THE B.C. MOUNTAINEER

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Cover photos:

Front cover:	John Clarke on the summit of PK 2000m on the Nass traverse. Photo - Brian Waddington
Above:	First camp on the Nass traverse. Photo - Brian Waddington
Inside back cover:	Ski touring ecstasy. Photo - S. Grant
Back cover:	Randy Stoltman near the Tremor - shudder col. Photo - S. Grant

THE BRITISH COLUMBIA MOUNTAINEERING CLUB

CLUB PHILOSOPHY

The British Columbia Mountaineering Club is an incorporated society founded in 1907. Its pioneer members did much of the early exploration and mapping of the then unexplored mountains near the young city of Vancouver. Most of the mountains near Vancouver were first climbed by B.C.M.C. members. This tradition has continued, so that over the years most of the mountains in the lower mainland of B.C. were first climbed by B.C.M.C. members.

Today, the B.C.M.C. is dedicated to the enjoyment and exploration of the mountains, valleys, and alpine regions of British Columbia through activities such as climbing, hiking, backpacking and ski touring. The primary mode of travel is by foot. Mechanized transport is secondary and is restricted to access only. The Club feels that pedestrian access allows the greatest appreciation of the mountains with the least impact.

In addition to direct involvement in the outdoors through trips and camps, the Club is active in conservation, trail and hut construction and maintenance, mountain safety, and education. The club has assisted in publishing several guidebooks including the Alpine Guide to Southwestern B.C., 103 Hikes in Southwestern British Columbia, A Climber's Guide to the Squamish Chief, A Guide to Climbing & Hiking in Southwestern British Columbia and the Stein Valley Wilderness Guidebook. Club members regularly act as volunteer instructors in basic summer and winter mountaineering courses offered by the club to its members.

The club has been very active in conservation land use issues almost from its inception. The existence today of Garibaldi Park is a direct result of the discovery and exploration of the area by the Club. Camps held in the area allowed people to become aware of the immense beauty of the alpine region. After the 1926 camp, members of the club petitioned the provincial government requesting protection of the area as a park, and in 1927, the Garibaldi Park Act was proclaimed.

More recently, in the 1970's it was a club member who first drew the attention of society to the values of the Stein Valley. During the 1980's it was club members who were most active in defending the interests of wilderness ski tourers against commercial heliskiers. Today, in the 1990's, club members are actively involved in B.C.'s Protected Area Strategy and have been instrumental in the establishment of Pinecone - Burke provincial park. The club continues to play an active role in land use issues relevant to B.C. mountaineering.

CLUB TRIPS AND ACTIVITIES

The most important function of the Club is the running of an extensive schedule of hiking, climbing, and ski touring trips. Usually, a variety of overnight and day trips is scheduled each weekend throughout the year. These trips are all free and are also open to prospective members. All trips are graded in terms of the degree of physical fitness and technical competence required.

Club members organize yearly summer climbing camps to various parts of the province. Numerous climbs, many of them first ascents or new routes, have been made in such areas as the Kakwa, Kwadacha, and Monkman areas, N. Rockies, (1993-1995), the upper Lillooet (most recently in 1993), the Chilko Lake area (1992), the Pantheon Range (1991), Clendenning Ck. (1990), Banff park (1989), the Premier Range (1987), Lake Lovely water (1987), the Falls River/Tchaikazan region (1975, 1986), Ape Lake area (1983), the Mount Waddington area (most recently in 1985 and 1995), and the Howson Range (1981). Occasionally, expeditions are organized by the Club to more remote areas such as in Alaska or South America.

The ski touring program occurs throughout the winter and spring. Recent successful ski camps have gone to the Lillooet Icecap, Kokanee Glacier, Fairy Meadows, Columbia Ice Fields, Stanley Smith - Lord Glacier area, Franklin Glacier, southern Chilcotin and the Homathko icefield. A popular Christmas ski camp is also organized every year, utilizing a large club tent and wood-burning stove.

Rock climbing practice is held mid-week during the summer months. Beginners can receive instruction and more advanced climbers can hone their skills. Rock practice is held in the evening at Lighthouse Park, Murrin Park, the Chief, or at Smoke Bluffs. In winter, mid-week night skiing is organized at the local ski hills.

To help the beginner in developing his or her climbing skills, the Club organizes instruction courses and from time to time organizes training climbs. The purpose of these climbs is to allow people to gain experience on roped climbs. All trips run by the Club have an organizer who should be contacted well in advance of the trip departure. The organizer arranges car pools to and from the start of the trip. It is expected that passengers help to defray car driver's expenses including gas, oil, and wear and tear due to rough roads.

SOCIAL EVENTS

Social gatherings are held in the fall, winter, and spring on the second Tuesday of each month at 8 PM, usually in the upstairs room at the ANZA Club, corner of 8th Avenue and Ontario Street in Vancouver. The meetings are informal and the chairs comfortable. Beginning with general club business, there is usually a slide show, film, or talk on some aspect of mountaineering. In the past we have also featured product demonstrations by local mountaineering stores, auctions, and equipment swap meets. Refreshments and cookies are served. Beer can be obtained from the licenced premises below the meeting hall.

The September social event is usually held at Floral Hall, Van Dusen Botanical Garden at 37th Ave. and Oak St. Beer, wine, cheese, and light refreshments are supplied at these socials. At the November social the Club conducts its annual General Meeting.

Details of these events and other special activities are announced in advance in the monthly club newsletter.

MEMBERSHIP

The B.C.M.C. has several categories of membership: active, associate, junior, life, senior, and honorary. Persons interested in joining the Club can obtain further information by phoning the Membership Chairman (268-9502) or by attending a club social event. Club social events and trips are open to non-members as well as members. The Membership Chairman can also be contacted through the Federation of Mountain Clubs of B.C. at 737-3053.

LIBRARY AND PUBLICATIONS

The Club maintains a library with an extensive collection of books, photographs, guide books, and periodicals on mountaineering. It is open to use by members and details about the collection and its use can be obtained by contacting the Club executive.

The Club produces ten issues per year of its newsletter. The newsletter contains club news, trip schedules, access information, trip reports and other news. This club journal, The B.C. Mountaineer, is produced every two years and contains accounts of recent climbs, camps, expeditions, photographs and other material. The Club solicits articles of interest written by members.

HUTS AND SHELTERS

There are five B.C.M.C. huts, four of which are unlocked. All are open to the public. Shelters located in Garibaldi Park have been donated to the people of British Columbia. Club shelters and their general locations are:

HIMMELSBACH : Russet Lake, Garibaldi Park.
MOUNTAIN LAKE: Mount Sheer, Brittania Beach
NORTH CREEK : North Creek, Lillooet Valley
PLUMMER : Claw Ridge, Mt. Waddington
WEDGEMOUNT : Wedgemount Lake, Garibaldi Park

CONSERVATION GUIDELINES

In order to conserve the alpine environment, the Club tries to adhere to the following guidelines for its trips:

1. Pack out all garbage.
2. Where pit toilets are not provided, select a screened spot at least 50 metres from any water and dig a hole 15 to 29 centimetres deep. Cover the hole with soil and ground cover . Keep water sources free of contamination.
3. Pets are not allowed on club trips. Pets are a threat to human life in bear country, a threat to alpine creatures and they spread communicable diseases such as giardiasis. Animals may abandon burrows bearing the scent of a domestic animal.
4. Alpine life, whether flora or fauna, is fragile and not in abundance. Plants and animals are not killed unless required in an emergency.
5. Stay on trails and do not cut corners on trail switchbacks to avoid erosion.
6. Light small campfires. Use only dead wood and remove traces of the fire site. Ensure that fires are properly extinguished. Do not light fires in alpine areas or in areas where fires are not allowed.

7. Camp in forests or on moraines to avoid damage to meadows, lake shores and stream banks

AT PLAY WITH THE BCMC

- by Anders Ourom

One of the advantages of joining the BCMC when young is that, all going well, one has many years of fogey-dom to look forward to (or, perhaps, years of being a has-been or a never-was). I first went on a club trip in 1963, joined in 1971, and have been involved ever since. The late Fred Smith was a member for 73 years, while another club member died in 1991, aged 103. This seems a little much to hope for, but all going well I will spent the next forty or fifty years telling newer members how things were in the 'good old days' when (of course) I joined. Golden ages, as the cheerful historians like to remind us, always happened in the past.

When I joined the BCMC, it truly was in a golden age. It was much the largest and most active club in British Columbia, and had a pantheon of outstanding members. Our mountaineers, explorers and writers included Dick Culbert, Glenn Woodsworth, Esther and Martin Kafer, Paul Binkert, Alice Purdey, Dick Chambers, John Clarke, Werner Himmelsbach, Paul Starr, Fred Douglas, Michael Feller, Jack Bryceland, Roy Mason, Jim Craig and many others, not to mention Woody, then neither a has-been or a never-was. BCMC activities were comprehensive and ambitious, ranging from ascents of Serra V (1964) and the Cat's Ears (1972) to family hikes. Club members had explored much of B.C.'s Coast Ranges, at a time when access was much more difficult, and made innumerable first ascents.

The days were not all golden; Mountain Equipment Co-op was just starting and we had to go to REI in Seattle for most equipment, usually basic by 1990's standards. However, there was little competition for the BCMC. The Varsity Outdoor Club at UBC was very active, both on its own and as a kind of farm team for the BCMC, but other clubs had little presence.

In addition to its many activities, the great strength of the BCMC has long been its volunteer tradition. There is never any shortage of amusement in simply keeping the club organized and fed, but members have undertaken much besides. The first Coast Ranges and Stawamus Chief guides were by members, as was 103 Hikes, all during 1965-73. Five public huts were built by the BCMC during 1968-70, at Williamson Lake (Batzer Hut), Russet Lake (Himmelsbach Hut), Mountain Lake, Tellot Glacier (Plummer Hut), and Wedgemount Lake. The club was very active in the Mountain Access Committee, which published trail guides, worked on trails, and put on a series of annual public hikes sponsored by the province, then a respectable newspaper. The Committee was later subsumed in the broader Federation of Mountain Clubs of B.C. BCMC members were conspicuous in the Mountain Rescue Group, which is active from the 1950's to the late 1970's, when it was supplanted. This voluntarism, whether to help the club or the public, was a matter of course for members.

My family, early refugees from Ontario, arrived in BC in 1962. My parents joined the BCMC in 1963, and were active into the 1970's. As volunteers, they lead and went on trips and helped on committees. My father was a founding member and active in the Mountain Access Committee, and regularly trained and searched with the Mountain Rescue Group.

I joined the club in 1971 as a brash and energetic fourteen year old. Much time passed, and first impressions have hopefully dimmed. However, I will be forever grateful for the time and patience older members had for me, and for the effort they made to instruct me in the craft of mountaineering. I could have had no better teachers, both outright and by example. They included some of the best climbers of the day, but also many who were fine mentors, regardless of ability. The club had regular instructional weekends, but most teaching was informal, in the context of trips. This was the only way to learn in those days, before mountaineering became an industry. The only 'guides' then were in the Rockies, and they were an irrelevant remnant.

There were other advantages to learning in a club setting, especially as I was careless and in a world with few teenage mountaineers. These included - finding a group of people who shared my interests and were willing to have me along, and sometimes teach me. I was also exposed to club values, including free-thinking, independence, competence, and voluntarism. To some extent they rubbed off. By 1974 I was helping instruct the FMCBC's mountaineering course, in which the local mountain

clubs joined forces to instruct new members. It was a central activity, and was designed to serve the clubs by bringing in and teaching novices in a club-oriented setting.

The traditional mountaineering course was abolished some years ago. There were problems finding volunteer organizers and instructors, and concerns about the standard of instruction and liability. In retrospect, it was a mistake for the clubs to cede control of the course to the FMCBC, and give weak direction to it on this and other issues. The FMCBC had come to rely on course revenues, and hardly needed free internal competition. Neither did the semi-professional instructors who largely set the direction for the FMCBC's programs.

Interest in climbing exploded in the last 20 years, and it is now seen by some as an industry. Many wish to learn about mountaineering, but few do so in a club setting. In the 1960's perhaps 25% of the climbers in B.C. belonged to clubs; that proportion is now below 10%, and falling. In part this is because the clubs have lost touch, particularly with rockclimbing. They also abdicated their instructional efforts, a key way of bringing in members, first by transferring them to the FMCBC and then by allowing them to peter out. The instructional gap has been filled by more and more quasi-professional instructors, or 'guides'.

Guides are a mixed blessing, and their skills, qualifications and motivations vary widely. They provide a service to some, and contribute to sustainable economic development. However, they tend to promote dubious services, and often place ends before means. Examples include those who fly into the northeast buttress of Mt. Slesse, or the Harrison Hut (five hour walks). The heli-skiing racket has little to be proud of, especially when it conflicts with established ski-touring users. Some guides try to monopolize an area or hut for their customers, or modify established climbs for the sake of convenience e.g. by adding unnecessary bolts. Finally, there are many who promote a monopoly on instructional or guiding services, usually on the well-worn pretext of safety. This has some relevance to leaders of youth groups, but mountains are always dangerous places and certificates never prove good judgment. Nor is it wise to foster dependencies in the mountains, where ultimately we must be responsible for ourselves.

In the early 1990's Paul Kubik and Brian Gavin, successive BCMC Presidents, reinstituted club instructional programs, in the form of economical summer and winter mountaineering courses. Instruction is by experienced club volunteers, at a standard meeting that found elsewhere. The courses have been an exceptional success, largely due to the efforts of the volunteers involved. The problem has been excess demand! These programs have brought in many new and enthusiastic members, trained them, and inculated them with club values. They help renew the club, and form a core for years to come.

Rock climbing has exploded in popularity since the 1970's. I did my first climb at Squamish on 31 December 1972, with Eric Weinstein. It was then unusual to encounter other climbers at Squamish on a weekend; when you did, you either knew, or knew of, them. Now, there are hundreds of climbers out on a sunny weekend. Until the mid 1970's, BCMC members were prominent in local rock climbing, but after that time members' interest shifted toward general mountaineering and ski touring and away from technical climbing. For some years I was the token serious rock climber in the club, being reduced at one point to dragging Steve Grant up the North Gully (a BCMC classic, incidentally).

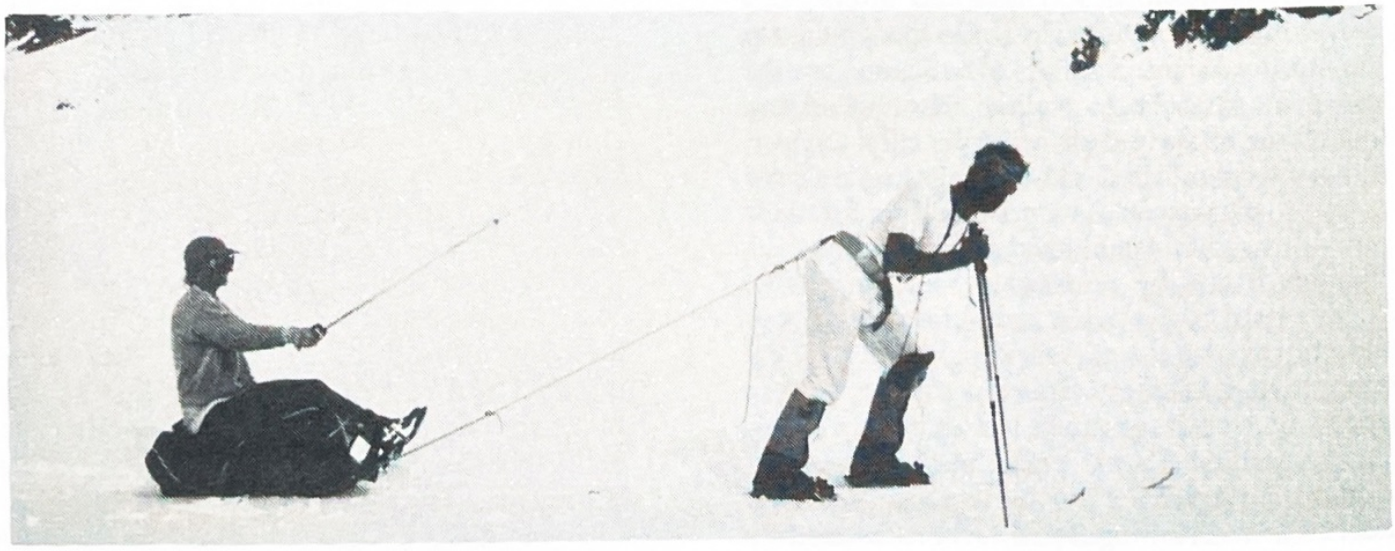
When I became President last year, rock climbing seemed an area where the club could be strengthened. Of the hordes starting climbing, at least some might want to do so with the BCMC. For some rock climbing would be an end in itself, but many might also be interested in mountaineering generally, while safe mountaineering presupposes sound basic rock skills. Accordingly, in 1995, the club offered several rock-climbing programs. The basic course was offered twice. It covered the usual topics - belaying, rapelling,, top-roping, equipment, safety- and, allowing for changes in equipment and techniques, was the same as that offered in 1971. The intermediate program was a seminar in learning to lead on rock, but very experience-oriented and covering values as well as skills. We met two days and two evenings a month from May to October, so allowing lots of time to build up experience. However, contrary to popular myth, this was not a program to provide me with belay slaves!

It should also be noted that a small band of members, led by Paul Miller, has been regularly rock climbing together over the last few years. They climb indoors and outdoors, weekends and Wednesdays. Those whose interests tend that way can pursue them with this group, and not be left hanging. In spring 1995 ten members went on a trip to Joshua Tree.

The BCMC's volunteer tradition continued through the 1970's and 1980's. We built one hut, at North Creek in 1986, and helped to publish several guidebooks, including those for the Stawamus Chief (1980), Southwest B.C. (1986) and the Stein Valley (1992). Michael Feller, our editor for over 15 years, has become an institution. In addition to a regular, informative newsletter he oversaw revival of the club's bi-yearly journal. The club has also redeveloped its voice on mountain conservation issues, helped by successes on significant issues first propounded by the BCMC, including creation of provincial parks in the Stein Valley (proposed by Roy Mason in 1973) and the Pinecone-Burke divide (proposed by Michael Feller in 1986). We are an observer on the Lower Mainland Protected Areas Strategy Public Advisory Committee, and have hopes for the Stoltmann Wilderness at the headquarters of the Squamish, Elaho and Lillooet Rivers. This area has been named after club member, Randy Stoltmann, who was tragically killed in a mountaineering accident in 1994. Prior to this he had been a vigorous advocate for the protection of wilderness areas in B.C.

In addition to looking after its existing trails, particularly the Binkert trail, club members built several trails in the early 1990's. These include trails up Sigurd Creek at the north end of the Tantalus Range, and off the Duffey Lake road. Sev Heiberg, Paul Kubik and Brian Gavin deserve credit for this. However, our recent Honorary President, Paul Binkert, can be considered the founder of modern volunteer trail construction in southwestern B.C.. Paul's trails are well trodden on today, from the Chilliwack valley to the Pemberton region.

The BCMC has had strong leadership for more than a decade, especially due to its presidents. There continues to be a healthy variety of trips and expeditions on our schedule, and interesting and entertaining social programs, although regrettably we no longer offer home made cookies! Club members continue as active as ever in their volunteer efforts on its behalf, whether through representing its interests or by writing. However, a variety of well-instructed programs seems a key to the continued strength of the club, and of the values it represents. The demand is certainly there, and as always what is needed is enthusiastic volunteers who are willing to give something to their club. The return is substantial - new friends and partners, a stronger club, helping others get started as others helped you, learning new things yourself, maintaining the traditions of the BCMC and of climbing in BC, and immense personal satisfaction. Give it a try!



B.C.M.C. members at play in the Monarch Glacier area. Photo - S. Rempel.

MOUNTAINEERING

1. PROFOUND COMMENTS

MOUNTAINS! - by Anders Ourom

We live in a time and place which is in most ways blessed. Despite the world's complexities and challenges, we are truly fortunate. British Columbians are doubly so, as we live amongst some of the most marvelous mountains on earth.

Even residents of the urban southwest - TV tubers - and our myopic media and government may know that mountains define B.C. Including necessary incidentals such as valleys, forests and rivers, almost all of B.C. is mountainous. Counting only areas above timberline, and places with more than moderate slope, at least half the province is comprised of mountains.

We have mountains to spare. Many have been shared with our otherwise deprived Albertan neighbours, a fair exchange, as in return we have a piece of the Peace River, the only truly flat bit of B.C. Would that we might also share our mountains with the other altitude-challenged provinces. Common geography, added to common climate, might do much to encourage national unity.

Natural bounty notwithstanding, we are sometimes a little prodigal with our mountains. The Yankees, under the slogan "fifty-four-forty or fight", once hoped to annex them all. This was rebuffed, but the Alaskans did in the end manage to swindle us out of much of the northern Coast Ranges, aided by a perfidious Briton. Perversely, Mt. Alverstone in Yukon is named after him. In that vein, there are a great deal too many mountains around B.C. named after undeserving politicians. Fortunately the responsible committee is now more enlightened, and although we have recently (and justly) added Mts. Terry Fox and Haig Brown, it seems likely we will be spared Mt. Vander Zalm - in any case a strange tribute to a native Netherlander!

Our mountains determine our climate, whether it be the lush rain forests of the coast, the icecaps and mighty peaks of the Coast Ranges, the temperate southwest, the arid interior, the northern boreal forests, or the great Interior Ranges and Rocky Mountains. Indeed, complaints about our climate should more properly be addressed to our geography.

Human activity in B.C. has largely been defined by its mountains. Apparently native cultures were river, valley and ocean oriented. Mountains were places of spiritual value, and obstacles, but not much else. European exploration and settlement were from the start defined by mountains. Alexander Mackenzie, the builders of the CPR, the Agricultural Land Commission, and a subdivider in West Vancouver - their activities are all circumscribed by mountains.

Our society suffers from the conceit that it can 'tame' nature, and there are some who not only talk about mountains, but try to do something about them. This is nowhere better illustrated than by our highways. They are built, at tremendous labour and cost, and opened with a flurry of publicity alleging another triumph over nature. All too often these roads (and sometimes their users) are swallowed by avalanches or landslides. However, our engineers, a race not noted for its humility, seem to have finally noticed that mountains are by nature designed to fall down, and that this sometimes happens within human as well as geological time frames.

One ministry (Tourism) advertises "super, natural B.C.", by which it seems to mean mountains. Another (Environment) tells us "B.C. is famous for its mountains", but asks that we not create any more - at least, not if they are made of rubbish. In a novel twist the Greater Vancouver Water District recently suggested its mountains weren't large enough. Facing chronic water shortages, it defined the problem as being not enough snowfall - a problem easily remedied with larger mountains! As an interesting sidelight, its mountains, while eminently loggable, are uniquely unclimable.

But what about the people who actually climb these silly mountains, at risk of life and limb, their sanity being a foregone conclusion? You know, the vertically challenged, and persons with (an) altitude? Most of them are mostly harmless. In fact, as B.C. is ipso facto all mountains, one could plausibly argue that we are all mountaineers. Not very plausibly, perhaps - but many lawyers are gainfully employed for less.

The early European explorers and settlers were all mountaineers. They had to be. However, European

arrival coincided with the appearance of mountaineering as recreation for the English gentry. The idea soon caught on here. No sooner was the CPR built than its owners imported Swiss guides to accompany the tourists on excursions from its mountain hotels. These were some of the few mountains which were then known and accessible, and it worked very well. A century later we are still not entirely rid of the 'Swiss guide' syndrome, although mountaineering in B.C. has always been mostly home-grown.

The mountaineers soon branched out, but were often as much explorers as climbers. Getting to your chosen hill often took more effort than getting up it, a state of affairs which continued until roads, aerial mapping and ski-planes appeared.

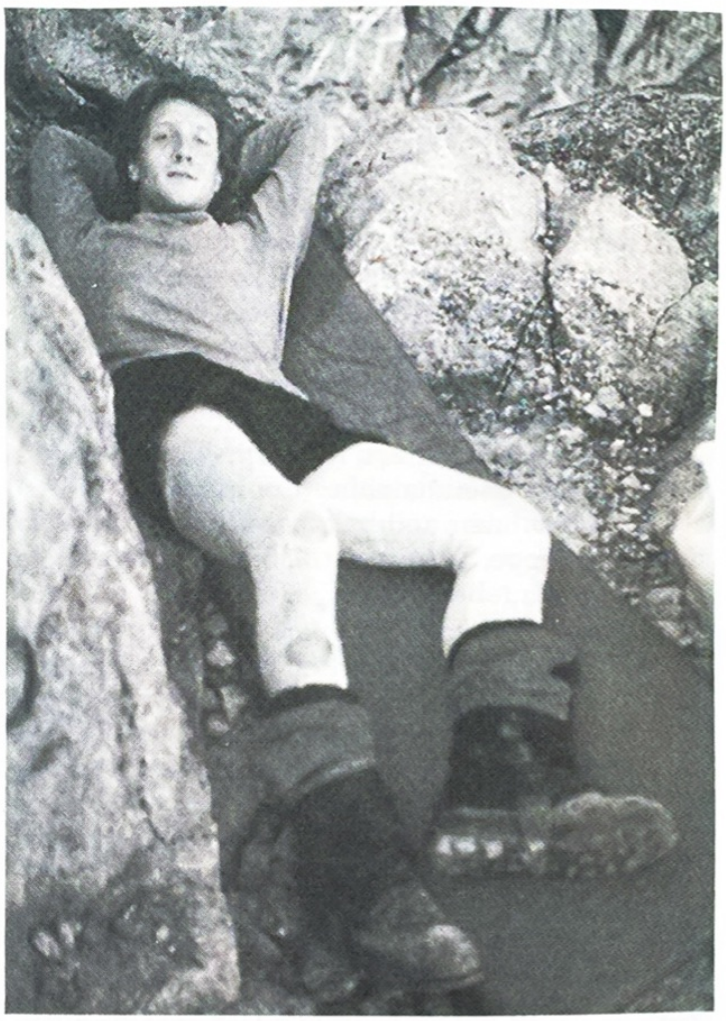
"Mountaineer" is of course a rather broad term. At one extreme it may include wedding parties on Little Mountain, and at the other it certainly encompasses those who scramble on the Stawamus Chief or Mt. Waddington. At the least it includes hiking, backpacking, rock climbing, backcountry skiing, and mountain climbing. You don't have to have ropes, spikes and fancy gadgets, but you do need a small protuberance. The thought is what counts, and even armchair mountaineers have long been a recognized subspecies.

A Secretary-General of the United Nations (Dag Hammarskjold), a prime minister (Pierre Trudeau), and the bishop of Rome (John Paul II) - all mountaineers, the latter's recent unsuccessful ascent of his bathtub notwithstanding.

Mountaineering is a most democratic sort of recreation. Anyone can (and should) do it. Hiking, its usual form, satisfies all the essential human needs - exercise, fresh air, and companionship. Infinite challenges are available to those so inclined, but whether you hike the Yew Lake wheelchair-accessible trail or climb Bugaboo Spire, the rewards are about the same.

Hiking will be the fastest growing form of outdoor recreation during the 1990's. It is satisfying, economical, healthy, 'green' and accessible. New Canadians, yuppies with young families, and those seeking serenity can all participate.

