Discussion on the development of ecotourism education in China's national parks

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Abstract. Ecotourism education is the foundation for the healthy development of national park ecotourism. It guides visitors to standardize their behavior, cultivate tourists' awareness of environmental protection, and develop the local economy. At the same time, ecotourism education also contributes to regional ecological and economic sustainability. On the basis of summarizing the existing problems of eco-tourism education in China's national parks at this stage, this paper discusses the ways and methods to solve the problems and provides references for the development of eco-tourism education in China.

1. Introduction
Ecotourism generally refers to activities carried out in natural areas such as nature reserves, national parks and wildlife habitats. This type of activity protects the regional natural environment through environmental education for tourists and standardizes tourist activities, and guarantees the welfare of the local people and the development of the regional economy through the environmental education of the tourists [1], [2]. Ecotourism education is a prerequisite for the healthy development of ecotourism. It is also an important content in the social environment education system. It refers to the promotion and popularization of ecotourism knowledge from different angles in various forms. And eco-tourism education can cultivate the sustainable development concept of tourists and tourism stakeholders, strengthen their basic knowledge and awareness of eco-tourism, and improve their ecological environmental protection capabilities and skills [3]. In addition, eco-tourism education is a systematic project, and broad-based eco-tourism education includes "before the tour" education, "in the tour" education and "after the tour" education [4]. Its educational objects include government departments and non-governmental organizations, ecotourism operators, managers, service personnel, tourists and local residents [5].

With the establishment of the National Park Administration, China's national park reform and construction ushered in a period of rapid development. The development potential of tourism related to national parks has further expanded. China is the third largest country in the world. Its rich natural and cultural resources attract many Chinese and foreign tourists, and the number of domestic tourists is relatively large. According to the results of the domestic tourism sample survey, the number of domestic tourists reached 6.006 billion in the whole year of 2019. The number of tourists increased by 8.4% over the same period last year. In addition, the number of inbound tourists reached 145 million, which was an increase of 2.9% over the same period last year [6]. If large-scale tourists are not effectively managed, regulated and guided, they will inevitably have a negative impact on the environmental protection of national parks.
2. Current status and development trend of national park ecotourism education

2.1. Current status and development trends of ecotourism education in national parks abroad

For national parks, the ecotourism education of the local population is the key to sustainable development. Ecotourism education not only involves the science of species, but also shows compliance with the norms of tourism behavior and the cultivation of moral values in line with ecotourism [7].

Ecotourism education in foreign national parks mainly exists in schools, local communities, parks, environmental education centers, and ecotourism, and it is included in ecotourism planning. The main forms of education are as follows:

- Carry out formal and informal ecotourism courses.
- Promulgated ecotourism guide.
- Training locals and tour guides has become an "eco-tourism interpretive guide".
- Encourage tourists to visit families in local communities.
- Carry out environmental education activities in parks and schools.
- Planning and operation of ecotourism education projects.

Costa Rica is rich in natural resources and is a model of world biodiversity protection. Ecotourism is an important source of income in the country. In 2019, approximately 3.1 million tourists visited Costa Rica [7], and nearly half of them participated in ecotourism activities. Costa Rica has made great efforts in environmental protection through national environmental education strategies, the formulation of relevant laws and regulations, and public participation. Eco-tourism education is an important part of environmental protection. It is divided into science education focusing on school children and community natural resource project management focusing on adults [8]. The implementation of such educational activities is arranged in schools and environmental education centers, such as nature reserves, botanical gardens and zoos. The implementation of eco-tourism education also includes tourist education in eco-hotels. Osland and Mackoy compared and analyzed ecotourism education for tourists in some hotels in Costa Rica and Panama. They found that tourism education in hotels greatly influenced tourists' behavior and understanding of local areas [9].

Thailand's ecotourism project trains local people to be interpretive guides. They encourage tourists to visit local families as guests, so as to obtain knowledge directly in the target family and community ecotourism guide [10]. This experiential learning deepens the tourists' understanding and impression of the local natural environment, ecosystem and human environment, and cultivates "potential protectors" for the integrity of the regional ecosystem.

Australia encourages knowledgeable guides to guide tourists in ecotourism. Most of its eco-tourism companies will specifically hire researchers with multiple qualifications, proficient in communication and science as tour guides. They explain ecological environment knowledge to tourists. And they put forward some suggestions or requirements for tourists on how to treat sensitive culture and fragile environment correctly to inspire and guide tourists to establish an eco-tourism concept.

