

## The ornithological importance of Khaptad National Park, Nepal

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An assessment is made of the conservation value of Khaptad National Park, the only protected area in Nepal's western mid-mountain region. The 50 bird species breeding at Khaptad for which Nepal may hold significant world populations are listed. A summary of the main vegetation-types and an account of ornithological importance is given for each climatic zone. People's use of the park, management problems and recommendations for future ornithological survey work are described.

Khaptad National Park is located south of the main Himalayan range in Seti Zone, far western Nepal, at an air distance of 446 km from Kathmandu. The park lies between 29°17'–29°27'N and 81°–81°13'E and covers 225 km<sup>2</sup>. It was gazetted in 1985 as a result of representations made by the Khaptad Swami to His Majesty, King Birendra Bir Bikram Shah Dev, and following recommendations made by Kattel (1981).

Khaptad is an isolated massif with the highest point at 3,300 m. The top is a rolling plateau of extensive grasslands interspersed with oak and coniferous forests, shrubberies of rhododendron and berberis, and boggy areas. The slopes of the massif are thickly vegetated with broadleaved and coniferous forests and bamboo stands. A small shallow lake, Khaptad Daha, lies on the top at 3,050 m.

### INFORMATION SOURCES

Dr Robert Fleming Sr was the first ornithologist to go to Khaptad, but his visit between 25 and 27 October 1959 was hampered by heavy rain. His account of the trip and details of the seven bird species he recorded are given in Fleming and Traylor (1961, 1964). In 1981 Bijaya Kattel from the Department of National Parks and Wildlife Conservation carried out a cursory ecological survey of Khaptad (Kattel 1981). He described the area, access, communications, fauna, flora, geology, climate and future management problems and compiled preliminary lists of plants, birds and mammals. Arend van Riessen of the Netherlands Development Organisation in Nepal visited Khaptad in May and June in 1983 and 1984, and in May 1986 (van Riessen 1986). He recorded 98 bird species in the park and so made the first major contribution to the ornithological knowledge of Khaptad. The previous and present park wardens, Gopal Upadhyaya and Barna Bahadur Thapa, have also kept some wildlife records. Bruce and Margaret Jefferies visited Khaptad in February 1988 on behalf of the Department of National Parks and Wildlife Conservation, mainly to investigate park management (Jefferies 1988). Grasslands in all Nepal's

protected areas including Khaptad were surveyed in 1988 (Anon. 1988). A survey was made by Barna B. Thapa, T. P. Inskipp and C. I. between 20 April and 28 May 1988 (Inskipp 1988). Routes taken are shown in Figure 1. The bird species of all the park's habitats were investigated. Numbers of individuals, altitude, habitat-type and breeding information were recorded. A total of 208 bird species was found including 109 new species for the park. Six of these were new for western Nepal. Records were also kept of mammals, butterflies and plants. Ian Barber and Tom Prescott found an additional five bird species in the park in 1989, bringing the total recorded there to 223.

### CONSERVATION VALUE

Khaptad is the only protected area representative of Nepal's western mid-mountain region. There is just one other protected area in Nepal's middle mountains, the Shivapuri Watershed and Wildlife Reserve (145 km<sup>2</sup>), which lies on the northern side of the Kathmandu Valley.

Khaptad is of importance for nature conservation mainly because of the wide variety and high quality of its forests. These comprise subtropical, lower and upper temperate, and subalpine types. About 76% of the bird species recorded and 86% of breeding or probably breeding bird species depend on forests or shrubs. (Throughout the rest of this paper the term 'breeding species' includes those known to breed and those assumed to breed.)

