

A CASE STUDY OF PROBLEMS AND POSSIBILITIES
IN THE ESTABLISHMENT OF A
GUIDE TRAINING INSTITUTE IN UTTARAKHAND, INDIA

By

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A Case Study of Problems and Possibilities in the Establishment of a Guide Training Institute in Uttarakhand, India

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Abstract:

This project sought to explore the problems and possibilities experienced during the establishment of a guide training institute in Uttarakhand, India. As originally proposed by the Mountain Shepherds Initiative, a small tourism organization based in Uttarakhand, the aim of the guide training institute was to provide participants with the knowledge and skills needed to gain employment as guides within, and expand the extent of, high quality/low quantity birdwatching tourism within northern Uttarakhand. This project was undertaken in conjunction with the Mountain Shepherds Initiative and the problems and possibilities were identified during a six month stay in the region from May-November, 2010. The problems and possibilities identified concerned the potential for the expansion of birdwatching tourism within the region as well as the process of establishing the training institute. Problems and possibilities associated with the potential for expanding birdwatching tourism within the region were related to three destination-attributes identified by Scott and Thigpen (2003) as of primary concern to birdwatchers: species availability, infrastructure, and contrast to urban environs. Problems and possibilities identified in connection with the process of establishing the guide training institute related to the means by which sites were selected, the creation of a course curriculum, and the initial implementation of guide training through a pilot course. As the tourism industry grows, and guides are held to increasingly high standards, it is hoped that this exploratory study will both inform other organizations wishing to establish guide training programs as well as future research into guide training.

Keywords: Guide Training; Birdwatching Tourism; Nature-based Tourism; Guide Curriculum

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Introduction

The Nanda Devi Biosphere Reserve (NDBR) and Dodi Tal regions are located within the West Himalaya biogeographic zone of Uttarakhand, India and comprise an area of intense conservation interest as well as historic conflict between conservation and local communities. Conservation efforts in the region, conducted by both the Indian government as well as international organizations, have largely prohibited local inhabitants from traditional forms of land use and have caused an erosion of traditional culture through a loss of traditional ecological knowledge (TEK) and emigration from the region (Nautiyal, Rao, Maikhuri, and Saxena, 2003; Silori, 2004). To compound these grievances, local communities have felt largely excluded from the benefits and planning processes of the region's growing tourism industry (Maikhuri, Rana, Rao, Nautiyal, and Saxena, 2000; Silori, 2004; Bosak, 2008). The lack of local support for conservation and tourism initiatives has resulted in many of these efforts being unsuccessful.

In response to increased feelings of marginalization from within local villages, the Mountain Shepherds Initiative (MSI) was established to promote tourism to the region in a way which encompassed both the needs and wants of the local population with the conservation and management goals of the government. In 2001, the philosophy adhered to by MSI was formalized by representatives of 19 villages within the Nanda Devi region in *The Nanda Devi Biodiversity Conservation and Eco Tourism Declaration* (see Appendix I). Shortly after the declaration was formalized, two individuals from within the Himalayan region of Uttarakhand proposed the establishment of the Mountain Shepherds Initiative; these two individuals are currently the only full-time employees and operate as the owner and director of the organization. In 2006, MSI tourism operations began with the training of local village members at the Nehru

Institute of Mountaineering and by 2010 approximately 70 individuals had received mountaineering training. Despite the large number of individuals to have received training, only a small number of tours are operated per year and the majority of trained guides do not receive work through MSI. Of the 70 individuals trained, two had received shares in the organization by the completion of this project and another three individuals had been proposed to receive shares by the end of 2011; it is the hope of the owner and director that these five individuals will form the core group of employees within the organization.

While small in size, the Mountain Shepherds Initiative describes itself as “a community-based operation that is at once an expression of community aspirations and the will of its people to build a future without human exploitation” (MSI, 2010). To this end, MSI has proposed the establishment of a guide training institute. They proposed the institute to be an educational resource for local inhabitants wishing to participate in the growing tourism industry with particular emphasis on training guides for nature-based and birdwatching tourism. As a guide training program, the institute provides a form of job creation that directly involves local communities in the tourism industry. As an educational resource, the institute aims to balance western scientific knowledge with traditional ecological knowledge and practices (TEKP) in a way which promotes conservation while maintaining the region’s unique cultural heritage.

The purpose of this case study is to explore some of the problems and possibilities encountered in the establishment of the guide training institute. Particular attention is given to possibilities for the integration of TEKP, western scientific knowledge, biocultural conservation, education, and livelihood creation during the establishment process. It is important to note that the establishment of the training institute comprises a single stage of a larger project being

undertaken by MSI. Initiated by MSI, the ultimate goal of their project is to increase the well-being of local communities by creating income-generating opportunities in the tourism sector as well as encourage biocultural conservation through the integration of TEK and western scientific knowledge. However, this portion of the project deals with only the initial stage of the process. The main objectives of this stage are the establishment of the training institute and an assessment of the employment creation potential of expanded birdwatching tourism to the region.

While training of future guides and instructors will occur during the establishment of the institute, this study is not meant as a quantitative analysis of the efficacy of training local guides, the subsequent quality of tours as perceived by visitors, or how the institute can be measured to affect local communities. Rather, the study aims to provide an assessment of the establishment of a training institute which it is hoped will inform possibilities for the incorporation of local communities into the tourism industries of other regions. It should also be noted that employment creation potential is not quantified through income generation but rather examined as a means of determining whether guides trained at the institute may find future employment through the expansion of birdwatching tourism.

To understand the objectives of this stage in the MSI project, it is necessary to examine the role of guide training within current literature. For the governments and communities of many developing nations, ecotourism is seen as a unique opportunity to generate income in an environmentally, socially, and economically sustainable manner. However, for ecotourism to grow within a region, it is important that visitors have the best experience possible. To enable this, the tour guide has been identified as the primary interface between a destination and its

visitors (Ap and Wong, 2001). This connection underlines the importance of guide training if a region's tourism industry is to grow. In addition, it necessitates a better understanding of the role of individual tour guides. Current literature concerning the role of tour guides can be classified into two primary categories: sociological and managerial. Sociological studies of tour guides place emphasis on the role of the guide and the guide-visitor interaction (Cohen, 1985; Weiler and Davis, 1993; Zhang and Chow, 2004; Reisinger and Steiner, 2006; Peake, Innes, and Dyer, 2009; Randall and Rollins, 2009). Managerial studies of the tour guide place the emphasis on the training and certification of guides to improve their duties (Pond, 1993; Noam, 1999; Collins, 2000; Ap and Wong, 2001; Weiler, 2002). While the emphases of sociological and managerial studies differ, both must be taken into consideration for guide training to be effective.

While a large amount of literature is available concerning the role of the guide and the need for guide training, there is a paucity of literature concerning the practical establishment of guide training programs. The literature which is available tends to focus either on training for particular types of guides, logistical aspects of organizing course material, suggestions and critiques for already established programs, or the establishment of training institutes by universities, NGO's, and larger tour companies (Black, Ham, and Weiler, 2001; Christie and Mason, 2003; MacKinnon, 2004; Black and Ham, 2005; Chowdhary and Prakash, 2008). Notably lacking in this literature is information concerning the establishment of guide training institutes by, for, and with local populations. This case-study will attempt to fill this gap by exploring issues of particular importance to the establishment of locally-owned training institutes.

This project focuses on the establishment of a locally-owned guide training institute within the Himalayan region of Uttarakhand, India. An emphasis is placed on ways in which western scientific and traditional knowledge may be integrated through guide education to create employment opportunities within the tourism industry. The conceptual framework initially formulated for this project was developed in conjunction with the Mountain Shepherds Initiative and can be seen in *Fig. 1*. In this framework, traditional ecological knowledge and western scientific knowledge interact to inform one another. They are also placed on equal footing in the development of biocultural conservation. Located in the middle of this triangle is education. Education, through the guide training institute and the proposed course curriculum, is seen within the framework of this project as the primary way in which the other three components interact with one another in creating employment opportunities within the tourism industry; the course curriculum provides the medium by which TEK and western scientific knowledge can be combined as well as the basis by which each are incorporated into biocultural conservation. It should also be noted that the outer triangle informs the education process. This inclusive triangle ultimately leads to tourism employment within a region which, in turn, results in greater viability of the triangle.

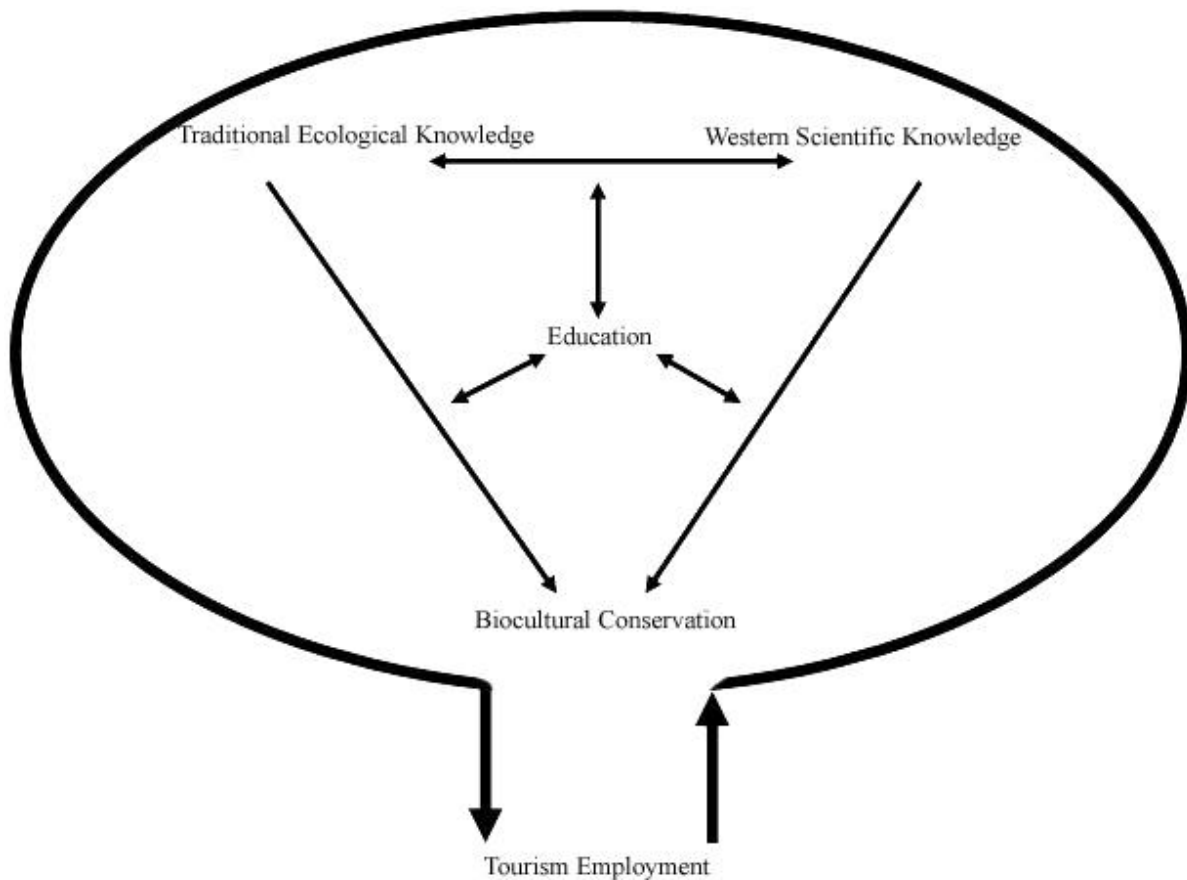


Figure 1: Conceptual framework for the integration of Traditional Ecological Knowledge, Western Scientific Knowledge, Biocultural Conservation, Education, and Tourism Employment

This conceptual framework represents underlying assumptions concerning the role of the guide training institute in the context of the larger MSI project. This framework will be taken into account in the exploration of this project’s main question. The main question is: What are some of the problems and possibilities encountered during the process of establishing a guide training institute? In answering this question, three main components relating to the establishment process are examined. These components correlate with the three phases into which the establishment process has been split. These are:

- 1) Site Surveys – During this phase, sites chosen by MSI were surveyed to assess their potential for the expansion of birdwatching tourism to the region. This stage was deemed necessary as the viability of the institute was strongly correlated to the employment creation potential of the region.

- *This phase explored the problems and possibilities associated with determining a region's birdwatching tourism potential, the site selection process, and subsequent purchases of land.*
- 2) Curriculum Creation – Phase 2 consisted of creating course curriculum necessary for the establishment of the training institute.
- *This phase explored problems and possibilities concerning currently available guide training material, ways in which TEKP and western modern science may be integrated, and determining the scope of information to be included in course curriculum.*
- 3) Initial Implementation – The initial implementation phase included the running of a pilot guide training course in the Dodi Tal region of Uttarakhand, India.
- *This phase explored the problems and possibilities encountered in conducting a pilot training course in regards to course design, structure, and curriculum.*

To explore these three phases, six months, beginning in May 2010, were spent in India.

During this time, notes were taken of both my personal experiences while establishing the guide training institute as well as information gained through informal communications with individuals associated with the Mountain Shepherds Initiative and village members within the NDBR/Dodi Tal region. These notes formed the basis for the identification of problems and possibilities associated with the establishment of the guide training institute. Five years of personal experience as a birdwatching guide also informed the identification of problems and possibilities as well as the potential for the expansion of high quality/low quantity birdwatching tourism within the study region.

Study Region

The Nanda Devi Biosphere Reserve, located between 31.0N/78.8E and 30.1N/80.4E, surrounds India's second tallest mountain peak: Nanda Devi (7,817 m). Upon original inscription into the United Nation Environment Programme's Man and the Biosphere Program, NDBR comprised a total area of approximately 2,200 km². Of this area, 645 km² comprised the core

zone with an additional 1,600 km² set aside as a buffer zone. In 2004, the biosphere reserve was expanded to include Valley of Flowers National Park as a second core zone with an expanded buffer zone. Currently the core zone is approximately 718 km² while the buffer zone is roughly 5,143 km². Abutting the north-west border of NDBR is Kedarnath Sanctuary. Kedarnath Sanctuary acts similar to an extended buffer zone of NDBR and covers approximately 975 km² with an elevation ranging between 1,400-7,068 m. North of Kedarnath Sanctuary, though not connected, lies Gangotri National Park. Gangotri National Park covers roughly 1,552 km² with an elevation of 1,400-7,068 m. Dodi Tal, located west of NDBR between 31.3N/78.1E and 31.0N/78.7E, is on the edge of the Govind Pashu Vihar Sanctuary/Govind National Park complex. The core zone of this reserve complex is Govind N.P. and covers roughly 472 km². The buffer zone, Govind Pashu Vihar Sanctuary, covers approximately 481 km². The elevation of this area ranges from 1,290-6,387 m. (See maps in Appendices II and III).

Encompassing Nanda Devi N.P. (originally established as a Game Sanctuary in 1939) and Valley of Flowers N.P. (established in 1980), NDBR was designated a UNESCO World Heritage site in 1988. The Govind complex, in the Dodi Tal region, was established in 1955 with the inner Govind N.P. being established as the core zone in 1990. Kedarnath Sanctuary and Gangotri N.P. were established in 1972 and 1989 respectively. These parks, as well as five other sites within the region, have been designated as Important Bird Areas (IBA's) by BirdLife International (see Appendix IV). The West Himalaya biogeographic zone itself, in which these parks lie, has also been recognized by BirdLife International as an Endemic Bird Area (EBA) due to its unique collection of flora and fauna covering multiple elevation zones and habitat types (Birdlife International, 2010). Conservation of the NDBR/Dodi Tal region has been

recognized as significant as the alpine forest and grassland mosaic is home to a number of rare or threatened species of plant and animal; these include Cheer Pheasant (*Catreus wallichi*), White-throated Tit (*Aigithalos niveogularis*), Snow Leopard (*Uncia uncia*), and Asiatic Black Bear (*Ursus thibetanus*). As well as the conservation importance associated with the region's biological diversity, these protected areas serve as important sources of water for lower elevation communities. While Nanda Devi is the tallest peak in the region, several other peaks also rise above 7,000 m in NDBR and 6,000 m in the other protected areas. The large glacial basins and snow accumulation zones within these mountain ranges provide important runoff to the region's river systems including the Ganges River which supports over 300 million people.

The NDBR/Dodi Tal region also has a long history of cultural significance. Evidence of the holy significance of this region dates back to Hindu writings originating 3,000-5,000 years ago (Bosak, 2006). This significance continues today for many of the local inhabitants as well as the larger Hindu and Sikh populations; a United Nations Environment Programme report from 2005 estimated a total of 400,000-500,000 pilgrims visit the region's temples and shrines every year (UNEP, 2005). In many cases, the mountains of this region are seen as the homes of holy men and gods. The mountain of Nanda Devi itself is worshipped by many Hindus as the physical incarnation of the Goddess Parvati, wife of Shiva (UNEP, 2005; Bosak, 2006). Similarly, the lake at Dodi Tal has religious significance and is believed to have once been the abode of the God Ganesh. The lake is also believed to have curative properties (UNEP, 2005).

Project Rationale

To explain the rationale underlying the establishment of the Mountain Shepherds Initiative and its interest in a guide training institute in Uttarakhand, India, it is beneficial to

consider the history of political and social conflict within the NDBR/Dodi Tal region. In the NDBR/Dodi Tal region, changes in land use patterns have been largely affected by both governmental concerns and the conservation attempts of outside organizations. Indeed, the conservation history of the region is mirrored by a history of conflict concerning the rights and livelihoods of local village members as well as their increasing feelings of marginalization. This history created a highly politicized environment that ultimately led to the establishment of the Mountain Shepherds Initiative. This section will examine the historical background that has led MSI to seek the establishment of the guide training institute. Of particular importance in this examination is the region's history of land rights, conservation, and conflict; the role of TEKP in biocultural conservation; the role of education as a means of maintaining cultural survival; and the role guides and the guide training institute.

Land Rights, Conservation, and Conflict

In the NDBR/Dodi Tal region, the current conflict concerning conservation and land rights can be traced to British settlement of the region. As early as the 1890's, before western conservation efforts in the region had begun, conflict concerning land use occurred between local populations and British colonists in the region. This occurred primarily in the form of appropriation by the British Raj of forest land which had traditionally been managed by local communities (Kuchli, 1997). This appropriation, and subsequent large-scale timber extraction for export markets, resulted in the economic marginalization of local communities as they lost access to forest resources and became increasingly economically dependent on factors outside their direct control.

