than the other sample data, so you may notice some discrepancies in trying to match up the data (due to possible internal PSMFC programming glitches which are not transparent to me). I created a table of numerical county codes that you will need in order to sort the length/weight data (variables of interest are highlighted in yellow on the first tab of the length/weight workbook).
>
> Following are variable descriptions for the catch/release data (note caveats in **bold)**:
>
> Anh = CPUE per hour for sampler examined harvested (retained) fish = Angs/HRSFS which represents the number of hours fished by the contributing anglers. **I'm not sure why there is a CPUE calculation for some records containing no fish (variable Ans)**.
>
> Angs = # anglers
>
> Ans = # sampler examined harvested (retained) fish. **You will notice that some of these records contain decimals, rather than being strictly whole numbers. Apparently this represents the sum of Anh, and is therefore a derived quantity rather than the raw data. We are requesting the raw data from PSMFC, but who knows when they might be available.**
>
> Area_x 5 = inland marine waters (i.e. SF Bay)
>
> Area_x 9 = all marine waters
>
> Area_x 1 = ocean 3 miles or less from shore
>
> B1nh = CPUE per hour for reported harvested dead fish
>
> B1ns = # reported harvested dead fish **(similar caveat as Ans**)
>
> B2nh = CPUE per hour for reported released alive fish
>
> B2ns = # reported released alive fish **(similar caveat as Ans & B1ns)**

[1] Ashok Sadrozinski/Biologist Marine/Fisheries/Department of Fish and Game/20 Lower Ragsdale Drive, Suite 100/Monterey, CA 93940/office: 831-649-2811/cell: 650-207-4237/fax: 831-649-2917/email: ASadrozinski@dfg.ca.gov

The following is a summary (mostly in graphical form) of the data Marine Region sent. Data summary analysis was performed by Jason DuBois (jdubois@dfg.ca.gov) on 10 and 14 February 2011.

Striped Bass Lengths
From "sampler examined striped bass lengths 2004-2010.xls", I looked at length frequency distributions of striped bass by year and for each area (Figure 1). Although the mode varied somewhat between years and areas, most fish were between 550 mm and 650 mm fork length (mm FL; Figures 1 and 2). Over 20% of all fish measured in 2010 in area 1 were between 560 and 599 mm FL. In area 5, fish (on average) were always slightly smaller (Figure 2).

Note: for length frequency distribution by county, see figures in Appendix.

Catch per hour (sampler examined dead striped bass)
From "sampler examined harvested dead striped bass 2004-2010.xls", I examined the variation of catch per hour (field heading in spreadsheet = anh) by month and year for each area (Figures 3 and 4). Of the 411 (calculated catch per hour) values, only 17 were greater than 1 (Table 1). Thus, I looked at variation using all catch per hour values (Figure 3) and only those values ≤ 1 (Figure 4).

Considering all catch per hour values, area 1 showed more variation than area 5 (Figure 3). Also, monthly sampling in area 1 appeared more sporadic. Considering only catch per hour values ≤ 1, median values were mostly at or below 0.3 (fish per hour; Figure 4).

I summarized the number of fish caught by year and area for each county (Figure 5 and Table 2). Ocean catch in Alameda County was very spotty from 2004 to 2010.

Catch per hour (reported dead striped bass)
From "reported dead striped bass sample data 2004-2010.xls", I examined the variation of catch per hour (field heading in spreadsheet = b1nh) by month and year for each area (Figures 6 and 7). Of the 385 (calculated catch per hour) values, only two were greater than five. Thus, I looked at variation using all catch per hour values (Figure 6) and only those values ≤ 5 (Figure 7).

Similar to catch per hour from sampler-examined striped bass, catch per hour (reported dead striped bass) from area 1 varied more than area 5, although monthly reporting was sporadic for area 1 (Figure 6). Considering only catch per hour values ≤ 5, median values were below 1 (fish per hour; Figure 7).

I summarized the number of fish caught by year and area for each county (Figure 8 and Table 3). Data was sporadic.

I compared catch per hour values (in field heading = b1nh) to values I calculated (catch.hour; Figure 9). Values in these two fields should be the same but are not (points in scatter plots should produce a straight line). I will contact Ashok about this.

Catch per hour (reported released alive striped bass)
Data in this category are few; there are only 34 entries (from "reported dead striped bass sample data 2004-2010.xls"). I looked at variation catch per hour by month and year for each region, but data are too few to make any conclusions (Figure 10).

I compared catch per hour values (in field heading = b2nh) to values I calculated (catch.hour; Figure 11). Values in these two fields should be the same but are not (points in scatter plots should produce a straight line). I will contact Ashok about this.

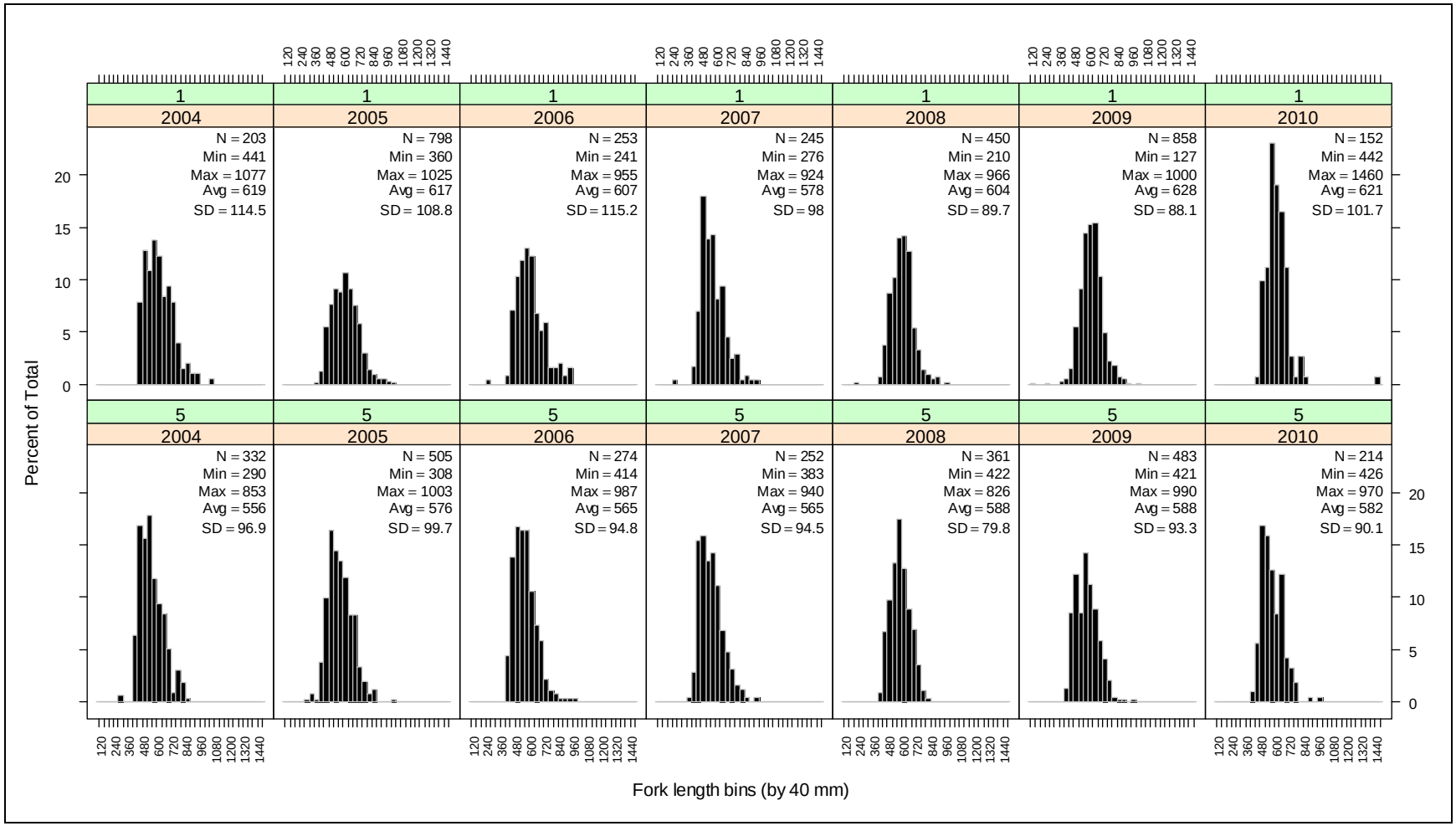

Figure 1. Length frequency distributions of striped bass as sampled from Marine Region Creel survey (1 = ocean ≤ 3 mi from shore; 5 = inland marine waters)

