

# FIA Data Review

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## Observing Unique Species

YPMC Conifer species we are focusing on for our GP:

Scientific Name	Common Name	Code
<i>Pinus ponderosa</i>	Ponderosa pine	PIPO
<i>Pinus jeffreyi</i>	Jeffery pine	PIJE
<i>Pinus lambertiana</i>	Sugar pine	PILA
<i>Abies concolor</i>	White fir	ABCO
<i>Calocedrus decurrens</i>	Incense cedar	CADE
<i>Pinus contorta</i> ssp. <i>murrayana</i>	Lodgepole pine	PICO/PICOM

Affiliate species that we may consider:

Scientific Name	Common Name	Code
<i>Pinus coulteri</i>	Coulter pine	PICO3
<i>Pseudotsuga macrocarpa</i>	Big cone douglas fir	PSMA
<i>Quercus kelloggii</i>	California black oak	QUKE
<i>Quercus chrysolepis</i>	Canyon live oak	QUCH

## Tree Size Classes

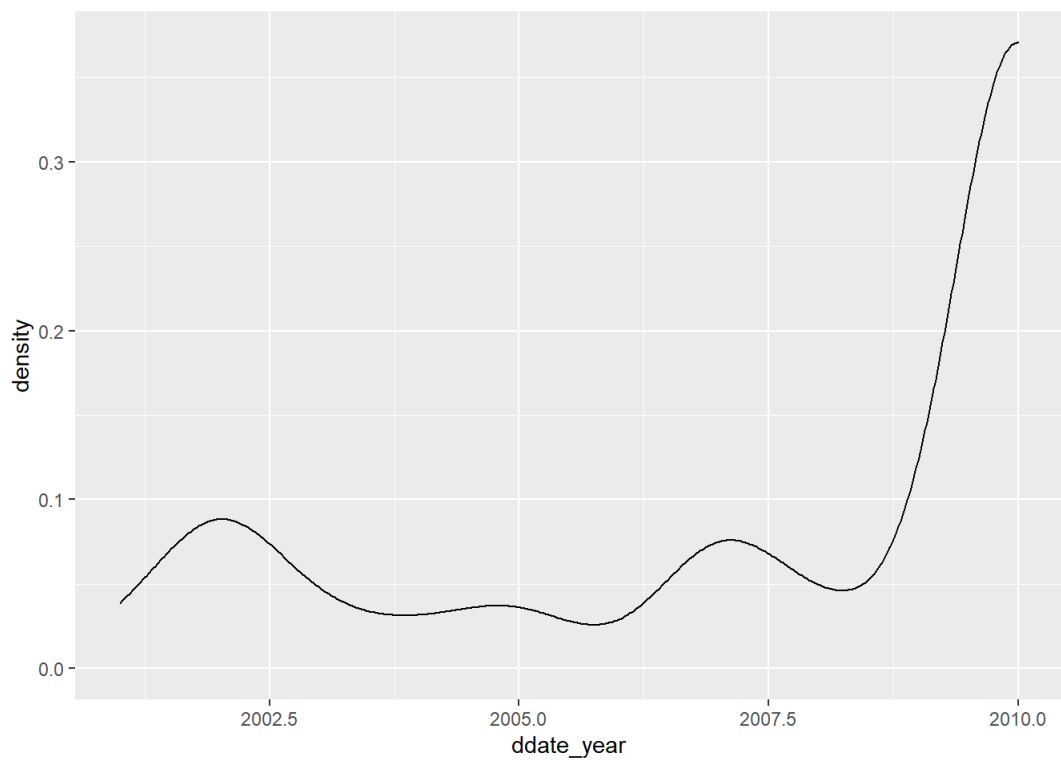
Diameter base height in cm; classes determined from Figure 19 (pg 106 hard-copy and 116 digital) in Safford and Stevens 2017

Use variable DBHI and convert from inches to cm

- 5 - 20 cm
- 20 - 40 cm
- 40 - 60 cm
- 60 - 80 cm
- 80 - 100 cm
- 100 - 120 cm
- 120 - 140 cm
- > 140 cm