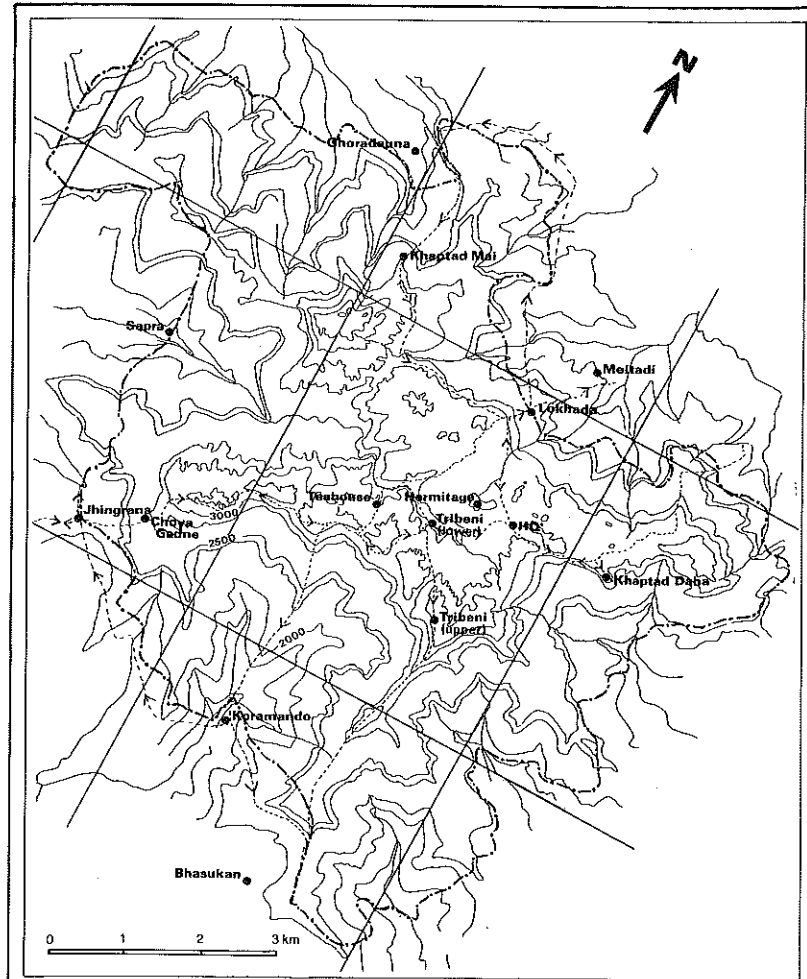
Breeding bird species currently recorded from Khaptad number 176 and many more are likely to be found. There are 124 bird species which may have significant world populations in Nepal; their breeding distributions are restricted to an area encompassing the Himalaya, north-east India, northern South-East Asia and south-west China (Inskipp and Inskipp 1986, Inskipp 1989). The high number of 50 of these (40% of the total) breed at Khaptad (see Table 1). Nepal may be especially important for 36 breeding bird species because they either have particularly restricted ranges within the general area under consideration or have been described as uncommon or rare in the Indian subcontinent (Inskipp and Inskipp 1986, Inskipp 1989). No fewer than five of these breed at Khaptad: Pied Thrush *Zosterornis wardii*, Great Parrotbill *Conostoma aemodium*, Hoary-throated Barwing *Actinodura nipalensis*, Rusty-flanked Treecreeper *Certhia nipalensis* and Spot-winged Rosefinch *Carpodacus rhodopeplus*. Bird species considered at risk in Nepal (i.e. at a national level) are given in Inskipp (1989). Only 5% of these breed at Khaptad (those marked with an asterisk may have significant world populations in Nepal): Satyr Tragopan\* *Tragopan satyra*, Mountain Scops Owl *Otus spilocephalus*, Brown Wood Owl *Strix leptogrammica*, Yellow-bellied Bush Warbler *Cettia acanthizoides*, Great Parrotbill\*, Black-throated Parrotbill *Paradoxornis nipalensis* and the nationally

Table 1. Khaptad breeding species for which Nepal may have significant world populations