In 1962, conflict between India and China caused further conflict within the NDBR/Dodi Tal region. Primarily ethnically Tibetan, the communities surrounding NDBR had relied heavily on trade with the Tibetan Plateau as a major source of income. However, due to the Sino-Indian War of 1962, the border between China and India was closed and became a heavily militarized zone. This closure resulted in further economic marginalization as communities were forced to find alternate sources of income (Silori, 2004; Bosak, 2008). The continued conflict in the region was highlighted by the Chipko Movement of the 1970's. This grassroots movement, which led to the term "tree hugger", began as a protest of traditional timber usage being superseded by large timber extraction corporations. However, the Chipko Movement quickly expanded throughout the Indian subcontinent, as well as overseas, and grew to represent local resistance to the overuse of limited natural resources. The rise of the Chipko Movement also represented a shift of power in the region as local communities gained a voice in the political struggle surrounding resource access and control (Mawdsley, 1998). The shift in power which began with the Chipko Movement continued as local communities struggled to maintain land use rights that were perceived as being usurped by both governmental and international conservation and resource extraction programs.

Direct conflict between local interests and conservation interests emerged in the 1970's and 1980's. From 1974-1982 Nanda Devi National Park (now a core zone of NDBR) was opened to adventure tourism and mountaineering opportunities. This created an important source of additional employment in the region through the outfitting and guiding of expeditions. However, the control of tourism and access to the land was still held by government agencies. Indeed, poor regulation by the Indian government and the Indian Mountaineering Foundation permitted

mountaineering within the region to cause massive degradation to habitat within the park and, as a result, the Indian government closed the park to the public and adventure tourism was stopped in 1982 (Maikhuri et al. 2000). While the restrictions on access improved forest cover and decreased species disturbance, it also restricted the traditional hunting, gathering, and farming practices of local communities and thus caused a loss of associated livelihoods (Silori, 2001). The loss of local livelihoods in the region was further compounded by the incorporation of Nanda Devi National Park into a biosphere reserve in 1988; this restricted land use in an enlarged buffer zone around the original national park. The increased restrictions on traditional land use activities caused greater contention with park management and government as additional sources of traditional income generation were lost to local inhabitants (Rao, Nautiyal, Maikhuri, and Saxena, 2000).

In 1998, after years of filing grievances with government officials, conflict between conservation and local rights again came to a crossroads; while the loss of farming, hunting, and gathering rights had resulted in a major loss of livelihood options, local concern over the loss of income from tourism was also seen as a point of contention (Rao et al. 2000). In protest of the situation, local community members forced their way en masse into the core zone of NDBR and presented officials with a list of demands. High on this list was the restoration of traditional land rights and recognition of the local population as stewards of Nanda Devi (Bosak, 2008). To appease demands, the government began an enquiry in 2001 and launched an expedition into the core zone of NDBR to determine the feasibility of future tourism (Uniyal, 2002). However, locals saw the expedition as a fact-finding trip for large international tourism companies and once again saw the possibility of their rights being superseded (Sethi, 2001). The 2001

expedition highlights a major cause of conflict between local populations and the governing bodies, i.e. the top-down management style and lack of consultation with local inhabitants (UNEP, 2005). This lack of transparency and collaboration has resulted in a distrust by local populations of both government sponsored conservation and tourism and has directly affected the viability of these efforts.

In a more recent attempt to advance the economic viability of the region, the Indian Department of Tourism has once again proposed a plan to bring ecotourism to the region (Department of Tourism, Government of India, 2005). However, the lack of consultation with local communities during the planning process again highlights differences between local and governmental conceptualizations of resource management responsibilities and has caused contention between the groups. To protect local rights and promote community-based ecotourism within the region, two individuals from within the Himalayan region of Uttarakhand formed the Mountain Shepherds Initiative as a direct response to conflict between local populations and government-sponsored conservation and tourism efforts (Bosak, 2008). Traditional ecological knowledge and the region's unique cultural heritage are viewed by MSI as an integral aspect of their conservation and tourism endeavors in the region.

Traditional Ecological Knowledge (TEK) and Conservation

Western methods of conservation have historically relied on what has been termed a 'fortress' model of conservation, based on western science, which attempts to greatly limit or prevent human interaction with the environment in areas set aside for conservation. This approach is evident in the NDBR where access and land use is completely prohibited in the core zone and restricted to certain activities within the buffer zone. In many regions, conflict such as

that in the NDBR/Dodi Tal region ensues as local inhabitants are deprived of traditional land use rights. This conflict, and associated decreases in the viability of conservation efforts, and has precipitated the search for alternative conservation approaches which involve local communities in the conservation process. To this end, an integration of TEK with western scientific knowledge is often promoted as a viable conservation alternative (Berkes, 1999; Becker and Ghimire, 2003; Moller, Berkes, Lyver, and Kislalioglu, 2004; Rist, Uma Shaanker, Milner-Gulland, and Ghazoul, 2010).

Traditional ecological knowledge is defined as the cumulated adaptive resource management practices which have been developed by local populations in response to their region's unique natural heritage (Berkes, 1999). In particular, this refers to traditional land use patterns and the associated knowledge dictating types of land use; thus, it is impossible to disassociate TEK from local practices and is referred to as TEKP to highlight the interconnectedness of both the traditional knowledge and practices. The integration of TEKP into western conservation models offers an opportunity for traditional land use practices and livelihoods to be maintained in a sustainable manner (Fraser, Coon, Prince, Dion, and Bernatchez, 2006; Drew and Henne, 2006; Wehi, 2009). It is also increasingly recognized that areas of important biological diversity have co-evolved with human land use practices (Fairhead and Leach, 1995; Willis, Gillson, and Brncic, 2004). Due to this co-evolution, TEKP may be employed to design site-specific conservation strategies based on historic human disturbance regimes (Berkes, Colding, and Folke, 2000). In this way, TEKP may be seen as a resource for future conservation efforts. As TEKP is a culturally stored resource, the maintenance of cultural diversity is viewed by many as an important aspect of current conservation efforts. The

inextricable link between maintaining biological and cultural diversity may be defined as biocultural conservation (Cocks, 2006). MSI views the conservation of biocultural diversity as a key component of its overall mission and views education as an important means of promulgating this goal.

Education and Cultural Survival

The Mountain Shepherds Initiative recognizes the importance of biocultural diversity for both cultural survival as well as the viability of future conservation efforts within the region. However, it is also recognized that a major component in the conservation of biocultural diversity, the transmission of TEKP, has been severely limited by the loss of traditional land use practices and emigration from the region caused by past conservation efforts and the loss of traditional livelihoods. To maintain biocultural diversity within the region, MSI views education as an important means of transmitting TEKP and promoting conservation; without education, a large proportion of TEKP, and thus local biocultural diversity, will be lost (Harris, 1990; Simpson, 2002). This possible loss of biocultural diversity is due to the importance that community education has traditionally played in the dissemination of TEKP to future generations (Ohmagari and Berkes, 1997; Hewlett and Cavalli-Sforza, 1986). Livelihood creation, particularly in rural semi-nomadic agro-pastoralist communities, has also been shown to be positively correlated with the incorporation of TEKP into educational programs (Bangsbo, 2008). However, cultural values, and thus TEKP as a cultural resource, are by no means homogeneous within the region.

The cultural values of the NDBR/Dodi Tal region are strongly integrated into the landscape in which they evolved. The Dodi Tal region is inhabited primarily by Gujars while the

Nanda Devi region is inhabited by three distinct groups of Bhotiya. While there is a high level of ethnic diversity within the region, the Bhotiya have been the traditional inhabitants of the buffer zone of NDBR. Approximately 2,250 tribal residents, living in 19 villages, were reported as inhabiting the area in 1997 (Rao, Maikhuri, Nautiyal, and Saxena, 2002; UNEP, 2005). However, with the expansion of the NDBR buffer zone in 2004, the current number of residents in the reserve is unknown. Inhabitants of the region have traditionally been transhumant agro-pastoralist societies with migration to lower altitudes during winter months. However, past conservation efforts have drastically altered traditional land rights and use patterns. This alteration has led to large shifts in population dynamics as community members emigrate from the region in search of new livelihoods (Silori, 2004). Altered land use patterns have also resulted in many settlements becoming permanent as traditional grazing rights have been lost (Nautiyal, Rao, Maikhuri, Saxena, 2003). As settlements become permanent, TEK concerning practices associated with land use and management, such as sustainable harvest of medicinal plants, is lost (Silori and Badola, 2000). Silori and Badola (2000) also identify many of the remaining migratory pastoralists as older inhabitants while many of the younger inhabitants seek employment elsewhere. This shift in demographics translates to a loss of TEKP being passed on to younger generations. The subsequent loss of TEKP amounts to a corresponding loss in biocultural diversity. The loss of biocultural diversity is recognized by MSI as a significant threat to conservation within the NDBR/Dodi Tal region; cultural survival and environmental conservation are viewed as core components of their mission. The recognition of the loss in traditional methods of communicating ecological knowledge has led MSI to seek alternative methods for TEKP to be transmitted in a way which promotes biocultural conservation. To this end, MSI has proposed the establishment of the guide training institute as a means of promoting

the importance of TEKP to the region's conservation while providing tourism income which will allow individuals to gain employment within their villages

MSI Institute for Guide Training

The Mountain Shepherds Initiative envisions the guide training institute as providing the training needed for aspiring guides to profit from the income generated through the expansion of tourism within the region. In this way, they aim to maintain the biocultural diversity of the region by providing younger inhabitants employment which allows them to remain in the NDBR/Dodi Tal region; this is hoped to further enable the future dissemination of TEKP to subsequent generations by somewhat curtailing the large emigration from the region. While MSI hopes the institute will act as a resource for the maintenance of biocultural diversity within the region, it must also produce guides for the tourism industry to maintain its viability. For this goal to be accomplished, it is important that the institute is founded with consideration given to the role of the guide as well as literature concerning effective guide training and certification.

Sociological Perspective: The Role of the Guide

Guides have been an integral part of travel for millennia. The origin of the tour guide can be traced to individuals who helped travelers navigate through unfamiliar terrain. However, as the tourism industry has evolved, the role of the guide has expanded as well. Increasingly, the tour guide has become a mentor and educator as well as a facilitator. The World Federation of Tourist Guide Associations defines the tourist guide as "A person who guides visitors....and interprets the cultural and natural heritage of an area..." (WFTGA, 2007). This definition reflects the need for the tour guide to impart information beyond simple travel logistics. While this

definition remains vague, a more precise definition is difficult to obtain as the role of the tour guide varies dramatically in different regions and situations.

Despite the difficulties encountered in developing a precise definition of the tour guide, they have become increasingly important within the tourism industry. Cohen (1985) provides a conceptualization of the modern tour guide which has largely formed the basis for subsequent academic studies of guides. Cohen views the primary role of the tour guide as twofold: leader and mediator. These two spheres are then split into inner and outer-directed roles: inner-directed roles include interactions within the group while outer-directed roles are composed of interactions between the group and the host environment. Thus, the leadership sphere is split into instrumental and social roles, while the mediator sphere is split into interaction and communicative roles, representing outer and inner-directed functions respectively. While each quadrant is considered integral to the success of a tour, Cohen identifies the communicative component as the main role of the guide.

The communicative component of Cohen's model includes four elements: selection, information, interpretation, and fabrication. Selection refers to the guides choosing of sites and information which are important to the tourists' understanding of the region. This choice may be dictated by the interests of participants, company policy, or the guides' own knowledge base. The second and third elements of Cohen's model, information and interpretation, include the dissemination of selected topics in a manner which can be readily understood by the clients. The final element - fabrication - represents the dissemination of untrue information; this may be done in an attempt to make the tour more interesting or simply due to a guide's lack of knowledge. By highlighting the communicative component in his model, Cohen advances the role of the guide

beyond mere facilitator. As the primary interface between a destination and its visitors, the guide thus plays an important role in shaping the overall perceptions of visitors to a region (Ap and Wong, 2001). However, Cohen's model has received criticism for not being explicit enough in defining the various aspects of the communication component.

As environmental concerns have gained prominence in society, Cohen's model has been criticized for not explicitly incorporating these issues into the guide's role. Weiler and Davis (1993) suggest that a resource management sphere be added to Cohen's model. This sphere is split into the outer-directed role of motivator and the inner-directed role of environmental interpreter. As environmental interpreter, the guide is expected to impart information directly related to issues of environmental sustainability and concerns of a global scale. By including a global perspective in the interpretation process, the guide is responsible for imparting a holistic view of the importance of a particular region (Reisinger and Steiner, 2006). As motivator, the guide's role is to act in an environmentally responsible manner which encourages visitors to continue these actions outside the tour environment. Peake, Innes, and Dyer (2009) identify this role as the primary means by which a conservation message may be conveyed to tour participants.

While an argument could be made that the resource management role is implicit in Cohen's mediator sphere, case studies over the past decade indicate that tour participants view the resource management role as being of primary importance (Ap and Wong, 2001; Zhang and Chow, 2003; Oschell, 2004; Randall and Rollins, 2009). One possible explanation for this shift may be the proliferation of alternative tourism such as ecotourism and nature-based tourism.

However, Cohen's model is not the only one. Other authors, such as Pond (1993), suggest slightly different models. Pond identifies five main roles of the tourist guide. These are as leader, educator, public relations representative, host, and conduit. Though these roles are outlined differently from Cohen, the same functions are expressed in Cohen's model. However, while Cohen places the greatest emphasis on the communicative role, Pond views all aspects of the guide's role to be much more interconnected. Other studies of the role guides play in the tourism industry have focused on their presentation of material to visitors. This is particularly true of tourism in which "authentic" or cultural experiences are presented. Salazar (2006) identifies the language used by guides as a strategy to help tourists more fully immerse themselves in the local experience. While this role may be seen in Cohen's model, emphasis here may also be placed on the role which governing bodies have in determining what information is imparted to visitors (Dahles, 2002). The methods used to train guides in their role can be seen in studies of the managerial perspective of guiding.

Managerial Perspective: Guide Training and Certification

Guide training is well recognized within the tourism industry as an important component in a destination's tourism viability. In many regions around the world, a certification process has been developed in an attempt to standardize the training provided. However, this standardization has been largely restricted to particular regions and tourism types. As such, standards still vary greatly as visitors move between destinations and participate in different tours within a region. To better understand the role of guide training within the tourism industry, it is necessary to examine the current literature concerning guide training.

While there is a paucity of information concerning the establishment of guide training programs, Black and Ham (2005) provide a model for the development of tour guide certification. This model is split into three phases: inception, program development, and implementation. The first step of the inception phase is to undertake an assessment of the need for guide training in the region. Program development then involves the establishment of an advisory committee composed of various stakeholders to determine the overall objectives and aims of the program as well as establishing a business and marketing plan. This committee will also be responsible for determining the appropriate course content; a pilot course may then be operated to reassess the content chosen prior to final implementation and opening of the training program. This model provides a generalized outline of the steps needed for successful establishment of a guide training program. However, Black and Ham also highlight the need for training programs to base their course content on the specific requirement of the tourism type targeted. Thus, a further examination of key guide responsibilities is necessary.

For any training program to be effective, it is necessary to identify the key responsibilities of the guide. However, the relative importance given to the various guide responsibilities is based largely on the entity providing the training. As guide training has often been seen as the purveyance of local governments and tour providers, a managerial and economic focus can be seen in many training programs and textbooks. Weiler (2002) identifies three main textbooks in use for guide training: these are Pond's (1993) *The professional guide*, Noam's (1999) *The guide for guides: A tour guide manual*, and Collins' (2000) *Becoming a tour guide: The principles of guiding and site interpretation*. While these three texts highlight the importance of all four components of Cohen's model, they fail to provide the information

necessary to make either Cohen's communicative component or Weiler and Davis's resource management sphere effective. Rather, the focus of the textbooks is on how to best accomplish the leadership and mediator spheres within Cohen's model with only a theoretical discussion of the communicative component. This restriction of scope may in part be due to the fact that the information necessary in the communicative component varies based on the type of tour being conducted as well as the specific site of the tour.

While creating a standard of information may be difficult due to variations in tour type and location, its importance must still be considered. Cohen (1985) advances the need to provide accurate information in the guide training process in the fabrication element of the communicative component of his model. Through the fabrication of information, the guide's ability to lead may be substantially lessened; if information provided by the guide is found to be unreliable, clients may begin to doubt other information they are given. As well as resulting in a less pleasant overall tour experience for the visitor, this may also have serious logistical and safety consequences. Thus the lack of correct information not only affects the guide's communicative role, but may negate the other roles of the guide as described in Cohen's model. Comprehensive guide training which places an emphasis on providing accurate information may be one way in which these pitfalls may be overcome.

The MSI institute aims to train guides to the increasingly high standards that world travelers expect. However, it aims to do this in a way which also communicates the NDBR/Dodi Tal region's unique biocultural heritage. By providing youth with employment opportunities within their villages, it is hoped that the transmission of TEKP will benefit and will in-turn provide a higher quality tour for visitors to the region by increasing guides' interpretive skills.

Through interaction with visitors, guides may also have the ability to positively influence the environmental attitudes and behaviors of clients (Orams, 1997; Marion and Reid, 2007). While not a goal of this stage in the MSI project, it is hoped by MSI that the expansion of tourism will provide the impetus for conservation of the region's unique biocultural heritage both as an asset to attract tourists to the region as well as of importance for its own sake. This is of particular importance to the region as past conservation strategies implemented by the government have largely met with resistance.

Project Scope and Limitations

This project represents the initial stage of a larger MSI project. While the main goal of this stage is an exploration of the problems and opportunities in establishing a guide training institute, the larger goal of the MSI project is to promote conservation by providing a resource which will last for years to come. The institute itself was originally conceptualized by the local Mountain Shepherds Initiative and its members will take on the responsibility for the operation and management of the institute at the conclusion of this stage. To assist in the future stability of the institute, this project assessed the potential for the expansion of birdwatching tourism within the region, developed curriculum for guide training courses, and provided an assessment of course design and structure. It is not within the scope of this project to assess the level of training which will be provided by the institute. Nor is it within the scope of this project to assess the effects of the training institute on communities, community members, or visitors to the region. It is also important to note that training at the institute is not meant to fulfill government required guide training certification. Current government recognized guide training courses offered in other Indian states focuses on Indian culture and history with little emphasis placed on the region's natural heritage (Chowdhary and Prakash, 2008). The MSI guide training institute was

developed due to the lack of government certification within Uttarakhand as well as to fill the current gap in training focused on nature-based tourism.

