Markets Survey On Traditional Medicine of Lijiang City, Yunnan Province, China

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Abstract

Background: Traditional markets are important trading places for medicinal plants, and market surveys often engage in ethnobotanical research to record the herbal plants used locally and related traditional knowledge. However, information on the market traded medicinal plants is not well documented from traditional markets in Lijiang City, Yunnan.

This research is an ethnobotanical survey focusing on medicinal plants traded in traditional markets of Lijiang City, and contributes to the understanding of medicinal plants and related information used by the Naxi people.

Methods: Ethnobotanical surveys were carried out during two years (2019-2020). Three traditional markets in Lijiang City were investigated. The methods we used include literature research, participatory surveys, key insider interviews and group discussions.

Results: As a result, 318 medicinal plants were recorded including 29 unidentified medicines. The plant medicines were from medicinal plants of 97 families belonged to Angiosperm, Gymnospermae, Pteridophyta, Bryophyta, Lichenes and Fungi. Asteraceae provided the maximum numbers of medicinal plants. Among them, there were 258 species (89.27%) of wild plants, 15 species (5.19%) were cultivated, and 16 species (5.54%) were wild or cultivated. There were 22 species of national protected plants in China, including 3 species of national first-level protected plants and 19 species of national second-level protected plants. Among the recorded diseases, 58.13% of medicinal plants are used to treat musculoskeletal system and connective tissue diseases and digestive system diseases. A total of 31 kinds of medicinal plants can be found in Dongba Sutra or Yu Long Ben Cao.

Conclusion: This study surveyed herbal medicine in the market of Lijiang City, analyzing and revealing resource compositions and current market situations. The medicinal plants used by the Naxi people are diverse and are used to treat a wide spectrum of body disorders. There are many wild medicinal plants, and in order to ensure sustainable development, its natural protection should be strengthened. Knowledge of medicinal plants recorded in Naxi medical classics has ethnobotanical value and should be further developed.

Background

Traditional Chinese Medicine (TCM) has been used for more than 5000 years. Chinese medicinal materials are fundamental to the development of TCM, and China also attaches great importance to the development of Chinese medicine resources(Hai et al. 2016). From 2011 to 2020, China implemented its Fourth National Survey of Chinese Materia Medica Resources to improve the management, protection, development and utilization of Chinese medicine resources(Nature Research Custom Media). In this survey of Chinese medicinal resources, a survey of traditional knowledge related to ethnic minority medicine was carried out in order to fully explore the modern value of ethnic medicine and realize the sustainable utilization of resources(National Administration of Traditional Chinese Medicine). Lijiang City started the fourth survey of Chinese medicinal resources in 2011. As of June 2021, 2060 specimens of Chinese medicinal materials have been collected and identified. In 2018, an investigation of Naxi traditional medicine knowledge was launched, of which 85 kinds of drugs recorded in the Dongba Sutra have been identified(Li et al.2021).

Naxi people are mainly distributed in Yunnan and Sichuan Province and Tibet Autonomous Region. Among them, more than two-thirds of the Naxi population live in Lijiang, Yunnan Province(He Shaoying, 2001). Lijiang City is located in the Hengduan Mountains, with fertile soil, suitable climate, forest coverage rate of 70%, rich resources of Chinese medicinal materials, and is known as the “hometown of medicinal materials”. Among which more than 500 kinds of medicinal herbs grow in the Yulong Snow Mountain, which is known as “treasure house of plants”(Chen et al. 2004). Naxi people is a nation with a long history in China, whose ancestors created the splendid Dongba culture. Naxi Dongba culture has a rich national cultural heritage, including social sciences and natural sciences. Dongba Sutra involved many traditional disciplines such as history, philosophy, religion, music, dance, etc., at the same time, it also recorded many medical knowledge, including Genesis and Chongren Pandi to Find Medicine. Naxi Dongba medicine, as one of traditional medicine used by Naxi people for generations to prevent and treat diseases. Naxi ancestors have accumulated a wealth of knowledge and medicine literature(Chen et al. 2004).

In China, traditional markets are considered as important places for trading of medicinal plants harvested by rural villagers, which also play a social role of exchanging traditional use of herbal medicine among different cultural and social groups at local area. In areas with abundant ethnobotanical knowledge, market surveys are an important research method for ethnobotanical research on medicinal plant(Lee et al. 2008). Many of the plants sold in the markets come from the wild, thus these places are inherently connected with the issue of sustainable collection of plant material from wild growing populations. In this way, more research is needed to investigate the medicinal plants sold on the Lijiang markets and to clarify how these are related to local health disorders.

The aim of this study was to identify the types of medicinal plants sold in the markets of Naxi people. Additional research questions were: 1) The main uses of medicinal plants in the markets; 2) Species and distribution of traditional medicinal plants; 3) Sustainable development of medicinal plants. 4) Records and main uses of medicinal plants sold on the markets in medical classics.
Materials And Methods

2.1 Study area

Lijiang City is located in the northwest of Yunnan Province, the city center is located at E100°25' and N26°86', with a total area of 20,600 square kilometers (Fig. 1). Lijiang is an area where many ethnic groups live together. Apart from the Han nationality, there are 22 ethnic minorities living in Lijiang, among which two thirds of Naxi people live in Lijiang. Lijiang City is located in the Hengduan Mountains, with mountains, river valleys, and tableland alternate. The soil is fertile, sunshine time is long and abundant rainfall. Chinese medicinal materials are very rich in resources. This research investigated three markets in Lijiang, including Zhongyi Market, Xiangshan Market and Xiangjiang Market. (Fig. 2).

2.2 Data collection

From August 2019 to December 2020, we completed the investigation of the three medicinal material trading markets in Lijiang City. The methods that we adopted included literature research, participatory investigation, key informant interviews, and group discussions. In market research, we recorded and photographed medicinal plants sold in the markets. The collected samples were identified by taxonomists Li Haitao and Yang Shaohua, who undertook census tasks of Yunnan and Lijiang, and used the Flora of China (Editorial Committee of Flora of China, 1989–2013) and Flora Yunnan (Editorial Committee of Flora Yunnanica, 1977–2006) to identify the families and species names of plants. The samples were preserved in the Institute of Alpine Economics and Botany, Yunnan Academy of Agricultural Sciences, which is one of the main storage targets for the general survey of Chinese medicine resources in Lijiang. (Codes of Voucher Specimens: NXYC001-NXYC318). After the identification, we counted whether the medicinal plants sold in the markets came from local or other places, whether they were wild or cultivated varieties according to the results of the fourth national survey of traditional Chinese medicine resources. And according to the Information System of Chinese Rare and Endangered Plants (ISCREP, http://www.iplant.cn/rep/problis), we inquired whether these medicinal plants were protected plants. *Dongba Sutra* and *Yu Long Ben Cao* are representative books of traditional Naxi medicine. So after determining the source of medicinal plants in market surveys, we compared and analyzed the records of medicines sold in the markets in the two books.

2.3 Data analysis

The data collected in this study were analyzed and graphed by using Microsoft Office Excel (2010) spreadsheet and RStudio software.

Results And Discussion

3.1 Floristic diversity

In the market, we have encountered 318 medicinal plant products, of which 289 have been identified with a clear base source (Table 1), and 19 have not been identified (Table A1). Among the 289 medicinal plants whose base sources have been identified, their original plants include fungi, lichens, bryophytes, ferns, gymnosperms, and angiosperms, of which angiosperms are the most diverse, accounting for 91% (Fig.3A). The plants belonged to 97 families in taxonomy according to the Flora of China and Flora Yunnan. The dominant plant family was Asteraceae with 31 species that represented 10.73% of the total species, followed by 16 species of Rosaceae (5.54 %), 15 species of Lanco (5.19%) and Lamiaceae (5.19%), 13 species of Liliaceae (4.50%), 11 species of Ranunculaceae (3.81%) and 10 species of Polygonaceae (3.26%) (Fig.3B). Other studies of traditional markets of Naxi people of Lijiang City also recorded Asteraceae as the family with the highest number of medicinal plant species, and there were a lot of variety. It indicated that the Naxi medicinal plants in Lijiang involved a wide range of families, which were consistent with the rich plant resources and biodiversity in Lijiang, indicated that Naxi people in Lijiang had a certain degree of systematic and comprehensive understanding and utilization of medicinal plants (Yang et al, 2020; Zhang et al, 2015). Combined with the fourth national survey of traditional Chinese medicine resources, it was found that among the 289 medicinal plants, 133 species (46.02%) were distributed in the city, 54 species (18.69%) were distributed along the Jinsha River, and 14 species were distributed in the Yulong Snow Mountain, including *Rhodilola fastigiata*, *Pyrola forestiana*, *Aconitum brachypodum*, etc.

3.2 Medicinal parts

In this market survey, the types of medicinal parts included radix and rhizome, stem, bark, leaf, fruit, seed, whole plant, flower, etc., all these reflected the diversity of medicinal parts of medicinal plants used by Naxi people in Lijiang. Radix and rhizome as the main organs for organic storage, there were 122 kinds of medicinal plants from plant Radix and rhizome, accounting for 42.21% of the total number of species investigated, followed by whole grasses, with 70 species, accounting for 24.22% in contrast, leaf and seed were relatively few (Fig. 4). These data were similar to previous studies (Zhang et al. 2015). However, root and whole grass from wild plants are not conducive to the sustainable development of medicinal plants, and it is necessary to promote artificial planting.

3.3 Medicinal applications
The therapeutic uses of 289 medicinal plants were divided into 15 medical categories (Table A2), which were adapted from the catalogue of International Classification of Diseases made by the WHO (World Health Organization). A kind of medicine can have multiple therapeutic uses. For example, Oxalis corniculata can treat musculoskeletal system and connective tissue diseases, gynecological system diseases and skin and subcutaneous tissue diseases, etc. This shows the diversity of herbs for use by Naxi people in Lijiang area. Among the 15 medical categories, 289 medicinal plants have the most medicine for the treatment of musculoskeletal system and connective tissue diseases and digestive system diseases (58.13%). For example, the drugs used to treat external injury and rheumatic diseases such as Dipsacus asper, Eucommia ulmoides, Polygonum cuspidatum, and Hemiphragma heterophyllum, etc. The medicines used to treat digestive diseases include Rumex nepalensis, Scutellaria barbata, etc., which were inseparable from the local climate and natural environment. This was consistent with the trend of the survey results in the Honghe area (Lee et al. 2008). The second was the treatment of Infectious and parasitic diseases (49.13%), such as the treatment of pulmonary tuberculosis, malaria, etc.. There were also many medicines used to treat gynecological diseases (47.06%), skin and subcutaneous tissue diseases (43.60%), and respiratory diseases (43.25%). In addition, 33 of the 289 kinds of medicinal plants were used to treat snake bites, such as Lysimachia congestiflora, Evodia lepta, Paris polyphylla, etc. These were also local specialty medicines. 

3.4 Literature survey

3.4.1 Herbal medicine recorded in the Dongba Sutra

The Dongba Sutra records the contents of philosophy, history, religion, medicine, etc., and is recognized as the encyclopedia of Naxi people. Among them, a large number of medical Classics reflected the contents related to life and health in ancient times, which are the simple understanding of life, health, and medicine of ancient people, and were of great significance to the study of the origin of medicine. Dongba people in the primitive religion of Naxi people had mastered the Dongba words and accumulated their initial knowledge and long-term practice of medicine (Chen, 2004). At the same time, they had formed their unique diagnosis and treatment theories and valuable experience in disease prevention and treatment. In this market research, 19 of 289 medicinal materials were recorded in the Dongba Sutra (Table 2, Fig 6). All the medicines recorded in the Dongba Sutra are formulas, and it can also be known that Naxi Dongba is compatible with medicines to treat diseases. For example, to treat serious cold, Naxi Dongba use Bupleurum candollei and Pyrola forestiana (Fig 6). The medicines used in the Dongba Sutra are also recorded in the Dongba Sutra. In the Dongba Sutra, Rumex nepalensis is mashed, mixed with honey and smashed green onions, to treat men with hemia (Fig 8). In Yu Long Ben Cao, the indications of Rumex nepalensis are different, mainly treating skin eczema, sweat spots, acute tonsillitis, constipation, etc. (He Deshao, 2018). In the theory of TCM (State Pharmacopoeia Committee, 2020), the indications of Rumex nepalensis are roughly the same as those recorded in Yu Long Ben Cao. Yu Long Ben Cao was written in Chinese by an author of Naxi people, and is the product of the combination of the culture of Naxi medical culture and Han medical culture (Zhang et al., 2006). Lijiang is located in the northwest of Yunnan Province, at the junction of Yunnan, Sichuan, and Tibet. It is a multi-ethnic place. In addition to Han and Naxi, there are 21 ethnic minorities such as Tibetan, Bai, and Yi. Some medicinal materials are also used in these ethnic minorities, such as Rumex nepalensis, Tibetans are used to treat Sore and Ulcer, recorded in Jingzhu Materia Medica (Dan, 2012), Bai people are used to treat Constipation, Gastrointestinal Hemorrhage, Eczema, etc. (Jia and Zhang, 2016). Naxi people also have this usage (He, 2018). These phenomena reveal the interrelationship between the Naxi medical culture and the medical culture of the surrounding ethnic groups.

3.4.2 Herbal medicine recorded in Yu Long Ben cao

Yu Long Ben Cao is compiled based on the environment, climate, eating habits and other diseases where Naxi people live in. It is a precious crystallization of Naxi medicine and an important part of Naxi medicine (Ni Ping, 2019). In this market research, 12 medicinal plants were recorded in Yu Long Ben Cao (Fig 7), including Cynanchum otophyllum, Rodgersia sambucifolia, Swertia punicea, Geum aleppicum, Salvia trijuga, Polygala arillata, Senecio scandens, Polygonum paleaceum, Rumex nepalensis, Arctium lappa, Ajuga forestii, Valeriana jatamansi. Among them, Rumex nepalensis is also recorded in the Dongba Sutra. In the Dongba Sutra, Rumex nepalensis is mashed, mixed with honey and smashed green onions, to treat men with hemia (Fig 8). In Yu Long Ben Cao, the indications of Rumex nepalensis are different, mainly treating skin eczema, sweat spots, acute tonsillitis, constipation, etc. (He Deshao, 2018). In the theory of TCM (State Pharmacopoeia Committee, 2020), the indications of Rumex nepalensis are roughly the same as those recorded in Yu Long Ben Cao. Yu Long Ben Cao was written in Chinese by an author of Naxi people, and is the product of the combination of the culture of Naxi medical culture and Han medical culture (Zhang et al., 2006). Lijiang is located in the northwest of Yunnan Province, at the junction of Yunnan, Sichuan, and Tibet. It is a multi-ethnic place. In addition to Han and Naxi, there are 21 ethnic minorities such as Tibetan, Bai, and Yi. Some medicinal materials are also used in these ethnic minorities, such as Rumex nepalensis, Tibetans are used to treat Sore and Ulcer, recorded in Jingzhu Materia Medica (Dan, 2012), Bai people are used to treat Constipation, Gastrointestinal Hemorrhage, Eczema, etc. (Jia and Zhang, 2016). Naxi people also have this usage (He, 2018). These phenomena reveal the interrelationship between the Naxi medical culture and the medical culture of the surrounding ethnic groups.

