

**Report DAVIS EXPEDITION FUND
REPORT ON EXPEDITION/PROJECT**

Expedition/Project Title: Collection of Nepalese Vitaceae

Travel Dates: 26th of April – 5th of June 2010

Location: Nepal

Group Members: Dr. Anna Trias Blasi

Aims: The aims of the expedition were:

- to collect herbarium specimens of Vitaceae and associated data.
- to visit the KATH herbarium and gather specimen information.
- to acquire a first-hand knowledge of the vegetation and geography of Nepal.
- to establish contacts with Nepalese scientists.



Figure 1. From left to right starting from the top: *Tetrastigma serrulatum* (Roxb.) Planch., *Cissus repanda* Vahl, *Parthenocissus semicordata* (Wall.) Planch., *Tetrastigma serrulatum* (Roxb.) Planch. and *Ampelocissus barbata* (Wall.) Planch. in SE Nepal.

BACKGROUND

The Vitaceae are a large pantropical and (warm) temperate family of 850 species in 14 genera (Stevens, 2001 – onwards). They are mostly vines and are easily recognized by their distinctive leaf morphology and the position of the tendrils opposite them. They are extremely important as the source of table-grapes, raisins and wine grapes.

The Flora of Nepal Project dates from a meeting held in Edinburgh in 2002 between the Royal Botanic Garden Edinburgh (RBGE), the Royal Nepal Academy of Science and Technology (RONAST, now NAST), Tribhuvan University Central Department of Botany (TU-CDB), the Government of Nepal's Department of Plant Resources (DPR), the University of Tokyo (TI) and the Natural History Museum (BM). It was decided at that meeting that RBGE should coordinate the production of the Flora

The Flora of Nepal will be published in 10 volumes, each of about 700 species and will follow the same modified Englerian family order as in the Flora of China and the Flora of Bhutan. In order to maintain a concise format family, genus and species descriptions will be about 150 words and literature citation will be minimal. More detailed information including images will be made available online via the Padme database which is used to manage all data involved in the generation of accounts, and accounts will be made available online before they are published. It is anticipated that the complete Flora will take about 15 years to complete. Further details can be found at www.floraofnepal.org.

OUTCOME

The proposed fieldtrip took place between the 26th of February and the 5th of June in 2010. With a duration of approximately 6 weeks it combined both fieldwork and herbarium work (See Table 1). Due to unforeseen political difficulties in Nepal work had to be stopped for 11 days.

Summary of activities

A total of 25 fertile Vitaceae and 17 Poaceae specimens were collected during the 2 field-trips carried out in this expedition (See Tables 2 and 3, and Figure 2). In the case of the Vitaceae collections, specimens belonging to 10 different species in 6 genera out of the 27 species and 8 genera recorded in Nepal were collected.

A complete set was deposited at the National Herbarium and Plant Laboratories of the Department of Plant Resources in Kathmandu (KATH) according to the permit regulations. Another complete set will be deposited at the Royal Botanic Garden Edinburgh (E). Some additional duplicates will be sent as gifts to the University of Tokyo (TI), Tribhuvan University (TUCH), Missouri Botanical Garden (MO) and The Natural History Museum (BM).

DNA samples stored in silica-gel were also collected when possible for each herbarium specimen collected and will be stored at the Royal Botanic Garden Edinburgh (E).

Pictures of the habitat and the specimens collected were also taken and will be added to the Flora of Nepal database.

Additionally, 2 herbaria were visited namely KATH and TUCH. A total of 377 specimens were examined and the related information was introduced in the Flora of Nepal database.

Table 1. Summary of activities during the fieldtrip.

Date	Activity
26/04/2010	Arrival
27/04/2010	Working at KATH herbarium
28/04/2010 – 01/05/2010	Transportation unavailable due to Maoist disruption
02/05/2010 – 08/05/2010	General Maoist Strike
09/05/2010 – 12/05/2010	Working at KATH herbarium
13/05/2010	Logistics for the Fieldtrip
14/05/2010	Visit to Tribhuvan University (TUCH) with Prof. Dr. Krishna Shrestha
15/05/2010 – 24/05/2010	Fieldtrip to SE Nepal (detailed in Table 2)
25/05/2010 – 28/05/2010	Working at KATH herbarium
29/05/2010 – 30/05/2010	Fieldtrip Mugling – Pokhara (detailed in Table 3)
31/05/2010 – 04/06/2010	Working at KATH, visits to ESON. Logistics for departure
05/06/2010	Departure

Fieldtrip 1 – SE NEPAL

Dates: 15/05/2010 – 24/05/2010

Participants: Dr. Anna Trias Blasi, Dr. Atchara Teerawatananon, Mr. Ganga Bhatt.

Total collections: 24 Vitaceae and 17 Poaceae specimens.

Table 2. Summary of Fieldtrip 1.

