

The Flora of Eastern Himalaya

Vol III



Hiroshi Hara

THE FLORA OF EASTERN HIMALAYA

THIRD REPORT

Results of the Botanical Expeditions to Eastern Himalaya in 1972
Organized by the University of Tokyo

Compiled by
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MEMBERS AND ITINERARIES

FIFTH BOTANICAL EXPEDITION TO EASTERN HIMALAYA 1972

MEMBERS OF THE EXPEDITION

Hiroo Kanai	Department of Botany, University Museum, University of Tokyo
Hiroyoshi Ohashi	Department of Botany, Faculty of Science, University of Tokyo
Hiroshi Hara	University of Tokyo
Hideaki Ohba	Botanical Garden, Faculty of Science, Tohoku University
Kunio Iwatsuki	Department of Botany, Faculty of Science, Kyoto University
Zennoske Iwatsuki	Hattori Botanical Laboratory

Informations on the members and itineraries of the Botanical Expeditions between 1960 and 1969 are given in the preceding volumes of "Flora of Eastern Himalaya" on pages 1-12 (1966) and second report: 1-9 (1971).

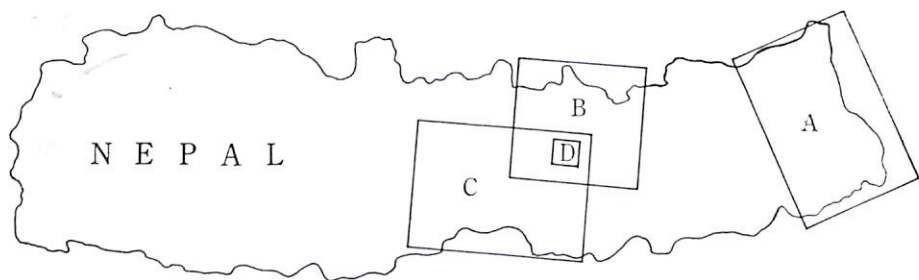


Fig. 1. Nepal showing the area investigated.

ITINERARIES OF THE EXPEDITION

Abbreviations of the members: Hara (*H*), K. Iwatsuki (*Ik*), Z. Iwatsuki (*Iz*), Kanai (*K*), Ohashi (*O*), Ohba (*Ob*) and Shakya (*S*)¹⁾.

Itinerary of the first trip in Eastern Nepal (Fig. 2).

May	23	1972	<i>KOOB</i>	→ Kathmandu
	28		<i>OOb</i>	Phulchoki, 2700 m
	29		<i>IkIz</i>	→ Kathmandu
	30		<i>OObS</i>	Kathmandu—Biratnagar—Dharan
	31		<i>IkIzK</i>	Kathmandu—Biratnagar—Dharan

1) Mr. P. R. Shakya, Department of Medicinal Plants, H.M.G. of Nepal, joined the first trip from May 30 until July 11.

June	1	1972	<i>IkIzKOObs</i>	South of Dharan, 200 m
	2			Dharan, 400 m—Sanguri Bhanjyang, 1300 m—Dhara Pani, 1000 m
	3			Dhara Pani, 1000 m—Mohamabedi Khola, 400 m—Tamur Bridge, 300 m—Teku Nala, 800 m
	4			Teku Nala, 800 m—Dhankuta, 1300 m—Nigale, 1600 m—Kuwa Pani, 1900 m—Hile, 1900 m
	5			Hile, 1900 m—Mure, 2100 m—Sinduwa, 2100 m—Bhalukhop, 2400 m—Chitre, 2400 m
	6			Chitre, 2400 m—Basantapur (Bilbatay Bhanjyang), 2300 m—Tute, 2300 m—Dor, 2600 m
	7			Dor, 2600 m—Tinjure, 2900 m—Tinjure Phedi, 2700 m—Chauke, 2700 m
	8			Chauke, 2700 m—Mangalbare, 2600 m—Lamo Pokhari, 2900 m
	9			Lamo Pokhari, 2900 m
	10			Lamo Pokhari, 2900 m—Gupha Pokhari, 2900 m—Suke, 2900 m
	11			Suke, 2900 m—Kokim Pokhari, 3000 m—Hati Surde, 3600 m—Hile Chok, 3500 m
	12			Hile Chok, 3500 m—Ghopte (Tal Pokhari), 3500 m
	13			Ghopte, 3500 m—Gosa, 4100 m
	14			Gosa, 4100 m—Banduke Pokhari (Duo Tulo Pokhari), 4200 m
	15			Banduke Pokhari, 4200 m—Saju Pokhari, 4000 m
	16			Saju Pokhari, 4000 m—4400 m—Topke Gola, 3600 m
	17–19			Topke Gola, 3600 m
	20			Topke Gola, 3600 m—Jalang Chhyongo, 4300 m
	21			Jalang Chhyongo, 4300 m—Janga La, 4600 m—Thudam, 3400 m
	22			Thudam, 3400 m
	23			Thudam, 3400 m—Lama Chungbu, 4200 m
	24			Lama Chungbu, 4200 m—Samdan, 4400 m—Slesa, 4500 m—Lama Chungbu, 4200 m—Thudam
	25			Thudam, 3400 m
	26			Thudam, 3400 m—Kipudonsu, 4200 m—Kipuphu, 4500 m
	27			Kipuphu, 4500 m—Phujeng La, 4800 m—Topke Gola, 3600 m
	28			Topke Gola, 3600 m—Shewaden, 2600 m
	29			Shewaden, 2600 m—Mewa Khola, 2100 m—Papung, 2000 m
	30			Papung, 2000 m—Bir Gaon, 1600 m
July	1			Bir Gaon, 1600 m—Saju Khola, 1400 m—Dingla, 1000 m
	2			Dingla, 1000 m—Doban, 800 m—Nessum, 1300 m