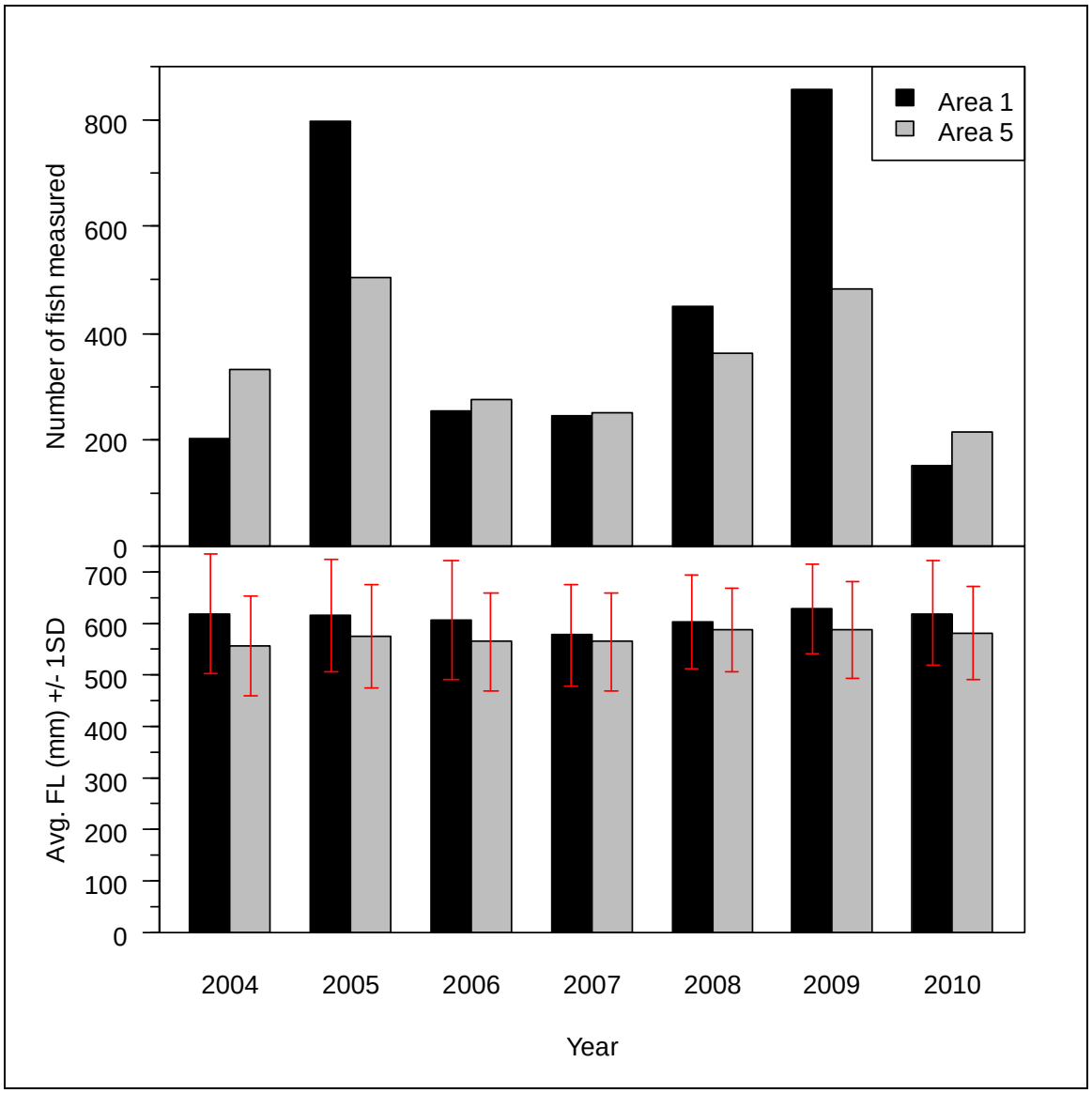

Figure 2. Top graph: number of striped bass measured by year and area; bottom graph: average FL (mm) ± 1 SD of striped bass measured in the creel (Marine Region)

Table 1. Catch per hour values > 1 from sampler-examined striped bass

Year	Month	County	Area	Catch per hour
2004	6	1	1	6.167
2004	7	1	1	1.440
2005	7	1	1	4.035
2005	7	3	1	2.714
2005	8	1	1	11.000
2005	8	7	1	1.333
2007	4	1	5	1.224
2007	7	1	1	4.048
2007	7	7	1	1.333
2008	6	5	1	2.000
2008	8	2	1	1.111
2009	4	5	5	2.000
2009	7	1	1	32.125
2009	7	6	1	1.500
2009	7	8	1	2.000
2009	8	1	1	9.333
2010	4	9	5	1.250

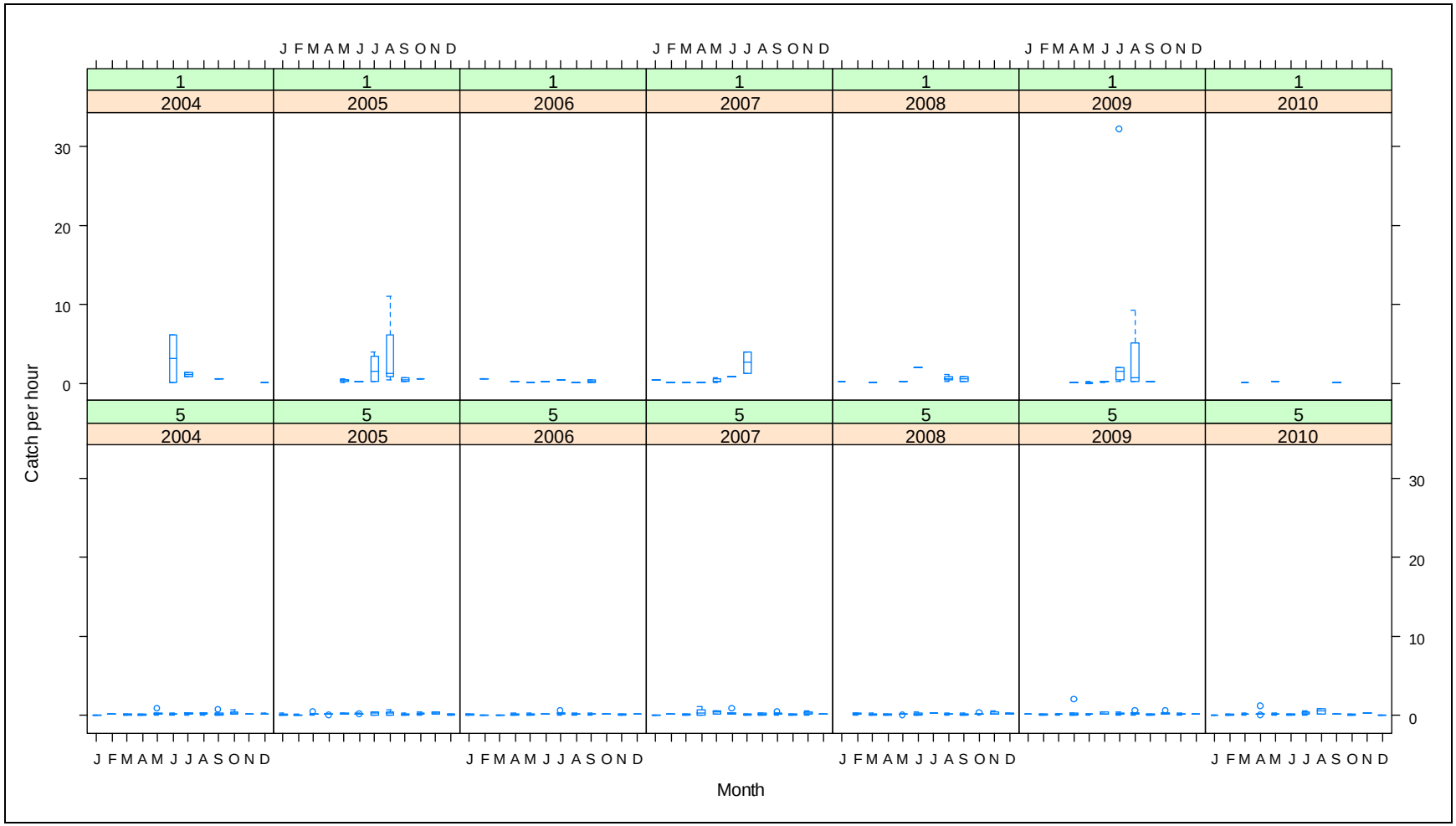

Figure 3. Catch per hour (of sampler examined dead striped bass) by month and year for each area using all catch per hour values (1 = ocean ≤ 3 mi from shore; 5 = inland marine waters)

