

# Flowers fit for a Dalai Lama

Plant conservation project: stage II – Little Tibet (Ladakh) 2011

**Chris Chadwell**

Following a further award from the Hardy Plant Society through the Kenneth Black Legacy, I was able to undertake stage II of the assessment phase of this project. My flight from Delhi to Leh lasted little more than an hour but afforded exceptional views of the snowy peaks of the Western Himalaya – what a difference to my journeys into Ladakh in the 1980s and early 1990s, which involved 3–4 days of arduous overland travel! Mind you, care has to be taken to acclimatise to the 3500m altitude of the Upper Indus Valley. The Indian Army still tends to transport the troops to be stationed in Ladakh overland, as it can be too much of a shock to the system to come straight up from the Indian plains. ‘Little Tibet’, or ‘Western Tibet’ as it was known during the days of the British raj, remains a politically sensitive region – there are disputed borders with both Pakistan and China.



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Fig. 1 Chris Chadwell with lamas, Buddhist monks, in Little Tibet

## Presentation of Kohli Memorial Gold Medal on behalf of the Himalayan Plant Association

Whilst in Leh I gave an illustrated lecture to a group of invited guests about Tsewang Smanla, a respected amchi (doctor of traditional Tibetan Medicine), afterwards presenting him with a Kohli Memorial Gold Medal in recognition of his significant contribution to the study of Himalayan flora. Ladakhi amchis learn their skills from their fathers, often practising in isolated valleys; there was thus much potential for misidentification of the 200–300 plant species used in their herbal formulations, and consequently incorrect medical practice, handed down generation after generation. While employed by the Leh Nutrition Project (funded through Save The Children) and subsequently on behalf of the Yuthog Foundation, Tsewang made contact with amchis all over Ladakh and toured villages to activate a record-keeping system; supplied rare medicines which are no longer easily available to village amchis; established a collection of Ladakhi herbal plants to facilitate identification seminars; organised seminars with prominent guest speakers from Dharamsala and other centres of Tibetan medicine; co-authored *A Tibetan Guide to Health: Diet and Nutrition in Ladakh according to the Amchi system of Medicine*; and trained young men from remote villages.

In the 1980s I provided scientific identifications for hundreds of pressed (herbarium) specimens of Ladakhi plants of known medicinal use, collected during treks led by Tsewang. I met him in the UK some years later, when I arranged for him to give a fund-raising talk about Tibetan Medicine after escorting him around the Royal Botanic Garden, Kew.

## Field excursions and discussion of future projects

My time in Ladakh provided the opportunity to review with Tsewang various plant-conservation projects undertaken in the region – most with little or nothing achieved at

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Fig. 2 Chris with Amchi Tsewang Smanla discussing plant identification

their end, which is sadly often the case. We were able to spend some time together during a field trip into the mountains (fig. 2) beyond Thorong La (5000+m) during which a number of possible new projects and the practicalities of future collaboration were discussed. Both of us have considerable knowledge and experience of Ladakh's flora, accumulated over a period of more than 30 years, that could be put to good use towards well-thought-out projects likely to achieve positive

results. A publication covering the medicinal plants of Ladakh is needed, which we could co-author, though it would require a great deal of time and effort.

Unfortunately, as financial support has dried up, it is more than a decade since Tsewang practised as an amchi in Ladakh or worked on the preservation and development of traditional Tibetan medicine: he now runs a guest-house to support his family – what a waste! Hopefully, the Kohli award might inspire him to return to his teaching role, at least on a part-time basis – though this also requires funding.

### **Lecture at Lonpo House, Leh Palace**

Dr Sonam Wangchok of the Himalayan Cultural Heritage Foundation (HCHF) arranged for me to give a digital presentation, *Flowers and Birds of Ladakh*, to an audience of Western tourists, volunteers working for NGO projects, and a group of trainee amchis. As a lecture venue Lonpo House takes some beating – a side room of a medieval palace overlooking the Indus flood-plain! As well as informing and entertaining those who were able to attend, this proved worthwhile as some of the audience got in touch subsequently, resulting in direct contact with established NGO organisations who have worked in the region for decades. Their experience, expertise and contacts are enabling me to make a better assessment of the feasibility of the activities I would like to see undertaken in Ladakh.