## ANF Data Analysis

### ANF Data Collection Dates



## ANF Conifer Count

species	n
ABCO	108
CADE27	21
PICO3	10
PIJE	152
PILA	59
PIPO	2
PSMA	90
QUCH2	607
QUKE	1

## ANF Trees per Plot

plot	species	species_n	total_n	pct
001	ABCO	17	51	33.33
001	PIJE	1	51	1.96
001	PILA	33	51	64.71
018	ABCO	1	8	12.50
018	CADE27	2	8	25.00
018	PIJE	5	8	62.50
020	CADE27	1	2	50.00
033	PIJE	7	8	87.50

plot	species	species_n	total_n	pct
033	PILA	1	8	12.50
034	ABCO	1	62	1.61
034	PIJE	12	62	19.35
034	PILA	3	62	4.84
041	PIJE	2	19	10.53
052	PIPO	1	8	12.50
105	PIJE	3	32	9.38
106	ABCO	22	28	78.57
106	PIJE	6	28	21.43
114	PIJE	2	3	66.67
119	ABCO	1	14	7.14
119	PIJE	13	14	92.86
121	PIJE	21	21	100.00
124	ABCO	2	12	16.67
124	PIJE	9	12	75.00
124	PILA	1	12	8.33
125	ABCO	1	27	3.70
125	PIJE	1	27	3.70
125	PILA	6	27	22.22
126	ABCO	3	39	7.69
126	PILA	1	39	2.56
126	PIPO	1	39	2.56
128	ABCO	3	5	60.00
128	PILA	2	5	40.00
131	ABCO	8	21	38.10
131	CADE27	2	21	9.52
131	PIJE	1	21	4.76
131	PILA	4	21	19.05
152	ABCO	24	27	88.89
152	PIJE	3	27	11.11
153	ABCO	4	53	7.55
153	CADE27	13	53	24.53
153	PILA	4	53	7.55
154	PIJE	11	53	20.75

plot	species	species_n	total_n	pct
158	PIJE	11	18	61.11
173	ABCO	1	20	5.00
173	CADE27	2	20	10.00
173	PILA	1	20	5.00
183	ABCO	5	12	41.67
183	PIJE	4	12	33.33
183	PILA	3	12	25.00
192	ABCO	8	9	88.89
192	PIJE	1	9	11.11
196	PIJE	19	19	100.00
197	ABCO	7	28	25.00
197	CADE27	1	28	3.57
197	PIJE	20	28	71.43

## ANF Tree Size Class

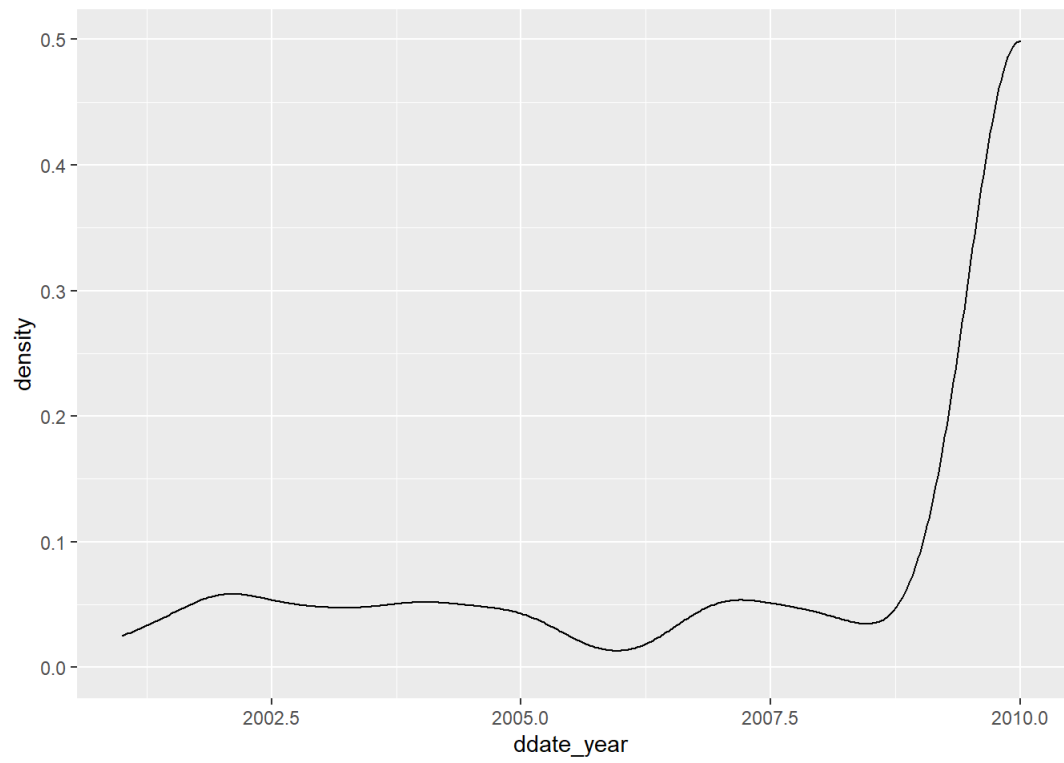
Size Class (cm)	Count
0-5	2
5-20	5
20-40	10
40-60	8
60-80	24
80-100	14
100-120	5
120-140	1