Project Objectives

The main objective of this project was an exploration of the problems and possibilities associated with the establishment of a guide training institute. As a case study based in the NDBR/Dodi Tal region, the impetus for this project originated with the Mountain Shepherds Initiative. As a locally-owned organization concerned with increasing the region's social equity, the objectives of MSI projects are ultimately concerned with improving the wellbeing of the community. To this end, the establishment of the institute was first and foremost seen as a means of providing local residents with employment opportunities through the expansion of tourism within the region; in particular, MSI was interested in the expansion of high quality/low quantity birdwatching tourism. Thus the two foci of the project can be seen as the establishment of the institute and determining the employment creation potential of expanded birdwatching tourism to the region. To explore the problems and possibilities connected with these two foci, the project was split into three phases: site surveys, curriculum creation, and initial implementation.

Phase 1: Site Surveys

This phase explored the problems and possibilities associated with determining a region's birdwatching tourism potential, the site selection process, and subsequent purchases of land.

A total of 13 sites were surveyed during this phase of the project. These sites were selected by MSI based on areas in which they had invested in land as well as their experience operating trekking tours within the NDBR/Dodi Tal region. Surveys focused primarily on determining a site's potential for expanding birdwatching tourism within the region as employment creation was deemed the specific goal of training at the institute. Kent (2005)

identifies aesthetic and technical criteria as the current means by which tourism vendors in the NDBR/Dodi Tal region assess a site's tourism value. Aesthetic criteria include viewpoints, scenery, and opportunities to see flora and fauna. Technical considerations include ease of access, availability of accommodation, and access to water and camping sites on longer trekking expeditions. These two criteria roughly correspond with the three destination-attributes identified by Scott and Thigpen (2003) as being of primary importance to birdwatching tourism. These are species availability, infrastructure, and contrast to urban environs. As this project focused specifically on birdwatching tourism, these three destination-attributes were used when surveying sites. Full maps and descriptions of sites surveyed can be found in Appendix V.

- *Species Availability*

Species availability refers to the bird species present at a particular site or within a particular region. This was determined through an opportunistic sightings method as outlined by Carlton (2001) and Gregory, Gibbons, and Donald (2004). Due to the limited time available for surveys, community members, where available, were also consulted as to their local knowledge of seasonal fluctuations connected to species availability.

- *Infrastructure*

Infrastructure surveys were undertaken to examine the region's accommodations, roadways, and pathways. These surveys were aimed at identifying both the availability as well as suitability of infrastructure within the NDBR/Dodi Tal region. Availability of infrastructure was determined in consultation with both MSI as well as village members. While not easily quantified, infrastructure suitability was based on comparisons between what was locally available and that used by birdwatching tour companies currently catering to international clientele.

- *Contrast to Urban Environs*

Scott and Thigpen (2003) identify the availability of wildlife, scenic beauty, and a lack of pollution as the three destination-attributes associated with determining a region's contrast to urban environs. As all sites surveyed were located away from large urban areas and offered expansive views of the Himalayan range, emphasis in the survey process was placed on identifying non-avian wildlife at each site.

Phase 2: Curriculum Creation

This phase explored problems and possibilities concerning currently available guide training material, ways in which TEKP and western modern science may be integrated, and determining the scope of information to be included in course curriculum.

For the guide training institute to be viable, it must produce guides with the ability to lead quality tours for the selected tourism type; for this project, MSI had chosen high quality/low quantity international birdwatching tourism. Thus, it is necessary that course curriculum reflect the interests of the clients sought. To this end, a training manual was written to incorporate aspects of interpretation, specialist knowledge, and customer relations that are highlighted by Black et al. (2001) as being important to guide training. In determining specialist knowledge to be included in the manual, reference was given to the guide certification requirements of the Field Guides Association of Southern Africa (2010) as well as the specialist birdwatching knowledge outlined by MacKinnon (2004). In accordance with the underlying theoretical framework of this project, emphasis was also placed on seeking to explore the integration of TEKP with western scientific knowledge when creating a course curriculum.

Phase 3: Initial Implementation

This phase explored the problems and possibilities encountered in conducting a pilot training course in regards to course design, structure, and curriculum.

A pilot training course was undertaken during the initial implementation phase. While the benefits of the guide training institute are hoped to extend beyond the scope of this project through continued training courses, the goal of this pilot course was twofold: 1) To provide an opportunity to assess the curriculum created for the institute; and 2) to assess the design and structure of the course as determined in conjunction with MSI. The pilot course ran for eight days from October 26-November 2, 2010 with eight MSI guides participating. The course was based in the Dodi Tal region with a total of three nights spent at Kuflon, three nights at Beibra,

and one night at Dodi Tal. The first three days, based at Kuflon, were spent covering the Introduction to Guiding, Guiding Basics, and Communication & Interpretation chapters of the guide training manual. A basic introduction to the use of binoculars, spotting scopes, and bird field guides, as well as key identification features of bird families found in the region, was also covered on the second day of training. The remainder of the training program was spent trekking from Kuflon to Dodi Tal and back down to Kuflon. While chapters from the training manual were assigned for reading during the trek, learning opportunities were based largely on the surroundings being experienced; focus was placed on the chapters covering geology, astronomy, plants, and mammals. This was done so as to cover the sections of greatest importance for MSI guides working within the NDBR/Dodi Tal region and relate the general knowledge of the training manual to the specific sites visited.

Problems and Possibilities

The northern half of Uttarakhand, India, bordering China and Nepal, is dominated by the Himalayan Mountains. It is within this setting that the Mountain Shepherds Initiative proposed the establishment of the guide training institute. The institute aims to create employment opportunities by providing local individuals with the skills necessary to become tour guides. In particular, MSI wishes to focus on training that will enable participants to gain employment related to the expansion of high quality/low quantity birdwatching tourism within the NDBR/Dodi Tal region. Thus, the two main goals of this project were an assessment of the birdwatching tourism potential of the region and the establishment of the guide training institute. To achieve these goals, site surveys were also necessary. These surveys were conducted on sites selected by MSI for use by the training institute as well as in the expansion of birdwatching

tourism. This section will examine the problems and possibilities associated with site surveys, the regions employment creation potential through the expansion of birdwatching tourism, and the establishment of the guide training institute. Within an assessment of the region's birdwatching tourism potential, problems and possibilities were encountered relating to species availability, infrastructure, and the region's contrast with urban environs. Problems and possibilities associated with the establishment of the guide training institute were associated with the site survey process, curriculum creation, and a pilot training course.

Birdwatching Tourism Potential

Birdwatching is often cited as the sport (as it's defined by birders) with the highest number of participants worldwide as well as having the largest segment of individuals participating in ecotourism (Şekercioğlu, 2002). While the accuracy of this statement is questionable, studies in the United States have indicated that 69 million American adults (approximately one third of the total population) consider themselves birdwatchers; this represents a 225% increase since 1982 (Scott and Thigpen, 2003). With such a large number of adherents, it is no wonder that many regions around the world view birdwatching tourism as a possible sub-sector in which to expand their tourism industry. However, a region's potential for the expansion of birdwatching tourism is dependent on many factors, not all of which may be controlled by human interests. These factors are largely based on what birdwatching tourists expect from the region. Thus, a region's birdwatching tourism potential may be seen as a comparison of birders' wants with what is available in the region.

Birdwatchers, like any other group, are not represented by a homogeneous set of beliefs, requirements, or interests; even in the one aspect which ties them together - the interest in

looking at birds - there is a great deal of variety. To examine the employment creation value of birdwatching tourism within a region, it is thus necessary to make some generalizations concerning who birdwatchers are and what they require. In their survey of visitors to The Seventh Annual Hummer/Bird Celebration in Rockport/Fulton, Texas, Scott and Thigpen (2003) found that over two-thirds of the participants were over 46 years of age and fell into the middle to upper-middle income bracket. While this survey was of birdwatchers traveling within the United States rather than internationally, it was able to separate those surveyed into four main categories: casual, interested, active, and skilled birders. Of these groups, the active/skilled birders spent nearly twice as much capital on birding and expected to travel for nearly three times as many days within the following year as the casual/interested birders. For birdwatching tourism to expand within a region it is necessary to concentrate on destination-attributes sought by the active/skilled birders who have the time to travel and are more willing to spend the money on birdwatching.

In exploring the problems and possibilities associated with the expansion of birdwatching tourism in the NDBR/Dodi Tal region, I use three destination-attributes identified by Scott and Thigpen (2003) as being of primary concern to birdwatching tourists. These destination-attributes are species availability, infrastructure, and contrast to urban environs. In the next section I identify the problems associated with these destination-attributes. This will be followed by a section outlining the possibilities which they may represent. The three destination-attributes used can be summarized as follows:

- *Species Availability*

Species availability refers to the bird species present at a particular site or within a particular region. While many birdwatchers are interested in seeing the greatest

number of species possible, it is a species' endemism or rarity which will ultimately attract birders to a region; as birders are often concerned with the total size of their life-list rather than the total number of species seen on a given trip, finding species which are restricted in range is often more important for a region's birdwatching tourism potential than the availability of common and widespread species. In the NDBR/Dodi Tal region, a total of 257 bird species were recorded during the site survey process (a full list of species recorded per site can be found in Appendix VI).

Problems: Incorporation of NDBR/Dodi Tal region into current tours

Possibilities: Operating tours solely in study region; expanded timing of tours

- *Infrastructure*

For any type of tourism endeavor to be successful in a region, the correct infrastructure must be in place (Goeldner and Ritchie, 2006). Two of the main components of tourism infrastructure are accommodation and roadways. In the case of birdwatching tourism, added to these requirements are pathways through suitable habitat which may be used by birdwatchers. These infrastructure requirements must also be considered in relation to the type of clientele which is being sought. In the case of birdwatching tourism, particularly on the international level, clientele tends to be individuals past retirement age and willing to spend a fair amount of money to maximize their experience in what is likely to be their only visit to a country. Along with the willingness to spend money comes an expectation of a certain level of comfort during their trip and this must be considered when examining the levels of accommodation, roadways, and pathways within a region.

Problems: Lack of suitable accommodation, roadways, and pathways

Possibilities: Creation of higher standard accommodation aimed at birders

- *Contrast to Urban Environs*

The third destination-attribute identified by Scott and Thigpen as important to birdwatching tourists in determining a destinations potential is its contrast to urban environs. This contrast may occur in many forms but the primary attributes identified as important to birdwatchers are the availability of wildlife, scenic beauty, and a lack of pollution. As all sites selected for this project are likely to be dramatically different from the environs in which most international birdwatching clientele originate, no direct problems were identified with this destination-attribute. However, this is not to say that all sites present the same possibilities; a particular site's contrast to urban environs, particularly in respect to the availability of wildlife, is likely to be affected by access issues either relating to government prescriptions on land use or the availability of proper infrastructure. A list of mammals seen during site surveys can be found in Appendix VII.

Possibilities: Availability of wildlife, scenic beauty, lack of pollution, and cultural experiences

Problems

Species Availability

The relationship between birdwatching tourism potential and species availability lies in the amount of time potential tourists would be willing to allot to see the species available in any given region. Currently, the majority of high-end international birdwatching tourism companies offering tours to Uttarakhand spend the majority of their itineraries in the lowlands and foothills of the Himalaya. Through a comparison of the 257 species seen in the study region with seven trip-lists available on-line from two of the most prominent international birdwatching tour companies (Tropical Birding and Field Guides), it is possible to identify those species found in the study region not normally encountered on currently offered tours. Of the species recorded in the study region, 51 were seen on zero of the seven tours, 9 were seen on only one of the tours, eight were seen on two of the tours, six were seen on three of the tours, 15 were seen on four of the tours, 14 were seen on five of the tours, 33 were seen on six of the tours, and the rest were seen on all seven tours. Of the 74 species seen on less than half of the tours to the lowlands and Himalayan foothills, the majority of them were fairly common and readily available in the study region.

To determine the length of time that currently operating birdwatching tours would likely be willing to allot for the region, it is necessary to determine the average number of new trip-species seen per day. This calculation may be done by dividing the average total number of species seen on the birding company's seven trip-lists by the number of days spent on tour. Current tours to the region average 15 days and 361 bird species, equaling approximately 24

species per day. To maintain this average, birdwatching tours would be able to spend approximately three days, including travel time, in the NDBR/Dodi Tal region to see the 74 species recorded on less than half the trips surveyed. As a majority of the time spent visiting the region would like be spent in travel, this presents a problem for the expansion of birdwatching tourism within the region as tour companies are unlikely to add the region as an extension to their currently offered tours.

Infrastructure

Scott and Thigpen (2003) found the availability of comfortable accommodation to be one of the most important destination-attributes to birdwatching tourists. However, accommodation options near birding sites in the NDBR/Dodi Tal region are extremely limited and primarily of a low standard. An example of this can be seen in Tolma, where accommodation is the main source of tourism related income for those not employed as a guide. Room rates in the village are set at 250 INR (USD 5.50) per night and include the cost of meals. While this price is comparable with that of hostels in more visited regions of the country, village members have little incentive to spend money on maintenance and improvements as so few tourists visit per year. In turn, room standards remain low and tourists are unlikely to pay more for the options currently available. While this may be suitable for trekkers, backpackers, and others interested in a cultural experience, it is unlikely to be acceptable by the majority of high-end international birding clientele. Thus, limited accommodation throughout the region represents a large problem for the expansion birdwatching tourism.

Roadways within the region also present an infrastructure problem connected to the tourism potential of the region. As seen in the average bird-per-day assessment, birdwatchers tend to be on a fairly limited schedule. While roads to Joshimath and Uttarkashi are completely

paved, they are still quite windy and often barely wide enough for traffic to proceed in both directions. Thus, a full day of driving is likely needed to reach either location from the nearest airport in Dehra Dun. Due to this travel time, birdwatchers would likely be unhappy with a stay of less than five days within the region. In order to maintain an average of 24 new trip-species per day, companies would only be willing to allot three nights to the region. Thus, the current roadways present a problem for the expansion of birdwatching tourism to the region as an equal amount of time would be needed for travel as that allocated to birding. This problem is compounded by the fact that the creation and maintenance of roadways is conducted by the government and beyond the scope of MSI's role in the region.

Adequate pathways to facilitate birding are the third component necessary to evaluate a region's potential for birdwatching tourism based on its infrastructure. Given the age demographics for birdwatchers, it is necessary that pathways be of a sufficient caliber to accommodate a wide range of health needs. It is also necessary for pathways to be wide enough to ensure that all birders are afforded the opportunity to see a species regardless of their placement in the queue. While the NDBR/Dodi Tal region is known for its trekking opportunities and a huge array of pathways exist, these are not geared toward birdwatchers. These pathways often involve steep, rugged terrain and necessitate camping between sites with permanent accommodation. Some sites, such as Tolma and Dodi Tal, do have suitable pathways from the site but access to the site itself is limited. In Tolma, access involves a steep 1.5 hour hike from the roadside town of Suraya Thota; to reach Dodi Tal a trek of approximately 15 km with an elevation gain of 1,450 m is necessary. Thus, they are unsuitable for the majority of international

birding clientele and are likely to be problematic in the expansion of birdwatching tourism within the region.

Possibilities

Species Availability

While an extension of three days to currently available tours is likely problematic, it may also represent possibilities for operating tours solely within the NDBR/Dodi Tal region. Based on a total of 257 species recorded during site surveys, tours offered solely to the study region could last 10 days and maintain the 24 species per day average of the tour companies. This length of time in the region is also more suitable given the travel time necessary to reach the sites surveyed. While a trip total of 257 species is below the current average of tour companies, the trip length is also less and the total number of species is likely to increase as further surveys are conducted. Thus, operating tours solely within the NDBR/Dodi Tal region likely presents a greater possibility for the expansion of birdwatching tourism than marketing the destination as an add-on to currently operated tours.

Species availability may also indicate a possibility for the expansion of birdwatching tourism into seasons outside of those in which tour companies currently operate. Indeed, both Tropical Birding and Field Guides operate their tours from December-January and these are the months for which trip-lists are available. As no surveys were conducted during these months, there may be possibilities to attract birders wishing to visit the region at different times of the year. Due to the large number of species with altitudinal and palaeartic migrations in the region, it is also likely that current surveys do not represent species availability during December and January. Thus, future possibilities may arise as further site surveys are conducted.

Species availability also presents possibilities based on the number of lifers, or species new for an individual's life list, potentially seen on a tour to the NDBR/Dodi Tal region. Though this figure is difficult to determine as it will depend entirely on where an individual has previously travelled and the extent to which that travel has focused on birdwatching, it is possible to make some assumptions based on the number of species in the region restricted to Eurasia and the Indian sub-continent. While information concerning total species availability at specific sites is rudimentary, 766 species have been recorded within the state of Uttarakhand (Lepage, 2010); the vast majority of these are restricted to Asia or the Indian sub-continent. Thus, for an individual birdwatcher that has not previously travelled to the region, a large number of lifers may be possible. For an individual tourist who has previously been to Asia, the number of lifers available will depend largely on what regions have been traveled. Based on personal experience, it is possible to determine the approximate number of lifers available to an individual who has birded in South-East Asia but not Europe or the Indian sub-continent. Of the 766 species available in Uttarakhand, approximately half would be potential lifers. Nearly half of the 257 species identified in the study region, as well as species recorded by the tour companies, would also be lifers.

Infrastructure

While roadway maintenance and creation are beyond the scope of MSI's capabilities, possibilities are available for the improvement of accommodation and pathways within the region. Indeed, MSI has already purchased land at a number of sites with the intention of providing accommodation for tourists. For this possibility to increase the birdwatching tourism potential of the region, newly created accommodation must be up to the standards expected by international birders. With the expectations of international birders in mind, possibilities exist for

cooperation between MSI and the owners of currently available accommodation to increase overall standards within the region. If the low standards of currently available accommodation options were raised, prices, and thus profit margins, could also be raised to create possibilities for income generation outside of employment as a guide. While the possibilities of improved accommodation standards would increase the region's birdwatching tourism potential, suitable pathways near this accommodation would also be needed.

While suitable pathways are available at a number of sites surveyed, access to the sites themselves is often limited. Of the sites surveyed, only Kuflon, Assan Barrage, and the road between Joshimath and Auli currently have access and pathways suitable for the majority of international birding clientele (see Appendix V). However, possibilities may exist for the expansion of trails around these sites and the future selection of sites with more emphasis placed on accessibility.