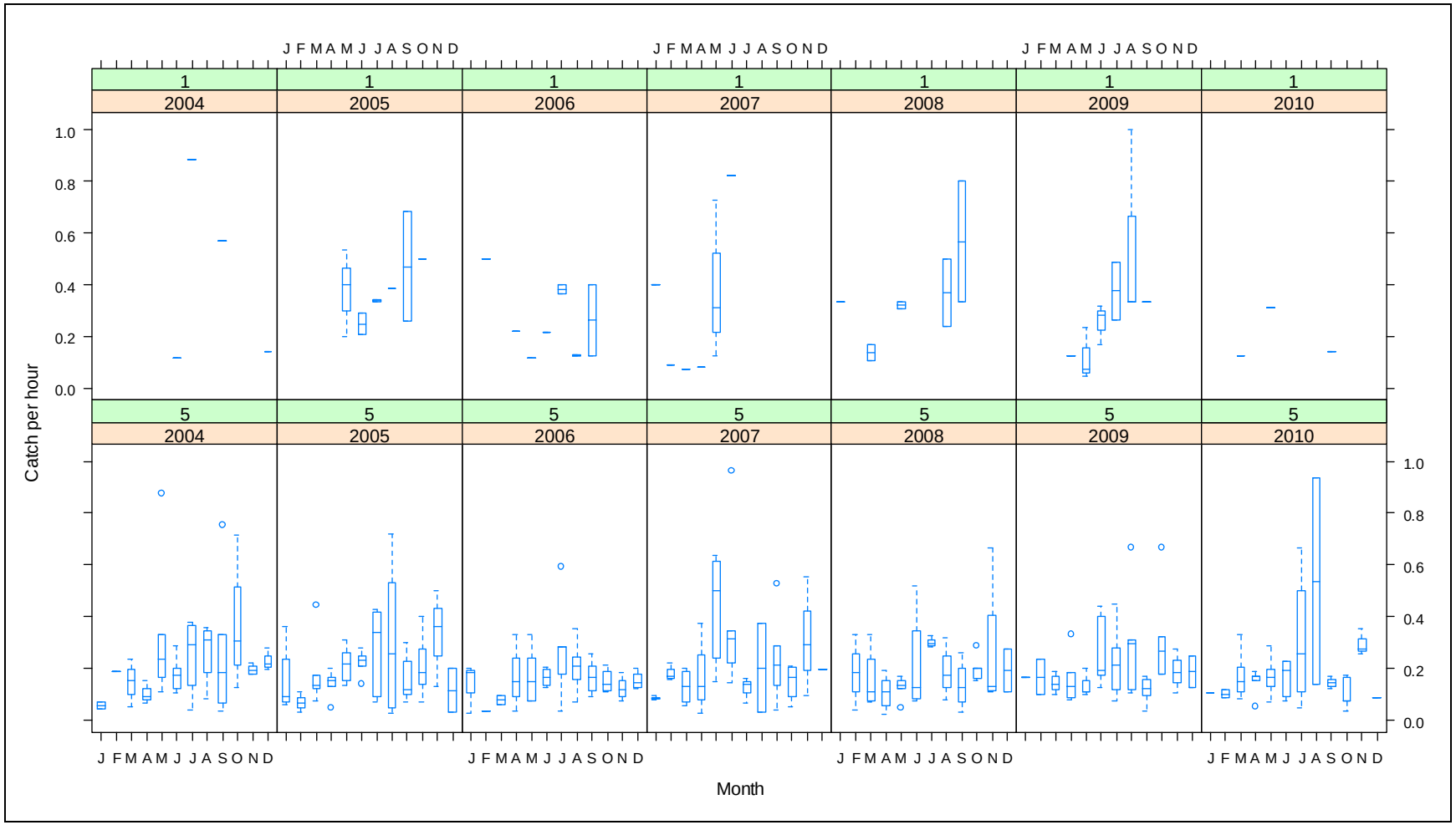

Figure 4. Catch per hour (of sampler examined dead striped bass) by month and year for each area using only catch per hour values ≤ 1 (1 = ocean ≤ 3 mi from shore; 5 = inland marine waters)

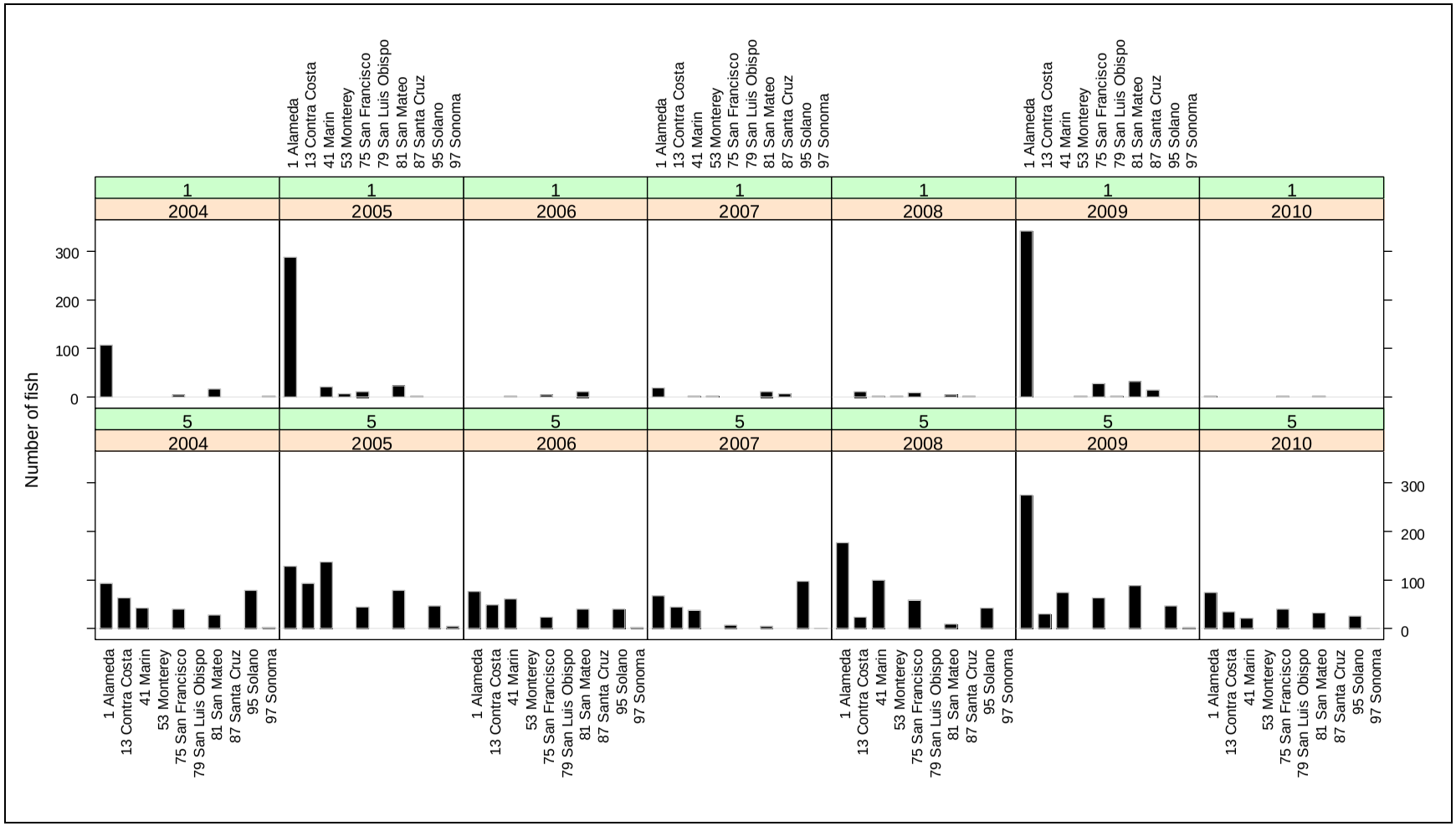

Figure 5. Catch (of sampler examined dead striped bass) by month, year, and area for each county (1 = ocean ≤ 3 mi from shore; 5 = inland marine waters)

Table 2. Tabular format of data in Figure 2

	Year	1 Alameda	13 Contra Costa	41 Marin	53 Monterey	75 San Francisco	79 San Luis Obispo	81 San Mateo	87 Santa Cruz	95 Solano	97 Sonoma
Area 1	2004	107				3		16			1
	2005	287		21	5	11		22	1		
	2006			2		5		10			
	2007	17		2	1			12	5		
	2008		10	1	1	8		5	2		
	2009	341			2	27	3	31	12		
	2010	1				1		1			
Area 5	2004	93	64	42		39		28		79	3
	2005	128	94	137		45		79		46	4
	2006	76	49	61		23		40		40	2
	2007	68	44	37		7		5		99	1
	2008	177	24	100		59		9		42	
	2009	276	31	75		62		88		47	2
	2010	75	36	21		39		33		26	1