Rock climbing has exploded in popularity. Even tiny cliffs are festooned with colourfully-clad contortionists. It is immensely challenging and rewarding, at least once you overcome a visceral



An "armchair" mountaineer reclines on Mt. Judge Howay. Photo - G. Bernard.

fear of heights, and has all the elements of the yuppie sports - fancy equipment (mostly unnecessary), gaudy-awful clothing, outdoorsy, and a semi-competitive scene. A far cry from the obscure days or yore! However, there are differences. Unlike windsurfing, it is quite possible to get hurt rock climbing. It is not easy, and the proximate cause is usually stupidity, but it can be done. Apparently the laws of gravity also apply to those clad in lycra.

Rock climbing is defiantly disorganized; the idea of it as a competitive sport is generally considered heresy. The one exception is the popular indoor climbing gyms, where you can pump plastic to your heart's content. Much like stationary bicycles, these gyms fill a need, especially for those who take things seriously or live in rainy climates. However,

they haven't the aesthetics of climbing in the blue room, outside.

Our greatest rock climbing centre (and a wonderful hike) is of course the Stawamus Chief. It now features hundreds of established routes, of all lengths and difficulties, on superb rock. Other areas include Kinnaird Bluffs (Castlegar), Crest Creek (Campbell River) and the excellent Skaha Bluffs (Penticton).

A gentle hike up Mt. Hollyburn can lead, with surprisingly few detours, to an ascent of the Lions, a four week ski-tour across the Heiltsuk icefield, or an ascent of Mt. Robson. You may need more equipment and skills, but the principle is the same, and the opportunities are nearly endless. As Dick Culbert or John Clarke might say: "So many mountains, so little time."

Admittedly, our mountaineers occasionally get in predicaments and need a little help. So too do our fishers, boaters, hunters and mushroom pickers - in much larger numbers. Many of the searchers are themselves mountaineers, in a volunteer tradition going back many years. The victims are sometimes ill prepared, or display poor judgement, but we are not yet so hard-hearted that the trifling cost of succouring them is too much.

For all its individualistic tendencies, the mountain community is well organized. The Alpine Club of Canada and the Vancouver (now B.C.) Mountaineering Club were founded as early as 1906 and 1907, respectively, and there are now any number of outdoor, hiking, and mountaineering clubs around B.C. Their strengths have been introducing newcomers to the mountains; building and looking after hiking trails; exploring new areas; guarding access to the mountains; and working to protect our mountain wildernesses.

Many trails in B.C. were built and are maintained by volunteers from our mountain clubs. Trails help people visit our mountains, especially special areas. Their construction also harmlessly diverts those who might otherwise be building alpine chalets and ski runs, if not worse. Unfortunately, even with present demands, there are far too few trails for hikers, let alone competing users such as mountain bikers and horse riders.

The mountain community has had a large role in the creation and protection of B.C.'s parks. Its farsighted lobbying led to creation of Garibaldi Provincial Park in 1927, and it was first to suggest protecting the Stein valley and the Pinecone-Burke area. It also tries to protect existing parks, such as Strathcona, Garibaldi and Cypress.

Unfortunately there are too few who appreciate our mountains as they are. Forests are sometimes integral to our mountain wilderness, but are coveted by a forest industry made desperate by overcutting, poor forest practices, underutilization of wood and mechanization. In that vein the Commission on Resources and the Environment and the Protected Areas Strategy must be commended; with any luck, they will create many more mountain parks. They have flaws, but overall are a bit like being 100 years old - considerably better than the alternative! And the need for coordinated land use planning is indisputable.

Miners have been poking about B.C.'s mountains right from the start, and have left hardly a stone unturned. They do themselves a disservice, and betray a vestigial frontier mentality, when they insist that no area should be out of bounds to them. Their much touted move to Latin America has been long developing, and has relatively little to do with regulation and taxes here, and much to do with rich, accessible deposits, low wages and environmental standards, and stable, democratic governments there.

Commercial recreation is a more insidious problem. It is favoured by a government seeking sustainable tourism jobs, and certainly there should be room for all. However, it sometimes displaces traditional users, through claims to a monopoly of accessible areas, mechanization, and interminable demands for further development.

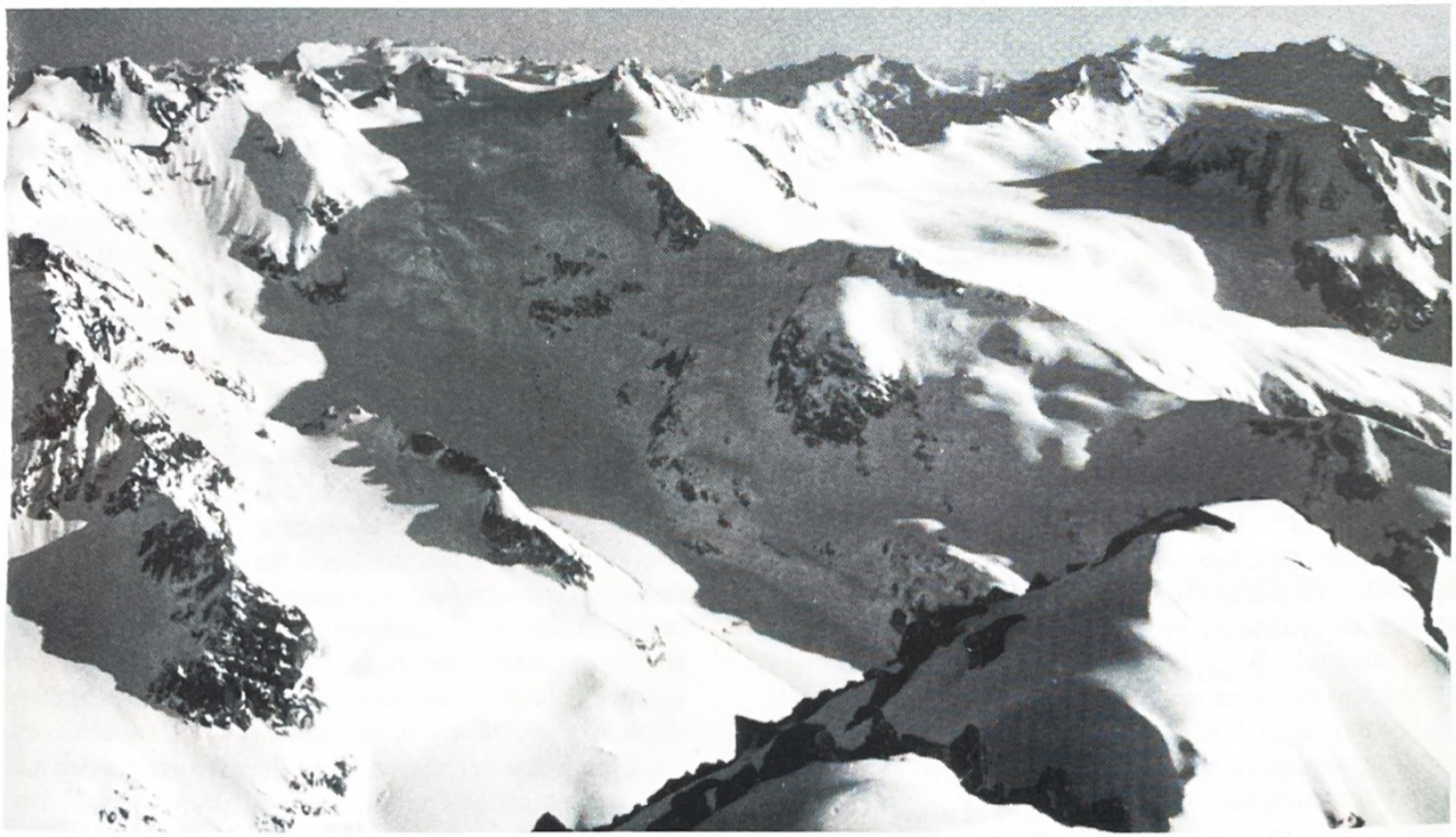
Commercial recreation often locates near existing mountain parks. Ideally the relationship would be symbiotic, but all too often it is parasitic. The encroachments on Garibaldi Park by Whistler/Blackcomb during the 1980's gave them more value-added clearcuts (aka ski runs), but did little for the park. The situation in Cypress Park is, perhaps, worse, while most of the Interior Ranges have been allotted to the heli-skiing racket. Luckily, the modern breed of eco-tourism operators, such as those on the Tatshenshini, seem more sensitive to wilderness values.

Snowmobiles have become a serious threat to our mountain wildernesses. They are powerful and

versatile, and can (and do) go almost anywhere. Most are sensible and considerate of others. Sadly, many are initiates of the infernal combustion engine, if not devotees of the awful DYNNE, and have little appreciation of the impact their fun has on others. The near presence of a snowmobile, let alone a plague of them, does little to enhance a backcountry skiers' wilderness experience. It is easy for a snowmobiler to "share" an area, but not so easy for the skier. There is an urgent need for active government regulation of snowmobiles; simply licensing them might be a good start.

known as Mystery Mountain. Most of the area is above treeline, and hence is part of the 'rock and ice' which trueblue environmentalists affect to despise. Much of it has already been picked over by the rock hounds, and the access costs of developing mines in the area may well be prohibitive. The Mystery Mountain Wilderness - a sight, name and concept to stir anyone's heart!

We also thank our mountain community for a thriving outdoor equipment industry, perhaps the most competitive in the world. This is mostly due to



"One of the great mountain wildernesses of the world" - Upper Fitzsimmons Ck. area from Tremor Mtn. in Garibaldi park. Photo - K. Ricker

In our Coast Ranges we have what is one of the great mountain wildernesses of the world. A series of icefields, high peaks and rugged valleys extend from the Anonymous (Pemberton) Icecap, west of Whistler, to Mt. Monarch and Tweedsmuir Park. By any definition, the area is mostly real mountains. It totals over two million hectares, and its centrepiece is the majestic Mt. Waddington, once poetically

those who have since 1971 built Mountain Equipment Co-op into a $65 million/year business, an outstanding success, and politically correct to boot.

So, in case you hadn't noticed, when it comes to mountains, we're surrounded. Why not surrender? Take a hike, eh? - but don't get lost!

HEAD SPACE: WHY WE CLIMB

- by Greg Bernard

Calmly, I reached for my harness and unclipped a quickdraw from the gearloop. Stretching upwards, I attempted to clip into the blissful security that awaited me at the limits of my reach. Silently cursing the thoughtlessness that had placed the bolt so far from an obvious ledge, I edged further up on my toes, my whole being focused on reaching that bolt. I would just make it.

And then, I was off. It happened so suddenly and time definitely didn't slow down like everyone says it does. I remember thinking, "You just broke your ankle" as I slammed into the large boulder halfway between my small launch pad and the ground. I bounced sideways off the boulder and came to a grinding halt sprawled out on the gravel 2m lower. A hushed silence fell over the other climbers nearby as they looked on in shock. It had been a fine performance. Fortunately for me, the ground was merciful and I managed to get away with a few large bruises and a very sore tongue.

Why do people climb? Central to this question is the definition of climbing for sport. Webster's Dictionary defines climbing as "*an ascent*", and the verb to climb as "*To move up or mount, especially by using the hands and feet*". What this definition fails to recognize is the mental component involved in subjecting oneself to a perceived risk. In other words, climbing is a personal experience. An easy scramble for one person may be a mentally exhausting climb for another. By answering the question, "why climb?" it is inevitable that we will arrive at a broader definition of climbing itself.

There are many obvious justifications for climbing that are readily available to any non-climber who cares to contemplate the question. Physical challenge, a good view, and fitness are among the most common. But these rewards, while valid, seem to fall short in view of the risks and effort involved. Other activities, such as hiking, easily satisfy these goals with a much smaller investment. So again we might ask ourselves - why do people climb?

Definitely not to accumulate bruises or severed tongues!

Climbing is cerebral, not physical, as is the common misconception. People climb in order to confront their fears, themselves, and most importantly to free themselves of the trivialities of everyday life. Jon Krakauer (1992) states, "*most climbers aren't in fact deranged, they're just infected with a particularly virulent strain of the human condition*". Climbing is a journey that demands that you question yourself and your motives carefully and constantly by reducing survival to its bare components and, as in life, the journey holds far more significance than the destination.

Often, survival is instinctual; one does not have to think, only do. These instincts serve us well in ordinary surroundings and without them we would not survive infancy. A newborn, for example, is not taught how to feed. He or she knows. However, the alpine environment is not ordinary and therefore our instincts are not always true. One common example in climbing is the urge to lean into a steep slope. Unconsciously our instincts are telling us, "hold on tight, the closer the better for we are in danger of falling off." In fact, by leaning into a steep slope, one's chances of falling off are greatly increased. Climbing relies on skill and judgment for survival regardless, and sometimes in spite of, instinctual tendencies or fear. This can be rather unnerving as fear is often powerful instinctual motivation.

Climbing is instinctively dangerous and often instils fear. Although some may try to argue to the contrary, climbers for the most part are not in pursuit of death, but they are forced to know it and it's corresponding fear, sometimes intimately (Reid, 1992). While engaged in everyday life away from the hills, denial is an easy short term solution, but at some point this fear must be confronted.

It is important to note here the difference between two types of fear - rational and irrational. Rational fears are healthy and heeding them will keep you alive. To fear lightning during an electrical storm in the mountains is rational. To fear it at home is irrational as the chance of being injured is remote. When we talk of confronting fears, and ultimately controlling them, it is these irrational, often instinctual fears, such as the fear of falling, of which we speak. The distinction is important because tragedy is often the result of ignored rational fear. There is a certain obscure logic to confronting irrational fear that usually becomes evident only upon reflection. By definition, irrational fears are a condition of implied danger. They exist more in one's head than in reality and as such are only self

imposed challenges to be taken on. "*To run from such a challenge is to lose and to lose big*" (Kubik, 1992). In fact, danger and its corresponding fear are essential to climbing (Bonnington, 1975). To control fear and act with assertion and confidence in spite of it is heady indeed, possible even addictive.

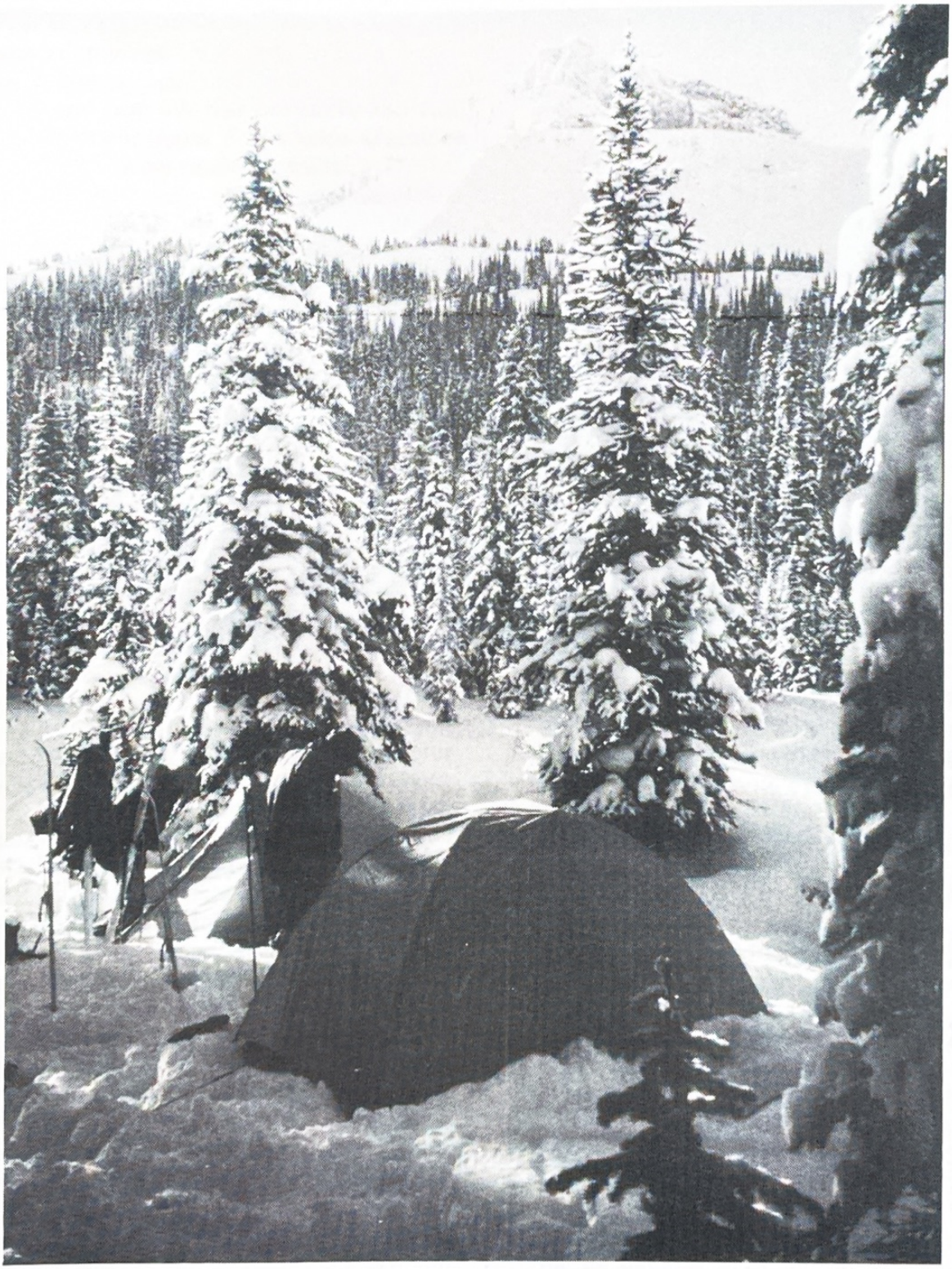
For many mountaineers, climbing is a compulsion and is recognized by them as such. In the "Handbook For Travellers in Switzerland", Murray (cited in Scott, 1974) writes of the ascent of Mont Blanc in 1838: "*All who have succeeded have advised no one to attempt it; however, when again in safety they said that the fatigue was infinitely exceeded by the gratification*". This afterglow tends to grow with hindsight, while the memory of difficulties and struggle recently endured are quickly diminished. Bonnington (1975) speaks of experiencing this phenomenon after spending four days on one of the most formidable routes in the Alps, the SW Pillar of the Dru:

"*There were many times in the last four days when ....I swore that I should never again... submit to such discomfort, cold and fatigue; and yet the morning after getting back to safety I was planning to risk repeating the experience*"

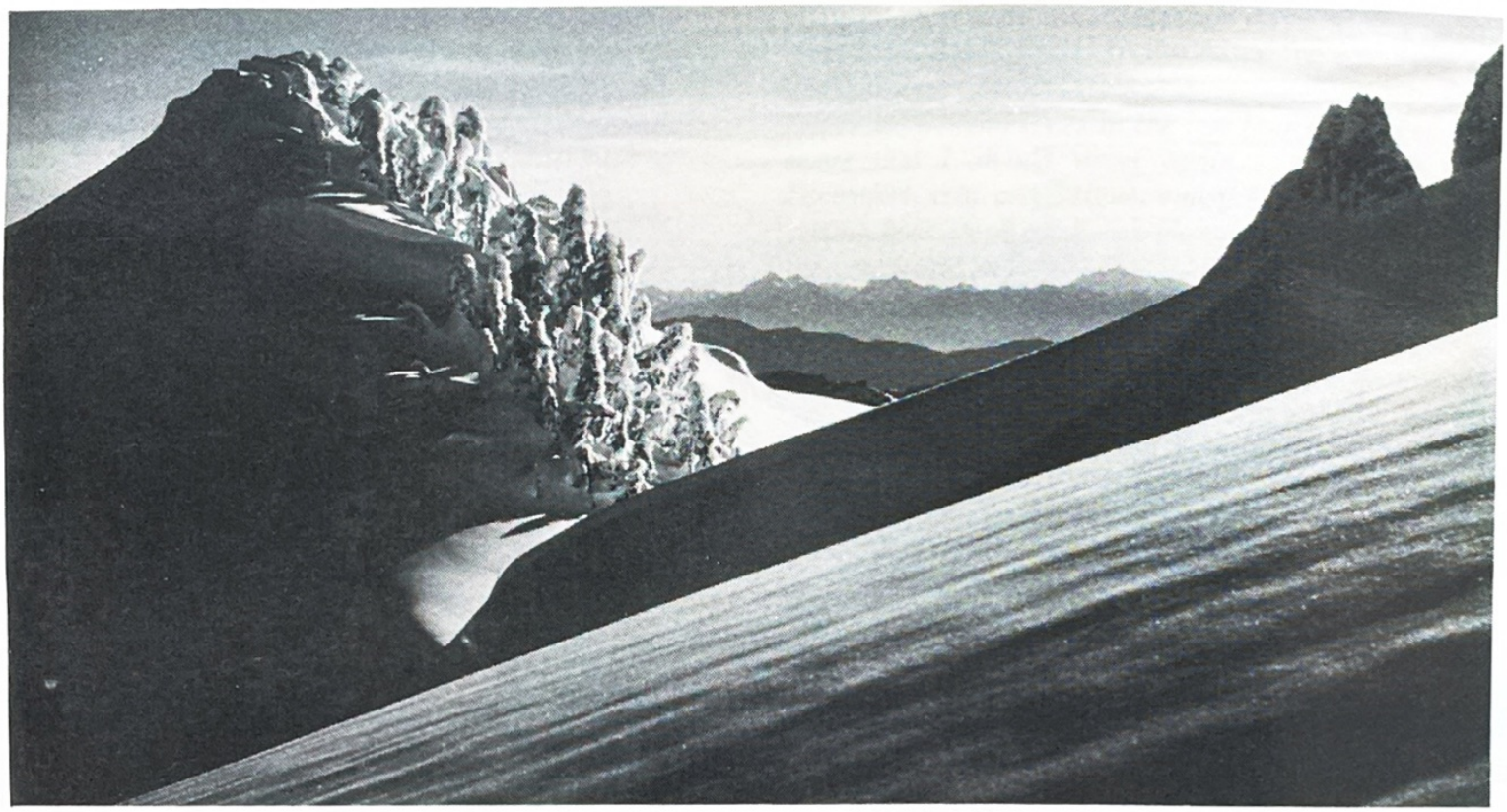
This is a common theme. I myself have quit climbing at least twice, and there are countless other anecdotes in mountaineering literature that relate the near impossibility of quitting to climb despite the very best of intentions. How paradoxical that a sport that demands a certain amount of emotional control can also demand control of the emotions. This paradox inevitably leads to some soul searching. Who or what is in control - climbing or the climber? For me, climbing has always been a

Why we climb 1. Greg on the summit of Mt Judge Howay. Photo - B. Friedrich.

Why we climb 2. Endless turns on the Nass traverse. Photo - Brian Waddington.



Why we climb 3. Winter camp in the Rockies Photo - S. Grant.



Why we climb 4. Evening sun near Golden Ears in winter. Photo - B. Friedrich.

constant struggle between conflicting desires and commitments. The need to rationalize my motives is often intense. For whom am I climbing - myself, or my peers? And if I am climbing for myself, am I justified in taking risks in light of my responsibilities? Questioning oneself is an important part of the climbing game as some of the conclusions contain significant personal insight. Important interpersonal skills, such as commitment and honesty, are strengthened by the solitary wrangling that climbing entails. These mental gymnastics often take place well before a climb is attempted, yet they are frequently the hardest part of the climb (Kubik, 1992). "*Perhaps this is one of mountaineering's greatest appeals: while seeking the freedom of the hills, we come face to face with ourselves*" (Graydon, 1992).

Our modern society is often a bombardment of the trivial. Pointless details have become so all consuming that often living becomes a secondary concern. State of the art conveniences have only served to make life more complicated. Intuitively we all know this and as a result we periodically crave some degree of escape. Climbing provides escape by concentrating our energy only on details of immediate significance - the medium being climbed and our movements on it. While it can sometimes be elusive, climbing with focus has to be one of the most rewarding experiences available to the climber. It is the state of mind that allows a mountaineer to make difficult moves calmly and confidently, mind and body totally in tune with their surroundings. In "Sacred Summits", Peter Boardman (1982) writes about focus:

"*This is what I really enjoyed ... climbing so demanding as to absorb concentration completely, mind controlling body, shrinking the world to the rock in front of my face, pinning my thoughts to the here and now.*"

Clearly, life outside of that moment was of little consequence to him. Bills, jobs, and all other overbearing realities of everyday life are not merely ignored, they become nonexistent. Climbing is the ultimate in escapism, survival distilling the essence of life into it's purest form (Weller, 1983). Each decision has an immediate consequence, and if the decision was a good one, we are allowed to make

another. Past and future have no meaning with such an existence. Sometimes this loop fails and our judgment becomes clouded by things like responsibility and fear. We lose our nerve and with it the will to push our limits. Focus helps to remove those limits as well as eliminate the trivial.

The way along the edge of the bergshrund was very narrow. To the left, the slope dropped abruptly for almost 300m, and above me to the right the corniced arété fell away into the yawning abyss of the crevasse. The three of us were slowly making our way along the slender ridge that was providing the final obstacle of the classic route on Mount Baker's North Ridge. The thin air at 3200m had taken on an almost surreal dark blue colour. The fresh snow, frozen to the consistency of styrofoam, was an intense, blinding white like a carpet of diamonds.

Apart from pictures, few will witness this savage splendour, yet the mechanical process of movement required the replacement of the spectacular with the repetitive. First move the axe, kick one step and then another. Take a breath and do it again. Despite the beauty, this is a place to fear; fear which must be cast aside to make room for detached analysis. The issues of personal motivation and responsibility, however compelling, must also wait. There is no room here for error, only the next step.

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IN PRAISE OF DUCT TAPE, OR THE ART OF GEAR REPAIR - by Brian Wood

Back country travellers who rely on special gear to survive in the wilderness must develop the skills for repairing the gear when it breaks. The earliest of wilderness travellers (was it all wilderness then?) made their own gear from local materials and could mend or replace it relatively easily. There are many tales of local early aboriginals repairing their birch bark or dug-out canoes with simple tools and materials found along the river banks or ocean shores. And there are similar tales of the Inuit repairing their seal skin kayaks, or mending their sleds and snowshoes. The fact that their equipment needed frequent repairs only made these resourceful people more expert at fixing it. There was also strong natural selection favouring the more expert fixers. I would guess that the bad fixers would not be around long enough to reproduce their inadequacies.

As civilization "developed" (if this is the right word) outdoor recreation equipment became more complicated but it was still made with natural materials which were easily available, or were carried along in anticipation of repairs. The sailors of the tall sailing ships would attempt amazing repairs, such as rebuilding smashed rudders and masts with wood cut from the nearby forests of some lonely beach.

Movie buffs will remember what a magnificent hammer forge repair Humphrey Bogart performed on the propeller of the "African Queen", with Kathryn Hepburn nearby, making encouraging noises and working hand-made bellows! Some early aviators were remarkably adept at mending damaged aeroplanes in the middle of nowhere, using makeshift equipment to splint broken struts that would horrify the designer of the aeroplane.

Oh, how times have changed. The materials of modern wilderness gear are not available along the trail and manufacturing methods would be impossible to duplicate in the wilderness. Therefore, the modern wilderness traveller must carry his/her own complete repair kit.