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Fig. 3 A Village of irrigated fields – an oasis in a high-altitude desert



Fig. 4 Sea Buckthorn

### Growing Tibetan Medicinal Plants in Ladakh

One of the objectives of Stage II of the project was to inspect trial grounds and nurseries reputedly growing Ladakhi plants which are used in Tibetan Medicine. From what I could observe, only a small number of easy-to-grow, non-native species are being widely grown in Ladakh e.g. ‘Manu’ (*Inula racemosa*) and ‘Kuth’ (*Saussurea lappa*). Most projects set up to save ‘Rare and Endangered Medicinal Species’ have been overly ambitious,

expecting instant results. They have used plots of land that were unsuitable for the purpose, in some cases even without a reliable source of irrigation water, which is essential in Ladakh for successful cultivation of any crop (fig. 3), and the actual species experimented with stood minimal chance of flourishing under the demanding conditions Ladakh presents. Few, if any of them, were rare, let alone endangered or even native Ladakhi plants!

Those involved, whether Westerners flying in on brief visits, government appointees from other parts of India, Ladakhis or Tibetans, had no knowledge or experience of cultivating Himalayan plants. The claims I had heard that up to 40 species were undergoing trials in Ladakh proved inaccurate. At a walled nursery site near to Leh, I found only Sea Buckthorn (*Hippophae rhamnoides* subsp. *turkestanica*) (fig. 4) surviving – which is already commercially grown nearby to produce ‘Leh Juice’, a vitamin-C-rich drink. In fact the buckthorn was growing perfectly well in the wild outside the walls, along with two other species used in Tibetan Medicine. To be fair, land suitable for growing anything has always been at a premium in Ladakh. The local people are hardly likely to rush to replace familiar agricultural crops with medicinal plants on the fertile, most productive land.

A fresh, more thoughtful, long-term approach is required. Initially there should be small-scale trials of a selection of native Ladakhi species, which stand the maximum chance of being able to be grown at all. I am in a position to advise as to the most suitable plants. The trials should take place in protected sites in existing vegetable plots, flower-beds, borders or sheltered fields; containers could also be used. There are a number of suitable locations in Leh itself and in villages no more than 3 hours’ drive away from the capital. Only then, using the most promising species, should larger-scale production be attempted. All this will require sustained effort over many years.

Furthermore, even if these plants can be grown successfully, one must check that traditional doctors would be willing to substitute such cultivated specimens for wild-collected material. When working as a consultant to The Royal Government of Bhutan on *The Cultivation of Medicinal Plants for Traditional Medicine Project*, I discovered that the Director of The National Institute of Traditional Medicine assumed each species

would be (magically) grown in exactly the same places it had been previously collected from; if not, they would not be used. And there is sound reasoning behind this demand – regardless of the practicalities of setting up mini-nurseries in widely differing habitats – since the medieval texts used by Tibetan doctors dictate where, when and how each plant should be harvested and dried. Changing any of these factors in any way could well alter the chemical make-up and active ingredients within the plants.

### **Some of the best Tibetan hardy plants to try from seed**

‘Intelligent anticipation is as useful in horticulture as in other human activities. To forecast the best new plants, before you have seen them flowering in this country, from the garden point of view, is not easy’. So wrote the famous plant hunter Kingdon Ward, when he thought readers of a horticultural journal would like to hear his opinions as to the merits of a personal selection of introductions from his 1933 expedition to Tibet. He thought others might have chosen a different dozen, but he was certain that there was nothing wrong with those he preferred, ‘So long as they grow as nicely [in gardens here] as I have seen them growing on the wind-swept roof of the world’. His collections provoked widely differing reactions. One received high praise from a leading grower, albeit not for the characteristic which Kingdon Ward felt made it outstanding, whilst others threatened to dig it up and throw it at his head with the words: “Take the . . . thing back to Tibet, where you got it!”

