The Guizhou Golden Monkey at Fanjingshan National Nature Reserve

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CNH: Impacts of Payments for Ecosystem Services in Coupled Natural and Human Systems (DEB-1212183)

2013 Teachers Workshop at SDSU

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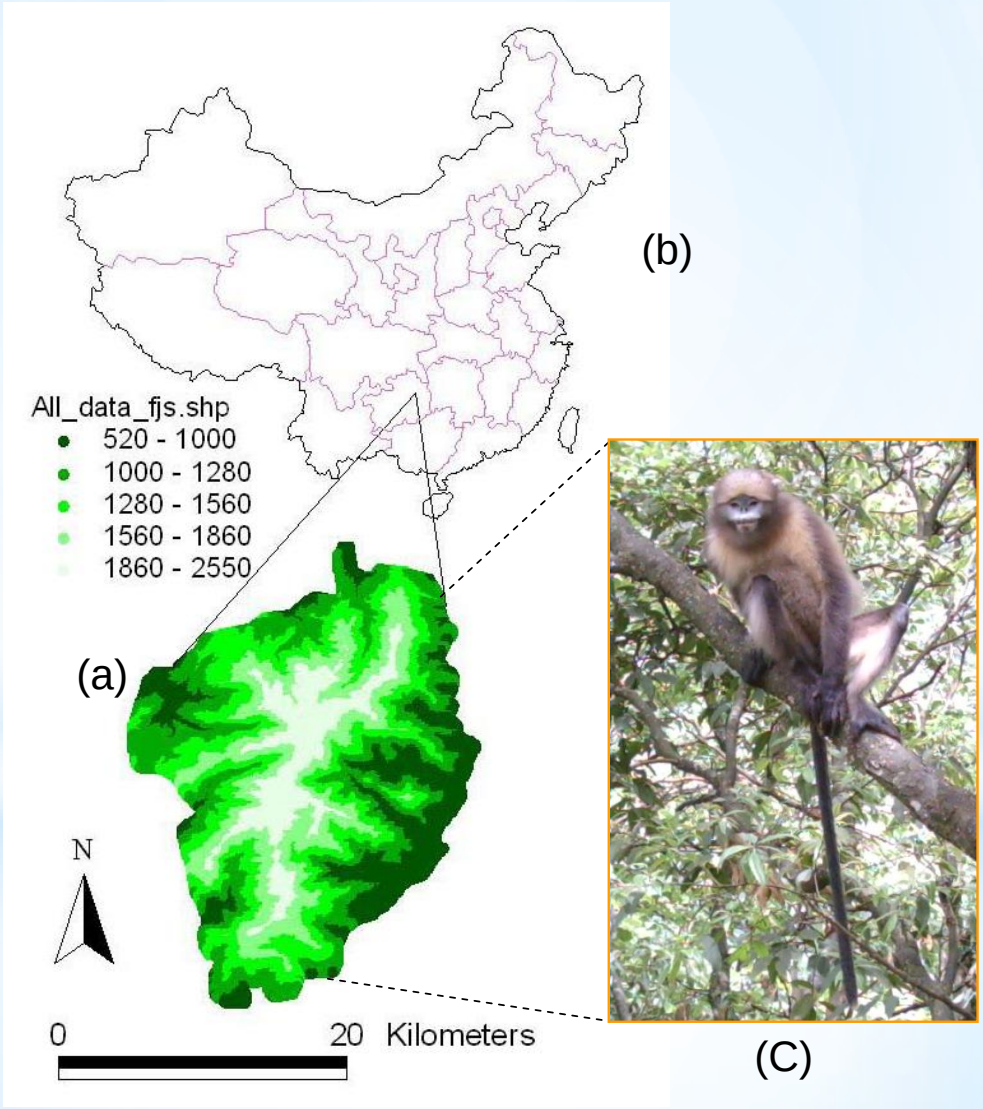
Map Courtesy: Yang et al. (2002)