July	3	1972	<i>IkIzKOObs</i>	Nessum, 1300 m—Puntapla, 2000 m—Gorza Gaon, 2000 m—Bhuje, 2700 m
	4			Bhuje, 2700 m—Gupha Pokhari, 2900 m—Lamo Pokhari, 2900 m—Chauke, 2700 m
	5			Chauke, 2700 m
	6			Chauke, 2700 m—Tinjure Phedi, 2700 m—Tinjure, 2900 m—Dor, 2600 m
	7			Dor, 2600 m—Tute, 2300 m—Basantapur, 2300 m—Chitre, 2400 m
	8			Chitre, 2400 m—Hile, 1900 m—Dhankuta, 1300 m—Teku Nala, 800 m
	9			Teku Nala, 800 m—Tamur Bridge, 300 m—Mohamabedi Khola, 400 m—Dhara Pani, 1000 m
	10			Dhara Pani, 1000 m—Sanguri Bhanjyang, 1300 m—Dharan, 400 m—Biratnagar
	11			Biratnagar—Kathmandu
	12		<i>H</i>	→ Kathmandu
	15		<i>HIkIzOb</i>	Phulchoki, 2700 m
	18		<i>IkKOOB</i>	Kathmandu—Calcutta
	19		<i>H</i>	Kathmandu—Calcutta <i>Iz Kathmandu →</i>

Itinerary of the second trip in Darjeeling and the Singalila Range (Fig. 2).

July	21	1972	<i>HIkO</i>	Calcutta—Darjeeling, 2200 m
	22			Darjeeling (East Birch Hill Road, 2100 m)
	23			Darjeeling
	24			Darjeeling (Victoria Fall, 2100 m)
	25			Darjeeling (Ubayuri-dani, 2200 m)
	26–29			Darjeeling 28 <i>KOb</i> Calcutta—Darjeeling
	30		<i>HIkKOOB</i>	Mani Bhanjyang, 2000 m—Mekma, 2600 m—Tonglu, 3000 m
	31			Tonglu, 3000 m—Gairibas, 2800 m—Kala Pokhari, 3000 m—Sandakphu, 3600 m
August	1			Sandakphu, 3600 m
	2			Sandakphu, 3600 m—Sabargam, 3200 m—Phalut, 3600 m
	3			Phalut, 3600 m—Singalila, 3700 m
	4			Phalut, 3600 m—Ratho Chu, 2100 m—Raman
	5			Raman, 2400 m—Siri Khola, 1900 m—Rimbick
	6			Rimbick, 2200 m—Lodhoma Khola, 1500 m—Palmajua, 2200 m
	7			Palmajua, 2200 m
	8			Palmajua, 2200 m—Batasi, 2100 m
	9			Batasi—Mani Bhanjyang, 2000 m—Darjeeling
	10		<i>IkOOB</i>	Darjeeling, 2200 m—Ghum, 2300 m—Simkuna, 2200 m—Thame, 2000 m—Lopchu, 1500 m—Tista, 400 m, and return