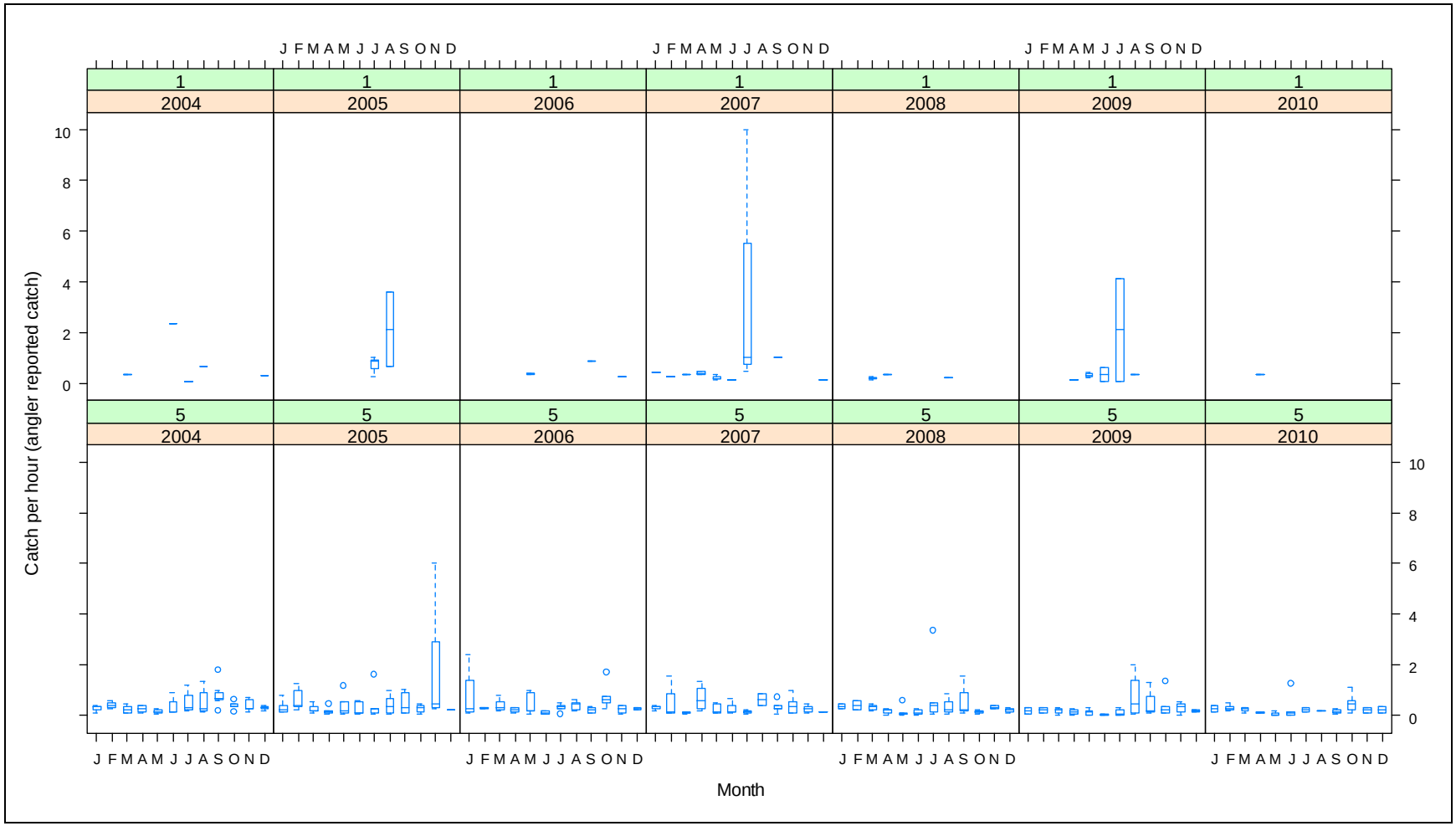

Figure 6. Catch per hour (of reported dead striped bass) by month and year for each area using all catch per hour values (1 = ocean ≤ 3 mi from shore; 5 = inland marine waters)

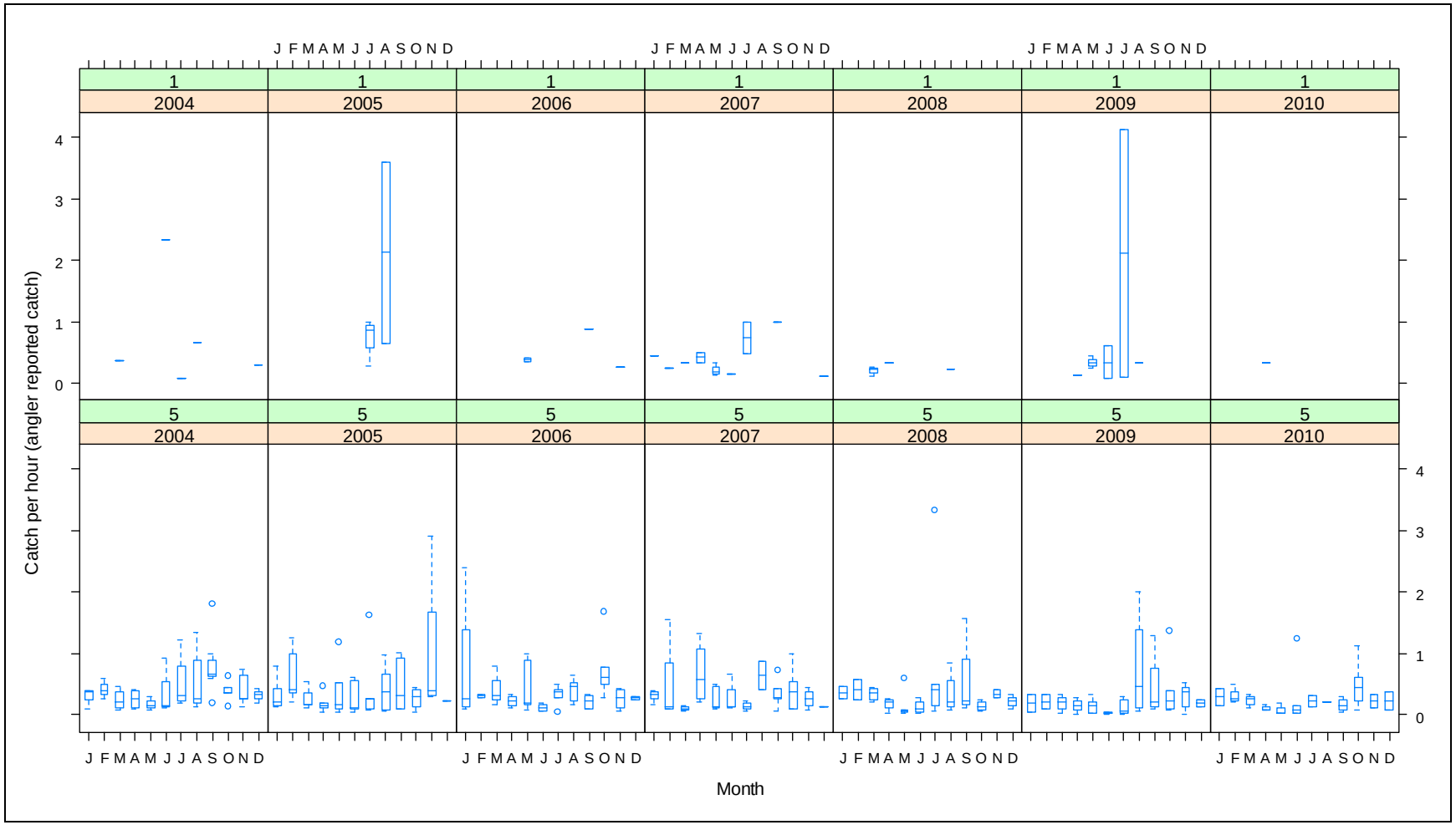

Figure 7. Catch per hour (of reported dead striped bass) by month and year for each area using only catch per hour values ≤ 5 (1 = ocean ≤ 3 mi from shore; 5 = inland marine waters)

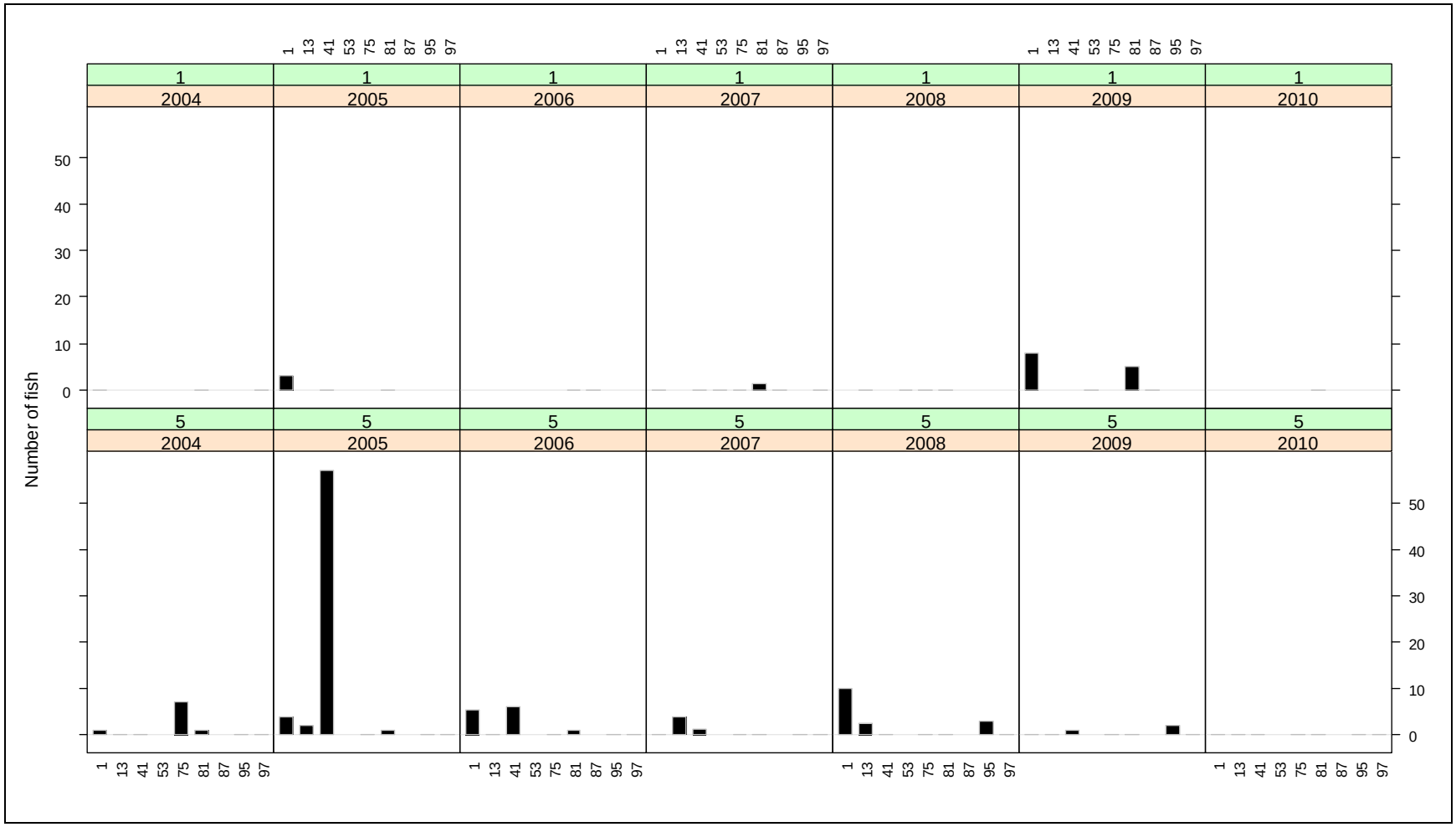

Figure 8. Catch (of reported dead striped bass) by month, year, and area for each county (1 = ocean ≤ 3 mi from shore; 5 = inland marine waters); see Figure 5 for county names associated with county numbers (note: no data available for San Luis Obispo (#79))