Photo Courtesy: Xiaoping Lei

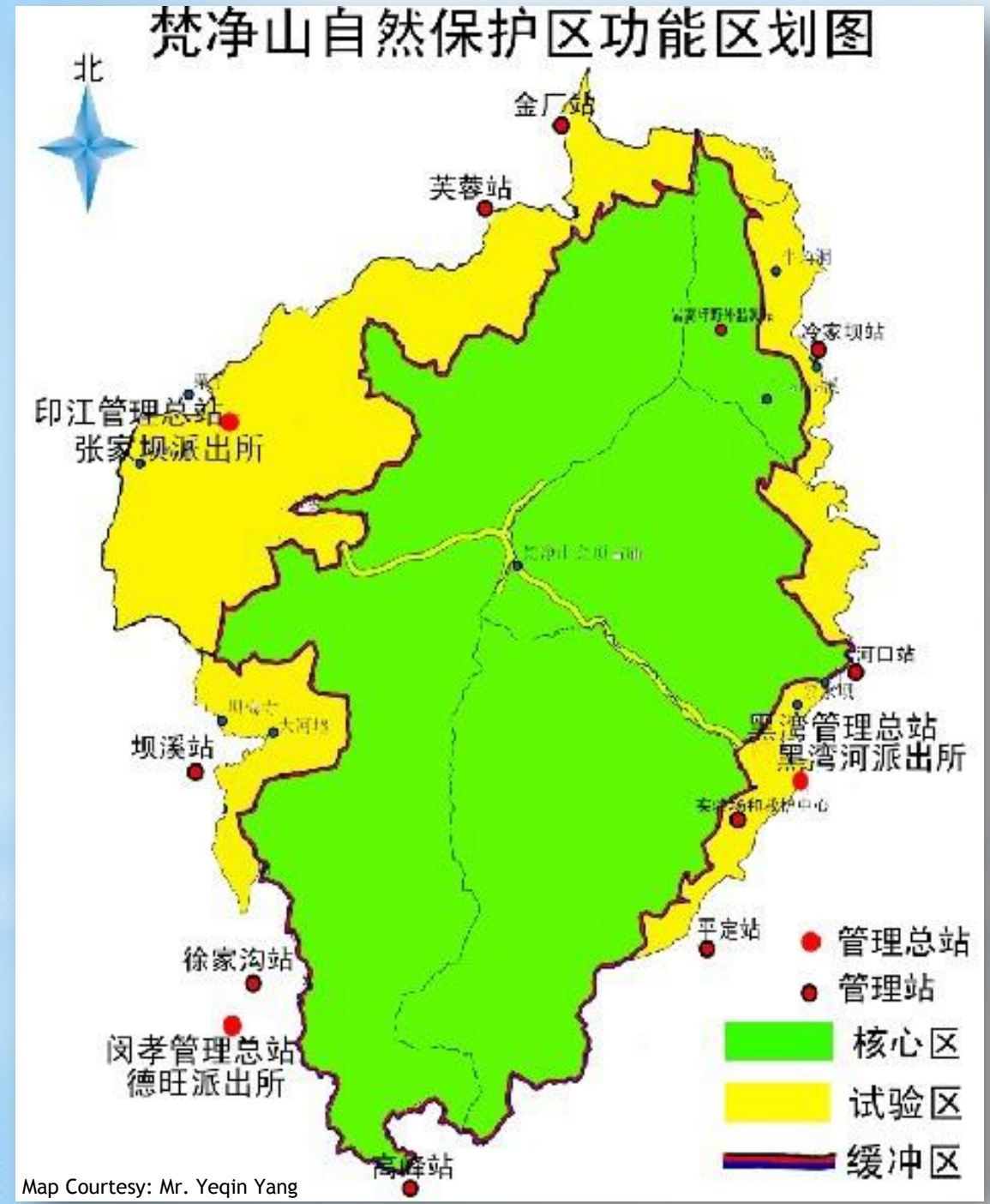
Fanjingshan National Nature Reserve



Scenic views

* Dancing

* Minority groups



Map Courtesy: Mr. Yeqin Yang

Total area: 43,414 Ha, among which:

1. **core area 24,600 ha**
2. **experimental zone 14,500 ha**
3. **buffer zone 2,800 ha**