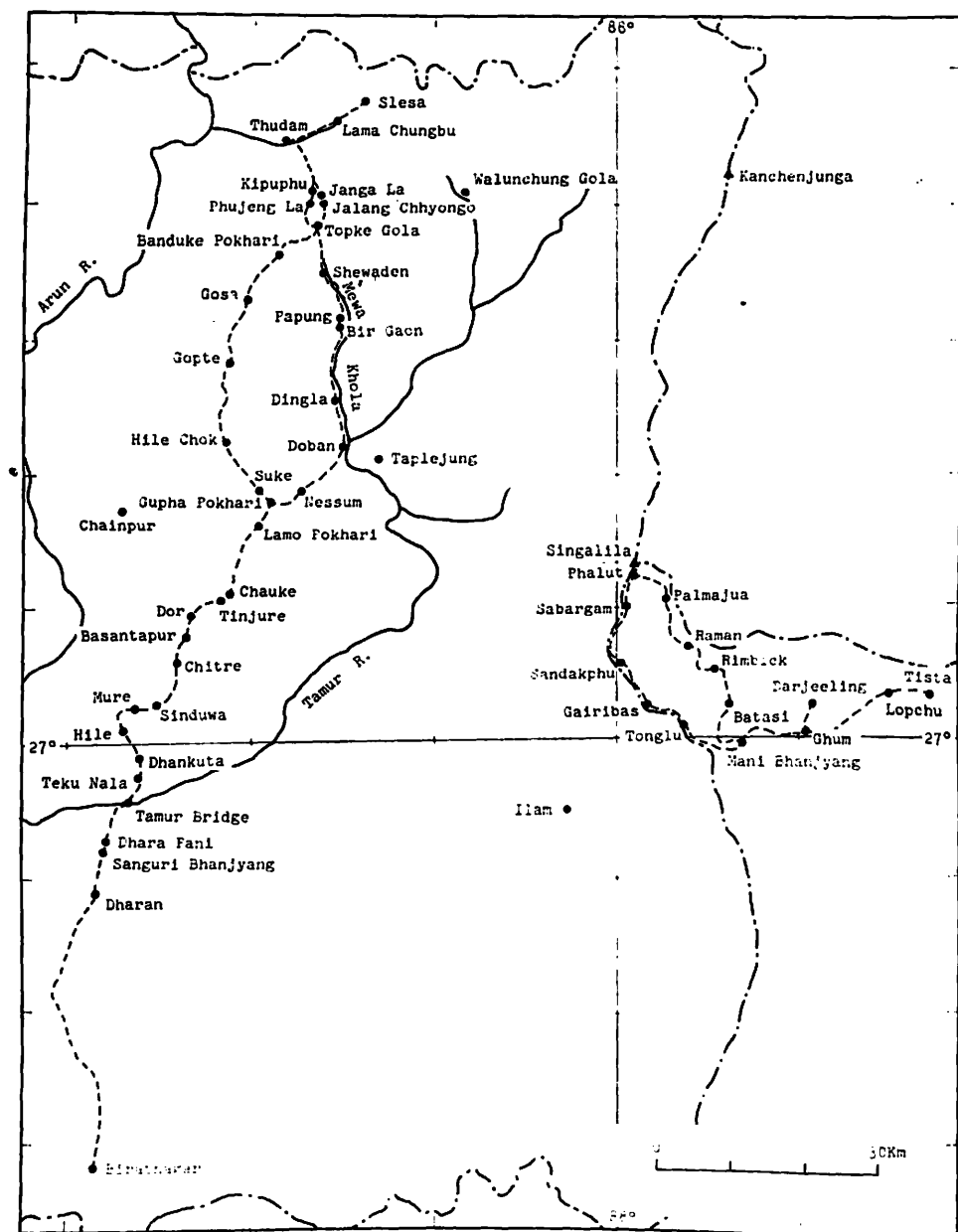


Fig. 2. Sketch map of Eastern Nepal, Darjeeling and the Singalila Range (Fig. 1, A) showing localities of the first and second trips in 1972.

August 11 1972		Darjeeling, 2200 m
12	<i>KOb</i>	Darjeeling—Ghum, 2300 m—Simkuna—Thame, 2000 m—Lopchu, 1500 m, and return
13	<i>HikO</i>	Darjeeling—Calcutta
13–15	<i>KOb</i>	Darjeeling—Raxaul—Birganj—Kathmandu
16	<i>H</i>	Calcutta—Kathmandu
17	<i>IkO</i>	Calcutta →

Itinerary of the third trip in Central Nepal (Fig. 3).