Table 3. Tabular format of data in Figure 8

	Year	1 Alameda	13 Contra Costa	41 Marin	53 Monterey	75 San Francisco	79 San Luis Obispo	81 San Mateo	87 Santa Cruz	95 Solano	97 Sonoma
Area 1	2004	-						-			-
	2005	3		-				-			
	2006							-	-		
	2007	-		-	-	-		1	-		-
	2008		-		-	-		-			
	2009	8			-			5	-		
	2010							-			
Area 5	2004	1	-	-		7		1		-	-
	2005	4	2	57		-		1		-	-
	2006	5	-	6		-		1		-	-
	2007	-	4	1		-		-		-	-
	2008	10	3	-		-		-		3	-
	2009	-	-	1		-		-		2	-
	2010	-	-	-		-		-		-	-

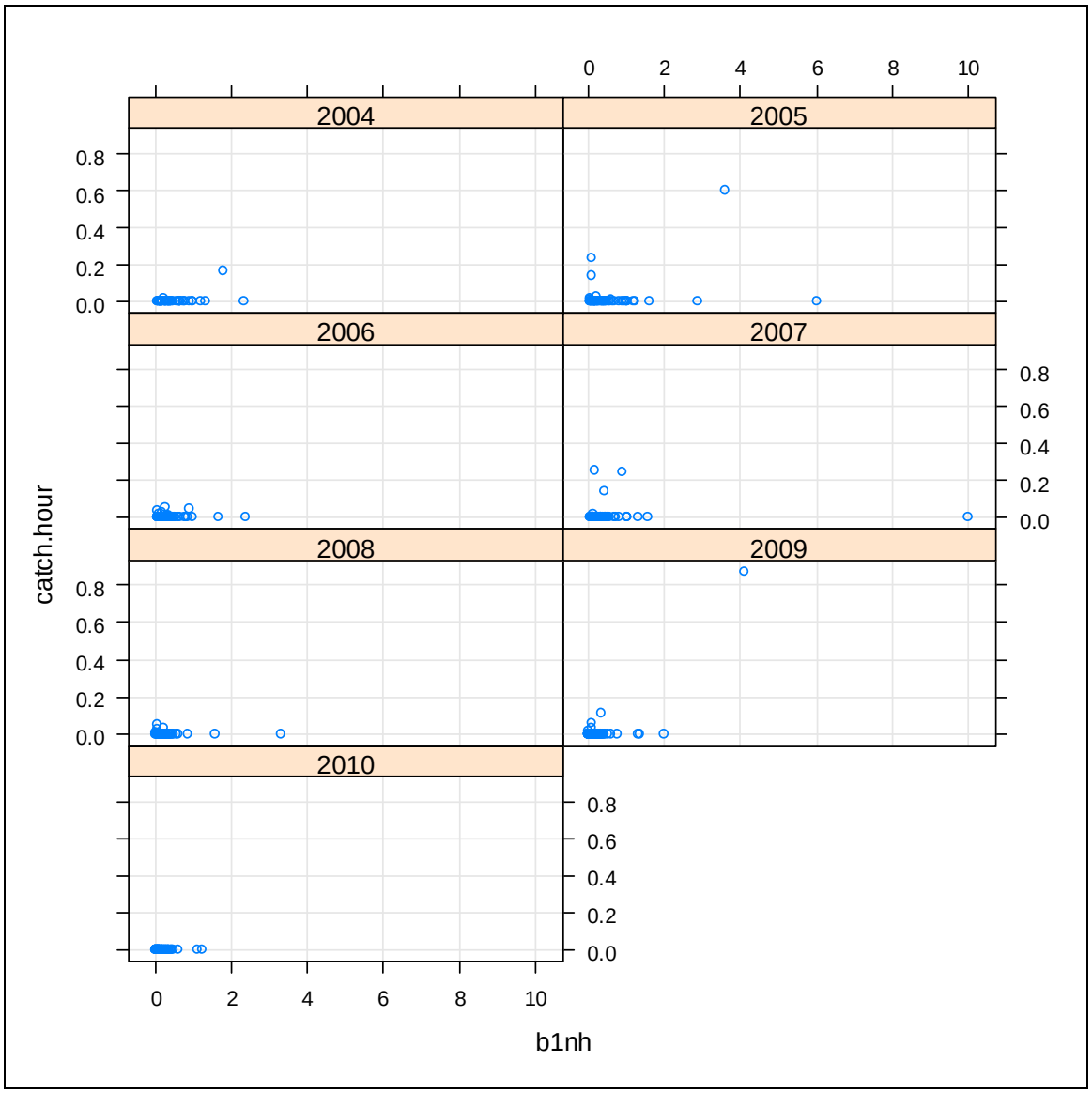

Figure 9. Reconciling reported (from Marine Region) b1nh (catch per hour) values with catch.hour (catch per hour values I calculated); mostly catch.hour = 0

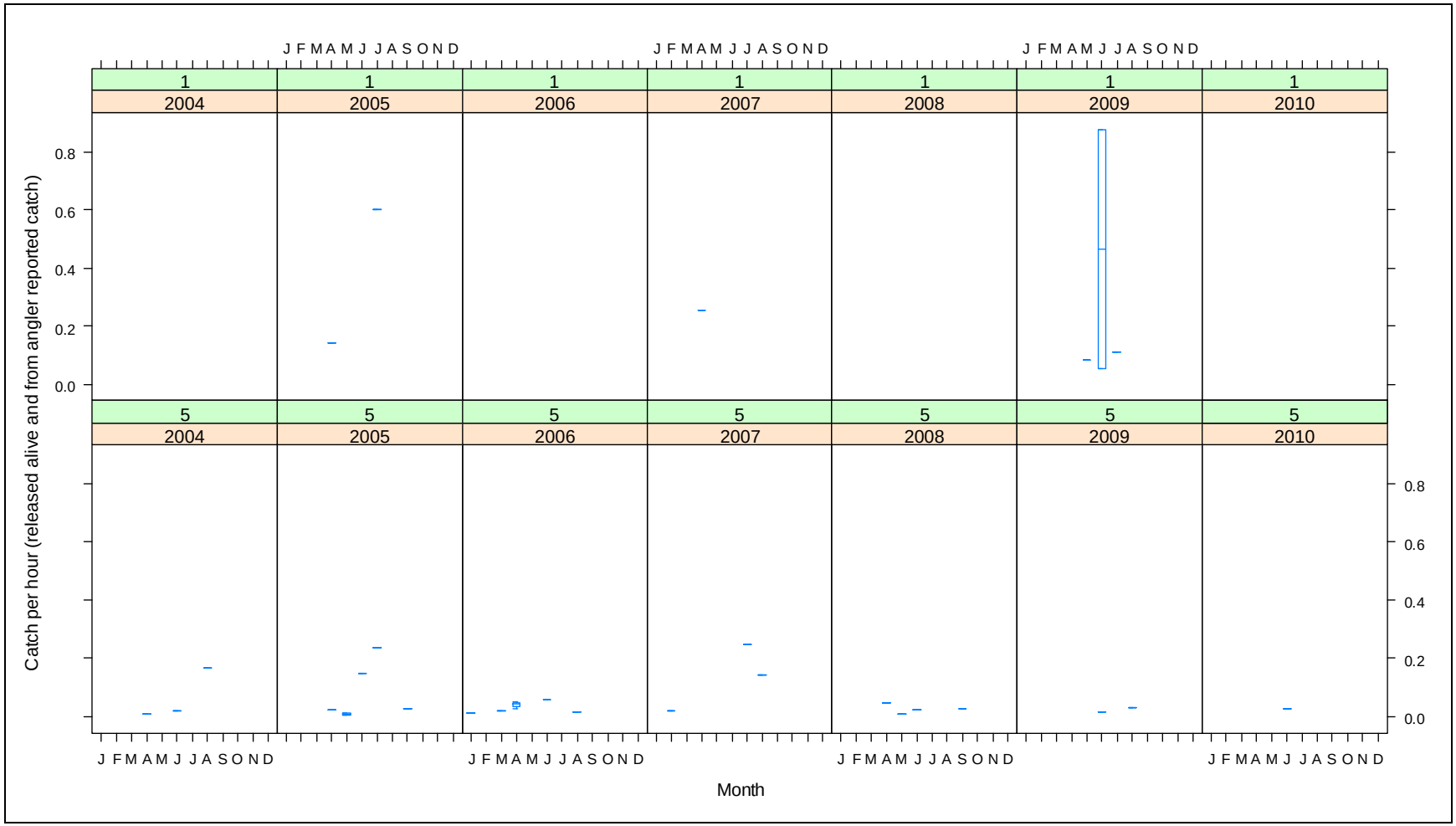

Figure 10. Catch per hour (of reported released alive striped bass) by month and year for each area using only all catch per hour values (1 = ocean ≤ 3 mi from shore; 5 = inland marine waters)