I think it worthwhile to select my own favourites from amongst the seed I was able to collect alongside the project activities during my expedition in Little Tibet last year. Some of the seed collected was allocated to the HPS, initially sent to specialist groups and members known to have expertise with seed-sowing. But you can all look out for any surplus CC (Chris Chadwell) seed offered within the HPS Seed Exchange in the years to come:

#### **West Himalayan blue-poppy – *Meconopsis aculeata* CC 7168**

Spikes of many flowers varying in colour from greyish steel blue to darker or purplish-blues and even pink and red. Prickly stems 30–60cm. Amongst boulders.



© Chris Chadwell

#### **Regel’s geranium – *Geranium regelii* CC 7184**

Bluish flowers – a miniature version of widely-grown *Geranium himalayense*.



© Feroze Khan

© Chris Chadwell



**Tibetan iris — *Iris lactea***

**CC 7174**

Pale mauve to milky-blue flowers. Stems 15–30cm.  
Edge of irrigation channels and fields.

© Chris Chadwell



**Tibetan larkspur — *Delphinium brunonianum***

**CC 7216**

Dense clusters of large woolly-haired blue to purple  
flowers. Stony slopes and screes.

© Chris Chadwell



**Fragrant columbine — *Aquilegia fragrans***

**CC 7152**

Flowers white or cream-coloured, sweet-scented. Stems  
40–80cm. Shrubberies.

© Chris Chadwell



**Tibetan tamarisk — *Myricaria elegans***

**CC 7130**

Erect shrub with many long lateral spikes of white or  
pinkish-tinged flowers. Stony slopes.

© Chris Chadwell



**Ladakh clematis - *Clematis ladakhiana***

**CC 7134**

Golden-yellow flowers, spotted brown – this form with  
reddish inner petals. Pinnate foliage with narrow, long-  
pointed leaflets. Scrambling over rocks and vegetation.

**Himalayan rue or harmal – *Peganum harmala***  
**CC7169**

Much-branched perennial, growing in the form of a bush 30– 60cm in height, the leaves deeply cut into narrow lobes, and flowers pale greenish yellow to white.



© Mudita Badwhar

**Western Tibetan caper – *Capparis spinosa***  
**CC 7159**

Spreading, prostrate shrubby plant with large solitary white to pinkish flowers. Spine-tipped leathery leaves. Fleshy oblong-ellipsoid fruit with red flesh. Stony slopes in dry valleys.



© Chris Chadwell

**Western Tibetan lindelofia – *Lindelofia stylosa***  
**CC 7161**

Magnificent claret-coloured tubular flowers in nodding clusters. Nutlets forming a pyramid, with dense hooked hairs on margins. Stems 60–90cm. Stony slopes.



© Chris Chadwell

**West Himalayan rose – *Rosa webbiana***  
**CC 7128**

Dense clusters of deep pink flowers fading to pale pink. Shrub to 2.5m. Red ovoid to flask-shaped fruit. Rocky slopes.



© Chris Chadwell

I am keen to receive feedback from HPS members who have cultivated plants raised from this seed, indeed about all CC introductions from the borderlands of Tibet and the Himalaya, as such records would contribute towards a long-term objective of the *Flowers Fit For A Dalai Lama Project* – the preparation of advisory and instructional material on how to grow these species in the Himalaya. So please do not hesitate to contact me with reports of successes and failures, as this is all part of the picture.

As for the 2010 Expedition (Stage I) of the project, all seed collections during the 2011 expedition were made in association with and on behalf of P. Kohli & Co., India.

For more information about the project see: [chadwellseeds.co.uk](http://chadwellseeds.co.uk) or attend one of Chris Chadwell's lectures to HPS groups around the country. 🐦