



# Genome-wide multilocus analysis of intraspecific differentiation in *Oryza rufipogon* Griff. from China and the influence of introgression from *O. sativa* L.

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**ABSTRACT.** Twenty-five populations of *Oryza rufipogon* from China and 144 cultivars of *Oryza sativa* were selected for this study. Based on the DNA fragment of *Ehd1-4* and subspecies-specific sequence-tagged site markers in different chromosomes, intraspecific differentiation in *O. rufipogon* from China was analyzed. The introgression from *O. sativa* to *O. rufipogon* was also analyzed based on simple sequence repeat markers. The results revealed that the DNA fragment of *Ehd1-4* could distinguish the *O. sativa* subspecies *japonica* and *indica*. Furthermore, although significant *indica-japonica* differentiation did

not occur in most *O. rufipogon* populations from China, *O. rufipogon* varieties from Hainan Island and from the mainland of China showed differentiation tendencies. *Japonica*-like *O. rufipogon* varieties were predominant in Mainland China. However, more *indica*-like *O. rufipogon* varieties were found in Hainan Island. Finally, although cultivar-specific alleles were found in most of the *O. rufipogon* varieties from Hainan Island and Guangdong Province, some varieties remain pure and non-introgressive.

**Key words:** *Oryza rufipogon*; *Oryza sativa*; Intra-differentiation; *Ehd1-4*; Introgression