

Table S3. Genes contained in the chloroplast genome sequence of XG, CKX and HZP

Category	Gene group	Gene name
Photosynthesis	Subunits of photosystem I	<i>psaA,psaB,psaC,psaI,psaJ</i>
	Subunits of photosystem II	<i>psbA,psbB,psbC,psbD,psbE,psbF,psbH,psbI,psbJ,psbK,psbL,psbM,psbN,psbT,psbZ</i>
	Subunits of NADH dehydrogenase	<i>ndhA*,ndhB*(2),ndhC,ndhD,ndhE,ndhF,ndhG,ndhH,ndhI,ndhJ,ndhK</i>
	Subunits of cytochrome b/f complex	<i>petA,petB*,petD*,petG,petL,petN</i>
	Subunits of ATP synthase	<i>atpA,atpB,atpE,atpF*,atpH,atpI</i>
	Large subunit of rubisco	<i>rbcL*</i>
	Subunits photochlorophyllide reductase	-
Self-replication	Proteins of large ribosomal subunit	<i>rpl14,rpl16*,rpl2*(2),rpl20,rpl22,rpl23(2),rpl32,rpl33,rpl36</i>
	Proteins of small ribosomal subunit	<i>#rps19,rps11,rps12**(2),rps14,rps15,rps16*,rps18,rps19,rps2,rps3,rps4,rps7(2),rps8</i>
	Subunits of RNA polymerase	<i>rpoA,rpoB,rpoC1*,rpoC2</i>
	Ribosomal RNAs	<i>rrn16(2),rrn23(2),rrn4.5(2),rrn5(2)</i> <i>trnA-UGC*(2),trnC-GCA,trnD-GUC,trnE-UUC,trnF-GAA,trnG-UCC,trnG-UCC*,trnH-GUG,trnI-CAU(2),trnI-GAU*(2),trnK-UUU*,trnL-CAA(2),trnL-UAA*,trnL-UAG, trnM-CAU,trnN-GUU(2),trnP-UGG,trnQ-UUG,trnR-ACG(2),trnR-UCU,trnS-GCU, trnS-GGA,trnS-UGA,trnT-GGU,trnT-UGU,trnV-GAC(2),trnV-UAC*,trnW-CCA, trnY-GUA,trnY-M-CAU</i>
Other genes	Maturase	<i>matK</i>
	Protease	<i>clpP**</i>
	Envelope membrane protein	<i>cemA</i>
	Acetyl-CoA carboxylase	<i>accD</i>
	c-type cytochrome synthesis gene	<i>ccsA</i>
	Translation initiation factor	<i>infA</i>
	other	-
Genes of unknown function	Conserved hypothetical chloroplast ORF	<i>#ycf1,ycf1,ycf15(2),ycf2(2),ycf3**,ycf4</i>

Notes:Gene\*:Gene with one introns;Gene\*\*:Gene with two introns;#Gene:Pseudo gene;Gene(2):Number of copies of multi-copy genes;