

Structure Summary Outputs

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LV data

Number of log vanes scoring 3 or higher based on Pre existing Morphology

'summarise()' has grouped output by 'Morphology_Pre'. You can override using the '.groups' argument.

Table 1: Log Vanes Scoring ≥ 3 by Pre Existing Morphology

Morphology_Pre	failed	percent
pool	FALSE	21.951220
pool	TRUE	21.951220
pool	NA	4.878049
rifle	FALSE	29.268293
rifle	TRUE	19.512195
rifle	NA	2.439024

Number of Log Vanes scoring 3 or higher based on pre existing morphology by Year; denominator is total number of LV (41) 18 LV were diagnosed 3 or 4 at some point during monitoring.

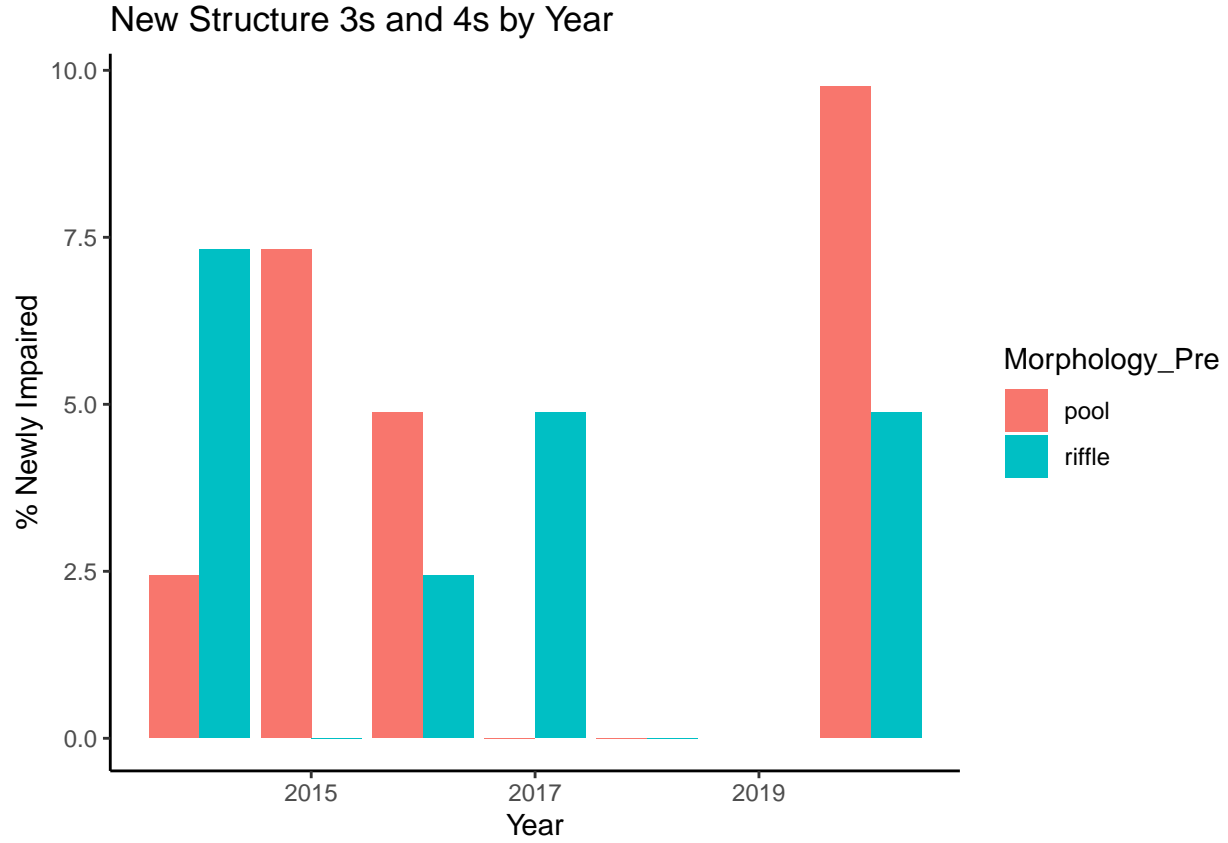


Table 2: Log Vane Failures by Year and Pre-existing Morphology

Morphology_Pre	2014	2015	2016	2017	2018	2020
pool	2.44	7.32	4.88	0.00	0	9.76
riffle	7.32	0.00	2.44	4.88	0	4.88