Contrast to Urban Environs

Of the three destination-attributes identified by Scott and Thigpen (2003), contrast to urban environs is the least problematic; indeed, nearly every place in India, both rural and urban, is likely to represent a contrast to the typical urban environs of tourists from North America or Europe. Within a contrast to urban environs Scott and Thigpen identified three components of major importance: availability of wildlife, scenic beauty, and a lack of pollution. All three of these components are available in the NDBR/Dodi Tal region. Located in the mountains away from large cities, there is very little noticeable pollution in the air. The sites surveyed also offer fantastic panoramas of the Himalayan range at nearly every turn and many peaks in the area tower over 7000 m; with the average elevation of accommodation being at approximately 2000 m, the views often encompass over 5000 m of relief. Views of India's second tallest mountain,

Nanda Devi, are also possible at many sites. In addition to the lack of pollution and phenomenal scenic beauty, there are a fair amount of wildlife viewing opportunities. A total of 19 mammal species were recorded at or near the surveyed sites, including such species as Asiatic Black Bear (*Ursus thibetanus*) and Himalayan Musk Deer (*Moschus chrysogaster*). Evidence of Common Leopard (*Panthera pardus*) was also observed at a number of sites in the region. The availability of these species and sights is likely to raise birdwatching tourism potential as well as that of other nature-based tourism types.

While the survey by Scott and Thigpen concentrated on destination-attributes of importance to birdwatchers within the United States, international birdwatching tourists may also be likely to include the exploration of a different culture as an important contrast to the urban environs in which they live. In this aspect as well the study region shows potential for birdwatching tourism. Visitors would have the chance to experience a culture drastically different from that typical of the United States and other Western countries. The villages in the region rely heavily on small scale agriculture as a primary source of income and almost all work is done without the use of machinery (Nautiyal et al. 2003). Many of the sites surveyed are based within villages, and visitors would likely have the opportunity to interact with villagers on a one-on-one basis. This cultural interaction would act as another contrast with urban environs, thereby presenting possibilities for the expansion of birdwatching tourism within the region.

Conclusion

An examination of destination-attributes identified as important to birdwatching tourists allows for the determination of the potential for birdwatching tourism and employment creation within a region. Problems and possibilities were identified in the destination-attributes of species

availability, infrastructure, and contrast with urban environs. Based on the problems identified, current birdwatching tourism potential in the region is low which is largely owing to current infrastructure problems. Indeed, the potential based on species availability is likely lowered as the current infrastructure precludes visitation to many sites and thus access to many of the region's most sought after species.

Possibilities do exist for the future expansion of birdwatching tourism to the region; if infrastructure concerns, such as standards of accommodation and accessibility of pathways, are addressed, it may be possible to offer birding tours solely within the NDBR/Dodi Tal region. Indeed, it must be recognized that the two destination-attributes currently offering the greatest potential – species availability and contrast to urban environs – are largely beyond human control while the negative contribution of infrastructure is more easily altered by humans. Thus, the largest problem associated with the region's current birdwatching tourism potential, infrastructure, may also represent the greatest possibilities for the future expansion of birding in the region. However, this will only come to fruition if MSI, in conjunction with local communities, can raise the current standards of accommodation and pathways in the region as this is likely to be the determining factor in developing the regions birdwatching tourism potential. If these standards are raised, the overall viability of the guide training institute to create employment will also increase. For this is to take place, it is also necessary to examine the problems and possibilities related to the establishment of the institute.

Guide Training Institute

Guides are viewed as an important component of many tourism types. However, to be effective, guides must have the knowledge and skills necessary to improve the quality of a tour;

the role of a guide training institute is to provide guides with this set of knowledge and skills. Thus, the effectiveness of training is likely to have a direct correlation with the guide's ability to add value to any particular tourism type. However, relatively little information is available concerning the establishment of a guide training institute. Indeed, no standards or consensus currently exists as to what types of training guides may need (Black and Ham, 2005). As such, the creation of course curriculum is an important component of establishing a guide training institute. This section will examine the problems and possibilities encountered during the initial stage of establishing a guide training institute in Uttarakhand, India as they relate to the creation of a course curriculum and the implementation of a pilot guide training course. Also included in this section will be an examination of the problems and possibilities associated with the site survey process.

- *Site Surveys*

Sites surveyed for this project were selected by MSI with the intent of establishing the guide training institute and expanding tourism within the region. Sites were subsequently surveyed to determine their potential for birdwatching tourism as well as their educational value. Due to this focus, it was determined that sites with easy access to a number of different natural features would best serve the educational objectives. The birdwatching emphasis also meant that sites with high species diversity would best suit the specific training being undertaken as well as the expansion of birdwatching tourism. Kuflon was deemed the best site for the establishment of the training institute due to the accessibility of habitat types; the site is located within an agricultural zone above riparian woodland with easy access to higher elevations.

Problems: Lack of assessment prior to selection; land purchase difficulties.

Possibilities: Revenue sharing from land purchases; future selection of sites based on educational value and the interests of birders and communities.

- *Curriculum Creation*

In creating a model for the establishment of a guide certification program, Black and Ham (2005) identify the need for course content to match the specialized orientation of the training program. In Uttarakhand, this orientation was toward nature-based tourism with an emphasis on birdwatching. However, despite the growing popularity of nature-based tourism, commercially available training manuals are lacking. Indeed, the majority of guide training manuals available are primarily concerned with enhancing communication and interpretation skills. While these skills are often considered the most important role of the guide, it was felt that only teaching these skills would not meet the goals of the training institute; without further knowledge, there is no information to communicate and interpretation is nearly impossible. Due to the lack of available course material, a training manual was written with a focus on the information most beneficial to nature-based tourism guides.

Problems: Role of TEKP; scope of scientific knowledge for inclusion.

Possibilities: Benefits of generalized knowledge; use of outside resources.

- *Pilot Course*

A pilot training course was undertaken from October 26 – November 2, 2010. While no certification was offered to course participants, this pilot course attempted to identify the implementation problems and possibilities associated with the initial establishment of the institute. It was also used as an opportunity to gain feedback relating to the developed course curriculum. For these reasons, the operation of a pilot program is identified by Black and Ham (2005) as an important component of program development prior to final implementation.

Problems: Determination of course duration, timing, and design; defining the role of a guide.

Possibilities: Creation of training modules; combining generalized and regional knowledge.

Problems

Site Surveys

The greatest problem encountered during the site survey process was the selection of sites, and purchases of land, prior to any surveys or assessment being undertaken. While some consideration was given in the selection process to domestic tourism, this does not conform to the proposed role of the institute as providing training which caters to the interests of high quality/low quantity birdwatching tourists. Indeed, the interests of this sector of the tourism

industry were largely unknown in the region prior to commencing this project. This may be most evident in the selection of Dhanolti for subsequent survey (see Appendix V). The particular site purchased is located in a small village near Dhanolti and its proposed use is to build accommodation that will function as a stopping point for tourists travelling between Dehradun and Dodi Tal. However, access to the site is extremely difficult; while travel between Dehradun and Dodi Tal averages six hours, travel between Dhanolti and the village would add approximately four hours to this trip; this corresponds with the infrastructure problems identified in the examination of the region's birdwatching tourism potential. While the survey process may allow for sites such as Dhanolti to be subsequently deselected, large monetary investments in land purchase make this unlikely. This highlights the need for future site selection to take place only after adequate surveys have been undertaken.

While land has been purchased at the majority of sites selected, the purchasing process is problematic due to difficulties in ownership identification. In many cases, the paper title to land is owned by someone other than the villagers currently working the site. While some villagers had legally obtained usufructuary rights, in other cases past purchases had simply not included proper government paperwork. While MSI required the paper title to the site, the organization also wished to recognize customary rights and maintain ties with villagers who felt they had rights to the land. Thus, the government assigned cost for the land has often been paid to more than one individual. This difficulty is compounded by the fact that negotiations for extremely small plots of land may involve discussion with 10-20 separate land users/owners. Thus, land purchases represent a large investment of both time and money causing difficulties for the sites to be deselected after proper assessment.

Another problem concerning land purchase in the region relates to the effect it will have on local communities and the ability to represent their interests. Many of the purchased plots have remained fallow for years as the owners deemed them too small to grow adequate crops for the effort involved. Thus, the purchasing of these plots allowed the owners some form of monetary gain from the land. However, their immediate gain may also mean a future loss as it further limits the resources available to them. While the effects of land purchases as they relate to MSI remain unquantified, the disassociation of inhabitants from their land due to past conservation efforts in the region has been shown as a major cause of emigration (Silori, 2004). As MSI aims to create livelihoods which will allow local inhabitants to gain employment in their villages, it may be that the current land purchase process is antithetic to their underlying mission. Indeed, many village members in the region have expressed only marginal interest in working to expand tourism due to the disillusionment caused by past promises of tourism benefits that have not materialized. Thus, the selection of sites and purchase of land may represent fundamental problems concerning local interests. While this issue must be addressed if the institute is to be viewed as a resource by local communities, the institute must also cater to the participants being trained through the development of a course curriculum.

Curriculum Creation

While I felt that neither currently available natural history textbooks or guide training manuals provided sufficient information for a training institute focused on nature-based tourism, determining what information should be included presented a number of problems. Based on the notion of biocultural conservation and the conceptual framework underpinning this project, TEKP was seen by myself and MSI as an integral aspect of the guide training program; through a combination of TEKP and western scientific knowledge it was hoped to improve biocultural

conservation through employment opportunities. In this sense, it was hoped that TEKP could regain relevance and usefulness in a region where the local inhabitants had been largely disassociated from traditional land uses and practices. However, accessing TEKP was highly problematic.

Problems with accessing TEKP were largely due to the fact that restrictions on traditional practices in the study region began two or three generations ago. Many people currently living in villages within the region were schooled and spent their youth in local towns; throughout villages in the Niti Valley children are sent to live in Joshimath, cared for by older siblings, from the age of five. This is not a recent phenomenon and many of the guides currently associated with MSI, as well as their parents, either spent a majority of their youth in towns or were displaced from their villages entirely. Because of this, many village members view TEKP as information only known to the very elderly. Indeed, this issue is highlighted by Silori and Badola (2000) in their examination of medicinal plant cultivation in the region. Also highlighted is the fact that younger inhabitants of the region often seek employment elsewhere and thus see no need to learn the practices of older generations. Indeed, in discussing these matters with MSI guides it was apparent that though many wished to live in the villages in which they were born, they had little interest in participating in the agricultural and pastoral practices of their grandparents. Thus, there is not only a problem with accessing TEKP, but in determining its relevance to inhabitants in the area. However, it should also be noted that as a cumulative knowledge based on the experiences of a people in a given location, the interest of MSI guides in remaining in their villages may in itself add relevance to some aspects of TEKP.

The nature of TEK_P also presents problems concerning its codification. When discussing TEK_P with both course participants and other village members, they viewed TEK_P as an intuitive knowledge; where to site a watering station or when a particular festival should be held is felt rather than known. Indeed, the intuitive nature of TEK_P is a distinguishing characteristic identified by Berkes (1999). This characteristic is akin to a fisherman or birdwatcher identifying a good site not based on the exact contours of the river or exact measurements of habitat but on some underlying recognition not easily quantified. Often, this recognition comes from years of practice and is based on past experience rather than quantified data. Due to these factors, TEK_P is not only difficult to codify but likely impossible to teach in the limited amount of time available in a guide training course.

Another problem arising due to the nature of TEK_P are difficulties involved in the transferability of knowledge between regions. Indeed, as a population's response to its region's unique natural heritage, TEK_P is likely to be site-specific; similarly, a birder whose only experience is in deserts is unlikely to have the same intuitive sense or knowledge of where to find birds in the rainforest. This raises problems with the inclusion of TEK_P in guide training as participants are likely to have different backgrounds and find employment in a variety of locations. This problem is not easily resolved as even within the limited geographic NDBR/Dodi Tal region, a number of different cultural groups exist with a different range of TEK_P developed in accordance with the particular habitat in which they live.

Aside from problems connected with the inclusion of TEK_P in guide training, problems also arise in determining the scope of scientific knowledge to be included in a guide training manual. For instance, is information included on the way in which a particular mountain was

formed, the formation of the Himalayan range, or mountain formation on a world-wide scale? The problem in answering this question relates to defining the basic nature of a guide. While a limited site-specific scope may seem acceptable for a guide only operating at one particular site, this is likely to hamper their ability to interpret the site within larger scientific processes. Indeed, this problem was encountered on numerous occasions during the survey of Indian sites currently receiving large numbers of tourists. This problem may be amplified if the particular clientele for which the guide is operating either come from an international destination or have experience with international travel. In this case, the client will likely wish to understand specific sites in their broader context and relate them either to their home country or other areas in which they have traveled.

In the case of birdwatching tourism, the need for a broader context is amplified as clients are likely to be primarily interested in those species not available in their home country. An example of the importance of a broad scope of knowledge within birdwatching tourism can be seen in tours operating on the northwest slope of the Andes in Ecuador. Within this region, the town of Los Bancos is the only reliable site for House Sparrow (*Passer domesticus*). However, birders from North America, where this species is common, are much more likely to be interested in guides showing them locally common, though range restricted, species such as Silver-throated Tanager (*Tangara icterocephala*). While this example highlights the need for guides to have a more global perspective, it may also necessitate the broadening of the scope of information included in course curriculum to cover nearly everything.

Indeed, available academic literature suggests that nature-based tourism guides require a broad-base of knowledge (Pond, 1993). Due to this perspective, the guide training manual

written for this project is very general in scope: no region-specific information is included. However, this may be problematic as guides need to know about their local region in order to place it within a larger context. Indeed, if the guides in Ecuador did not know about the existence of the Silver-throated Tanager, there would be no reason to hire them. Thus, the generalized scope of the training manual may create problems for future training of guides at the institute.

Pilot Course

As suggested by Black and Ham (2005), the pilot course offered the opportunity to assess problems relating to the information included in the training process. While participants expressed general satisfaction with the range of information provided, this was only after the recognition of a fundamental problem concerning the perceived role of the guide. Through the aid of an interpreter, it was discovered that the Hindi word for guide relates solely to an individual who knows the route. However, over the past 30 years academic literature has largely moved beyond defining a guide simply as an individual who helps travelers navigate through unfamiliar terrain (Cohen, 1985; Pond, 1993; Ap and Wong, 2001; Peake et al. 2009). Thus, course participants had a radically different conceptualization of what is meant by the role of a guide than that identified in academic literature or by international clientele. This observation is critical as the importance of communication and interpretation identified in the academic conceptualization of a guide more properly reflects the expectations of international tourists. Indeed, without this understanding of the role of a guide, the training institute is likely superfluous.

Along with an opportunity to evaluate course curriculum, the pilot course exposed the problem of determining the proper duration, timing, and design for the course. Indeed, this issue is well covered in literature pertaining to guide training institutes and current training courses

vary greatly (Black et al. 2001; MacKinnon, 2004; Chowdhary and Prakash, 2008). Although this problem was expected and undertaking a pilot training course was planned well in advance, it was nonetheless difficult to find a suitable time for it to be held. This was largely due to the preponderance of local village festivals and the wish to respect local beliefs and practices. Indeed, the proposed duration of the pilot course was 12 days but subsequently shortened to allow participants to return to their villages for Diwali. Even with the shortened duration, a number of participants were only able to attend a portion of the course. This is problematic as nature-based tourism guides are likely to need a broad-base of knowledge and skills (Pond, 1993). While short-duration courses seem necessary, it is unlikely that the necessary broad-base of knowledge and skills can be taught in the limited time available. Thus, problems with duration and timing also relate to the overall design of the course.

Possibilities

Site Surveys

While problems exist with the selection of sites and purchase of land prior to proper site assessment, possibilities may also exist for future site selection. Indeed, the NDBR/Dodi Tal region is vast and ongoing surveys by MSI guides are likely to identify sites more suitable for the expansion of birdwatching tourism within the region. Of greater difficulty is likely to be the selection of sites and purchase of land which more closely relates to the interests of local communities. However, greater community involvement also represents a possibility for MSI to more fully implement their underlying goals within the region. One possibility to increase overall employment related to the expansion of tourism may be to lease, rather than purchase, land. This would allow local community members to retain long-term rights to the land while also benefiting from tourism endeavors. Another possibility may be to offer current owners a

percentage of future tourism revenue gained from the site as part of the purchase agreement. While this option may allow village members to gain future monetary compensation, it does not address the current issue of emigration from the region due to lack of employment opportunities. This possibility may also be problematic as future compensation will only be forthcoming if tourism is indeed expanded within the region. However, while difficulties are likely to arise, there is still the possibility of future site selection which more closely adheres to the interests of villagers as well as birdwatching tourists.

Along with possibilities for future site selection based on the interests of local communities and birders, possibilities may also exist for the selection of sites with particular educational value. While Kuflon offers a range of habitats that make it an ideal site for the establishment of the institute, there may be possibilities to choose other sites of educational significance for both tourists and local communities. To accomplish this, it is necessary to make a value judgment concerning what would be of importance to the communities and tourists and in what way the organization wishes to educate those with which it interacts. One possibility may be the selection of sites which allow tourists to interact with local communities, thus allowing a more holistic understanding of the region in which they are traveling. However, as this may increase tension between community members and tourists, another possibility may be the creation of tourist accommodation reflecting traditional village styles but not located within the villages. This possibility would provide visitors with exposure to some aspects of traditional life without necessarily disturbing the daily activities of village communities. By planting traditional crops in the mock village, it may also provide an educational opportunity to local villagers who have largely abandoned traditional agriculture in favor of more modern methods which have often

proven to be both less productive and less sustainable. Though future site selection with the aim of increasing the education value for both tourists and local communities is possible, it is likely that greater communication between MSI and these groups will be necessary if the perceived benefits are to be seen.

Curriculum Creation

While problems may arise due to the generalized scope of the training manual written for this project, it is hoped that these are outweighed by the possibilities. The following two paragraphs, taken from the *Introduction* chapter to the training manual, explain the rationale behind the choice of scope and some of the possibilities that the broad scope hopes to enable:

This training manual is both a lot more and a lot less than any individual guide is likely to need to know. A huge variety of general information – ranging from the creation of black holes to tiny crustaceans – is included and entire sections may seem irrelevant: Does a guide in Asia really need to know about an obscure animal that’s only found in a remote corner of South America? The answer given here is an emphatic yes! The reason for this is that the entire world is interconnected; we all share a common past, present, and future. Another –and possibly more practical – reason is that as a guide you’ll be working with a range of international clientele. One of them may be from that remote corner of South America or have traveled there to see that obscure animal. The more a guide knows about different regions, the easier it may be for them to relate to a client and their past experiences. This may also help make the tour they’re on more meaningful. So, it’s not necessary that a guide memorize every part of this manual, but the more you know, the more likely the client is to have the best experience possible. However, it should be remembered that the information in this manual is general and, as such, guides will need to learn a whole lot more from outside this manual concerning the specific place they’re working. Luckily, many areas have resources available that can provide guides with information on their local area; this manual tries to fill the gap between the available local information and how it relates to the rest of the world.

