

Additional file 3: Table S2. Examples for discrepancies between gene predictions according to *V. carteri* genome annotation v2.1 on the Phytozome V12 platform and our expression profiles: examination of 100 randomly chosen gene loci using the random number generator of random.org.

examination of 100 randomly chosen gene loci - overview

determined total number of genes:	100	
previously predicted genes (annotation v2.1):	100	
identified new genes:	-	(it is not possible to identify new genes with this strategy)
genes with baseMean expression value <450:	40	i.e., expression not sufficient to estimate the correctness of gene structures
genes with baseMean expression value >450:	60	i.e., expression value allows for the estimation of the correctness of gene structures
		31 of 60 <u>without</u> detectable discrepancies (52%)
		29 of 60 <u>with</u> detectable discrepancies (48%)
		10 of 60 with discrepancies within the coding sequence (17%)
		25 of 60 with discrepancies within the UTR (42%)

examination of 100 randomly chosen gene loci - details

randomly chosen number to pick 100 gene loci out of the total list with 14,247 gene loci	locusName					identified discrepancies between expression profiles and previous gene predictions according to <i>V. carteri</i> genome annotation v2.1					
		baseMean	baseMean reproductive cells	baseMean somatic cells	baseMean < 450? (if so, then no statement)	discrepancies within coding sequence				discrepancies within UTR	
						exon longer than predicted	exon shorter than predicted	additional, unpredicted exon	artificial exon (no reads)	discrepancies within 5'-UTR	discrepancies within 3'-UTR
12002	Vocar.0039s0046	40	55	24	X						
10529	Vocar.0029s0054	161	281	41	X						
12779	Vocar.0048s0023	48044	46697	49391							
6322	Vocar.0012s0145	26621	35980	17261							
1174	Vocar.0001s1175	293	487	99							
4378	Vocar.0006s0338	478	613	344							
743	Vocar.0001s0744	244	140	349	X						
11332	Vocar.0033s0170	1139	341	1937				X			
858	Vocar.0001s0859	23	21	26	X						
12119	Vocar.0040s0068	3529	742	6316						X	
2144	Vocar.0002s0336	2515	3245	1785							
10229	Vocar.0027s0145	2438	2336	2540							
1306	Vocar.0001s1307	244	369	118	X						
3893	Vocar.0005s0364	149	264	35	X						
11605	Vocar.0036s0087	302	374	230	X						
7291	Vocar.0015s0207	975	1148	803						X	
13537	Vocar.0064s0020	85	130	39	X						
11477	Vocar.0029s0002	205	68	342	X						
12171	Vocar.0041s0012	1017	1267	766						X	
963	Vocar.0001s0964	59	90	27	X						
13057	Vocar.0053s0042	458	787	129						X	
4803	Vocar.0007s0288	1353	960	1745							
6422	Vocar.0012s0245	29	53	6	X						
3633	Vocar.0005s0103	1559	117	3002		X		X		X	X
8184	Vocar.0018s0173	75	140	11	X						

5044	Vocar.0008s0065	98	181	14	X				
6365	Vocar.0012s0188	3753	1855	5652					
9310	Vocar.0023s0107	1	3	0	X				
8961	Vocar.0021s0196	8795	872	16719				X	
9064	Vocar.0022s0089	44	58	30	X				
1580	Vocar.0001s1581	84	120	49	X				
9902	Vocar.0026s0004	259	376	143	X				
1448	Vocar.0001s1449	8534	1027	16041					
5685	Vocar.0009s0245	9	8	10	X				
12999	Vocar.0052s0031	7876	5554	10198					
5602	Vocar.0009s0162	542	1017	67		X	X	X	
6575	Vocar.0013s0085	1080	1713	447					
2087	Vocar.0002s0279	502	397	607		X		X	
12576	Vocar.0045s0022	167	185	150	X				
1775	Vocar.0001s1777	1161	1842	479					
2825	Vocar.0003s0337	144	143	144	X				
7014	Vocar.0014s0223	27654	24759	30548					
13603	Vocar.0066s0016	99	187	11	X				
2044	Vocar.0002s0236	629	405	852			X	X	
9153	Vocar.0022s0178	151	251	51	X				
670	Vocar.0001s0671	1204	285	2122					
3218	Vocar.0004s0213	928	1558	297					
13166	Vocar.0055s0024	13	8	19	X				
10662	Vocar.0029s0187	691	836	545		X			
4023	Vocar.0005s0495	132	91	173	X				
4049	Vocar.0006s0008	242	323	161	X				
10777	Vocar.0030s0109	3181	3123	3239			X	X	
4609	Vocar.0007s0094	130	176	84	X				
11903	Vocar.0038s0005	42	17	68	X				
5820	Vocar.0009s0381	127	30	225	X				
12849	Vocar.0049s0042	1162	1741	584				X	
6904	Vocar.0014s0113	232	239	226	X				
11206	Vocar.0033s0044	2711	3094	2328					
2504	Vocar.0003s0015	2020	718	3322				X	
6442	Vocar.0012s0265	883	1074	692		X		X	
10036	Vocar.0026s0139	710	1158	262					
11902	Vocar.0038s0004	1066	1124	1008				X	
1351	Vocar.0001s1352	149	237	61	X				
6815	Vocar.0014s0022	7874	967	14781					
5005	Vocar.0008s0026	3850	2350	5350				X	
1692	Vocar.0001s1694	2943	407	5479			X		
2572	Vocar.0003s0083	4681	1228	8134		X			
8822	Vocar.0021s0057	770	1255	285			X	X	
8222	Vocar.0018s0211	1091	872	1310				X	
12291	Vocar.0042s0035	3	3	3	X				
6291	Vocar.0012s0114	4044	3396	4693					
5558	Vocar.0009s0118	308	561	56					
8511	Vocar.0019s0223	2578	1715	3441					

3086	Vocar.0004s0081	2	3	1	X			
11597	Vocar.0035s0137	175307	50327	300287				
2883	Vocar.0003s0395	1197	1120	1275				
12195	Vocar.0041s0036	541	872	210		X	X	X
6227	Vocar.0012s0050	587	372	802	X			
13441	Vocar.0062s0009	69	121	16	X			
13773	Vocar.0073s0022	1547	2718	376				X
10495	Vocar.0029s0020	3720	2641	4799				
4380	Vocar.0006s0340	150	251	50	X			
5327	Vocar.0008s0348	2437	2906	1968				
1218	Vocar.0001s1219	2418	1841	2995				X
2512	Vocar.0003s0023	7118	13982	255				
10402	Vocar.0028s0119	770	1150	390				
9005	Vocar.0022s0030	1301	649	1952			X	X
6589	Vocar.0013s0099	1	1	1	X			
4520	Vocar.0007s0005	3667	2101	5233				
2002	Vocar.0002s0194	6441	1064	11819				
13027	Vocar.0053s0012	39	58	20	X			
12091	Vocar.0040s0040	1847	2342	1353				
2578	Vocar.0003s0089	142	265	19	X			
11169	Vocar.0033s0007	905	885	924			X	X
12459	Vocar.0043s0075	22	20	24	X			
5679	Vocar.0009s0239	5	9	0	X			
1891	Vocar.0002s0082	1195	824	1566		X		X
7898	Vocar.0017s0105	419	471	367				X
5488	Vocar.0009s0048	2	4	0	X			
6987	Vocar.0014s0196	572	440	705				