Size Class (cm)	Species	Count
0-5	PIJE	2
5-20	ABCO	2
5-20	PIJE	2
5-20	PILA	1
20-40	ABCO	3
20-40	PIJE	6
20-40	PILA	1
40-60	ABCO	3

Size Class (cm)	Species	Count
40-60	PIJE	5
60-80	ABCO	11
60-80	PIJE	9
60-80	PILA	4
80-100	ABCO	1
80-100	CADE27	1
80-100	PIJE	6
80-100	PILA	6
100-120	ABCO	1
100-120	CADE27	1
100-120	PIJE	2
100-120	PILA	1
120-140	PIJE	1

## CNF Data Analysis

### CNF Data Collection Dates



### CNF Conifer Count

species	n
ABCO	1
CADE27	6

species	n
PICO3	13
PIJE	41
PSMA	19
QUCH2	220
QUKE	53

## CNF Trees per Plot

plot	species	species_n	total_n	pct
073	CADE27	1	9	11.11
085	ABCO	1	21	4.76
085	CADE27	4	21	19.05
086	CADE27	1	17	5.88
086	PIJE	4	17	23.53
090	PIJE	12	14	85.71
113	PIJE	13	22	59.09
128	PIJE	12	20	60.00

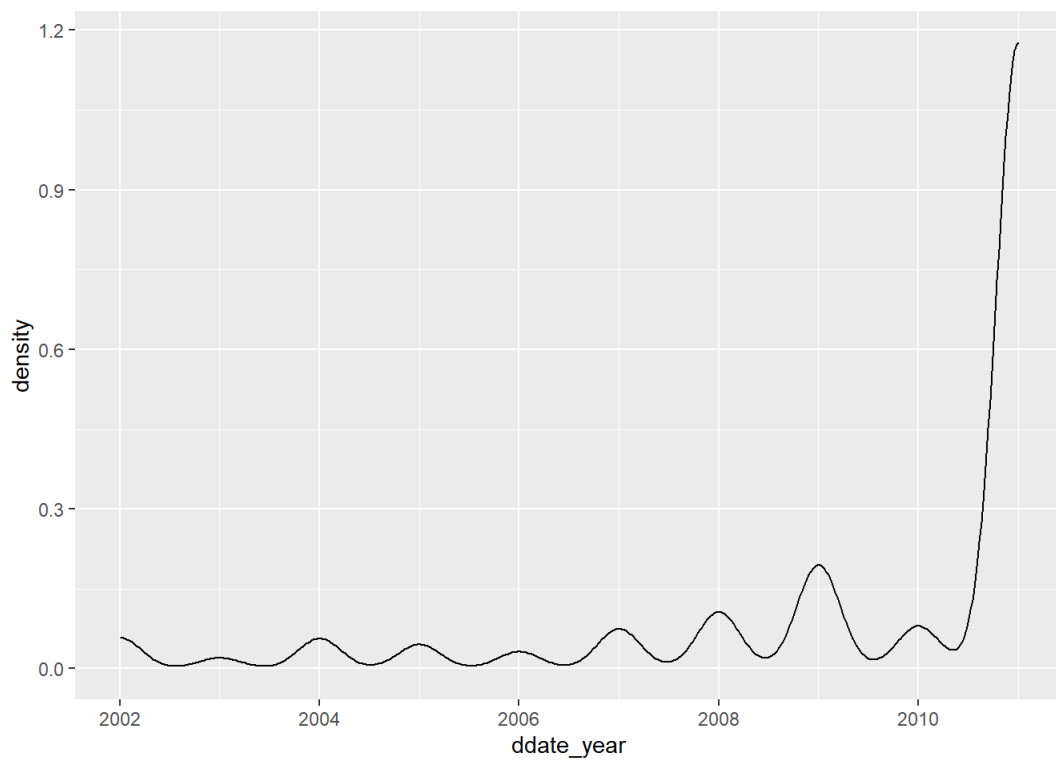
## CNF by Tree size class

Size Class (cm)	Count
5-20	1
20-40	5
40-60	2
60-80	1
80-100	1

Size Class (cm)	Species	Count
5-20	PIJE	1
20-40	CADE27	1
20-40	PIJE	4
40-60	PIJE	2
60-80	PIJE	1
80-100	PIJE	1

## LPF Data Analysis

### LPF Data Collection Dates



## LPF Conifer Count

species	n
