

Supplementary Data Table S1. List of the most abundant clusters extracted from the Chinese variety of *Cenchrus ciliaris* SRR8666664 using RepeatExplorer.

Name	Length [bp]	GC [%]	Sequence	Description
Cluster1	140	45.7	GAAACCATTTTCACAACTTCGGTACCCTGATGTAGTGCATTCATGCACGAAACAC AAGTTCTTCTCGTTTGACGTGCCGAAGGTTCTTCCAAATGCTCCTAAACACTCTCA AACATCGTTTGGGATCTAATGGGGTAGGC	Labelled oligonucleotide probes ordered are from 44bp (5 to 48; 46.7% GC) and RC of 45bp (96 to 140; 46.7% GC)
Cluster58	1326	47.4	GGGCCCTTGCCCTAAGAAGCGCCTTCCCGAGATCGGACTCGAGGGAAGGTAAGA CATCCCGCCGGGATGCCAGTTACTTTATAGGTAGAAAAGAAGAGATTCAATAG TAGAATATATTAGTTCTCTGTTTCATAGGTTCAATCATAGTAGAATCCCCCTCCG GGCGAGGGCTCGGCTCACTCTGCTCTGCTTCCGGGAAAGGTATGGAAGTATGATG TTCTCTAGTCCGGATTTCCCGGAAGCAGAGCGCCTCATCCGAATTTACATACTA CCTTTACTTTCTGAGCCCGTTCGGGTCCGGAAAGCTAAATCGGAGTAGTAAAT TCTTTATTTGTTGTGGGGGGCGCCCCAGGGGGCTGGGGGCGATAAGTAGTAGGT TGAGCCTCTGAAAACCTTTTATAGTTGGCTCAACCATTCACAACTTTTGGAAAGG GGTCGCAGGGGAAAACCTTTTAAGCTTCCCTTGAAGTCAATTTCCAGTTTGA ACAAAAGTGGAAATTACATCATCCGAAAAAATCGCGCGATTTTTTCGATTCCATA CCTTTAAAATGTAACCCCGTGAAGGGCCCTTTCCCGTATAGCGTCGCGTCTGTTT GCTGTGCGCAGGACGAACCCCTTAGGATCCGCCAGTGGTGTCTTCCGCCTAGC TGAGGGCAGATCTCTCTTTGGAAGATCGACCACAATCTGCGCCTTCTGTCTT TGTAAGTCTATAGCCTTATCTTGCCAGGGAATGTTTCCCTCGATCGAGGA AATGGGCCGTATCCCCAGGGGATGATTTCCGAGAGGTTCTTATGGCGCTTCTA AGCTAGACAATCGGCAAAGAAAAGGGACACCTTGCCAGTCTGGAGGTTGTAA TTCCAAGGCCACGCATCTCAGAAGGGAGTCAACCCATCCCGTGGGTTATTCACG GTTTTCGAAGTTGGTGGCTAGCACTGATACATGGCATCCCTCTTGTCAAGGAACA ACTACTGTTGTGACAAAGGTTTCGACAGATCATTTTATGTCATTCTTCAGGGAGGT TCGTGATAAATCCGATCTGAAAAGTTTCTTTTCATCGATTTATTGGCTTTTCGTC TATCCATTGCCAGTTTCCGGTGAATTTGATTTTCAAAATGGTTAAACCGCTGGAA AATGCCCTTGAATTCGGGATAACATGGTACGGTATTAGTAAATAAGGAAATAAA TAAAAGTATCCGACCTTTGGGAGGAATTCCAATTAATACAAACCATCCCTCCGGG ATGCCAACCCGATTTATCGAGGATTTCCCTTGATAAATCGAATACAATACCCCAT TGGTATG	Labelled oligonucleotide probe ordered is from 44bp (867 to 910; 54.5% GC)
Cluster22	4807	45.6	ACTTGCTAGATTCCAATAATATGAGTACCCTTTGGACTTTTTGGAGATTTTATG CCAAAGGGGGAGAGATAGTGGAGAGATCGTGGAGATTGGAGTCAAAGCAAGGC AAGCATGGAGTAAAGGGGAGTGATCGGGGAGAGATCCAAGCAAGGGGGAGTAT GATCTAGGGGGAGTTGGATGATGGTAAGCATCCAAGCAAGTGAAGTGTTCAA TTTTGTCAATTTCTGCAAAATTATGCTTGGCTTTGATTGTTGTCATAAATACCA AAAAGGGGGAGATTGTAGCGAACATGGCCTCAAAGCCAAAAGTTCGAGTATGAT TTCGGTGATTATGACAACATGGTCAATGGGACTAATAGTATTGTTGAGCATGTC