*Major species under protection

The Guizhou golden monkey (*Rhinopithecus roxellanae brelichi*)

Dove tree (*Davidia involucrate Baill*)

Fanjingshan conifer (*Abies fanjingshanensis*)

Black bear

Tufted deer

Reeves's muntjac

Bearded frog

All photos: Mr. Yeqin Yang

Spatial distribution & activity

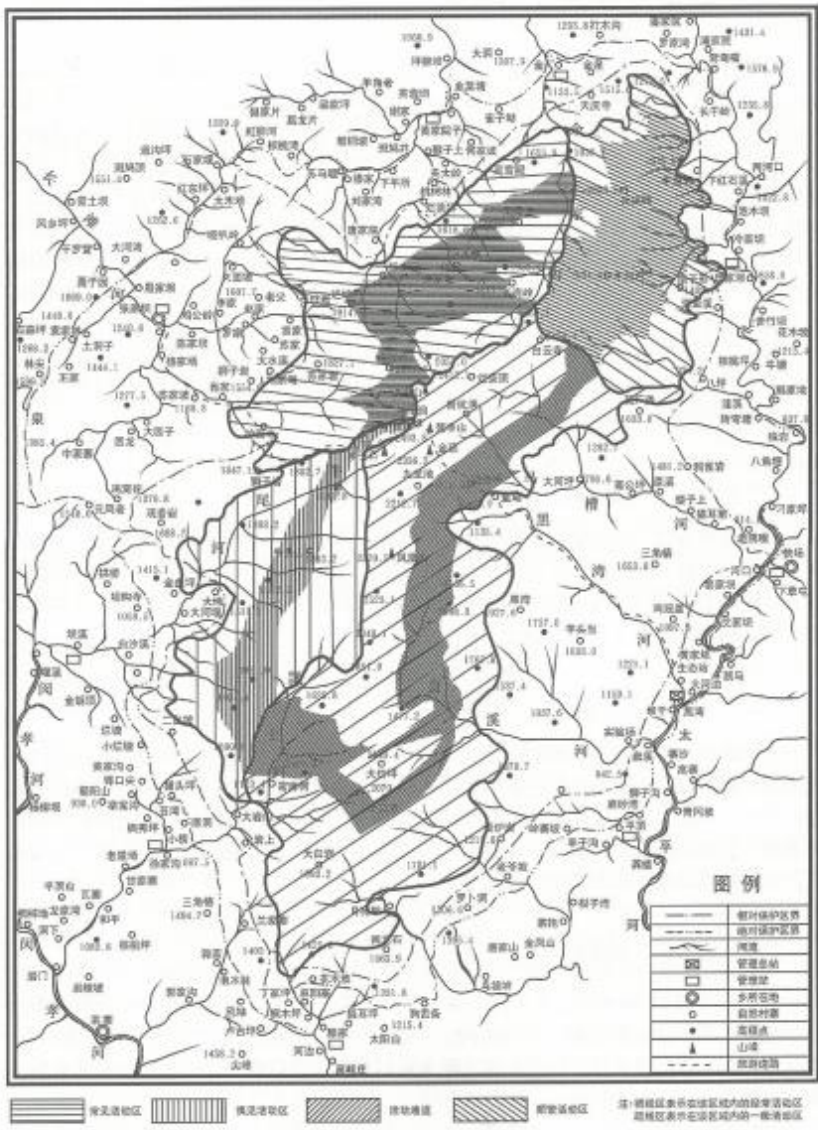


图2-7 黔金丝猴栖息地利用强度图

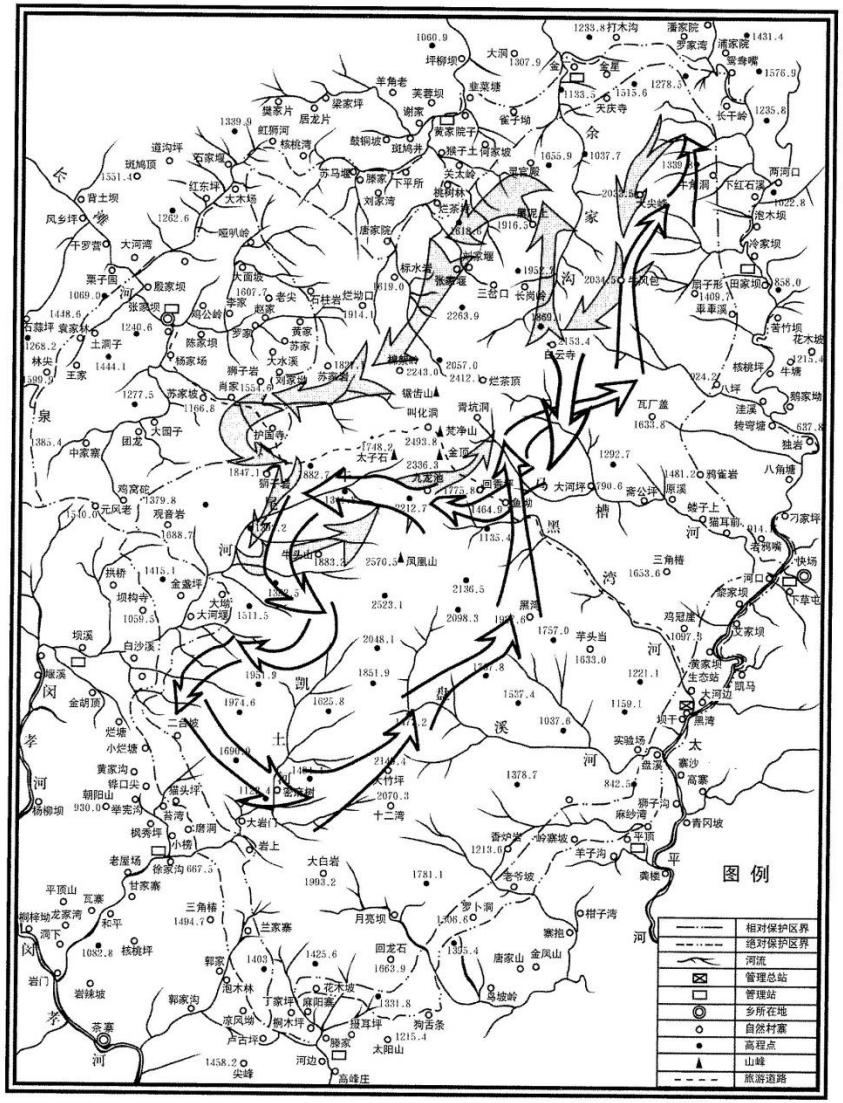
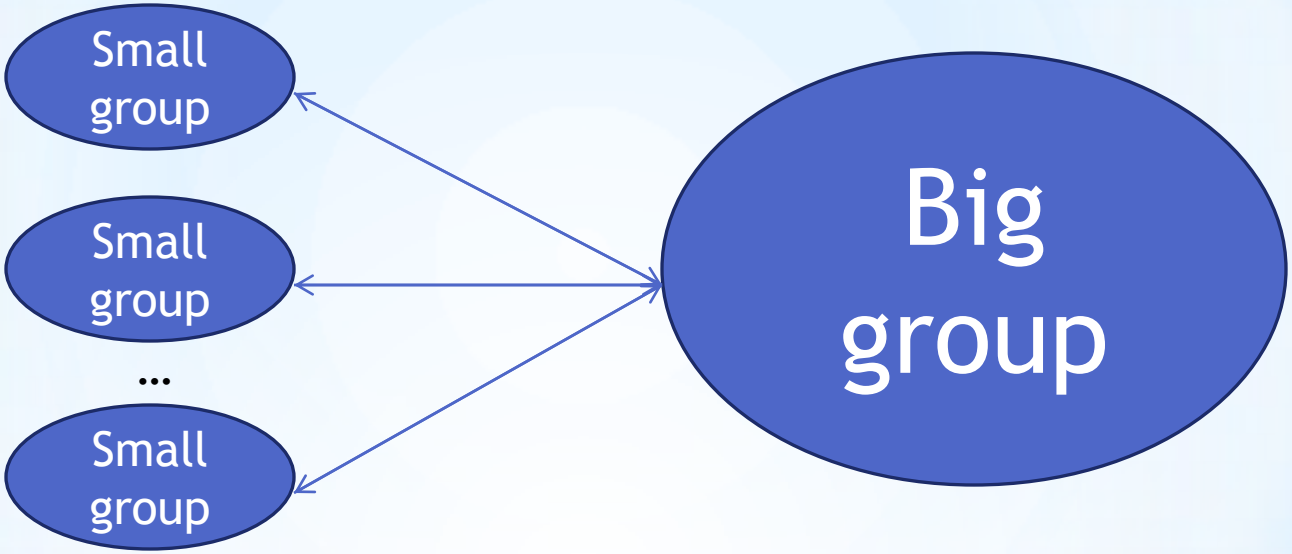