	1	2	3	4
Satyr Tragopan <i>Tragopan satyra</i>	+	+		
Himalayan Monal <i>Lophophorus impejanus</i>	+	+		
Speckled Wood-Pigeon <i>Columba hodgsonii</i>	+	+	+	
Brown-fronted Woodpecker <i>Dendrocopos auriceps</i>		+	+	
Himalayan Woodpecker <i>Dendrocopos himalayensis</i>	+	+	+	
Indian Blue Robin <i>Luscinia brunnea</i>	+	+	+	
Blue-fronted Redstart <i>Phoenicurus frontalis</i>	+			
White-bellied Redstart <i>Hodgsonius phoenicuroides</i>	+			
Blue-capped Rockthrush <i>Monticola cinclorhyncha</i>				+
Pied Thrush <i>Zosterornis wardii</i>				+
Tickell's Thrush <i>Turdus unicolor</i>				+
White-collared Blackbird <i>Turdus albocinctus</i>	+	+		
Grey-winged Blackbird <i>Turdus boulboul</i>		+	+	+
Chestnut-headed Tesia <i>Tesia castaneocoronata</i>	+	+	+	
Aberrant Bush-Warbler <i>Cettia flavoviridis</i>	+	+	+	
Grey-sided Bush-Warbler <i>Cettia brunneifrons</i>		+		
Grey-hooded Warbler <i>Seicercus xanthoschistos</i>			+	+
Black-faced Warbler <i>Abroscopus schisticeps</i>			+	
Large-billed Leaf Warbler <i>Phylloscopus magnirostris</i>	?	?	(+)	(+)
Rufous-bellied Niltava <i>Niltava sundara</i>			+	
Rufous-tailed Flycatcher <i>Muscicapa ruficauda</i>	?	?	(+)	
Ultramarine Flycatcher <i>Ficedula superciliosa</i>		+	+	
Yellow-bellied Fantail <i>Rhipidura hypoxantha</i>	+	+		
Scaly-breasted Wren-Babbler <i>Phoenopygia albiventer</i>	+			
Black-chinned Babbler <i>Stachyris pyrrhops</i>				+
Great Parrotbill <i>Conostoma aemodium</i>	+	+		
White-throated Laughingthrush <i>Garrulax albogularis</i>	+	+	+	+
Striated Laughingthrush <i>Garrulax striatus</i>	+	+	+	+
Variiegated Laughingthrush <i>Garrulax variegatus</i>	+	+		
Spotted Laughingthrush <i>Garrulax ocellatus</i>	+	+	+	
Green Shrike-Babbler <i>Pteruthius xanthochloris</i>	+	+	+	
Hoary-throated Barwing <i>Actinodura nipalensis</i>	+	+		
White-browed Fulvetta <i>Alcippe vinipectus</i>	+	+		
Rufous Sibia <i>Heterophasia capistrata</i>		+	+	
Whiskered Yuhina <i>Yuhina flavicollis</i>		+	+	
Stripe-throated Yuhina <i>Yuhina gularis</i>	+	+	+	
Grey-crested Tit <i>Parus dichrous</i>	+	+		
Rufous-vented Tit <i>Parus rubidiventris</i>	+			
Spot-winged Tit <i>Parus melanolophus</i>	+	+		
White-tailed Nuthatch <i>Sitta himalayensis</i>	+	+	+	
Rusty-flanked Treecreeper <i>Certhia nipalensis</i>	+	+		
Fire-capped Tit <i>Cephalopyrus flammiceps</i>	+	+	+	
Fire-tailed Sunbird <i>Aethopyga ignicauda</i>	+			
Black-headed Jay <i>Garrulus lanceolatus</i>			+	+
Gold-billed Magpie <i>Urocissa flavirostris</i>	+	+	+	
Dark-breasted Rosefinch <i>Carpodacus nipalensis</i>	+			
Pink-browed Rosefinch <i>Carpodacus rhodochrous</i>	+			
Spot-winged Rosefinch <i>Carpodacus rhodopeplus</i>	+			
Red-headed Bullfinch <i>Pyrrhula erythrocephala</i>	+			
Collared Grosbeak <i>Mycerobas affinis</i>	+	+		

**Key** Climatic zones: + = Recorded in the zone and probably breeds there  
1 = Subalpine (+) = Recorded in the zone, but probably only a passage migrant  
2 = Upper temperate ? = No records from the zone, but species possibly breeds there  
3 = Lower temperate  
4 = Subtropical

Figure 1. Geographical map of Khaptad.