ABCO	135
CADE27	32
PICO3	80
PIJE	548
PILA	73
PIPO	23
PSMA	243
QUCH2	2523
QUKE	84

## LPF Trees per Plot

plot	species	species_n	total_n	pct
3	PIPO	1	49	2.04
108	PIJE	39	39	100.00
138	PILA	1	8	12.50
145	PIJE	5	41	12.20
148	PIJE	1	11	9.09
149	PILA	1	12	8.33
164	PIJE	2	5	40.00
164	PILA	1	5	20.00

plot	species	species_n	total_n	pct
165	PIJE	14	15	93.33
169	PIJE	1	1	100.00
232	ABCO	2	23	8.70
232	PIJE	1	23	4.35
234	PIJE	1	14	7.14
235	ABCO	11	16	68.75
235	PIJE	5	16	31.25
236	ABCO	2	31	6.45
236	PIJE	2	31	6.45
236	PILA	2	31	6.45
237	PIJE	32	32	100.00
245	PIPO	1	16	6.25
248	PIPO	9	11	81.82
251	CADE27	1	17	5.88
278	PIJE	3	4	75.00
280	ABCO	2	65	3.08
280	PIJE	2	65	3.08
281	ABCO	4	41	9.76
281	PIJE	2	41	4.88
281	PILA	3	41	7.32
283	ABCO	1	8	12.50
283	PIJE	3	8	37.50
285	PIJE	34	36	94.44
287	PIJE	1	1	100.00
288	PIJE	21	21	100.00
289	ABCO	10	33	30.30
289	PIJE	23	33	69.70
291	PIJE	42	42	100.00
292	PIJE	12	14	85.71
302	ABCO	5	34	14.71
302	PIJE	7	34	20.59
302	PILA	4	34	11.76
303	CADE27	8	35	22.86
303	PIJE	8	35	22.86