图3-1 黔金丝猴大群体活动线路图

Map courtesy: Yang et al. 2002

“Family” structure

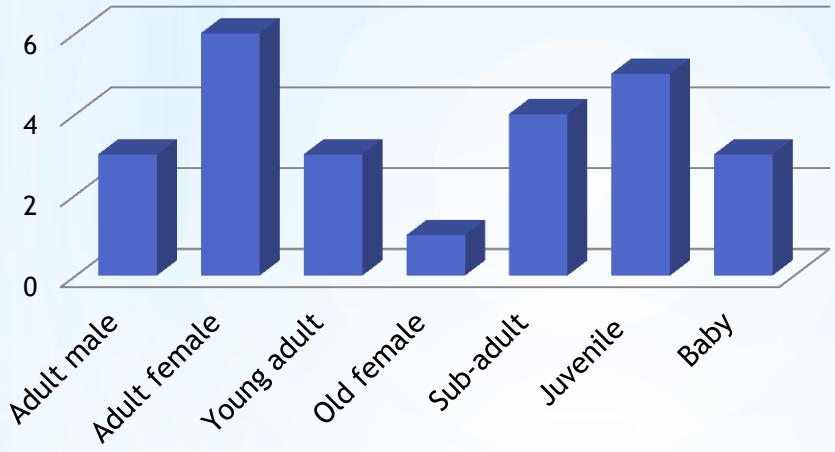


* Small groups and big groups: join and separate constantly
* April-May and Sept-Oct: All come together
* Small group: size from 25 to 45 animals

Data courtesy: Yang et al. 2002

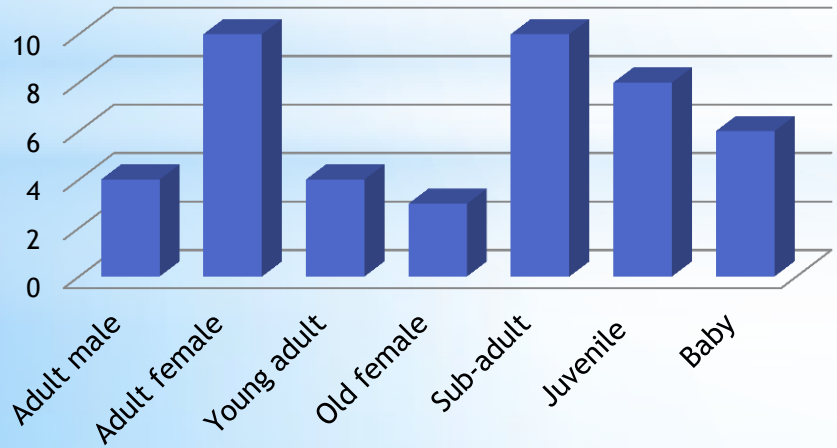
A typical family

Family composition (Group 1)