While there is not one type of repair kit for all types of gear, it goes without saying that certain basic repair materials are universal for many types of gear. For example, because we (usually) wear clothes, we must carry a needle and thread for

repairing fabric. But, wait. Am I dating myself in this age of throw away garments? Who actually knows how to sew a lock stitch, or a hedge tear darn? Those who can still remember these valuable skills may have forgotten to bring along reading glasses or a magnifier for seeing the eye of the needle if not for making the repair itself! A needle and thread, and, of course, a good knife, probably made up the original basic tool kit for all travellers of old.

My feeling is that the modern equivalent of a needle and thread is Duct Tape. Duct Tape is the most useful, the most easily available, and the cheapest of modern repair materials. And it certainly has more uses than a needle and thread.

I'm sure that the younger set can't imagine how anything could be repaired without Duct Tape, this versatile and surprisingly long lasting stuff. (How many of your "temporary" fixes with Duct Tape are still holding up five years later?) As a substitute for needle and thread, Duct Tape requires far less skill. In my experience, it has been used to mend ripped tents (quite good), kayak skins (not bad), rain gear (okay), and back packs and bicycle bags (usually not great for repairing coarse weave fabrics such as Cordura). I have also used Duct Tape instead of thread for lashing and splinting broken items, such as ski poles, tent poles, even a sprained ankle. Duct Tape has been used to hold broken bicycle fenders together, and to mend flopping soles on boots and running shoes. For some skiers who never get around to re-glueing their ski-climbing skins, the use of Duct Tape is quite routine.

The success of Duct Tape is due to its inherrent mechanical strength and its terrific glue. A coarse mesh of reinforcing threads held together by a thin plastic backing provides the strength. Duct Tape glue maintains its stickiness for a long time and adheres to many surfaces, provided they are free of dust and water, and are reasonably smooth. Unfortunately Duct Tape is prone to creeping under a steady force, especially when it gets warm (ie. when exposed to sunshine or sweaty bodies). However, great though it is, Duct Tape can't fix everything.

"Gaffer tape" used by electrical technicians is similar to Duct Tape but can be used at higher temperatures, as its glue resists creeping better than Duct Tape. Fiberglass tape or filament tape has amazing strength along its length, provided by closely spaced glass fibre filaments, and thus is excellent for splinting, but unfortunately, it can easily separate sideways and thus requires additional care in use.

While on the subject of glues, we must not forget to mention two groups of useful glues: epoxy resin and Shoe Goop and its equivalents. Most glues are easier to use at home than on the trail, but they can be useful in a situation where Duct Tape will not work. Epoxy Resin, such as the popular "5 minute" type, is particularly useful for bonding breaks in rigid components with rough, clean surfaces of relatively large area. Don't even think of trying to butt join thin edges, especially edges of flexible materials. Large holes can be filled (i.e. for accepting undersized screws or dowels). If the holes are particularly large, use a filler such as steel wool, fiberglass cuttings or wood waste to reinforce the relatively brittle epoxy. 5 minute epoxy must be well mixed (in the first minute) and will cure in about 5 minutes at room temperature and more slowly down to about 10 degrees Celsius. Below this temperature it may not cure at all. "Cold Cure Epoxy" will cure down to about freezing temperature, and seems more tolerant to moisture.

Household contact adhesive, "Shoe Goop," and its more flexible equivalents, such as "Free Sole", "Seam Grip", etc. are excellent for joining clean, dry flexible plastics, rubber type compounds, and some non-oily leather, eg. boots, running shoes, some inflatable items, Neoprene wet suits, etc. Smooth surfaces should be "roughed up" with sand paper or a rock. For household contact adhesive, both surfaces are coated with a THIN coat, which is allowed to air dry for about 10 minutes, after which the surfaces are brought together. Usually they stick instantly. No adjustment is possible. With "Shoe Goop" and equivalents, for simple joining, follow the air dry procedure for contact adhesive except allow it several hours to dry after joining.

For filling joints where air drying is impractical, a thick layer of Shoe Goop can take one to two days to cure at room temperature, or longer if it is cold. You can use a curing accelerator with "Seam Grip" and this reduces the cure time to about two hours. Unless "Free Sole" and "Seam Grip" are contained by walls or "tape dams", they flow slowly downhill, so keep things level.

I do not classify "Crazy Glue" as very useful for most repairs, but it can work in specific repairs involving non-porous, closely fitting surfaces, such as glass. It cures in five to ten seconds so you have to be fast and accurate. Be careful to keep your skin free of glue, otherwise you will become glued as well.

Also, joining or welding soft plastics by melting is tricky because the difference between melting and burning is critical, and burnt plastics, ie. blackened, do not bond well. Also fumes from plastics can be pretty nasty, so hold your breath!

Shoe Goop applied to screw threads acts similarly to "Lock Tite" and essentially prevents nuts and screws from rattling loose. It can also be applied as a waterproof sealer to protect metal fasteners from corrosion.

Never leave on a trip without a few safety pins of different sizes. Safety pins have many uses, such as mending parted zippers on tents, clothing and backpack flaps and pockets, etc. Modern gear relies on zips, and although zips are much better than they used to be, there is a limit to what abuse they will tolerate, so have those safety pins handy.

I also like to take a few screw fasteners along, on boating trips as well as ski trips. A variety of different sizes of small nuts and bolts, wood screws, especially for ski bindings, and small matching pairs of rivets (male and female), that were originally used for securing climbing skin ski attachments to the skins themselves. These rivets are easily hammered or squeezed together and are useful for re-attaching straps to packs, joining tapes smoothly allowing them to pass through buckles. Such rivets can also be used for joining dissimilar material such as fabric to plastic or metal strips.

It is often necessary to make holes in broken items to receive the fasteners. While common metal cutting twist drill bits work well when rotated quickly using a drill, they are tedious to use when rotated slowly through hard materials. I seem to have more success with a hardened steel slot-headed screw driver bit ground to a vee-shaped point with two or four cutting edges. This resembles an early type of drill - an awl. It requires a good feed force with only small amounts of rotation to cut. This awl can cut through aluminum, fiberglass, and hard plastics much faster than hand rotated twist drill bits. A heated steel point can be used to melt or burn a hole in soft plastic or wood.

Allen keys and screw drivers can be included in a repair kit if the gear warrants it. Many ski bindings are secured to the skis with "Posidrive" screws, which resemble Phillips screws but are driven with the rarer "Posidrive" drivers. Be careful. A Phillips screw driver can easily damage "Posidrive" and even Phillips screw heads. Personally, I do not like Phillips screws as they can be difficult to unscrew and the heads can get damaged. I prefer Robertson headed screws which can tolerate torque much better than Phillips or slot- headed screws, but Robertson screws are uniquely Canadian and are virtually unknown in foreign parts.

It is often helpful to have other universal tools, such as miniature locking pliers, eg. vise grips, or slip-joint pliers. These are very light and can strongly grip a wide range of sizes. These tools can be useful for fixing items that require special treatment, such as camp stoves and lamps, tents, boats, etc. Vise grips can be used to grip and rotate twist drill bits for drilling holes, but as I mentioned earlier, I think there are easier ways to drill holes.

While tough, twine is good for lashing and splicing repairs, I always take a few lengths of flexible, tough stainless steel wire. The wire can be heated for melting holes through plastic items prior to lacing them together with the wire, which usually requires pulling the wire with pliers and then locking the repair by twisting the ends of the wires, again with the pliers. While tough wire is useful for many different types of repairs, particularly splinting long items, some people prefer hose clamps which can be cinched up very tightly. One unusual use of a hose clamp is to connect a "deadman" snow anchor to an ice axe to improvise a snow shovel.

In crucial repair situations where a failure of the repair itself would make things really desperate, remember the engineers' approach: "belt AND suspenders". You can use combinations of two or more different types of repair, especially with lashing and splinting where any play or movement between the repaired pieces will weaken the repair and cause it to fail again. For example, spreading a layer of Shoe Goop or epoxy over stitches or lashings will make your repair fairly bomb proof.

Well, I hope that my suggestions for repair kits and different types of repairs will help those travellers unfortunate enough to be faced with broken gear in the wilds. I say "unfortunate", but perhaps this is the wrong term. While your initial reaction to broken gear might be "Oh, dear me!", "blood and guts!" or something even stronger, you can experience a certain amount of weird joy in fixing broken gear, even in challenging conditions. A peculiar satisfaction is obtained in salvaging broken gear so that a trip does not get aborted. Perhaps that is part of the challenge. Then, of course, the stories of the ingenuity and manual deterity required for the repair live long after the repaired item has been discarded.

As with all things in life, moderation is the key. Do not take along so many spares or tools that you can hardly lift your pack or load your boat. It would be impractical (and cheating?) to take a complete set of replacement parts for everything that could possibly break. Perhaps one should take a few selected items from those suggested above, and this should be sufficient to avoid being labelled "recklessly underequipped to handle forseeable repairs". On the other hand, if you take all items suggested, you may be labelled as "over-cautious". All things considered, Duct Tape is probably the single most useful item in any wilderness repair kit.

If anyone ever doubts my evaluation of duct tape as the best all-round repair gear, do not forget the movie "Apollo 13" where duct tape saved the day, not to mention three astronauts. In the movie the astronauts improvised a carbon dioxide filter held together with duct tape, which enabled them to avoid CO_2 poisoning and to pilot the most complicated and expensive vehicle ever made back to Earth. While their particular brand of duct tape may not be easily available at the local hardware store, it shows the NASA boffins included a NASA equivalent of generic duct tape in the astronaut's repair kit

And what of the future? Will this trend of sophisticated gear, materials, and repairs continue? I cannot see why not. Who knows - in the future all you may need to carry is a solar-powered laser welder for welding the carbon fibres, or the sophisticated polymers and alloys of your wilderness gear. Because this repair kit would be used in the mountains, don't forget a good supply of batteries for your solar-powered laser welder in a white-out. Or you can always stick to Duct Tape.

Author's request for stories - If anyone has a good story of an ingenious and/or unbelievable repair job, please let me know and your story may be incorporated into the next edition of this journal. Your tale might inspire others and even save lives, as well as guaranteeing immortality for the story itself.

2. TRIPS OVERSEAS AND FAR AWAY

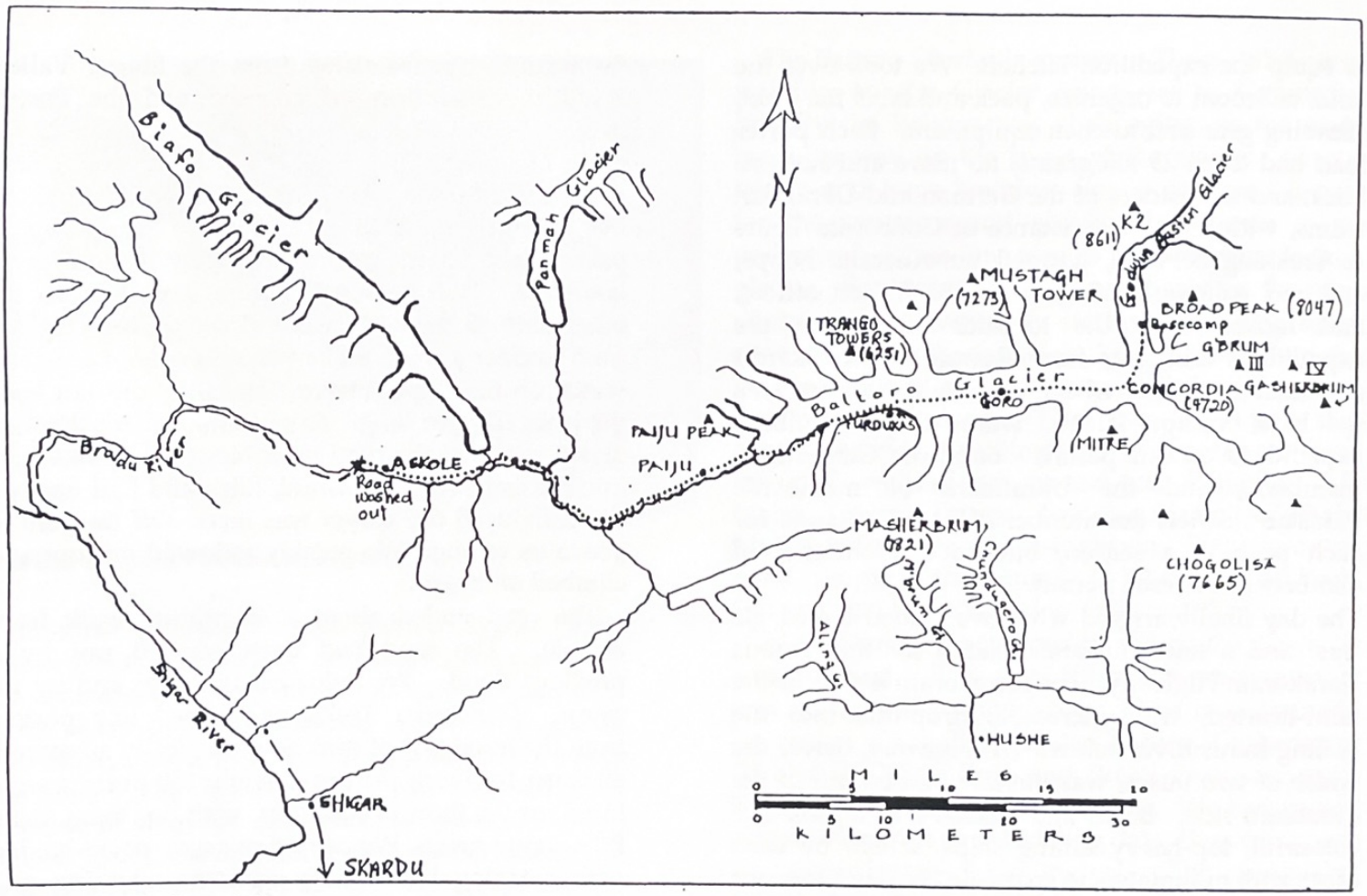
BROAD PEAK, PAKISTAN (3 July - 28 August, 1995) - by Monica Bittel

We scanned the slopes for movement. Nothing. Around 10 a.m. a speck appeared at Camp IV. Still no word on the radio. At some point we realized they could hear us on the radio but could not transmit. Using the on-off switch (one click for "yes", two for "no"), we determined that all had arrived safely back to Camp IV from the summit, but not everyone was all right. They would come down to Camp III today. We decided to wait for them there, instead of going on to Camp IV.

It was a beautiful morning, not a cloud in sight. Chogolisa, Mitre Peak, and Masherbrum, all now familiar. Nanga Parbat far on the horizon, identifiable by its distinct summit. K2 our neighbour, with nothing around it to diminish its grandeur. I looked down to base camp, a tiny dot on the moraine.

Camp III was at approximately 7,000 metres. The Mountain Madness team was packing up. They were in high spirits, but tired and anxious to get down to base camp and go home. Their team of three sherpas, two guides, and three clients were the first to summit yesterday. They made it back down to Camp III shortly after the storm blasted the camp with its full fury.

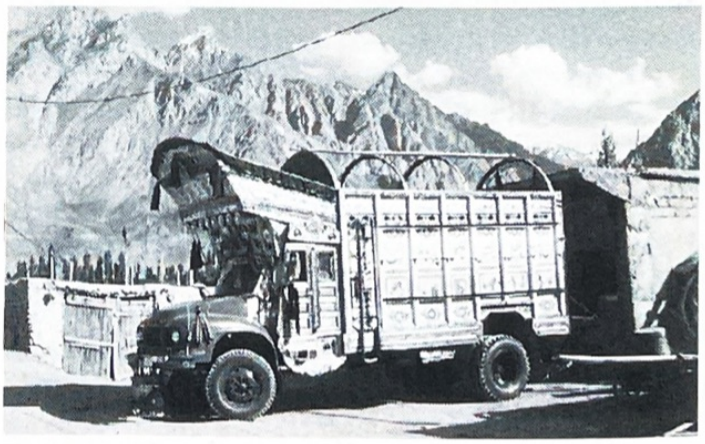
It was August 14th, forty-three days since we left Vancouver. There were fourteen climbers on our team: Nick Cienski, Ellen Woodd, Grant McCormack, Barry Narod and myself from B.C.; Murray Hainer, Shelley Ballard and Andrew McKinley all from Saskatoon, Saskatchewan; Aaron Lish, Jeff Alzner and Fred Ziel from the U.S.; Kenichegiro (Ken) Suzuki from Japan; and Kris Tarasewicz and Waldek Soroka from Poland. Nick Cienski was the leader and guide of this commercially organized trip. His company, Journey



The route to Broad Pk. by M. Bittel.

to the Edge Adventures Inc., had arranged the group airfare and climbing permit and organized the food, group climbing gear and medical equipment. Each member was responsible for personal gear and equipment, visa and passport. Waldek, who had climbed Broad Peak in 1990 with Nick, and Kris were assisting Nick on our expedition. The team members ranged in age from 22 to 57. A few of us had no high altitude climbing experience. Nick, as a member of expeditions to Everest, Cho Oyu, Batura Peak, and Broad Peak, had the most high altitude climbing experience. Murray, Shelley, Andrew, Barry, Ellen and Grant had attempted the North Peak of Everest (Changtse) four years ago on a self-organized trip. Diverse backgrounds, experience and ages, but with the common goal of climbing Broad Peak, a non-technical, high altitude climb.

Our first week in Pakistan was spent in Rawalpindi. We toured the open markets to buy supplies to supplement our food from Canada and



Truck in Skardu. Photo - M. Bittel.

to equip the expedition kitchen. We took over the hotel ballroom to organize, pack and label the food, climbing gear and kitchen equipment. Each porter load had to be 25 kilograms, no more and no less. Nick, and the leaders of the German and Ukrainian teams, with the able assistance of Concordia Tours & Trekking Services, jumped bureaucratic hoops, endured tedious briefings with the liaison officer, and looked after the logistics of getting the expeditions and gear from Rawalpindi to Skardu and then to Askole, where we would start our trek to base camp. There were three climbing expeditions on our permit - ours, the Germans (5 members), and the Ukrainians (4 members). Pakistan restricts the number of permits issued for each peak in a season, but not the number of climbers under each permit.

The day finally arrived when we loaded the"Magic Bus" and a mini-van and headed for the famous Karakoram Highway. The Karakoram is not for the faint-hearted, with incredible drop-offs into the boiling Indus River below. The highway, barely the width of two buses, was literally blasted out of the mountain side. Buses and trucks, which look like colourful, top-heavy sailing ships, scrape by each other with millimeters to spare. In the day time, our driver manipulated a symphony of horns to alert other users of the highway to our approach. At night, he used a panel of buttons above his head to signal our approach with colorful lights. Our hashish-powered driver gleefully pointed out eroding road beds and precipitous cliffs. Admonitions to slow down fell on deaf ears. The ride was exhilarating. Some team members found renewed faith in a higher being. Twenty-six hours and two flat tires later, we arrived in Skardu.

We used jeeps to negotiate the one lane road between Skardu and Askole. The road follows the Shigar River and then the Braldu River to Askole. A few minutes out of Skardu, our lead jeep hit a cow that suddenly bolted into its path. The driver did not stop. Not an auspicious beginning. We learned later that Concordia Trekking paid 2,000 rupees (about $67) to the unfortunate owner.

For eight hours we were bumped and jolted. Our arms and legs were cramped and tired from bracing. We drove through ancient Shigar with its lush vegetation and kilometres of irrigation canals, an oasis in the barren, gray landscape. Snow dusted the beautiful peaks rising from the Shigar Valley. Wooden suspension bridges spanned the Braldu River. We put faith in brakes, which were probably more imaginary than real. The driver of the lead jeep stopped often to refill the radiator, damaged in the altercation with the cow. Rounding a particularly sharp corner we were halted by a landslide. Two passengers from a vehicle on the other side of the slide were already shoveling the sand to clear a route while two others kept a careful watch on the slopes above. The slide did not keep the jeeps idle for long. To our amazement the lead driver declared the road passable and hopped back into the jeep. Murray, Grant, Ellen and I all hopped out convinced our driver was mad. Off he went to prove us wrong. We quickly followed on foot and climbed on board.

The road ended about a 45 minute walk from Askole. The road had been washed out by a previous flood. We unloaded the jeeps and set up camp. Concordia Trekking selected our porters from the hundreds of men who magically appeared, all eager for work. Approximately 150 porters were hired for the three expeditions, with our team using fifty-eight porters. We carried our own packs loaded with sleeping bags, mats, cameras, clothing and other essentials for the trek.

On July 12th we started our trek into base camp. The temperature was at least 40 degrees Celsius. Two litres of water did not last long. Trying to take advantage of lower temperatures, we were on our way by 5 a.m. each morning but by 10 a.m. it was hot and stayed that way until early evening.

Sorting loads outside Askole. Photo - M. Bittel.

On the trek in. Photo - M. Bittel.

Umbrellas provided much needed shade. The scenery was spectacular. We were surrounded by majestic peaks - some blunt and worn, others with razor sharp edges and pointed spires. It was wild and barren, except for wild pink rose bushes lining the trail. The Biaho Glacier provided an early glimpse of what lay ahead on the Baltoro - a maze of ice peaks and crevasses. The glacier is covered with boulders, rock and debris. The porters somehow saw a route through this maze and we kept them in sight.The Braldu and Biaho rivers are wide and powerful. Boulders rumble in the fast-flowing, silt-laden water. River crossings were an experience. The water numbed the legs, toes and hands. A cable cart crosses the Dumordo River. The crossing was a long, tedious process in the heat. Two cables and two carts, one porter with his load per cart. Multiply this by 150. We waited our turn.

After two days of trekking, we reached Paiju camp, the obligatory rest stop for the porters. Climbers, trekkers and porters crowded under the small grove of trees. Signs ask visitors not to cut down the remaining trees for fire wood. A small nursery of trees offers hope that this forest may one day be restored. Outhouse facilities, perhaps one or two years old, are used by foreigners, but not porters. The outhouses are a much needed improvement, but until used by all, Paiju will remain dirty, "a gigantic turd field" as described by one traveller. This is unfortunate because Paiju is beautiful, the gateway to the Baltoro glacier.

The Baltoro Glacier is massive. Three full days of walking on the Glacier brings us to Concordia. Initially the Baltoro was challenging, as the route made its way up the snout of the glacier. Glacial ponds and huge boulders forced detours. Except for the crevasses and occasional glimpses of ice under rock debris, one forgets that the route is on a glacier. Boulders balance precariously on the edge of the glacier, eventually starting their long noisy slide down the glacier wall. They crashed into the stream between the moraine and glacier. The route then becomes tiresome. Having to watch your step constantly, means pulling your eyes away from the incredible walls of rock around you: Paiju Peak, Uli Biaho Tower, Trango Towers, Nameless, Biale, Mustagh Tower, and Masherbrum. Sometimes we got a glimpse of the summits of K2 and Broad Peak. Gasherbrum III beckoned us to Concordia.

At Concordia we stopped to absorb the views. It was our first full view of K2, an impressive snow and ice covered pyramid. Concordia is surrounded by peaks: Chogolisa, Golden Throne, Gasherbrum III and IV, Mitre Peak and Broad Peak, our goal. Concordia is at about 4,300 metres. We had gained about 300 metres each trekking day. Base camp was at approximately 4,850 metres. The summit of Broad Peak is at 8,047 metres. It is the twelfth highest mountain in the world.

We arrived in base camp on July 17th. The Mountain Madness Expedition, a commercially organized team led by Scott Fisher, had arrived a few days earlier and were just starting their climb. The Korean team was scheduled to leave the following day. Four Koreans had summitted Broad Peak. On their descent along the summit ridge, one climber slipped and fell to his death down the steep face on the Chinese side. A Japanese team was on the mountain, traversing the entire Broad Peak massif. They were gone ten days, returning successfully to base camp on July 20th, just as our team was getting a toe hold on the mountain.

Between July 20th and August 10th we had worked our way gradually up the mountain setting up the camps, carrying food and gear. The Korean and Japanese teams had put up fixed ropes and left them there for our use. Snow and rain storms forced us back into base camp a few times slowing our progress. The longest stretch in base camp was

On the Baltoro Glacier with Paiju Pk. on far left skyline and Trango Towers right of centre. Photo - M. Bittel.

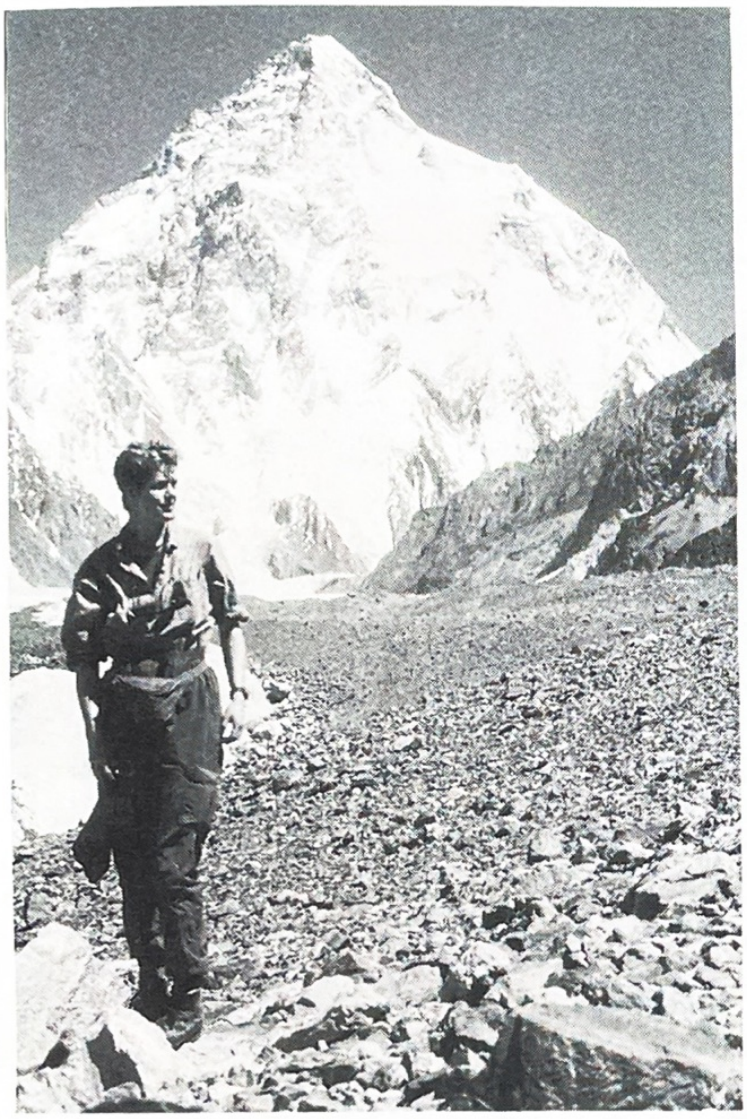
On the Baltoro Glacier with Paiju Pk. left of centre and Uli Biaho Tower right of centre. Photo - M. Bittel.

Heading up the Baltoro towards Concordia, with Gasherbrum to left. Photo - M. Bittel.

The route up the Baltoro just below Concordia. Photo - M. Bittel.

Paiju Pk. (left) and Uli Biaho Tower (right) from the Baltoro. Photo - M. Bittel.

Masherbrum from the Baltoro. Photo - M. Bittel.



Monica on the Baltoro Glacier between Concordia and base camp. K2 in background. Photo - M. Bittel collection.

Tyrolean crossing of a glacier stream above Concordia. Photo - M. Bittel.