The United States has many national parks and is a hot spot for ecotourism research. As early as the 1960s, the education of public outdoor sports ethics and technology in the United States had already appeared, and it had achieved rapid and sustained development. In the 1980s after the birth of ecotourism, this type of tourist education was integrated with ecotourism environmental education and achieved new development [4]. The ecotourism education in the United States has generally experienced five stages of development. The contents of these five stages are as follows [4], [11], [12]:

- The stage of early formal education planning for low-impact recreation.
- The stage with the slogan "pack in and pack out".
- The stage of publication of the brochure.
- The stage of Wilderness managers develop educational programs to assist with various regulations and management of tourists.

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The stage of establishing an educational partnership to promote the use of the LNT (Leave No Trace) educational program for advanced education projects.

The development process of eco-tourism education in the United States, from environmental protection propaganda to the operation of advanced education projects, provides a guarantee for the healthy development of eco-tourism in national parks.

In general, foreign national park eco-tourism education has undergone a period of development from environmental protection propaganda to professional eco-tourism education activities according to the national tourism conditions of various countries. With the popularization of networks and smart devices, and the advancement of technology, the form of eco-tourism education carriers has shown diverse characteristics. People's tourism concept gradually changed. Ecotourism activities have become one of the important ways for people to get in touch with nature, understand nature, learn and protect nature. The national park eco-tourism education industry has also gradually developed, contacting relevant stakeholders, local residents, tourists and partners to form a relatively complete education system.

2.2. Current status and development trends of ecotourism education in China's national parks.

China's national park construction is a transformation of the management system of nature reserves. It is an integrated management of the original nature reserves, scenic spots, forest parks, geoparks and other areas, and implements a new operating mechanism and model. After several years of pilot construction, the first batch of national parks in China will be officially established in the second half of 2020 [13]. National parks, as the main body in the system of nature reserves, are important areas for the development of ecotourism. The construction of China's national parks is proceeding in an orderly manner, and the development of ecotourism is in an exploration period. The ecotourism education system has not been formally established. Existing forms of ecotourism education mostly rely on commentary cards, tour guide manuals, and tour guide commentary. And eco-tourism education activities are mostly carried out in the popular science education bases and youth science and technology education bases in the original scenic spots. Few of these bases can carry out relevant educational activities all year round [14].

In the field of academic research, ecotourism education is increasingly valued by researchers. When researching eco-tourism education, Linsheng Zhong mainly divided it into four major contents: natural and cultural knowledge, ecological environment awareness, eco-tourism guide, and eco-tourism behavior norms [15]. The team of Wenming Li made a comprehensive review of relevant practices and research results of ecotourism environmental education at home and abroad [16]. On the basis of taking Poyang Lake National Nature Reserve as an empirical research object, they comprehensively constructed a research framework for the evaluation of eco-tourism environmental education. They also established an evaluation index system for eco-tourism environmental education effect, and used this system to quantitatively evaluate the eco-tourism environmental education effect for tourists in the empirical area. Yanqin Li believes that tourists need education through tourism ethics education, eco-tourism products and environmental interpretation systems [17]. And they also need to overcome resistance in terms of time, income, body and mind, and attitude to become a strict eco-tourist. Scholars such as Baohong Wu, Qingyan Wu and Yong Ma cut through online news, printed matter, electronic media and other media, demonstrating that they can effectively guide and supervise the environmental behavior of tourists through online channels [18], [19], [20]. Eco-tourism online education can also popularize environmental education knowledge, increase tourists' ecological awareness and cultivate tourists' aesthetic taste. These research contents all provide references for the future development of eco-tourism education in China's national parks.

As early as 2016, the National Tourism Administration have issued a national ecotourism development plan (2016-2025). The plan has analyzed the domestic tourism trends on the basis of the current status and development issues, and predicted that the number of domestic tourists will exceed 7 billion in 2020 [21]. And the contradiction between supply and demand of tourism products will continue to be prominent. The plan is to establish a self-guided education system and a guided
education system, continuously improve the ecological tourism environmental education carrier and environmental education form, and promote social participation in environmental education. Among them, environmental education carriers include commentary cards, promotional leaflets, roadside displays, and commentary trails. The forms of environmental education include carrying out natural education schools, natural classrooms, and environmental education activities, as shown in Figure 1. These contents are gradually realized following the establishment of the national park.

| Educational carriers          | Educational forms                 |
|------------------------------|-----------------------------------|
| Commentary cards             | Nature education schools          |
| Promotional leaflets         | Natural classrooms               |
| Roadside displays            | Environmental education activities|
| Commentary trails            | Ecotourism vocational education   |
| Experience facilities        |                                   |

Figure 1. The specific demonstration of eco-tourism education carriers and education forms.