3.5 Resources status

Among the original plants of 289 kinds of medicinal plants, 266 kinds (92.39%) were from the local area and 21 kinds (6.92%) were from other places. Among them, 258 species (89.27%) were completely wild, 15 species (5.19%) were cultivated, and 16 species (5.54%) were wild or cultivated (Fig 9). This was consistent with the trend of the survey results in the Honghe area of Yunnan Province, where wild medicinal plants accounted for 80.1% (Lee et al. 2008). The possible reason was that most of the sellers surveyed by the two surveys were local rhizotomists.

According to the Information System of Chinese Rare and Endangered Plants (ISCREP), in the original plants of 289 plant medicines, 3 species were listed as the First Class National Protected Plants in China (Table 3), including Yinxing, Tiepishihu and Renshen. This was also consistent with the survey of the medicinal materials market in Dali Prefecture, Yunnan (Zhang et al. 2014). According to the IUCN Red List of Threatened Species, Ginkgo biloba and Panax ginseng were “critically endangered” species. Dendrobium officinale was not recorded. Fortunately, both Ginkgo biloba and Panax ginseng could be obtained through cultivation. There were 19 species listed as national Second Class protected plants in China (Table 3), of which 15 species sold in markets of Lijiang (78.95%) were completely from wild plants. It is worth noting that Psammosilen
in the Dongba Sutra. Through the Fourth National Survey of Chinese Materia Medica Resources, we have identified the source of the medicinal treatment theories and valuable experience in disease prevention and treatment (Chen, 1999). Many medicinal plants and usages were recorded words and accumulated their initial knowledge and long-term practice of medicine. At the same time, they had formed their unique diagnosis and the most direct written materials to study Dongba culture. The Dongba people in the primitive religion of Naxi people had mastered the Dongba world. Because of Joseph F Rock excellent work, Naxi and its Dongba culture are famous at home and abroad, and Dongba Sutra have become and music formed by Dongba religion are called Dongba culture. Dongba words is the only surviving hieroglyph (Wang and Zheng, 2006) in the "Dongba religion" is the most primitive religion of Naxi people. Various cultural activities and phenomena such as Dongba words, sutras, rituals, and music formed by Dongba religion are called Dongba culture. Dongba words is the only surviving hieroglyph (Wang and Zheng, 2006) in the world. Because of Joseph F Rock excellent work, Naxi and its Dongba culture are famous at home and abroad, and Dongba Sutra have become the most direct written materials to study Dongba culture. The Dongba people in the primitive religion of Naxi people had mastered the Dongba words and accumulated their initial knowledge and long-term practice of medicine. At the same time, they had formed their unique diagnosis and treatment theories and valuable experience in disease prevention and treatment (Chen, 1999). Many medicinal plants and usages were recorded in the Dongba Sutra. Through the Fourth National Survey of Chinese Materia Medica Resources, we have identified the source of the medicinal

Conclusion

4.1 Sustainable Development of Naxi Medicinal Plant Resources

The study area, Lijiang City in Yunnan Province of China is well known for its exceptionally rich medicinal plants. The study recorded 289 medicinal plants traded on the markets, involving 97 families such as Asteraceae, Rosaceae, Lanco, Liliaceae and Ranunculaceae. The medicinal parts involved roots and rhizomes, stems, skins, leaves, fruits, Seeds, whole grasses, flowers, etc., showed the rich plant diversity and rich local knowledge in this area. Yunnan province is called "the kingdom of animals and plants", possessing extremely rich biological resources. There are plentiful medicinal plants, especially the species in Asteraceae, Ranunculaceae and Liliaceae etc. Systematical researches on these key families would help to develop new medicinal resources and protect endangered species.

The ancestors of Naxi people attach great importance to the harmonious development of man and nature and they believe that man and nature are brothers. Experienced medicinal gatherers attach great importance to the sustainable use of resources. They generally pick large herd rather than small ones. Most of them collect herds when seeds are mature and sow seeds in the surrounding area, in order to be able to renew naturally (Yang et al.,2020). However, with the increase in usage, the demand for trade in medicinal plants may increase in the coming years, leading to over-harvesting of wild plant species and possibly even endangering natural populations. In this study, we found that most of the medicinal plants use roots and whole plants, including the national second-level protected plants Rhodolila fastigiata, Bulbophyllum odoratissimum, Dysosma versipellis, Spiranthes sinensis, etc., and they are all wild plants. It is not conducive to the sustainable development of plants. The sustainable management of wild medicinal plants is very important to their diversity protection and avoiding extinction, especially in the case of species that are highly used in traditional medicine. Therefore, on the one hand, we should strengthen the punishment of indiscriminate digging, and on the other hand, we should carry out artificial domestication and cultivation of large and precious medicinal materials to alleviate the rapid decline of current medicinal plant resources.

4.2 Naxi medicinal plants are versatile and have local characteristics

In terms of disease treatment, the herb application of Naxi people almost covers common diseases, including dyspepsia, common cold, menstruation disturbances, fractures, etc., as well as incurable infectious diseases such as rabies and malaria, as well as current research hotspots such as cancer and cardiovascular diseases. More is the treatment of common local diseases, such as rheumatoid arthritis, external injury, etc. In the use of medicinal plants, a versatile feature is very common, For example, Aconitum brachypodium can not only treat cancer, but also treat rheumatoid arthritis; In addition to treating rheumatoid arthritis and external injury, Toddalia asiatica can also treat diseases such as gastrointestinal bleeding and menstruation disturbances.

In the long historical development process, Naxi people have constantly learned and absorbed the advanced culture and advanced production technology of various ethnic groups in the process of communication with the surrounding ethnic groups, thereby enriching and developing their own culture and promoting their own national progress and development (He, 1989). In Dongba Sutra "Genesis" (Chuang Shiji), it is mentioned that the Tibetans, Bai and Naxi are three brothers of the same compatriot. In the Naxi's creation epic "Chongmo Chongze", it is also mentioned that the Naxi and The Tibetans are brothers (Zhang, 2006). This also fully shows that Naxi people have close exchanges with Tibetans, Bai nationalities and other ethnic groups. In this study, we found that the Naxi and Bai and Tibetans also have similarities in the application of medicinal plants. For example, both the Naxi and Tibetans use Rheum palmatum to treat constipation, dyspepsia, diarrhea, jaundice, carbuncle, amenorrhea, etc.. In addition, Naxi people also use Rheum palmatum to treat vomiting, gastrointestinal hemorrhage, tumor other diseases, and the Tibetans also use it to treat infectious diseases, fever and other diseases.

4.3 Naxi medical classics record the excellent culture of Naxi people

"Dongba religion" is the most primitive religion of Naxi people. Various cultural activities and phenomena such as Dongba words, sutras, rituals, and music formed by Dongba religion are called Dongba culture. Dongba words is the only surviving hieroglyph (Wang and Zheng, 2006) in the world. Because of Joseph F Rock excellent work, Naxi and its Dongba culture are famous at home and abroad, and Dongba Sutra have become the most direct written materials to study Dongba culture. The Dongba people in the primitive religion of Naxi people had mastered the Dongba words and accumulated their initial knowledge and long-term practice of medicine. At the same time, they had formed their unique diagnosis and treatment theories and valuable experience in disease prevention and treatment (Chen, 1999). Many medicinal plants and usages were recorded in the Dongba Sutra. Through the Fourth National Survey of Chinese Materia Medica Resources, we have identified the source of the medicinal
plants recorded in the Dongba Sutra with the help of Naxi Dongba, and 85 kinds of medicinal plants were identified (Li et al., 2021). In this market survey, a total of 19 medicinal plants were recorded in the Dongba Sutra, including *Bupleurum candollei*, *Pyrola forestiana*, *Rheum palmatum*, etc. In the survey, it was found that the 19 medicinal plants were all from the local area of Lijiang. The common medicinal materials used by the people from ancient times to the present. Naxi people have a long history of recognizing and using medicines.

*Yu Long Ben Cao* was first formed in the Ming Dynasty and was written in the Qing Dynasty. It was written in Chinese by He Jieshan, a Naxi people. It was a local herbal work written under the guidance of TCM theory and his personal experience in applying medicines from Naxi people. It is the product of the combination of Naxi culture and Han culture (Zeng, 1999). This proves that at least in the Qing Dynasty, Naxi medicine was accepted and absorbed by Chinese medicine and became an indispensable part of Chinese medicine. In this market survey, a total of 12 herbs were recorded in *Yu Long Ben Cao*, including *Cynanchum Otophyllum*, *Rodgersia Sambucifolia*, *Swertia Punicea* and so on. Some of them were also recorded in Dongba Sutra, like *Rumex Nepalensis*. But the usage of *Rumex nepalensis* in *Yu Long Ben Cao* is different from that in Dongba Sutra. The usage of *Rumex nepalensis* in *Yu Long Ben Cao* is closer to that of TCM. Thus it can be seen from this that Naxi medicine has absorbed the practice and theory of TCM to promote the formation and development of the national medicine.

The development of Naxi medicine has gone through a long historical process. There are records of medical knowledge in many ancient Dongba Sutra. The understanding of medicines and the treatment of diseases are derived from practice and repeatedly verified in practice, but it just as a record of experience. With the integration of various ethnic cultures, Naxi medicine has been deeply influenced by various cultures such as Han, Tibetan, and Bai. Unlike other ethnic medicines, Naxi medicine is a multi-cultural medical theory, which has absorbed the practices and theories of TCM, Tibetan medicine, and other ethnic medicines, and combining the characteristics of their own ethnic.

This research is the first contribution to understand from the ethnobotanical point of view that medicinal plants play an important role in the lives of Naxi people. And studied the records of medicinal plants sold in the markets in Dongba Sutra and *Yu Long Ben Cao*. The traditional knowledge of medicinal plants recorded in these medical classics is the result of ancient humans’ understanding of nature. From the perspective of the relationship between human and nature, the content they contain has important ethnobotanical value. However, traditional medicine knowledge and medicinal plants are greatly threatened by rapid economic development due to various reasons. Therefore, policies and practices to protect medicinal plants and their associated traditional knowledge are necessary.

**Declarations**

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**Author contribution**

Lu-qi Huang, Zhi-yong Li and Xiu-lan Huang: designed the study. Ming-shuo Zhang: performed ethnobotanical plants surveys, data curation and analysis, wrote the manuscript. Hai-tao Li: performed ethnobotanical plants surveys, botanical identification of plant species and prepared herbarium samples. Jun-qi Wang: data curation and analysis, revised manuscript. Xiao-bo Zhang: Shao-hua Yang: performed ethnobotanical plants surveys, botanical identification of plant species. Ying-Lu Bai: revised manuscript. Zi-Jun Sha: performed ethnobotanical plants surveys. Jian-qin Liu: prepared herbarium samples, provide Dongba Sutras. Ying Li: provide the International Phonetic Alphabet of Chinese medicinal plants recorded in the Dongba Sutras. All authors have read and approved the final version of the manuscript.

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**Availability of data and materials**

All data generated or analyzed during this study are included in this published article (and its supplementary information files).

**Ethics approval and consent to participate**

Not applicable.

**Consent for publication**

Prior and informed consent of local people’s pictures had been obtained for publication.

**Competing interests**
The authors declare that they have no competing interests.

Declaration of competing interest
The authors declare no conflicts of interest associated with this study or its results.

References

1. Chen H. Dongba Scripture: An Encyclopedia of ancient Naxi Society. Yunnan Archives. 1999;5:26. https://doi.org/10.14074/j.cnki.yunnan.archives.1999.05.028.

2. Chen Qinghua Z, Wang J Yan. 2004. Research status of Naxi medicine. Journal of Yunnan College of Traditional Chinese Medicine, 16–9. https://doi.org/10.19288/j.cnki.issn.1000-2723.2004.02.008.

3. Danzengpenglie, Dimarer. 2012. Jing Zhu Ben Cao, Beijing.

4. Editorial Committee of Flora of China. 1989–2013. Flora of China. Beijing.

5. Editorial Committee of Flora of Yunnanica, 1977–2006. Flora Yunnanica. Beijing.

6. Yuan H, Qianqian M, Ye L, et al. The Traditional Medicine and Modern Medicine from Natural Products. Molecules. 2016;21(5):559. https://doi.org/10.3390/molecules21050559.

7. He, Deshao. 2018. Yu Long Ben Cao, second ed, Yunnan.

8. He, Shaoying. 2001. Naxi culture history, first ed, Yunnan.

9. He, Zhiwu. 1989. Naxi Dongba Culture, Jilin.

10. Information System of Chinese Rare and. Plants E. http://www.iplant.cn/rep/protlist.

11. International Classification of Diseases. 2015. World Health Organization, http://apps.who.int/classifications/icd10/browse/2015/en.

12. Jia Minru Z, Yi. 2016. Dictionary of Yunnan Ethnic Medicine, Beijing.

13. Lee Sangwoo X, Chunjie PS. Ethnobotanical survey of medicinal plants at periodic markets of Honghe Prefecture in Yunnan Province, SW China. Journal Ethnopharmacol. 117(2): 362 – 77, 2008. https://doi.org/1016/j.jep.2008.02.001.

14. Li H, Li Z, Xiaobo Z, et al. Ethnobiological study on traditional medicinal plants and fungi recorded in the Naxi Dongba sutras. Journal Ethnobiol Ethnomed. 2021(1):32. https://doi.org/10.1186/s13002-021-00459-8.

15. National Administaration of Traditional Chinese Medicine. 2018. Highlights of the 2018 General Survey of Chinese Medicine Resources. http://www.satcm.gov.cn/e/search/result/?searchid=1591.

16. Nature Research Custom Media. 2020. Chinese government in push for sustainable traditional medicine resources. https://www.nature.com/articles/d42473-020-00001-6.

17. Ni, Ping. 2019. Research on the Development Status and Protective Countermeasures of National Medicine of Naxi people. Kunming University of Science and Technology. https://kns.cnki.net/kcms/detail/detail.aspx?FileName=1019912157.nh&DbName=CMFD2020.

18. State Pharmacopoeia C. 2020. Chinese Pharmacopoeia, Beijing.

19. Wang Yin Z, Jin. 2006. A flower of national medicine nurtured by Dongba Culture, Yunnan ethnic medicine tour, 4:23. https://doi.org/10.19288/j.cnki.issn.1000-2723.2006.04.023.

20. Genlin Y, Jiamo Hu, Yun G, et al., 2020. Study on National Medicinal Plants of Naxi people in Lijiang, Yunnan. Journal of Central University for Nationalities (Natural Science Edition), 29(1): 66–71. https://doi.org/CMKI:SUN:ZYMZ.0.2020-01-010.

21. Yang Lixin A, Selena S, Johnrichard, et al., 2014. Comparative homegarden medical ethnobotany of Naxi healers and farmers in Northwestern Yunnan, China. Journal of Ethnobiology and Ethnomedicine. https://doi.org/10.1186/1746-4269-10-6.

22. Zeng, Yulin. 1999. The Cursive Script of the Naxi people-Yu Long Ben Cao. Chinese National Folk Medicine Journal, 01: 1–8. https://doi.org/CMKI:SUN:ZMJ.0.1999-01-000.

23. Zhang Dequan D, Lizhen NZ. 2014. Market survey on traditional medicine of the third month fair in Dali Prefecture in Yunnan Province, South West China. Afr J Tradit Complement Altern Med. 11(2): 377–401. https://doi.org/10.4314/ajtcam.v11i2.25. eCollection 2014.