August	19 1972	<i>HKOb</i>	Kathmandu—Bainse, 600 m—Betrawati, 700 m—Sim Chotala, 900 m
	20		Sim Chotala—Ramche, 1800 m—Gram, 1900 m
	21		Gram, 1900 m—Thale, 1900 m—Dunche, 2000 m
	22		Dunche, 2000 m—Trisuli Khola, 1900 m—Singum Gumpa, 3200 m
	23		Singum Gumpa, 3200 m—Gosainkund, 4200 m
	24		Gosainkund, 4000—4400 m
	25		Gosainkund, 4200 m—Surjakund, 4400 m—Gopte, 3500 m
	26		Gopte, 3500 m—Thale Patil, 3400 m
	27		Thale Patil, 3400 m—Hile Dhap, 3400 m—Mangen, 3100 m
	28		Mangen, 3100 m—Khodang Danda, 2500 m
	29		Khodang Danda, 2500 m—Gul Bhanjyang, 2100 m—Latsu, 2400 m
	30		Latsu, 2400 m—Pati Bhanjyang, 1700 m—Bhorlang, 2400 m
	31		Bhorlang, 2400 m—Sundarijar, 1400 m—Kathmandu
September	5	<i>HOb</i>	Kathmandu →
	6	<i>K</i>	Phulchoki, 2700 m
	8	<i>K</i>	Kathmandu →

* * * * *

The series of botanical trips made by Dr. Hiroo Kanai (*K*) with the staffs of the Department of Medicinal Plants, H.M.G. of Nepal, in 1969 and 1970.

Abbreviations of the staffs: A. Adhikary (*A*), Madhu Sudan Bista (*B*), Sunar B. Malla (*M*), Tirta Bahadur Shrestha (*Sh*), Puspa Ratna Shakya (*S*), and many staffs of the Department (*V*).

February	13 1969	<i>KV</i>	Sundarijar, Kathmandu, 1400 m
	18	<i>K</i>	Swayambhu Nath, Kathmandu, 1300 m
March	1	<i>K</i>	Nagarjun, Kathmandu, 1500 m
	6	<i>KV</i>	Sundarijar, Kathmandu, 1400 m
	8	<i>K</i>	Chobar, Kathmandu, 1300 m
	26-27	<i>K</i>	Bagdwar (Sheopuri), Kathmandu, 2500 m
April	5	<i>K</i>	Godawari, Kathmandu, 1500 m
	7	<i>K</i>	Nagarjun, Kathmandu, 1500 m
	11	<i>K</i>	Phulchoki, Kathmandu, 2700 m
	17	<i>BK</i>	Simra, 200 m—Patlaia, 200 m
	18		Patlaia, 200 m—Sakti Mohar Khola, 200 m—Nijgar 200 m
	19		Nijgar, 200 m—Bagdeo, 250 m—Saraswati, 600 m—Bakeya Khola, 300 m—Jaspar, 300 m
	20		Jaspar, 300 m—Jureli, 340 m—Phurke Chour, 370 m—620 m—Makwampur (Trisuli), 500 m