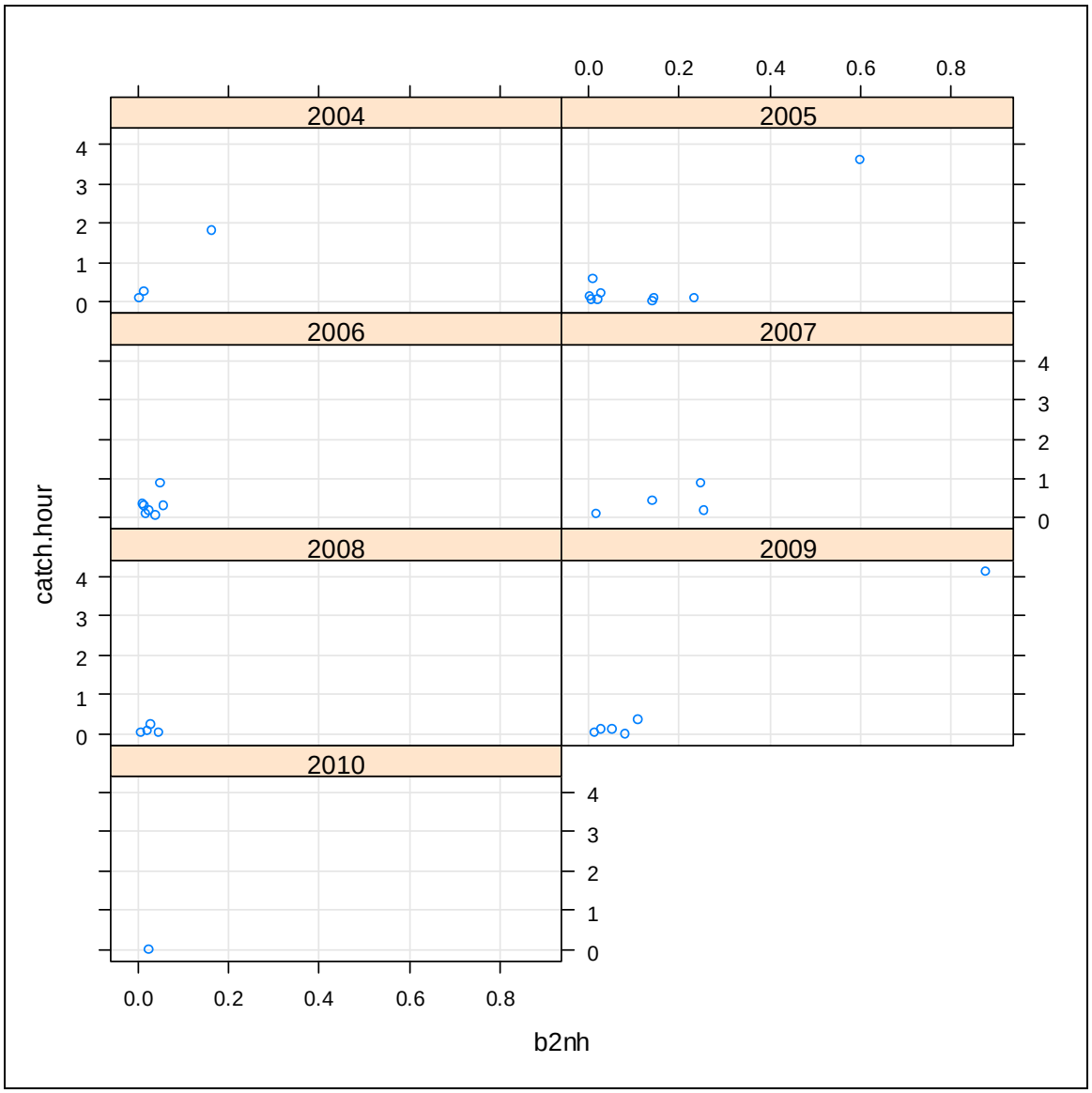

Figure 11. Reconciling reported (from Marine Region) b2nh (catch per hour) values with catch.hour (catch per hour values I calculated)

Appendices

Figures in this appendix are length frequency distributions by year and region for each county. Some counties (53, 79, 87, and 97) had too few data for any worthwhile distribution.

County	Code
Alameda	1
Contra Costa	13
Marin	41
Monterey	53
San Francisco	75
San Luis Obispo	79
San Mateo	81
Santa Cruz	87
Solano	95
Sonoma	97

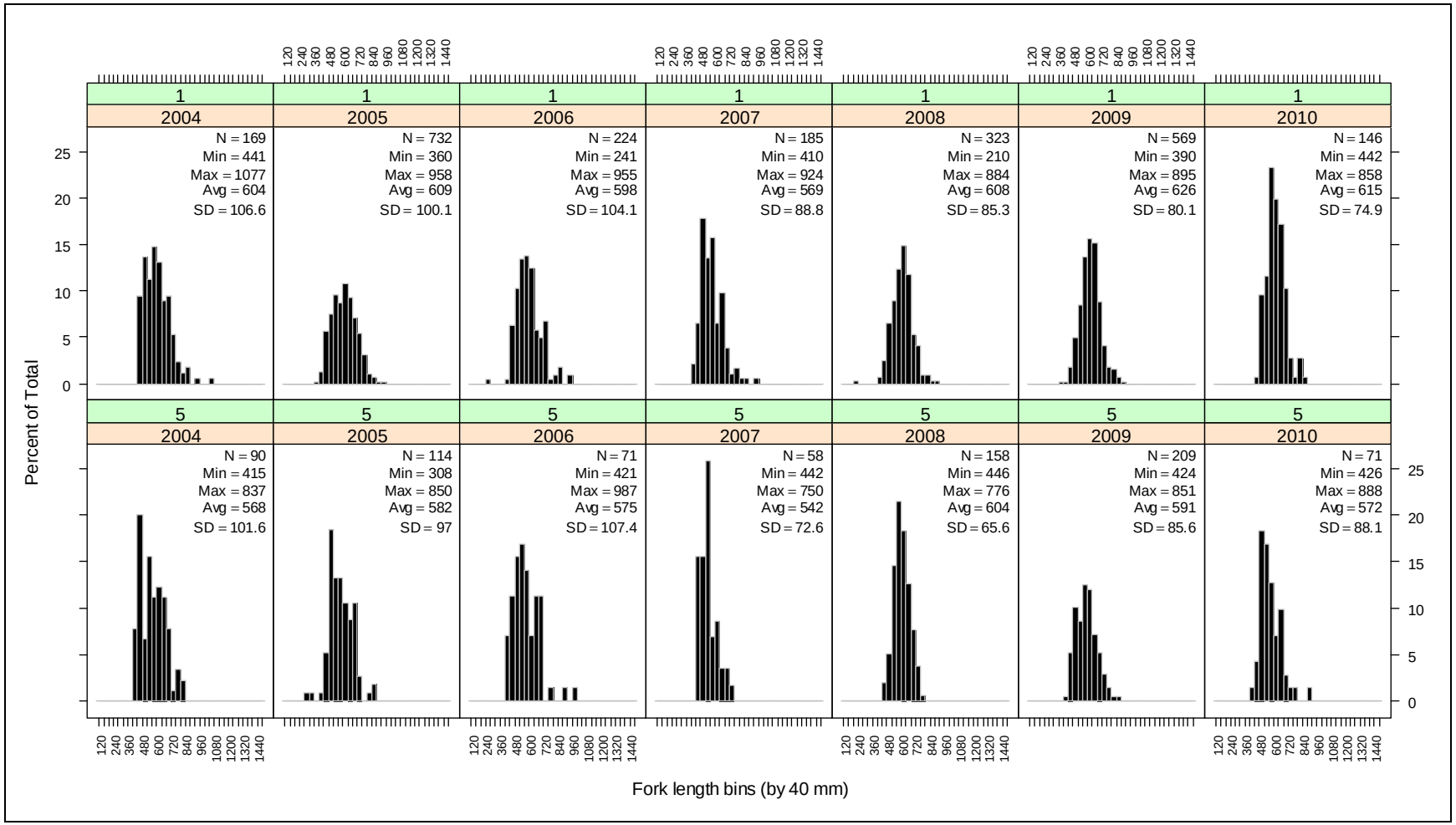

Figure 12. County 1 (Alameda County)