24. Zhang Lingling Z, Yu, Pei1 Shengji, et al., 2015. Ethnobotanical survey of medicinal dietary plants used by the Naxi People in Lijiang Area, Northwest Yunnan, China. Journal of Ethnobiology and Ethnomedicine. 11:40. https://doi.org/10.1186/s13002-015-0030-6.

25. Zhang Tao H, Lisheng L, Ming, et al., 2006. Journal of Yunnan College of Traditional Chinese Medicine, S1: 43–45. https://doi.org/10.19288/j.cnki.issn.1000-2723.2006.s1.018.

26. Zheng Jin Z, Chao Q, Zigang. 2019. Chinese Ethnic Medicine Dictionary, Shanghai.
Table 1 289 plants in this study and their relevant information
| Voucher Specimens | Local name | Family name | Latin name of original plant | W/C | L/E | Medicinal parts | Medicinal values (Jia and Zhang, 2016; Zheng et al, 2019) |
|-------------------|------------|-------------|-----------------------------|-----|-----|-----------------|----------------------------------------------------------|
| NXYC001           | Mutong     | Ranunculaceae | *Clematis gouriana* Roxb.ex DC. | W   | L   | Stem            | External injury, Arthritis rheumatoid                      |
| NXYC002           | Changpu    | Araceae      | *Acorus calamus* Linn.       | W   | L   | Radix           | Epilepsy, Corna, Dementia, Arthritis rheumatoid, Deafness, Dysentery, Carbuncle, Deeprooted carbuncle, Soreand ulcer, Eczema |
| NXYC003           | Kulianzi   | Meliaceae    | *Melia azedarach* L.         | W   | L   | Fruit           | Parasitic, Hemia, Dysmenorrhea, External injury, Soreand ulcer |
| NXYC004           | Muzei      | Equisetaceae | *Equisetum hyemale*, *Hippochaete ramosissimum* (Desf.) Milde | W   | L   | Whool plant    | Conjunctivitis, Corneal, Hepatitis, Jaundice, Rectal prolapse, Hematemenesis, Hematochezia, Cough, Bronchitis, Urinary tract infections, Urodynia, Urinary calculi, Gonorrhea, Hemorrhoids, Endometriosis |
| NXYC005           | Zicao      | Boraginaceae | *Onosma paniculatum* Bur.et Franch. | W   | L   | Radix           | Metrorrhagia, Measles, Erythema infectiosum, Soreand ulcer, Eczema, Burns |
| NXYC006           | Muxiang    | Compositae   | *Aucklandia lappa* Decne.    | C   | L   | Radix           | Angina pectoris, Vomiting, Diarrhea, Dysentery             |
| NXYC007           | Gaoliangjiang | Zingiberaceae | *Alpinia officinarum* Hance | W   | L   | Radix           | Vomiting, Dyspepsia, Gastroenteritis, Flatulence, Diarrhea, Esophageal squamous cell carcinoma, Pityriasis, Tinea pedis, Malaria |
| NXYC008           | Xiangfu    | Cyperaceae   | *Cyperus rotundus* L.        | W   | L   | Radix           | Angina pectoris, Cough, Laryngitis, Dyspepsia, Vomiting, Menstruation disturbances, Dysmenorrhea, Hard furuncle |
| NXYC009           | Chaihu     | Umbelliferae | *Bupleurum candollei* Wall.  | W   | L   | Whool plant    | Hard furuncle                                              |
| NXYC010           | Danggui    | Umbelliferae | *Angelica sinensis* (Oliv.) Diels | C   | L   | Whool plant    | Anemia, Menstruation disturbances, Amenorrhea, Dysmenorrhea, Menorrhagia, Postpartum abdominal pain, Constipation, Carbuncle, Deeprooted carbuncle, Soreand ulcer, External injury |
| NXYC011           | Chuanxiong | Umbelliferae | *Ligusticum chuanxiong* Hort. | C   | L   | Whool plant    | Menstruation disturbances, Amenorrhea, Dysmenorrhea, |
| Code   | Name       | Family   | Scientific Name            | Use  | Mode | Common Name                      | Medical Conditions                                                                 |
|--------|------------|----------|-----------------------------|------|------|----------------------------------|-------------------------------------------------------------------------------------|
| NXYC012| Matixiang  | Valerianaceae | Valeriana jatamansi Jones   | WC   | L    | Whoool plant                      | Dyspepsia, Flatulence, Hepatitis, Enteritis, Rotavirus infections, Dysentery, Arthritis rheumatoid |
| NXYC013| Ganjiang   | Zingiberaceae | Zingiber officinale Rosc.   | C    | L    | Radix                            | Common cold, Fever, Sputum, Cough, Angina pectoris, Abdominal tympanites, Diarrhea, Vomiting, Dysmenorrhoea, Menstruation disturbances, Arthritis rheumatoid, External injury, Toothache, Soreand ulcer, Tinea, Antidotes |
| NXYC014| Yinxingguo | Ginkgoacea | Ginkgo biloba Linn.         | C    | E    | Fruit                            | Bronchitis, Pulmonary tuberculosis, Chancroid, Spermatorrhea, Diarrhea, Enteritis, Soreand ulcer, Pruritus, Impetiginous sores |
| NXYC015| Wanzhangshen | Compositae | Crepis phoenix Dunn        | W    | L    | Radix                            | Dyspepsia, Anemia, Leukorrhea, Hepatitis, Cough, Asthma, Soreand ulcer, Pruritus, Tinea, Soreand ulcer |
| NXYC016| Huangjing  | Liliaceae | Polygonatum kingianum Coll. et Hemsl. | W    | L    | Radix                            | Pulmonary tuberculosis, Neurasthenia, Arthritis rheumatoid, Chronic hepatitis, Dyspepsia |
| NXYC017| Ziwan      | Compositae | Aster jeffreyanus Diels    | W    | L    | Radix                            | Communicable diseases, Headache, Eye pain, Spasm, Antidotes, Tinea, Soreand ulcer |
| NXYC018| Longdancao | Gentianaceae | Gentiana rigescens Franch.ex Hemsl. | W    | L    | Whoool plant                      | Pharyngitis, Tonsillitis, Pneumonia, Conjunctivitis, Stomatitis, Hepatitis, Gastritis, Hematochezia, Dysentery, Malaria, Hemorrhoids, Dysuria, Epilepsy, Headache, Soreand ulcer, Exanthema, Vaginitis, Leukorrhea, Mastitis, External injury |
| NXYC019| Kudancao   | Gentianaceae | Swertia punicea Hemsl.     | W    | L    | Whoool plant                      | Toothache                           |
| NXYC020| Longxucao  | Rosaceae  | Geum aleppicum Jacq        | WC   | L    | Whoool plant                      | Hypertension, Cough, Laryngitis, Anemia, Arthritis rheumatoid, External injury, Menstruation disturbances, Carbuncle, Enteritis, Dysentery |
| Code    | Name               | Family      | Scientific Name                                                | Use | Model | Description                                                                 |
|---------|--------------------|-------------|----------------------------------------------------------------|-----|-------|--------------------------------------------------------------------------------|
| NXYC021 | Gegen              | Leguminosae | *Pueraria lobata* (Willd.) Ohwi                                | Wi/C| L    | Radix  
Common cold, Fever, Exanthema, Gastroenteritis, Constipation, Coronary thrombosis, Angina pectoris, Deafness, Communicable diseases |
| NXYC022 | Zimoli             | Nyctaginaceae | *Mirabilis jalapa* L.                                          | W   | L    | Radix  
Tonsillitis, Menstruation disturbances, Leukorrhea, Uterine cervical erosion, Prostatitis, Urinary tract infections, Pulmonary tuberculosis, Diabetes mellitus, Arthritis rheumatoid |
| NXYC023 | Dahuang            | Polygonaceae | *Rheum palmatum* L.; *Rheum officinale* Baill.                 | W   | L    | Radix  
Constipation, Dyspepsia, Diarrhea, Jaundice, Vomiting, Gastrointestinal hemorrhage, Hematochezia, Amenorrhea, Sore and ulcer, Hematuria, Stranguria, Neoplasms, External injury, Carbuncle, Erysipelas, Burns |
| NXYC024 | Baimutong          | Ranunculaceae | *Clematis montana* Buch.-Ham. ex DC.                          | W   | L    | Stem  
Nephritis, Kidney calculi, Urinary bladder calculi, Urinary calculi, Urinary tract infection, Urodynamic, Prostatic hypertrophy, Mastodynia, Menstruation disturbances, Insomnia, Oral ulcer |
| NXYC025 | Hongjingtian       | Crassulaceae | *Rhodiolola fastigiata* (Hook.f.et Thoms) Fu                  | W   | L    | Radix  
Antidotes, Conjunctivitis, Toothache, Hard furuncle, Sore and ulcer |
| NXYC026 | Hebaoshan guihua   | Polygalaceae | *Polygala arillata* Buch.-Ham.ex D.Don                         | W   | L    | Radix  
Arthritis rheumatoid, External injury, Pulmonary tuberculosis, Pneumonia, Nephritis, Gastroenteritis, Cough, Urinary infection, Mastitis, Common cold, Bronchitis, Insomnia, Dreaminess |
| NXYC027 | Dangshen           | Campanulaceae | *Codonopsis subgloboza* W.W.Smith                             | W   | L    | Radix  
Palpitation, Cough, Diabetes mellitus, Diarrhea, Rectal prolapse |
| NXYC028 | Mulingzhi          | Ganodermataceae | *Ganoderma applanatum* (Pers.) Whool plant  | W   | L    | Pharyngitis, Esophageal squamous cell carcinoma, Nasopharyngeal carcinoma |
| NXYC029 | Qingyangshen       | Asclepiadaceae | *Cynanchum otophyllum* Schneid.                                | W   | L    | Radix  
Arthritis rheumatoid, External injury, |
| Code   | Name               | Family     | Scientific Name                        | Type | Location | Main Uses                                                                 |
|--------|--------------------|------------|----------------------------------------|------|----------|--------------------------------------------------------------------------|
| NYXC030 | Geshanxiao        | Geraniaceae| *Geranium strictipes* R.Knuth          | W L  | Radix    | Dyspepsia, Diarrhea, Hematochezia, Gastritis, Dysentery                  |
| NYXC031 | Xuduan            | Dipsacaceae| *Dipsacus asper* Wall. ex Henry         | W/C  | L Radix  | Arthritis rheumatoid, Abortion threatened, Mastitis                      |
| NYXC032 | Shanglu           | Phytolaccaceae| *Phytolacca acinosa* Roxb.        | W L  | Radix    | Abdominal tympanites, Oliguria, Constipation, Carbuncle, Sore and ulcer, Nephritis |
| NYXC033 | Shuidongguapi     | Betulaceae  | *Alnus nepalensis* D.Don.             | W L  | Bark     | Dysentery, Diarrhea, Antidotes, External injury, Fractures, Arthritis rheumatoid |
| NYXC034 | Baibu             | Liliaceae   | *Asparagus filicinus* Buch.-Ham. ex. D.Don | W L  | Radix    | Pulmonary tuberculosis, Lung abscess, Cough, Asthma, Pharyngitis, Urodynamic, External injury, Fractures, Arthritis rheumatoid, Tinea |
| NYXC035 | Juanbai           | Selaginellaceae| *Selaginella pulvinata* (Hook. et Grev.) Maxim. | W L  | Whool plant | Gastrointestinal hemorrhage, Hematuria, Hemorrhoids, Metrorrhagia, Amenorrhea, Dystocia, Neoplasms, Arthritis rheumatoid, External injury, Fractures, Cough, Asthma, Fever |
| NYXC036 | Duzhong           | Eucommiaceae| *Eucommia ulmoides* Oliv.             | W/C  | L Bark, Seed | Arthritis rheumatoid, Abortion threatened, Vaginitis, Hypertension, Nephrosis, External injury, Bone diseases, Sore and ulcer |
| NYXC037 | Shichangpu        | Araceae     | *Acorus gramineus* Soland.            | W L  | Radix    | Epilepsy, Coma, Dementia, Headache, Asthma, Arthritis rheumatoid, External injury, Stomach ulcer, Flatulence, Abdominal pain, Deafness, Dysentery, Rectal prolapse, Carbuncle, Deep rooted carbuncle, Sore and ulcer |
| NYXC038 | Yanchangpu        | Saxifragaceae| *Bergenia purpurascens* (Hook.f.et Thom.)Engler | W L  | Radix    | Cough, Laryngitis, Sputum, Pulmonary tuberculosis, Dysentery, Gastrointestinal hemorrhage, |
| Code   | Name               | Family           | Common Name                                      | Part | Location | Common Conditions                                                                 |
|--------|--------------------|------------------|---------------------------------------------------|------|----------|------------------------------------------------------------------------------------|
| NXYC039| Guoluhuang         | Guttiferae       | *Hypericum hookerianum* Wight & Amott            | W L  | Whool plant | Diabetes, Hypertension, Respiratory diseases, Amnorrhea, Nephritis, Sore and ulcer |
| NXYC040| Huzhang            | Polygonaceae     | *Polygonum cuspidatum* Sieb. et Zucc.             | W L  | Radix     | Arthritis rheumatoid, External injury, Abdominal neoplasms, Menstruation disturbances, Postpartum hemorrhage, Enteritis, Jaundice, Hepatitis, Communicable diseases, Carbuncle, Burns, Stomach neoplasms |
| NXYC041| Heshouwu           | Polygonaceae     | *Polygonum multiflorum* Thunb.                    | W L  | Radix     | Tuberculosis lymph node, Sore and ulcer, Carbuncle, Hepatitis, Enteritis, Constipation, Ovarian cysts, Dyslipidemias |
| NXYC042| Sharen             | Zingiberaceae    | *Alpinia zerumbet* (Persoon) B.L. Burtt. & R.M. Smith | W E  | Fruit     | Gastritis                                                                          |
| NXYC043| Dalizi             | Compositae       | *Arctium lappa* L.                                | W L  | Radix     | Common cold, Cough, Pharyngitis, Sore and ulcer, Tinea pedis, Eczema               |
| NXYC044| Guoshangye         | Orchidaceae      | *Bulbophyllum odoratissimum* (Smith) Lindl.       | W L  | Whoool plant | Pulmonary tuberculosis, Laryngitis, External injury, Arthritis rheumatoid          |
| NXYC045| Tudahuang          | Polygonaceae     | *Rumex nepalensis* Spreng.                        | W L  | Radix     | Constipation, Jaundice, Gastroenteritis, Gastrointestinal hemorrhage, Pruritus ani, Hemorrhoids, Tonsillitis, Diphtheria, Dysentery, Pulmonary tuberculosis, Parotitis, Metrorrhagia, Purpura, Thrombocytopenic, External injury, Fractures, Neurodermatitis, Eczema, Carbuncle, Sore and ulcer, Tinea, Burns |
| NXYC046| Shidagonglao       | Berberidaceae    | *Mahonia bracteolata* Takeda                      | W L  | Stem      | Dysentery, Gastroenteritis, Hepatitis, Bronchitis, Laryngitis, Conjunctivitis, Burns |
| Code   | Chinese Name       | Family        | Scientific Name                        | Part Used | Medicinal Uses                                                                 |
|--------|--------------------|---------------|----------------------------------------|-----------|---------------------------------------------------------------------------------|
| NXYC047 | Pugongying        | Compositae    | *Taraxacum mongolicum* Hand.-Mazz.     | Radix     | Whole plant: Common cold, Tonsillitis, Pharyngitis, Conjunctivitis, Gastritis, Enteritis, Hepatitis, Cholecystitis, Appendicitis, Dysentery, Parotitis, Urinary tract infections, Pelvic inflammatory, Mastitis, Carbuncle, Sore and ulcer, Hard furuncle |
| NXYC048 | Baiziren           | Cupressaceae  | *Platycladus orientalis* (L.) Franco   | Whool     | Fruit: Insomnia, Palpitation, Constipation, Spermatorrhea                         |
| NXYC049 | Fuling             | Poliporaceae  | *Wolfiporia cocos* (Schw.) Wolf.       | Radix     | Whole plant: Oliguria, Gonorrhea, Insomnia, Flatulence, Diarrhea, Vomiting, Cough, Common cold |
| NXYC050 | Guoshanlong        | Magnoliaceae  | *Schisandra rubriflora* (Franch.) Rehd.et Wils | Stem      | Whole plant: Arthritis rheumatoid, Neuasthenia, Hepatitis, Tracheitis             |
| NXYC051 | Jiegumu            | Caprifoliaceae| *Sambucus williamsii* Hance             | Bark      | Whole plant: Fractures, External injury, Arthritis rheumatoid, Gout, Kashin-beck, Nephritis |
| NXYC052 | Mahuang            | Ephedraceae   | *Ephedra likiangensis* Florin           | Stem      | Whole plant: Common cold, Fever, Tracheitis, Asthma, Pneumonia, Nephritis        |
| NXYC053 | Yantuo             | Saxifragaceae | *Rodgersia sambucifolia* Hemsl          | Radix     | Whole plant: External injury, Fractures, Arthritis rheumatoid, Menstruation disturbances, Gastrointestinal hemorrhage, Diarrhea, Enteritis, Dysentery, Common cold, Cough, Herpes genitalis, Hematuria, Urodynia |
| NXYC054 | Songluo            | Usneaceae     | *Usnea longissima* Ach.                | Whool     | Whole plant: Common cold, Cough, Fever, Bronchitis, Pulmonary tuberculosis, Tuberculosis lymph node, Diarrhea, Palpitation, Hemiplegia, Headache, Insomnia, Dreaminess, Mastitis, Dysmenorrhea, Dysuria, External injury, Arthritis rheumatoid, Sore and ulcer, Snake bites |
| NXYC055 | Bajiaolian         | Berberidaceae | *Dysosma versipellis* (Hance) M.Cheng ex Ying | Radix     | Whole plant: Cough, Bronchitis, Pharyngalgia, Neoplasm, Carbuncle, Hard furuncle, Tuberculosis lymph node, External injury, Snake bites |
| NXYC056 | Jueyeyizhihao      | Botrychiaceae | *Botrychium lanuginosum* Wall.          | Radix     | Whole plant: Asthma, Cough, Common cold, |