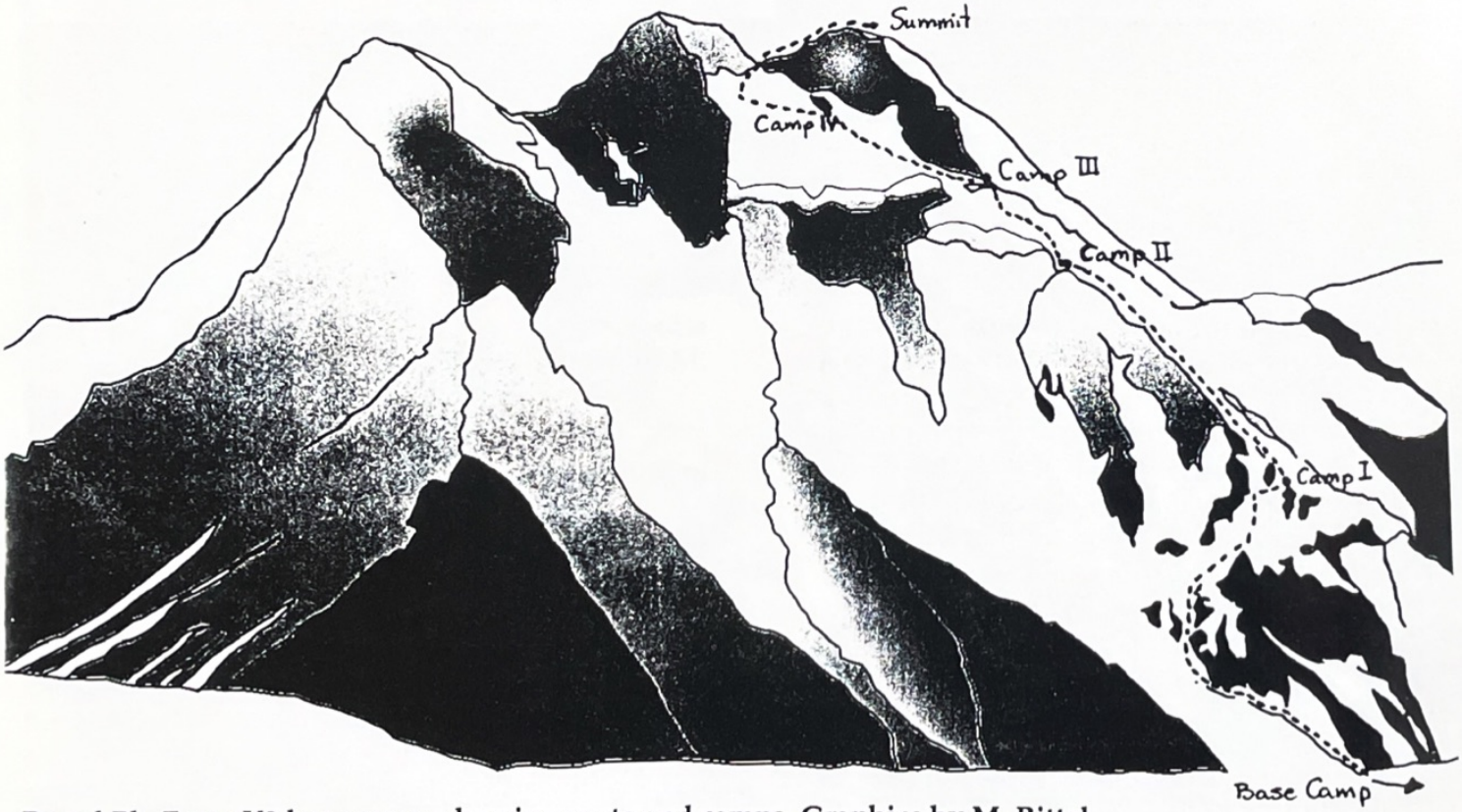
seven days. We tried to avoid late starts because of avalanches, rock fall, rock missiles and the heat.

We were well aware of the avalanche dangers as we watched avalanches sweep the rock walls around base camp on a daily basis. On our first day on the mountain, we were sobered by an avalanche triggered by a block of ice that broke off the glacier far above us. As snow and ice particles filled the air, we scrambled behind the moraine unsure of the route of the avalanche. On another occasion, while Aaron was making his descent to Camp I from a carry to Camp II, he watched the surface layer in front of him break away and slide down the slope ahead of him. In Camp I, Murray, Ellen and I heard the roar of the avalanche and saw it head towards the ridge on which our tent was perched. Part of the avalanche poured down the gully next to us, tossing chunks of snow into our tent. The balance of the avalanche covered our route to Camp I, and caught up with Jeff and Fred, who were returning to base camp. Fred was able to get out of the way of the avalanche. Jeff was caught in it but managed to escape to the side.

Cloud and Sun on K2. Photo - M. Bittel.

K2 from base camp. Photo - M. Bittel.

Broad Pk. from Concordia. Photo – M. Bittel.



Broad Pk. From K2 base camp, showing route and camps. Graphics by M. Bittel.

Shimmering cloud on K2 seen from above base camp. Photo - M. Bittel.

On August 10th, we started our summit bid. Our first team, consisting of Fred, Jeff, Kris, Waldek, Shelley, Andrew and Aaron, left for Camp II at 6,500 metres. Our second team, consisting of Ellen, Grant, Murray, Nick and myself, headed for Camp I at 5,800 metres. Ken and Barry stayed in base camp, Ken sick with hepatitis and Barry still dealing with the effects of giardia.

The weather was beautiful. The conditions on the mountain were deteriorating with snow disappearing fast, exposing rotten ice and rock. Avalanches had wiped out stretches of fixed rope on the lower part of the mountain. The first group had to re-position sections of fixed line and anchors. On August 12th, the first group made it to Camp IV at 7,550 m. Those of us in the second group

Monica and Ellen at camp I. M. Bittel collection.

View from camp III. Photo - M. Bittel.

made ourselves comfortable in Camp III. We planned to stay in Camp III for two days to give us time to acclimatize and to give the first group their chance to summit. There were nineteen people at Camp IV: eight members of the Mountain Madness team, three Germans, one American and our team of seven. The plan was for the first group to summit on August 13th and return to Camp IV for the night. The following day they would come down to Camp III or possibly Camp II, while our second group headed for Camp IV intending to summit the next day. The weather was still favourable on August 12th. It looked promising for the next day.

August 13th was summit day for our first team. We lost radio contact with Camp IV and the summiteers. At Camp III we watched as Masherbrum, Chogolisa and Mitre Peak disappeared behind clouds. It looked like the end of our summit bid. At 5:30 p.m. the wind was blowing hard. Ellen gave up trying to light the stove. Nick moved the stove into his tent and started the slow process of cooking the evening meal. Still no radio contact with our summiteers. The summit of Broad Peak and Camp IV were lost in clouds and swirling snow. At 7:30 p.m. Ellen and I struggled to stay upright as we covered the short distance between our tent and Nick's. It was blowing hard and visibility was poor. By 8:30 p.m. the Mountain Madness team was back in Camp III. Scott Fisher reported that our seven climbers had summitted. He did not know whether they had reached Camp IV before the storm hit.

The first snowflakes had started to fall as our summiteers began their descent from the summit. Waldek and Fred in front were followed by Andrew and Shelley. Aaron and Kris brought up the rear. Aaron was losing his vision and had trouble staying on his feet. Jeff had descended earlier with the Mountain Madness group. As the weather continued to deteriorate, the climbers became separated. Andrew and Shelley met up with Fred and Waldek at the col and together they waited for Aaron and Kris. Eventually they decided to get down to Camp IV. Shelley was also suffering from the effects of altitude. Visibility was down to a few meters. The blowing snow and wind obliterated their footsteps. By 6:30 p.m. the four summiteers joined Jeff in Camp IV. They waited for Kris and Aaron. As evening turned into night and the storm hit Broad Peak with its full strength, the summiteers feared the worst for Aaron and Kris.

Aaron and Kris had also become separated in the storm. Kris was swept off his feet by a small avalanche. He lost his ice axe and landed in a crevasse below Camp IV. The others in camp heard his calls for help and Waldek was able to get him out. Aaron had also fallen, tumbling into two German climbers. They were disorientated by the storm. Aaron started digging a snow cave for the night when he saw lights from Camp IV. By 10:30 p.m., all were safe in camp.

Camp IV, while higher on the mountain than Camp III, was in a more sheltered location. Camp III sat on an exposed ridge, between two glaciers. A slide down either side would be a fast and painful trip back to base camp. We were huddled in our tents, ice axes ready in case the wind decided to toss the tents like a beach ball. The winds were over 100 kph. We learnt later that the winds on K2 reached up to 160 kph. I am still amazed that our tents did not shred. The wind slammed into them with such force that the dome buckled. Spindrift was forced through the tent walls, coating everything with white powder. At times the wind lifted our loaded tents off the ground. Between blasts of wind, it was dead calm. A sleepless night. We were anxious about our summiteers, unaware that they had all reached camp safely.

Still no movement on the slopes below Camp IV. On August 20th the porters were scheduled to arrive in base camp for the trek out, so not much time was left. Yesterday, as the clouds obscured Chogolisa, Masherbrum and K2 it looked like the end of our summit bid. Today, August 14th, the summit was possible but much depended on the condition of our summiteers.

Barry reported from base camp that it did not look good for the climbers on K2. We knew that Alison Hargreaves, Rob Slater, Jeff Lakes and the Kiwi team were on K2 making a final bid for the summit. We had all weathered the storm and it was hard to imagine that they might not have been as fortunate.

It was 2:30 p.m. when we saw the first group leave Camp IV. Fred was the first to arrive in Camp III. They were exhausted. Some were suffering from high altitude sickness. Shelley and Andrew

were the last to arrive at 8:30 p.m. Shelley's condition had deteriorated in Camp IV. She lost control of her bowels and her bladder and lost her sense of balance. The descent to Camp III had been excruciatingly slow for her.

On August 15th the second team set out for Camp IV. All the summiteers, except Waldek, continued their descent to base camp. Waldek stayed in Camp III in the event of an emergency. The route to Camp IV was steep but straight forward. It was unbelievably cold. Ellen and I stopped to put on extra clothes, including down jackets and thick gloves. Still cold, we stopped to eat. The extra energy seemed to do the trick.

At 1 a.m. on August 16th, we started brewing liquids and began the slow process of adding layers of warm clothing. Grant and Ellen had high altitude sickness and planned to head down to Camp III as soon as it was light. Around 3:30 a.m. Nick, Murray and I were off, guided by the light from our head lamps. About an hour later, we turned around. We realized that our summit bid was not meant to be. The storm had seen to that. The avalanche hazard was too high with breakable wind slab of 15-20cm on top of about 60cm of loose powder snow. The snow accumulation would be even greater just below the col. Only 500 metres separated us from the summit. It was 300 metres to the col and a further 200 metres from the col to the summit. Broad Peak has three summits. On the highest peak there is only about 15 metres of height difference between the false summit and the true summit, but a distance of about one kilometre separates the two. The summit ridge is the most technical and probably the most dangerous section of the standard route. This time it was not the ridge but the slope between Camp IV and the col, which frustrated our goal. We had seen avalanches sweep this slope on our approach to Concordia and we were well aware of their size and power from our earlier excursions on the mountain. It was very disappointing and frustrating to be so close. Murray, Nick and I headed back to Camp IV. Nick and I nursed frozen toes, while waiting for daylight.

It took us two days to descend to base camp. We cleared the camps as we made our way down. Murray and Grant headed down to Camp I. Ellen and I were the last to leave Camp IV. Ellen was completely wasted and every step seemed to be a struggle for her. The descent from Camp IV to Camp III seemed endless. After a short break, we packed the remainder of the gear at Camp III and Nick, Ellen, Waldek and I continued to Camp II. Waldek joined Murray and Grant at Camp I for the night.

That night, I paid the price for not wearing sunglasses for a short period of time earlier that day. I was snow-blind. I chided myself for my foolishness. I was unable to open my eyes. Hot tears streamed from my eyes. By morning, I could open my eyes, but it was a struggle to keep them open. My vision was blurry and my eyes were extremely light sensitive.

We continued down to base camp. Ellen did well for the first hour. She led the way so that I could tell which of the fixed ropes to clip into. After about an hour, Ellen's energy was gone. I went on ahead and Nick continued down with Ellen. Nick was carrying some of Ellen's gear in addition to the gear and equipment we were clearing from the mountain. His pack easily weighed 45 kg by the time they left Camp I..

We arrived back at base camp on August 17th, giving us three days to recover, eat, organize and pack. We decided to go over the Ghandagoro Pass (at approximately 5,000 metres). During our month in base camp, rain and snow storms had wiped out the cable cart crossing and about 11 kilometres of road. It would take us about 10 days to get to Skardu if we followed the same route we used to get to base camp. Although the Ghandagoro Pass was a challenge, it provided a welcome opportunity to see another part of Pakistan. The trek out would take us four long days with the last day spent in jeeps. On August 21st we left base camp with 28 porters. Broad Peak and K2 were shrouded in clouds. A rain storm was making its way up the valley from Concordia. We were going home. Seven climbers on K2 were not.

MATTERHORN PEAK, CALIFORNIA - NORTH RIDGE, II 5.7 (24-25 September, 1994) - by Gavin Thurston

The newly-formed Sierra Chapter of the BCMC held its first trip 24-25 Sept., 1994, to Matterhorn Peak in the Sawtooth Range along the northeastern boundary of Yosemite National Park. The Sierra Chapter is for displaced BCMC'ers who have relocated to the Bay Area. Peter Celliers and Denise

Hart moved to Berkeley in spring/summer, 1994, and Gavin Thurston and Mary Prendergast moved to San Fracisco in the fall of 1994. So the unofficial Sierra Chapter was founded. The objectives of the Chapter: to bag peaks in California, to drink copious amounts of micro-brewed beer, and to pass casual judgement on gun control, abortion, and the American Dream.

Anyway, back to the trip. Our route was the striking rock ridge of Matterhorn (3750m), hiking in from Twin Lakes near the town of Bridgeport. On Saturday around noon, we parked the cars at about 1800m in a large dusty parking lot beside one of the Twin Lakes (I forget which - besides, they're identical twins so it's hard to tell them apart). The day was hot, but the forecast was for some squalls, so we kept an eye on the sporadic black clouds. The fall colours of the aspens lit up the creekbed as we headed up a long series of dusty switchbacks. With us on the trail were a couple of other groups, both headed to the peak via the standard route. One group consisted of 12 ladies and one man (the photographer) who were preparing to climb Aconcagua in support of breast cancer. We passed them and slogged up the trail/track for 3-4 hrs. Eventually, we made camp near where our route branched off the main track (2800m).

We got up at daybreak on Sunday morning and wandered up toward the base of the ridge. We crossed lots of moraine before arriving at a tiny remnant glacier (which may require some people to use ice axe and crampons). At the base of the ridge we ditched ice axe and crampons, and geared up for the rock. The climbing involved 7-8 pitches, including 2-3 pitches of 5.7. The lower 2 pitches were a bit loose, but the rock improved as we got higher and the position was superb. As we climbed, the clouds moved in. Just as I topped out from the were a bit loose, but the rock improved as we got higher and the position was superb. As we climbed, the clouds moved in. Just as I topped out from the last pitch of actual climbing, I looked a hundred metres or so along the ridge and saw the 12 ladies on the summit with their breasts bared as their picture was being taken. Just then the clouds closed in. As I was frantically untying my harness, the tugson the rope from below reminded me that the rest of the Sierra Chapter had yet to finish the route. Wistfully, I set up the belay.

Summit ridge and towers of Matterhorn Pk. Photo - G. Thurston.

Eventually, we all clambered over to the small summit, where we sat in worsening weather with 12 fully-clothed and very talkative summiters.

During our hurried lunch, we were hit with a nasty little hail storm. We scurried down a steep, loose gully beside the North Ridge to our ice axes at the base of the ridge, and then back to camp. We broke camp, sped down the trail, and arrived at the cars just at dark. Peter and Denise faced a 4 hour drive back to Berkeley and work the next morning, so we hastily bid adieu. We concluded that the inaugural trip of the Sierra Chapter had been a success.

NORTH LAKE TO ROCK CREEK SIERRA SKI TRIP (5-11 May, 1995) - by Gavin Thurston

The Sierra Chapter of the BCMC combined with the Colorado Chapter to stage a week long ski traverse in the Eastern Sierras in early May 1995. Denise Hart, Peter Celliers, Mary Prendergast, and Gavin Thurston from the Bay Area (and the Sierra Chapter) met Danika Gilbert and Darren Quist (the Colorado Chapter) in Bishop, California, on a very stormy afternoon. In the winter of 94/95, the storms had come early and often. The snowpack was about 200% of normal in much of the Sierra, and high winds had left huge cornices. And apparently the storms had not finished yet. So after some discussion in the pub, we scaled back our original plans and chose to do a 66 km south to north traverse from North Lake to Rock Creek. This traverse started at about 2700m, climbed to over 3500m within a few km, and then continued above 3300m for about 56 km. For reference, tree line in

View from first camp back across Steelhead Pass (centre foreground) to Mt. Humphreys. Photo - G. Thurston.

the eastern Sierra is about 3300m. Despite their elevation, the Sierras are virtually devoid of glaciers.

On Sunday morning, we shuttled the vehicles, made some last minute preparations, and finally set out from the cars around noon. The weather was fine but the wind was obviously still blowing off the ridges. We skied along the unplowed road for a few km to North Lake, skirted around the lake, then gradually climbed up to Piute Pass (3500m). From the pass, we dropped down 60m or so into the wide expanse of Humphreys Basin and made our first camp. We were all feeling the heavy packs and the altitude. Also, Danika had underestimated the strength of the California sun and had gotten quite a broiling on her face and neck. The second day featured skiing past Mt. Humphreys (4260m) and Steelhead Pass (3700m), which we crossed in late morning. While we were at the pass, a party of 12 Brits on telemark skis arrived. I speak from experience in saying that they may be the only telemarkers in all of Britain. They seemed to have a guide (also Brit) who had somehow convinced them to try a grueling 7 day, 110+ km traverse that included a long section below 2400m (hence carrying skis). They looked tired already (morning of day 2). As we saw them over the next couple days, looking yet more tired, we could only marvel at the combination of boldness and lunacy that is unique to the peoples of that island We descended from Steelhead Pass in crusty snow, and crossed several km of rolling meadows to Royce Lakes. We made our second camp in a spectacular but windy spot beneath Royce and Merriam Peaks.The next morning, the wind had miraculously died, so we lounged on the rocks and dried our boots. Then Peter got summit fever and he was off. Mary, Denise and I followed, while Danika and Darren decided to putter close to camp. We skied up to the col between Merriam (4020m) and Royce (4040m). Royce looked more appealing (and we knew it was higher), so we kicked steps up a long slope on its southern flank. As we climbed, the wind increased.

Snack time amidst the towers in Granite Park. Photo - G. Thurston.

At the summit, spectacular views and howling winds competed for our attention. We made a small fort, had a quick lunch, then descended to the col. Peter and Denise decided to go up Merriam, while Mary and I opted for some turns and lounging. That evening we tried to socialize around the campsite, but the wind prevailed again.

The next morning, our 4th, broke clear and calm. We set off early, crossed CoCo La, traversed high around the beautiful basin of Granite Park and skied up to Italy Pass (3780m). Here we dumped our packs and kicked steps up Mt. Julius Caesar (4040m). From the summit, we could see the impressive Bear Creek Spire (4200m) and other peaks around the head of Rock Creek. We could also see the desert floor of Owens Valley just a few km to the east and about 2700m below us. We plunged down to the pass, collected the packs and skied down in lovely spring snow to Jumbo Lake and eventually to our campsite beside Lake Italy. It was a beautiful but desolate valley, and very exposed to wind. We intended to stay 2 nights and bag Mt. Gabb (4180m). We built big snow walls around the tents, and had another windy and unsociable dinner.

That night, a storm blew in with vengeance. Snow and wind battered the tents through the night. The storm continued unabated until around noon the next day - too late to go for the peak. Instead, we spent the day making turns in good spring snow while the wind howled and the clouds scuttled in and out. The barometer continued to plummet, so we re-fortified the walls and settled in for another windy night. A sociable dinner was out of the question.

Next morning, the barometer was even lower, the wind was still strong, but the clouds were high. We decided to break camp and try to get over the final pass, Bear Creek Spire pass (3960m). Luckily the wind was at our backs, because it got even stronger as we got higher. Full blizzard conditions reigned at the pass. Mary and I arrived first and had to built a snow wall while waiting for the others. After regrouping at the pass and shouting some encouragement to each other, we plunged down into the huge bowls of upper Rock Creek. To our great disappointment, this potentially spectacular descent was marred by whiteout, bad snow, and high winds. Only Peter attempted anything other than "survival" turns , and for this he seemed to pay a high price. Eventually, we made it to the valley floor of Rock Creek (about 3200m), where we had planned to spend a night, but the storm continued so we opted to keep skiing. We enjoyed a fun ski back to the car, then began the process of collecting the other vehicles. Finally that night, we regrouped for another beer and burger session in Bishop.

NO SNOW YET: THE SIERRAS IN LATE NOVEMBER (23-24 November, 1995)

- by Denise Hart

The Sierra Chapter of the B.C.M.C. had been busy again. After many pleasant cycling trips in the Bay area on sunny, warm and very dry November weekends, the chapter headed to the eastern Sierras for the American Thanksgiving weekend. The original plan was to head to Joshua Tree, but the closure of all the national parks (thanks to Washington politicking) lead us to rethink that plan. There was no snow yet, what about another mountaineering trip? It didn't take long to convince members that this was a good idea.

From San Francisco and Berkeley, it was hard to know exactly what conditions were like in the mountains: we can't see 'em from here like you can in Vancouver. And, as mountains do everywhere, they tend to form their own weather conditions. On Gavin's suggestion, we decided to attempt Split Mountain, in the Palisades group. It is one of the fourteen thousanders in the Sierras (apparently this was an enticement for Peter who seems to have

developed a reputation for climbing these fourteeners). Due to short days and the possibility of some snow, a class 2 route was proposed.

The roads to access this mountain are really tracks through fields and desert vegetation, and were a little too rocky for Denise and Peter's Accord. In addition, we had two maps showing different routes for these tracks, and a locked gate. After some discussion, and a closer look at the unexpectedly bare mountains, we decided to abort this trip and head for Mt. Humphreys instead.

This was a peak we had passed on a spring ski traverse earlier in the year. It is very impressive and easily visible from Highway 395, and overlooks Humphreys Basin and the Evolution Group to the south. The road to access it is mostly paved, and the rest of the road Peter and I had driven up on a trip to Mt. Darwin in August. Bomber weather and the evident lack of snow helped us decide to go for the southwest slope and northwest face, the latter part of the route being class 4. Everyone was enthusiastic (although Peter's enthusiasm was characteristically low-key). Perhaps because the mountain was not a fourteener? It is only 13,986 feet (4264m), and the altitude effects would be the same as a fourteener.

We headed up the Piute Pass trail, past a lovely series of mostly frozen lakes, and retraced our ski trip route. In the quickly disappearing sunshine at the pass, we decided to camp at Summit Lake. The lake is at 3350m and we all felt this was high enough for the day. We made dinner as the night descended, and listened to the calming silence around us.

We awoke to another beautiful day and headed for the base of the mountain, a few rambling km to the northeast of camp. We ascended up the southwest slope via some class 2 gullies and traversed north to a prominent notch northwest of the summit. The lower reaches of the mountain are granitic, then there is a great swath of metamorphic rock, and most of the top of the peak is again granitic. We were at the base of the granitic class 4 section, and it provided fine solid climbing. We roped up for one short airy section, with Gavin leading. We arrived on top and were rewarded with amazing views: Whitney off away south, with the Evolution Group (Darwin, Mendel and others) in the foreground, a mystery mountain off the main divide to the west, and our ski trip to the north. And the ever-present Owens Valley, far below us to the east. The mystery mountain, solitary and imposing, was off our map, and there was much discussion about its identity. Mary suggested it was Goddard. Later with the guidebook, she was proved correct.

We were all happy to feel only minor effects of altitude: mainly some shortness of breath. I had a headache during the previous evening but had rehydrated myself fully by morning and was fine. Did all the cycling help with this? Or had our bodies become more accustomed to going from sea level to high altitudes quickly? None of us had been to this altitude for more than a month. I don't know, but I hoped it lasted.

We descended to camp and decided to make a dash and leave that evening. Camp was broken in record-breaking time, and we headed back down the Piute Pass trail under a beautiful pink sky and fading light. Peter has a theory that headlamps are a hindrance to seeing in the dark, and only used his at my insistence through the trees near the bottom of the trail. We arrived back at our vehicles at 6ish, and headed to Bishop for a beer and burgers. The trip had been a bonus to the season, and the next morning we soaked up the sunshine at the Horton Creek campground. Yes, there was no snow yet and it felt just fine.

Party: Mary Prendergast, Gavin Thurston, Peter Celliers and Denise Hart

A WEEK IN THE HEART OF LABRADOR

(July, 1995) - by Johan Stroman

"No", Troy shouts to the pilot over the engine roar, fingering the map and pointing to the rocky tundra outcrops below, "**This** is the best lake. Its nearest to the nest site". My innards shift restlessly, as the wind buffets the plane's belly. The thought of dropping into an 800 m long lake littered with rock outcrops does not appease my stomach. With 15 minutes of extra fuel before the pilot must return we bank hard to the left for another pass of the valley. I strain my eyes seeking for the tell tale sign of a nest site on the bluffs below. A streak of orange flashes from guano-fed lichens draped down the granite wall of the canyon. We have a golden eagle eyrie!

It is not a descent I feel comfortable with. The beaver drops shakily into the shallow depression in

the bedrock alongside the Adlatok gorge, winging over balsam fir trees as we near our end point. The plane, crammed with 180 kg of gear and 3 passengers, touches down, and begins to skid on the greenish blue surface. The pilot calls out "This was a really bad idea" and lets out a string of curse words. With the prop alternately sputtering and roaring, we move to the far shore and, as we slow, his worries become more clear. The pontoons jam tight against the rock shoal. Then there is the lift off. Landing on 800 m was OK. But we would never clear the trees with all this gear aboard. We need a lake twice as long. The closest one is 4 km away as the crow flies. We will have to transport the gear 5 km in total. But that is next week. Right now there are eagles waiting.

We strip and wade ashore with gear. The large 70 kg disassembled wooden trap that was forced into the plane comes out nicely. We also have leg hold traps, stoves, food, tents, clothes, climbing gear (including 150 m of rope), an inflatable raft, caribou parts and dead snowshoe hares for bait, and 2 live pigeons which Troy caught in a public park in St. John's. After 30 minutes of dislodging the pontoons from the rocks the plane floats out onto the lake. The prop starts up as he reaches the furthest end of the lake. We'll be staying for a long while unless he clears the trees and gorge behind us. As the roaring plane hurtles by just above us, I brace momentarily for the deafening explosion - which luckily doesn't come.