Date	District	Localities visited	Observation	Specimens collected
15/05/2010	-	-	Logistics fieldtrip	0
16/05/2010	Kathmandu-Lalitpur-Makwanpur	Road Kathmandu to Hetauda, Tribhuvan Rajpath. approx. 1700m	Sterile: <i>Parthenocissus himalayana</i> . Lower Temperate forest.	0
16/05/2010	Drove all the way to Itahari			
17/05/2010	Morang	Roadside	Sterile: Abundant populations of <i>Cissus</i> and <i>Cayratia trifolia</i> . <i>Shorea robusta</i> forest	0
	Morang	Roadside	Sterile: <i>Cayratia trifolia</i> <i>Shorea robusta</i> forest	0
	Morang	Kanepokhari to Pathari Forest.	Collection: <i>Ampelocissus latifolia</i> <i>Shorea robusta</i> forest	ATB et al. 1
	Ilam	Chula Chuli Area	Sterile: 2 <i>Tetrastigma</i> species <i>Shorea robusta</i> forest	0
	Jhapa	Near Satasidham	Collection: <i>Cayratia trifolia</i> <i>Shorea robusta</i> forest	ATB et al. 2
	Jhapa	Near Satasidham	Collection: <i>Cayratia trifolia</i> <i>Shorea robusta</i> forest	ATB et al. 3
18/05/2010	Jhapa	Dhaduwa-3, Jhal Thal village	Collection: <i>Cissus repanda</i> Roadside in a village	ATB et al. 4
	Jhapa	Jhal-Thal forest	Collection: <i>Tetrastigma leucostaphyllum</i> and	ATB et al. 5 to 7

			<i>Ampelocissus barbata</i> Secondary tropical forest	
	Jhapa	Budhbare-9, Khalikhola	Collection: <i>Cissus repanda</i> Secondary tropical forest	ATB et al. 8
	Ilam	Kolbung-9, Kiteni	Collection: <i>Tetrastigma leucostaphyllum</i> Lower Temperate forest.	ATB et al. 9
19/05/2010	Ilam	Kutidanda to Pativara Temple	Collection: <i>Parthenocissus semicordata</i> Sterile: 2 <i>Tetrastigma</i> species and 2 <i>Cissus</i> species observed. Upper Temperate forest.	ATB et al. 10
	Ilam	Mai Khola area	Sterile: <i>Tetrastigma</i> observed. Lower Temperate forest.	0
20/05/2010	Ilam	Maipokhari	Collection: 2 <i>Tetrastigma serrulatum</i> specimens. Sterile: <i>Parthenocissus semicordata</i> and <i>Tetrastigma</i> observed. Upper Temperate forest.	ATB et al. 11 and 12
21/05/2010	Panchthar	Pauwa Bhanjyang	Collection: <i>Tetrastigma serrulatum</i> Upper Temperate forest.	ATB et al. 13
	Ilam	Near Pauwa Khola	Collection: <i>Tetrastigma serrulatum</i> Lower Temperate forest.	ATB et al. 14
	Ilam	-	Sterile: <i>Parthenocissus semicordata</i> and <i>Tetrastigma</i> observed.	0
22/05/2010	Jhapa	Kankai forest	Collection: <i>Cayratia trifolia</i> Subtropical forest	ATB et al. 15
	Sunsari	Tarhara forest	Collection: <i>Tetrastigma bracteolatum</i> .	ATB et al. 16

			Sterile: <i>Cissus</i> and <i>Tetrastigma</i> observed. Subtropical forest	
	Sarlahi	Nabalpur	Collection: <i>Cayratia trifolia</i> and <i>Ampelocissus latifolia</i> Subtropical forest	ATB et al. 17 and 18
23/05/2010	Chitwan	Near Hetauda	<i>Ampelocissus</i> on wire (impossible to collect) photo taken. Shorea robusta forest	0
	Chitwan	Between Tandri and Bharatpur	Collection: <i>Cissus repanda</i> Shorea robusta forest	ATB et al. 19
24/05/2010	Baktapur	Nagarkot area	Collection: <i>Cissus assamica</i> , <i>Parthenocissus semicordata</i> , <i>Tetrastigma serrulatum</i> and <i>Vitis flexuosa</i> . Lower montane forest	ATB et al. 20 to 24

Fieldtrip 2 – Mugling – Pokhara

Dates: 29/05/2010 – 30/05/2010

Participants: Dr. Anna Trias Blasi, Mr. Ganga Bhatt.

Total collections: 1 Vitaceae specimen.

Table 3. Summary of Fieldtrip 2.

