

**Table S8.** Statistics of predicted quinoa gene models at each step of the annotation pipeline

Method	Gene number	Average Length			Exon per Gene	
		Gene	CDS	Exon		Intron
Homology						
<i>A. hypochondriacus</i>	75,952	2595.4	914.2	267.4	695.1	3.4
<i>A. thaliana</i>	68,880	2320.5	892.7	274.8	635.2	3.2
<i>T. salsuginea</i>	73,610	2191.7	842.4	272.9	646.7	3.1
<i>S. oleracea</i>	135,497	1944.7	817.0	288.9	616.8	2.8
<i>B. vulgaris</i>	160,859	1869.5	791.3	303.8	671.9	2.6
<i>ab initio</i>						
Fgenesh	48,208	3955.5	1197.5	203.8	565.8	5.9
Augustus	63,690	2622.8	1045.8	218.9	417.5	4.8
Genescan	54,919	13792.9	1219.3	205.7	2551.4	5.9
GlimmerHMM	66,627	2280.4	879.1	226.7	487.1	3.9
SNAP	101,308	1296.2	636.7	203.6	310.0	3.1
mRNA-seq	51,172	3408.1	1104.1	231.2	534.1	4.6
GLEAN	54,438	3547.6	1096.3	232.0	560.7	4.8