plot	species	species_n	total_n	pct
303	PILA	8	35	22.86
309	PIJE	1	31	3.23
309	PILA	10	31	32.26
310	PIJE	23	34	67.65
310	PILA	1	34	2.94
311	PIJE	1	22	4.55
311	PILA	2	22	9.09
311	PIPO	2	22	9.09
313	PIJE	6	18	33.33
313	PILA	1	18	5.56
336	PIPO	1	12	8.33
402	CADE27	3	25	12.00
417	ABCO	15	20	75.00
417	PIJE	2	20	10.00
418	PIJE	23	23	100.00
419	PIJE	4	52	7.69
432	ABCO	1	17	5.88
432	PIJE	5	17	29.41
433	ABCO	4	22	18.18
433	CADE27	2	22	9.09
433	PILA	7	22	31.82
433	PIPO	3	22	13.64
434	ABCO	2	26	7.69
434	PIJE	11	26	42.31
434	PILA	13	26	50.00
439	PIJE	2	17	11.76
440	PIJE	2	2	100.00
444	PIJE	9	11	81.82
451	PIJE	27	27	100.00
459	PILA	1	43	2.33
615	PIPO	1	1	100.00
640	ABCO	5	18	27.78
640	PIJE	4	18	22.22

plot	species	species_n	total_n	pct
645	ABCO	57	57	100.00
651	PIJE	20	20	100.00
721	CADE27	7	31	22.58
721	PIJE	9	31	29.03
721	PILA	7	31	22.58
722	CADE27	3	31	9.68
722	PIJE	3	31	9.68
722	PILA	5	31	16.13
723	PIJE	14	14	100.00
725	ABCO	6	24	25.00
725	PIJE	15	24	62.50
725	PILA	3	24	12.50
726	PIJE	12	12	100.00
732	CADE27	6	39	15.38
732	PIJE	7	39	17.95
732	PILA	1	39	2.56
737	PIJE	13	13	100.00
742	PIJE	1	1	100.00
749	CADE27	2	60	3.33
751	PILA	1	40	2.50
751	PIPO	5	40	12.50
772	PIJE	3	3	100.00
777	PIJE	2	2	100.00
779	PIJE	9	32	28.12
782	PIJE	15	15	100.00
793	ABCO	2	44	4.55
793	PIJE	29	44	65.91
794	PIJE	11	11	100.00
797	ABCO	5	33	15.15
797	PIJE	4	33	12.12
797	PILA	1	33	3.03
803	ABCO	1	10	10.00

LPF Tree Size Class

**Size Class (cm)    Count**

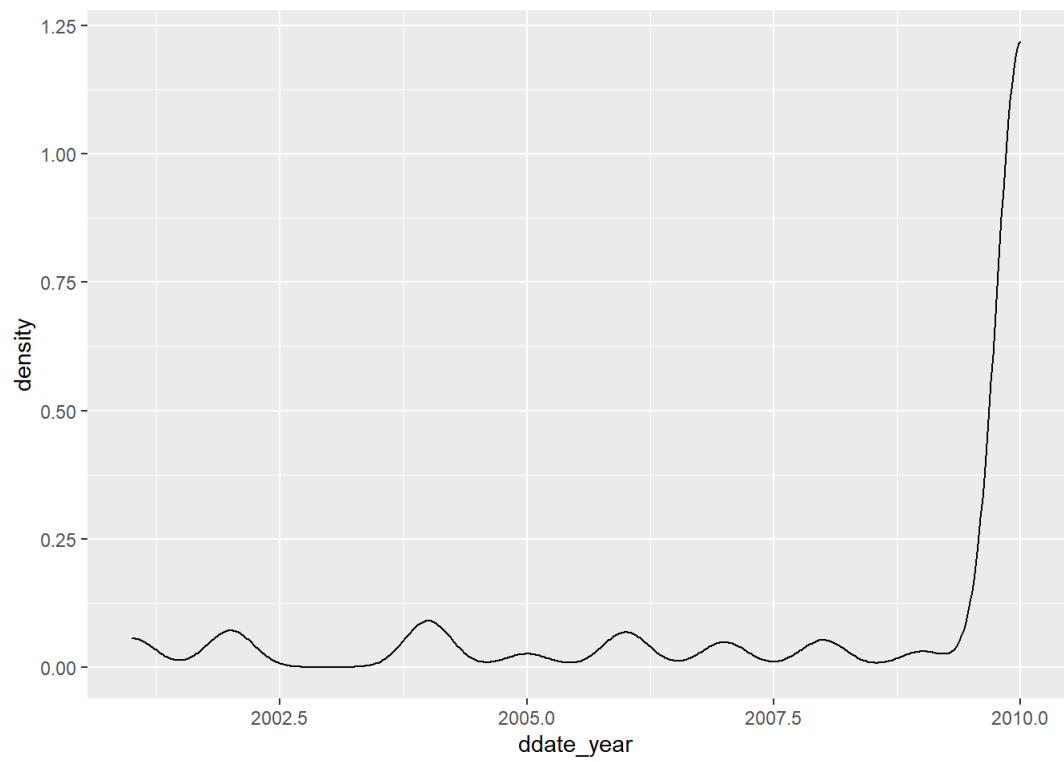
0-5	4
5-20	28
20-40	41
40-60	20
60-80	41
80-100	20
100-120	8
120-140	3
>140	1