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| Code  | Name     | Family     | Scientific Name                          | Gender | Habitat  | Common Conditions                                                                 |
|-------|----------|------------|------------------------------------------|--------|----------|------------------------------------------------------------------------------------|
| NXYC057 | Fengdoucai | Compositae | *Petasites tricholobus* Franch.          | W      | Whole plant | Constipation, Snake bites, Carbuncle, External injury                                |
| NXYC058 | Huocao    | Compositae | *Gerbera delavayi* Franch.               | W      | Whole plant | Dysentery, Dyspepsia, Ascariasis                                                    |
| NXYC059 | Xiakucao  | Labiatae   | *Prunella hispida* Benth.                | W      | Whole plant | Common cold, External injury, Fractures, Burns, Lymphoma, Thyroid neoplasms, Breast cancer lymphedema, Brain neoplasms, Rabies, Tuberculosis lymph node, Neisseria gonorrhoeae, Mumps pulmonary tuberculosis, Stroke, Headache, Icterohepatitis, Diarrhea, Dyspepsia, Menorrhagia, Leukorhea, Mastitis, Mercury poisoning, Goiter, Cataract, Conjunctivitis |
| NXYC060 | Shaoyao   | Ranunculaceae | *Paeonia lactiflora* Pall.            | W      | Radix     | Amenorrhea, Dysmenorrhea, External injury, Carbuncle, Deeprooted carbuncle, Soreand ulcer |
| NXYC061 | Niuweiqi  | Polygonaceae | *Rheum likiangense* Sam.                | W      | Radix     | External injury, Dysentery, Pulmonary tuberculosis, Parotitis, Pharyngitis, Constipation, Amenorrhea, Dysmenorrhea                     |
| NXYC062 | Dahongpao | Leguminosae | *Campylotropis hirtella* (Franch.)Schindl. | W      | Radix     | Peptic ulcer, Menstruation disturbances, Amenorrhea, Dysmenorrhea, Menorrhagia, Leukorhea, Impetiginous sores, Burns                |
| NXYC063 | Huangqin  | Labiatae   | *Scutellaria amoena* C. H. Wright       | W      | Radix     | Cough, Dysentery, Jaundice, Stranguria, Vomiting, Menorrhagia, Abortion threatened |
| NXYC064 | Jingjie   | Labiatae   | *Esholtzia blanda* (Benth.) Benth       | W      | Whole plant | Common cold, Measles, Exanthema, Soreand ulcer                                      |
| NXYC065 | Banxia    | Araceae    | *Pinellia ternata* (Thunb.) Breit.      | W      | Radix, Fruit | Stroke, Vomiting, Dyspepsia, Tuberculosis lymph node, Insomnia, Mastitis, Carbuncle, |
| Code   | Common Name   | Family       | Scientific Name                      | Part Used | Condition                                                                 |
|--------|---------------|--------------|--------------------------------------|-----------|---------------------------------------------------------------------------|
| NXYC066| Yemianhua     | Ranunculaceae| *Anemone vitifolia* Buch.-Ham.        | W L Radix | Arthritis rheumatoid, Fractures, Ascariasis                                |
| NXYC067| Shandougen    | Ranunculaceae| *Beesia calthaefolia* (Maxim.) Ulbr  | W L Whool plant | Common cold, Arthritis rheumatoid, Pharyngitis, Sore and ulcer             |
| NXYC068| Caowu         | Ranunculaceae| *Aconitum carmichaeli* Debx.          | W L Radix | Arthritis rheumatoid, Kashin-beck, Hemiplegia, Sciatica, External injury |
| NXYC069| Songta        | Ericaceae    | *Cassiope selaginoides* Hook.f. et Thoms. | W L Whool plant | Arthritis rheumatoid                                                      |
| NXYC070| Yinchenhao    | Compositae   | *Artemisia lancea* Van.               | W L Whool plant | External injury, Carbuncle, Snake bites, Common cold, Hepatitis, Malaria |
| NXYC071| Peilan        | Compositae   | *Eupatorium fortunei* Turcz.          | W L Whool plant | Flatulence, Vomiting, Dyspepsia, Diabetes mellitus, External injury, Menstruation disturbances |
| NXYC072| Yimucao       | Labiatae     | *Leonurus artemisia* (Lour.)S.Y.Hu     | W L Whool plant | Menstruation disturbances, Amenorrhea, Dystocia; Postpartum hemorrhage, Carbuncle, Sore and ulcer |
| NXYC073| Mabiancao     | Verbenaceae  | *Verbena officinalis* L.              | W L Whool plant | Common cold, Throat obstruction, Carbuncle, Malaria, Parasitic, Dysentery, Hepatitis, Gastroenteritis, Periodontitis, Neoplasms, Nephritis, Stranguria, Urinary tract infection, Menstruation disturbances, Amenorrhea, Dysmenorrhea, Diphtheria, Pharyngitis, External injury, Hard furuncle |
| NXYC074| Banzhilian    | Labiatae     | *Scutellaria barbata* D. Don          | W L Stem,Leaf | Gastrointestinal hemorrhage, Hepatitis, Pulmonary abcess, Jaundice, Urethritis, Hematuria, Cystitis, Rectal neoplasms, Stomach neoplasms, Esophageal squamous cell carcinoma, Uterine cervical neoplasms, Mastitis, Dysentery, Snake bites |
| NXYC075| Qianlima      | Rutaceae     | *Boeninghausenia sessilicarpa* Levl.   | W L Whool plant | Flatulence, Cystitis, Frequent micturition, Urodynia, Urination disorders, Arthritis rheumatoid, External injury, Carbuncle, Sore and ulcer, Common cold, Cough, Tonsillitis |
| Code   | Common Name     | Family           | Scientific Name/Order                                    | Part Used | Use                                                                 |
|--------|-----------------|------------------|----------------------------------------------------------|-----------|----------------------------------------------------------------------|
| NYXC076| Yuyancao        | Compositae       | Dichrocephala auriculata (Thunb.)Druce                   | W L       | Whool plant                                                           |
| NYXC077| Xiaoshen jincao | Scrophulariaceae  | Hemiphragma heterophyllum Wall.                          | W L       | Drop plant                                                            |
| NYXC078| Suanjiangcao    | Oxalidaceae      | Oxalis comiculata Linn.                                  | W L       | Drop plant                                                            |
| NYXC079| Daji            | Compositae       | Cirsium japonicum Fisch. ex DC.                          | W L       | Radix                                                                 |
| NYXC080| Cheqiancao      | Plantaginaceae   | Plantago asiatica L.                                     | W L       | Whool plant                                                           |
| NYXC081| Wuniangteng     | Convolvulaceae   | Cuscuta japonica Choisy                                  | W L       | Stem                                                                  |
| NYXC082| Sangjiasheng    | Loranthaceae     | Taxillus delavayi (Van Tiegh.) Danser                    | W L       | Whool plant                                                           |
| NYXC083| Xixin           | Aristolochiaceae | Asarum himalaicum Hook.f.et Thoms.ex Klotzchx           | W L       | Whool plant                                                           |
| NYXC084| Linshijiu       | Primulaceae      | Lysimachia congestiflora Hensl.                         | W L       | Whool plant                                                           |
| NYXC085| Gouji           | Blechnaceae      | Cibotium barometz (L.) J.Smith                          | W E       | Radix                                                                 |
| NYXC086| Gancao          | Leguminosae      | Glycyrrhiza uralensis Fisch.                             | C E       | Radix                                                                 |
| NYXC087| Honghua         | Compositae       | Carthamus tinctorius L.                                  | C L       | Flower                                                                |