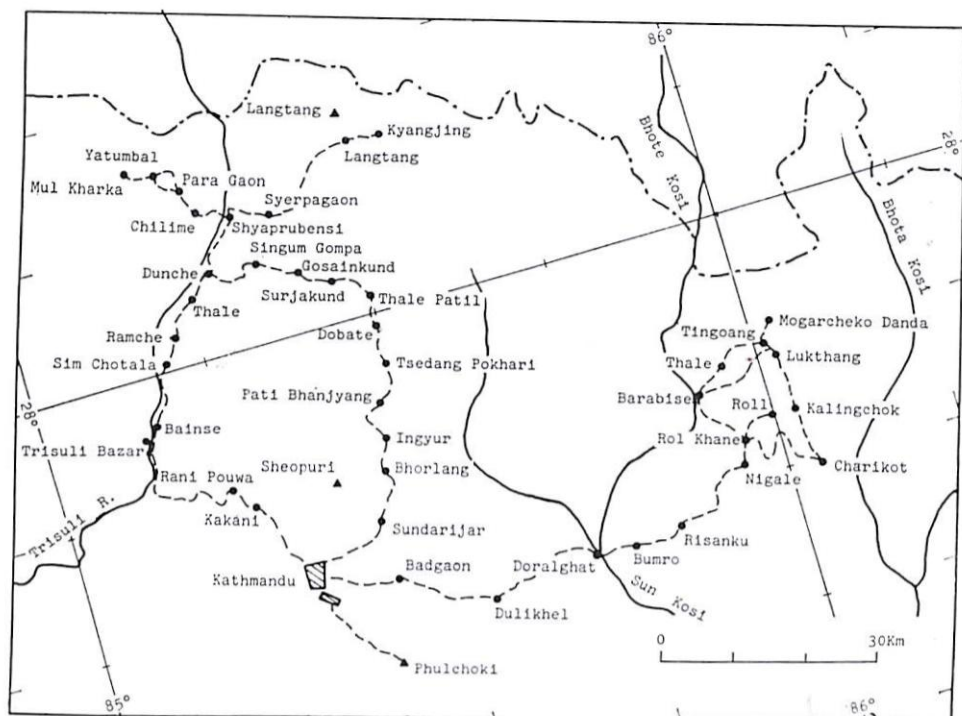


Fig. 3. Sketch map of northern Central Nepal (Fig. 1, B) showing localities of the third trip in 1972 and those of Dr. Kanai's trips in 1969 and 1970.

April	21	1969 BK	Makwampur, 500 m—Guwabaritola, 500 m—Dhara Pani, 300 m—Makwampur Garhi, 1100 m—Chandenitola, 1000 m
	22		Chandenitola, 1000 m—Dunge Garhi, 1200 m—Dhedre Khola, 700 m—Siwanta, 850 m
	23		Siwanta, 850 m—1250 m—Tsinging, 1200 m—Baguwa 900 m—Bagmati River, 750 m—Khani Khola, 760 m—Yaspa, 950 m
	24		Yaspa, 950 m—Chopli, 1500 m—Nigate (Timpani) Bhanjyang, 2000 m—Tikabhairab, 1500 m
	25		Tikabhairab, 1500 m—Lele, 1500 m—Naldu, 1900 m—Bhardeophedi, 1800 m—Khiraule Bhanjyang, 2250 m—Lele Bhanjyang, 2000 m—Godawari, 1500 m
June	1	K ¹⁾	Bainse, 800 m—Sim Chotala, 900 m
	2		Sim Chotala, 900 m—Ramche, 1800 m—Thale, 2000 m
	3		Thale, 2200 m—Dunche, 2100 m—Trisuli Khola, 2000 m
	4		Trisuli Khola, 2000 m—Singum Gumpa, 3200 m and return

1) Joined the Fourth Botanical Expedition organized by the University of Tokyo.

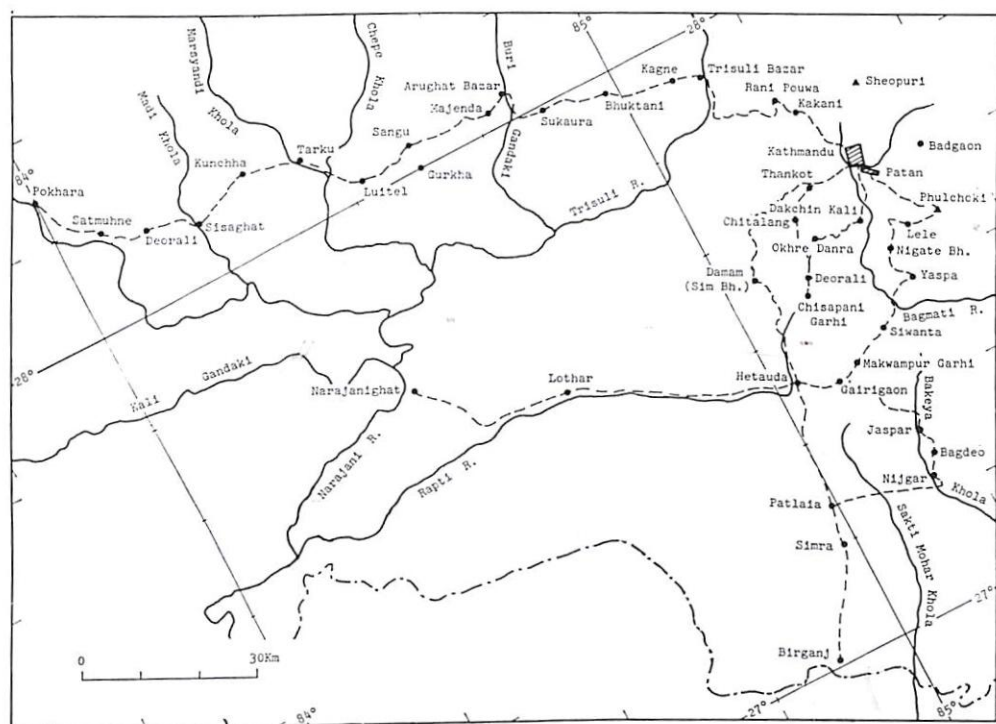


Fig. 4. Sketch map of southern Central Nepal (Fig. 1, C) showing localities of Dr. Kanai's trips in 1969 and 1970.