**Size Class (cm)    Species    Count**

0-5	ABCO	1
0-5	PIJE	2
0-5	PILA	1
5-20	ABCO	4
5-20	PIJE	20
5-20	PILA	4
20-40	ABCO	7
20-40	PIJE	29
20-40	PILA	5
40-60	ABCO	4
40-60	CADE27	2
40-60	PIJE	10
40-60	PILA	4
60-80	ABCO	8
60-80	CADE27	1
60-80	PIJE	29
60-80	PILA	2
60-80	PIPO	1
80-100	ABCO	3
80-100	CADE27	3
80-100	PIJE	13
80-100	PILA	1
100-120	ABCO	4

Size Class (cm)	Species	Count
100-120	PIJE	3
100-120	PILA	1
120-140	ABCO	1
120-140	PIJE	1
120-140	PIPO	1
>140	PIJE	1

## BDF Data Analysis



## BDF Conifer Count

species	n
ABCO	910
CADE27	171
PICO3	137
PIJE	579
PILA	187
PIPO	59
PSMA	62
QUCH2	1531
QUKE	331

## BDF Trees per Plot

plot	species	species_n	total_n	pct
018	PIJE	2	47	4.26
018	PILA	2	47	4.26
024	ABCO	3	23	13.04
024	PIJE	14	23	60.87
024	PILA	6	23	26.09
025	PIJE	1	1	100.00
027	ABCO	9	12	75.00
027	PIJE	3	12	25.00
028	ABCO	5	45	11.11
028	PIJE	11	45	24.44
029	ABCO	35	48	72.92
029	PIJE	13	48	27.08
030	ABCO	23	27	85.19
030	PIJE	4	27	14.81
033	ABCO	48	66	72.73
033	CADE27	7	66	10.61
033	PIJE	4	66	6.06
033	PILA	3	66	4.55
034	ABCO	22	39	56.41
034	PIJE	1	39	2.56
034	PILA	16	39	41.03
036	ABCO	15	31	48.39
036	PIJE	3	31	9.68
036	PILA	9	31	29.03
040	ABCO	10	17	58.82
040	PIJE	6	17	35.29
040	PILA	1	17	5.88
041	PILA	1	20	5.00
045	ABCO	9	31	29.03
045	PIJE	6	31	19.35
046	ABCO	14	38	36.84
046	PIJE	4	38	10.53
046	PILA	2	38	5.26

plot	species	species_n	total_n	pct
060	ABCO	14	44	31.82
060	PIJE	29	44	65.91
061	PIJE	14	14	100.00
065	CADE27	1	48	2.08
065	PIJE	2	48	4.17
070	PIJE	3	15	20.00
070	PIPO	5	15	33.33
071	PIJE	1	9	11.11
078	PIJE	5	8	62.50
080	PIPO	4	30	13.33
082	ABCO	3	11	27.27
082	PIJE	8	11	72.73
083	ABCO	3	91	3.30
087	PIJE	1	1	100.00
088	PIJE	10	10	100.00
090	ABCO	1	26	3.85
090	CADE27	2	26	7.69
092	ABCO	1	29	3.45
092	PIJE	2	29	6.90
092	PILA	8	29	27.59
093	ABCO	41	53	77.36
093	PIJE	12	53	22.64
094	ABCO	6	24	25.00
094	CADE27	2	24	8.33
094	PIJE	15	24	62.50
094	PILA	1	24	4.17
095	ABCO	2	56	3.57
097	ABCO	62	76	81.58
097	PIJE	1	76	1.32
097	PILA	13	76	17.11
099	ABCO	1	63	1.59
099	CADE27	23	63	36.51
101	ABCO	3	36	8.33