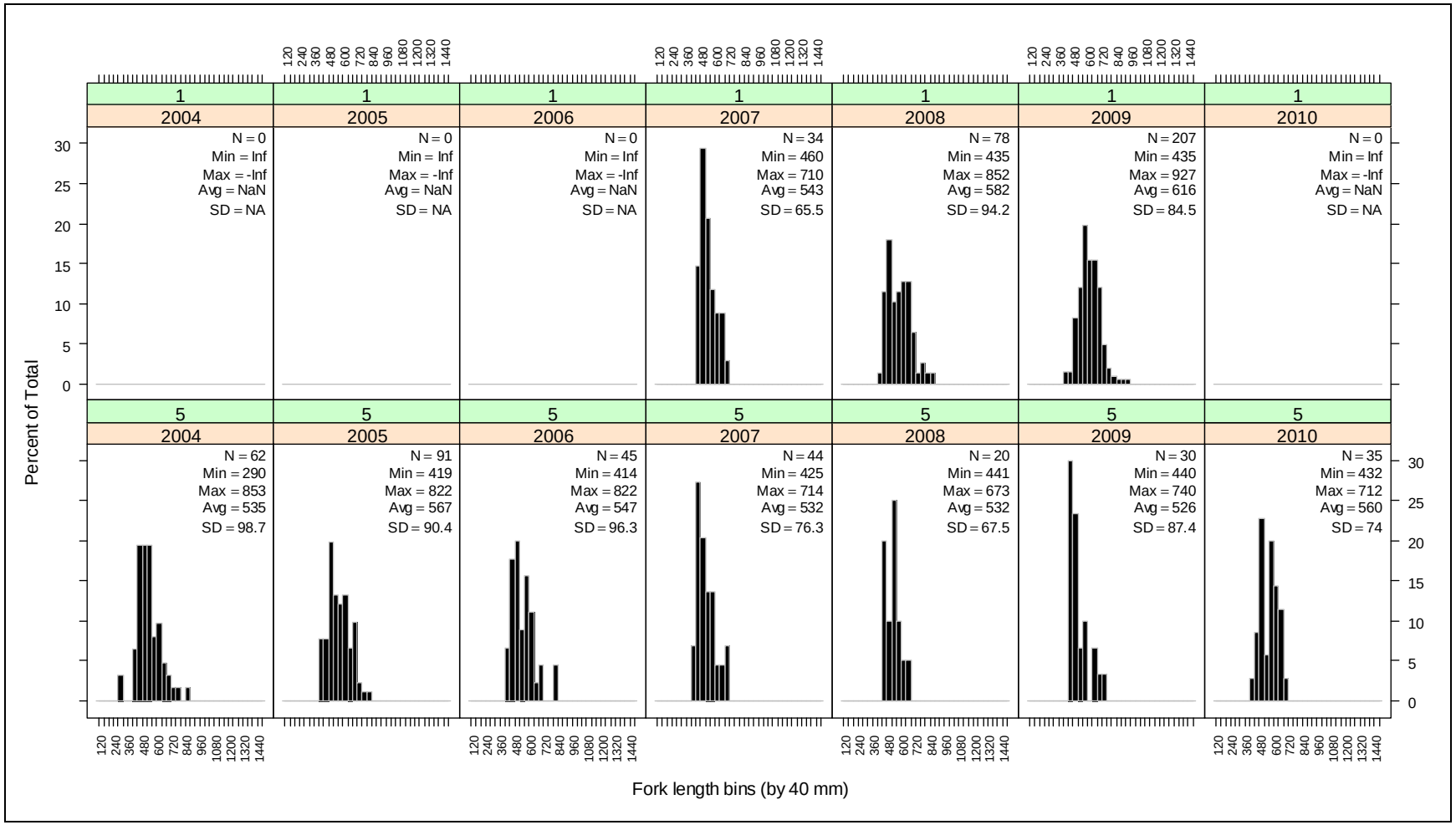

Figure 13. County 13 (Contra Costa County)

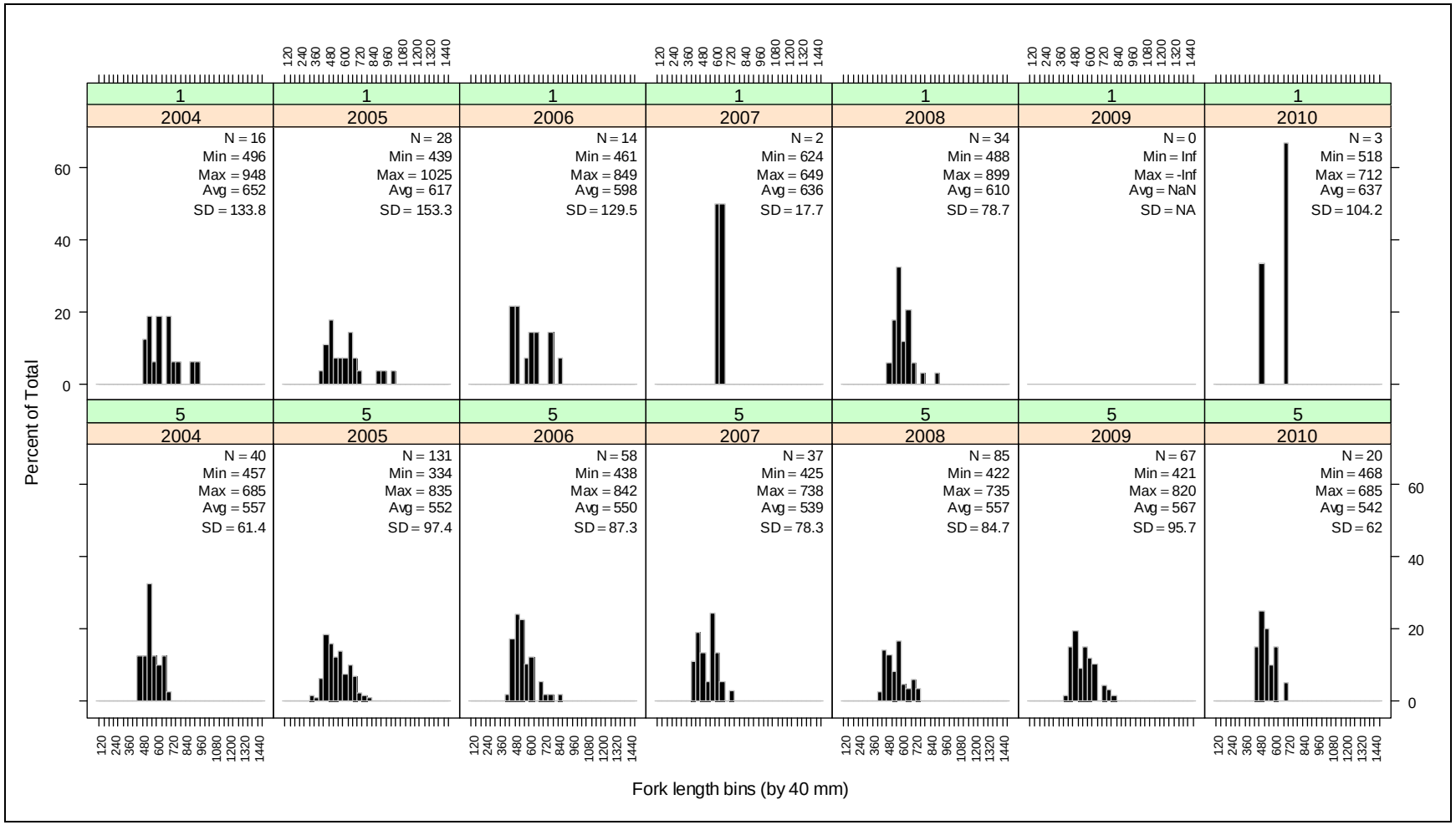

Figure 14. County 41 (Marin County)