Pharyngitis, Pneumonia, Bronchitis, Oral ulcer, Otitis media, Epilepsy, Malaria, Dysentery, Parotitis, Eczema, Hard furuncle, Laryngitis, External injury, Arthritis rheumatoid, External injury, Amenorrhea, Dysmenorrhea, Tuberculosis lymph node, Sore and ulcer, Laryngitis, Common cold, Hemorrhoids, Fractures, Arthritis rheumatoid, External injury, Polyuria, Jaundice, Leukorrhea, Menstruation disturbances, Carbuncle, Sore and ulcer, Arthritis, Dysentery, Hypertension, Carbuncle, Leukorrhea, Hematochezia, Stomach ulcer, Hard furuncle, Burns, Urodyinia, Urinary retention, Diarrhea, Cataract, Cough, Carbuncle, Sexual dysfunctions psychological, Spermatorrhea, Polyuria, Arthritis rheumatoid, Abortion threatened, Headache, Pharyngitis, nephritis, Kidney calculi, Dyspepsia, Sore and ulcer, Snake bites, Arthritis rheumatoid, External injury, Spermatorrhea, Hard furuncle, Sore and ulcer, Psoriasis, Tinea, Eczema, Enteritis, Dysentery, Pharyngitis, Cough, Peptic ulcer, Foodborne, Jaundice, Gastritis, Enteritis, Vomiting, Diarrhea, Dysmenorrhea, Palpitation, Asthma, Tracheitis, Anemia, Urodyinia, Urinary
| Code   | Name       | Family     | Species                                      | Part | Use                                                                 |
|--------|------------|------------|----------------------------------------------|------|----------------------------------------------------------------------|
| NXYC088| Sanchaku   | Rutaceae   | *Evodia lepta* (Spreng.) Merr.               | W E  | Stem                                                                 |
|        |            |            |                                              |      | Calculi, Cholelithiasis, Amenorrhea, Dysmenorrhea, Menorrhagia,      |
|        |            |            |                                              |      | Dystocia, Neoplasms, External injury, Fractures, Arthritis rheumatoid,|
|        |            |            |                                              |      | Soreand ulcer                                                         |
| NXYC089| Guipi      | Lauraceae  | *Cinnamomum tamala* (Buch.-Ham.) Nees et Eberm.| W L  | Bark                                                                 |
|        |            |            |                                              |      | Common cold, Encephalomyelitis, Encephalitis, Pneumonia, Malaria,    |
|        |            |            |                                              |      | Hepatitis, Arthritis rheumatoid, Sciatica, External injury, Snake    |
|        |            |            |                                              |      | bites, Carbuncle, Soreand ulcer, Eczema, Dermatitis                  |
| NXYC090| Damutong   | Ranunculaceae | *Clematis argentiluica* (Levl. et Van.) W.T.Wang | W L  | Stem                                                                 |
|        |            |            |                                              |      | Diarrhea, Dysmenorrhea, Arthritis rheumatoid, External injury, Hard   |
|        |            |            |                                              |      | furuncle, Carbuncle, Soreand ulcer, Fractures                        |
| NXYC091| Qianjinba  | Leguminosae | *Flemingia macrophylla* (Willd.) Merr.        | W L  | Stem                                                                 |
|        |            |            |                                              |      | Arthritis rheumatoid, Hemiplegia, Sexual dysfunctions psychological, |
|        |            |            |                                              |      | Common cold, Pharyngitis, Leukorrheal, Peptic ulcer                  |
| NXYC092| Guijianyu  | Celastraceae | *Euonymus alatus* (Thunb.) Sieb.             | W L  | Stem                                                                 |
|        |            |            |                                              |      | Menstruation disturbances, Parasitic diseases, Arthritis              |
| NXYC093| Shashen    | Campanulaceae | *Adenophora khasiana* (hook.f.et Thoms.) Feer | W L  | Radix                                                                |
|        |            |            |                                              |      | Bronchitis, Cough, Eczema, Communicable diseases, Cerebral hemorrhage,|
|        |            |            |                                              |      | Soreand ulcer, Diabetes mellitus                                     |
| NXYC094| Guisuibu   | Drynariaceae | *Drynaria delavayi* Fr.                     | W L  | Stem                                                                 |
|        |            |            |                                              |      | Fractures Bone, External injury, Tinnitus, Deafness, Toothache,      |
|        |            |            |                                              |      | Schistosomiasis, Appendicitis                                        |
| NXYC095| Dengxincao | Juncaceae   | *Juncus effusus* L.                          | W L  | Whoold plant                                                          |
|        |            |            |                                              |      | Common cold, Pneumonia, Fever, Insomnia, Oral ulcer, Nephritis, Prostatitis, |
|        |            |            |                                              |      | Frequent micturition, Urodynia, Hematochezia, Jaundice, Chancroid,   |
|        |            |            |                                              |      | Malaria, Syphilis, Menorrhagia, Leukorrhea, Burns, Urticaria          |
| NXYC096| Tufuling   | Liliaceae  | *Smilax glabra* Roxb.                        | W L  | Radix                                                                |
|        |            |            |                                              |      | Syphilis, Stranguria, Beriberi, Eczema, Dermatitis, Hard furuncle,   |
|        |            |            |                                              |      | Carbuncle, Tuberculosis lymph node, Hemorrhoids, Prostatitis,         |
| Code   | Name         | Family       | Scientific Name                                                                 | Part Used | Conditions                                                                 |
|--------|--------------|--------------|---------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------|
| NXYC097| Zhaojici     | Leguminosae  | *Gleditsia sinensis* Lam.                                                        | W L Stem  | Gonorrhea, Arthritis rheumatoid, Menstruation disturbances, Leptospirosis |
| NXYC098| Shiwei       | Polypodiaceae| *Pyrozia gralla* (Gies.) Ching                                                   | W L Whole plant | Stroke, Headache, Asthma, Cough, Hematochezia, Mastitis, Carbuncle, Soreand ulcer, Tinea |
| NXYC099| Xiaoyuanzhi  | Polygalaceae  | *Polygala japonica* Houtt.                                                        | W L Whole plant | Leptospirosis, Chronic, Tuberculosis, Urinary calculi, Hematuria, Cough |
| NXYC100| Jinsiduzhong | Celastraceae  | *Euonymus grandiflorus* Wall.                                                    | W L Bark  | Common cold, Pharyngitis, Tonsillitis, Stomatitis, Cough, Gastrointestinal hemorrhage, Hepatitis, Dyspepsia, Arthritis rheumatoid, Urinary calculi, Insomnia, Mastitis, Cystitis, Tics, Pneumonia, Snake bites, External injury, Fractures, Burns |
| NXYC101| Liangjiang   | Zingiberaceae | *Hedychiun spicatum* Buch.-Ham. ex Smith,                                        | W L Rhizome | Arthritis rheumatoid, Uterine inertia, External injury, |
| NXYC102| Wujiai       | Araliaceae    | *Acanthopanax gracilistylus* W.W. Smith                                          | W L Bark  | Arthritis rheumatoid, Hemiplegia, External injury, Child development disorders, Postpoliomyelitis syndrome, Prostatic hyperplasia, Anemia, Neurasthenia, Hernia, Beriberi |
| NXYC103| Shegan       | Iridaceae     | *Belamcanda chinensis* (L.) Redoute                                              | W L Radix | Menorrhagia, Hepatitis, Urinary calculi, Enteritis, Pharyngitis, Cough |
| NXYC104| Lulutong     | Hamamelidaceae| *Liquidambar formosana* Hance                                                     | W E Fruit | Arthritis rheumatoid, Prostatic hyperplasia, Amenorrhea |
| NXYC105| Pipaye       | Rosaceae      | *Eriobotrya japonica* (Thunb.) Lindl.                                             | W L Leaf  | Cough, Cystitis, Menstruation disturbances, Tracheitis, Urinary tract infection, Oral ulcer, Pharyngitis |
| NXYC106| Juhua        | Compositae    | *Dendranthema morifolium* (Ramat.) Tzvel.                                        | W L Flower | Common cold, Tinnitus, Hard furuncle, Conjunctivitis, Hypertension |
| NXYC107| Wubeizi      | Anacardiaceae | *Rhus chinensis* Mill.                                                            | W L Others | Diabetes mellitus, Diarrhea, Dysentery, Hematochezia, Spermatorrhea, Enuresis, External injury |
| Code   | Name       | Family     | Scientific Name                        | Gender | Part | Uses                                      |
|--------|------------|------------|----------------------------------------|--------|------|-------------------------------------------|
| NXYC108 | Houpuhua   | Magnoliaceae | *Magnolia delavayi* Franch.            | W      | Flower, Bark | Rhinitis, Sinusitis, Bronchitis, Cough |
| NXYC109 | Danshen    | Labiatae   | *Salvia yunnanensis* C. H. Wright      | W      | Radix  | Menstruation disturbances, Amenorrhea, Dysmenorrhea, Menorrhagia, Mastitis, Neoplasms, Soreand ulcer, Hepatitis, Schistosomiasis, Splenomegaly, Coronary thrombosis |
| NXYC110 | Duhuo      | Umbelliferae | *Heracleum candicans* Wall. ex DC.     | W      | Radix  | Common cold, Arthritis rheumatoid, Bronchitis, Asthma |
| NXYC111 | Dujiaolian  | Liliaceae  | *Paris polyphylla* var. yunnanensis (Franch.) Hand.-Mazz. | W&C    | Radix  | Carbuncle, Pharyngitis, Snake bites, External injury, Epilepsy |
| NXYC112 | Longkui    | Solanaceae | *Solanum nigrum* L.                     | W      | Stem, Leaf | Common cold, Tonsillitis, Laryngitis, Parotitis, Tracheitis, Cough, Hepatitis, Cholecystitis, Dysentery, Urinary tract infections, Urinary calculi, Nephritis, Neoplasms, Arthritis rheumatoid, External injury, Mastitis, Menstruation disturbances, Leukorrhea CarbuncleHard furuncle, Eczema, Tinea, Erysipelas, Snake bites |
| NXYC113 | Guichuxiao | Caprifoliaceae | *Leycesteria formosa* Wall.            | W      | Stem, Leaf | Jaundice, Arthritis rheumatoid, Asthma, Menstruation disturbances, External injury, Fractures, Hemorrhoids, Flatulence, Cystitis |
| NXYC114 | Xiantaocao | Scrophulariaceae | *Veronica anagallis-aquatica* L.       | W      | Whoool plant | External injury, Arthritis rheumatoid, Dysmenorrhea, Menorrhagia, Carbuncle, Cough |
| NXYC115 | Tougucao   | Ericaceae  | *Gaultheria forestii* Diels            | W      | Whoool plant | Paraplegia, Chilblains, Pulmonary tuberculosis |
| NXYC116 | Xuecha     | Icmadophilaceae | *Thamnolia vermicularis* Schae.       | W      | Whoool plant | Pharyngitis, Epilepsy, Pulmonary tuberculosis, Asthma, Laryngitis, Neurasthenia |
| NXYC117 | Jiuzilian  | Vitaceae   | *Tetrastigma obtectum* (Wall.)PI.     | W      | Radix  | Lymph nodes, Tinea Capitis, Arthritis rheumatoid, Soreand ulcer, External injury, Fractures |
| NXYC118 | Jiujiecao  | Liliaceae  | *Reineckia carneae* (Andr.)Kunth.     | W      | Radix  | Cough, Pulmonary tuberculosis, Asthma, Bronchitis, Pharyngitis, Cataract, Gastroenteritis, |
| Code    | Name          | Family    | Species                                      | Part   | Use                                                                 |
|---------|---------------|-----------|----------------------------------------------|--------|----------------------------------------------------------------------|
| NXYC119 | Sangzhi       | Moraceae  | *Morus alba* L.                             | W L    | Stem                                                                 |
|         |               |           |                                              |        | Menstruation disturbances, Leukorrhea, Arthritis rheumatoid, Paraplegia, Mastitis, Nephritis, Cystitis, External injury, Fractures, Snake bites, Carbuncle, Sore and ulcer, Burns |
| NXYC120 | Zhujun        | Hypocreaceae | *Engleromyces goetzii* PHenn. | W L    | Others                                                               |
|         |               |           |                                              |        | Parotitis, Nephritis, Gastritis, Laryngitis, Tonsillitis, Lymph nodes, Carbuncle, Sore and ulcer, Common cold, External injury, Burns, Liver neoplasms, Lung neoplasms, Stomach neoplasms, Rectal neoplasms, Skin neoplasms, Lead poisoning |
| NXYC121 | Jingangteng   | Liliaceae | *Smilax menispermoidea* A. DC.               | W L    | Stem                                                                 |
|         |               |           |                                              |        | Tracheitis, Arthritis rheumatoid, Syphilis, Carbuncle, Sore and ulcer |
| NXYC122 | Nuodaogen     | Gramineae | *Oryza sativa* var.glutinosa Matsum.         | C L    | Radix                                                                 |
|         |               |           |                                              |        | Oliguria                                                              |
| NXYC123 | Xiaqiancao    | Compositae | *Bidens pilosa* Linn.                      | W L    | Whole plant                                                          |
|         |               |           |                                              |        | Common cold, Respiratory tract infections, Pharyngitis, Hypertension, Appendicitis, Jaundice, Dyspepsia, Diarrhea, Dysentery, Malaria, Esophageal squamous cell carcinoma, Neoplasms, Menstruation disturbances, Amenorrhea, Arthritis rheumatoid, External injury, Snake bites, Urticaria, Eczema, Carbuncle, Sore and ulcer |
| NXYC124 | Maoxucao      | Labiatae  | *Clerodendranthus spicatus* (Thunb.)C.Y.Wu.ex H.W.Li | W E    | Whole plant                                                          |
|         |               |           |                                              |        | Stranguria, Urolithic stranguria, Hematuria, Calculi, Nephritis, Cystitis, Urinary calculi, Cholelithiasis, Renal insufficiency chronic, Nephrotic syndrome, Frequent micturition, Urodynia, Arthritis rheumatoid, Menstruation disturbances |
| NXYC125 | Xiangmaocao   | Poaceae   | *Cymbopogon distans* (Nees ex Steud.) Wats.  | W L    | Leaf                                                                  |
|         |               |           |                                              |        | Arthritis rheumatoid, Flatulence, Cough, Asthma                      |
| NXYC126 | Qingcijian    | Rosaceae  | *Prinsepia utilis* Royle                    | W L    | Stem                                                                 |
|         |               |           |                                              |        | External injury, Dental caries, Oral ulcer, Pharyngitis, Mumps, Mastitis, Cough, Dyspepsia, Anemia, Arthritis rheumatoid, |
| Code      | Name         | Family     | Scientific Name                                | Part     | Use                                                                                           |
|-----------|--------------|------------|------------------------------------------------|----------|-----------------------------------------------------------------------------------------------|
| NYXC127   | Ziyu         | Labiatae   | Salvia trijuga Diels                           | Radix    | Menstruation disturbances, Dysmenorrhea, Amenorrhea, Sexual dysfunction physiological, Menorrhagia, Liver cirrhosis |
| NYXC128   | Wawabian     | Ericaceae  | Cassiope fastigiata (Wall.) D. Don             | Whoool plant | Asthma                                                                                         |
| NYXC129   | Huashicao    | Vittariaceae | Vittaria flexuosa Fee                          | Leaf     | Cataract, External injury, Arthritis rheumatoid, Dyspepsia, Gastrointestinal hemorrhage        |
| NYXC130   | Liangsewawei | Polypodiaceae | Lepisorus bicolor (Takeda) Ching             | Leaf     | Gonorrhea, Menorrhagia, Burns                                                                |
| NYXC131   | Bianxu       | Polygonaceae | Polygonum aviculare L.                        | Whoool plant | Cystitis, Urodynia, Eczema, Vaginitis, Jaundice                                                |
| NYXC132   | Baimeihua    | Rosaceae   | Armeniaca mume Sieb.                          | Flower   | Tuberculosis lymph node                                                                        |
| NYXC133   | Yanshenguo   | Ericaceae  | Agapetes mannii Hemsl.                        | Radix    | Hepatitis, Menstruation disturbances, Leprosy, Fractures, External injury                      |
| NYXC134   | Taoshupi     | Rosaceae   | Amygdalus persica (Linn.) Bartsch             | Bark     | Burns                                                                                          |
| NYXC135   | Jiaxinmu     | Juglandaceae | Juglans regia L.                             | Others   | Spermatorrhea, Enuresis                                                                       |
| NYXC136   | Shanhua      | Ericaceae  | Rhododendron delavayi Franch.                 | Flower   | Osteomyelitis, Menstruation disturbances, Dysmenorrhea, Menorrhagia, Diarrhea, Hematochezia, Dysentery, Arthralgia, Rubella, External injury, Urethral obstruction |
| NYXC137   | Jiuguniu     | Anacardiaceae | Dobinea delavayi Baill.                      | Radix    | Mumps, Mastitis, Hard furuncle, Fractures, External injury                                     |
| NYXC138   | Zhuzongcao   | Adiantaceae | Adiantum philippense Linn.                    | Whoool plant | Hepatitis, Urinary tract infection, Urinary calculi, Nephritis, Burns                           |
| NYXC139   | Heilaohu     | Magnoliaceae | Kadsura coccinea (Lem.) A. C. Smith          | Stem     | Arthritis rheumatoid, External injury, Dysmenorrhea, Gastroenteritis, Fractures,               |
| NYXC140   | Baiying      | Solanaceae | Solanum lyratum Thunb.                       | Whoool plant | Common cold, Fever, Hepatitis, Cough, Leukorrhea, Nephritis                                   |
| NYXC141   | Zige         | Leguminosae | Pueraria montana var. thomsonii              | Flower   | Diabetes mellitus, Diarrhea, Dysentery, Hypertension, Measles                                  |
| Code   | Name               | Family       | Species                              | Part     | Usage                                      |
|--------|--------------------|--------------|--------------------------------------|----------|--------------------------------------------|
| NXYC142| Chaobaizhu         | Compositae   | Atractylodes macrocephala Koidz.     | Radix    | Diarrhea, Dysentery, Dyspepsia, Abortion threatened, Jaundice, Arthritis rheumatoid, Dysuria |
| NXYC143| Caohuanglian       | Ranunculaceae| Thalictrum delavayi Franch           | Radix    | Influenza, Tinea Capitis, Folliculitis     |
| NXYC144| Hebaocao           | Convolvulaceae| Dichondra repens Forst.              | Whole plant | Common cold, Tonsillitis, Hepatitis, Cholecystitis, Soreand ulcer, Mastitis, Dysentery, Nephritis, Urinary tract infections, External injury |
| NXYC145| Jiuzilianbaiji     | Orchidaceae  | Calanthe tricarinata Lindl.ex Wall.  | Radix, Fruit | Arthritis rheumatoid, External injury |
| NXYC146| Yanbaizhi          | Umbelliferae | Heracleum lixiangense Wolff in Fedde | Radix    | Rhinitis                                   |
| NXYC147| Zuoteng            | Araliaceae   | Hedera nepalensis var. sinensis(Tobl.)Rehd. | Stem    | Arthritis rheumatoid, Hepatitis, Paraplegia, Carbuncle, Hard furuncle, Pruritus, Rectal prolapase, Conjunctivitis, Nephritis, Tracheitis, Dysentery, Amenorrhea |
| NXYC148| Dongju             | Compositae   | Erigeron breviscapus (Vant.) Hand.-M.azz | Whole plant | Paraplegia, Arthritis rheumatoid, External injury, Diarrhea, Common cold, Headache |
| NXYC149| Buxueshen          | Rubiaceae    | Rubia schumanniana Pritz.            | Radix    | Menstruation disturbances, Amenorrhea, Dysmenorrhea, Gastrointestinal hemorrhage, Hematochezia, Menorrhagia, Arthralgia, Carbuncle, Soreand ulcer |
| NXYC150| Songhebao          | Poliporaceae | Cryptoporus volvatus (Peck) Huhhara  | Others   | Bronchitis, Asthma, Pharyngitis, Hemorrhoids |
| NXYC151| Shaqi              | Polygonaceae | Rheum delavayi Franch.              | Radix    | Cough, Pharyngitis, Hematochezia, Arthritis rheumatoid, Fractures, External injury |
| NXYC152| Jiupingguo         | Rosaceae     | Rosa omeoensis Rolfe                | Fruit    | Diarrhea, Dysentery, Gastrointestinal hemorrhage, Menorrhagia, Leukorrhea, Ascariasis |
| NXYC153| Yanxuejie          | Polygonaceae | Polygonum amplexicaule D.Don         | Radix    | Arthritis rheumatoi, External injury, Diarrhea, Fractures |
| NXYC154| Guozelan           | Gentianaceae | Veratrilla baillonii Franch.         | Radix    | Cough, Dysenter, Hepatitis, Ascariasis, Carbuncle, Soreand ulcer, Pneumonia, Nephritis, Mastitis, Tonsillitis, Gastritis, Bronchitis, External injury |
| Product Code | Common Name | Family | Scientific Name       | Part Used | Symptoms and Uses |
|--------------|-------------|--------|-----------------------|-----------|--------------------|
| NXYC155      | Doubansanqi | Crassulaceae | *Rhodiola yunnanensis* Franch. | W L Radix | Cough, Arthritis rheumatoid, Pharyngitis, External injury, Fractures, Parotitis, Dysentery, Hematochezia, Hard furuncle |
| NXYC156      | Zongzi      | Palmae | *Trachycarpus fortunei* (Hook.) H. Wendl. | W L Fruit | Gastrointestinal hemorrhage, Hematochezia, Uterine prolapse, Arthralgia, External injury, Dysentery, Tinea |
| NXYC157      | Jioutoushizi | Lsodon | *Isodon yunnanensis* (Hand.-Mazz.)H. Hara | W L Radix | External injury, Dysmenorrhea |
| NXYC158      | Xiaowuzhuainlong | Vitaceae | *Tetrastigma hypoglaucum* Planch.ex Franch. | W L Radix | Arthritis rheumatoid, External injury, Fractures, Burns, Skin ulcer |
| NXYC159      | Luhancao    | Pyrolaceae | *Pyrola forestiana* H.Andres | W L Whoool plant | Tracheitis, Dysentery, Bronchitis, Pulmonary emphysema, Cough, Pulmonary tuberculosis |
| NXYC160      | Dongguazi   | Cucurbitaceae | *Cucurbitaceae benincasa* hispida (Thunb.)Cogn. | W L Seed | Common cold, Pharyngitis, Cough, Asthma, Palpitation, Frequent mictunition, Urodyinia, Flatulence, Diabetes mellitus, Retention of dead fetus, Menstruation disturbances, Postpartum hemorrhage, Psoriasis, Rubella, Measles, Eczema, Chickenpox, Leprosy, Tetanus, Beriberi, Dyspepsia |
| NXYC161      | Xiaoxueteng | Magnoliaceae | *Schisandra neglecta* A.C.Smith | W L Radix | External injury, Common cold, Cough, Spermatorrhea, Enuresis |
| NXYC162      | Jinyinhuateng | Caprifoliaceae | *Lonicera japonica* Thunb. | W/C L Stem | Menstruation disturbances |
| NXYC163      | Niuxi       | Amaranthaceae | *Achyranthes bidentata* Bl. | W L Radix | Hypertension, Amenorrhea |
| NXYC164      | Shisong     | Lycopodiaceae | *Lycopodium japonica* Thunb. | W L Whoool plant | Arthritis rheumatoid, External injury, Fractures, Hepatitis, Cholelithiasis, Cataract, Conjunctivitis, Neurasthenia |
| NXYC165      | Maoruihua   | Scrophulariaceae | *Verbascum thapsus* Linn. | W L Whoool plant | Common cold, Gastroenteritis, Appendicitis, Flatulence, Pneumonia, Tracheitis, Cystitis, Urethritis, Hematuria, Soreand ulcer, Urticaria, External injury |
| NXYC166      | Lizhihao    | Labiatae | *Ajuga forestii* Diels | W L Whoool | Cough, Pharyngitis, |
| Code    | Name         | Family       | Plant Name                                      | Habitat          | Treatment                                                                 |
|---------|--------------|--------------|------------------------------------------------|------------------|---------------------------------------------------------------------------|
| NXYC167 | Xiaobanyelan | Orchidaceae  | *Goodyera repens* (L.) R. Br.                   | W L              | Pulmonary tuberculosis, Bronchitis, External injury, Carbuncle, Sore and ulcer, Ascariasis |
| NXYC168 | Sanfensan    | Solanaceae   | *Anisodorus acutangulus* C. Y. Wu et C. Chen   | W L Radix        | External injury, Arthritis rheumatoid, Dysmenorrhea, Stranguria, Stomach ulcer, Duodenal ulcer, Cholelithiasis, Renal colic, Anthrax, Meningitis, Parkinson |
| NXYC169 | Jixueteng    | Papilionaceae | *Spatholobus suberectus* Dunn                  | W L Stem         | Paraplegia, Arthritis rheumatoid, Menstruation disturbances, Amenorrhea, Dysmenorrhea, |
| NXYC170 | Zhushidou    | Papilionaceae | *Crotalaria ferruginea* Gr. ex Benth.          | W L Whole plant  | Tinnitus, Cough, Menorrhagia, Neisseria gonorrhoeae, Spermatorrhea, Urinary tract infection, Nephritis, Cystitis, Mesenteric lymphadenitis, Parotitis, Tonsillitis, Bronchitis |
| NXYC171 | Kuhao        | Compositae   | *Artemisia sieversiana* Ehrhart                | W L Whole plant  | Pharyngitis, Lung diseases, Trachitis, Arthritis rheumatoid, Fractures, Soft tissue injuries, Dysentery, Enteritis, Carbuncle, Sore and ulcer, Eczema, Sunburn |
| NXYC172 | Caoxuejie    | Polygonaceae | *Polygonum paleaceum* Wall.                    | W L Radix        | Flatulence, Dyspepsia, Neoplasms, Jaundice, Gastrointestinal hemorrhage, Hemochezia, Duodenal ulcer, Stomach ulcer, Diarrhea, Dysentery, External injury, Amenorrhea, Menorrhagia, Rectal prolapse, Menstruation disturbances, Leukorrhea, Tinnitus, Deafness, Enuresis, Cataract, Sore and ulcer, Snake bites, Burns |
| NXYC173 | Yedanshen    | Labiatae     | *Salvia flava*                                 | W L Radix        | Menstruation disturbances, Amenorrhea, Dysmenorrhea, |
| Code    | Name          | Family       | Species                          | Part   | Source | Uses                                      |
|---------|---------------|--------------|---------------------------------|--------|--------|-------------------------------------------|
| NXYC174 | Qianliguang   | Compositae   | *Senecio scandens* Buch.-Ham.    | W L    | Whool plant | Common cold, Pneumonia, Tonsillitis, Parotitis, Encephalitis, Dysentery, Hepatitis, Cholecystitis, Urinary tract infection, Cataract, Carbuncle, Soreand ulcer, Erysipelas, Eczema, Vaginitis, Burns |
| NXYC175 | Ziyanguo      | Rosaceae     | *Pyracantha fortuneana* (Maxim.) Li | W L    | Fruit   | Dyspepsia, Enteritis, Dysentery, Hepatitis, External injury |
| NXYC176 | Songjisheng   | Loranthaceae | *Arceuthobium pini* Hawksworth et Wiens | W L    | Stem    | Arthritis rheumatoid, Diarrhea, External injury |
| NXYC177 | Xiyeangfeng   | Umbelliferae | *Pimpinella candolleana* Wight et Arn. | W L    | Radix   | Common cold, Headache, Diarrhea, Arthritis rheumatoid, Paraplegia, Tetanus, Rubella, Eczema, Soreand ulcer, Carbuncle |
| NXYC178 | Qinjiao       | Gentianaceae | *Gentiana crassicaulis* Duthie ex Burk. | W/C    | Radix   | Prostatitis, Soreand ulcer |
| NXYC179 | Huichuncao    | Balanophoraceae | *Balanophora involucrata* Hook.f. | W L    | Whoool plant | Neurotic disorders, Sexual dysfunctions psychological, Hepatitis, Menorrhagia, External injury |
| NXYC180 | Shihu         | Orchidaceae  | *Dendrobium officinale* Kimura et Migo | W L    | Stem    | Diabetes mellitus |
| NXYC181 | Suoyang       | Cynomoriaceae | *Cynomorium songaricum* Rupr. | W L    | Stem    | Sexual dysfunctions psychological, Constipation |