plot	species	species_n	total_n	pct
101	CADE27	7	36	19.44
101	PILA	1	36	2.78
102	ABCO	5	10	50.00
102	PIJE	3	10	30.00
102	PILA	2	10	20.00
103	ABCO	23	38	60.53
103	PIJE	5	38	13.16
103	PILA	10	38	26.32
105	ABCO	21	31	67.74
105	PIPO	10	31	32.26
109	ABCO	11	31	35.48
109	PIJE	20	31	64.52
110	PIJE	21	25	84.00
111	ABCO	7	24	29.17
111	PIJE	15	24	62.50
113	ABCO	22	59	37.29
113	PIJE	37	59	62.71
114	ABCO	6	10	60.00
114	PIJE	1	10	10.00
114	PILA	3	10	30.00
115	ABCO	9	18	50.00
115	PIPO	9	18	50.00
118	PIJE	8	20	40.00
121	ABCO	20	42	47.62
121	PIJE	4	42	9.52
121	PILA	8	42	19.05
121	PIPO	3	42	7.14
124	ABCO	1	61	1.64
125	ABCO	13	36	36.11
125	PIJE	13	36	36.11
128	ABCO	17	33	51.52
128	CADE27	11	33	33.33
128	PILA	1	33	3.03

plot	species	species_n	total_n	pct
129	ABCO	10	11	90.91
129	PILA	1	11	9.09
133	ABCO	4	54	7.41
133	CADE27	32	54	59.26
134	ABCO	6	33	18.18
134	PIJE	8	33	24.24
134	PILA	2	33	6.06
136	ABCO	7	67	10.45
136	PIJE	11	67	16.42
137	ABCO	2	7	28.57
137	PIJE	5	7	71.43
138	ABCO	23	25	92.00
138	PILA	2	25	8.00
139	ABCO	2	4	50.00
139	PILA	2	4	50.00
144	ABCO	1	30	3.33
144	CADE27	1	30	3.33
146	ABCO	8	24	33.33
146	CADE27	5	24	20.83
146	PILA	3	24	12.50
147	ABCO	27	41	65.85
147	CADE27	1	41	2.44
147	PIJE	2	41	4.88
147	PILA	4	41	9.76
148	ABCO	24	63	38.10
148	PILA	4	63	6.35
155	ABCO	9	50	18.00
155	CADE27	8	50	16.00
155	PILA	7	50	14.00
157	ABCO	1	7	14.29
157	PIJE	6	7	85.71
158	ABCO	1	18	5.56
158	PIJE	6	18	33.33



plot	species	species_n	total_n	pct
159	PIJE	1	51	1.96
160	ABCO	2	23	8.70
160	CADE27	1	23	4.35
160	PIJE	13	23	56.52
161	ABCO	1	18	5.56
161	PIJE	9	18	50.00
162	ABCO	1	10	10.00
162	PIJE	4	10	40.00
162	PILA	3	10	30.00
164	ABCO	16	22	72.73
164	PIJE	4	22	18.18
165	CADE27	1	3	33.33
165	PIJE	2	3	66.67
169	ABCO	2	22	9.09
169	PIJE	3	22	13.64
169	PILA	2	22	9.09
170	PIJE	4	33	12.12
170	PILA	1	33	3.03
172	ABCO	7	20	35.00
172	CADE27	2	20	10.00
172	PIJE	7	20	35.00
172	PILA	1	20	5.00
177	PIJE	5	6	83.33
179	CADE27	6	6	100.00
180	ABCO	2	47	4.26
180	PILA	7	47	14.89
186	CADE27	1	4	25.00
189	PIJE	3	29	10.34
202	PIJE	3	3	100.00
203	PIJE	3	3	100.00
211	PIJE	5	9	55.56
211	PILA	1	9	11.11
213	PIJE	14	22	63.64