RA Data

Intact Structures

Intact Structures by Year

Table 3: Percent Intact by Year for Rating Types

Rating	2014	2015	2016	2017	2018	2020
Integrity	94.78	90.08	92.8	92.68	91.87	82.11
Deposition	97.01	96.95	96.8	82.93	76.42	82.11
Erosion	97.76	94.66	96.0	94.31	94.31	82.93
Rootwad	100.00	95.45	100.0	100.00	100.00	77.27

Intact Structures by Structure Type

Integrity

Table 4: Integrity of Structures by Year

Structure_Type	2014	2015	2016	2017	2018	2020	Percent_Intact
boulder cluster	100.00	100.00	100.00	100.00	100.00	100.00	100.00
boulder grade control, main channel	100.00	100.00	100.00	100.00	100.00	100.00	100.00
boulder grade control, side channel	90.00	90.00	100.00	100.00	100.00	90.91	81.82
boulder toe	100.00	50.00	50.00	50.00	25.00	25.00	20.00
boulder vane	90.00	77.78	100.00	100.00	100.00	100.00	72.73
cobble toe	100.00	100.00	100.00	100.00	100.00	100.00	100.00
habitat boulder	100.00	100.00	100.00	100.00	100.00	60.00	60.00
log boulder vane	100.00	100.00	100.00	100.00	100.00	100.00	100.00
log grade control, side channel	100.00	100.00	100.00	100.00	100.00	100.00	100.00
log vane	88.37	82.93	85.71	84.85	84.85	66.67	53.49
wood toe	100.00	95.45	90.91	90.91	90.91	77.27	77.27

Deposition

Table 5: Deposition of Structures by Year

Structure_Type	2014	2015	2016	2017	2018	2020	percentage
boulder cluster	100.00	100.00	100.00	100.00	88.89	77.78	74.07
boulder grade control, main channel	100.00	100.00	100.00	100.00	100.00	100.00	100.00
boulder grade control, side channel	90.00	90.00	90.91	63.64	63.64	63.64	63.64
boulder toe	100.00	100.00	100.00	100.00	100.00	100.00	100.00
boulder vane	90.00	100.00	100.00	87.50	87.50	87.50	81.82
cobble toe	100.00	87.50	87.50	87.50	87.50	87.50	87.50
habitat boulder	100.00	100.00	100.00	100.00	100.00	80.00	80.00
log boulder vane	100.00	100.00	100.00	100.00	100.00	100.00	100.00
log grade control, side channel	100.00	100.00	100.00	100.00	100.00	100.00	100.00
log vane	97.67	100.00	97.14	75.76	60.61	81.82	65.12
wood toe	95.45	90.91	95.45	68.18	68.18	86.36	63.64

Erosion

Table 6: Erosion of Structures by Year

Structure_Type	2014	2015	2016	2017	2018	2020	percentage
boulder cluster	100.00	100.00	100.00	100.00	100.00	100.00	100.00
boulder grade control, main channel	100.00	100.00	100.00	100.00	100.00	100.00	100.00
boulder grade control, side channel	100.00	100.00	100.00	90.91	90.91	72.73	72.73
boulder toe	100.00	50.00	50.00	50.00	50.00	25.00	20.00
boulder vane	100.00	88.89	100.00	100.00	100.00	62.50	63.64
cobble toe	100.00	100.00	100.00	100.00	100.00	100.00	100.00
habitat boulder	100.00	100.00	100.00	100.00	100.00	100.00	100.00
log boulder vane	100.00	100.00	100.00	100.00	100.00	100.00	100.00
log grade control, side channel	100.00	100.00	100.00	100.00	100.00	100.00	100.00
log vane	93.02	92.68	91.43	87.88	87.88	75.76	69.77

