

Common wild rice: *in situ* conservation and genetics (Oral Presentation)Benjavan [Rerkasem](#)

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Wild rice (*Oryza* spp.) are important because they are closely related to the cultivated rice (*O. sativa*), which feeds half the world's human population. The moderate size genus contains some twenty species, the most common of which is *O. rufipogon*, closest relative of cultivated rice. This paper discusses distribution and genetics of *O. rufipogon*, the common wild rice, and implications that these have on future of the species and *in situ* conservation. Found widely in tropical and subtropical Asia, it is roughly divided by the Tropic of Cancer and the Himalayas into genetically distinct northern and southern sub-populations. The northern sub-population, genetically close to the Japonica group of cultivated rice (*O. sativa* ssp. *Japonica*), is rare. It had disappeared from Taiwan since the 1970's and is now considered endangered on mainland China. The southern sub-population, which is believed to have given rise to Indica rice (*O. sativa* ssp. *Indica*), is still widespread in South and Southeast Asia. Some of it, however, seems to be undergoing major changes. Hybridization between wild and cultivated rice, combined with changes in the way in which rice is cultivated, has led to emergence of weedy rice in the rice fields of Asia, with obvious adverse impact on rice production. Instead of flowering once a year like wild rice and traditional cultivars, the weedy rice has picked up the photoperiod insensitive habit of modern rice cultivars and are now flowering all year round. The impact of the transfer of such and other ecologically important adaptation traits from cultivated rice, from wide-crosses and transgenes, to the wild population on genetic diversity of wild rice and its long term survival should be considered along with habitat losses in any effort in *in situ* conservation.

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