CTTGTAGGCATTTATAGGTCCCATGGATGTAACCACAATCAAAGCCAAAATACCA CATCCAAAATCCAGAAGATAGTCTATTTTTCAAGGTAATAAACAGTGGTAAAG ATGGCTCCAAGAGGTGGCAAGTTGAACCAAAGCAAAAACAAGCAAAACCTCAGA AGTTAGTAGCGTCGGATAAACCGACGCTATGTCCCCAGAGGGCTCGGAGCAAT CGCCGGACGAATTGGTGCCTGGCGTGAAGGCTGAAATGAAGATGACACCGTCCG GATGTTCCGACGGTCTGTTCTAGTTGCGTCCGACGAATTCCTGATTCAAGGCT GTGATGCAGAAAGCATCGGATTATCCGACGCTTGTAGCGTCCGCTATCCGATAA TATTTTTGTCCAAGGCCGAGAGCAAGGGTTTCAGGAACCCCTTCAGCACCGGAAG ATCCGACGCCCCGTCGGTGAAGCGTCCGAGCAATTCTGTGAGAAGTCCAACG GCTAGTTCAAAAAGACAGTAGCACCGGATGAACCGACGGTGAAGAAAAGGCAG CGTCGGACAAAGCGTCCGACAGATTGCGTCAGCAGATCGCAACGGCTAGGTGAC GTGGAAGGGGCACCGGATAAACCGACGGTCCAAAAGGGAGGGCTCGGAATAT CCGATGGTATACTTTTACAGCAGCTTTTAGCCAACGGCTAGTTTGTGCTTGGGCT ATATATACCCCTTCCACCCGGTCAATTTGAGTGTGCTGGATTGAGGAGAAGTGCAG AGGAGTCCAAGACACATTGAAGACCATCTCCAATCCATCCAAGTGTAAATTGCT CATTCAATAGGCTTTGCACATGCTTAGAGTGTGTGTTGCTTGGCTTAGGCTTAGTG CTGAGTGTGAGGCAAGGTGTAGCTGCCTTGTGAGGTGATTCTCGAGTGAATCAAG GTGTACAAGGTGTGCCGGAGCCTTGGGGCCTAGGTGGCTCTCCGGCAATCGTCTT CGACCTCCGACTTGGTGTGGTGCGGCGAAGACACTTTGTGCGAGGGACGTGGA GACCCTCTCTTGGTGGAGAAGCTCCTTAGTGGAGGCGGCATCAAGGTGACCAA GGGCGGCTTGGCGTGGCGAGCCTTTGTGGCGAGTCAAGTGGCGGGCTCGTTGGG	Labelled oligonucleotide probe designed to RNaseH domain (RC) is from 51bp (2156 to 2206; 43.1% GC)

		<p>AGAGACTTGGTGACCGGGAAGCAATACTCTTGTGTGAGTGCTTCAACAACGTGG ACTAGGGGTGGCTAAGTGCCTACCGATACCACGGGATAAATCGCGTGTCAAGAG TTTGCTFCCTCATCCCTATTTACGTTTCCGCATTACTTTCTTGAATCCTTGT GCCTTACCTTCCCTAGAGTAGTATCTTGTAGGATTGGCTATAGGTTGCAAACTT GTTTTGGGATGAGGGTGTCACTAGATCAACCGTAGATTGCACATCTAGATAGA AATGATCTAGTTTACTATATGCAAAGTAGAGGAAACCATAGGTTAAGTTTTAAG TTGCCTAATTCACCCCTCCCTCTTAGGCTACGAGCATCCGATCCTTACAAGTG GTATCAGAGCCGGGACTCACATCTTTCGCAAGATACGCCAATTCATTGGCAAAT TGTGAAACCGGCTCATTTGATCGGTTAGGCTTACCGCCTAGTGAGTTGCTCTAA AGGGGAAAGGGATGGATCATCAAATAGGTTTCCCTCCTCCACATTTGATGGCAC GGGCTATCCACGTTGGAAAGTTCTCATGGAAGCTTACCTCCAAGCAAAGGGCCTA AATGTTTGGAGGGTCACTAATGAAGGGGTTAGAAAATAGGACCCAACAAGAAAA CAATATGATGTAACCGCGAGGAGCATCCTTTTGTCTCTCTTAGTGAAGATGTTTT TCATAGAGTTTTTACTTGTGAAAATGCTCATGAGCTATGGAAAATCAAAAGAG AATAATGAGGGTTCAAAAGATGTTTCCAATGAACGTTACGAGTTGCTCTTTGAGG GTTTTACTAGCTTAAAGCAACTTGAGGATGAAAATGTGCAATCTATGTACTACG CCTAAATGTGCTTGTCAATGAGATTAATGCTTTAGGTGTGAAAGAAAATGGGGAC ATTGAGATCGTCCGCAAGATGCTTCAAAGTCTTCGGAAGCCCGACTATGACTTGG TGAAGTCCATCATCTACGAGAAGAAGCTTGAAGAGCTAACACCACAACAAGTGT