| NXYC182 | Tianma        | Orchidaceae  | *Gastrodia elata* Blume | W/C    | Tuber   | Hypertension, Headache, Hemiplegia, Epilepsy |
| NXYC183 | Xuelianhua    | Asteraceae   | *Saussurea leucoma* Diels Bercht. | W L    | Whoool plant | Menstruation disturbances, Pulmonary tuberculosis, Menorrhagia, External injury |
| NXYC184 | Yuxingcao     | Saururaceae  | *Houttuynia cordata* Thunb. | W/C    | Whoool plant | Lung abscess, Asthma, Tonsillitis, Dysentery, Soreand ulcer, Carbuncle |
| NXYC185 | Xiangru       | Labiatae     | *Origanum vulgare* L. | W L    | Whoool plant | Common cold, Gastroenteritis, Diarrhea |
| NXYC186 | Bayuegua      | Lardizabalaceae | *Holboellia fargesii* Reaub. | W L    | Fruit Stems | Bronchitis, Gastritis |
| NXYC187 | Caicaiwei     | Lycopodiaceae | *Diphasiastrum complantum* (L.) Holub | W L    | Whoool plant | Arthritis rheumatoid, Paraplegia, Fractures, External injury, Menstruation disturbances, Gonorrhea |
| Code   | Name             | Family      | Scientific Name                                      | Part     | Description                                                                 |
|--------|------------------|-------------|------------------------------------------------------|----------|----------------------------------------------------------------------------|
| NXYC188| Cangerzi         | Compositae  | Xanthium sibiricum Patrin ex Widder                  | Fruit    | Sinusitis, Malaria, Parotitis, Metrorrhagia, Eczema, Common cold, Arthritis, Rheumatoid, Dysentery, Leprosy, Sore and ulcer |
| NXYC189| Diyu             | Rosaceae    | Sanguisorba officinalis L.                           | Radix    | Dyspepsia, Gastrointestinal hemorrhage, Hematochezia, Dysentery, Metrorrhagia, Hemorrhoids, Menorrhagia |
| NXYC190| Fanbaiye         | Rosaceae    | Potentilla fulgens Wall. ex Hook.                    | Radix    | Dyspepsia, Gastrointestinal hemorrhage, Hemorrhoids, Menorrhagia, Leukorrhea, Dysmenorrhea, Burns |
| NXYC191| Jinqiancao       | Primulaceae | Lysimachia christinae Hance                          | Whole plant | Hepatitis, Jaundice, Cholecystitis, Urinary bladder calculi, Cholelithiasis, Kidney calculi, Lung abscess, Parotitis, Mastitis, Urinary tract infection, Cystitis, Nephritis, Ureretral obstruction, Diarrhea, External injury, Prostatic hyperplasia |
| NXYC192| Maojiaowelingxian| Compositae  | Ainsliaea latifolia (D. Don) Sch.-Bip.               | Radix    | External injury                                                             |
| NXYC193| Niutouqi         | Compositae  | Gynura japonica (Thunb.) Juel.                       | Radix    | External injury, Gastrointestinal hemorrhage, Hematochezia, Metrorrhagia, Mastitis, Tonsillitis, Laryngitis, Fractures, Kashin-beck |
| NXYC194| Qingmuxiang      | Compositae  | Dolomiaea berardioida (Franch.) Shih                 | Radix    | Gastroenteritis, Dyspepsia, Bronchitis                                      |
| NXYC195| Xianhecao        | Rosaceae    | Agrimonia pilosa Ldb.                                | Whole plant | External injury, Common cold, Cough, Esophageal squamous cell carcinoma, Diarrhea, Dysentery, Malaria, Jaundice, Vaginitis, Sore and ulcer, Carbuncle, Vaginitis, Anemia, Hernia, Neurasthenia, Skin ulcer |
| NXYC196| Xiaociguo        | Rosaceae    | Rubus delavayi Franch.                               | Whole plant | Sore and ulcer, Carbuncle, Retention of dead fetus, Leukorrhea, Dysentery, Ascariasis, Tonsillitis, Conjunctivitis |
| NXYC197| Yemudanpi        | Ranunculaceae | Paeonia delavayi Franch.                             | Radix    | Dyspepsia, Diarrhea, Dysentery, Hepatitis, Hematochezia, Thrombotic          |
| Code     | Name              | Family         | Scientific Name                                      | Part | Use                                      |
|----------|-------------------|----------------|------------------------------------------------------|------|------------------------------------------|
| NXYC198  | Zhuling           | Poliporaceae   | *Polyporus umbellatus* (Pers.) Fries                 | W L  | Others, Microangiopathies, External injury, Dysuria, Diarrhea, Malaria |
| NXYC199  | Zhuyefangfeng     | Umbelliferae   | *Seseli yunnanense* Franch.                         | W L  | Radix, Common cold, Flatulence, Lymph nodes, Tuberculosis lymph node, Snake bites |
| NXYC200  | Choulingdan       | Compositae     | *Laggera pterodonta* (D.C.) Benth.                  | W L  | Whole plant, Common cold, Pharyngitis, Cough, Pulmonary tuberculosis, Fever, Urinary tract infection, Sore and ulcer, Burns, Snake bites, External injury, Fractures |
| NXYC201  | Hanliancao        | Compositae     | *Eclipta prostrata* (L.) L.                         | W L  | Whole plant, Neurasthenia, Tinnitus, Gastrointestinal hemorrhage, Hematuria, Hematochezia, Menorrhagia, External injury, Hepatitis, Enteritis, Dysentery, Dyspepsia, Tinea Pedis, Eczema, Sore and ulcer, Tetanus |
| NXYC202  | Gouteng           | Rubiaceae      | *Uncaria sinensis* (Oliv.) Havil.                   | W E  | Stem, Headache, Epilepsy, Tics, Arthritis rheumatoid, External injury |
| NXYC203  | Hongmagen         | Urticaceae     | *Laportea cuspidate* (Wedd.) Friis                  | W L  | Radix, Nephritis, Arthritis rheumatoid |
| NXYC204  | Shanwugui         | Menispermaceae | *Stephania epigaea* Lo                              | W L  | Earthnut, Arthritis rheumatoid, Sore and ulcer, Carbuncle, Neoplasms, Parotitis, Flatulence, Abdominal pain, Stomach ulcer, Duodenal ulcer |
| NXYC205  | Tiannanxing       | Araceae        | *Arisaema erubescens* (Wall.) Schott                | W L  | Tuber, Stroke, Facial paresis, Hemiplegia, Epilepsy, Tetanus, Carbuncle, Tuberculosis lymph node, External injury, Snake bites |
| NXYC206  | Xiaolongdan hua   | Gentianaceae   | *Gentiana rhodantha* Franch. ex Hemsl.              | W L  | Whole plant, Jaundice, Pharyngitis, Bronchitis, Asthma, Pulmonary tuberculosis, Tuberculosis lymph node, Hematochezia, Dysentery, Tics, Dysuria, Urodynia, Vaginitis, Leukorrhea, Dyspepsia, Headache, Deafness, Conjunctivitis, Carbuncle, Sore and ulcer, Burns |
| NXYC207  | Hongmaoyangshen   | Papaveraceae   | *Meconopsis racemosa* Maxim.                        | W L  | Radix, Pneumonia, Hepatitis, External injury, Fractures bone |
| Code   | Name          | Family     | Scientific Name                                      | Gender | Part     | Indications                                                                 |
|--------|---------------|------------|------------------------------------------------------|--------|----------|-----------------------------------------------------------------------------|
| NXYC208| Jinyingzi     | Rosaceae   | Rosa laevigata Mich.                                 | W      | Fruit    | Enteritis, Dysentery, Nephritis, Chyluria, Elephantiasis, External injury,  |
|        |               |            |                                                      |        |          | Arthritis rheumatoid, Spermatorrhea, Menstruation disturbances, Leukorrhea,  |
|        |               |            |                                                      |        |          | Uterine prolapse, Rectal prolapse                                          |
| NXYC209| Rougui        | Lauraceae  | Cinnamomum cassia Presl                              | C      | Bark     | Amenorrhea, Dysmenorrhea, Sexual dysfunctions psychological, Polyuria, Enuresis, |
|        |               |            |                                                      |        |          | Asthma, Palpitation, Angina pectoris, Hemia                                 |
| NXYC210| Haitangguo    | Rosaceae   | Malus prunifolia (Willd.) Borkh.                     | C      | Fruit    | Diabetes mellitus, Dyspepsia                                                |
| NXYC211| Haitangguo    | Rosaceae   | Malus yunnanensis (Franch.) Schneid.                 | C      | Fruit    | Flatulence                                                                  |
| NXYC212| Dalangdu      | Euphorbiaceae| Euphorbia jolkinii Boiss.                           | W      | Radix    | Soreand ulcer, Carbuncle, Tinea, Neurodermatitis, External injury, Tuberculosis lymph node |
| NXYC213| Choupi        | Pittosporaceae | Pittosporum heterophyllum Franch.                  | W      | Bark     | Stomach ulcer, Duodenal ulcer, Postpartum hemorrhage, Menorrhagia, Palpitation, |
|        |               |            |                                                      |        |          | Insomnia, Paraplegia, Jaundice, Dysentery, Hematochezia, Ascariasis, Arthritis rheumatoid, Sciatica, |
|        |               |            |                                                      |        |          | External injury, Fractions, Snake bites                                     |
| NXYC214| Kushen        | Leguminosae| Sophora flavescens Aiton                             | W      | Radix    | Eczema, Pruritus vulvae, Syphilis, Dysentery, Vaginitis, Hemorrhoids, Gingival hemorrhage, |
|        |               |            |                                                      |        |          | Leukorrhea, Soreand ulcer                                                   |
| NXYC215| Yekuqiaotou   | Polygonaceae| Fagopyrum dibotrys (D. Don) Hara                   | W      | Radix    | Dyspepsia, Diarrhea, Dysmenorrhea, Abdominal pain, Amenorrhea               |
| NXYC216| Qiancao       | Rubiaceae  | Rubia yunnanensis Diels                             | W      | Whool plant | Hematuria, Hematuria, Menorrhagia, Menstruation disturbances, Arthritis rheumatoid, |
|        |               |            |                                                      |        |          | Hepatitis                                                                     |
| NXYC217| Gusuibu       | Davalliaceae| Davallia mariesii Moore ex Baker                      | W      | Rhizome  | External injury                                                              |
| NXYC218| Sheyancao     | Compositae | Saussurea romuleifolia Franch.                     | W      | Whool plant | Arthritis rheumatoid, External injury, Dyspepsia, Snake bites               |
| NXYC219| Songdaqi      | Primulaceae| Primula forestii Balf. f.                           | W      | Radix    | Arthritis rheumatoid, External injury                                       |
| Code   | Name         | Family         | Scientific Name                        | Part Used | Action          | Condition                                      |
|--------|--------------|----------------|----------------------------------------|-----------|----------------|-----------------------------------------------|
| NXYC220 | Wugongqi     | Caryophyllaceae | *Psammosilene tunicoides* W. C. Wu et C. Y. Wu | Radix     | W L             | External injury, Fractures, Paraplegia, Arthritis rheumatoid, Ascariasis, Sore and ulcer, Snake bites |
| NXYC221 | Huajiao      | Rutaceae       | *Zanthoxylum bungeanum* Maxim.          | W L       | Others          | Dermatitis seborrheic, Schistosomiasis         |
| NXYC222 | Jiegeng      | Campanulaceae  | *Platycodon grandiflorum* (Jacq.) A. DC. | Radix     | W L             | Cough, Pharyngitis, Laryngitis, Lung abscess, Nasopharyngeal carcinoma, Laryngeal neoplasms, Maxillary sinus neoplasms, Lung neoplasms, Thyroid neoplasms, Colonic neoplasms, Bronchitis |
| NXYC223 | Ebushicao    | Caryophyllaceae | *Arenaria serpyllifolia* L.             | Whooll plant | W L             | Pulmonary tuberculosis, Fractures, Arthritis rheumatoid, Tinnitus, Deafness, Tonsillitis, Snake bites, Conjunctivitis, Blepharitis, Pharyngitis, Hepatitis, Cataract |
| NXYC224 | Xinshen      | Labiatae       | *Phlomis betonicoides* Diels            | Radix     | W L             | Dyspepsia, Flatulence, External injury, Tracheitis, Common cold, Pharyngitis, Oral ulcer |
| NXYC225 | Zhebeimu     | Liliaceae      | *Fritillaria thunbergii* Miq.           | Bulb      | C E             | Common cold, Bronchitis, Lung abscess, Stomach ulcer, Duodenal ulcer, Goiter |
| NXYC226 | Chonglou     | Liliaceae      | *Paris polyphylla* Smith var. yunnanensis (Franch.) Hand. -Mzt. | Rhizome   | W/C             | Pulmonary tuberculosis, Asthma, Tonsillitis, Parotitis, Pharyngitis, Measles, Appendicitis, Mastitis, Tuberculosis lymph node, Throat obstruction, Epilepsy, Tics, External injury, Snake bites |
| NXYC227 | Chonglou     | Liliaceae      | *Paris pubescens* (Hand. -Mazz.) Wang et Tang | Rhizome   | W L             | Laryngitis, Pharyngitis, Cough, Snake bites, External injury |
| NXYC228 | Feixincao    | Botrychiaceae  | *Sceptridium officinale* Ching ex H. S. Kung | Whool plant | W L             | Pulmonary tuberculosis |
| NXYC229 | Longdancao   | Gentianaceae   | *Gentiana yunnanensis* Franch.          | Whool plant | W L             | Epidemic infectious disease |
| NXYC230 | Juhuashen    | Compositae     | *Hippopitya delavayi* (Franch. ex W. W. Smith) Shih | Radix     | W L             | Cough, Pulmonary tuberculosis, Bronchitis |
| NXYC231 | Songhuafen   | Pinaceae       | *Pinus yunnanensis* Franch.             | Pollen    | W L             | Eczema, External injury, Sore and ulcer, Tinea, Encephalomyelitis, Common cold, |
| Code   | Name          | Family       | Scientific Name                          | Part            | Gender | Use                       |
|--------|---------------|--------------|------------------------------------------|-----------------|--------|----------------------------|
| NXYC232 | Dabaiji       | Orchidaceae  | *Bletilla striata* (Thunb.) Rchb. f.     | Radix           | W L    | Pulmonary tuberculosis, Cough, Bronchiectasis, Gastrointestinal hemorrhage, Tracheitis, Hematochezia, Burns, Stomach ulcer, External injury |
| NXYC233 | Xiaobaiji     | Orchidaceae  | *Pleione bulbocodioides* (Franch.) Rolfe  | Bulb            | W L    | Soreand ulcer, Carbuncle, Tuberculosis lymph node, Pharyngitis, Snake bites, Rabies |
| NXYC234 | Xiaobaiji     | Orchidaceae  | *Pleione yunnanensis* (Rolfe) Rolfe     | Bulb            | W L    | Carbuncle, Tuberculosis lymph node, Snake bites |
| NXYC235 | Xingren       | Rosaceae     | *Armeniaca vulgaris* Lam.               | Seed            | W L    | Constipation |
| NXYC236 | Bailangen     | Brassicaceae | *Isatis indigotica* Fort.               | Radix           | W/C E/L | Common cold, Parotitis, Hepatitis, Pneumonia, Erysipelas, Carbuncle |
| NXYC237 | Huaimi        | Papilionaceae | *Sophora japonica* Linn.              | Pistil          | W/C E/L | Hematochezia, Dysentery, Hemorrhoids, Rectal prolapse, Hematuria, Menorrhagia, Leukorrhea, Gastrointestinal hemorrhage, Vomiting, Stroke |
| NXYC238 | Luhancao      | Pyrolaceae   | *Pyrola atropurpurea* Franch.           | Flower          | W L    | Arthritis rheumatoid, Dermatitis allergic contact |
| NXYC239 | Luhancao      | Pyrolaceae   | *Pyrola decorata* H. Andr.              | Flower          | W L    | Tracheitis, Dysentery, Bronchitis, Pulmonary emphysema, Cough, Pulmonary tuberculosis |
| NXYC240 | Cishen        | Dipsacaceae  | *Morina nepalensis* D. Don var. delavayi (Franch.) C. H. Hsing | Flower/Radix    | W L    | Neurotic disorders, Anemia, Dyspepsia, Leukorrhea, Uterine prolapse, External injury |
| NXYC241 | Chonglian     | Rosaceae     | *Sanguisorba filiformis* (Hook.f.) Hand.-Mazz. | Radix           | W L    | Menstruation disturbances |
| NXYC242 | Maidong       | Liliaceae    | *Ophiopogon japonicus* (Thunb.) Ker Gawl. | Tuber           | W L    | Cough, Laryngitis, Lung abscess |
| NXYC243 | Shuangshen    | Dipsacaceae  | *Triplostegia grandiflora* Gagnep.      | Radix           | W L    | Anemia, Arthritis rheumatoid, External injury |
| NXYC244 | Xiaoqiancao   | Rubiaceae    | *Galium elegans* Wall.                  | Radix           | W L    | Urinary tract infection, Leukorrhea, Dysentery, Carbuncle, External injury, Snake bites |
| NXYC245 | Juanyehuangjing | Liliaceae  | *Polygonatum cirrhifolium* (Wall.) Royle | Rhizome         | W L    | Cough, Diabetes mellitus, Sexual dysfunctions psychological, Spermatorrhea, Tinnitus, |
| Code   | Name             | Family     | Common Names                                                                 |
|--------|------------------|------------|-------------------------------------------------------------------------------|
| NXYC246| Shouzhangshen    | Orchidaceae| Gymnadenia conopsea (L.) R. Br.                                               |
|        |                  |            | Neurasthenia, Pulmonary tuberculosis, Asthma, Diarrhea, Hepatitis, Sexual dysfunctions psychological, Spermatorrhea, Leukorrhea, Menstruation disturbances, Abortion threatened, External injury |
| NXYC247| Xinanshoushen    | Orchidaceae| Gymnadenia orchidis Lindl.                                                     |
|        |                  |            | Pulmonary tuberculosis, Sexual dysfunctions psychological, Spermatorrhea, Leukorrhea, Menstruation disturbances |
| NXYC248| Ganxishuweicao   | Labiatae   | Salvia przewalskii Maxim.                                                      |
|        |                  |            | Burns, Menorrhagia, Amenorrhea, Insomnia, Sore and ulcer, External injury, Hemia, Angina pectoris |
| NXYC249| Hongshen         | Araliaceae | Panax ginseng C. A. Mey.                                                       |
|        |                  |            | Diarrhea, Dementia, Diabetes mellitus, Menorrhagia, Dyspepsia                  |
| NXYC250| Roucongrong      | Orobanchaceae| Cistanche deserticola Y. C. Ma                                                  |
|        |                  |            | Sexual dysfunctions psychological, Spermatorrhea, Constipation, Leukorrheal    |
| NXYC251| Zanghonghua      | Iridaceae  | Crocus sativus L.                                                              |
|        |                  |            | Menstruation disturbances, Gastrointestinal hemorrhage, Hematochezia, External injury, Hepatomegaly |
| NXYC252| Chongcao         | Clavicipitaceae| Cordyceps sinensis (Berk.)Sacc.                                               |
|        |                  |            | Pulmonary tuberculosis, Gastrointestinal hemorrhage, Anemia, Sexual dysfunctions psychological, Spermatorrhea |
| NXYC253| Yexiahua         | Compositae | Ainsliaea pertyoides var.albo-tomentosa                                          |
|        |                  |            | Hemiplegia, External injury, Arthritis rheumatoid, Fractures Bone, Amenorrhea, Dermatitis allergic contact |
| NXYC254| Dixueshen        | Compositae | Wedelia urticifolia (Bl.) DC.                                                   |
|        |                  |            | External injury, Fractures                                                      |
| NXYC255| Xueshanhongjingtian| Crassulaceae| Rhodiola crenulata (Hook. f. et Thoms.) H. Ohba                             |
|        |                  |            | Arthritis rheumatoid, External injury                                           |
| NXYC256| Huixincao        | Bryaceae   | Rhodobryum roseum (Hedw.)Limpr.                                               |
|        |                  |            | Heart diseases, Neurasthenia                                                    |
| Code  | Name            | Family       | Species                          | Sex  | Type     | Use                                                                                                                                 |
|-------|----------------|--------------|----------------------------------|------|----------|-------------------------------------------------------------------------------------------------------------------------------------|
| NXYC257 | Panlongshen  | Orchidaceae  | *Spiranthes sinensis* (Pers.) Ames | W    | Flower   | Pulmonary tuberculosis, Snake bites, Herpes zoster, Tonsillitis, Fever, Diabetes mellitus, Neurasthenia, Gastrointestinal hemorrhage, Cough, Leukorrhea, Hypertension, Sore and ulcer, Carbuncle |
| NXYC258 | Daxueteng     | Lardizabalaceae | *Sargentodoxa cuneata* (Oliv.) Rehd. et Wils. | W    | Radix; Stem | Appendicitis, Amenorrhea, Dysmenorrhea, Arthritis rheumatoid, Ancylostomiasis, Ascariasis |
| NXYC259 | Yinyanghuo    | Berberidaceae  | *Epimedium davidii* Franch.       | W    | E Flower | Sexual dysfunctions psychological, Urinary incontinence, Arthritis rheumatoid |
| NXYC260 | Lushuicao     | Commelinaceae | *Cyanotis arachnoidea* C. B. Clarke | W    | Flower   | Eczema, Diuresis, Arthritis rheumatoid |
| NXYC261 | Tusizi         | Convolvulaceae | *Cuscuta chinensis* Lam.          | W    | Seed     | Sexual dysfunctions psychological, Spermatorrhea, Polyuria, Vision low, Abortion threatened |
| NXYC262 | BaiGeshanxiao | Geraniaceae nom. conserv. | *Geranium wallichianum* D. Don ex Sweet | W    | Radix    | Dyspepsia, Diarrhea, Arthritis rheumatoid, External injury |
| NXYC263 | Qianjinzhui   | Orobancheaceae | *Boschniakia himalaica* Hook. f. et Thoms. | W    | Flower; Radix | Sexual dysfunctions psychological, Arthritis rheumatoid, Flatulence, Hemia, External injury, Menstruation disturbances, Cough, Schistosomiasis, Carbuncle, Sore and ulcer, Laryngalgia, Parotitis |
| NXYC264 | Dabaiqi       | Caryophyllaceae | *Silene viscidula* Franch.       | W    | Radix    | Dysmenorrhea, External injury, Sore and ulcer, Carbuncle |
| NXYC265 | Zangchangpu   | Araceae       | *Acorus tatarinowii* Schott       | W    | Rhizome  | Epilepsy, Dementia, Deafness, Insomnia, Dreaminess, Spermatorrhea, Headache, Stroke, Diarrhea, Rectal prolapse, Flatulence, Dysentery, Arthritis rheumatoid, External injury, Common cold, Asthma |
| NXYC266 | Huoxuedan     | Labiatae      | *Glechoma longituba* (Nakai) Kupr. | W    | E Flower; Stem; Leaf | Common cold, Parotitis, Cough, Conjunctivitis, Hepatitis, Cholecystitis, Cholelithiasis, Peptic ulcer, Lung abscess, Nephritis, Urethritis, Stranguria, Urolithic stranguria, Urinary calculi, Dyspepsia, Gastrointestinal hemorrhage, Menstruation disturbances, |
| Code   | Species Name       | Family         | Common Name                      | Part Used | Origin     | Conditions                          |
|--------|--------------------|----------------|----------------------------------|-----------|------------|-------------------------------------|
| NXYC267 | Sanxuedan          | Piperaceae     | *Peperomia dindygulensis*        | Flower    | W          | Leukorrhea, Pulmonary tuberculosis, Arthritis rheumatoid, Fractures, Malaria, Neurodermatitis, Carbuncle, Sore and ulcer, External injury, Snake bites |
| NXYC268 | Tiejiao weilingxian | Compositae     | *Inula nervosa* Wall. ex Hook. f. | Radix     | W          | Dyspepsia, Flatulence, Beriberi      |
| NXYC269 | Maoyewei lingxian  | Compositae     | *Saussurea deltoidea* (DC.) Sch.-Bip. | Radix     | W          | Arthritis rheumatoid, Leukorrhea, Diarrhea, Dysentery, Dyspepsia, Neoplasms, Burns, External injury, Nephritis |
| NXYC270 | Baihuasheshicao    | Rubiaceae      | *Hedyotis diffusa* Willd.        | Flower    | W          | Neoplasms, Bronchitis, Tonsillitis, Laryngitis, Appendicitis, Dyspepsia, Nephritis, Hepatitis, Common cold, Dysentery, Mastitis, Urinary tract infections, External injury, Sore and ulcer, Snake bites |
| NXYC271 | Baihuagoushicao    | Boraginaceae   | *Cynoglossum amabile* Stapf & J. R. Drumm. | Flower    | W          | Cystitis, Urethritis, Dysuria, Oliguria, Jaundice, Hematochezia, Carbuncle, Sore and ulcer, Hepatitis, Dysentery, Uroodynia, Pulmonary tuberculosis, Cough, External injury, Fractures, Leukorrhea, Dystocia, Hemia, Uterine prolapse, Throat obstruction |
| NXYC272 | Gansong            | Valerianaceae  | *Nardostachys jatamansi* (D. Don) DC. | Radix     | C          | Epilepsy, Flatulence, Vomiting, Dyspepsia |
| NXYC273 | Maqianzi           | Loganiaceae    | *Strychnos nux-vomica* L.        | Seed      | W          | Pharyngitis, Rabies, Anthrax, Angina pectoris |
| NXYC274 | Xueshanyizhihao    | Ranunculaceae  | *Aconitum brachypodum* Diels     | Radix     | W          | External injury, Arthritis rheumatoid, Stomach neoplasms, Esophageal squamous cell carcinoma, Lung neoplasms, Rhabdomyosarcoma, Neuralgia, Sore and ulcer |
| NXYC275 | Jinbanxia           | Araceae        | *Typhonium divaricatum* (L.) Decaisne | Tuber     | W          | External injury, Sore and ulcer, Lymph nodes, Snake bites |
| NXYC276 | Zijinlong          | Fumariaceae    | *Dactylicapnos scandens* (D. Don) Hutch | Radix     | W          | External injury, Fractures, Hypertension |
| NXYC277 | Shancigu           | Liliaceae      | *Iphigenia indica* (L.) Kunth    | Bulb      | W          | Bronchitis, Asthma, Gout, Breast cancer lymphedema, |
| Code      | Species Name               | Family     | Common Name                          | Part Used | Usage                                                                                   |
|-----------|----------------------------|------------|--------------------------------------|-----------|-----------------------------------------------------------------------------------------|
| NXYC278   | Xiaozongba                 | Liliaceae  | Veratum nigrum L.                    | W L Radix | Stroke, Epilepsy, Malaria, Fractures                                                   |
| NXYC279   | Mutong                     | Ranunculaceae | Clematis peterae Hand.- Mazz.     | W L Stem  | Urinary calculi, Conjunctivitis, Sinusitis, Sore and ulcer, Urinary tract infection, Laryngitis, Nephritis, Urethritis, Cystitis, Arthritis rheumatoid, External injury, Amoeborhea |
| NXYC280   | Ciwujia                    | Araliaceae | Acanthopanax trifoliatus (L.) Merr. | W L Stem | Parotitis, Pharyngitis, Laryngitis, Arthritis rheumatoid, External injury, Menorrhagia, Amenorrhea, Soreand ulcer |
| NXYC281   | Feilongzhangxue            | Rutaceae   | Toddalia asiatica (L.) Lam.         | W L Radix Stem | Gastrointestinal hemorrhage, Arthritis rheumatoid, External injury, Menorrhagia, Amenorrhea, Soreand ulcer |
| NXYC282   | Heiguteng                  | Asclepiadaceae | Periploca forrestii Schltr.       | W L Stem | Arthritis rheumatoid, External injury, Mastitis, Sore and ulcer, Carbuncle Fractures |
| NXYC283   | Xiaowuzhuajinlong          | Vitaceae   | Tetrastigma hypoglaucum Planch. ex Franch. | W E Radix | Arthritis rheumatoid, External injury, Fractures, Burns, Skin ulcer |
| NXYC284   | Shuanggouteng              | Rubiaceae  | Uncaria macrophylla Wall. in Roxb.  | W L Stem | Headache, Dizziness, Tics, Epilepsy, Arthritis rheumatoid |
| NXYC285   | Shidancao                  | Gesneriaceae | Corallodiscus flabellatus (Craib) B. L. Burtt | W L Flower | Menstruation disturbances, Leukorrheal, Palpitation, External injury, Carbuncle, Soreand ulcer, Tinea, Dyspepsia, Sexual dysfunctions psychological |
| NXYC286   | Bajiaofeng                 | Alangiaceae | Alangium chinense (Lour.) Harms    | W E Radix Stem | Arthritis rheumatoid, Paraplegia, External injury, Dysstocia, Jaundice |
| NXYC287   | Tongguangsan               | Apocynaceae | Marsdenia tenacissima (Roxb.) Wight | W E Stem | Dysuria                                                                                   |
| NXYC288   | Shelian                    | Cucurbitaceae | Hemsleya sphaerocarpa Kuang & A. M. Lu | W L Radix | Diarrhea                                                                                   |
| NXYC289   | Wubeizi                    | Anacardiaceae | Rhus potaninii Maxim.   | W L Others | Hemorrhoids, Diarrhea, Hematochezia, Spermatorrhoea, Rectal prolapse, Menorrhagia, Soreand ulcer, External injury, Burns |