While each chapter in this manual is likely to hold something of local importance, the large amount of general information is also meant to pique your interest in a variety of subjects. Often, it seems we get used to what’s in our own backyard and the excitement disappears. However, as a guide that excitement and interest is needed to make the tour as good as possible for clients. The information in this manual is really just a brief overview of a huge range of subjects and readers are

encouraged to find those sections that interest them and research them more! The more interest a guide has in a certain field, and the more they enjoy themselves, the better the tour will be. While more in-depth information can be found in a variety of places, such as libraries and the internet, there's nothing quite like time spent in the field to really hone your skills. When you're out on your next walk, try figuring out what kinds of rocks you're seeing, notice how the animals and birds are behaving and what might be causing it, identify the plants and try to figure out why they're growing where they are and how that might influence the animals in the area. If you're not sure of something, try to figure it out when you get home. The world's an amazing place and the more you know, the more you realize you have left to learn!

Of particular importance in this excerpt is the recognition that the scope of information is both much more and much less than any particular guide is likely to need. Rather, I chose this scope to expose course participants to a wide range of knowledge which will allow them to further explore those areas of greatest personal interest. Indeed, the emphasis on the need for future exploration may be one of the greatest possibilities presented by the use of a general scope. Rather than presenting the course as all a participant will ever need to know to be an excellent guide, it makes it clear that a guide's education is continuous and outside resources are essential.

While TEKP was ultimately not included in the training manual, the need for course participants to draw from outside resources offers possibilities for the incorporation of TEKP into the training process. Indeed, information was included in the manual, as well as during the pilot course, concerning the benefits of learning TEKP with the intent that interest in the subject would lead trainees to further exploration within their own villages and families. The following excerpt, found in the *Communication & Interpretation* chapter, begins the discussion of TEKP in the training manual:

For the guide, TEKP can be a very important part of interpretation for clients.... For many clients TEKP is one of the most interesting aspects of visiting a new area. Because of this, it's important that guides learn the particular knowledge of the region where they're working. In some cases, this information may already be

known, but in many areas it might be necessary to ask an older generation or even do a bit of research on the peoples that traditionally lived in an area.

As can be seen in this excerpt, TEKP is seen as an important component of the interpretation process but readers are ultimately encouraged to ask family or village members for the relevant information. While this places TEKP outside of the course curriculum, one possibility for the inclusion of TEKP in the training process may be to have older village members participate as guest speakers during courses. It may also be possible to run short field courses focused exclusively on the TEKP of specific regions. This would provide course participants exposure to the different aspects of TEKP available in different regions and may thus increase biocultural conservation by highlighting the relevance of traditional knowledge and practices. This possibility also provides for increased community involvement in the guide training institute.

Pilot Course

While problems were identified in relation to the appropriate course duration, timing, and design, these may also indicate possibilities for altering future courses. One possibility may be to design future courses to run as separate short-duration modules; an initial module would provide a natural history overview as well as basic guiding skills while subsequent courses would focus on more specific aspects of the environment. This design would not only eliminate some of the course duration problems, but would also allow course participants to choose subsequent modules of primary interest to them.

A further possibility identified during the pilot course was seen in the field-based nature of the training. Indeed, the majority of coursework was undertaken in the field rather than in a classroom setting. This course design allowed for the generalized scope of knowledge contained in the training manual to be applied directly to the region in which training was taking place.

This style of training may provide possibilities for overcoming problems identified with the generalized scope of information in the training manual. For instance, while the manual discusses plant identification techniques, it does not identify plants within the NDBR/Dodi Tal region. However, through field-based study it is possible to combine the generalized knowledge of the manual with the identification of specific plant species within the region. The possibility of combining both the generalized as well as specific knowledge will result in a higher standard of training and is likely to better correspond with the role that guides will play in their interactions with clients.

Conclusion

While guide training is considered necessary for guides to fulfill their role within the tourism industry, there is a paucity of information concerning the establishment of a guide training institute. Of primary significance to the establishment of the institute in Uttarakhand was the lack of available training material and consensus as to appropriate information to be included in a guide training manual. Thus, a manual was written for use by nature-based tourism training institutes. In developing this manual, problems were encountered in determining the proper scope of information to be included as well as determining the role of TEKP within training given difficulties with access and codification. Ultimately, a generalized scope was chosen and TEKP was not directly included in the training manual.

In addition to problems concerning the curriculum creation process, problems with establishing a guide training institute were also identified during a pilot training course using the created manual. Problems during the pilot course were largely related to determining appropriate

course duration, timing, and design. Fundamental problems were also discovered concerning the locally perceived role of a guide as compared to the expectations of clients.

As the pilot course was used to better assess the training program, a number of possibilities were also identified. In particular, the training manual may create possibilities for combining region-specific knowledge with the generalized knowledge of the manual through courses structured to spend the majority of their time in the field. Possibilities may also exist for the current training material to be designed into short-duration modules which would allow participation in those areas of greatest interest to individual guides. These short-duration modules may also present possibilities for courses focused more directly on TEKP and led by local village members.

Other Issues

The focus of this project was the identification of problems and possibilities associated with the initial establishment of a guide training institute in Uttarakhand, India. As such, the two identified goals were an assessment of the potential for employment creation through the expansion of high quality/low quantity birdwatching tourism within the NDBR/Dodi Tal region and the development of the training program through site surveys, curriculum creation, and a pilot training course; it is hoped that the identification of problems and possibilities within these goals will help to inform future research as well as organizations considering the establishment of guide training institutes in other regions.

While I hope that the problems and possibilities identified will be of use in informing future research and practitioners, one of the largest lessons I learned through this project is that if

activist organizations wish to be self-reliant, they must be capable of integrating sound business practices into their social, political, and environmental interests. However, this integration is unlikely without a clear understanding of sound business practices. While problems in developing this understanding are likely to affect organizations around the world, if it is not achieved, the organization is unlikely to be successful. Indeed, it is this third option, that the organization will be successful in neither activism nor business, that is perhaps best illustrated through an examination of the Mountain Shepherds Initiative.

For the Mountain Shepherds Initiative, the basis for their establishment, as well as their activism objectives, can be found in the *Nanda Devi Biodiversity Conservation and Ecotourism Declaration*. This document espouses community-based tourism with a strong inclination towards social, political, and environmental justice. Indeed, this has been the rubric under which MSI has strained to operate since its inception. Thus, rather than beginning as a business enterprise seeking to incorporate community-based methods, MSI began as a community-based project with underlying social, political, and environmental goals. Indeed, the director of MSI is well-known as a political and social activist who worked, and continues to work, tirelessly for the creation of the state of Uttarakhand as well as various other issues facing mountain communities. However, neither the activism nor business objectives of MSI are currently being fulfilled. This is largely due to the need for a better understanding of business practices within the tourism industry. This section will thus examine MSI's role as a business enterprise with emphasis placed on their current marketing and the scope of their operations.

Business Enterprise

Though establishing a precise set of criteria for determining sound business practices within the tourism industry is likely best left to those with a background in either tourism management or business administration, thus making it beyond the scope of this project, a decade of personal experience within the tourism industry has provided me with the background needed for a general assessment of how MSI is currently functioning in its role as a tourism business enterprise. Indeed, it is likely that current issues surrounding the business practices of MSI may be found in many newly created companies, with various business interests, around the world. However, these issues also relate directly to the ability of MSI to balance their role as a business enterprise with their community-based activism interests. In a general sense, the business practices most directly affecting MSI's current role as a tourism business enterprise are their marketing and scope of operations.

Marketing

Currently, MSI spends almost no money on marketing its tours to possible clients – either nationally or internationally. Due to the lack of marketing, very few tours run per year and the majority of the 70 guides employed by MSI on contract basis receive no work. However, the problem runs deeper than simple lack of marketing. As tourist desires are not fully understood, the standards provided by MSI are not up to par for international clientele. An example of this can be seen in a German tour operator who volunteered to promote MSI within Germany. This marketing was to be provided for free based on the activism framework in which MSI operates. However, after coming to India to view MSI's operations and conducting one tour with MSI, the offer to promote the organization in Germany was withdrawn. The reason stated for this was that the volunteer company could not in good conscience promote MSI due to standards which were

not up to the expectations of international clients. Many of the problems mentioned (lack of advanced planning for transportation, substandard accommodation in the form of dirty tents, and unprofessionalism of guides) could be easily rectified with a better understanding of the desires of international clients. This would in turn lead to future marketing possibilities which may provide the clients necessary for MSI to operate as a business enterprise.

Scope of Operations

As a business enterprise, MSI must be able to make a profit from the projects that it undertakes. However, the current scope of projects being undertaken is quite likely beyond the organization's means. Indeed, MSI is a small company with high ambitions and the establishment of the guide training institute is only one of many projects currently underway. Other projects include: the establishment of an online store to market Garhwali books and handicrafts; opening accommodation for both international tourists as well as pilgrims at a number of sites throughout the region; opening restaurants for pilgrims along the Badrinath, Gangotri, and Yamunotri routes; beginning water-sport operations on the Tehri Reservoir; establishing adventure tourism sites with zip-lines and white-water rafting; and maintaining a political and social activism presence in the region. While many small companies have ambitious dreams, the scope of projects currently being undertaken by MSI is far beyond the capacity of the organization. Due to this lack of focus, none of the current projects, including the establishment of the guide training institute, are likely to reach their full potential. Indeed, it is likely that MSI will need to limit the scope of their current operations if they hope to succeed as a business enterprise.

To operate as a successful business enterprise, limiting the scope of operations must also involve an assessment of land purchases. Currently, almost all of MSI's disposable income is

procured through charitable donations. This has resulted in a lack of fiscal accountability which can be seen in the large amounts currently being invested in land in numerous different regions. This investment is being done under the assumption that simply purchasing this land will attract tourists to the region and create profit for the company. However, little is being spent to improve available facilities on land which is already owned. This inhibits future tourism potential, and thus the success of the business, as tourist desires are not adequately being accounted for in monetary expenditure. Indeed, the erratic selection of land purchased was identified as a major problem associated with the site surveys conducted for the establishment of the guide training institute. As long as MSI operates under the assumption that charitable donations will continue, there is no motivation for the organization to act in a fiscally responsible manner; indeed, there may be a perverse incentive to spend all available funds to insure future donations are forthcoming. Thus, in assessing the scope of operations in terms of current land purchase practices, it is likely that MSI will need to develop an internal form of fiscal accountability if operating within a business framework.

Limiting the scope of operations would also lead to a more precise understanding of what factors should be considered in determining the information to be included in guide training. Currently, MSI has provided, at great cost to the company, mountaineering training for all 70 of the guides which are employed on a contract basis; along with the initial training, many have also received advanced mountaineering training. While this training has provided guides employment opportunities with other tourism companies, it does not correlate with MSI's role as a business enterprise. Indeed, MSI does not focus on mountaineering expeditions and paying for these courses does not necessarily benefit the tourism operations which MSI is seeking to

undertake. While some of the mountaineering skills taught to MSI employees may be transferable, a different skill set is required to meet the desires of the tourists which MSI wishes to attract. With a focus on high quality tours for international clientele, the current priority for MSI must be the ability of guides to communicate with international clients; unfortunately, few of the guides have adequate foreign language skills to communicate the information included in the guide training course. In a business sense, it is thus in this area that MSI should be expending money on training; the fact that this is not being done is just one example of the larger issue concerning an understanding of sound business practices and the ability of MSI to market to tourist desires.

The Need for Clarification and Integration

Currently, tourism is seen by MSI as a tool for the livelihood creation goal of their activism philosophy rather than a goal itself; while it is true that tourism can create jobs, this is not possible without sound business practices, including marketing and the identification of the proper scope of operations for the organization. Thus, MSI's activism goal of job creation is largely negated by their lack of sound business practices.

While this assessment of the need for integration of business practices may relate specifically to MSI, it is likely to be applicable to many organizations operating under an activism philosophy. Indeed, without sound business practices, goals such as job creation and self-sufficiency within communities are unlikely to materialize. For practitioners operating within the field of international conservation and development, it is important that the development aspect not be ignored.

Conclusions and Recommendations

The focus of this project was the identification of problems and possibilities related to the establishment of a guide training institute in Uttarakhand, India. As such, the two main foci identified were an assessment of the tourism employment potential for the region based on expanding the birdwatching tourism industry and the establishment of the training institute itself. As a case study, problems and possibilities were identified directly as they related to MSI. Finally, the need for the integration of sound business practices was discussed as it related to MSI's overall viability as a for-profit business. From the identification of problems and possibilities through to the discussion of MSI, a number of conclusions may be made which will inform future academic work as well as organizations interested in the establishment of guide training institutes in other regions. This section will summarize the conclusions made concerning the assessment of employment creation potential and the establishment of the training institute followed by recommendations for both organizations wishing to establish guide training institutes as well future research.

Employment Creation Potential

An assessment of employment creation potential is an important aspect in the establishment of a guide training institute; if guides cannot gain employment, training is superfluous. In assessing the employment creation potential of the NDBR/Dodi Tal region, particular emphasis was placed on the expansion of high quality/low quantity birdwatching tourism. To assess the potential for this type of tourism, it was determined that the three destination-attributes of species availability, infrastructure, and contrast with urban environs best represented the interests of the clientele which MSI wished to attract. Through a comparison of the species seen during site surveys with trip-lists from two of the most prominent international

birdwatching companies, it was possible to identify 71 species not normally encountered on the international companies' trips to Uttarakhand. However, to maintain their 24 new trip-species per day average, it is unlikely that these companies would be willing to add the NDBR/Dodi Tal region onto their current trips due to problems with infrastructure; rather, 10 day tours solely within the study region offer a greater possibility for attracting birdwatching clientele while maintaining the bird company average. However, infrastructure also creates problems due to the limited accommodation and suitable access to sites. This further affects species availability as it must be possible to access the sites at which species sought by birders can be seen. Thus, infrastructure is likely the greatest deterrent to the expansion of birdwatching tourism in the NDBR/Dodi Tal region.

While the destination-attributes of species availability, infrastructure, and contrast to urban environs were chosen due to their identified importance to birdwatching tourism, it is likely that a similar methodology could be used for other tourism types. Indeed, appropriate infrastructure is of particular importance to a variety of different types of tourism. While species availability may appear to relate specifically to birdwatching tourism, it is likely that other types of tourism will have needs that may be measured in a similar fashion. For instance, in assessing the cultural tourism potential of a region, surveys may include sites of particular cultural importance; adventure tourism may include sites where whitewater rafting or rock climbing are possible. In this way, the problems and possibilities associated with an assessment of birdwatching tourism potential may inform organizations seeking to establish guide training institutes in other regions for alternative tourism types. Thus, while similar methodology to that used for assessing birdwatching tourism potential may inform future work, it may also indicate a

need for further research to be conducted into the best criteria for assessing a region's potential for different types of tourism.

Establishment of the Training Institute

Problems and possibilities associated with the establishment of the guide training institute relate primarily to the site survey process and the creation of course curriculum. Problems in the site survey process relate to the selection of sites and the purchase of land prior to proper site assessment. However, this also offers the possibility of future site selection more closely based on the precise goals of the training institute and the tourism type which it hopes to promote. Within the creation of course curriculum, problems encountered include access to TEKP and the determination of the scope of information to be included in the training manual. Ultimately, TEKP was not included and a generalized scope of information was chosen for inclusion in the manual. This was done based largely on the view that initial courses would operate as an introduction to nature guiding and that nature guides require a broad-base of knowledge and skills. However, problems were also encountered while conducting a pilot course relating to course duration and timing. These problems present the possibility for running future course split into separate modules. This would allow individuals to choose modules of most interest to them. It would also provide an opportunity to operate modules solely concerning TEKP and more site-specific information.

Recommendations

Based on this case study, a number of recommendations can be made to aid organizations, including the Mountain Shepherds Initiative, wishing to establish guide training institutes as well as issues which would benefit from future research. While these recommendations are discussed in more detail below, Table 1 provides a brief summation of the

recommendations made to both organizations and future researchers concerning employment creation potential and the establishment of guide training institutes.

	Employment Creation Potential	Establishment of Guide Training Institutes
Organizations	<ul style="list-style-type: none"> • It is necessary to determine what tourism sectors have a potential for expansion within a region • Site selection must reflect the destination-attributes sought by the tourists targeted • The establishment of a guide training institute is superfluous if a region lacks the tourism potential to provide employment 	<ul style="list-style-type: none"> • Assess the business capabilities of the organization proposing the institute • Clearly define the role of the training institute • Select sites after a determination of the training emphasis • Base course curriculum on training needed for guides to gain employment • A pilot course offers an excellent opportunity to reassess the chosen course curriculum and duration
Research	<ul style="list-style-type: none"> • Research into the criteria relevant for assessing the potential of various tourism types 	<ul style="list-style-type: none"> • Research into the proper scope of information needed by guides • Research into the benefits of short vs. long duration courses • Research into the relevance of TEKP within tourism and the possibilities for its incorporation into guide training

Table 1: Summary of Recommendations

For organizations seeking to establish training institutes, the site selection process is likely best done after a training emphasis has been established for the institute. This insures that sites selected properly reflect the type of tourism for which guides are being taught.

Alternatively, possibilities may exist for surveys to be conducted with a range of tourism types in mind. Through this process, it may be possible for organizations to further define the role of the training institute based on the types of tourism for which the greatest employment creation potential exists. Similarly, in the creation of course material it is important that information to be included properly reflects the knowledge guides will need to gain employment within the chosen tourism type. For nature-based tourism this is likely to include a broad-base of information but it

must be remembered that region-specific knowledge is also needed. The short-module course design may provide a way to better incorporate region-specific knowledge as well as providing a design more easily attended by course participants. However, this is likely to depend largely on the precise region in which the training is being undertaken. In some areas, it may be easier to attend a longer training course in which all the information is provided at once. Thus, the determination of course structure is likely best done on a case by case basis.

When seeking to establish a guide training institute, it is also important that the organization proposing the establishment be assessed. In the case of MSI, the assessment revealed underlying problems related to their operation as a for-profit business enterprise. Due to problems concerning their current scope of operations and the lack of business/tourism experience, it is unlikely that MSI is the appropriate organizations to be establishing a guide training institute in Uttarakhand. Similarly, other organizations must be willing to undergo this critical examination when proposing an institute. If the organization is found to lack the capacity needed to open the institute, other options may exist for the collaboration between the proposing organization and other tourism/business organizations in the region.

Future research into the scope of information included in a guide training manual is greatly needed. Currently, issues concerning communication and interpretation dominate discussions pertaining to the role of the guide. However, current literature on nature-based tourism indicates that guides in the field need a broad-base of knowledge. Indeed, in examining tourism at popular destinations within India, as well as personal experience guiding on five continents, it is obvious that communication and interpretation skills are not enough; guides must have information to communicate and a broad range of knowledge to interpret sites in the global

context sought by international clientele. However, determining the scope of the broad-base still requires further research with a focus on different types of tourism. This research is likely to benefit from a multi-disciplinary approach including experts from tourism, education, and third-world studies backgrounds.