Date	District	Localities visited	Observation	Specimens collected
29/05/2010	Tanahun	Bandipur-6, Bimal Nagar	Collected: Flowering <i>Cissus</i> .	ATB & GDB, 1
	Kaski	Pokhara, Forestry department forest area	Abundant sterile <i>Cissus discolor</i> populations	0
30/05/2010	Kaski	Pokhara, Pewa Lake Dam area	Abundant sterile <i>Cissus discolor</i> populations	0
	Kaski	Pokhara, Begnas Tal	No Vitaceae observed	0
	Tanahun	Mugling	No Vitaceae observed	0

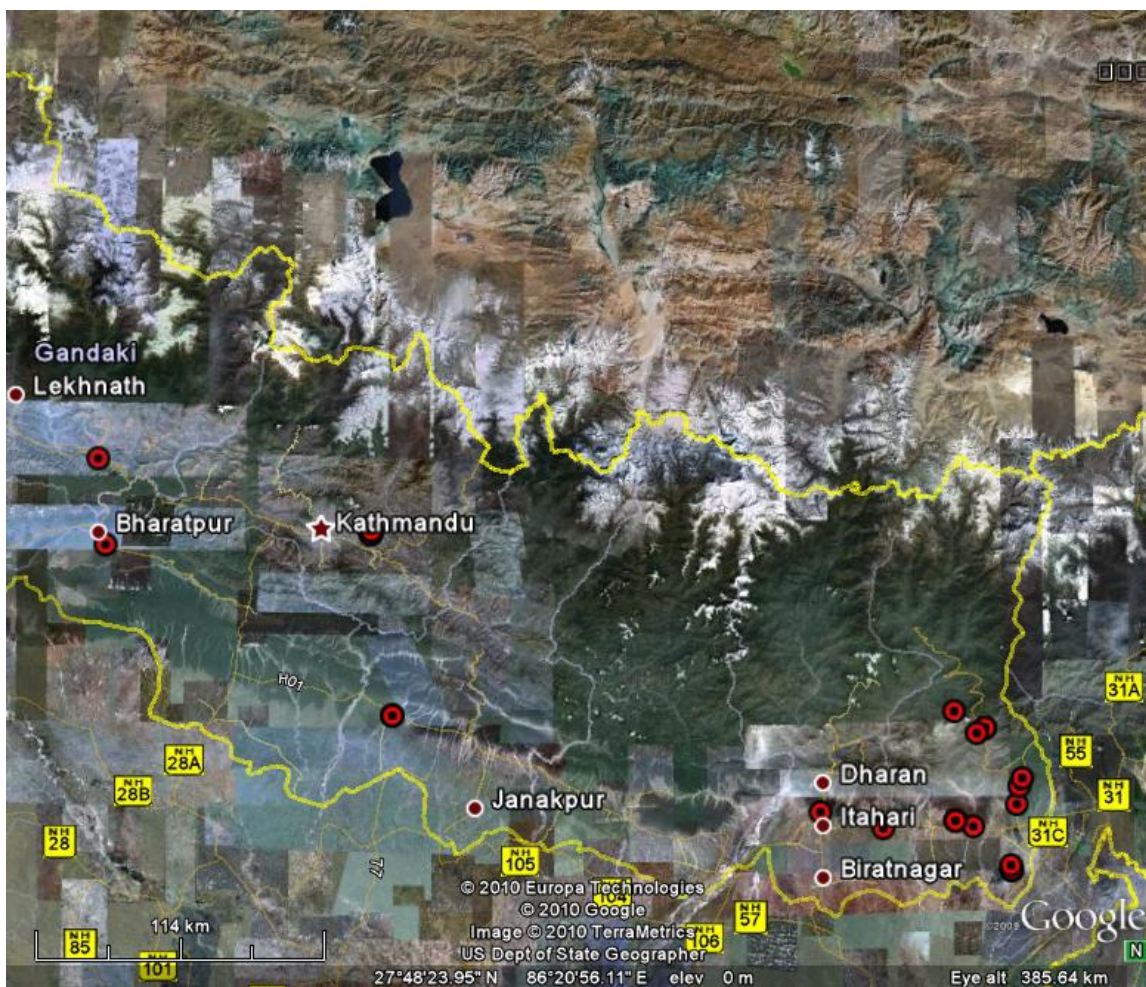


Figure 2. Map showing the localities where the specimens were collected (red and black dots).

Contacts made

The cooperation of local staff during this fieldtrip has been crucial. The collecting route was designed in collaboration with Dr. Sushim Baral and Mr. Ganga Bhatt. Equipment belonging to the Royal Botanic Garden Edinburgh stored at ESON (Ethnobotanical Society of Nepal) was used in this expedition. Details of the contacts made are in Table 4.

Table 4. Details of contacts made.

Institution	Contact
KATH Herbarium and Department of Plant Resources (DPR)	Dr. Sushim Baral
	Dr. Keshab Rajbhandari
	Mr. Ganga Bhatt
	Ms. Helen Townsend
	Several staff also in the Ilam and Hetauda branches
Department of Botany, Tribhuvan University (TUCH)/ESON	Prof. Dr. Krishna K. Shrestha
	Ms. Sangeeta Rajbhandari

(Ethnobotanical Society of Nepal)	Mr. Kamal Humaigan
	Several staff and students
Natural History Museum of Nepal	Dr. Keshab Shrestha

Outputs

The data collected during this fieldtrip is being used to produce an account of the Nepalese Vitaceae for the Flora of Nepal series. The financial support of the Davis Expedition Fund has been essential in this project and it will be acknowledged in future publications.

References

Stevens, P.F. (2001-onwards). Angiosperm Phylogeny Website. Version 6, May 2005 [and more or less continuously updated since]. <http://www.mobot.org/MOBOT/research/APweb/>.