I have joined Troy for a week in central Labrador in mid July to assist with the trapping and tagging of a golden eagle. Besides my biology background, it is my climbing experience that is my ticket to join Troy. Being a B.C.M.C. member has its perks! The nestlings will be easy to handle. However, our mission - to place a satellite radio-transmitter on an adult bird with a 2m wingspan - could prove to be tricky. And why do this? Wildlife in Labrador is currently at risk from two main sources. One is low level flying by NATO tactical fighters which people, not surprisingly, fear is disturbing wildlife. Aboriginal peoples have protested the activity for years. As an environmental mitigation, the Department of National Defence, which is funding the study, establishes no-fly-zones near sensitive wildlife. One wonders where the "non-sensitive" wildlife lives. Besides, it is difficult to monitor jet compliance. Meanwhile, mineral claims in Labrador have jumped from 1,000 to 260,000 per year since the big discovery at Voisey Bay last year. The vast landscape has been quickly carved up by claims. The potential environmental effects of mining in some areas are a great concern. Studying eagles will provide valuable information on their current use of the land, migration patterns, diet, and home range use.

As the plane vanishes, a new drone sets in - of many wings in unison. Millions of mosquitoes marveling over fresh pink flesh are closing in on all sides. Along with them come deer flies. In minutes we are inundated. They remain with us for the duration of our stay. They choke up the ceiling of our tent, cover our food and water, and cling to every part of us. Over the week our most valued pieces of equipment are our $2.95 mosquito hats. Eating outside is impossible without simultaneously running. Defecating becomes an exercise in endurance to first hold off and then, at great speed, perform the act. The solution is to stay covered in two layers - head to toe at all times. In sunny, windless conditions it becomes maddening and exhausting. We sweat copiously and then drink through the mesh in our hats to rehydrate.

The landscape around us is covered in caribou moss and mystical patterns of lichens adorn the glacial erratics which are strewn liberally over the land. The dips and lower slopes are carpeted with a mixture of balsam fir and black spruce trees. Most

The Adlatok River seen from the air with the nest site in the cliffs above the river.
Photo - J. Stroman.

of the erratics have rolled off the slopes and gather in or near the river's edge while many still carpet the higher slopes, keeping vigil over the otherwise barren and craggy landscape. Local Labradorian legend has it that God made the earth in 6 days and on the seventh , threw rocks at it.

Later in the day we move our gear in piecemeal fashion over the terrain. We set up a cooking camp on a knoll overlooking the river 250 m below and leave a small tent there to house the pigeons and our food supplies. Further off we stash the raw meat bait under boulders. Our sleeping tent and climbing gear rest atop a bluff ringed by boulders. Below us the Adlatok River snakes through the rocky lands emptying eastward into the Atlantic. We marvel at a slow rising moon and the star-filled skies while perched within a 'Sacred Circle' of glacial erratics atop the bluffs.

There is little life that we can see or hear. The occasional ptarmigan or songbird, but mostly the overwhelming silence of the vast landscape. The eagles, merlins, peregrines, gyrfalcons, and rough-legged hawks who nest here must eat something. The herds of caribou that pass through this area in the summer have taken their newly-born calves to feed near the coast. Their tracks in the soil capture the energy of clattering racks and hooves as the stream of wide-eyed, snorting creatures flowed over the land. In places the tracks coalesce leaving a broad band of scarred earth. Then they weave in and out, joining and breaking along the hillsides before vanishing in the distance along with their makers. Hardly "minimum impact" camping.

On the morning of day two we establish radio-contact with home base in Goose Bay and pinpoint the nest on the 3rd of a series of bluffs. It protrudes slightly from 20m below the overhang. Inside - 2 young eaglets. We discover a good rappel point to

Troy on nest site with eaglet. Photo - J. Stroman.

Angry eaglet on nest . Photo J. Stroman.

the nest using erratics for anchoring, and set up our observation post with the spotting scope near our tent, some 250m from the nest.

At noon the silence is shaken. An uninvited dark green British RAF Tornado tears through the valley, banks steeply revealing a white-helmeted pilot inside and then vanishes, my ears and chest rattling from the intensity of the crackling engine noise. The Innu concern is suddenly tangible. The eaglets huddle on the nest 60m below the jet's path, in this "no-fly-zone".

The next day we rise in time to see an adult eagle land then leave the nest. We race to a better vantage point as it heads westward on long, steady wing strokes, quietly drifting along the route the jet had taken the previous day. We prepare nooses, test traps, review capture methods, and sort gear as a heavy rain sets in. Atop the nest bluff we set up an eagle trap with a dead bunny surrounded by 6 padded leg-hold traps. We celebrate our third day with the vilest concoction of food I have ever experienced - spaghetti with Parmarosa sauce topped with chunks of canned pink salmon.

On day 4 we study the best approaches and return routes on the cliff. Jumaring up would likely be horrendous and time consuming. It is best to be off quickly in case the parent returns and we spoil a trapping opportunity. Adults have passed over the bluff 3 times in two days, and landed on the nest only once. We wonder what, if any, prey parents have brought in. It is impossible to tell even with the powerful scope. Troy spends hours disassembling the scope and attempting to dry out the inner lenses which keep fogging in the drizzle and moisture. We are left to guess what the young are eating and we still have not captured an adult.

Three days to go. Our hopes of capturing an eagle on the bluff will not be realized. After a brief radio contact we learn that 2 days of good weather are coming, and decide to try setting traps on the nest ledge itself.

Day 5: After a thorough check of the equipment I anchor in with a sling and two large biners and begin my descent. Once over the edge, the sounds of wind and water rise from the river. The granite slabs are slippery but solid. Soon I alight on the grassy ledge next to the nest. The youngest of the chicks feigns invisibility by huddling low. Troy ferries down gear and then descends on a separate line. We remain on rappel with prussiks so we can concentrate on the birds. As I approach, the youngest eagle wobbles to its feet, puffs up its chest and wings and begins a threatening hissing display. Gingerly I step over the youngster to get a look at the other nestling hiding on the far side of the ledge. The overhang fits these eaglets well and provides them cover from rain and wind. We must crouch uncomfortably to move around. But, like ourselves, the nestlings are not free of the bugs which cluster on the soft tissue near their eyes. They quietly endure this, unable to fend the hordes off, as they await food from mother.

After measuring and tagging the good-sized nestlings we discover the legs of another raptor - a grizzly testament to a harsh land where predators sometimes become prey. We place the bait and traps on the far side and then carefully tether the young to prevent them being trapped themselves. After 3 hours work at the nest we descend another 20m to the steep slope below and begin a cross slope traverse. The air is cool. At one point I heave the big pack, full of camera gear and climbing equipment, onto a ledge above me and, horrified, watch it teeter for a moment and then plunge headlong into the gorge below. Troy's and my gaze follow it as it descends, crashing with bounces of increasing height, finally vanishing into an unstable rockslide chute 100m below. Blessed, we retrieve it without any damages except to my ego.

As we return to observe the nest, the eaglets begin to beg signaling the arrival of an adult. The bird soars into view, its 2m wingspan making it look about the size of a pterodactyl. This must be the female. The notion of wrestling her safely down as she attempts to free and defend herself is daunting. We need not worry. As we hold our breath, she glides smoothly over the bluff, looks down and vanishes. Frustrated, the young stumble unexpectedly and pick at their tethers trying to reach the "banquet bunny" laid out near them. It is comical to watch, but I feel hardhearted to be chuckling as they struggle in earnest to reach this tempting meal.

The next morning we cannot make radio contact. We are running short of food. We spend the day discussing possibilities as we wait for her return. If she is not back today we will need to descend early tomorrow and complete the job. We wait. The

loneliness of this landscape is haunting. Low clouds lift and cloak the distant craggy ridges. We await her arrival on wing. Ghosts buried in my mind rise. I let them go and soak in the ridges, the rock, the river. Vastness and silence. Wind and mist. Swarms of hungry insects. We wait.

At 5:12 she appears. We hold our breath. She brakes and swoops deftly to the ledge. The young are up. Forgetting their tethers, they trip and stumble. She appears to leave something in the nest. The young tug and grapple with their straps. A moment later she is aloft. A 7 second visit - the first and last of the day. When the eagles are this old she is too aloof. We have no more time. We can't afford to wait for her. But perhaps we can tag the largest juvenile tomorrow - providing the transmitter fits. We debate the pros and cons. We are concerned that the pack will fit snugly and not interfere with flight, yet still allow ample room for growth.

At twilight we move part of the equipment to a cache nearer the pickup lake. We tromp through the evening stillness, a vast coloured sky aglow, past quiet ponds alive with insects. We lose one another in the falling darkness and then rejoin again to return over the barrens as a red moon rises in the east . Exhausted we collapse into bed.

The new morning brings sunshine. Today we will attempt to place the transmitter on the young. Tomorrow noon is our pickup time 4 km south. Leaning out over the cliff edge seems easier today. We have lots to do. Once I am on the ledge I collect old prey remains, feathers and fur from prey and remove the traps. Troy frees the eaglets from the tethers. The larger of the two gets rambunctious - hissing and sticking her tongue out at us as we pass close by. She soon has reason to be indignant as we hold her down and affix the transmitter to her back. Troy works the straps patiently while I immobilize our hostess. She grows more accustomed to us and relaxes. She is beautiful. Soon she is fitted with the 95 g backpack and stepping around the nest, her new baggage adding 3% to her weight. All we can do now is wish her well. As a parting gift we leave the caribou legs and bunny carcasses in the nest. The young, now untethered, look somewhat stunned by the sudden windfall of food.

Eaglet on which the radio transmitter was fixed at the nest. Photo - J. Stroman.

From our observation post, we watch the youngsters through the scope. Content after a good feed, they pass time exploring the ledge and play with the half-eaten carrion. After lunch we break camp and begin moving a full load of gear. After 3 km we reach a rise and spot a young black bear with a scarred rump scraping at roots on a slope. We watch quietly from 60m. I knock two small stones together. He sits up to observe us and then bounds upslope and vanishes. By evening we have moved 2 full loads of gear to the pickup lake, and have walked a total of 15 km. We hang our food half way down the face of an enormous erratic, hoping the bear will not return and jump onto the pack.

We wake to the sound of wind tugging on our tent and water lapping at the lake shore. The air is drier now. The tundra lake is barren and desolate except for us. We dress, eat, attempt a final radio contact, and then head out to collect the last cache some 3 km away. An hour later we are aboard the beaver. A storm is moving in. We are getting out just in time. The plane rises over the tundra lake, the landscape shifting below us. Our mission is accomplished.

January 1996: Troy calls from Newfoundland to inform me that the tagged eagle has been located by satellite wintering in South Carolina. The transmitter's signals have shown the unexpected journey of the youngster - over Quebec city, through New Hampshire and the southern New England states, along the eastern edge of the Appalachians, to her final wintering grounds. In the coming months this eagle will provide biologists in

Newfoundland and Labrador with some insights into the year-round needs of golden eagles and may provide some answers for the residents of the SE U.S., who have long been wondering where their eagles disappear to each summer.

Party: Troy Wellicome (Biologist with Dept. of Natural Resources, Newfoundland), Johan Stroman (reporter) and 2 Quidi Vidi pigeons.

Postscript -

CPAWS is currently lobbying for the protection of the Torngat and Mealy Mountain areas just north of our study site. Conservation groups are concerned that mineral development is being given a free hand while the province has refused any requests for a moratorium on mineral permits in the Torngat region. The Labrador Inuit previously could not understand the need for parks but some see how they may meet their own objectives of protecting the lands and providing self-sufficiency through tourism. Now CPAWS, the Labrador Inuit Association (LIA) and the Canadian Nature Federation (CNF) await a response from Premier Brian Tobin.

Contact CPAWS for further information or to make a donation: 401 Richmond Street West, Suite 380, Toronto, Ontario, M5V 3A8,

ESCAPE FROM THE GREYS - HAWAII (November, 1995) - by Jenny Faulkner

Usually people get blue in the winter, but in Vancouver we get grey - well, look at the sky in the fall of 1995! When John showed me the newspaper advertisement for cheap, cheaper, cheapest air tickets to Hawaii, I was hooked. Some adventures to exotic places require months of planning, but to travel to the southernmost state of the U.S.A. and one of the most isolated archipelagos on the plane involves no visa (apart from the plastic bank kind), no shots nor political consequences.

It was a simple matter of comparison shopping at a friendly neighbourhood travel agent's to book best deal inter-island flights, car rentals and a first night hotel before we were off at the end of November.

We arrived in Honolulu on Ohau with time to spare before our flight to the island of Hawaii (usually called the Big Island to avoid confusion between state and island) to tackle our main objective, an active volcano called Mauna Loa. Our first port of call was the sunshiny hot beach bar at the pink Royal Hawaiian Hotel in Waikiki to soak in some local colour, listen to the surf, and sink a couple of Mai Tais provided by Polynesian Sam the barman, with mynas and zebra doves singing among the palm trees.

When in Waikiki it is de rigeuer to climb Diamond Head - a volcanic crater rising a daunting 230m above sea level and usually approached via a tunnel to the inside of the crater, a trail with steps to a fenced summit. John and I got bored with the walk from town to the regular trailhead and so found a likely spot on the outside to clamber and then circumnavigated the crater which has been dead or dormant for 100,000 years and has thus had plenty of time to erode to some quite stimulating scrambles and narrow ridges around the perimeter.

When we arrived on the Big Island at Kailu-Kona we sampled some Polynesian and Christian historical sites along the lush Kona coast en route for Hawaii Volcanoes National Park, itself an area of such volcanic activity it is surprising that anything historical has survived on the island. The Kona coast is where Captain Cook died - under different circumstances, an idyllic place to spend eternity.

Before we reached the park we passed through Naalehu, which boasts the honour of being the southernmost town in the U.S.A. Here we heard about Punaluu Black Sand Beach Park where Hawksbill turtles are accustomed to human intrusion. We couldn't resist a side trip down flower-festooned side roads to jump into the sea with masks to search for some of those magnificent creatures. There was a wealth of colourful reef fish to be seen until John spotted several turtles and dived to have a closer look. I saw one which clearly didn't want my company, before I got too cold (In tropical seas yet!) and had to retreat to shore. Just as we had decided that it was time to move on John spotted another turtle surfacing quite close to shore. I hastily swam out and was delighted to make the acquaintance of an individual which approached me voluntarily to be tickled under the chin and flippers and even held on to my arm with her (?) flippers when I made a move to leave.

The volcanic Hawaiian island chain, at or about the Tropic of Cancer, sits on the Pacific Plate which, as it moves slowly northwest, leaves a stationary "hot spot" to the southeast. Thus, the Big Island is

the newest in the chain, very volcanically active and growing, while the islands to the northwest become progressively older, colder and more eroded until there is nothing much left atoll.

Hawaii Volcanoes National Park in the south-central part of the island comprises the two volcanoes, Kilauea (1200m) and Mauna Loa and a large fan-shaped area of lava flows which run south to the ocean.

The Ranger at the Park Visitor Centre was very informative when we registered for climbing Mauna Loa - also questioning us very closely whether we knew what we were doing and what equipment we had, especially as the forecast suggested a possibility of snow. We seemed to pass muster and proceeded to accustom ourselves to volcano travel by exploring the Kilauea caldera on the first day.

This volcano has everything from rain forest to the barren, steaming, sulphurous Halemaumau Crater said to be the home of Pele, the Hawaiian goddess of fire. In the east rift zone, Puu Oo Crater is the most active. This has been erupting or oozing lava since 1983. We saw the bottomless pit and neighbouring cone of a 1959 lava fountain - the highest on record - and visited the Thurston Lava tube, 6m high in places and situated in a beautiful tree fern forest.

The next day we were ready to tackle Mauna Loa, at 4170m no slouch in the lava-building business and last active in 1984. Although the shield volcano formation makes a gentle slope, it also makes elevation gain, altitude, and distance, rather than difficulty, the challenge and the trip is best done in four days. Starting at 2030m at the end of a narrow winding tree-lined road, we had to gain 2100m in about 32 km. Although we planned to stay overnight at the two park cabins on the mountain, we carried full backpacking equipment anyway "just in case". We also had to carry enough water for the whole trip as the Ranger had no information whether the roofwater-collection cisterns at the cabins were wet or dry at the time. There was no other source of water on the mountain.

To reach the Red Hill cabin at 3060m, we climbed on a trail through rain forest notable for the grey-green foliage and fuzzy red flowers of the Ohia lehua trees. By 2400m the vegetation had become very sparse and our lovely sunny day became clammy, foggy and quite cold. We kept assiduously to the cairn-marked trail, for the mountain is vast and sufficiently featureless that lost people tend to stay lost as there are endless cavities and collapsed tubes to fall into.

By 3000m we were out of the clouds. The Red Hill cabin is in the crater of a small red cinder cone, very comfortable with bunk beds, foam mattresses and blankets. There was water in the cistern and so we cooked the good old Liptons with that and reserved our imported water for drinking.

In the evening we climbed the crater rim and enjoyed a beautiful sunset, with Venus bright in the west, and then settled down for an early night as soon as it was dark.

The next morning it was below freezing and some sparse grass by the cabin was white with frost. We set off early to give ourselves time to cover the 18.5 km to the summit at a leisurely pace. The landscape was fascinating - chunky aa lava, brown, red and black in all kinds of tortured formations and smooth black pahoehoe lava like blacktop. Indeed this territory is so bleak and devoid of life that it was used by Apollo astronauts as a training ground for lunar exploration. To the north we could see Mauna Kea , a sister volcano, a little higher and not currently active. On Mauna Kea there is a road to summit observatories which glistened white in the morning sunshine. Some thin cloud hovered lower down.

As we climbed we passed cinder cones, small craters, and an assortment of gaping holes and chasms where lava tubes had collapsed. Once in a while when in a sump we could smell sulphur. The day was pleasantly warm for hiking but fairly cool for sitting, which I did a lot of the higher we got. As one who puffs and wheezes at sea level, my aerobic state at 4000m is quit pathetic. John has a fine set of lungs but was prone to mild headaches with increased altitude.

By the middle of the day we were walking on a 1984 lava flow and a landmark at about 3660m called the Steaming Cone. It was doing just that. As we ascended we realised that the smooth ridge we had been looking at all day was actually the summit, unlike our B.C. mountains which fool the climber every time. By late afternoon we reached the North Pit of the caldera after a rough, steep section. Here the route divides. To the southwest is the highest point of the crater rim, an 8.4 km return to

Hiking on Mauna Loa. Photo - J. Sapac.

Jenny and John at Mauna Loa cabin. J. Sapac collection.

John on Mauna Loa. Photo - J. Faulkner.

the summit cairn and no water. We took the route to the south where the Mauna Loa cabin (4040m) is situated a mere 3.5 km from the intersection - 3.5 of the longest km I have ever hiked, with rest stops every five minutes to catch my breath. The route follows the caldera floor for a while - black and smooth, almost like a parking lot - and delightfully flat until it climbs up the rim beside a reddish bottomless pit crater, Lua Poholo. Although the summit had looked smooth all day, up close the rim was a jumble of rockpiles that hid the cabin until the last moment. It was dusk when we arrived and as tropical dusk doesn't linger too long, we hastily unpacked sleeping bags, stove, and soup before we rushed outside to admire brilliant Venus and the rosy sunset bringing out the red colours in the lava. I wore every piece of clothing I had on this clear frosty evening while John was in his habitual shorts. The Mauna Loa cabin, which perches recklessly close to the edge of the crater, is as cosy as the Red Hill cabin and we found that the cistern here also contained a trickle of water which we collected that night in case it was frozen in the morning.

It was a beautiful starlit night but with a strong wind about the cabin it was too cold to sleep outside.

We awoke before dawn to find the cabin door open. It had clicked firmly shut the night before. I like to think Pele came to visit. Certainly the dead black caldera of yesterday was now steaming away merily like our Quaker instant oats.

Dawn lit up the striated red western wall and threw into relief the "1940" red cone at the south caldera. Day three was again perfect weather and we were thankful that the forecast snow had not materialised as snow or fog could make route-finding extremely difficult.

We spent some time exploring the vicinity of the cabin, John photographing everything in sight - me, him, the cabin, and Mauna Loa.

As we reached the trail intersection on the return trip, we decided against the extra stress of a trip tothe summit cairn, with no prospect of different views of Mauna Kea looking enticingly green from our desert world. Cloud covered the land below about 2400m and we reveled in our private sunshine. Steam was venting in numerous places that day, which added to the mystery of the mountain. With extra breath on the way down, we

took some time to investigate various features and were often awestruck by the deep holes and devastation of the volcano.

We spent the night again at the Red Hill Cabin where we fed, watered and spent the night with a benighted day-hiker who, apart from two people coming down on the second day, one person going up on the third day and one spider , was the only life form we had seen in two days.

At the peep of dawn the three of us set off down the eastward-trending trail. The dense cloud cover below had cleared and we could see the steamy Kilauea caldera and on down to the park in this extremely rainy region.

By 2400m we were enjoying vegetation. The dawn chorus and fluttering from tree to tree of red apapanes, olive Japanese white eyes and a number of not positively identified yellow, rust and multicoloured small birds heralded the beginning of life as we knew it.

Shortly after we left the trail we hiked the short Kipuka Puaulu trail where older lusher vegetation had been bypassed by recent lava flows, which provided excellent bird habitat and where we saw a large flock of Kalij pheasants and a giant tree that would not be out of place in our B.C. rainforests.

Our last destination in the park was to a western area called the Kau Desert where a trail led us to the site of fossilised human footprints left by poor souls caught fleeing an eruption at the end of the 18th century. A short drive took us back to the hot, sunny, and muggy tropical Kona coast - palm trees, macadamia nut and coffee plantations - an amazing transition from the wet and clammy Volcanoes National Park.

The whole experience of spending a few days at the beginning of earth's cycle was especially interesting as we travelled next to Maui. Here the main volcano, Haleakala has been dormant since the end of the 18th century. We drove the road to the summit observatory (sea level to 3050m) and briefly explored the rim and dropped down 1000m or so into the crater, followed by a hike on the Hana-Waianapanapa coastal trail.

Then on to Kauai still further to the northwest. This island was formed by a single volcano that has been extinct for six million years although in geographical terms it is not so far away from the Big Island. Here we overnighted on the famous Na Pali

Jenny and Silverswords on Haleakala. Photo - J. Sapac.

Jenny on Haleakala. Photo - J. Sapac.

In the crater of Haleakala. Photo - J. Sapac.

cliff trail and explored the impressive Waimea Canyon (the "Grand Canyon" of the Pacific) and neighbouring Nuaolo cliff trail.

Prior to returning to Vancouver, we flew back to Oahu where we toured the island by bus ($1 for the circuit). For the finale after three weeks of outdoor Hawaii connected by camping, body surfing, and a little overt tourism, we sipped one last Mai Tai with Sam and then off to Honolulu airport.

Mahalo Hawaii!

3. TRIPS IN AND AROUND B.C.

Southern Coast Mtns. / Cascades

ADVENTURES ON MOUNT ROBIE REID

- by Terry Thompson

1. Stave and Alouette Lakes

We all had trekked up Glacier Creek from Stave to Robie's magnificent east cirque, in the summer of '92. Here, the waterfalls cascade hundreds of meters to the unusually low snowfield below.

The next camp trip was in March of '93. Jimmy and his boat, as well as several veterans of our week long "Stave Madness" trip, were off to the north end of Alouette Lake, via the Golden Ears boat launch. We learned that trails exist on both sides of the Upper/North Alouette River.

The northeast trail, with its slick boardwalk work, led to a pronounced cart track, presumably heading northeast to the "abandoned logging camp across from Deception Point" on Stave Lake. Calls confirmed that a portage exists between the lakes.

The southwest trail led through decaying piles of firewood to the Burma Bridge, (two metal cables strung across the river, one above the other).

2. The first attempt: early July, 1993

Having climbed solo to treeline, on another camp trip, it was time to tackle Robie. The usual gang weren't ready to go but I managed to wrangle-up another climber (Jeremy). Dropped off at the north end of Alouette Lake, we went along the southwest trail, to the burma bridge. Heavy packs and loose cables made for a few interesting dips and sways. We each clipped into the top cable and "shimmied" across. It sure beat soaking our boots in the river. The windfall crawl started early, then the trail disintegrated into a logjam, where a side-creek converges from the right. The trail resumed along the northeast side of this creek, then began to climb mercilessly. A dip at 1000 meters was brief, then the trail continued up to the north. Many downed trees were crawled over and under - a mess.

Finally we broke out on the southeast shoulder and shortly afterwards reached our camp site at "the ponds" (1350m), overlooking the north end of Stave. Sunshine helped dry our bush-soaked gear.

We awoke in thick cloud, so went back to sleep for a few hours. At 9 am it looked as though there was a chance of clearing, so off we headed northwest along the approach bumps. Some smooth slabs, a small grassy meadow, and a wide gully were prominent features approaching Robie's steep southeast face.

Now in total whiteout, a wrong turn was taken to the right, just below a wall. Soon we retraced our steps and circled around a blocklike feature. I had viewed enough photos to know that it would be difficult to get lost on the southeast face.

We climbed a few steps on the ridge side of the wall then went up a narrow gully. A few slabs with little handholds or footing were encountered and it was beginning to sprinkle rain. Soon we achieved "The Notch" between the "East Peak", (which is a peaklet that resembles an eagle's head). A line of "gargoyles" on the ridge was swept with cloud.

Due to conditions, a retreat was in order. We decided to climb down steep snow slopes, to avoid wet rock in the narrow gully. We ran the belay by plunging and wrapping our axes, which was fairly efficient. At one point we had to move from rock down to a secondary snow-filled couloir. A deep, narrow moat was about to be jumped by Jeremy when I decided to put a sling on a flake and belay his crossing. Of course, he slipped off the far edge and into the moat below. Everything held nicely, and the icy waterslide was avoided. Soon we were back at camp for an experimental double serving of "chili mexicana".

Day three found us down at Alouette lake. The "Stave Madness Boys" were there to pick us up, stocked with "cold brown trout", which they kept pulling out of the river like magic.

3. The second attempt: late August, 1994

A last minute cancellation left me without a climbing partner. Armed with signal flares, and blaze orange gear, I set out to climb Robie Reid solo. Dropped at the north-end by Jim, I ate lots of sweet

blueberries on the way up to treeline. What a night! Clear and cold, with just a tarp. A showcase of stars, satellites & jets overhead.

At 7am, haze was collecting to the south. Everything was frozen. The route went well to the notch, when I noticed mist rising from the lakes far below. From the notch I descended down a steep gully and crossed onto the lower snowfield on the west side of Robie. Traversing north, the route then went up a "crumble creek gully" to the upper snowfield. From here, a short climb northwest on snow slopes led to "The Beacon". This was a very alien-looking cone-shaped object on a sub-summit which seemed to explain all the jet planes overhead. A short northwest traverse around another bump led to the summit.

Approaching the summit was hard work, because large rocks were unstable. I checked-out the moat leading northeast around the summit, attempting to "bypass loose rock to the north". A vertical wall of rock above, and the chute below, caused me to retreat. I looked at a route up the loose south face of the summit block, and got out my rope. The area was then overtaken by the rising cloud.

To climb the face on belay without a partner I placed a bi-directional sling at the bottom, doubled my half rope through, payed-out rope from a double warp and set up slings as I climbed. This way I could retrieve my rope for downclimbing. The small summit cairn was reached at noon.