Finally, this case study highlights an issue of relevance to the Mountain Shepherds Initiative specifically, other organizations wishing to establish guide training institutes, future research, and likely the international conservation and development community at large. Namely, if development is aimed at building local capacity, local groups must be able to generate sufficient income to function without being reliant on charitable donations. While this may require a paradigm shift within the international conservation and development community, without this shift it is unlikely that local groups will gain the self-sufficiency to maintain operations if, or when, donations cease. Indeed, as the Mountain Shepherds Initiative strives to become a for-profit enterprise while maintaining an activism philosophy, fiscal accountability is likely one of the greatest impediments to their success. It is hoped that the issues illustrated through this project will not only help the Mountain Shepherds Initiative in its transition but will also provide insight to international conservation and development practitioners at large which will help as local communities are encouraged to build the capacity needed to become self-reliant.

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Appendix I: The Nanda Devi Biodiversity Conservation and Ecotourism Declaration
**THE NANDA DEVI BIODIVERSITY CONSERVATION AND ECO TOURISM
DECLARATION**

October 14, 2001 Gram Sabha Lata, Chamoli, Uttarakhand

Today on the 14th of October, 2001 in the courtyard of the temple of our revered Nanda Devi, we the people's representatives, social workers and citizens of the Niti valley, after profound deliberations on biodiversity conservation and tourism, while confirming our commitment to community based management processes dedicate ourselves to the following –

- That we, in accordance with the resolutions adopted by the World Tourism Organisation's Manila Declaration 1997 on the Social Impact of Tourism will lay the foundation for community based tourism development in our region.
- That in our region we will develop a tourism industry free from monopolies and will ensure equity in the tourism business.
- With the cessation of all forms of exploitation like the exploitation of porters and child labour in the tourism industry, we will ensure a positive impact of tourism on the biodiversity of our region and the enhancement of the quality of life of the local community.
- That in any tourism related enterprise we will give preference to our unemployed youth and under privileged families, we will also ensure equal opportunities for disabled persons with special provisions to avail such opportunities.
- That we will ensure the involvement and consent of the women of our region at all levels of decision making while developing and implementing conservation and tourism plans.
- While developing appropriate institutions for the management of community based conservation and eco tourism in our area we will ensure that tourism will have no negative impact on the bio diversity and culture of our region, and that any anti social or anti national activities will have no scope to operate in our region.
- We will regulate and ensure quality services and safety for tourists and by developing our own marketing network, will eliminate the middlemen and endeavour to reduce the travel costs of the tourist.
- While developing the tourism infrastructure in our region we will take care of the special needs of senior citizens and disabled persons.
- As proud citizens of the land of the Chipko movement, we in the name of Gaura Devi will establish a centre for socio-culture and biodiversity, for the conservation and propagation of our unique culture.
- We will ensure the exchange and sharing of experiences with communities of other regions to develop eco tourism in accordance with the Manila Declaration of 1997 in those regions.
- Acknowledging the spirit of Agenda 21 of the Earth Summit, Rio 1992, the Manila Declaration on the Social Impact of Tourism 1997 and the International Year of the Mountains and Eco tourism, 2002, we will strive for bio diversity conservation and an equitable economic development within the framework of the Constitution of the Republic of India.

Today on October 14, 2001, in front of our revered Nanda Devi, and drawing inspiration from Chipko's radiant history we dedicate ourselves to the transformation of our region into a global centre for peace, prosperity and biodiversity conservation.

Appendix II: Map of Internationally and Nationally Recognized Protected Areas within Uttarakhand, India (and near-border regions)

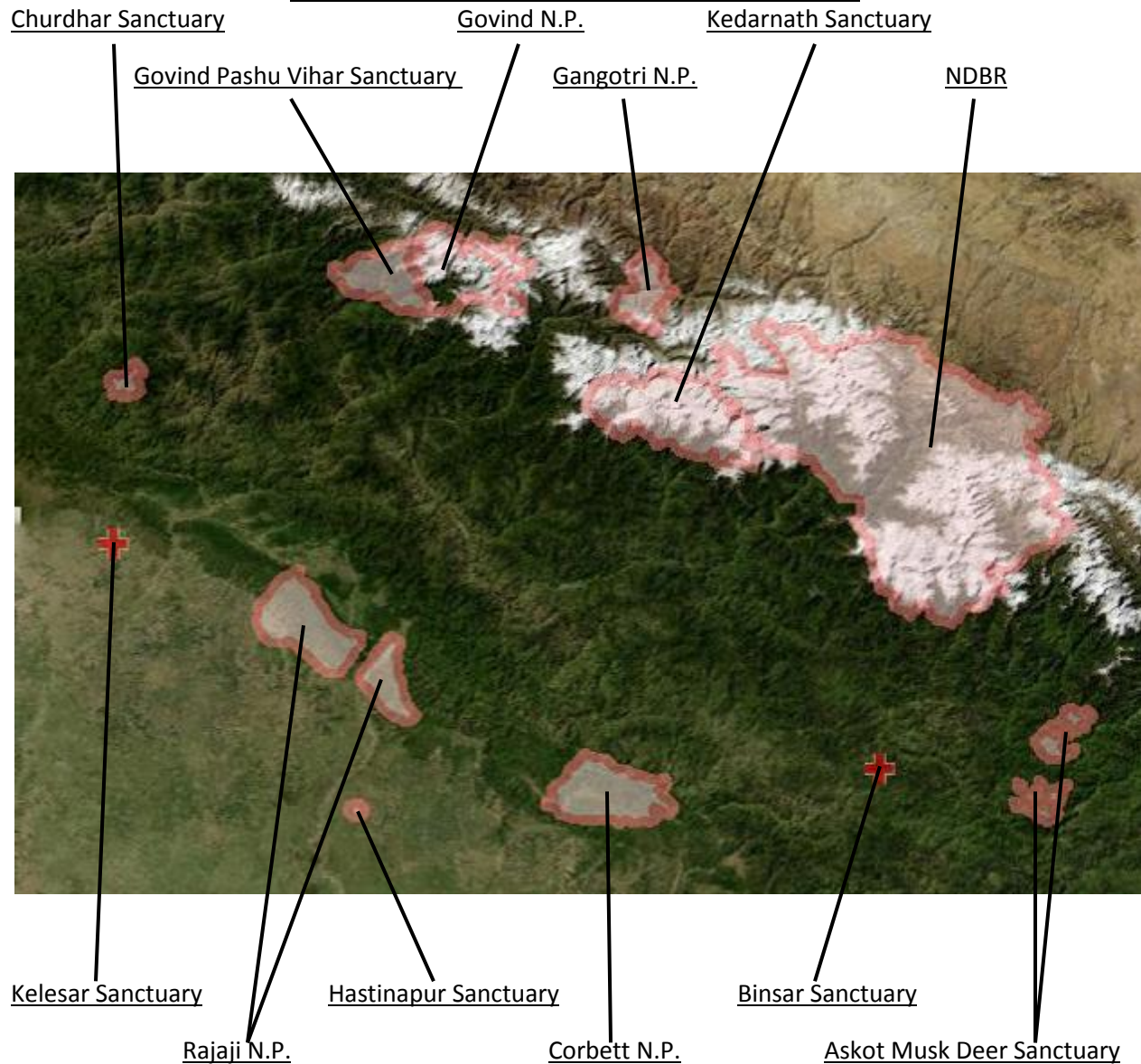


Figure 2: Protected areas in Uttarakhand and near-border regions. Adapted from the World Database On Protected Areas (www.wdpa.org, 2010).

	Site ID #	Year Established	IUCN Category	Total km²
Churdhar Sanctuary	20410	1985	IV	56.15

Govind Pashu Vihar Sanctuary	1786	1955	IV	481.00
Govind N.P.	26405	1990	II	472.08
Gangotri N.P.	28385	1989	II	1,552.00
Kedarnath Sanctuary	1785	1972	IV	975.24
NDBR Buffer	902492	2004	UNESCO MAB	5,142.86
NDBR Core	16793	1988		717.83
Kelesar Sanctuary	17545	1992	IV	100.88
Rajaji N.P.	12813	1983	II	820.00
Hastinapur Sanctuary	12257	1972	IV	2,073.00
Corbett N.P.	690	1936	II	520.80
Binsar Sanctuary	19712	1988	IV	45.59
Askot Musk Deer Sanctuary	12256	1986	IV	599.93

Appendix III: Map of NDBR/Dodi Tal Region

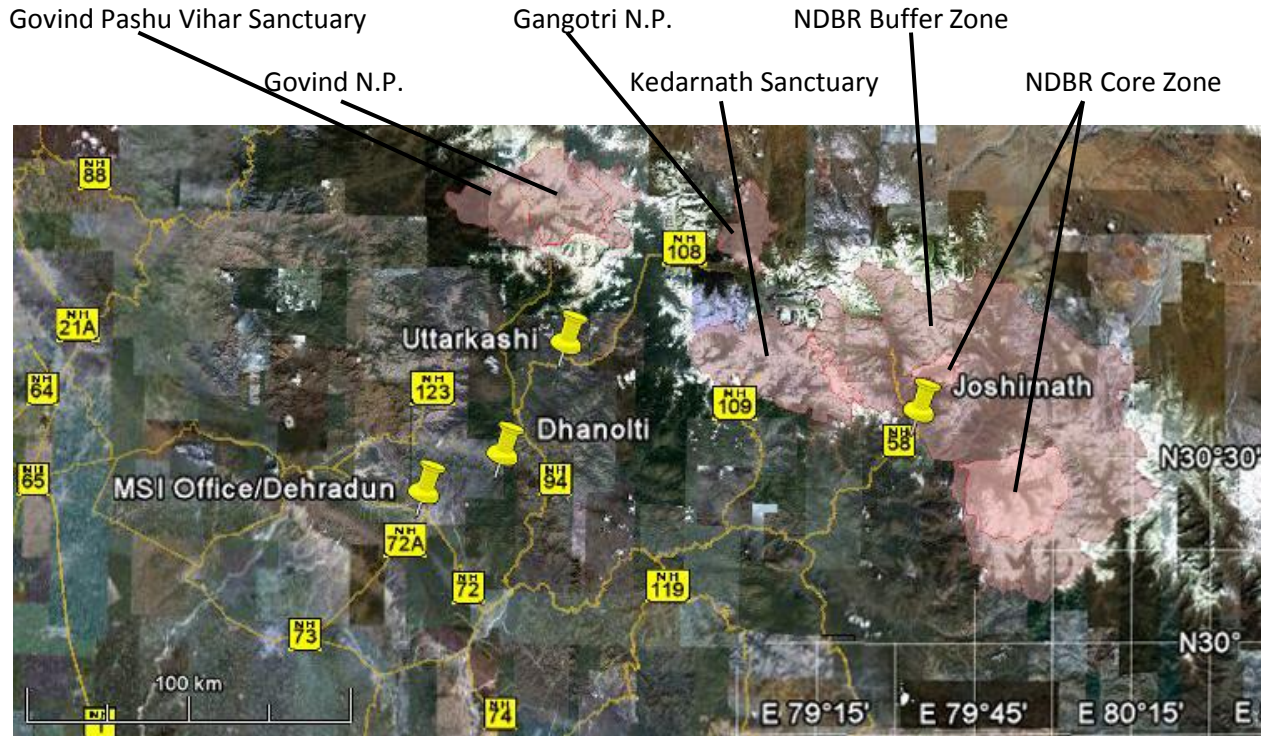


Figure 3: Protected areas, adapted from the World Database On Protected Areas (www.wdpa.org, 2010) and Google Earth, shaded in red. Joshimath (NDBR), Uttarkashi (Dodi Tal), Dhanolti, and Dehradun marked with thumbtacks.

	Site ID #	Year Established	IUCN Category	Total km ²
Govind Pashu Vihar Sanctuary	1786	1955	IV	481.00
Govind N.P.	26405	1990	II	472.08
Gangotri N.P.	28385	1989	II	1552.00
Kedarnath Sanctuary	1785	1972	IV	975.24
NDBR Buffer	902492	2004	UNESCO MAB	5,142.86
NDBR Core	16793	1988	UNESCO MAB	717.83

Appendix IV: IBA's in the NDBR/Dodi Tal Region



Figure 4: Adapted from BirdLife International (www.birdlife.org, 2009)

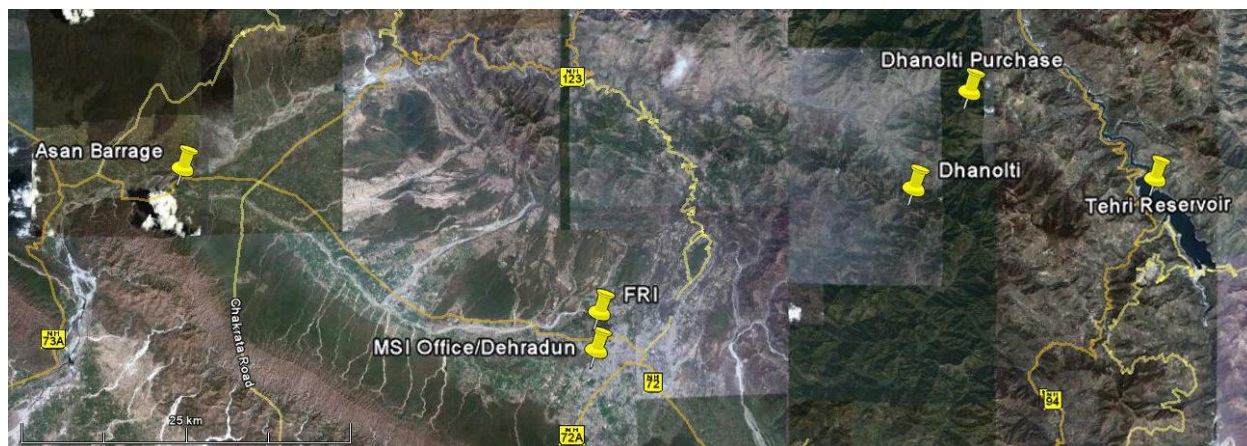
- A. Churdhar Wildlife Sanctuary
- B. Kalesar Wildlife Sanctuary
- C. Asan Barrage
- D. New Forest Campus
- E. Binog Sanctuary – Bhadraj – Jharipani
- F. Govind National Park and Wildlife Sanctuary, Sandra, Kotinad and Singtur ranges
- G. Gangotri National Park
- H. Kedarnath Musk Deer Sanctuary and surrounding Reserve Forests
- I. Nanda Devi Biosphere Reserve

Appendix V: Site Descriptions and Maps

Dehradun Region

With a population of approximately 530,000 (Government of India Census, 2001), Dehradun is the largest city in Uttarakhand as well as the state's capitol and home to MSI's main office. Dehradun serves as the main point of entry to the NDBR/Dodi Tal region with the nearest train station as well as an international airport. A wide range of accommodation types are available in the city though the majority of international tourists seem to spend only a limited time here. Tourist attractions within the city include the Mindrolling Monastery and the Forestry Research Institute (FRI). While not large, FRI provides some access to lowland forests and is a recognized Birdlife International Important Bird Area (IBA). Select sites near Dehradun were visited to help MSI with the creation of possible tour itineraries.

It should be noted that once outside Dehradun, roads quickly enter the Himalayan foothills and travel becomes slow (the elevation of Dehradun averages 650 m while Mussoorie, less than 15 km away has an elevation of 2,000 m). Thus, distances are not always an accurate measure of the time taken to drive between locations. Generally, private vehicles average 20-50 km/h and roads follow the mountain contours. As an example, the travel time between Dehradun and Joshimath averages 6-10 hours and, despite a linear distance of approximately 150 km, the road is closer to 250 km long. While work is being done throughout the region to improve road quality, it is as of yet unclear how this will affect drive times between locations.



Asan Barrage

Asan Barrage is a dam reservoir approximately 35 km west of Dehradun and has an elevation of approximately 400 m. The site is recognized by Birdlife International as an IBA and is home to a large number of wintering palaeartic migrants. As well as wetland habitat, Asan Barrage lies on the northern edge of Kalesar National Park and the forest supports wildlife such as Spotted Deer (*Axis axis*) and Asian Elephant (*Elephas maximus*). While tourist accommodation is currently limited, a former MSI guide has expressed interest in converting his house to a guest lodge. This property is located 2.5 km from the wetlands and is directly backed by the national park. Though currently unused, the property has seven large bedrooms and would require only minor improvements to raise it to the standards required by international clientele.

Species Availability: 112

Infrastructure: Roads – Excellent, Accommodation – Good, Pathways – Excellent

Dhanolti

Dhanolti is a town located approximately 23 km north-west of Dehradun with an elevation of 2,275 m. The town is surrounded primarily by deodar forest with some higher elevation grassland nearby. Despite the town's relatively small size, its proximity to Mussoorie and New Tehri have made it a tourist destination for travelers looking for a more relaxed atmosphere. As such, a large variety of accommodation types are available in the surrounding region. MSI has purchased land in a small village approximately 9 km north-west of Dhanolti. This village is only accessible by a relatively deteriorated dirt road and travel time between Dhanolti and the village averages two hours. Much of the land within the village is currently fallow as the inhabitants, traditionally transhumant pastoralists, lost access to their winter lands with the creation of the Tehri Dam. MSI hopes to use this land as a base of operations for water sports on Tehri Reservoir and thus provide employment opportunities for those most affected by the dam's creation.

Species Availability: *Not fully surveyed*

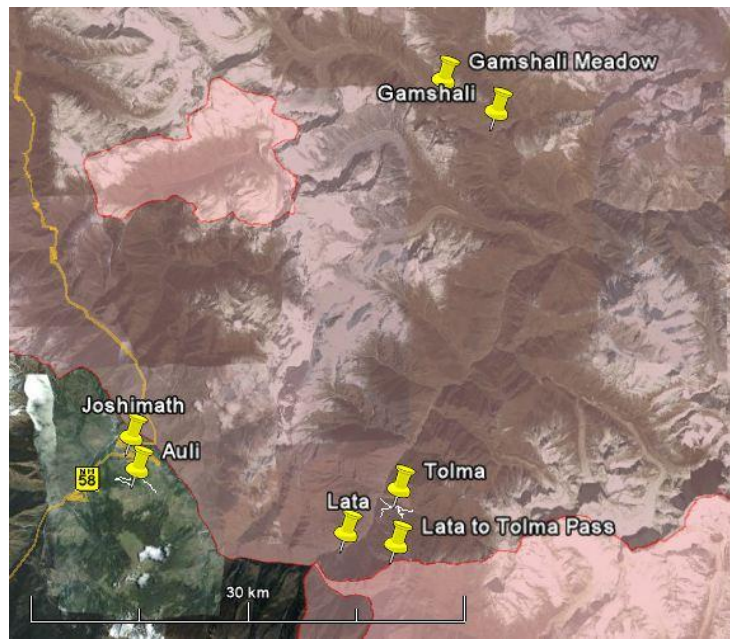
Infrastructure: Roads – Poor, Accommodation – Poor, Pathways – Poor

NDBR Region

Joshimath is located approximately 150 km from Dehradun and serves as the entry point to the Niti Valley and NDBR region. Joshimath is also the commercial center for villages within the valley and is also the location of the only hospital in the region; many children from the villages also attend school in Joshimath. The town itself has a population of approximately 13,000 (2001 Census) and lies at an elevation of 1,900 m. Tourist accommodations within the town is primarily low-budget and caters to the 1.2 million visitors which are estimated to pass through each year on pilgrimage to the holy sites of Badrinath and Hemkund. A forestry department office within town also provides permits for trekking in the region and arrangements can be made for trips into NDBR and Valley of Flowers National Park.