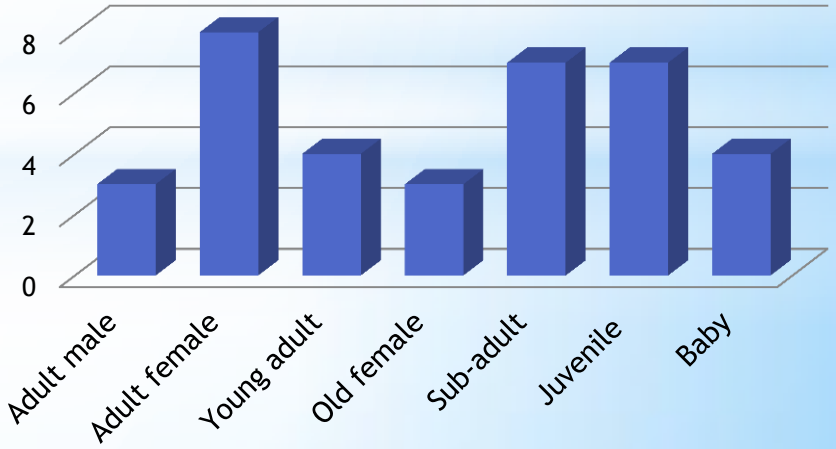


	Group 1	Group 2	Group 3
Adult male	3	3	4
Adult female	6	8	10
Young adult	3	4	4
Old female	1	3	3
Sub-adult	4	7	10
Juvenile	5	7	8
Baby	3	4	6
Total	25	36	45

Family composition (Group 3)

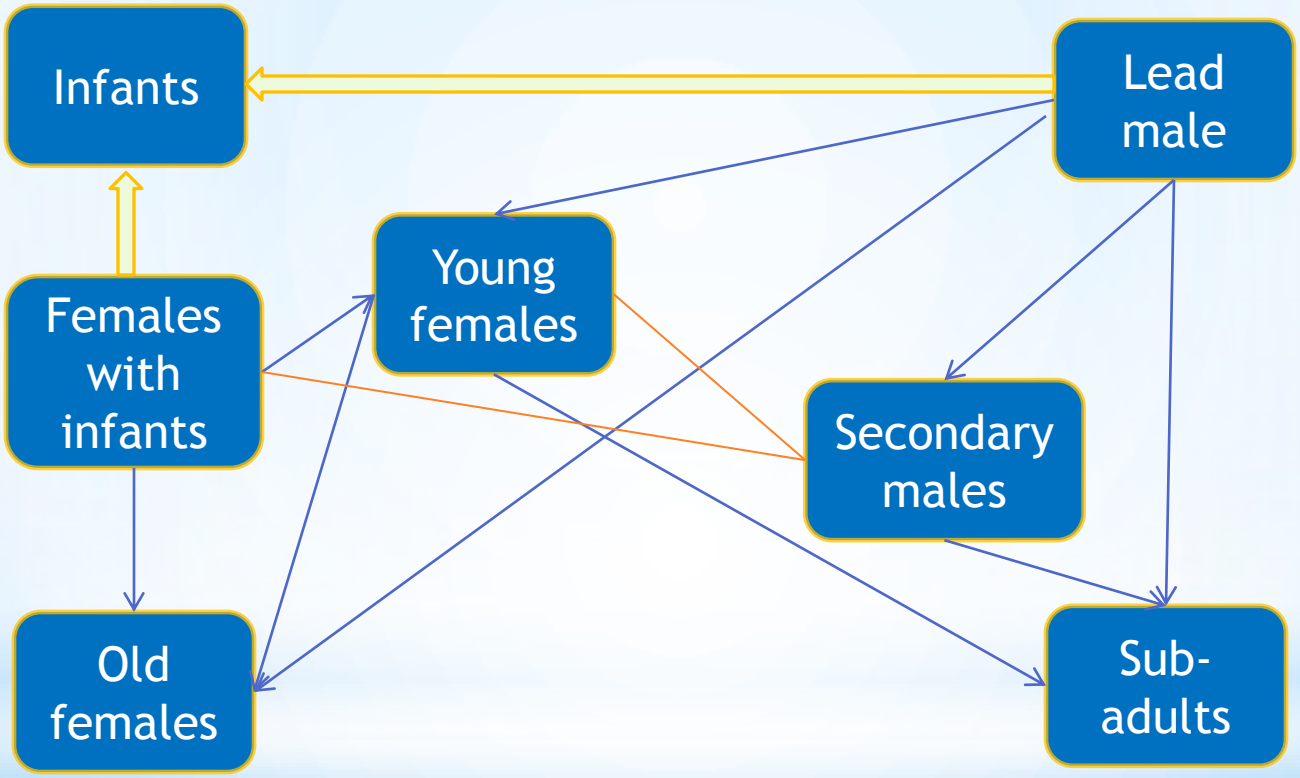


Family composition (Group 2)