June	5	1969	Trisuli Khola, 2000 m—Dunche, 2100 m—Thale, 2200 m
	6		Thale, 2200 m—Gram, 1900 m—Ramche, 1800 m—Sim Chotala, 900 m
	7		Sim Chotala, 900 m—Bainse, 800 m
	10	K	Phulchoki, 2700 m
	14	K	Sheopuri, 2500 m
July	26	K	Sim Bhanjyang, 2500 m
August	9	K	Phulchoki, 2700 m
	20	KM	Sundarijar, 1380 m—Mul Kharka, 1850 m—Chipu Danda, 2390 m—Bhorlang, 2370 m
	21		Bhorlang, 2370 m—Pati Bhanjyang, 1750 m—Tanguni, 1840 m—Chipling, 2160 m—Latsu, 2440 m—Ingyur, 2240 m
	22		Ingyur, 2240 m—Gul Bhanjyang, 2100 m—Duche Gyang, 2250 m—Thodang Danda, 2400 m—Kutumsang, 2400 m—Tsedang Pokhari, 3000 m
	23		Tsedang Pokhari, 3000 m—Panghu Danda, 3120 m—Mere Danda, 3200 m—Mangen Bhanjyang, 3160 m—Dobate, 3230 m
	24		Dobate, 3230 m—Hile Dhap, 3340 m—Mane, 3550 m

			—Thale Patil, 3500 m—Rock Shelter I, 3270 m —Rock Shelter II, 3200 m
August	25	1969	Rock Shelter II, 3200 m—Gotiora, 3280 m—Gadje, 3950 m
	26		Gadje, 3950 m—Surjakund, 4400 m—Gosainkund, 4260 m
	27		Gosainkund, 4260 m
	28		Gosainkund, 4260 m—Surjakund, 4450 m—Gadje, 3950 m—Gotiora, 3280 m—Thale Patil, 3500 m
	29		Thale Patil, 3500 m—Mane, 3550 m—Hile Dhap, 3340 m—Dobate, 3230 m—Mangen Bhanjyang, 3160 m—Mere Danda, 3200 m—Panghu Danda, 3120 m—Tsedang Pokhari, 3000 m—Kutumsang, 2400 m
	30		Kutumsang, 2400 m—Thodang Danda, 2470 m—Duche Gyang, 2250 m—Gul Bhanjyang, 2100 m—Ingyur, 2240 m—Latsu, 2440 m—Chipling, 2160 m—Tanguni, 1840 m—Pati Bhanjyang, 1750 m
	31		Pati Bhanjyang, 1750 m—Bhorlang, 2370 m—Chipu Danda, 2390 m—Mul Kharka, 1850 m—Sundarijar, 1380 m—Kathmandu
October	2	K	Nagarjun, 1500 m
	21	K	Doralghat, 1000 m
November	1	K	Godawari, 1500 m
	8	K	Phulchoki, 2700 m
December	16	K	Kakani, Kathmandu, 2200 m
	30	K	Bagdwar, 2500 m
	31		Bagdwar, 2500 m—Budhanilkantha, 1500 m
January	6	1970 K	Trisuli, 500 m—Kagne, 700 m
	7		Kagne, 700 m—Samari Bhanjyang, 1200 m—Bhuktani, 1300 m
	8		Bhuktani, 1300 m—Hulkigaon, 1200 m—Chaurangi Phedi, 500 m—Gairi, 550 m—Achne, 500 m—Sukaura, 500 m
	9		Sukaura, 500 m—Arughat Bazar, 450 m—Majenda, 600 m
	10		Majenda, 600 m—Kanzo, 900 m—Sangu, 400 m
	11		Sangu, 400 m—Koprang, 600 m—Luitel, 500 m
	12		Luitel, 500 m—Sati Pokhari, 500 m—Chepey Tar Bridge, 370 m—Tarpu Ghat, 400 m—Tarku, 500 m
	13		Tarku, 500 m—Kunchha, 730 m—Sisa Ghat, 300 m
	14		Sisa Ghat, 300 m—Deorali, 900 m—Satmuhne, 500 m
	15		Satmuhne, 500 m—Pokhara, 600 m
	31	K	Balaju, Kathmandu, 1300 m
Feburary	4	K	Sheopuri, Kathmandu, 2700 m
	7	K	Shanku, Kathmandu, 1500 m
	10	K	Tikabhairab, 1500 m