Auli

The village of Auli is located 2.3 km south of Joshimath at an elevation of 2,680 m. A government run hotel and small bungalows are available just outside the village while a upscale ski resort is located a further 1.6 km south along a dirt road at an elevation of 3,000 m. Skiing is the primary tourist attraction to Auli and a gondola can be taken between the ski resort and Joshimath. Trekking is also



available above the ski lodge where habitat is primarily alpine grassland with some mixed deodar and rhododendron forest. Below the village of Auli habitat is primarily mixed montane woodland and agricultural land. The paved road directly below the government hotel passes through excellent forest with a large number of bird species as well as other wildlife such as Hanuman Langur (*Semnopithecus entellus*) and Yellow-throated Marten (*Martes flavigula*). A bouldering course is also located below the village.

Species Availability: 27

Infrastructure: Roads – Poor, Accommodation – Good, Pathways – Good (along road)

Bungalow

A bungalow, approximately halfway between Joshimath and Auli, serves as a base for MSI within the region. Owned locally, the bungalow is rented by MSI when conducting treks in the region and is used for storage throughout the year. Four rooms, each with en-suite bathrooms, are currently available to guests. While the facilities are generally in good repair, minor improvements would likely make them more acceptable for higher-end international clientele. Needed improvements include a dining facility, insertion of shower heads, and general cleanliness and upkeep. While MSI has used this facility for a number of years, they are currently looking to purchase their own land near the site due to arguments over payment with the local owner.

Species Availability: 65

Infrastructure: Roads – Poor, Accommodation – Poor, Pathways – Good

Lata

Lata is located 16 km east of Joshimath and is the official headquarters of MSI as well as home to the nominal owner of the company. Lata is comprised of two villages separated by 0.5 km; the lower village, at 2,150 m, is used during the winter while the higher village, at 2,375 m, is inhabited during the summer. Lata is one of the larger villages in the region with approximately 86 households (Maikhuri, Nautiyal, Rao, Chandrasekhar, Gavali, and Saxena, 2000). While the community has expressed interest in tourism, little has been done to develop the necessary infrastructure. Rather, Lata's primary association with tourism is through the sale of rugs and other local crafts. A trek between the villages of Lata and Tolma provides the main means by which tourists visit the village. Aside from this trek, few nature trails are available for tourists wishing to stay in Lata and a cultural experience would likely be the prime motivation for a longer stay in the village.

Species Availability: 20

Infrastructure: Roads – Poor, Accommodation – N/A, Pathways – N/A

Tolma

Tolma is located 5 km north-east of Lata, or 19 km east of Joshimath, at an elevation of 2,615 m. As Tolma is located 1.25 km from the nearest road, a fairly steep hike is necessary to reach the village. Of the 15 households living in Tolma, seven offer some sort of tourist accommodation. While these are commonly referred to as home-stays, all rooms are separate from the family living quarters and meals, while provided by the families, are not generally eaten with the family. Accommodation standards also tend to be fairly low with little to no

maintenance done on the properties. Where toilets are available they are separate from the accommodation and often the only facilities available are the communal village toilets. Though suitable accommodation is lacking, Tolma provides a cultural experience as well as having three nature trails available. The nature trails pass through both agricultural land and mixed montane forest. While two of these trails are fairly steep, the third is relatively flat and follows a river for 1.5 kilometers. Unfortunately, the final descent to the river is very steep and may be difficult for some visitors.

Species Availability: 61

Infrastructure: Roads – Poor, Accommodation – Poor, Pathways – 3 Poor, 1 Good

Lata-Tolma Trek

The trek between Lata and Tolma covers approximately 8 linear kilometers with a mountain pass at 4,170 m. It is possible to camp at numerous sites along the way and there is a forest department hut available near the upper pass. Habitat is primarily deodar forest with mixed rhododendron forest and alpine grassland near the forest department hut. From the pass it is possible to view the core zone of NDBR as well as Nanda Devi peak. While it may be possible to do this trek in two days, three to five days allows a more comfortable pace as well as time for acclimatization.

Species Availability: 81

Infrastructure: Roads – N/A, Accommodation – N/A, Pathways – Poor

Gamshali

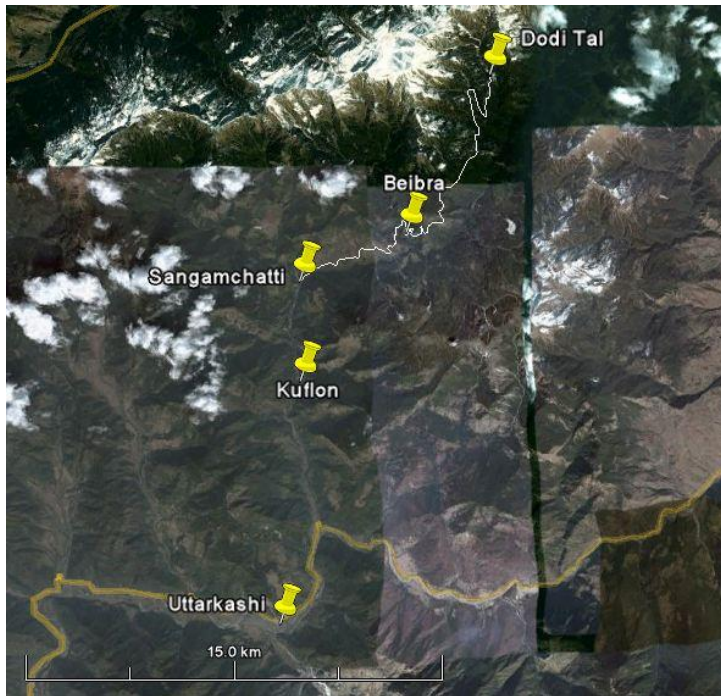
Gamshali is approximately 33.5 km from Joshimath and 8 km from the India-China (Tibet) border at an elevation of 3,350 m. The inhabitants of Gamshali were traditionally transhumant pastoralists gaining much of their income from trade with villages on the Tibetan plateau and migrating nearly 350 km during winter. However, the village population has been precipitously declining since traditional trade and migration patterns have been limited. While trekking within the glacially carved valley is possible, the military presence, due to the proximity to the Chinese border, limits the equipment which can be taken into the region. Habitat within the valley is dominated by alpine grassland with the glacial terminus reached approximately 12 km up the valley from Gamshali. An extended trek across these glaciers and passing through Valley of Flowers N.P. is also possible.

Species Availability: 25

Infrastructure: Roads – Poor, Accommodation – N/A, Pathways – Good

Dodi Tal Region

Uttarkashi, population 16,200 (2001 Census), is located 59 km north-east of Dehradun at an elevation of 1,140 m. It is a major stopping point along the pilgrimage route to Gangotri and has a large range of accommodation types available. Uttarkashi is also the access point for treks to Dodi Tal, a route which MSI estimates to receive over 20,000 visitors a year. A number of tour companies, providing both guides and equipment, are based in Uttarkashi and it is also possible to obtain permits for self-guided treks from the forest department office.



Kuflon

The small village of Kuflon is located along a paved road 9 km north of Uttarkashi at an elevation of 1,425 m. This site is the proposed location for the establishment of the guide training institute and MSI has purchased numerous small plots of connecting agricultural land. The building of toilet facilities was accomplished during the 2009/10 winter season and further development, including the flattening of some terraced fields, is currently underway. The site lies directly off the road and is thus easily accessible for both training participants and clients; MSI is hoping to provide tourist accommodation when training is not

underway. The paved road continues past Kuflon for 2.5 km to the village of Sangamchatti. This road is relatively flat and is dominated by riparian woodland excellent for birdwatching and other wildlife viewing opportunities. A separate trail east of the Kuflon site leads through mixed deodar woodland to a site used locally for summer grazing. The first 0.5 km of this trail is very steep and quickly rises 400 m in elevation. A relatively flat trail covers a further 1.25 km before reaching the agricultural fields and grazing land at an elevation of 2,040 m.

Species Availability: 77

Infrastructure: Roads – Poor, Accommodation – N/A, Pathways - Good

Beibra

Access to the village of Beibra is only possible on foot. The trail begins in the village of Sangamchatti and is approximately 6.5 km long with an altitudinal gain of 700 m; the elevation of Beibra is 2,280 m. Beibra currently has no accommodation open to the general public. However, camping is possible 0.5 km below Beibra and basic rooms are available in the village of Agora 2 km below Beibra. During the main tourist season, these sites are heavily occupied with little room for extra tents. MSI has thus invested in a four-room building in Beibra with the intention of opening it to the public, for a fee, when not being used by MSI clientele. This facility, while structurally sound, will require a large amount of investment in maintenance and furnishing before it is of a standard suitable for international clientele. While it is unlikely that Beibra would become a tourist destination in and of itself, its location roughly halfway along the Dodi Tal trek makes it convenient for single-night stays.

Species Availability: 47

Infrastructure: Roads – N/A, Accommodation – Poor, Pathways – Poor

Dodi Tal

The trail between Beibra and Dodi Tal is approximately 8 km long with an elevation gain of roughly 820 m. While the first 2 km of the trek account for the majority of the rise in elevation, numerous cutbacks mean the overall difficulty remains moderate. The trek passes through habitat types ranging from deodar and riparian woodlands through patches of grassland and bamboo forest. The elevation and variety of habitat provides a wide diversity of bird species as well as rare wildlife such as Himalayan Musk Deer (*Moschus chrysogaster*), Large-eared Pika (*Ochotona macrotis*), Leopard (*Panthera pardus*), and Asiatic Black Bear (*Ursus thibetanus*). A trail circles the small lake at Dodi Tal and forest department owned accommodation is available on the lakeshore. From Dodi Tal a steep hike of one kilometer leads to rocky grasslands while longer treks are possible either to Darwa Top or further on to Yamunotri.

Species Availability: 38

Infrastructure: Roads – N/A, Accommodation – Poor, Pathways – Poor

Appendix VI: List of Bird Species Seen During Site Surveys

Key:

- TB&FG – Total number of Tropical Birding and Field Guide trip-lists visiting Uttarakhand in which species were seen (based on seven compiled trip-lists)
- English Name – Identification based on Grimmett and Inskipp (2003). Taxonomy derived from Clements (2007)
- Scientific Name – Derived from Clements (2007)
- Status – Based on IUCN Redlist Status according to Lepage (2010)
 - Nt: Near-threatened
 - V: Vulnerable
 - E: Endangered
 - CE: Critically Endangered

	TB&FG	English Name	Scientific Name	Status	Bungalow	Auli	Lata	Tolma	Gamshali	Asan Barrage	Kufлон	Beibra	Dodi Tal
1	7	Lesser Whistling-Duck	<i>Dendrocygna javanica</i>							X			
2	7	Indian Spot-billed Duck	<i>Anas poecilorhyncha</i>							X			
3	7	Northern Shoveler	<i>Anas clypeata</i>							X			
4	7	Green-winged Teal	<i>Anas crecca</i>										X
5	6	Common Pochard	<i>Aythya ferina</i>							X			
6	5	Ferruginous Pochard	<i>Aythya nyroca</i>	Nt						X			
7	7	Tufted Duck	<i>Aythya fuligula</i>							X			
8	0	Chukar	<i>Alectoris chukar</i>		X			X					
9	7	Gray Francolin	<i>Francolinus pondicerianus</i>				X						
10	6	Black Francolin	<i>Francolinus francolinus</i>		X								
11	5	Koklass Pheasant	<i>Pucrasia macrolopha</i>										X
12	0	Himalayan Monal	<i>Lophophorus impejanus</i>					X					X
13	7	Red Junglefowl	<i>Gallus gallus</i>							X			
14	7	Kalij Pheasant	<i>Lophura leucomelanos</i>		X			X					X
15	0	Cheer Pheasant	<i>Catreus wallichi</i>	V									X
16	7	Indian Peafowl	<i>Pavo cristatus</i>							X			
17	7	Little Grebe	<i>Tachybaptus ruficollis</i>							X			
18	6	Indian Cormorant	<i>Phalacrocorax fuscicollis</i>							X			
19	6	Little Cormorant	<i>Phalacrocorax niger</i>							X			
20	7	Darter	<i>Anhinga melanogaster</i>							X			

	TB&FG	English Name	Scientific Name	Status	Bungalow	Auli	Lata	Tolma	Gamshali	Asan Barrage	Kuflon	Beibra	Dodi Tal
21	7	Purple Heron	<i>Ardea purpurea</i>							X			
22	7	Intermediate Egret	<i>Egretta intermedia</i>							X			
23	7	Little Egret	<i>Egretta garzetta</i>							X			
24	7	Cattle Egret	<i>Bubulcus ibis</i>							X			
25	7	Indian Pond-Heron	<i>Ardeola grayii</i>							X			
26	6	Black-crowned Night-Heron	<i>Nycticorax nycticorax</i>							X			
27	7	Red-naped Ibis	<i>Pseudibis papillosa</i>							X			
28	7	Woolly-necked Stork	<i>Ciconia episcopus</i>							X			
29	7	Painted Stork	<i>Mycteria leucocephala</i>	Nt						X			
30	7	Black-shouldered Kite	<i>Elanus caeruleus</i>							X			
31	7	Black Kite	<i>Milvus migrans</i>							X			
32	6	Lammergeier	<i>Gypaetus barbatus</i>		X			X	X				X
33	4	White-rumped Vulture	<i>Gyps bengalensis</i>	CE						X			
34	7	Indian Vulture	<i>Gyps indicus</i>	CE						X			
35	7	Himalayan Griffon	<i>Gyps himalayensis</i>		X		X	X	X		X	X	X
36	7	Crested Serpent-Eagle	<i>Spilornis cheela</i>							X			
37	1	Besra	<i>Accipiter virgatus</i>		X	X	X	X	X	X			
38	0	Northern Goshawk	<i>Accipiter gentilis</i>							X			
39	0	Golden Eagle	<i>Aquila chrysaetos</i>					X				X	
40	5	Booted Eagle	<i>Aquila pennata</i>			X	X						
41	6	Changeable Hawk-Eagle	<i>Spizaetus cirrhatus</i>							X			
42	7	Mountain Hawk-Eagle	<i>Spizaetus nipalensis</i>								X	X	
43	7	Eurasian Kestrel	<i>Falco tinnunculus</i>					X			X	X	
44	4	Peregrine Falcon	<i>Falco peregrinus</i>				X	X					
45	7	Purple Swamphen	<i>Porphyrio porphyrio</i>							X			
46	7	Common Moorhen	<i>Gallinula chloropus</i>							X			
47	7	Eurasian Coot	<i>Fulica atra</i>							X			
48	7	Red-wattled Lapwing	<i>Vanellus indicus</i>							X			
49	6	Whiskered Tern	<i>Chlidonias hybrida</i>							X			
50	7	Rock Pigeon	<i>Columba livia</i>				X	X	X	X			
51	0	Snow Pigeon	<i>Columba leuconota</i>					X	X		X	X	
52	0	Speckled Wood-Pigeon	<i>Columba hodgsonii</i>					X			X		
53	6	Oriental Turtle-Dove	<i>Streptopelia orientalis</i>		X	X	X	X	X		X	X	
54	7	Eurasian Collared-Dove	<i>Streptopelia decaocto</i>							X			
55	7	Spotted Dove	<i>Streptopelia chinensis</i>							X			
56	7	Laughing Dove	<i>Streptopelia senegalensis</i>							X			
57	4	Emerald Dove	<i>Chalcophaps indica</i>							X			
58	7	Yellow-footed Pigeon	<i>Treron phoenicopterus</i>							X			

	TB&FG	English Name	Scientific Name	Status	Bungalow	Auli	Lata	Tolma	Gamshali	Asan Barrage	Kuflon	Beibra	Dodi Tal
59	5	Alexandrine Parakeet	<i>Psittacula eupatria</i>							X			
60	7	Rose-ringed Parakeet	<i>Psittacula krameri</i>					X		X			
61	7	Slaty-headed Parakeet	<i>Psittacula himalayana</i>		X						X	X	
62	7	Plum-headed Parakeet	<i>Psittacula cyanocephala</i>							X			
63	6	Common Hawk-Cuckoo	<i>Cuculus varius</i>		X								
64	2	Indian Cuckoo	<i>Cuculus micropterus</i>		X					X			
65	0	Asian Drongo-Cuckoo	<i>Sumiculus lugubris</i>							X			
66	6	Asian Koel	<i>Eudynamys scolopaceus</i>							X			
67	7	Greater Coucal	<i>Centropus sinensis</i>							X			
68	7	Asian Barred Owlet	<i>Glaucidium cuculoides</i>								X		
69	6	Jungle Owlet	<i>Glaucidium radiatum</i>							X	X		
70	4	Himalayan Swiftlet	<i>Aerodramus brevirostris</i>							X			
71	1	House Swift	<i>Apus nipalensis</i>		X			X					
72	2	Alpine Swift	<i>Tachymartus melba</i>						X	X			
73	7	White-throated Kingfisher	<i>Halcyon smymensis</i>						X	X			
74	7	Crested Kingfisher	<i>Megaceryle lugubris</i>								X		
75	7	Pied Kingfisher	<i>Ceryle rudis</i>							X			
76	7	Green Bee-eater	<i>Merops orientalis</i>							X			
77	0	Blue-tailed Bee-eater	<i>Merops philippinus</i>							X			
78	0	European Bee-eater	<i>Merops apiaster</i>							X			
79	7	Indian Roller	<i>Coracias benghalensis</i>							X			
80	7	Eurasian Hoopoe	<i>Upupa epops</i>								X		
81	7	Indian Gray Hornbill	<i>Ocyrceros birostris</i>							X			
82	7	Great Barbet	<i>Megalaima virens</i>		X						X	X	
83	7	Brown-headed Barbet	<i>Megalaima zeylanica</i>							X			
84	6	Lineated Barbet	<i>Megalaima lineata</i>							X			
85	5	Blue-throated Barbet	<i>Megalaima asiatica</i>							X			
86	7	Coppersmith Barbet	<i>Megalaima haemacephala</i>							X			
87	7	Eurasian Wryneck	<i>Jynx torquilla</i>				X						
88	5	Speckled Piculet	<i>Picumnus innominatus</i>								X		
89	7	Gray-capped Woodpecker	<i>Dendrocopos canicapillus</i>							X			
90	6	Brown-fronted Woodpecker	<i>Dendrocopos auriceps</i>		X						X		
91	6	Fulvous-breasted Woodpecker	<i>Dendrocopos macei</i>			X							
92	4	Rufous-bellied Woodpecker	<i>Dendrocopos hyperythrus</i>		X						X		
93	4	Himalayan Woodpecker	<i>Dendrocopos himalayensis</i>		X	X		X			X		X
94	0	Scaly-bellied Woodpecker	<i>Picus squamatus</i>		X								X
95	7	Gray-faced Woodpecker	<i>Picus canus</i>		X						X	X	
96	4	Himalayan Flameback	<i>Dinopium shorii</i>							X			