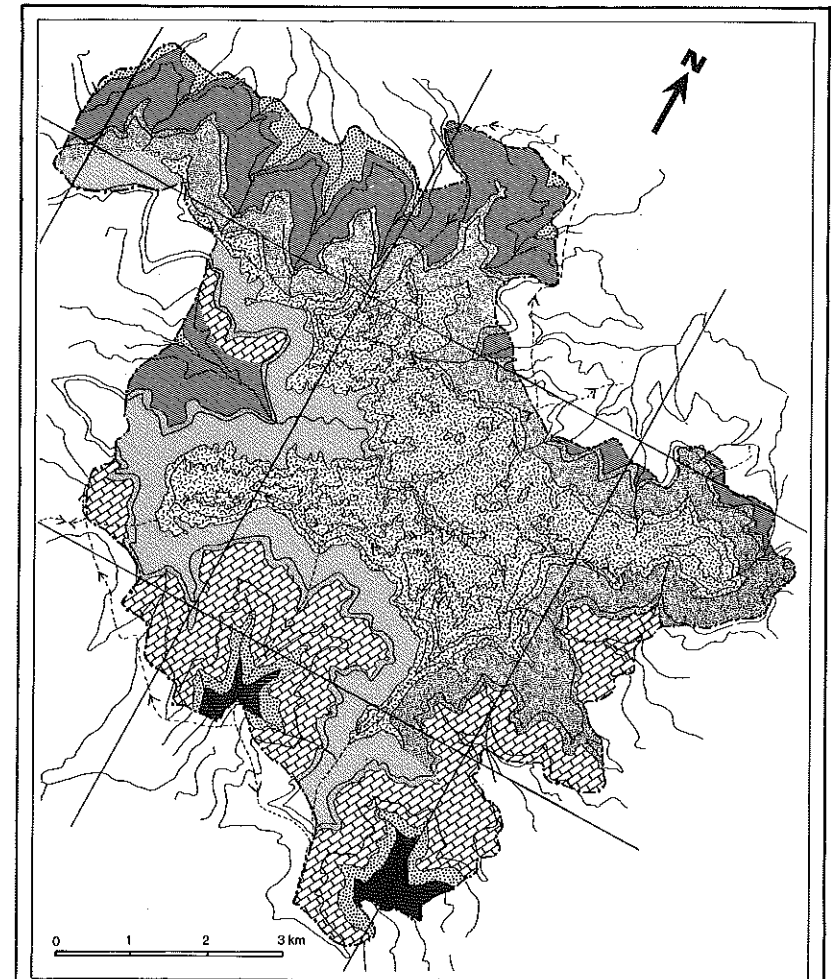
## KEY

- Park boundary
- Routes taken in spring 1988 survey
- Other paths

**HQ** Park headquarters

Park guard posts: Jhingrana, Lokhada, Sapra

Figure 2. Vegetational zones and forest-types in Khaptad.



