

## Search for Wild Buckwheat Species and the Discovery of New Species

Ohmi Ohnishi

Laboratory of Crop Evolution, Graduate School of Agriculture, Kyoto University  
1, Nakajo, Mozume-cho, Mukoh-shi, Kyoto 617-0001, Japan

### Summary

During the last 20 years, the author has searched for new wild buckwheat species in southwestern China, Tibet and in the Himalayan hills. Wild buckwheat species were found growing on rocky mountain slopes, on roadsides, and on barren fields in the valleys of some big rivers, such as the Jinsha river and its tributaries, where other species cannot grow. Eight new species were found, mainly in Sichuan and Yunnan provinces and in eastern Tibet of China. Amongst the new species, the wild ancestor of cultivated common buckwheat, *Fagopyrum esculentum* ssp. *ancestrale* Ohnishi, and the self-fertilizing *F. homotropicum* Ohnishi are notable discoveries. By the discovery of the former and subsequent genetic analyses of the populations of this wild ancestor, it was revealed that the Sanjiang area was the original birthplace of cultivated buckwheat. *F. homotropicum*, in particular its diploid form, is crossable with cultivated common buckwheat, and the self-fertilizing property was transferred from this species into common buckwheat for the purpose of improving the yield of buckwheat. This breeding strategy is now one of the current focuses of buckwheat breeding throughout the world.