	TB&FG	English Name	Scientific Name	Status	Bungalow	Auli	Lata	Tolma	Gamshali	Asan Barrage	Kuflon	Beibra	Dodi Tal
97	7	Black-rumped Flameback	<i>Dinopium benghalense</i>							X			
98	7	Long-tailed Shrike	<i>Lanius schach</i>		X			X	X				
99	6	Long-tailed Minivet	<i>Pericrocotus ethologus</i>					X			X		
100	0	Short-billed Minivet	<i>Pericrocotus brevirostris</i>		X	X	X						
101	7	Bar-winged Flycatcher-shrike	<i>Hemipus picatus</i>							X			
102	7	Eurasian Jay	<i>Garrulus glandarius</i>		X						X		
103	7	Black-headed Jay	<i>Garrulus lanceolatus</i>		X	X					X	X	X
104	0	Gold-billed Magpie	<i>Urocissa flavirostris</i>		X								
105	7	Blue Magpie	<i>Urocissa erythrorhyncha</i>									X	
106	7	Rufous Treepie	<i>Dendrocitta vagabunda</i>							X			
107	7	Gray Treepie	<i>Dendrocitta formosae</i>								X	X	
108	0	Eurasian Nutcracker	<i>Nucifraga caryocatactes</i>			X	X	X				X	
109	0	Red-billed Chough	<i>Pyrhocorax pyrrhocorax</i>						X				
110	0	Yellow-billed Chough	<i>Pyrhocorax graculus</i>					X	X				
111	7	House Crow	<i>Corvus splendens</i>							X			
112	7	Large-billed Crow	<i>Corvus macrorhynchos</i>							X			
113	2	Common Raven	<i>Corvus corax</i>		X	X	X	X				X	X
114	2	Asian Paradise-Flycatcher	<i>Terpsiphone paradisi</i>							X			
115	7	Plain Martin	<i>Riparia paludicola</i>							X			
116	6	Dusky Crag-Martin	<i>Ptyonoprogne concolor</i>		X	X	X	X	X	X			
117	6	Wire-tailed Swallow	<i>Hirundo smithii</i>							X			
118	7	Red-rumped Swallow	<i>Cecropis daurica</i>							X			
119	3	Streak-throated Swallow	<i>Petrochelidon fluvicola</i>							X			
120	0	Rufous-vented Tit	<i>Periparus rubidiventris</i>										X
121	7	Black-crested Tit	<i>Periparus melanolophus</i>		X	X		X	X				X
122	0	Gray-crested Tit	<i>Lophophanes dichrous</i>										X
123	7	Great Tit	<i>Parus major</i>							X			
124	7	Green-backed Tit	<i>Parus monticolus</i>		X	X		X			X	X	X
125	7	Black-lored Tit	<i>Parus xanthogenys</i>								X	X	
126	0	White-cheeked Tit	<i>Aegithalos leucogenys</i>		X								X
127	7	Black-throated Tit	<i>Aegithalos concinnus</i>		X			X			X		
128	0	White-throated Tit	<i>Aegithalos niveogularis</i>					X					X
129	7	Chestnut-bellied Nuthatch	<i>Sitta castanea</i>							X	X		
130	7	White-tailed Nuthatch	<i>Sitta himalayensis</i>		X						X		X
131	0	White-cheeked Nuthatch	<i>Sitta leucopsis</i>					X					
132	6	Wallcreeper	<i>Tichodroma muraria</i>						X				
133	0	Eurasian Treecreeper	<i>Certhia familiaris</i>			X	X						
134	7	Bar-tailed Treecreeper	<i>Certhia himalayana</i>		X			X			X	X	X

	TB&FG	English Name	Scientific Name	Status	Bungalow	Auli	Lata	Tolma	Gamshali	Asan Barrage	Kuflon	Beibra	Dodi Tal
135	0	Rusty-flanked Treecreeper	<i>Certhia nipalensis</i>								X		X
136	0	Winter Wren	<i>Troglodytes troglodytes</i>										X
137	6	Brown Dipper	<i>Cinclus pallasii</i>					X	X		X		
138	7	Red-vented Bulbul	<i>Pycnonotus cafer</i>							X			
139	6	Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>							X			
140	7	White-cheeked Bulbul	<i>Pycnonotus leucogenys</i>		X	X	X	X		X	X	X	
141	6	Black Bulbul	<i>Hypsipetes leucocephalus</i>					X			X		
142	2	Goldcrest	<i>Regulus regulus</i>										X
143	7	Gray-breasted Prinia	<i>Prinia hodgsonii</i>							X	X		
144	6	Yellow-bellied Prinia	<i>Prinia flaviventris</i>							X			
145	7	Ashy Prinia	<i>Prinia socialis</i>							X			
146	4	Chestnut-headed Tesia	<i>Tesia castaneocoronata</i>								X		
147	0	Brownish-flanked Bush-Warbler	<i>Cettia fortipes</i>								X		
148	0	Yellowish-bellied Bush-Warbler	<i>Cettia acanthizoides</i>									X	
149	7	Common Tailorbird	<i>Orthotomus sutorius</i>							X			
150	7	Buff-barred Warbler	<i>Phylloscopus pulcher</i>					X			X	X	
151	0	Large-billed Leaf-Warbler	<i>Phylloscopus magnirostris</i>					X					
152	0	Western Crowned Leaf-Warbler	<i>Phylloscopus occipitalis</i>					X					
153	6	Whistler's Warbler	<i>Seicercus whistleri</i>									X	
154	7	Gray-hooded Warbler	<i>Seicercus xanthoschistos</i>		X	X		X			X	X	
155	3	Black-faced Warbler	<i>Abroscopus schisticeps</i>			X					X	X	
156	0	Dark-sided Flycatcher	<i>Muscicapa sibirica</i>			X		X					
157	0	Rusty-tailed Flycatcher	<i>Muscicapa ruficauda</i>								X		
158	7	Rufous-gorgeted Flycatcher	<i>Ficedula strophiatea</i>			X							X
159	7	Red-breasted Flycatcher	<i>Ficedula parva</i>								X	X	
160	3	Ultramarine Flycatcher	<i>Ficedula superciliaris</i>		X	X	X	X			X		
161	5	Verditer Flycatcher	<i>Eumyias thalassinus</i>		X			X					
162	7	Rufous-bellied Niltava	<i>Niltava sundara</i>		X			X					
163	0	Blue-throated Flycatcher	<i>Cyornis rubeculoides</i>							X			
164	7	Gray-headed Canary-Flycatcher	<i>Culicicapa ceylonensis</i>		X			X					
165	4	White-tailed Rubythroat	<i>Luscinia pectoralis</i>						X				
166	6	Red-flanked Bluetail	<i>Tarsiger cyanurus</i>				X						X
167	0	White-browed Bush-Robin	<i>Tarsiger indicus</i>		X								
168	7	Oriental Magpie-Robin	<i>Copsychus saularis</i>							X			
169	7	Indian Robin	<i>Saxicoloides fulicatus</i>							X			
170	6	Blue-capped Redstart	<i>Phoenicurus caeruleocephala</i>										X
171	5	Blue-fronted Redstart	<i>Phoenicurus frontalis</i>						X			X	X

	TB&FG	English Name	Scientific Name	Status	Bungalow	Auli	Lata	Tolma	Gamshali	Asan Barrage	Kuflon	Beibra	Dodi Tal
172	7	White-capped Redstart	<i>Chaimarrornis leucocephalus</i>					X			X	X	
173	7	Plumbeous Redstart	<i>Rhyacornis fuliginosa</i>					X			X		
174	0	Grandala	<i>Grandala coelicolor</i>						X				
175	5	Little Forktail	<i>Enicurus scouleri</i>					X			X		X
176	7	Spotted Forktail	<i>Enicurus maculatus</i>		X			X			X		
177	0	Red-tailed Wheatear	<i>Oenanthe xanthopyrna</i>		X			X					
178	7	Common Stonechat	<i>Saxicola torquata</i>				X						
179	7	Pied Bushchat	<i>Saxicola caprata</i>							X			
180	7	Gray Bushchat	<i>Saxicola ferreus</i>		X	X	X	X			X	X	
181	7	Indian Chat	<i>Cercomela fusca</i>							X			
182	1	Blue-capped Rock-Thrush	<i>Monticola cinclorhynchus</i>					X					
183	5	Chestnut-bellied Rock-Thrush	<i>Monticola rufiventris</i>		X						X		X
184	6	Blue Whistling-Thrush	<i>Myophonus caeruleus</i>		X			X			X	X	X
185	0	Pied Thrush	<i>Zoothera wardii</i>		X								
186	7	Orange-headed Thrush	<i>Zoothera citrina</i>							X			
187	4	Tickell's Thrush	<i>Turdus unicolor</i>		X								
188	0	White-collared Blackbird	<i>Turdus albocinctus</i>								X		
189	5	Gray-winged Blackbird	<i>Turdus boulboul</i>		X	X							
190	1	Mistle Thrush	<i>Turdus viscivorus</i>		X	X							X
191	7	Yellow-bellied Fantail	<i>Rhipidura hypoxantha</i>					X			X	X	X
192	7	White-throated Fantail	<i>Rhipidura albicollis</i>							X			
193	7	White-throated Laughingthrush	<i>Garrulax albogularis</i>		X						X	X	
194	6	Striated Laughingthrush	<i>Garrulax striatus</i>								X	X	
195	7	Streaked Laughingthrush	<i>Garrulax lineatus</i>		X			X			X	X	X
196	0	Variiegated Laughingthrush	<i>Garrulax variegatus</i>					X			X	X	
197	4	Chestnut-crowned Laughingthrush	<i>Garrulax erythrocephalus</i>		X						X	X	
198	7	Puff-throated Babbler	<i>Pellorneum ruficeps</i>							X			
199	6	Rusty-cheeked Scimitar-Babbler	<i>Pomatorhinus erythrogenys</i>		X								
200	5	Scaly-breasted Wren-Babbler	<i>Pnoepyga albiventer</i>								X	X	
201	4	Immaculate Wren-Babbler	<i>Pnoepyga immaculata</i>	E							X		
202	7	Black-chinned Babbler	<i>Stachyris pyrrhops</i>							X	X	X	
203	7	Jungle Babbler	<i>Turdoides striata</i>							X			
204	4	White-browed Shrike-Babbler	<i>Pteruthius flaviscapis</i>		X						X	X	
205	1	Chestnut-tailed Minla	<i>Minla strigula</i>								X		
206	0	White-browed Fulvetta	<i>Alcippe vinipectus</i>								X	X	
207	7	Rufous Sibia	<i>Heterophasia capistrata</i>		X						X	X	X
208	2	Whiskered Yuhina	<i>Yuhina flavicollis</i>		X						X		
209	0	Stripe-throated Yuhina	<i>Yuhina gularis</i>									X	

	TB&FG	English Name	Scientific Name	Status	Bungalow	Auli	Lata	Tolma	Gamshali	Asan Barrage	Kuflon	Beibra	Dodi Tal
210	1	Black-chinned Yuhina	<i>Yuhina nigripenta</i>								X		
211	7	Oriental White-eye	<i>Zosterops palpebrosus</i>		X	X				X	X		
212	7	Purple Sunbird	<i>Cinnyris asiaticus</i>							X			
213	1	Gould's Sunbird	<i>Aethopyga gouldiae</i>					X					
214	5	Green-tailed Sunbird	<i>Aethopyga nipalensis</i>						X		X		
215	0	Black-throated Sunbird	<i>Aethopyga saturata</i>								X		
216	4	Eastern Crimson Sunbird	<i>Aethopyga siparaja</i>							X			
217	0	Fire-tailed Sunbird	<i>Aethopyga ignicauda</i>				X	X					
218	1	Fire-breasted Flowerpecker	<i>Dicaeum ignipectum</i>		X			X					
219	1	Eurasian Golden Oriole	<i>Oriolus oriolus</i>							X			
220	7	Black-hooded Oriole	<i>Oriolus xanthornus</i>							X			
221	7	Common Woodshrike	<i>Tephrodornis pondicerianus</i>							X	X		
222	7	Black Drongo	<i>Dicrurus macrocercus</i>		X					X			
223	7	Ashy Drongo	<i>Dicrurus leucophaeus</i>		X			X					
224	7	White-bellied Drongo	<i>Dicrurus caerulescens</i>							X			
225	4	Hair-crested Drongo	<i>Dicrurus hottentottus</i>							X			
226	3	Jungle Myna	<i>Acridotheres fuscus</i>							X			
227	7	Bank Myna	<i>Acridotheres ginginianus</i>							X			
228	7	Common Myna	<i>Acridotheres tristis</i>							X	X	X	
229	7	Asian Pied Starling	<i>Gracupica contra</i>							X			
230	7	Brahminy Starling	<i>Temenuchus pagodarum</i>							X			
231	0	Alpine Accentor	<i>Prunella collaris</i>										X
232	6	Rufous-breasted Accentor	<i>Prunella strophiatea</i>								X	X	
233	7	Citrine Wagtail	<i>Motacilla citreola</i>						X				
234	7	Gray Wagtail	<i>Motacilla cinerea</i>		X				X		X		
235	7	White Wagtail	<i>Motacilla alba</i>						X				
236	7	White-browed Wagtail	<i>Motacilla madaraspatensis</i>							X			
237	2	Rosy Pipit	<i>Anthus roseatus</i>			X			X				
238	7	Olive-backed Pipit	<i>Anthus hodgsoni</i>			X							
239	6	Rock Bunting	<i>Emberiza cia</i>		X	X	X	X				X	X
240	2	Chestnut-eared Bunting	<i>Emberiza fucata</i>			X							
241	0	Plain Mountain-Finch	<i>Leucosticte nemoricola</i>								X		
242	0	Dark-breasted Rosefinch	<i>Carpodacus nipalensis</i>		X			X			X	X	X
243	6	Common Rosefinch	<i>Carpodacus erythrinus</i>		X			X	X				
244	0	Beautiful Rosefinch	<i>Carpodacus pulcherrimus</i>						X				
245	6	Pink-browed Rosefinch	<i>Carpodacus rodochroa</i>					X			X	X	
246	0	Spot-winged Rosefinch	<i>Carpodacus rhodopeplus</i>									X	
247	5	Yellow-breasted Greenfinch	<i>Carduelis spinoides</i>		X			X			X		

	TB&FG	English Name	Scientific Name	Status	Bungalow	Auli	Lata	Tolma	Gamshali	Asan Barrage	Kuflon	Beibra	Dodi Tal
248	0	Orange Bullfinch	<i>Pyrrhula aurantiaca</i>										X
249	0	Red-headed Bullfinch	<i>Pyrrhula erythrocephala</i>										X
250	0	Spot-winged Grosbeak	<i>Mycerobas melanozanthos</i>		X			X					
251	0	Scarlet Finch	<i>Haematoaspiza sipahi</i>								X		
252	7	House Sparrow	<i>Passer domesticus</i>		X				X	X			
253	7	Russet Sparrow	<i>Passer rutilans</i>								X		
254	0	Eurasian Tree Sparrow	<i>Passer montanus</i>		X					X			
255	7	Chestnut-shouldered Petronia	<i>Petronia xanthocollis</i>							X			
256	3	White-rumped Munia	<i>Lonchura striata</i>								X	X	
257	3	Nutmeg Mannikin	<i>Lonchura punctulata</i>							X			

Appendix VII: List of Mammal Species Seen During Site Surveys

Key:

- English Name: Identification based on Menon (2009). Taxonomy derived from IUCN (2011)
 - *: Reported in the region but not personally seen
 - **: Evidence of presence in the form of scat, spoor, call, or quills
- Scientific Name: Based on Menon (2009)
- Status: Redlist data derived from IUCN (2011)

	English Name	Scientific Name	Status	Bungalow	Auli	Lata	Tolma	Gamshali	Asan Barrage	Kuflon	Beibra	Dodi Tal
1	Rhesus Macaque	<i>Macaca mulatta</i>		X	X	X	X		X	X		
2	Hanuman Langur	<i>Semnopithecus entellus</i>	Nt	X	X		X	X			X	X
3	Himalayan Musk Deer	<i>Moschus chrysogaster</i>	E									X
4	Indian Muntjac	<i>Muntiacus muntjak</i>		X						X		
5	Spotted Deer	<i>Axis axis</i>							x			
6	Goral	<i>Naemorhedus goral</i>	Nt				X				X	
7	Himalayan Tahr	<i>Hemitragus jemlahicus</i>	Nt			X		X				X
8	Wild Pig	<i>Sus scrofa</i>							X			
9	*Asian Elephant	<i>Elephas maximus</i>	E						X			
10	Asiatic Black Bear	<i>Ursus thibetanus</i>	V				X				X	X
11	Red Fox	<i>Vulpes vulpes</i>			X						X	
12	**Common Leopard	<i>Panthera pardus</i>	Nt			X						X
13	Jungle Cat	<i>Felis chaus</i>							X			
14	Yellow-throated Martin	<i>Martes flavigula</i>		X								
15	Royle's Pika	<i>Ochotona roylei</i>										X
16	**Indian Porcupine	<i>Hystrix indica</i>		X								
17	*Malayan Giant Squirrels	<i>Ratufa bicolor</i>			X							
18	Five-striped Palm Squirrel	<i>Funambulus pennantii</i>		X		X	X		X	X		
19	Indian Flying Fox	<i>Pteropus giganteus</i>							X			