plot	species	species_n	total_n	pct
301	ABCO	19	35	54.29
301	PIJE	8	35	22.86
301	PILA	8	35	22.86
304	ABCO	14	19	73.68
304	PIJE	2	19	10.53
304	PILA	3	19	15.79
305	PIJE	1	1	100.00
306	PIJE	18	18	100.00
308	PIJE	14	40	35.00
309	ABCO	29	50	58.00
309	PIJE	7	50	14.00
310	ABCO	10	27	37.04
310	PILA	4	27	14.81
312	ABCO	17	40	42.50
312	PIJE	12	40	30.00
312	PILA	1	40	2.50
313	ABCO	6	71	8.45
313	CADE27	32	71	45.07
313	PIJE	4	71	5.63
313	PILA	1	71	1.41
314	PILA	4	15	26.67
315	CADE27	2	31	6.45
317	PIJE	3	35	8.57
318	ABCO	1	63	1.59
318	CADE27	6	63	9.52
318	PIJE	22	63	34.92
318	PILA	6	63	9.52
319	ABCO	23	55	41.82
319	CADE27	1	55	1.82
319	PIJE	14	55	25.45
320	ABCO	47	68	69.12
320	PILA	7	68	10.29
320	PIPO	6	68	8.82

plot	species	species_n	total_n	pct
321	ABCO	6	30	20.00
321	PIJE	9	30	30.00
322	ABCO	5	36	13.89
322	CADE27	6	36	16.67
322	PILA	2	36	5.56
323	ABCO	2	38	5.26
324	ABCO	19	44	43.18
324	CADE27	3	44	6.82
324	PIJE	2	44	4.55
324	PILA	7	44	15.91
325	CADE27	1	15	6.67
327	ABCO	3	3	100.00
330	ABCO	23	25	92.00
330	PIJE	2	25	8.00
331	ABCO	5	15	33.33
331	PIJE	10	15	66.67
332	ABCO	15	20	75.00
332	PIJE	1	20	5.00
332	PILA	3	20	15.00
333	PIJE	19	19	100.00
609	CADE27	9	40	22.50
609	PILA	1	40	2.50
609	PIPO	22	40	55.00
620	PIJE	10	10	100.00
621	ABCO	25	74	33.78
621	PILA	13	74	17.57
624	PIJE	1	4	25.00

## BDF Tree Size Class

Size Class (cm)	Count
0-5	14
5-20	49
20-40	95
40-60	44

Size Class (cm)	Count
60-80	86
80-100	51
100-120	13
120-140	6
>140	2

Size Class (cm)	Species	Count
0-5	ABCO	8
0-5	CADE27	1
0-5	PILA	5
5-20	ABCO	29
5-20	CADE27	4
5-20	PIJE	13
5-20	PILA	3
20-40	ABCO	45
20-40	CADE27	9
20-40	PIJE	28
20-40	PILA	8
20-40	PIPO	5
40-60	ABCO	21
40-60	CADE27	6
40-60	PIJE	14
40-60	PILA	2
40-60	PIPO	1
60-80	ABCO	32
60-80	CADE27	5
60-80	PIJE	32
60-80	PILA	12
60-80	PIPO	5
80-100	ABCO	17
80-100	CADE27	3
80-100	PIJE	23
80-100	PILA	5
80-100	PIPO	3

Size Class (cm)	Species	Count
100-120	ABCO	7
100-120	CADE27	1
100-120	PIJE	3
100-120	PILA	2
120-140	ABCO	3
120-140	CADE27	1
120-140	PIJE	2
>140	CADE27	1
>140	PIJE	1

## Create table of plot count

plot_forest	plot_total	plot_ypmc_buffer	plot_outside_buffer
ANF	139	26	113
CNF	91	6	85
LPF	558	68	490
BDF	234	108	126