3. Problems in the current status of ecotourism education in national parks in China
In recent years, the number of domestic tourists has been increasing, especially the number of tourists on holidays. Some popular tourist attractions are full of tourists and the order is chaotic, which has a certain impact on the ecological environment of the region. From the perspective of the development of China's eco-tourism in the past 20 years, the eco-tourism implemented in some tourist areas has problems such as market chaos, excessive commercialization, and low standardization [22]. At present, most domestic ecotourism practices have not met the real requirements of ecotourism. And the eco-tourism products developed in various places are not real eco-tourism products, but another form of natural tourism or sightseeing tourism [23]. Therefore, most domestic tourists still maintain the traditional concept of tourism, focusing on natural enjoyment and consumption. This kind of traditional tourism concept of consuming nature no longer meets the requirements of national park protection and sustainable development, and this kind of tourists are not really eco-tourists.
In general, the main problems of ecotourism education in national parks are as follows:

- The development of eco-tourism education activities is less.
- The media has not paid enough attention to and promoted eco-tourism, and the public lacked proper guidance.
- The traditional tourist concept of tourists has not changed, and there is a lack of real eco-tourists.
- Ecotourism has fewer employees, and tourists lack professional guidance.
- There are few training institutions with comprehensive training for ecotourism practitioners, and the certification of training institutions and practitioners lacks a professional and standardized certification system.
- Universities have not invested enough in ecotourism construction research.

4. Conclusions and suggestions
The practice of ecotourism and the practice of ecotourism education in China are lagging behind foreign countries. With the active promotion of the construction of ecological civilization and the
construction of national parks, eco-tourism education has gradually been valued. The development of ecotourism education in some countries is at the forefront in the world, which provides a reference for the development of ecotourism education in China's national parks. According to the problems arising from the current development of China's tourism industry, combined with the development model of foreign frontier ecotourism, our four suggestions are as follows:

- Promote the planning and implementation of environmental education activities
- Implement the multi-carrier model of ecotourism mass education
- Strengthen media promotion and guidance of ecotourism
- Focus on training eco-tourism practitioners

Ecotourism education can be carried out not only in the course of tourism, but also in "before and after the tour". Therefore, the development of environmental education activities can be carried out in the three stages of "before the tour", "in the tour", and "after the tour". The planning and implementation of national park environmental education activities are often included in the park’s ecotourism planning and environmental education system planning. The successful implementation and execution of its planning results have become the focus of public attention. In April 2019, Qianjiangyuan National Park Management Committee and World Wildlife Fund (WWF) organized a seminar on the mid-term results of the "Qianjiangyuan National Park Environmental Education Project" [24]. This project is the first environmental education system plan among the national pilot units of the national park system. It draws on the professional methods of environmental education and environmental interpretation of national parks in the United States. It is worth noting that the continuous development of environmental education activities throughout the year requires strong promotion of operators and management units. This requires environmental education practitioners to have relevant professional knowledge and skills, and to ensure a stable source of funding for event organization.

China's national park construction is steadily advancing. There are many potential tourists in domestic national parks, and eco-tourism education needs to be promoted as a model of mass education to train true eco-tourists. The multi-carrier model of public ecotourism education can rely on carriers such as online media, paper media, and urban parks. In the practice of urban park environmental education in China, there is a precedent for the construction of a comprehensive environmental education park represented by Chengdu Living Water Park. It carries out science popularization at each important node in the form of various structures, making environmental education more intuitive [25].

China's traditional natural consumption tourism concept has not changed. The management department of the national park needs to guide the public to establish the concept of nature-protected ecotourism. Strengthening the media’s publicity of ecotourism to the public is conducive to guiding the public to establish awareness of nature conservation. And it can subconsciously regulate its travel behavior. The development of the network and the popularization of smart devices have created favorable conditions for information dissemination. The mass information transmission method mainly based on webcast, publicity film and online public account provides a platform for ecotourism promotion.

With the steady progress of China's national park construction, eco-tourism planning and construction are proceeding steadily. While cultivating existing tour guides to become qualified ecotourism guides, it is also necessary to promote ecotourism vocational education to cultivate practitioners who are rich in professional knowledge and can organize ecotourism education activities. Thus, eco-tourism guides teach tourists and train them to become real eco-tourists. At the same time, the management department should establish a professional ecotourism guide certification system to regulate the employment conditions of the tour guide. Some colleges and universities in China have set up ecotourism degrees and organized related courses. However, there are currently fewer ecotourism employees. In relation to the research on the construction of national parks, universities need to pay attention to the research of ecotourism construction projects. On the basis of solving existing problems, eco-tourism research projects should actively combine cutting-edge scientific and
technological means to explore new models suitable for Chinese tourism and promote the development of traditional tourism to eco-tourism.

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