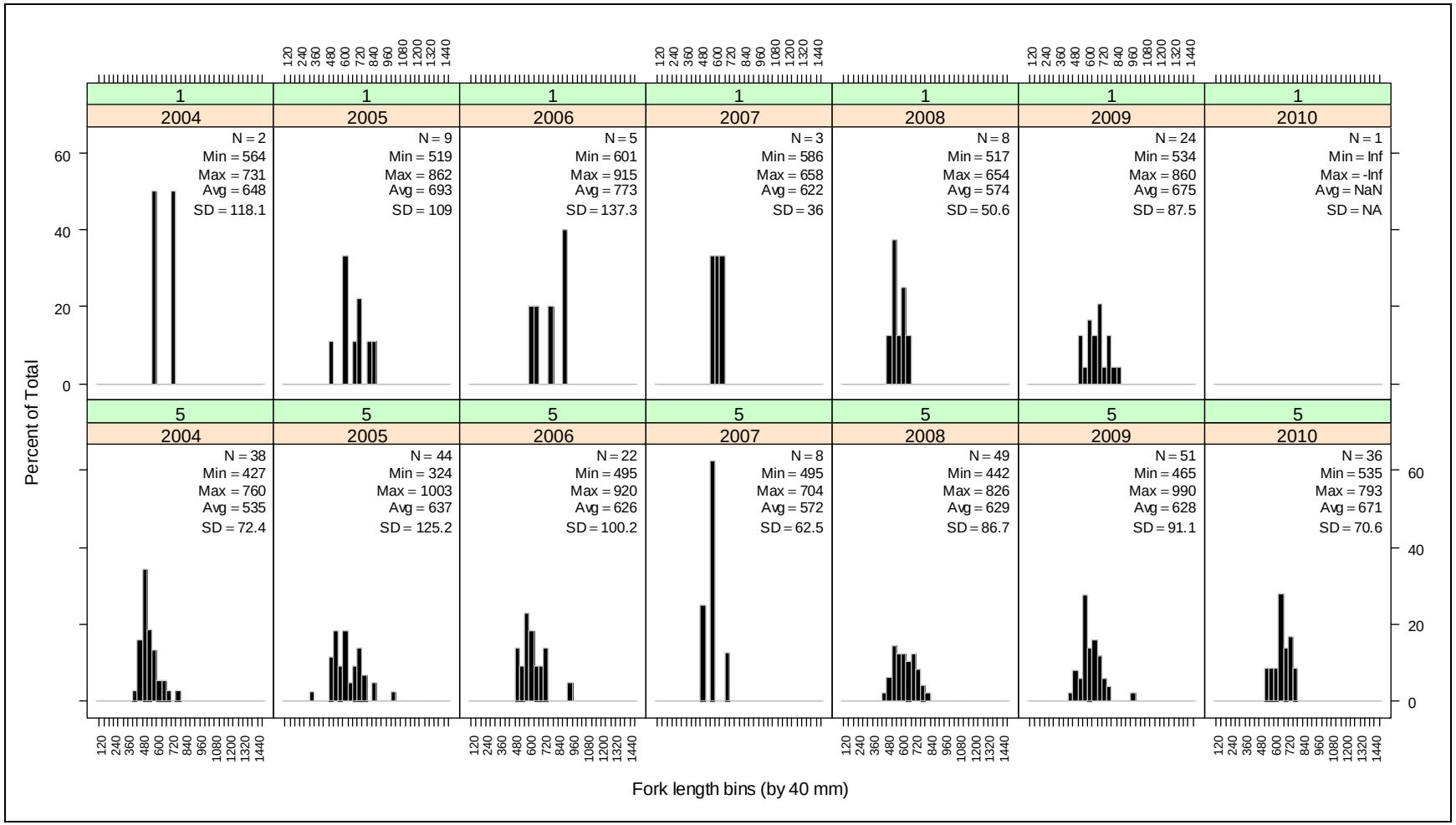

Figure 15. County 75 (San Francisco County)

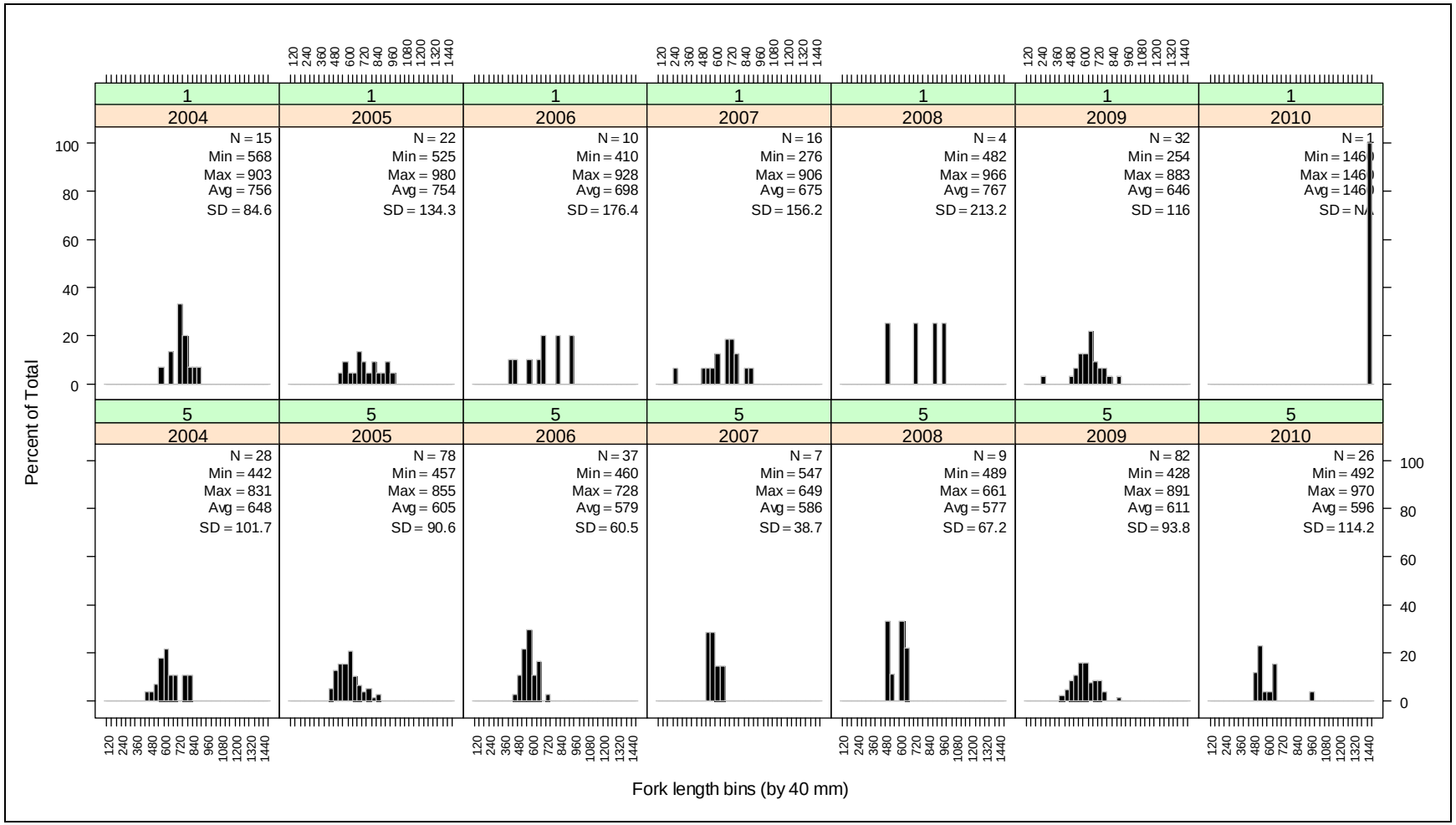

Figure 16. County 81 (San Mateo County)

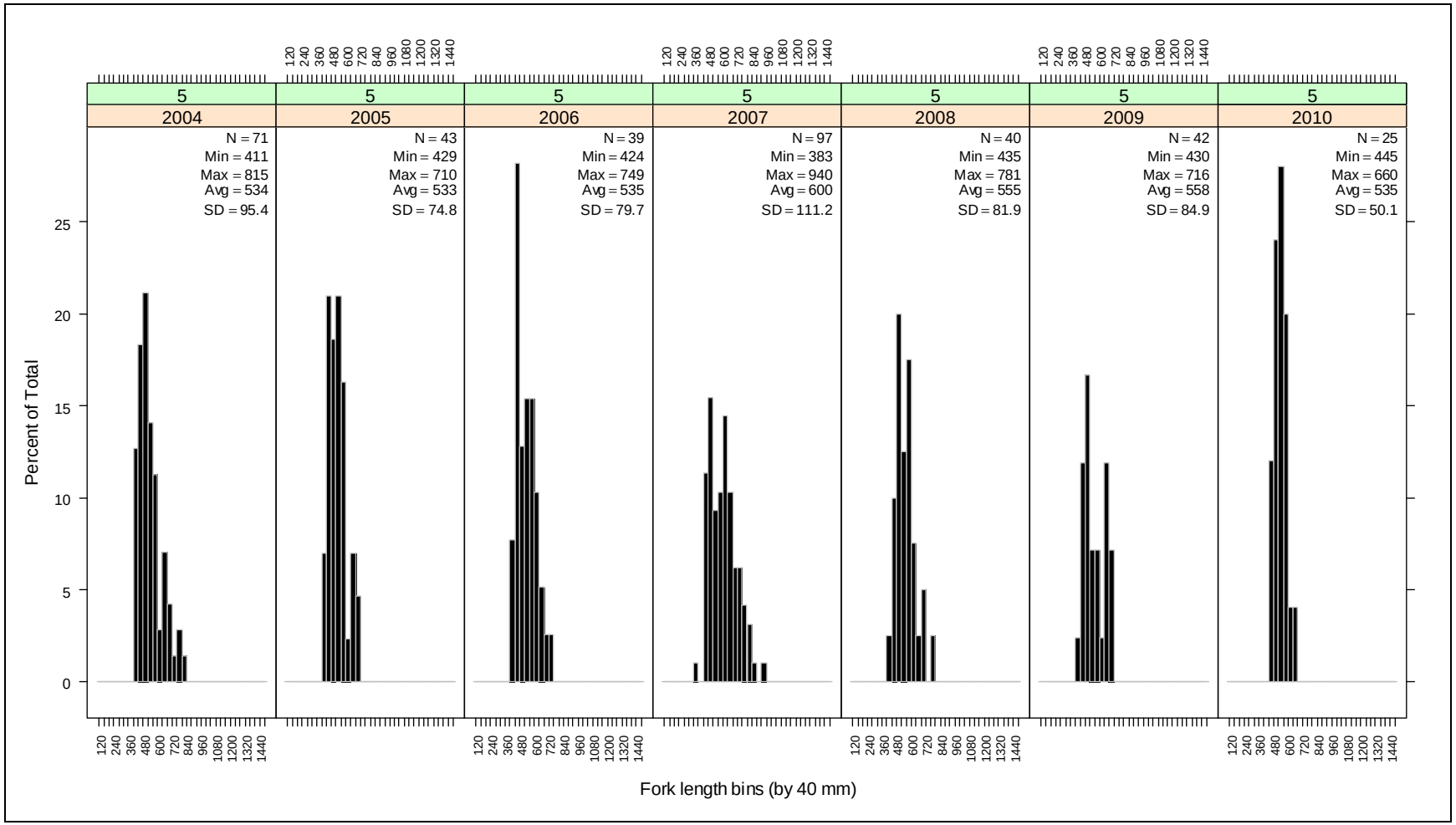

Figure 17. County 95 (Solano County)