## KEY Altitudinal zones and forest types follow Dobremez and Joshi (1984)

- |   |  |
|---|--|
| Subalpine zone; forest-types 1, 2, grassland and boggy areas<br>2,900-3,000 m   | Lower temperate zone; forest-type 7 and some cultivation on lower slopes<br>1,500-2,500 m                                  |
| Upper temperate zone; forest-type 3<br>2,400-2,900 m  | Subtropical zone; Chir pine forest-type 8, broadleaved forest-type 9 and some cultivation on lower slopes<br>1,250-1,600 m |
| Upper temperate zone; forest-type 4<br>2,450-2,900 m  |  |
| Lower temperate zone; forest-type 5 and some cultivation on lower slopes<br>1,800-2,500 m                             |  |
| Lower temperate zone; forest-type 6 and some Chir pine forest-type 8 and cultivation on lower slopes<br>1,800-2,400 m |  |

endangered Black-chinned Yuhina *Yuhina nigrimenta*. Khaptad is the only protected area in Nepal where the last species is known to occur (Inskipp 1989).

Khaptad is also rich in other faunal groups although they have been little studied so far. A wealth of plant species including many medicinal herbs grow in the park. The high-altitude bog system on Khaptad top is a rare habitat in Nepal.

The conservation value of each climatic zone is now described. Climatic zones and forest-types follow Dobremez and Joshi (1984) with the exception of the subalpine zone where an additional forest-type (shrubberies of *Rhododendron barbatum*) was identified in the 1988 survey. The distribution of forest-types is shown in Figure 2, while Table 2 lists for each zone: the numbers of breeding bird species, numbers of breeding bird species which may have significant world populations in Nepal, and numbers of breeding bird species considered at risk in Nepal.

#### Subalpine zone (2,900–3,300 m)

The subalpine zone comprises a rolling plateau with a mixture of dense forests, grasslands and wetlands (streams, pools and boggy areas). Two forest-types occur: Type 1: fir *Abies spectabilis*/hemlock *Tsuga dumosa*/oak *Quercus semecarpifolia*/rhododendron *Rhododendron barbatum*. Type 2: shrubberies of rhododendron *Rhododendron barbatum*.

Local people maintain that the extent of forests and grasslands has remained the same on Khaptad for at least 100 years, although ringbarking of large trees noted in the 1988 survey indicates that this is not entirely correct. However, as the soil is shallow and lies on impermeable rock, some of the grasslands are very wet and it is likely that they are unable to support forests.

As many as 45% of the number of breeding bird species in the zone may have significant world populations in Nepal. No other zone has such a large number. Notable species are the two pheasants, the Satyr Tragopan\* and Himalayan Monal *Lophophorus impejanus* (the country's national bird) and also the Great Parrotbill\*, Hoary Barwing, Rusty-flanked Treecreeper and Spot-winged Rosefinch (asterisks indicate nationally threatened species).

Table 2. Breeding species recorded

	1	2	3
Subalpine zone	78	35	2
Upper temperate zone	80	31	6
Lower temperate zone	87	25	2
Subtropical zone	58	6	2

**Key**  
 1 = Number of breeding species  
 2 = Number of breeding species with significant world populations in Nepal  
 3 = Number of breeding species at risk in Nepal

Nearly all breeding birds are dependent on forests or shrubs. The shrubberies are of high importance, as although only 15 breeding bird species have been recorded, as many as 11 of them may have significant world populations in Nepal. The Slender-billed Warbler *Phylloscopus tytleri* was recorded in these shrubberies – only the second locality for the species in Nepal. However it was only recorded in late April 1988 and the birds observed may have been passage migrants. They were located mainly by their song, so it is possible that they had stopped singing in May and were therefore overlooked.

During the summer months the grasslands are rich in many species of colourful flowers including primulas *Primula*, buttercups and anemones Ranunculaceae, and gentians *Gentianaceae*. However their conservation value is reduced by overgrazing. The grasslands are poor for birds, only supporting two breeding species, the Oriental Skylark *Alauda gulgula* and Himalayan Monal. A considerably larger number of bird species (24) have been observed to feed in the grasslands. These include the Upland Buzzard *Buteo hemilasius* and Common Buzzard *B. buteo* which hunt the habitat's abundant small mammals. Although both species may breed at Khaptad, neither has so far been confirmed to breed in Nepal.