Data courtesy: Yang et al. 2002

Within-group relationships



Data courtesy: Yang et al. 2002

Elevation change of habitat

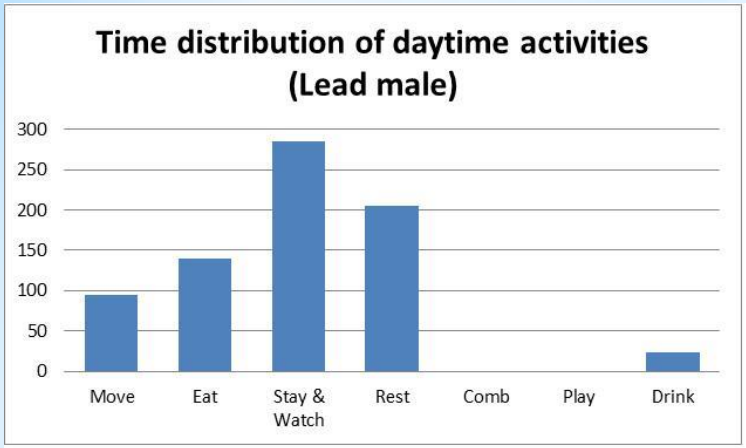
Seasons	Spring	Summer	Fall	Winter
Elevations (m)	1000-1900	1300-1800	1500-2200	1000-1800
Vegetation type	Evergreen & Broadleaf deciduous forest	Evergreen & Broadleaf deciduous forest	Evergreen & Broadleaf deciduous forest	Evergreen & Broadleaf deciduous forest