TGTGCAAGATCATGGCTCAGAGCTTCAATCATGCCAAGTCAAAGAAGGGCGC CCCAAGAGAAGCCAAAGAAAAGCCTCAAGAACCATCTTCTCAACTACAAGCC AAGCTTTCTCAAGCCAACAAGAAAAGAGATGAGGAAGATGGCGCTTCATGGAA GCTCAAGTGAAGATGATGATGACTCCTCAAGTGAAGGAGACCGAGGAAA TGGTGGCCATGTACATGAAGAAGGCTTTCAAGTATGTGAAGAAGATCAACATGT ACGGCTACAACGTCCACTTGAGAGAAGGGCGTCCATCAACATATCAAGGTCA CCAAGATCAAGCACAAAACCAAGAAGAAGGTGGTCAAGGAGAGGAAGCCAAAG AAAGAAGCACTACCGCCGTCGCGAGTGGATAAGTGGTGGAGAATCAAGTTCT TGTAGCTCAAGTGAATCAAGCAAGAAGTTCACCACCCGCTTCATGCAAGGTC CTTCATCATCATCCACATGTGCCTTATGGCCAAAGGTATGGAAAGCGATGTAAG TGATGATGAATCCGACACCCTCTATTGATGATCTTGTGAGCTAGTCCATGAG CAAAAAGGAATCCTTGAAAAACAAGCTAATGAAATCAAAGAAGTCAATGTCTC AATGACCTTAGTGCTATCCTTGTACAAAATATGAAGATTTGTTGCGCAAAATCA ATTTGCTTTGCAAGGAGCGCAATGAGCTAAAAATCTAAGTTAGAGAGCAATGAGA TTAAAATAAAGATTCCTTTGAGCTTATTGAATCATCTATCCCTTGTGCAATTCCT ATCTCCAAGGTAGATGCTTCAACTTCTGCATTGATTTAATTGATGAATCTTGCTC ACACTTTGCTATGAGAATGTTGTAGTAGAAAAGTGTGATGATCTCATTAGCAAG GAGAATGATGAGCTCAAGCGAGAAGTGGACATGCTTCGAGTGAAGTTGGCAAGG TTGATGGCAAGAGCGAGGACAAGGAGGAACAAGAGGAAGTCCCTCAAGACAT GAAGAGCAACGTCCAACCTTCTCAAGATAACCGTGATCACATGGTGAAGAAGCT TGAGAAGGGTGAACCGTGACTTGCTACAAGTGTATGAAGAAGGGCACAAGTT CTACAAAATGCCCTCAATTCAAGAAGATGGGCAAGGGCGAGAGAAAAGAAGATGA ACCCCTCCATCAAGAGCTCCCTCATCTACACCAAGCCCAACCGCAAGAACAAGA GCAAGAGCAACACCTATGTCATCAAGAAGAAGGCAAATGGCAAGGTGGTTGCAC ACAAGGTTGGGAAGATGAAGACGGAGCGAGGTTGGAGCCAACCTATTTGGGTGC CTAAGGAAGTCATCACAACATGAAGGGCCCCAAAAGGTTTGGGTTCCAATCA CCAAGTGAAGGCCATGAACGGCTACGGGGACTTGGGAGGCTTGGCACAAGAAG ATGTGAAGTTTCAAGTCAAGAAGCCAAGCTTGAAGATTGGACATGTGTTGCCCA AGTTCCCGGTTAAGGTAATGGTAGCAAGAACCCTCTCTTGTATCATTGTAGCT CCATTGCCCTTGTAGGTTTGCATTAGTTGTCATGCCTAGTTGTTACATATGGTA GGTTGCTTGTATCTTGTGCTAACCCATGAGCAACCTACATGTTTTGCCATGTGT GTAGGAAATCTACACTTTGTTCTTTCATGGTGCATGCATTTCTTATGTTATCCTTT GCATCATGAGCAAGCTATAGAATTAGCTTCCCTTTTGTATCACAAACAATGTGC ATACATTTGGTTGGTATCAAACACCTAATGCACACATATAGGGGGAGCTCATT CTATAGTTGGTTATGGGACTAACATTTGTTCAAGCTTATTGTGTAGTCCCTTG GCGACGCGTTCCGGTGGGCTTCAATCTAAGAGAATGCTATTTCACTCTCAAT GTGATCTAACATCTCTATAAGAGTGAATATAGCAATATGAGCTTCATGTATTGA GTCATGTCCTTGGGAGCTTATGTCTCTATATAAGTTCAAAAGGCAATGTACTCATA CATTCTAATCCTTTTGGTACCTAATGTGTTCTCTTTGCAAGCCTCTCCAAGTG GTGTCATCTCCAAGTGAATCATTTCCAAGTGGCTCATCTCAATGTGGTGGCAAC AAGGTAGAGAGGAAAACCCCGGAGGAATGCTATGCTCAAATTTCTACAAGTGG</p>	
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