There are many boggy areas and pools amongst the grasslands, the largest being the lake, Khaptad Daha, which covers about 1.5 ha. During the 1988 survey the small pools were found to be rich in invertebrates including dragonfly larvae. A total of five breeding bird species associated with wetlands has been found, all fairly common and widespread in the country; in addition the Solitary Snipe *Gallinago solitaria*, which is described as an uncommon winter visitor and passage migrant to Nepal (Inskipp and Inskipp 1985), may also breed at Khaptad. It was recorded along streams in April and May 1988 and was still present in July (B. B. Thapa *in litt.*). The lake is probably a useful staging post for small numbers of passage migrant birds, although so far it has been insufficiently studied. The broadleaved forests around the lake are particularly rich in birdlife.

#### Upper temperate zone (2,400–2,900 m)

The upper temperate zone is almost entirely covered in dense forest with a well developed understorey and interspersed with a few grass clearings. The steep slopes are rock- and grass-covered in places. There are two forest-types: Type 3 (northern and eastern slopes): mixed hygrophytic forest of oak *Quercus semecarpifolia* – *Q. floribunda*, hemlock *Tsuga dumosa*, fir *Abies pindrow* and maple *Acer* (2,400–2,900 m). Type 4 (southern and western slopes): mesophytic montane forest of oak *Quercus semecarpifolia* and rhododendron *Rhododendron arboreum* (2,450–2,900 m). There are dense stands of bamboo *Thamnocalamus* between 2,700 and 2,900 m around Choya Gadne on the southern slopes. Some bamboo stands also occur on the northern slopes in forest-type 3.

The high proportion of 39% of breeding bird species in this zone may have

significant populations in Nepal. These include the Satyr Tragopan, Himalayan Monal, Great Parrotbill, Hoary Barwing and Rusty-flanked Treecreeper. The Himalayan Monal's occurrence in this zone is of interest, since the species's normal breeding range in Nepal is 3,300–4,570 m (Inskipp and Inskipp 1985). In late April and May 1988 it was found as low as 2,500 m and up to 3,100 m. The Fire-capped Tit *Cephalopyrus flammiceps*, previously of uncertain status in Nepal (Inskipp and Inskipp 1985), was proved to breed at Khaptad in 1984 (van Riessen 1986) and during the 1988 survey. The distribution of this species and Common Crossbill *Loxia curvirostra* are closely linked to the maple *Acer* and hemlock *Tsuga dumosa* respectively, which explains why both species have only been found in forest-type 4. Six of the seven Khaptad breeding species which are at risk in Nepal occur in this zone. Three of them, the Yellow-bellied Bush Warbler and the Great and Black-throated Parrotbills, are dependent on dense bamboo stands. Khaptad forms the western recorded limit of the Great Parrotbill's world range. Birds occurring along streams in this zone have not been studied.

#### Lower temperate zone (1,500–2,500 m)

The lower temperate zone is mainly covered in forest with a dense understorey, apart from some relatively small degraded areas near the park boundary, and a few clearings and steep rock- and grass-covered slopes. Khaptad's lower temperate forests are of national importance because of their wide variety of types and their good condition. Khaptad is the only protected area in the country with extensive stands of the oaks *Quercus leucotrichophora* and *Q. floribunda*, and with large areas of *Q. lanata* of high quality. There are four forest-types: Type 5: mixed oaks *Q. leucotrichophora*, *Q. lanata*, and *Q. floribunda* and laurels *Lindera pulcherrima* and *Persea odoratissima* with many shrubs (e.g. *Viburnum*, *Rosa*, *Zanthoxylum*, *Euonymus*, *Staphylea*, *Schizandra*) (1,800–2,500 m). Type 6: collinear oak *Quercus lanata* and *Q. leucotrichophora* with *Lyonia ovalia* and *Rhododendron arboreum* (1,850–2,400 m). Type 7: mixed hygrophytic broadleaved forest with oaks *Quercus lanata* and *Q. leucotrichophora*, horse-chestnut *Aesculus indica* and maple *Acer stachyophyllum*, mostly in wet gullies (1,500–2,500 m). Type 8: Chir pine *Pinus roxburghii*. Some stands of type 8 are pure and others are mixed with broadleaved forest. The pine forests extend into the subtropical zone and, in sharp contrast to the broadleaved forests, they are open with little or no understorey or sign of regeneration, because of frequent fires.