MOUNT JUDGE HOWAY IN A WEEKEND

(24-25 September, 1994) - by Greg Bernard

Mount Judge Howay isn't a climb; its an ordeal. Now I must confess that this has been said by someone before me of another, much larger peak, but nevertheless, "The Judge" is still worthy of the statement. While it is deserving of the mystique and reputation that makes its summit so coveted and elusive, its odd that few, if any of the difficulties encountered involve climbing. In fact, above 600 meters, the climbing is no more difficult than that found on the Fisher Chimneys route on Mount Shuksan, without all of the flat glacier walking. But those first 600 meters are a bitch! This I knew because I had been there once before. In the summer of 1992 eleven of us, including Robin Tivy, had given The Judge a go and managed nothing better than some nice tarns and a bump in the fog.

It was 4:30 am when Brian arrived at my place. The stars were shining brightly in the clear night sky and the weather forecast boded well for the coming days. The seed for this trip had been planted earlier in the year when I suggested to Brian the "The Judge" might be done in a weekend. The thought was shelved in the recesses of my mind over the summer until the Tuesday before we left, when the thought of climbing "The Judge" in a weekend became irresistible to both of us. We planned to travel light and fast, with a tentless bivi wherever we happened to be when it started to get dark. We did take a stove and sleeping bags. For climbing gear we took 3 friends, 3 ice screws, a 9 mil rope, crampons, and an ice tool each. I eventually decided to also take an ice axe. We never encountered any rock harder than class 3 and only used the rope for one pitch of steepish ice and were quite glad to have the ice tools and crampons. Without the latter, we would have turned back shy of the top.

By 7:30 Saturday we were on the lake paddling. The water was quite flat and there was almost no breeze, making for a very pleasant canoe trip to the north end of Stave Lake. The views of the morning sun slowly lighting the hanging glaciers on the spectacular North Face of Robbie Reid from a deep red to a brilliant white, were particularly captivating. At 8:40 we reached the landing at the start of the logging road and prepared for the next stage of our trip - the bike ride up the Stave River to the ford. We started pedalling at 9 and reached the designated spot about an hour and fifteen minutes later. In the canoe, I'd told Brian that I'd rather be pedalling than paddling but the bike ride was much more strenuous than I'd thought it would be and I was glad to get it over with. The next trick was to walk across the Stave River. Two years ago we'd paddled canoes at this spot, unwillingly to even try walking across. In hindsight, I don't know what all the fuss was about as the ford was very easy, the water being only a little above mid thigh at the deepest part. It was only 11 in the morning when we started into the bush.

The dominant memory from my experience in 1992 was the steep bush, and we weren't disappointed this time. It was hot, tiring work and Brian and I were both quite relieved when we stumbled onto the water platform at 1 pm. We were making good time and, according to Robin's

account, the next stretch of bush was, to quote, "much easier than below the water platform." (R. Tivy. 1994. B.C. Mountaineer, P. 39-46) After a quick drink from the sluggish little trickle, we cheerfully attacked this next section in the sure knowledge that the worst was indeed behind us. Two hours and half a kilometer later we emerged from the worst bushwack in the history of bushwacking into the hanging valley parched, exhausted and demoralized. It was already 3 and we were still at only 650 meters. Bagging the peak looked unlikely and there wasn't much we could do about it except to keep plugging away and see how high we could get.

At first we tried to follow Robin's directions exactly, but soon took a more carefree approach as the route became obvious. It soon became apparent that The Judge's reputation for tough route finding rested solely on the first 500 meters above the river. Basically, you just follow glacial debris and slabs up, first south and eventually west. There are probably many variations, but the route described in Robin's article seemed to follow the line of least resistance.

By 5 we had reached 1200 meters and we were feeling much more confident. The slow, steady pace was eating up elevation gain rather efficiently. At 6:30 we started to look for a relatively flat spot for our bivi. There wasn't much to choose from and we finally had to settle on a spot on the top of a pillar in the middle of the gully at about 1730 meters. We'd made excellent time and were quite happy when we crashed on our exposed little perch at 9 pm. Our alarms were set for 5 am, but at 3:45 we both decided that we were too excited to sleep. The moon was almost full and extremely bright so that we didn't even need headlamps to get ready. At 5:30 we started climbing upwards by moonlight, anticipating a beautiful sunrise over the endless sea of peaks to the east. As we went up, the way became steeper and more narrow. The route soon narrowed down into a steep gully at 1930 meters. This is what Robin had described as a "big slot" and was quite loose and wet. At the top of the gully we stopped on a large flat ledge that would make an excellent bivi spot to put our crampons on. The sun hit us just as we started to climb up the snow, and the view eastward to the Chehalis peaks was indeed spectacular, better than we'd anticipated. We

Brian ascending the snow. Photo - G. Bernard.

climbed about a pitch of excellent frozen snow, about 40 degrees steep, a short rock band, and a bit more snow trending right before we hit the bottom of the ice. Here Robin had traversed north and climbed up under a smaller north summit and traversed back south at what he called the "snow col. " As this section was all blue ice, we roped up, set up a belay and went straight up. This provided about a pitch and a half of 45 degree ice. We used all 3 of the ice screws that we'd brought. From the snow col, the climbing is class 3 and fairly obvious all the way to the summit.

The feeling upon reaching the summit was indescribable. I don't know why I should have felt any different than on any other summit, but I did. Especially satisfying was the fact that a friend had laughed and wished us luck when he heard of our plans, sure in the knowledge that "The Judge" was a 3 day trip. That same friend is now planning a weekend trip to Mount Judge Howay, sure in the knowledge that it's a two day trip. Unfortunately we couldn't find Tom Fyles summit register and so

Brian on the summit of Mt. Judge Howay. Photo - G. Bernard.

N side of Mt. Robie Reid from the summit of Mt. Judge Howay. Photo - B. Friedrich.

Golden Ears group from the summit of Mt. Judge Howay. Photo - B. Friedrich.

Mt. Kranrod (right foreground) in front of Stave Lake as seen from Mt. Judge Howay. Photo - B. Friedrich.

had to leave one of our own. We started down at 9, after resting for an hour.

Once back on the ice, we followed Robin's route down the north side of the ice slope. We also managed to bypass the snow slope below the short rock step by climbing down loose rock beside it directly into the big slot. By 10:15 we were back at our bivi spot. We left there at 11 and followed our line of ascent all the way to the river. The bushy traverse seemed to be better by staying between 590 and 650 meters. The bike ride back was hellish because we were pushing it in order to make the canoe trip before sundown. We started paddling into a stiff headwind at 5:50. In spite of the hard work, the trip back down the lake was very enjoyable. We landed at Cypress Point at sundown and carried our last load to the truck in the gathering darkness. By 8 pm Sunday evening, we had the canoe on the truck and were driving home.

Party: Brian Friedrich and Greg Bernard

GOLDEN EARS - NE FACE IN WINTER (22-24 December, 1995) - by Brian Friedrich

Its Friday morning and a typical exchange occurs between two West Coast climbers: "What's the weather supposed to do?" The usual - clouds, showers, and some sun on Sunday afternoon and into Monday." "Sounds exciting already." "Well, let's give it a shot".

That afternoon we leave the land of the working, driving through reverse rush-hour and thereby feeling somewhat rebellious. The first 7 or so kilometers of easy trail pass by rapidly and we reach the steep section of trail (about 45 minutes past Alder Flats), and snow line, in fading light. Much to our chagrin the snow is awful - step, step, <crash>, step, <crash>, step, step, step, step, <crash>... Everyone who has gone through this knows it's not the continual face-plants that make it intensely irritating, but rather the unpredictability of it all; just when you think you "understand" the snow...<crash>. At 1945 we reach the mountain shelter - a small and particularly grungy enclave which is unlikely to improve due to its accessibility, and down some soup and tea.

The morning dawns crisp and clear to our sheer delight; this would seem to be one of those rare occasions when the weatherman has erred - for the better though. The cold night has frozen the snow and we enjoy a rapid ascent along the ridge leading into the basin below the NE Face. The route we scope out is about 200 metres in length, as direct as possible to the summit.

At around 1020 we begin by following a broad gully which steepens rapidly to about 45-50° (45m). We rope-up near the top of this and set up a belay in an icy rock wall. From here I lead across the gully to the right and ascend a verglased rock band (60°) for 15m then directly up a snow rib which offers mostly good steps with the odd barely submerged rock thrown in for fun (55°, 20m) to a large rock wall where I finally get some pieces in. As Simon comes up I widen the belay ledge and make

Brian leading the first pitch on Golden Ears. Photo – S. Schosser.

myself more comfortable for his lead. Simon traverses left around the rock barrier and disappears up and around the corner. After 20 minutes of slowly feeding out rope, which always feels like an eternity when you can't see the leader, I hear some nailing. Twenty more minutes pass by when suddenly Simon yells down that the gully he's in won't go. Shortly thereafter he reappears about 15m above and 25m to the left of my stance on top of the central snowfield. He traverses another 10m and settles in. I climb up and experience the added joy of cleaning the piton he left 10m up the abandoned gully - the difficulties causing the turnaround are more apparent from here as the gully had faded into a near-vertical and seemingly blank icy rock wall.

Two views of early morning sun on the NE side of Golden Ears. Photos - B. Friedrich.

On the next pitch I traverse a couple of metres left and make a few interesting moves over steep rock into a 65° snow 'funnel' - as noted by the spin-drift avalanche which pours around and over me. The ground in the upper section becomes distinctly more mixed as the angle steepens and the snow thins. After placing two manky pieces lower down, I manage a couple of good ones at about 40-45m and decide to make for what appears to be a good rock wall 8-10m above.

Most of the multitude of cracks I thought I saw from below turn out to be thin streaks of ice, but fortunately I am able to get in a great knifeblade (KB) and ice tool higher in the crack to form the

Simon at the belay stance on the 3rd pitch. Photo - B. Friedrich.

belay. When Simon reaches the two pieces of pro 8-10m below me, we decide that I should lead off again as I am in the best position to push through the rock barrier. The next few moves form the crux of the route: 5m of dry tooling around an overhanging bulge and through a narrow gully which leads to easier snow slopes (45-55°, 20m). As I clear the crest, a dark orange glow extends across the city and its lights shimmer in the cold winter air, the route pleasantly ending 5m from the summit.

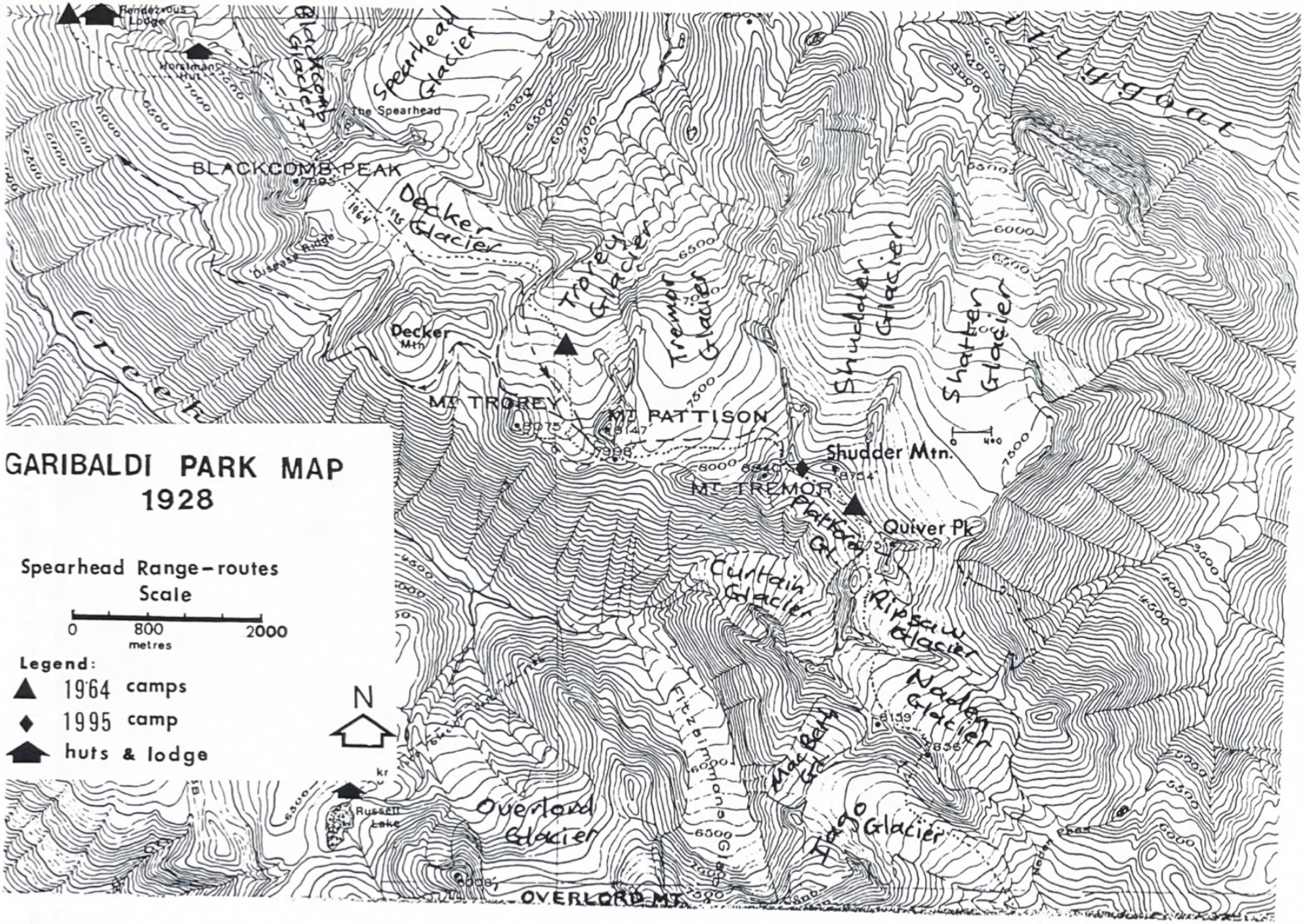
We spend a few minutes catching our breath and enjoy the moment, before descending the normal route, which is easy but often icy and somewhat exposed in winter. We decide to spend another night in the hut and so on the route back had a little time to lie down and gaze up at the stars. The next day is once again gorgeous and, after taking in the terrific sunrise from high on the ridge, we make off for home and Christmas dinner. (III, 5.5)

Party: Simon Schosser and Brian Friedrich

TREMOR (8840'), SHUDDER (8754') AND QUIVER (8775') (6-7 May, 1995) - by Karl Ricker

Elevations noted above are from the reproduced Garibaldi Park map of 1928; this is the map we used for our first traverse around the Fitzsimmons Creek basin in May, 1964. The trip, published under the banner of "The Fitzsimmons Horseshoe Traverse", after "Ötztal Hofreis" in Austria, was renamed by our followers as the Spearhead Traverse, which is only half correct. May, 1995 was the leader's first civilized (i.e. lift assisted) return to the apex of the Spearhead Range , although in intervening years he had been into the core of the Fitzsimmons Range on numerous trips in summer months.

The Spearheads were named by Don and Phyl Munday in 1923 when they made their first ascent of Overlord and Blackcomb Mountains. However, their three highest peaks were first ascended by A.J. Campbell and party during their Garibaldi Park Survey in 1928. All three were used as camera stations for their terrestrial photogrammetry, which was the mapmaking methodology of the time. While setting up their gear on the highest peak, the crew experienced an earthquake, and hence their name, Tremor Mtn., coined on the spot. The elevations in their park survey, however, were all bumped up 41-43 feet when federal topographic maps were released in 1966-1970 ("Alta Lake", more recently released as the "Whistler" sheet). However,



Routes in the Spearheads, by K. Ricker.

the feds scribing was sloppy and one contour line (100') was skipped in the contouring of the peak, leaving it at 8700',which has been perpetuated in revisions of the map by both the federal and provincial authorities in subsequent years. Moreover, 8800 foot contours were cast around the lower adjacent peaks. So Tremor's altitude of 8700 feet is "out to lunch"; it should be 8840, plus the 41-43 foot correction; and hence Shudder is also a revised 8797' (the 8800 foot contour is slightly optimistic?).

As for the origin of the other names, our 1964 crew continued with the instability theme which was slapped on peaks and glaciers alike as we passed through. However, we skipped the ascent of Quiver Peak, and hence failed to notice that the 1928 cairn was not on its highest point. It was set on the lower north end of the peak in order to provide a better view of Billygoat Creek valley, which the late Stu Fall and his party discovered about ten years later in a summer ascent. They placed a cairn on the real summit which lies about 250 metres due south of the old camera station; and hence its elevation is higher than the 8775+(41-43) foot correction, making it close to a Tremor Mtn. elevation . So the 1995 mission was to determine the highest of the two, and approximate the actual difference between the north and south summits of Quiver.

Takers for the trip were few, despite the attractive ski touring rate for users of the lifts on Blackcomb. Ed hustled up one of his energetic co-workers, and two other new members from Richmond, not acquainted with old ski lift policies hesitatingly joined the group on Saturday morning. By 10 am it was a stop at the Horseman Hut, in true Alp's tradition, for a few rich coffees and salted pretzels; and by 11:30 am we had followed the deeply indented track of the day-wandering type of skier to the Blackcomb-Spearhead col. Tracks and people fanned out in amazing directions from there (!), from Spearhead Glacier and Mountain on the north to "Disease Ridge" and the basin below it on the south. Several were already on our route which lead southeasterly around the north side of Decker Mtn., while others were going up and over it.

The first obstacle was the descending traverse onto Trorey Glacier which lacked finesse. Our recent recruits slid out and rode the slush on their rear ends down to the glacier. Lunch break under Mt. Trorey was declared in order to pick up the pieces and restore the lost energy. Later in the afternoon we finally passed the last of the day trippers on the south ridge of Mt. Pattison, leaving only a longish quiet ascent of Tremor Glacier in new snow, which covered a breakable crust.

Decker Mtn. behind Fred, Overlord Mtn. on centre skyline, with Fissile Pk. above poles, from the Blackcomb - Spearhead col. Photo - K. Ricker.

View from the summit of Tremor Mtn. including Tuwasus Mtn. (T) and Mt. Sir Richard (SR). Photo - K. Ricker.

Between 4 and 5 pm the crew gradually emerged through the headwall notch to the north of Tremor Peak. The selected campsite was beside the helipad used for the Shudder Glacier run of the well-heeled. This gave us a very good overview of the Fitzsimmons basin, looking directly at the headwall icefall. After a leisurely camp set up and dinner, there was still ample time to ascend Tremor Mtn. by way of the east arête, which was on excellent snow for foot travel. Tremor was confirmed to be the

highest in the group; traverse tracks to Singing Pass were seen on Iago Glacier and on the upper Overlord massif, as well as a shortcut route which descended Curtain Glacier to the Fitzsimmons Glacier - making sheer mockery of our original route, which went via Couloir Ridge to Detour Ridge and onto the upper Diavolo Glacier. Ed was surprised and impressed with the steep glacier-hung relief. Descending to camp, Fred opted to continue on to Shudder Peak while the rest of us replenished the day's lost water with a boil-up. Ed, however, swigged on a survival can of Coca Cola! Just what one needs to ensure sleep on a decidedly breezy night with lots of airborne snow and noisy nylon.

Leaving camp at 7 am, the silence was deafening as we skimmed over Platform Glacier to the base of Quiver. Base is defined in this case where the angle of friction of one's climbing skins decides to rebel, which on the average proved to be about 50-60 vertical metres below the ridge crest. The final ascent on foot was somewhere around 45 degrees, using deeply kicked toe hold steps and full shaft ice axe as a railing support. This led to the lowest point on the summit ridge of Mt. Sir Richard and the upper Cheakamus headwaters. The altimeter suggested that the peak was 15 to 17 metres lower than Tremor Mtn; clearly, the south cairn was also higher than the old north sited one, which, after a short and narrow ascent, was found to be 5 to 10 metres lower. So, it is reckoned that Quiver Peak is about 8835' to 8850' in elevation, or a shade under 2700 metres. The latest (?) Garibaldi Park map (metric) indicates a 2700 metre contour, but it is based on interpolation of a map in English units which shows an 8800 foot contour (=2682 metres). Unfortunately both cairns were too snowed-in to look for a record of ascents.

Descent to our skis, a pleasant glide down Platform Glacier, and a short slog back to camp was accomplished by 10 am. After packing up, followed by a short climb up to the notch (actually a big wind

From camp on Shudder Mtn. looking to the Fitzsimmons (lower left) and Overlord (right of centre) glaciers. Photo - K. Ricker.

cirque), it was the forecast breakable crust descent of Tremor Glacier. Ed was the only one not to blow it. A short re-ascent to the south ridge of Mt. Pattison turned up a Gerard Clement who had given up chasing us in his late start on Saturday. "Obviously you guys are travelling too light", he remarked; "one stove for five people(?)" he continued. But he finally admitted to being distracted with a good corn snow run on the south side of Decker Mountain which killed any chance of catching up. Slide slipping off the crest onto Trorey Glacier and into more queasy crust, it didn't take us too long to decide to follow his tracks to the south side of Decker.

This required some exposed traversing below the steep sun-drenched slope of Trorey Peak in order to reach the col between the two. Several parties coming off the summit of Decker Mtn. added to the confusion. The basin on the southeast side of Decker is a good run, but we had to traverse around it in order to connect to the route leading to the base of the 7th Heaven Chairlift. Fortunately it was an easy glide, as were the following south slopes of Decker, which lead to a great run into the basin between Decker and "Disease Ridge". But this basin also has to be traversed above tree line, with another easy glide, in order to catch the runout from Ziggy's meadows to the base of the lift. Perhaps some markers will be added by some good samaritan to keep the unaware from skiing too low. From the base of the lift the Richmond contingent opted to take the easy escape trail to the valley floor, while the rest of us rode the lift up to the Horstman for another round of rich coffees and a better run to the base, which was reached at 3 pm, to end an easy but aesthetic outing in the Spearheads. The day trippers' far flung forays were indeed impressive, however, making our venture look decidedly weak.

In 1964, it took us 4 days to reach Tremor Mtn. from the Rainbow Lodge / Park whistlestop! One obviously gets in better shape (or smarter) with age!
Party: Ed Zenger, Fred Touche, Peter Skrepnik, Dewey Liew, and Karl Ricker

THE SOUTH END OF THE COQUIHALLA (OR SCOOPED BY THE 5000'DER CLUB) - by Karl Ricker

The over-extended and sprawling Sowaqua Creek tributary marks the southern edge of the Coquihalla basin. Peaks along its south edge include such relative "giants" as Mt. Outram and Snass Mtn., but most of the remainder are seldom climbed despite rising above the historically important HBC Brigade Trail. Much to the chagrin of many who lobbied and worked fiercely to preserve this trail, the forest industry did its usual end run around the politics and built a very lengthy access road on the north side of Sowaqua Creek, which now reaches into its headwater basin right under Mount Dewdney. This peak and Tulameen Mountain are the prime targets from this road, but the knot of peaks between Outram and Mt. McLeod are more distant. From both Tulameen and Coquihalla Mtns. to the north, a very sharp pyramidal peak stands out in the Outram cluster. While unnamed in the older guidebooks, and on the 1:50,000 topo maps, we found a mysterious "Mt. Hatfield" on the most recent 1:100,000 and 1:250,000 maps. This turned out to be an interesting story when we found the information in the summit cairn. How the few parties before us reached this cairn posed a problem for our trip.

The Culbert and Fairley guidebooks gave conflicting advice on how to reach the Hatfield-McLeod massifs. The first recorded-in-the-cairn ascent by the Mason party (which included J. Hutton and R. Hutchinson) walked up Eleven Mile Creek, before it was ever roaded and logged, and they climbed it as a long day trip from the Hope-Princeton Highway in 1956 - before the Hope slide of 1964. Prior to 1972 a road was built into adjacent Eight Mile Creek valley which caught Culbert's eye when he suggested in his revised guide of 1974 that it would be a better way. A few suckers actually took this advice: Jack Bryceland and party when they took the official commemoration of Mt. McLeod (a war vet) to its summit, and the Hatfield family expedition when the three sons of Harley Hatfield ascended his namesake in 1988, with the old man (age 82) watching their progress from camp at road end. A phone call to the leader of the latter confirmed that they had placed the wooden dedication plaque on the summit that day. He also noted that Eight Mile Creek road was densely grown-in and their horse party had to resort to an advance party, one week earlier, to cut a passage through the alders. The peak was named after Harley, officially, because of his years of persistence in getting the Brigade Trail re-opened for use and

recognized as a historical route worthy of protection. Because this trail crosses the northeast flank of the mountain, at Gibson Meadows, it was appropriate that the peak be named after him.

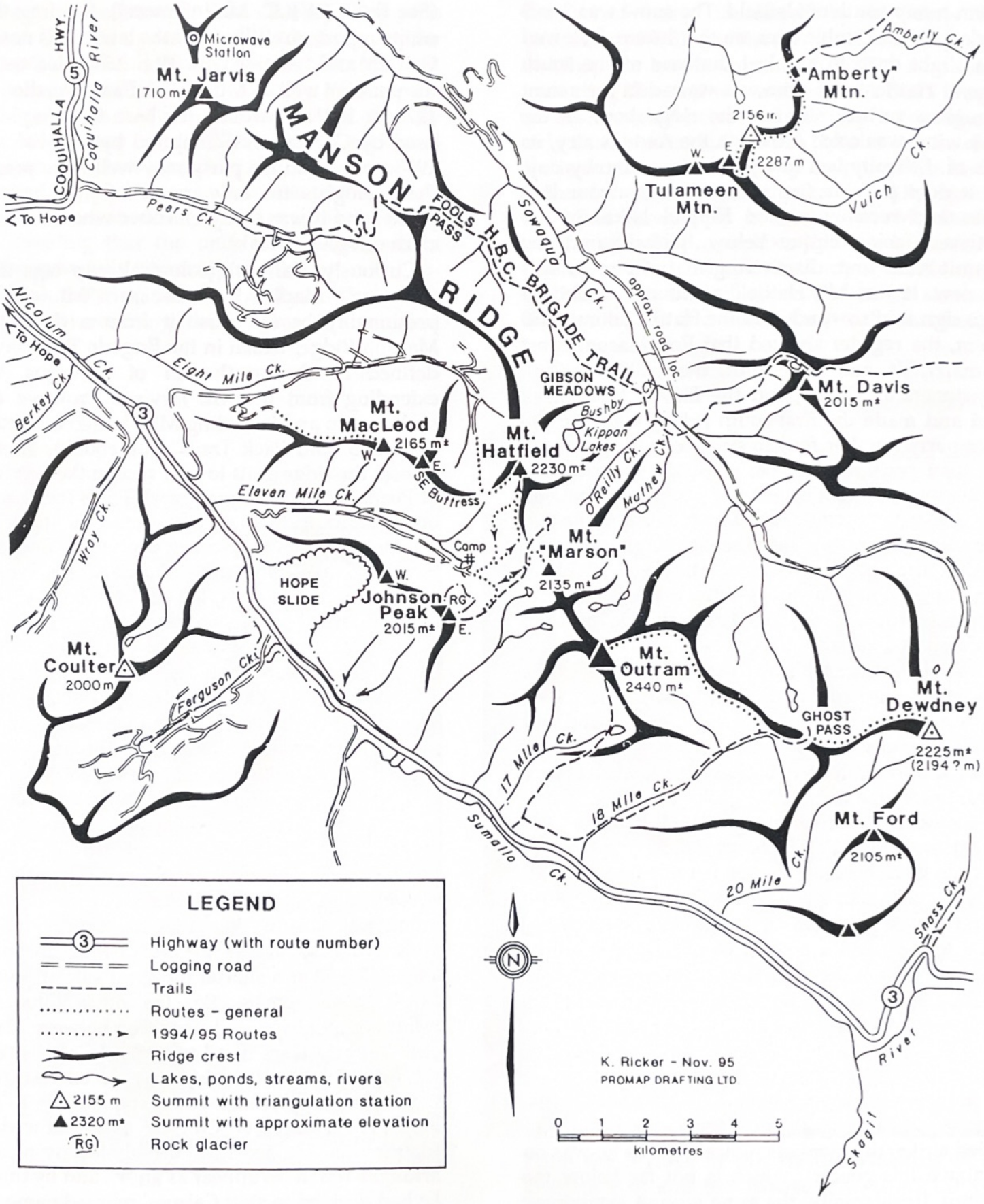
Well, the organizer didn't know the trials of this route when he tried to find the Eight Mile Creek road in the summer of 1994. A grown-in gravel pit at the highway edge nicely (and luckily) camouflaged the road and so by accident he headed up to the edge of the Hope slide to see if it had a new entrance. Sure enough, a well built road began there but suddenly it began a steep switchback ascent into Eleven Mile Creek (road not marked on any topo map) and I took the bait and followed it to 1200 metres elevation behind the west peak of Mt. Johnson, which is the source of the Hope Slide. The road defied every principle in the Forest Practices Code, which didn't exist then, and hence my 4WD Subaru had to bow out of further progress on 20% + grades, blocked by deep "tank traps" (ditches across the road to supposedly act as run-off bars). Nonetheless, I knew we had the best access possible, and sounded the alarm for "real" 4WD vehicles when the booking for the trip began to ring in. This sort of announcement went through the ranks of the red blooded 4WD stallions of the membership, and I know what brings out a good trip turnout - not the grade of esthetics of the climb, but rather the grade and the condition of the road! It seems that people will not go out on a trip unless they can get their return on the heavy investment in their four wheel drives.

