

Chapter 1

Plants

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Summary

We carried out a rapid biological (RAP) survey in Kangding, Danba and Yajiang counties of Ganzi Prefecture. After collection and identification of specimens from all three areas we recorded a total of 1,477 vascular plant species from 517 genera and 133 families. Of these, 92 plant species belonging to 31 genera and 18 families were ferns, 36 plant species belonging to 12 genera and 5 families were gymnosperms, 1,349 plant species belonging to 474 genera and 110 families were angiosperms. Among the three areas, we recorded the greatest richness in Kangding (1227 spp.) followed by Yajiang (1013 spp.). The fewest species were recorded from Danba (875 spp.) where much of the vegetation was found to be degraded or destroyed as a result of either natural or human causes. Among species recorded were 22 species of rare and threatened plants which belong to 21 genera. Plant diversity in the RAP survey sites is relatively high when comparing the numbers of species recorded over a relatively short period of time during this survey with species richness recorded from other nearby areas.

Results

As a result of our RAP field survey, collection of specimens, and subsequent identification, we recorded a total of 1477 species of vascular plants from 517 genera and 133 families. Among these, 92 species belong to 31 genera in 18 families of Pteridophyta (ferns). Of the 1385 species of seed plants recorded, 36 species belonging to 12 genera in 5 families were Gymnosperms which accounted for 4.4% of the total number of families; while 1349 species of 474 genera in 110 families were Angiosperms, accounting for 95.6% of the total number of families (Table 1.1). In China overall, seed plants account for 34.1% of total families, 15.2% of total genera and 5.1% of total plant species (Li Xiwen, 1996; Table 1.2). For Sichuan Province, seed plants make up 60.2% of total families, 32.0% of total genera and 16.2% of total plant species (Li Xiwen, 1996; Table 1.2).

Table 1.1. Composition of seed plants in the China RAP survey area.

Taxon	No. of families	% of families	No. of genera	% of genera	No. of species	% of species
Gymnospermae	5	4.4	12	2.5	36	2.6
Angiospermae	110	95.6	474	97.5	1349	97.4
Total	115	100.0	486	100.0	1385	100.0

Table 1.2. Comparison of plant taxa in RAP Areas with Sichuan Province and China.

Area	RAP			China			Sichuan		
	Families	Genera	Species	Families	Genera	Species	Families	Genera	Species
Gymnospermae	5	12	36	10	36	195	9	28	100
Angiospermae	110	474	1349	327	3164	27073	182	1474	8453
Total	115	486	1385	337	3200	27268	191	1520	8553

Note: Sichuan province in this paper included Chongqing city before 1997.