The breeding bird communities of the broadleaved forests are particularly species-rich and include the Pied Thrush, a species for which Nepal may be especially important. Only one breeding species of this habitat, the Mountain Scops Owl, is considered at risk in the country. Lower temperate forests have been virtually unstudied in winter, but are likely to be of great value both for altitudinal migrants from the upper temperate and subalpine

zones of Khaptad and for birds from the Himalayan range to the north, as well as for birds from outside Nepal. The bird community of the Chir pine forests is very species-poor. Birds occurring on streams in the lower temperate zone have not been studied.

#### Subtropical zone (1,250–1,600 m)

The subtropical zone covers only a small proportion of the park; the land lying between 1,250 and 1,450 m is probably almost entirely cultivated. The forests comprise broadleaved species (forest-type 9), Chir pine *Pinus roxburghii* (forest-type 8) and a mixture of the two. Although of small extent the broadleaved forests are of high national importance as they are among the very few protected forests in Nepal's subtropical zone which remain in good condition. They comprise the steep-sided valley near Koramando (see Figure 2) and probably other small patches elsewhere in the park. Subtropical forests are severely threatened in Nepal and in the centre and east of the country most have been replaced by cultivation. The subtropical forests are especially poorly studied and the only available records are those from the 1988 survey. During the survey period in May these forests were relatively quiet as the breeding season was well advanced at the low altitudes of the subtropical zone; many more species are likely to be found. Two nationally threatened species were found: Mountain Scops Owl and Black-chinned Yuhina. As mentioned above, the Chir pine forests are very species-poor. Breeding species recorded along streams total six, all of which are fairly common and widespread in Nepal.

## PEOPLE'S USE OF THE PARK

The grasslands on Khaptad top are intensively grazed by domestic stock during the summer months. The people move into the park with their animals from the surrounding districts in late April and May and remain until August or September. During this period families live in wooden dwellings scattered throughout the meadows. Kattel (1981) counted 29 grasslands with cattle sheds. Local people are allowed to utilise the park's natural resources by carrying out certain activities on payment of a small fee (see Table 3). There are no permanent settlements within the park apart

Table 3. People's activities in the park

Activity	Period	Time of year
Collection of <i>Daphne</i>	10 days	May
Collection of bamboo	10 days	September
Collection of grass	10 days	October
Collection of firewood (wood from fallen trees)	10 days	April
Grazing	3–5 months	May–September

from some isolated pockets of private land on the lower slopes.

Khaptad is nationally famous for its wide diversity of medicinal herbs. There was a medicinal farm on the top for about six years, but this has closed quite recently.

The forests of Khaptad are exploited far less than many others in Nepal. This is partly because the park lies in the country's least populated zone. Other major factors are that considerable forests still remain in the surrounding districts and are more easily accessible than those on Khaptad's exceptionally steep slopes.

Khaptad is held in high regard by local people as a holy area and is the home of the Khaptad Swami, more usually known as the Baba, who is regarded as a spiritual saint. A meditation zone of 5 km<sup>2</sup> has been set aside in the core area of the park and includes the temples at lower Tribeni (see Figure 1). At the end of May an annual festival called the Mella is held near the temples. It is the social event of the year for the surrounding districts. Several thousand people walk for two to four days to sing and dance throughout the night before returning home the following morning. The women are resplendent in brightly coloured traditional dress, typical of their individual villages. The festival originally marked the celebration of people gathering on Khaptad top for the summer grazing, but now far larger numbers of people participate and there is even a thriving fair. Tourists have yet to visit Khaptad and few foreigners have been there.