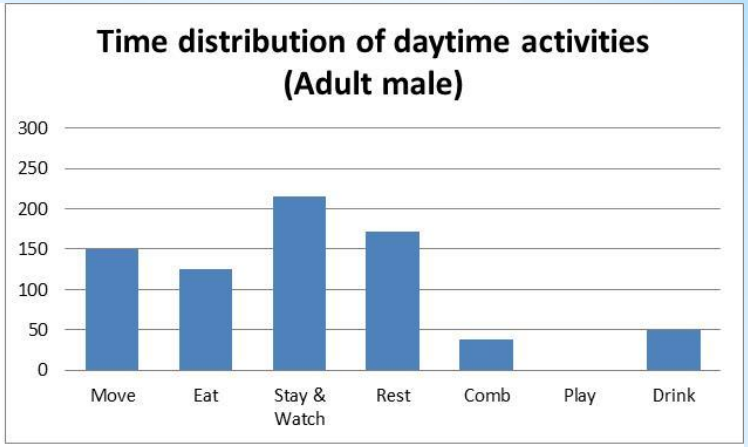
Data courtesy: Yang et al. 2002

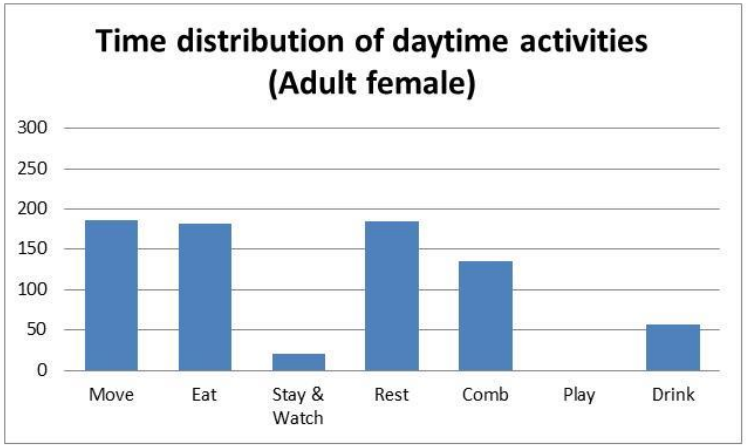
Daytime activity

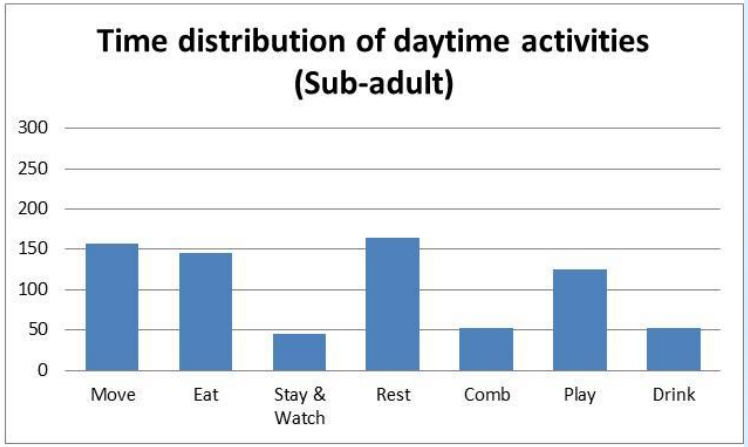
	Move	Eat	Stay & Watch	Rest	Comb	Play	Drink	Total
Leader male	95	140	285	205			23	748
Adult male	150	125	216	172	38		49	750
Adult female	186	182	21	185	136		57	767
Sub-adult	157	145	45	165	53	125	53	743
Young	145	140		205	45	157	31	723

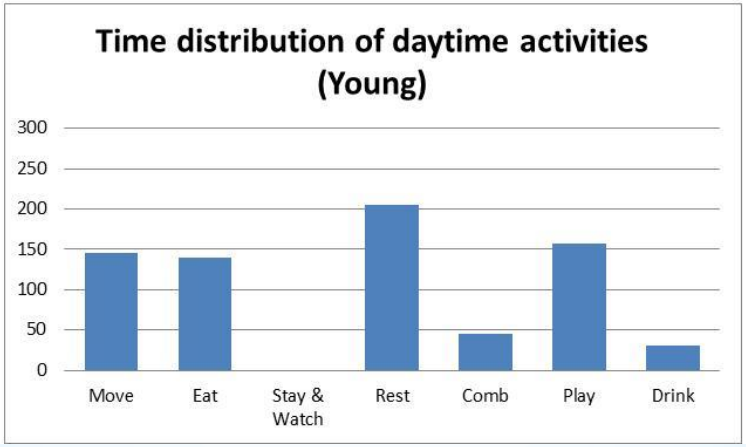
Data courtesy: Yang et al. 2002











Data courtesy: Yang et al. 2002

Food

* Vascular plants
* Lichen and fungi
* Insects (6 species)
* Bird eggs
* Soil of some type

Data courtesy: Yang et al. 2002

Reproduction

* Lifespan: over 30 years
* Mortality: 20% (less than 1 year), 5% (1-8 years), 9% (after 8 years old)
* Breeding and conception in Sept—Oct (gathering of big groups)
  * April: bearing infants
  * Birth-giving every three years (one year if infant dies)
  * Female: sexually mature at 6-8 years, male at 10 years.

Data courtesy: Yang et al. 2002

Potential predators

* Tiger (*Panthera tigris amoyensis* extinct)
* Leopard (*Panthera pardus*)
* Black bear (*U. thibetanus mupinensis*)
* Clouded Leopard (*Neofelis nebulosa*)
* Owl, eagle, falcon, etc.
* HUMANS

Data courtesy: Yang et al. 2002

Forest fires

Fuelwood and timber

All 3 Photo Courtesy: Mr. Xiaoping Lei

Tourism

Natural disasters

Collection of forest products

* Bamboo shoots
* Mushrooms
* Kiwi
* Chinese medicine herbs

Acknowledgement

* Fanjingshan National Nature Reserve
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Photo Courtesy: Yang et al. (2002)