March	1	1970	<i>K</i>	Daman, 2500 m
	6		<i>K</i>	Gokarna, 1200 m
	11		<i>K</i>	Doralghat, 1000 m—Bumro, 1900 m
	12			Bumro, 1900 m—Risanku, 1800 m
	13			Risanku, 1800 m—Tandj, 1900 m—Nigale, 2500 m
	14			Nigale, 2500 m—Rol Khane, 2500 m
	15–16			Rol Khane, 2500 m
	17			Rol Khane, 2500 m—Barabise, 800 m
April	4		<i>K</i>	Phulchoki, 2700 m
	15		<i>K</i>	Barabise, 800 m—Barati, 1300 m
	16			Barati, 1300 m—Thale Bisauna, 2800 m
	17			Thale Bisauna, 2800 m—Tingoang, 3200 m
	18			Tingoang, 3200 m—Harjung, 1700 m
	19			Harjung, 1700 m—Barabise, 800 m
	24–30		<i>KS</i>	Nagarjun, 2100 m
May	1		<i>K</i>	Barabise, 800 m—Jarjare, 2000 m
	2			Jarjare, 2000 m—Roll, 2900 m
	3			Roll, 2900 m—Jarjare, 2000 m
	4			Jarjare, 2000 m—Barabise, 800 m
June	23		<i>KS</i>	Bainse, 600 m—Mane Gaon, 1200 m
	24			Mane Gaon, 1200 m—Thale, 1900 m
	25			Thale, 1900 m—Dunche, 2000 m
	26			Dunche, 2000 m—Shyaprubensi, 1500 m
	27			Shyaprubensi, 1500 m—Tangjet, 1800 m
	28			Tangjet, 1800 m—Chilime, 1900 m—Khirojet, 2300 m
	29			Khirojet, 2300 m—Yatumbal, 2700 m
	30			Yatumbal, 2700 m—Oo Kharka, 3400 m
July	1			Oo Kharka, 3400 m—Mul Kharka, 3900 m
	2–6			Mul Kharka, 3900 m
	7			Mul Kharka, 3900 m—Yatumbal, 2700 m
	8			Yatumbal, 2700 m—Para Gaon, 2200 m—Chilime, 1900 m—Tangjet, 1800 m
	9			Tangjet, 1800 m—Shyaprubensi, 1500 m
	10			Shyaprubensi, 1500 m—Khangging, 2400 m
	11			Khangging, 2400 m—Syerpagaon, 2600 m—Langtang Gorge, 2800 m
	12			Langtang Gorge, 2800 m—Langtang, 3400 m
	13			Langtang, 3400 m—Kyangjing, 3800 m
	14–15			Kyangjing, 3800 m
	16			Kyangjing, 3800 m—Langtang, 3400 m—Langtang Gorge, 2800 m
	17			Langtang Gorge, 2800 m—Syerpagaon, 2600 m
	18			Syerpagaon, 2600 m—Shyaprubensi, 1500 m
	19			Shyaprubensi, 1500 m—Dunche, 2000 m
	20			Dunche, 2000 m—Thale, 1900 m—Ramche, 1800 m
	21			Ramche, 1800 m—Trisuli, 500 m
	22			Trisuli, 500 m—Rani Pouwa, 2000 m
	23			Rani Pouwa, 2000 m—Kathmandu