Structure_Type	2014	2015	2016	2017	2018	2020	percentage
wood toe	100.00	95.45	100.00	100.00	100.00	81.82	81.82

Rootwad

Table 7: Rootwad Performance of Structures by Year

Structure_Type	2014	2015	2016	2017	2018	2020	percentage
wood toe	100	95.45	100	100	100	77.27	77.27

Structure Failures

Table that shows new scores of 3 or higher for each type of Rating in each Year. Denominator is total structures Erosion, Integrity and Deposition (137). Denominator is total rootwad structures for rootwad (22). After structure is counted as “failed” for a year, it’s not counted again

Table 8: New Failures for Rating Types

Ratings	2014	2015	2016	2017	2018	2020	notes
Integrity	5.11	6.57	3.65	1.46	0.73	8.76	ratings ≥ 3
Deposition	2.92	1.46	0.73	11.68	5.84	5.11	ratings ≥ 3
Erosion	2.19	4.38	2.19	2.92	0.00	8.76	ratings ≥ 3
Rootwad	0.00	4.55	0.00	0.00	0.00	18.18	ratings ≥ 3

RA Failed Structures Summary of Ratings by Structure Types

Integrity: Denominator is structures of that same type.

Table 9: Integrity Diagnoses of 3 or 4

Structure_Type	2014	2015	2016	2017	2018	2020	Notes
boulder cluster	0.00	0.00	0.00	0.00	0	0.00	ratings ≥ 3
boulder grade control, main channel	0.00	0.00	0.00	0.00	0	0.00	ratings ≥ 3
boulder grade control, side channel	9.09	0.00	0.00	0.00	0	9.09	ratings ≥ 3
boulder toe	0.00	40.00	20.00	0.00	20	0.00	ratings ≥ 3
boulder vane	9.09	18.18	0.00	0.00	0	0.00	ratings ≥ 3
cobble toe	0.00	0.00	0.00	0.00	0	0.00	ratings ≥ 3
habitat boulder	0.00	0.00	0.00	0.00	0	40.00	ratings ≥ 3
log boulder vane	0.00	0.00	0.00	0.00	0	0.00	ratings ≥ 3
log grade control, side channel	0.00	0.00	0.00	0.00	0	0.00	ratings ≥ 3
log vane	11.63	9.30	6.98	4.65	0	13.95	ratings ≥ 3
wood toe	0.00	4.55	4.55	0.00	0	13.64	ratings ≥ 3

Deposition

Table 10: Deposition Diagnoses of 3 or 4 or 5

Structure_Type	2014	2015	2016	2017	2018	2020	Notes
boulder cluster	0.00	0.00	0.00	0.00	11.11	14.81	ratings ≥ 3
boulder grade control, main channel	0.00	0.00	0.00	0.00	0.00	0.00	ratings ≥ 3
boulder grade control, side channel	9.09	0.00	0.00	27.27	0.00	0.00	ratings ≥ 3
boulder toe	0.00	0.00	0.00	0.00	0.00	0.00	ratings ≥ 3
boulder vane	9.09	0.00	0.00	9.09	0.00	0.00	ratings ≥ 3
cobble toe	0.00	12.50	0.00	0.00	0.00	0.00	ratings ≥ 3
habitat boulder	0.00	0.00	0.00	0.00	0.00	20.00	ratings ≥ 3
log boulder vane	0.00	0.00	0.00	0.00	0.00	0.00	ratings ≥ 3
log grade control, side channel	0.00	0.00	0.00	0.00	0.00	0.00	ratings ≥ 3
log vane	2.33	0.00	2.33	16.28	11.63	2.33	ratings ≥ 3
wood toe	4.55	4.55	0.00	22.73	0.00	4.55	ratings ≥ 3