To interject, this vehicle evolution on club trips over the years is interesting. Early post-war, it was the war surplus Army jeep crowd, until all the jeeps died; then in the mid '50s the go, or handlift, anywhere Volkswagen "Beetle" hit the scene and it ruled the logging roads to the early '70s when they quit making them. Ah, by this time the 4WD Subaru station wagon was on the assembly line, and off the ships, with its dual range transmission and rear wheels with adjustable height, and the membership bought them up, until Subaru abolished the dual range option in 1985. And now we have it, the sudden deluge of new 4x4's with electronic synchro switches, big tires, tape decks, etc. which every vehicle nut in the clubs has a garage - even Stevie Wonder Grant has his impressive Nissan "Pathfinder". So, with heaps of 4WD's available for the trip, Sev volunteered to let his Subaru sit off the highway and Dave Hughes even left his "Jimmy" at home.

The near record turnout to the autumn procession ground its way up Eleven Mile Creek road to the very end under the east peak of Mt. Johnson on a warm Saturday afternoon. For a change, road-end did not have the usual fire pit, butts of logs and scattering of cans and bottles and other trademarks of the hunting crowd. The road was too tough for them? From there, afternoon exploration sorties lead by Ed and Sev went to the col northeast of Mt. Johnson where a trail was found which headed to its summit. Others meanwhile looked for a route toward the McLeod / Hatfield col. The net recce efforts established that the line of least resistance to the objective was probably along its south ridge, bypassing an unnamed 2100m peak (we'll get to this later) on its northwest side. During the night the weather changed, heralded by confused swirling flocks of geese, with rain descending around the campfire (ah hah, we left the first pit) - it spelled the end to a warm and dry summer. The old pros retreated to their vehicles for the night; the wind began to drive the moisture into the fabrics of those who remained in tents; and finally it blew itself out to be followed by a silent freeze-up! The morning light showed a dusting of snow for good measure, which had just missed camp level. That killed any last thoughts of finding a new rock route on the north side of Hatfield.

Ascent through the clearcut near camp lead through forest and subalpine shrubbery to the

John and Darlene on the S ridge approach to Mt. Hatfield. Photo - K. Ricker



ELEVEN MILE CREEK – SOUTH RIM OF COQUIHALLA

ROUTES AND ROADS

2000m hump south of Hatfield. The snow was 2 to 3 cm deep in the ramble over another hump, followed by a slight drop to a col at the base of the south ridge of Hatfield. No time was wasted in the ascent through a vertical step on the ridge because the brisk wind was cold. Although the route is airy, its rank of difficulty is a lowly three on a snowy day, but it does provide fine views of all surrounding peaks and recently named Kippan Lakes in the northeast facing cirque below. Jack cleared the summit cairn first, discovering that our route was not new. It was Mt. Hatfield without a doubt - a large sign said so - and after the Hatfield sons' 1988 ascent, the register showed that Roy Mason, Ernst Schmalzriedt and others of the 5000'der Club (pensioners all) had found the Eleven Mile Creek road and made the first south ridge ascent! So we were party number four to sign in, (average age of less than pensionable - barely), casting a coveting eye on the southeast ridge of adjacent Mt. MacLeod as a possible new route to claim on a future trip.

For the descent, our sharp scouts who reached the summit first noticed a broad and level bench at about tree line on the southwest side of the approach ridge. Dropping diagonally down from the forenoted col about 100m vertical put the crew on this marvellous walkway and a quick end to the day because it led into the right spot in the forest below to allow re-entry into the clearcut and our camp at the nearby road-end.

In the aftermath of this 1994 trip, further library research into the names and geology of the peaks in the Eleven Mile Creek was pursued, because Fred Beckey was hounding us for revisions to his North Cascade guidebook. The basin is underlain by solid granitic rock; active rock glaciers in the cirque on the north side of Mt. Johnson capitalize on its blocky characteristic, and a contact of overlying stratified volcanic rocks of the Hozameen Group is crossed in the final ascent of Mt. Hatfield. The southeast ridge of Mt. MacLeod also rises off this clear contact.

Upon scrunity into the old geological report of C.E. Cairnes (Geol. Surv. Can., Memoir 139), an accompanying geological map shows not only the rock sequence properly on Mt. Hatfield, but also added strike/dip symbols indicating that he was on or above this contact, which is not far below the summit. [Incidentally, the same type of symbology shows they most certainly ascended "Carry Mtn." (See the 1994 B.C. Mountaineer)]. Reading the text of the report carefully (months later), it is noted that Cairnes and his assistant, W.E. Chantler, ascended the peak, as well as Mt. McLeod and Needle Peak in 1920 or 1921. However, the base topographic map used by Cairnes was compiled by F.S. Falconer in 1918; so, he and his party may well have preceeded the geologists to some or all of the above-noted peaks (and it was likely Falconer who built the first cairn on Needle Peak).

Curiously, Cairnes' geological map tags the east peak of MacLeod Peak as "Mt. Manson", presumably he (?) chose it from a derivative of Manson Ridge, which in the Brigade Trail days was defined as the south rim of Sowaqua Valley, extending from the Mt. Jarvis microwave station southeast to and including Mt. Hatfied (as shown in the OSPS "Old Pack Trails" guidebook). Their trail crosses the ridge at its lowest spot in the headwaters of Peers Creek in order to reach Fools Pass (a notch on a spur ridge) which puts the trail on a conveniently elevated bench above the floor of the Sowaqua valley. Evidently the Canadian Pemanent Committee for Geographic Names (B.C., Gazetteer of Canada, 3rd ed., 1985) ruled out Cairnes' version of "Mt. Manson", because not only was it located southwest of Manson Ridge, instead of on it, but also another Mt. Manson already exists in the St. Mary River drainage of the Purcell Mountains. This leads us to the story behind the 1995 trip.

For 1995 it was urgent that we scheduled a return trip to the headwaters of Eleven Mile Creek basin because the road was obviously not going to last much longer. Ominous slumps behind the west peak of Mt. Johnson, "tank traps" eroding yet deeper, and rock fall were obvious threats to imminent closure; yet the road provides very attractive easy access to four peaks around the basin, as well as a shorter more esthetic approach to Mt. Outram nearby. So, the other three peaks (MacLeod, Johnson and unnamed between Hatfield and Outram) were listed trip targets, contingent on the weather. But Ricker's above noted research on the basin, beforehand, was spoiled by a Xerox machine. A copy of Cairnes' map showed "Mt. Manson" as "Mt. Marson"; the photocopy nicely re-arranged the "n" to appear as an "r", and by this time he had decided to shift Cairnes' rejected name to the unnamed peak, as a bit of revenge so to speak. This

was duly passed onto Fred Beckey and the unnamed (2199m) appears in his "Cascade Alpine Guide" (Vol. 3, 2nd edition, 1995) as "Mt. Marson" which was released shortly before the 1995 annual trip. Talk about a fast publication process! And by this time word was out, the Eleven Mile Creek road was a four wheeler's paradise, and their respective owners quickly phoned in to book the trip. So much so, Sev actually joined the trip leaving his Subaru at home, deciding that the only way to go was in Steve's wonderfully powerful machine.

As usual, the trip assembled at Ryans Restaurant at Hope, not realizing that it was in imminent danger of being inundated by a debris flow (November 1995), and the misfit vehicles were sifted out there for bench warming duty. The next step of ascending the road was a shocker. A BCFS crew or all terrain vehicle club had been up it recently, not only to roll rocks off the road, but also to trim down the tank traps, which sped up the procession but did not reduce the excruciating grades. All objectives were just barely clear of snow while Mt. Outram, poking up behind, was liberally coated. The fire pit was resurrected, using a novel trip methodology of a chainsaw to cut real wood and camp stools. To add another bit of comfort, the weather held off for

Sev with the E and W peaks of Mt. McLeod beyond. Photo - K. Ricker.

From the S ridge of Mt. Hatfield looking at Mt. Outram (O), and Mt. Manson/"Marson" (S) with the route over the notch (N) and around the gendarme (G). Photo - K. Ricker.

the night, allowing us to awake to freshly falling snow in the morning. This quickly doused all thoughts of tackling the imposing southeast ridge of MacLeod, with all opting for a potential double bagger--"Marson" (Manson) and Johnson.

To cover the bets of a possible worsening weather situation, it was unanimous to go for the higher peak first, which saw the party fragment into splinter groups on the quest to reach the col between the two. Ed's crew got there first and picked up the marked trail heading toward "Marson", but snow was covering the paint blotched boulders rapidly. The trail led around the west side of "Marson", well above tree line and disappeared on the ridge crest leading to Hatfield. So a planned southwest approach to the final summit ridge had reverted to a northwest route. Visibility in the new snow was next to nil, with Speedy Steve now leading the slithering crew over the granite slabs to the first obstacle - a notch on the ridge. Ahead we could barely make out a high monolithic gendarme which was bypassed on ledges to the right, leading to a gully and allowing the ridge crest to be re-attained. Skoki was left tied up in this foray. Suddenly this easy ascent was degenerating into a Class 5 climb, thanks to the new snow. This put us on a false summit, where a cairn left by the Chilliwack Outdoors Club in 1985 announced their shut down of further progress. In the swirling snow a traverse down to an airy gap looked impossible considering the conditions. Steve and Jack had other ideas, however, and found the right combinations of narrow shelves and critical holds to reach the base of the final summit pitch, which would have been an enjoyable Grade 4 on a nice day, but it was a Patagonian or Himalayan 5 at this particular time. Somehow the crux holds appeared when desperately needed. The summit proved to a broad dome with the usual krummholz; the cairn record revealed that one party had recently actually camped there (ascent from southeast?). The record also had other surprises; Ernst Schmalzriedt made the apparent first ascent in 1991 by our route, alone, and then two weeks later repeated the climb with Roy Mason. Scooped again the 5000'der Club!

For the descent the weak kneed set up a handline, and slowly the gang regrouped at the end of the technical "mild" scramble (to quote Beckey) at the first notch. Reaching the trail once more, a slightly rising freezing line eased the slithering over the mega blocks en route to the Johnson col. By this time, everyone had had enough. Johnson could wait for another trip (!) and Ed and Skoki lead the descent through more block fields to the clearcut and nearby camp in the landing. All participants quickly grasped the fact we were lucky to have climbed "Manson" or "Marson" in 1995. Two days later I returned to the Hope-Princeton to find the snowline at the Hope slide viewpoint level; so, for sure our weekend trip heralded the early start of winter, which is not unusual, but in other years the first weekend of October can be a scorcher.

Tidying up the loose ends of Eleven Mile Creek basin includes the potential name for "Mt. Manson / Marson". Neither will likely fly with the authorities. "Eleven Mile Mtn. ", or "O'Reilly Pk", or "Mt. Mathew" after the creeks which drain it are some possibilities; others are "Mt. Cairnes", "Mt. Chantler" or "Mt. Falconer" who mapped in the area after the First World War, although Cairnes is honoured with an official peak in the Selkirks and there is a Falconer creek near the Yukon border in N.E. B.C. We will give all these a trial balloon with the appropriate authorities, tossing in "Gendarme Pk" and "Brigade Mtn." for good measure. As for next year's trip, there is the S.E. ridge of MacLeod, and to settle the issue on which is its highest peak (it looks like the west from a distance); but Sev also has his eye on Mt. Dewdney from the end of the Sowaqua Road via a potentially new route. At the age of 72 he is still looking for challenges!

1994 Party: Jack Bryceland, Bert Parke, Sev Heiberg, Ed Zenger, John Sapac, Dave Hughes, Darlene Anderson, Jenny Faulkner, Shirley Obermayer, Skoki and Brandy, and Karl Ricker

1995 Party: Jack Bryceland, Bert Parke, Sev Heiberg, Ed Zenger, John Sapac, Steven Grant, Blaine Nickel, Theo Mosterman, Frank Olsen, Rob Usher, Carol McMillan, and Karl Ricker.

THE LONG DAY - MT. ADAMS (20-22 August, 1995) - by Greg Bernard

It was sometime around 10 am when I woke up. Terror often has that effect - suddenly chill that accompanies the rush of adrenalin as it prepares your body for the worst is, I find, hard to ignore. Fortunately, I don't often get the chance to try.

Paul, John, Louis and I had been up since 2 am and on the move since 3:15. After a long slog from camp at 2100 m, we had picked our way through a large crevasse field and climbed 600 m to the 3000 m point on the Adams Glacier on Mount Adams. The climbing thus far had been steep and interesting, but not at all technically demanding. It was to get more interesting now.

The glacier is dominated by 3 large ice bulges stacked one on top of the other, each a little north of the last. The third bulge crowns an impressive and very active icefall along the northern edge of the glacier. The first evil looking, overhanging chunk of ice poised at about 3050 m provided the first real obstacle and the steepest climbing on the route. At first, we were going to climb a steep snow slope between the bulge and the rock wall bounding the southern edge of the glacier. However, upon further inspection it became evident that this slope was being constantly bombarded by rocks from the wall and was threatened by a massive serac at the top of the route. Furthermore, a second hazardous traverse under the first bulge to gain the slope was necessary, lessening its appeal. Instead, we opted to climb the ice on the north side of the first bulge, directly under the smaller and less menacing second bulge and traverse a steep ice ramp onto the top of the first. I was just getting up the third belay in a nice little ice groove not 10 m from the bottom of the ice cliff of the second bulge when the third bulge went thundering past us onto the glacier below. This is where the adrenalin kicked in.

I watched the cliff rearing above my head and waited for it to join its mate. When I realized that we were to be spared, I quickly untied from the screw that was to have been one half of my belay station, clipped onto the rope and called for the others to come up. There were to be no more stations while under that bulge.

The climbing on the ramp got steeper and the ice more variable - from rotten to water ice with every combination thereof. Despite an effort to move quickly, cutting the odd step cost valuable time and energy. By 11, I emerged tired but happy onto the top of the first bulge and belayed the others up. We had been moving for over 7 hours.

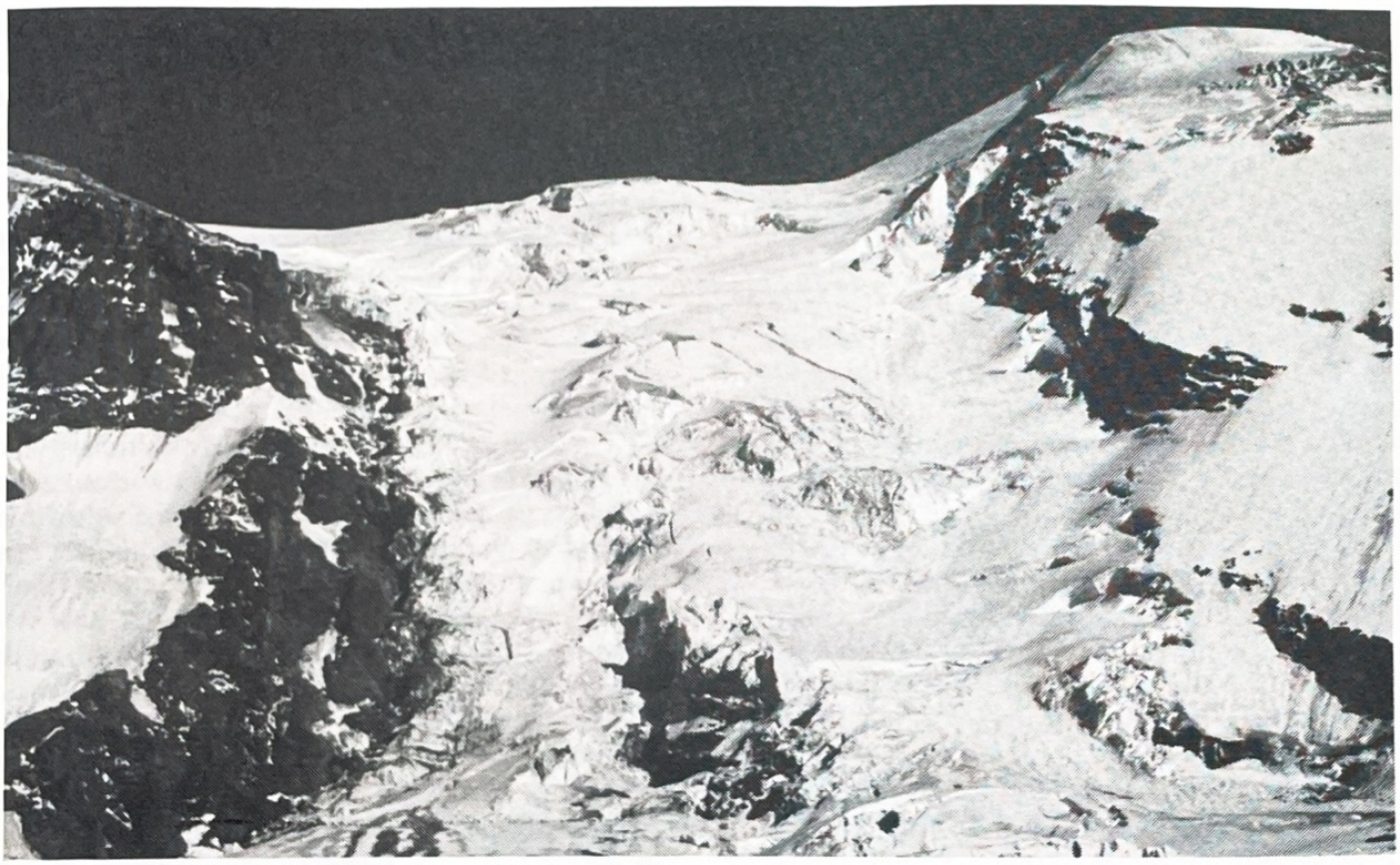
The next few pitches, the first in the sun, were quite nice and fairly easy - scrambling on ice requiring only the odd running belay. This eventually led to the upper névé slopes of the glacier above the second bulge. The climbing became even easier with the main problem once again being the crevasses which were increasingly achieving rather impressive proportions.

We stopped for lunch at 1 pm atop a serac wedged in a crevasse near 3250 m. After a half hour of relative relaxation, we pressed on, aware that the bergschrund could present considerable problems. The climbing once again got more difficult as we were forced to traverse steep slopes perched above huge slots. Icefall again became an issue, even if only momentarily, as we had to cross the last major hole before the schrund on debris from recent collapses of the enormous serac that had threatened the route on the south side of the first bulge. A final traverse northwards eventually brought us face to face with the mother of all bergschrunds.

Thirty or 40 metres across at its widest point, the abyss easily dwarfed all others that I have seen, and unfortunately there was no obvious way across. I climbed a tower on its lower lip in order to better view our options and spied a route along the knife edge of the crevasse and onto an island of ice positioned in the schrund. From there, a short vertical wall led to another ice island and eventually to an apparent bridge across to the safety of the snow slopes beyond. I led down the knife edge au cheval and climbed across a gap under belay. We gathered on the first island and contemplated the vertical step. One placement of aid allowed me to surmount the step and bring the others up, but when Paul went on to investigate the bridge, he instead found 5 metres of nothingness. Our only option became a rappel back down and into the bowels of the schrund. Retreating back down the glacier was too awful to contemplate.

Walking on the floor of the schrund was fascinating but un-nerving as it was composed of iceblocks wedged between the walls with snow bridges connecting them. Luckily, no one fell through and an easy way was discovered out of the north end of the slot at 3300 m. It was 6 pm.

Through with the technical difficulties but not with our adventure, we set off towards the summit, aware that it was beyond our reach but that the beginning of our intended route down lay above us. We topped out on the summit plateau at 3550 m in 100 km/hr winds at 7 and immediately started



The Adams Glacier on Mt. Adams. Photo - G. Bernard.

Skirting a crevasse beneath the first bulge. Photo - G. Bernard.

On the Adams Glacier. Photo - G. Bernard.

Climbing the upper Adams Glacier just below the summit plateau. Photo - G. Bernard.

down the technically easy North Ridge. An hour later, we watched the sun set from 3200 m. It grew darker and became harder to follow the route down the narrow ridge. At 10 we lost it. After 20 hours on the move, a night out at 2850 m became inevitable. It was bitterly cold in the wind and our meagre flat spot afforded only token shelter behind a large rock. Off and on we drifted into sleep only to be rudely awakened by the next gust. The wind showed little mercy that night.

There are few things comparable to that Tuesday's daybreak, although the pace was disparingly slow. At 5, as the light of the sun was beginning the slow process of lighting the sky, I tried to walk, only to find that I couldn't. Supporting myself between two rocks, I jogged on the spot for half an hour until I could walk, while the others dealt with their personal misery in their own way. Little was said; we had all experienced the same thing and the memory was still too fresh. As the light slowly unveiled our surroundings, we began to pack our gear and prepared to make our way to camp. We started down as soon as the trail became visible, sometime around 6 am. The movement felt good, and our moods improved. Gradually, the realities of a night out started to fade, the memories of suffering already being replaced with the glow of a shared adventure. Cautiously, we made our way down the loose, exposed, but easy ridge and gained the glacier below by 8.

Camp was reached at 9:30 am, 31.5 hours after we had left it. High on the ridge, sometime in the middle of the night, we had all agreed that we had had enough adventure for the week, effectively ending the summer camp without bagging even one peak. The experiences shared and the memories garnered during our climb of the Adams Glacier, a route far beyond our previous conceptions of our limits, more than compensate for the absence of a summit. This, probably, is how it should be.

Party: John Sapac, Louis Beaucage, Paul Ng, and Greg Bernard (organizer)

Central Coast Mountains

NUK TESSLI LAKE - A CHILCOTIN SKI TRIP (19 February - 1 March, 1994) - by Len Soet

I wasn't there, but it must have been a funny scene. Alfred and Susan had just been dropped off by ski plane in the middle of some unknown lake with a storm fast approaching. The pilot threw out the last of the food boxes into the knee deep snow and quickly left before the approaching storm. In peace and quiet and a long way from shore, as they were pondering how to get this mountain of boxes to shore, a stranger approached them. On arrival she asked - "who are you?"

Susan replied - "what do you mean who are we? You're supposed to know who we are. We're Len's BCMC ski party."

Of course, Chris Czajkowski was quite justified in not knowing who these two strangers were on her lake. It is hard for us to comprehend her isolation. The last time I talked to Chris was in November when I said I may be coming at the end of February with a BCMC party for a visit. Chris lives 30 km from the nearest road, has no phone and, of course, no mail. She has an emergency radio which she never turns on (she hates the noise and static) and her mail is delivered to Nimpo Lake 30 km away.

After introductions Chris, being happy with her new guests, introduced them to her guest cabin. For the next three days Susan and Alfred cut firewood, read books and did some short ski trips.

Meanwhile, Darlene, Doug, Maurice, and I were skiing in from about 10 km north of Charlotte Lake. It would take us three days to ski in the 30 km to Chris' cabin. Although we had tents and bivisacks, we were able to stay in cabins for both nights on the way in.

The first night we stayed at Buddy Jones' Wild River Camp - a fishing resort at the southwest corner of Charlotte Lake. Buddy's plane (which was now parked at the resort) was used to fly Alfred and Susan, so we knew they had made it in safely.

The next night we stayed at Stewartson's cabin on Davidson Lake. It was a bit early to stop at 2 pm, but since I had just crashed through ice in the creek and was wet up to my thighs, we had a good excuse. We arrived at Chris' place around 3 pm the next day.

The skiing in was quite flat with little elevation gain except near the end. The flat terrain required constant orienting to remain on track. One time breaking trail I accidently started circling back to where we had come. Luckily my followers pointed out my error, and quickly set me straight. A little later we found a knoll, where we had lunch and

took bearings on peaks to establish our exact location on the map.

On the way in, our speed in the woods averaged about 1 km/hr. On the lakes and road near the start, or on the frozen creek, we would get up to about 4 km/hr. The bush was not really bad, sometimes quite open, but we did hit some dense bush on the way out by another route.

Because of a cold front (It was even snowing in Vancouver) the weather was quite cold and the snow very powdery with temperatures down to -22°C in the morning and highs of -15°C to -12°C. On the way out, it warmed up quite a bit with highs of +2°C. We had mostly clouds and some heavy snow storms skiing in but our first day at Chris's cabin was clear, cold, and sunny. We took that as an opportunity to climb up a 1900m mountain southwest of the lake. We had some splendid views and nice powder skiing on the way down.

The next day was also sunny so we climbed up directly north of the cabin to an open knoll and then on to the top of Avalanche Peak. The weather was rapidly changing, with approaching clouds and very high winds on top.

The next day was snowing, so I decided to have a rest day but Darlene, Doug, and Susan all did their own trips.

The next three days were spent skiing out a different route to Charlotte Lake. This route involved about a 300m climb to a pass to the northwest. From there we headed north and east again to Charlotte Lake. Again we managed to find cabins to stay in each night. At one point we decided to navigate 2 km cross country by compass to meet our tracks going into the cabin. Before we left the lake I said if we're lucky, we would hit our lunch spot from the way in, where we took the 2 bearings to establish our position. Since Darlene and I were taking the compass bearing and taking a rather liberal zig-zag course through the trees, with the rest of the party following behind. We were all rather surprised when we actually did hit the exact spot I predicted we might hit.

After picking up the cars we all met with Chris (who also hiked out to pick up her mail) at the local café for some treats, before heading back to Vancouver.

Susan and Alfred on the summit of Pk. 1900 m. Photo - L. Soet.

Skiing with Monarch Mtn. on the skyline. Photo - L. Soet.

Susan skiing. Photo - L. Soet.