### MANAGEMENT PROBLEMS

In boggy areas of the grasslands, the current overgrazing has caused the development of gullies up to 1–2 m deep and wide and the loss of some vegetational cover, resulting in bare soil patches which have given way to dust holes in places. Local people fill in pools to prevent their cattle from drowning. Surveys were planned by park staff in 1988 to determine livestock numbers and the carrying capacity of the grasslands. The building of dams and establishment of plantations are also planned to counteract erosion.

The pockets of private land within Khaptad present some problems. Eventually their owners will be compensated and resettled outside the park. A full report with alternative suggestions has been prepared by the previous warden. Each year damaging fires are deliberately lit by local people in the Chir pine forests on the lower slopes to encourage the growth of grasses for their grazing animals.

Conservation education for the villagers in the park's surrounding districts is urgently needed as there is widespread ignorance about the reasons for the park's establishment. It is particularly important to justify the park's relevance to local people as a provider of vital resources and as part of their natural heritage. Important initial steps have already been taken by the park's wardens aided by the Baba, but much remains to be done. This

problem is especially acute for Khaptad as the people in Seti zone are amongst the least educated in Nepal. The highly successful Seti Project, run by the United Nations Development Programme, is helping to remedy this by funding the building of schools throughout the zone.

### RECOMMENDATIONS FOR FUTURE ORNITHOLOGICAL SURVEY WORK

Khaptad's birds are inadequately studied throughout the year, so further surveys at any season would be valuable. Surveys in March and April to locate breeding and wintering species of the subtropical and lower temperate forests would be especially worthwhile. The peak spring bird migration occurs during this period. Looking for migrants at the lake and on the grasslands on top is recommended. It is also a good season to search for the Cheer Pheasant *Catreus wallichii*, which may well occur on Khaptad's lower slopes. The species is recognised as internationally threatened (Collar and Andrew 1988). It is considered of indeterminate status in Nepal and one for which the country may be especially important (Inskipp and Inskipp 1986). Khaptad's forests are highly suitable for research because of their good condition and their wide range of types extending from the subtropical to subalpine zones.

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## Identification, vocalisations and taxonomy of *Pnoepyga* wren-babblers

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Apart from an isolated, subspecifically distinct population on Taiwan, the Scaly-breasted Wren-Babbler *Pnoepyga albiventer* has a distribution that lies almost entirely within that of the much wider-spread but extremely similar Pygmy Wren-Babbler *P. pusilla*. The literature proves confusing on their separation in the field. Altitude is no clear guide, and in fact only a bird that is heavily spotted on head and mantle can be confirmed as *albiventer*. Song is the best character, with *albiventer* giving a fast, wren-like warble and *pusilla* a high, persistent 'sec . . . saw'.

The Pygmy Wren-Babbler *Pnoepyga pusilla* is widespread in the Oriental region, ranging from western Nepal to Timor. Its closest relative, the Scaly-breasted Wren-Babbler *P. albiventer*, has a much more restricted distribution, encompassing the Himalayas from Dhaulagiri eastwards, the hills south of the Brahmaputra, Mount Victoria and the hills of north-east Burma, south-west China (south and south-east Xizang Autonomous Region, Sichuan and north-west Yunnan) and northernmost Viet Nam; throughout all but the westernmost portion of its range, the Scaly-breasted Wren-Babbler is sympatric with the Pygmy Wren-Babbler (see Figure 1). (The wren-babbler on Taiwan has been variously assigned to both species and is discussed in greater detail below.) Pygmy and Scaly-breasted

Figure 1. Distribution of Scaly-breasted Wren-Babbler *Pnoepyga albiventer* and Pygmy Wren-Babbler *P. pusilla*.