Erosion

Table 11: Erosion Diagnoses of 3 or 4 or 5

Structure_Type	2014	2015	2016	2017	2018	2020	Notes
boulder cluster	0.00	0.00	0.00	0.00	0	0.00	ratings ≥ 3
boulder grade control, main channel	0.00	0.00	0.00	0.00	0	0.00	ratings ≥ 3
boulder grade control, side channel	0.00	0.00	0.00	9.09	0	18.18	ratings ≥ 3
boulder toe	0.00	40.00	20.00	0.00	0	20.00	ratings ≥ 3
boulder vane	0.00	9.09	0.00	0.00	0	27.27	ratings ≥ 3
cobble toe	0.00	0.00	0.00	0.00	0	0.00	ratings ≥ 3
habitat boulder	0.00	0.00	0.00	0.00	0	0.00	ratings ≥ 3
log boulder vane	0.00	0.00	0.00	0.00	0	0.00	ratings ≥ 3
log grade control, side channel	0.00	0.00	0.00	0.00	0	0.00	ratings ≥ 3
log vane	6.98	4.65	4.65	6.98	0	6.98	ratings ≥ 3
wood toe	0.00	4.55	0.00	0.00	0	13.64	ratings ≥ 3

Rootwad: Denominator is total number number of rootwad structures (22)

Table 12: Rootwad Diagnoses of 3 or 4 or 5

Structure_Type	2014	2015	2016	2017	2018	2020	Notes
wood toe	0	4.55	0	0	0	18.18	ratings ≥ 3

Max Scores

Integrity

Table 13: Integrity Scores by Year

Integrity	2014	2015	2016	2017	2018	2020	Max
1	119	106	97	83	83	59	55
2	8	12	19	31	30	42	46
3	4	8	7	9	10	12	16

Integrity	2014	2015	2016	2017	2018	2020	Max
4	3	5	2	0	0	10	20

Deposition

Table 14: Deposition Scores by Year

Deposition	2014	2015	2016	2017	2018	2020	Max
0	102	91	89	67	59	58	48
1	20	23	18	22	21	23	27
2	8	13	14	13	14	20	24
3	2	2	2	15	22	14	26
4	0	0	0	3	4	3	6
5	2	2	2	3	3	5	6

Erosion

Table 15: Erosion Scores by Year

Erosion	2014	2015	2016	2017	2018	2020	Max
0	108	81	85	74	75	68	56
1	21	34	26	31	31	21	35
2	2	9	9	11	10	13	18
3	1	2	3	6	6	12	11
4	1	2	2	1	1	4	8
5	1	3	0	0	0	5	9