a W/c: W, wild; C, cultivated.
Table 2: Medicinal plants sold in the market recorded in the Dongba Sutra

| Voucher | Local name | Latin name of original plant | International Phonetic Alphabet | Hieroglyphs |
|---------|------------|------------------------------|-------------------------------|-------------|
| NXYC009 | Chaihu     | *Bupleurum candollei* Wall.  | lae²¹ hu²¹                   |             |
| NXYC159 | Luhancao   | *Pyrola forrestiana* H.Andres | lu¹² hae²¹ hæ³³            |             |
| NXYC023 | Dahuang    | *Rheum palmatum* L.; *Rheum officinal* | di⁵⁵ huæ²¹            |             |
| NXYC077 | Xiaoshenjincao | *Hemiphragma heterophyllum* Wall. |                         |             |
| NXYC035 | Juanbai    | *Selaginella pulvinata* (Hook. et Grev.) Maxim. |                         |             |
| NXYC002 | Changpu    | *Acorus calamus* Linn.       | hu³³ bæ²¹ k⁵⁵            |             |
| NXYC045 | Tudahuang  | *Rumex nepalensis* Spreng.  | hu⁵⁵ iæ³³             |             |
| NXYC061 | Niuweiqi   | *Rheum lixiangense* Sam.    | ia²¹ ny³³ hï²¹           |             |
| NXYC050 | Guoshan long | *Schisandra rubriflora* (Franch.) Rehd.et Wils | ko²¹ li⁵⁵ se³³     |             |
| NXYC030 | Geshanxiao | *Geranium strictipes* R.Knuth | ko¹² se³³ iæ³³         |             |
| NXYC051 | Jiegudan   | *Sambucus williamsii* Hance | le¹² gu¹² dae³³          |             |
| NXYC118 | Jixiangcao | *Reineckia carnea* (Andr.)Kunth. | gv³³ hï²¹ gv³³ dae⁵⁵ z³³ |             |
| NXYC217 | Gusuibu    | *Drynaria delavayi* Fr.     | hu⁵⁵ hu³³ li³³ k⁵⁵ hï³³ |             |
| NXYC078 | Suanjiangcao | *Oxalis comiculata* Linn. | hu³³ shi²¹             |             |
| NXYC049 | Fuling     | *Wolfiporia cocos* (Schw.) Wolf. | tho³³ k⁵⁵ ly³³        |             |
| NXYC021 | Gegen      | *Pueraria lobata* (Willd.) Ohwi | ge⁵⁵ do²¹ k⁵⁵         |             |
| NXYC079 | Daji       | *Cirsium japonicum* Fisch. ex DC. | k⁵⁵ hï²¹ kï³³            |             |
| NXYC003 | Kulianzi   | *Melia azedarach* L.        | di³³ bi³³ di²¹ ly⁵⁵ ly³³ |             |
| NXYC120 | Zhujun     | *Engleromyces goetzii* P.Henn. | mi⁵⁵ mu⁵⁵            |             |

