

Conservation strategy and classification of the *Triaenophora* and *Rehmannia*

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Taxonomy: *Triaenophora* and *Rehmannia* belong to the family Scrophulariaceae, which are endemic in China (Hong et al, 1998). Most species have been considered to be as folk medical plants for many years, *Rehmannia glutinosa* is a Chinese traditional herb medicine. Seven species of the genera *Rehmannia* and *Triaenophora* are recognized, and *Rehmannia elata* and *Triaenophora integra* were reduced to synonymy in our study (Fig.1.).(Li, 2006)

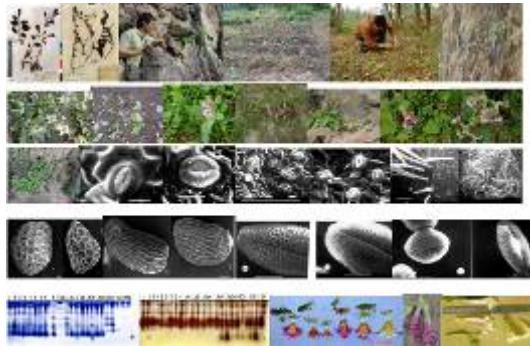


Fig.1. Some pictures of type specimens, habitat, stomata, indumentum, seed morphology, pollen morphology, allozyme, and flower anatomy of the genera *Rehmannia* and *Triaenophora*.

Distribution: The resource information was obtained by investigating distribution and habitats of *Triaenophora* and *Rehmannia*, and (Fig. 2) (Chin, 1979; Li, 1948; Fu, 2002; Li, 2005). Many populations of *Triaenophora rupestris* and *Rehmannia henryi* were destroyed due to building and rebuilding highway, unreasonable digging for medicine, unique habitats and fragmentation of habitats, which result in wild resource rather scarce. Resource of *Rehmannia chingii* decreased rapidly because of exorbitance digging for sale. Distribution area of *T. rupestris* and *R. piasezkii* were changed according to the above

classification (Li, 2006).

Suggestion: Based on the current distribution of *Triaenophora* and *Rehmannia*, we propose that the natural habitat of the species *T. shennongjiaensis*, *T. rupestris* and *R. henryi* are protected in priority. Meanwhile, We enhance their propagation study, and investigate genetic diversity background. Not only we protect wild resource of *R. chingii*, but encourage artificial propagation to obtain the sustainable utility.

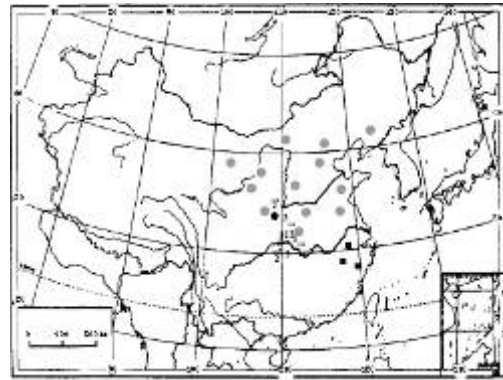


Fig.2. Distribution of *Rehmannia* and *Triaenophora*.

Note: Circle: *R. glutinosa*; hexagon: *R. solanifolia*; square: *R. chingii*; arrow: *R. piasezkii*; 1: *R. henryi*; 2: *T. rupestris*; 3: *T. shennongjiaensis*.

Discussion: 1. Taxonomy plays an important role in biodiversity protection. For example, achievement of *Metasequoia glyptostroboides* owe to species determined correctly by Hu and Cheng. We suggested that unknown and inaccurate species need investigation and determination.

2. As plant taxonomy has been basic subject of botany, the government should pay special attention to classical plant taxonomy, although molecular biology is playing important role in science today.

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