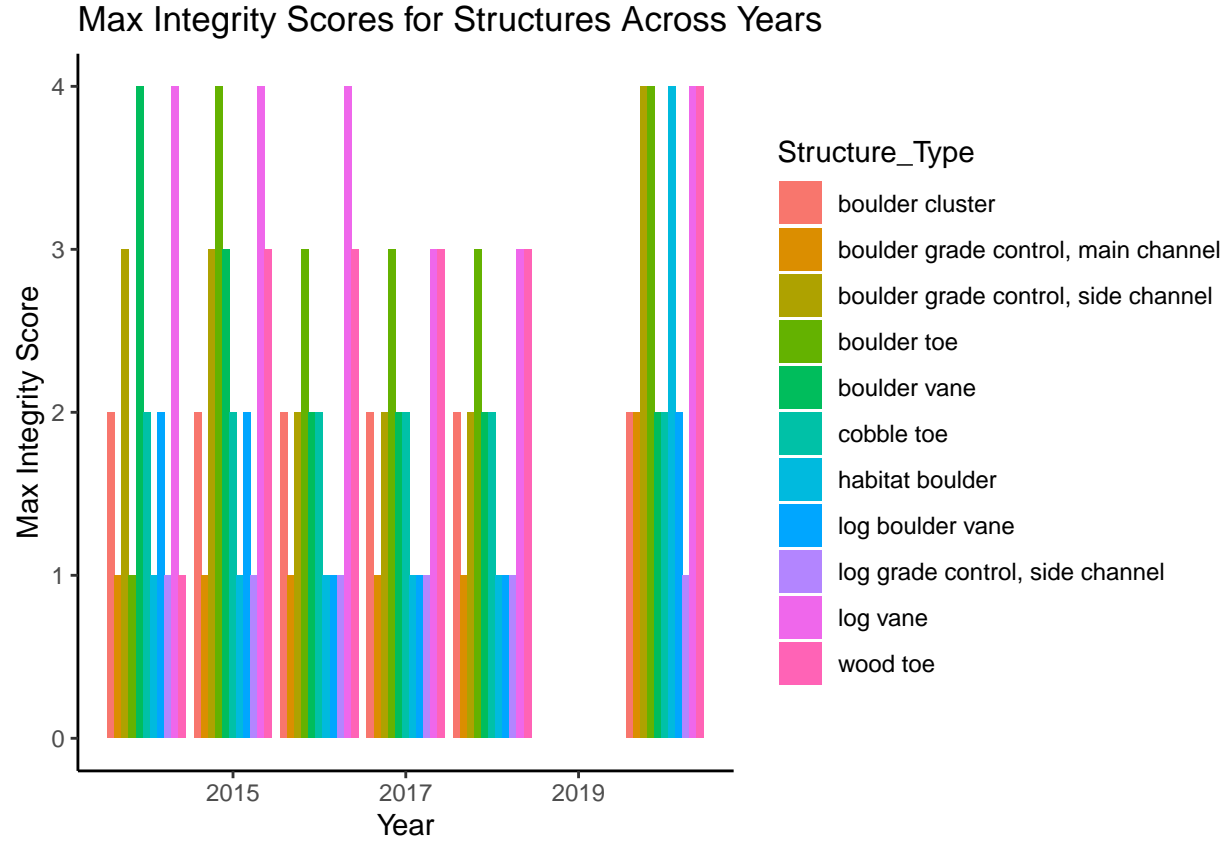
Rootwad

Table 16: Rootwad Scores by Year

Rootwad_Performance	2014	2015	2016	2017	2018	2020	Max
0	14	8	9	11	11	10	7
1	8	12	12	10	9	6	9
2	0	1	1	1	2	1	1
3	0	0	0	0	0	3	2
4	0	1	0	0	0	0	1
5	0	0	0	0	0	2	2

RA max Scores Given to a structure Type

'summarise()' has grouped output by 'Structure_Type'. You can override using the '.groups' argument.



RA Integrity for all Structures

Showing the state of structures. These don't show new diagnoses, so a structure that could have been a 3 in past years may still be a 3 in subsequent years.

Denominator is total structures (137)

Table 17: Integrity of all Habitat Structures

Integrity	2014	2015	2016	2017	2018	2020
1	86.86	77.37	70.80	60.58	60.58	43.07
2	5.84	8.76	13.87	22.63	21.90	30.66
3	2.92	5.84	5.11	6.57	7.30	8.76
4	2.19	3.65	1.46	0.00	0.00	7.30

Deposition

Table 18: Deposition of all Habitat Structures

Deposition	2014	2015	2016	2017	2018	2020
0	74.45	66.42	64.96	48.91	43.07	42.34
1	14.60	16.79	13.14	16.06	15.33	16.79
2	5.84	9.49	10.22	9.49	10.22	14.60
3	1.46	1.46	1.46	10.95	16.06	10.22

Deposition	2014	2015	2016	2017	2018	2020
4	0.00	0.00	0.00	2.19	2.92	2.19
5	1.46	1.46	1.46	2.19	2.19	3.65

Erosion

Table 19: Erosion of all Habitat Structures

Erosion	2014	2015	2016	2017	2018	2020
0	78.83	59.12	62.04	54.01	54.74	49.64
1	15.33	24.82	18.98	22.63	22.63	15.33
2	1.46	6.57	6.57	8.03	7.30	9.49
3	0.73	1.46	2.19	4.38	4.38	8.76
4	0.73	1.46	1.46	0.73	0.73	2.92
5	0.73	2.19	0.00	0.00	0.00	3.65

Rootwads: Denominator is all Rootwad structures

Table 20: Rootwad Scores of all Rootwad Structures

Rootwad_Performance	2014	2015	2016	2017	2018	2020
0	63.64	36.36	40.91	50.00	50.00	45.45
1	36.36	54.55	54.55	45.45	40.91	27.27
2	0.00	4.55	4.55	4.55	9.09	4.55
3	0.00	0.00	0.00	0.00	0.00	13.64
4	0.00	4.55	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	9.09