Table 3: National First Class protected plants and national Second Class protected plants
| Voucher Specimens | Local name        | Family name        | Latin name of original plant                              | W/C | L/E | IUCN |
|-------------------|-------------------|--------------------|------------------------------------------------------------|-----|-----|------|
| NXYC014           | Yinxingguo       | ginkgoacea         | *Ginkgo biloba* Linn.                                      | C   | E   | CR   |
| NXYC180           | Shihu             | Orchidaceae        | *Dendrobium officinale* Kimura et Migo                     | W   | L   | -    |
| NXYC249           | Hongshen          | Araliaceae         | *Panax ginseng* C. A. Mey.                                 | W/C | E   | CR   |
| NXYC025           | Hongjingtian      | Crassulaceae       | *Rhodiolast fastigiata* (Hook.f.et Thoms) Fu               | W   | L   | LC   |
| NXYC044           | Guoshangye        | Orchidaceae        | *Bulbophyllum odoratissimum* (Smith) Lindl.                 | W   | L   | LC   |
| NXYC055           | Bajiaolian        | Berberidaceae      | *Dysosma versipellis* (Hance) M.Cheng ex Ying             | W   | L   | VU   |
| NXYC086           | Gancao            | Leguminosae        | *Glycyrrhiza uralensis* Fisch.                             | C   | E   | LC   |
| NXYC135           | Jiaxinmu          | Juglandaceae       | *Juglans regia* L.                                         | W   | L   | VU   |
| NXYC145           | Jiuzilianbajji    | Orchidaceae        | *Calanthe tricarinata* Lindl.ex Wall.                      | W   | L   | LC   |
| NXYC155           | Doubansanqi       | Crassulaceae       | *Rhodiola yunnanensis* Franch.                             | W   | L   | LC   |
| NXYC167           | Xiaobanyelan      | Orchidaceae        | *Goodyera repens* (L.) R. Br.                              | W   | L   | LC   |
| NXYC182           | Tianma            | Orchidaceae        | *Gastrodia elata* Blume                                    | W/C | L   | -    |
| NXYC220           | Wugongqi          | Caryophyllaceae    | *Psammosilene tunicoides* W. C. Wu et C. Y. Wu             | W   | L   | EN   |
| NXYC227           | Chonglou          | Liliaceae          | *Paris pubescens* (Hand. -Mazz. y Wang et Tang)            | W/C | L   | EN   |
| NXYC232           | Dabaiji           | Orchidaceae        | *Bletilla striata* (Thunb. y Rchb. f.)                    | W   | L   | EN   |
| NXYC233           | Xiaobaiji         | Orchidaceae        | *Pleione bulbocodioides* (Franch. y Rolfe)                 | W   | L   | LC   |
| NXYC234           | Yunnan dusuanlan  | Orchidaceae        | *Pleione yunnanensis* (Rolfe) Rolfe                       | W   | L   | VU   |
| NXYC246           | Shouzhangshen     | Orchidaceae        | *Gymnadenia conopsea* (L.) R. Br.                          | W   | L   | EN   |
| NXYC247           | Xinanshoushen     | Orchidaceae        | *Gymnadenia orchidis* Lindl.                               | W   | L   | VU   |
| NXYC250           | Roucongrong       | Orobanchaceae      | *Cistanche deserticola* Y. C. Ma                          | C   | E   | EN   |
| NXYC255           | Xueshan hongjingtian | Crassulaceae     | *Rhodiola crenulata* (Hook. f. et Thoms.) H. Ohba          | W   | L   | EN   |
| NXYC257           | Panlongshen       | Orchidaceae        | *Spiranthes sinensis* (Pers.) Ames                         | W   | L   | LC   |

CR: Critically Endangered; LC: Least Concern; EN: Endangered; VU: Vulnerable.

**Figures**
Figure 1

Location of Lijiang City, Yunnan Province, China

Figure 2

The drug trading markets in Lijiang City (A and D: Xiangjiang Market; B and E: Xiangshan Market; C and F: Zhongyi Market)

Figure 3

A. Taxonomic composition and their percentage of 289 plant medicines. B. Dominant medicinal plant families recorded in 3 traditional markets
Figure 4

Numbers of medicinal plants belonging to different medicinal parts

Figure 5

Types and quantities of Naxi medicines in the market in Lijiang area

Figure 6

Some medicinal plants sold in the market recorded in the Dongba Sutra

Figure 7

Some medicinal plants sold in the market recorded in Yu Long Ben Cao
Figure 8

Rumex nepalensis recorded in the Dongba sutra

Figure 9

A. Wild cultivation of medicinal plants on the markets; B. Sources of medicinal plants on the markets

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