August 31	1970	<i>KSh</i>	Dakchin Kali, Kathmandu, 1500 m
September 1			Dakchin Kali, 1500 m—Okhre Danra, 2000 m
2			Okhre Danra, 2000 m—Kuli Khani, 1500 m— Deorali, 1900 m
3			Deorali, 1900 m—Kuli Khani, 1500 m—Chitalang, 1700 m
4			Chitalang, 1700 m—Chandragiri, 2200 m—Thankot, 1700 m
9		<i>K</i>	Barabise, 800 m—Thale, 2000 m
10			Thale, 2000 m—Thale Bisauna, 2800 m
11			Thale Bisauna, 2800 m—Tingoang, 3200 m
12			Tingoang, 3200 m—Khosori Khabre, 1500 m
13			Khosori Khabre, 1500 m—Barabise, 800 m
18		<i>K</i>	Phulchoki, 2700 m
22		<i>AKSh</i>	Barabise, 800 m—Thale, 2000 m
23			Thale, 2000 m—Jangdang Kharka, 3100 m
24			Jangdang Kharka, 3100 m—Tingoang, 3200 m
25			Tingoang, 3200 m—Sano Tingsang, 2800 m
26			Sano Tingsang, 2800 m—Tingoang, 3200 m—Luk- thang, 3200 m
27			Lukthang, 3200 m—Mogarcheko Danda, 3400 m— Lukthang, 3200 m
28			Lukthang, 3200 m—Kalingchok, 3600 m—Kuri, 3200 m
29			Kuri, 3200 m—Charikot, 1900 m

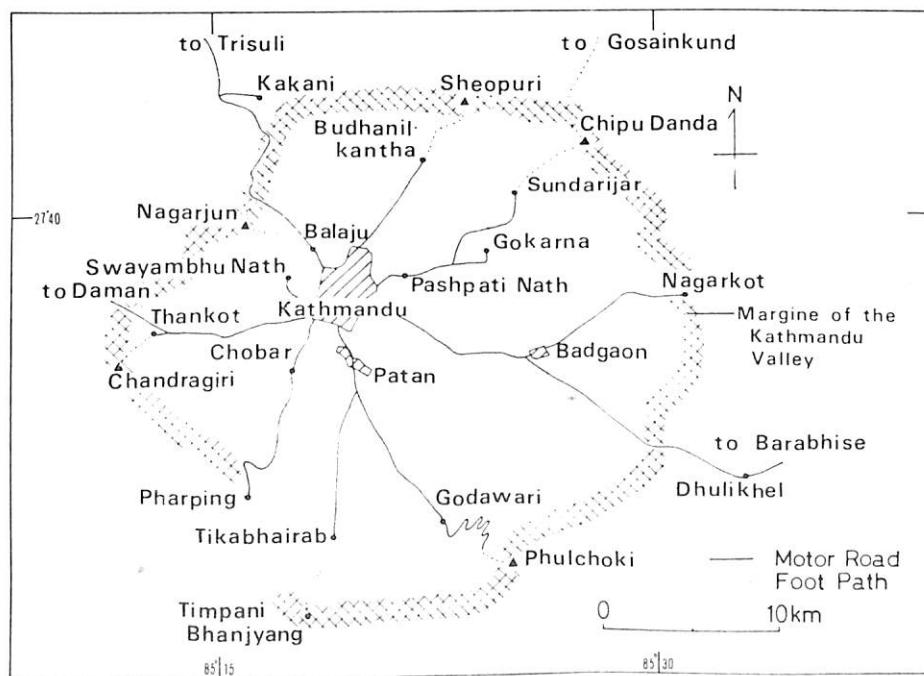


Fig. 5. Sketch map of the Kathmandu Valley.

September 30	1970	<i>AKSh</i>	Charikot, 1900 m — Mokaibari, 2000 m — Thunnai, 1900 m
October 1			Thunnai — Rol Khane 2500 m — Barabise 800 m
18-21		<i>KS</i>	Phulchoki, 2700 m
24		<i>K</i>	Nagarkot, Kathmandu, 2000 m
November 3-5		<i>KS</i>	Phulchoki, 2700 m
12		<i>KS</i>	Kathmandu, 1300 m — Daman, 2500 m — Hetauda, 200 m
13			Hetauda, 200 m — Patlaia, 200 m — Nijgar, 200 m — Sadaktor, 200 m
14			Sadaktor, 200 m — Bagdeo, 300 m
15			Bagdeo, 300 m — Patlaia, 200 m — Hetauda, 200 m — Gairigaon, 400 m
16			Gairigaon, 400 m — Makwampur Garhi, 1100 m — Dunge Garhi, 700 m — Gairigaon, 400 m
17			Gairigaon, 400 m — Hetauda, 200 m
18			Hetauda, 200 m — Lothar, 200 m
19			Lothar, 200 m — Narajani Ghat, 200 m
20			Narajani Ghat, 200 m — Hetauda, 200 m — Daman, 2500 m — Kathmandu, 1300 m