Skiing up Pk 1900 m, Avalanche Lake right of centre. Photo - L. Soet.

Skiing up a 2100 m mountain south of Nuk Tessli Lake. Photo - L. Soet.

Party: Doug Hess, Darlene Anderson, Susan D'Aloisio, Maurice Lamothe, Alfred Menninga, and Len Soet

WARNER PASS SKI CAMPS (April 1994 and 1995) - by Pat Crean

1994 - The valley appeared much wider from the helicopter than when I'd looked down from the Warner Pass trail the previous autumn. Then I had the impression that there was some good skiing, but that the sides of the valley looked steep and lacking in sunlight, with the valley floor prone to avalanches. Now I was happy to note that our destination was very wide open, with plenty of flat areas and trees. As usual we unloaded in one spot and had to lug our stuff over to a better place nearer to Warner Creek and a potential supply of running water. We were at 2000m elevation, on the north bank of the creek, due south of Warner Pass. It was Saturday afternoon the 23rd of April. It was warm and sunny. We gazed around in total satisfaction at our surroundings. There couldn't be a better place to be - plenty of snow, scattered stands of alpine trees and shrubby juniper and ski terrain for all abilities. By mid-afternoon all eight of us had tents up and snow kitchens and sitting places dug out. Tony and Gerard sunk a shaft down to the creek for running water. Eureka - we were all set for the week. Still time for an opening tour up the valley to "Porteau Col" at 2400m, looking over into the Taseko River valley.

Looking up valley camp. Photo - P. Crean.

For our first full day on Sunday, our whole octet skied up to the same col and up a pleasant 2600m peak north of Porteau. The sky was high overcast with sunny breaks. A good starter and chance to look around.

On Monday we felt limbered up and went for something a little steeper, up a glacier to the south on the opposite side of the valley - a 2700m peak with no name, like most in the area.

By day 4, Tuesday, people were opting for their own individual outings. This was interesting, since we went collectively to more places than we all had time to do together. On Tuesday Jack, Gerard, Marrilyn and I cruised up to Warner Pass over one of the barer snow slopes and, in less clement weather, topped out at 2600m.

On other days during the week, Richard and Rhona did a "tour-de-force" down the valley for an epic distance. Tony and Julie made the circle tour over Warner Pass, down to Denain creek and back over Porteau Col. Rhona and Richard also made this trip on another day. The question of the "big piece of cake" inevitable arose and so on Wednesday Jack, Marrilyn, Tony and I made tracks for Mt. Warner. Our route diverted to the right from Warner Pass, down into a sultry, hot basin and up to the col east of the peak. Tony skied down the glacier on the north side a little way, worked over to the west and reached the summit from the north side - a very worthy effort. The rest of us left our skis near the col and clambered over the talus blocks on the east side. Although there was a high haze, the view all around from the summit was quite impressive. Other trips were made up the glaciers across from the camp, especially to the higher cols, from which there are some magnificent ski runs.

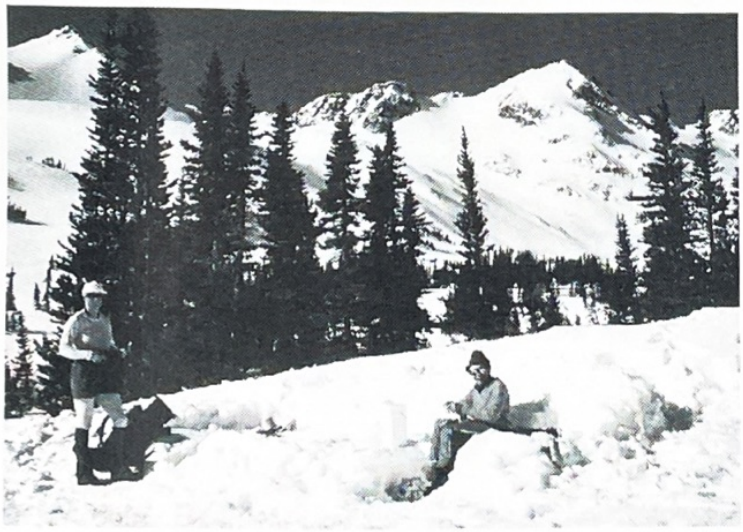
So passed a week in a very worthwhile area.

For parties prepared to make the time and effort, this camp is approachable with no technical difficulty up Gun Creek via the summer trail route from either Pearson Pond or the Slim Creek road footbridge over Gun Creek. At least one overnight would be required but the route is sheltered by trees mostly and there are some beautiful camp-sites by

Ascending Pk. 2700 m. Photo - P. Crean.

the lakes.
Party: Richard, Rhona, Tony, Julie, Jack Bryceland, Marrilyn, Cram, Gerard Clement, and Pat Crean

1995 -This year's ski camp, scheduled for Lorna Lake, north of Warner Pass, underwent revisions right up to the final fifteen minutes before landing in the helicopter. The campsite was planned to be on a flat moraine about 100 metres above the west side of the lake. As we flew over the col on the east side of Mt. Warner there was a noticeable difference in the amount of snow. Abruptly we had passed over into the dry region. We circled around the basin of upper Sluice creek. Great area for a camp - flat, scattered trees, and creek for water. One significant factor struck us all - there were huge areas of bare ground showing through. It was obvious that skiing would be marginal at best. Behind us in Warner Creek valley, there were maxi-metres of snow. Howard and Denise had not been there, Gerard and I were only too pleased to return there for a second time. So, a few minutes later, John Goats had off-loaded us at exactly the same spot as last year. Our deja-vu ski experience was just as enjoyable as the previous year and the snow was better. We managed to get out skiing every day. On the one socked-in day, we had a run down the creek to Warner Lake. Howard had thoughtfully brought along a large tarp, which we hung from the trees as a communal shelter from the snow showers. Confirming that the age of male gallantry was dead, none of the men wanted to go for Mt. Warner, so Denise choose one day to go it alone, with no problem at all. Lorna lake would be a good location for a ski camp. There are a number of peaks at least as high as Mt. Warner in the immediate vicinity, with many glaciers on their north sides. A campsite above the lake on the west side would be more open and panoramic than at lake level. Due to the marked difference in snow cover from the neighbouring



Warner Pass camp. Photo - P. Crean.

View down Warner Ck. Photo - P. Crean.

Warner Pass area ski descents. Photos - P. Crean.

valleys to the south, one should probably go to Lorna Lake a few weeks earlier than we did. For ambitious parties it would also be feasible to ski in via Gun Creek, Warner Creek, over the col east of Warner and down the north side glacier to Lorna Lake. The possibility of a cornice overhanging the glacier should be considered. Return by the same route should be possible, subject to conditions at the upper end of the aforementioned glacier. An alternative, given more time, would be to ski out via Big Creek, mostly flat valley skiing. A round trip over Elbow Pass, exiting down Tyaughton creek is also possible. The potential is unlimited - do it before the tour groups take over. I believe the South Chilcotin Ranges are among the most attractive hiking, general mountaineering, and ski-touring alpine areas in B.C. and should get a great deal of attention from our club members.

Party: Denise Hart, Howard Rode, Gerard Clement and Pat Crean

NUSATSUM RIVER TO KNIGHT INLET SKI TRAVERSE (2 May - 4 June, 1994)

- by Shirley Rempel

Perhaps topographical maps should come with a warning attached regarding their powers of allurement. Peter had the idea to do the traverse of Monarch and Ha-iltzuk. John Baldwin dug out his topo maps for us to preview. He had first completed this traverse in 1982. Janet, Peter and I tried to persuade ourselves in the following weeks to do other less committing routes, setting deadlines that came and went for finding a 4th trip member. Randy brought his maps over and let us pencil our route in. After acknowledging aloud that our hearts were set, we were so happy to have Nancy agreed to join us.

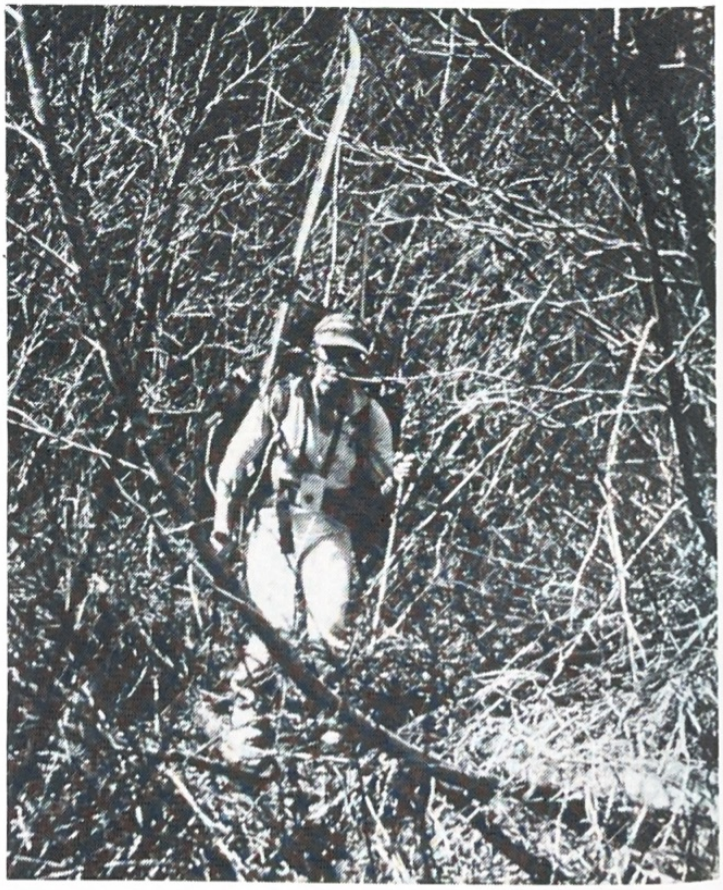
With disappearing visibility, Peter faced the biggest challenge of his life in placing the food drops. We did not commend him for his efforts until we had reached the 4th intact good drop - all of which were brilliantly placed.

We were fortunate to have Doug Carter and Craig Hollinger transport us first to Bluff lake for our food drops and then on to Bella Coola where the traverse began. The trip started with a bang - actually several - Doug set off bear bangers as he drove back down the Nusatsum River Road.

On the first day the rain stopped around 9 am. With relief we began the trip after all the planning, acknowledging that the challenge, given our collective experiences, was the remoteness rather than the nature of the terrain.

We carried an emergency locator transmitter in case of emergency. We packed it well in ensolite & duct tape to avoid accidental activation. The first night I awoke at 3 am to a shrill regular high pitched sound. I awoke Janet worrying that the ELT had been activated when my pack fell during the day. After considerable effort spent unwrapping it we were assured that it was still turned off. The bird eventually stopped calling and we decided that this ELT might become like the dreaded coke bottle in "The Gods must be crazy"- a thing that none of us wanted to carry.

Gear repairs became necessary starting the first day with Peter's camera shutter jamming and Nancy's hipbelt separating from her pack. It's amazing what an awl and a little liquisole can repair.



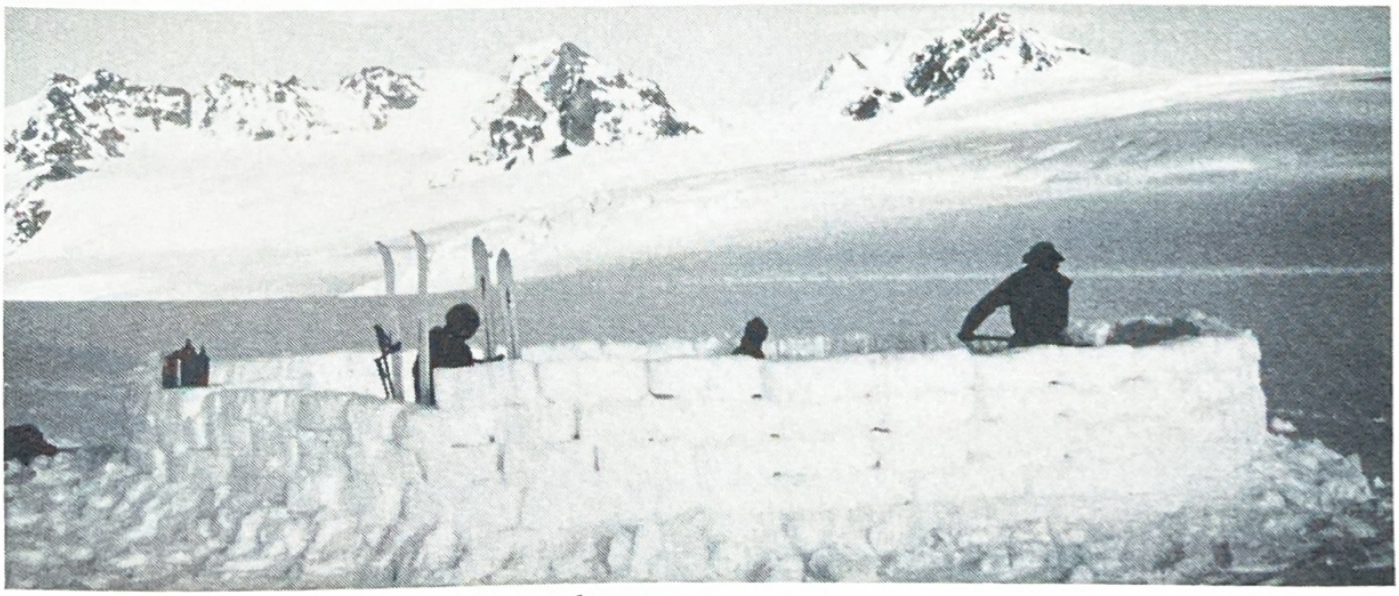
Descent into the head of Norick Ck.
Photo - J. Lohmann.

The brilliant weather continued. Descending down to Norick Creek, we began following it to its origin - listening to the regular crashing of ice melting off the Purgatory Glacier icefall. Realizing that it would be a month before we experienced the green life of the forest again, we collected small leaves and branches for the journey. We were all awestruck at the world we were in - the icefalls cascading down the surrounding peaks and tall banks of snow bordering Norick Creek. Travelling up the Fyles Glacier, we stopped for the night with the sun setting golden on the War Drum Glacier.

The next day, at a 2500m col, we reached our first food drop. Views of the Borealis group to the north beckoned us with climbs and our route looked foreshortened on the Monarch icefield to the south. Sled country - with our newly acquired crazy carpets. The 8 days of fresh groceries seemed less heavy when towed.

We came to realize that lenticular clouds and sundogs were not idle threats in this coastal region. Two days later we skied up Erehwon Mtn. and were

Shirley on the summit of Erehwon Mtn. Photo - J. Lohmann.



Camp on the Fyles Glacier. Photo - S. Rempel.

afforded some lovely turns on the descent before we gathered our sleds. Then, shouting excitedly, we glided with our crazy carpets floating behind us for several turns until we came to a halt.

On the 7th day we arrived at Princess Col, with Princess Mountain looking inviting. Looking down the Sheemahant glacier, we saw the top portion of its 550m icefall. It was decidedly more novel to read John Clarke's accounts of long tent bound storms then it was to endure them. The luxury of having time to read lost it's novelty after a couple days. I was the only one who didn't notice much the passage of the 4 days we spent at the col, digging ever deeper to escape the relentless onslaught of the tent flattening winds. Even Janet & Peter's, by now expertly constructed walls, were brought crashing down on the tents.

I was battling a tonsilitis that wasn't responding to the erythromycin we brought along. A painful golf ball size lymph node would not seem to resolve. We seriously considered retreating at this point because of it.

On the 11th day we found a clear sky and sparkling snow. By the time we broke camp the sky was overcast. By the time we descended the 35° slope above the Shemanhant icefall, plunge stepping through the deep fresh snow to the col, the visibility was only several metres.

On the 14th day we awoke to a new world - regal. Immediately to our north were Monarch Mountain, The Queen and The Page - a beautiful change from the nothingness of white blinding snow. With a million photos snapped & spirits lifted, we were happy to travel again. By noon a sundog appeared which we knew by now we could not ignore. Despite my ongoing fatigue, we decided to press on to the 2nd food drop - Nancy & Peter in a convoy towing my sled, as I continued to battle the bug.

We spent 3 1/2 days at the col above the "toilet bowl", waiting for visibility. Peter still continued to catch up with gear repairs and all of us were absorbed in "A suitable boy" by Vikram Seth. We were thankful for a few bare rocks to sit and bathe on at this wind blown col.

On the 16th day at 3:15 pm we broke camp - another alpine start. The altimeter readings were down 100m since our arrival. We had occasional views of perfectly clear skies to the north, south and west of us, as we sat in a storm. Brief as our motoring was that day, we managed to drop a few things - first the burned buckets down a crevasse, then Nancy's crazy carpet was blown off her pack, heading down the glacier towards the Machmell River - Peter retrieved it. We would be grateful for this a few days later. Finally at camp, apparently amusing to the onlookers to watch, I plunge stepped & pounced and cursed in an attempt to stop my tent poles from visiting the Machmell. Janet managed to retrieve the last one 30m below us.

The skies cleared at nightfall, affording a spectacular sunset. We were very happy to leave behind the fierce wind at our camp at the base of Mt. Swordy, skiing into breakable crust with concrete-like snow beneath it. A loud scream from Nancy alarmed us all. It took us ten minutes to reach her. Her kneecap had dislocated as she was making a turn & with her heavy pack weighing her down she was unable to relocate it for 2 minutes. We were certain this would mean the end of the trip or at least several days rest. There was moderate swelling on both sides of her knee - The one advantage of being on a glacier is the constantly available icepack, which was in frequent use for the rest of the trip. Nancy was moving in one hour - walking down the slope then skiing up with her pack on to an early camp.

With clear skies the next day, Nancy was keen to keep moving. Peter towed & then ferried her pack. We sat briefly, on a little idyllic rock band just above the Klinaklini Glacier with clear views of Mt. Waddington to the south and Monarch, still towering above the closer peaks, to the north.

Two days after the dislocation, Nancy decided her knee was "fine". (One month later a physiotherapist was shocked to hear that Nancy was already on short hikes)

At any rate, we all towed sleds to the high point of the Klinaklini and then experienced a surreal 8 km glide with sleds trailing gently - It felt as if we were stationary and the peaks on either side moving on a screen. Stopping for lunch we observed black storm clouds over the Waddington Range to the southeast. We were casual about the storm, with the warm sun above us, and were determined to reach the third drop at the Silverthrone col, being driven by hopes of climbing Mt. Silverthrone, and excitement of exploring new country, the third section of "A suitable boy", and new groceries.

Mongol Mtn. above camp on the Fyles Glacier. Photo - S. Rempel.

Monarch Glacier below Mt. Jacobsen to right. Photo - S. Rempel.

Camp near Silverthrone Col. Photo - J. Lohmann.

Nancy and Janet check the map on the Monarch Glacier, with Monarch Mtn. top centre. Photo - S. Rempel.

View NW from col at the head of the Klinaklini Glacier. Photo - S. Rempel.

Camp on glacier above Satsalla R. Photo - S. Rempel

Somehow we disregarded the aproaching thunder closing in on the lightning, the buzzing ski poles and clothing, the electrically charged upright hair, and although we briefly ducked into a depression to stop the high pitched humming, we were so cold and wet we decided to move on. We finally stopped 1 km below the col, chilled to the bone. The 4 litre pot of dinner was spilled that night - an ugly sight in snow and a hole burned in the vestibule.

The next day we reached the food drop in a total fog, mistaking a nearby crevasse for a view of a ridge across the Ha-iltzuk Glacier. A brief glimpse of the Ha-iltzuk Glacier below and the buckets with new groceries feeling like wrapped Christmas gifts, made our spirits soar. Hopes of climbing Silverthrone returned.

On the 22nd day we descended to the Ha-iltzuk Glacier. Two days later at the first clearing, Silverthrone still invisible, we enjoyed a quick jaunt up Fang Peak and some shout-rendering turns down to our crazy carpets.

We spent 9 days reaching the 4th food drop above the Satsalla River. We were able to travel 3 1/2 days with the weather deteriorating completely by the end of each day.

Between pouring rain and driving snow and poor visibility we were driven to become a life saving brigade for the millions of lady bugs & butterflys scattered, freezing on the glacier snow, breathing life into them, creating homes out of match boxes, water bottles, parkas, and the walls of our tent.

We spent 3 days at the 4th food drop, anxious about our loved ones worrying. The storm that finally tore a 2m length out of Peter's tentfly began before we had managed to set up camp. The accumulated snow created moderate avalanche hazards by the time we were able to move.

One final move on our 32nd day brought us, exhausted, to our last snow camp above the Klinaklini River. The following day, our senses overwhelmed with the colours, sounds, and smells of a spring-awakened forest, we descended to the valley, camping on a logging road in a clearcut overgrown with slide alder.

The following morning saw rain pouring down and some 15 km of logging road between us and the end of our journey. Nancy wondered what would motivate our aching, reeking bodies to move. The answer came in the form of a 1.5 m high black bear enjoying the previous night's dinner outside our tent door. He seemed undisturbed by the whistle blowing, screaming or 1.5m high white gas flames which nearly ate the vestibule, merely moving back 2m. Janet sent him off by hitting the wooden spoon

on the dinner pot - Sufficient to get us moving. The logging road was relentless.

On the 34th day at lunch we finally reached Knight Inlet logging camp, getting a ride the last 4 km, a very sorry sight. A brief flight to Campbell River and then a race in a rental car down the Island Highway to Departure Bay. A memory that will always make me laugh is the the 4 of us trying to run on blistered feet across the BC Ferries parking lot with disassembled packs and gear dropping one item after another, retrieving someone's boot only to drop a shovel.

At the end of the trip we decided that we were no longer groundlings.

Note: a more detailed route description appears in an article by John Baldwin in the Can. Alpine Journal (1983, p. 10-12)

Party: Janet Lohman, Nancy Henderson, Peter Katsaris , and Shirley Rempel

MOUNT WADDINGTON (16-29 July, 1995)

- by Jack Bryceland

How come, since I've been around the Coast Mountains for several decades now, I haven't climbed Waddington yet? That little question has been niggling at my mind for quite a while. Of course, I know the answer - which provides only a minor degree of consolation. While many of my climbing partners over the years went off to do the peak, I seemed to be trammelled with job, wife, house, children: that which Zorba the Greek referred to as "The Full Catastrophe". Well, times change - job seems to be coming to an end; wife has gone; house is a fully-paid-up old tin box on wheels; children are old enough to be earning their own living (if only they were!). Maybe that's the Mount Waddington bus I see coming down the road now?

Those thoughts, and a few more, led me in the spring of 1994, to join with some climbers from south of the 49th who were short of one. Yes, I understand that you should not climb with people you don't know well; I've even experienced that peculiar trauma before. But hope springs eternal, so off we went. How did it go, you ask? One of the group developed an early case of Fear of the Big White Slots, and that put the kibosh on that trip: didn't even get to Bravo Col. You might even say that the bus did not pull in at my stop.

1995 came along, as the years inexorably do, and the BCMC was without a Summer Camp. Thinks: I know a fine place for a 'Summer Camp'. (There's that bus again).

The plan called for two parties, one to climb around the Plummer Hut and Tellot Glacier, the other to climb Mt. Waddington itself. However, when the logistical dust finally settled, there were only two people for the Tellot group, so that idea died, leaving eight to attempt the Wad.

It was the usual approach - Saturday drive to Tatla Lake for dinner at Graham's; then down to Bluff Lake to crash in the field beside the hanger; Sunday morning, into Mike King's helicopter for the flight to Rainy Knob, at 1800m on the Tiedemann Glacier. Great weather, great flight!

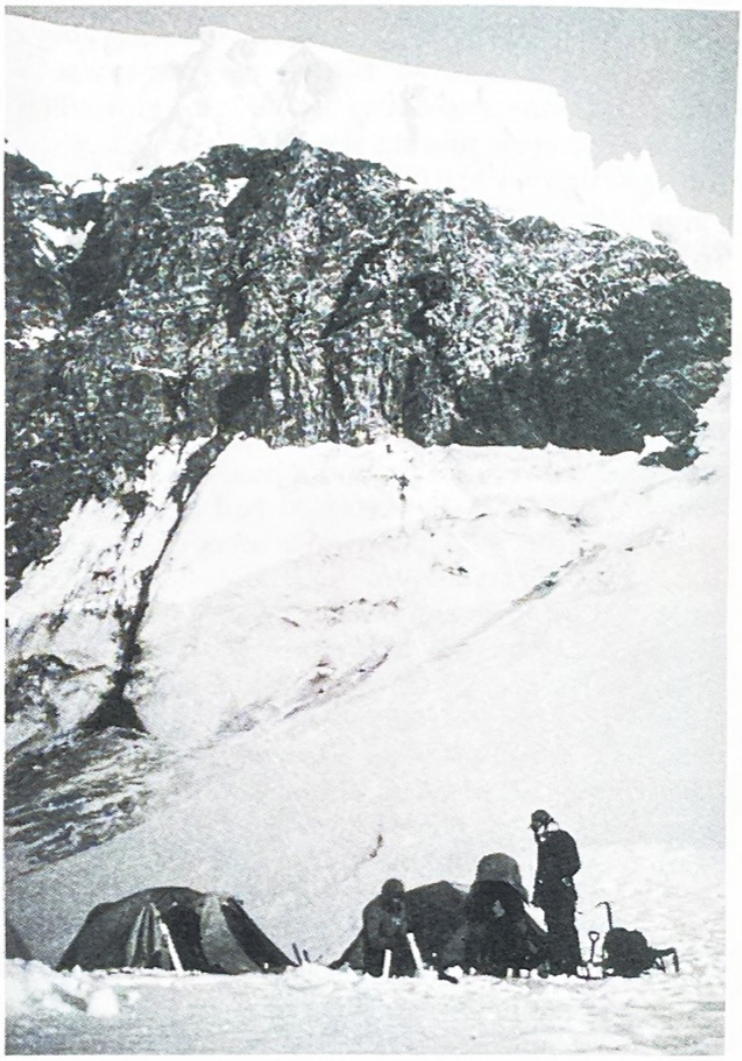
The decision had been made to carry the tents and eight days food and fuel up high, so that we could sit out bad weather and/or wait for the summit pyramid to get into condition. With hindsight, we would probably have been better off to go alpine style and take advantage of the excellent weather. But with our expedition plan in go-mode, we immediately started humping loads to the top of Rainy Knob - a gorgeous place for a camp. It looked just like a Co-op catalogue photograph - four MEC Snowfields in this spectacular setting. I thought, maybe I've died and gone to heaven: can I use my Co-op number in heaven? Who am I kidding? Even if heaven exists, I lost my gold stars years ago. Back to reality!

The standard Waddington dichotomy is this: when the Bravo Glacier is in shape for ascent, the summit pyramid is iced up: when the summit pyramid is clear of ice, the Bravo is a possibly-unsolvable puzzle. We were in luck; the Bravo was in good shape for travel, although snow conditions were poor, involving some ugly trail-breaking. After one bum steer up the wrong headwall, we thrashed our way up the right one; fixing ropes, hauling loads, falling rocks cutting ropes. Whooeee, this is fun! Camp above the headwall is another spectacular situation. A vertical wall of ice looms above the camp, and although logically you know that the fall-line will direct debris away from the tents, there is an emotional rush every time a serac breaks from the wall and crashes down the exposed cliff to the glacier below.

From this camp to the Bravo-Spearman col is only 200m, but the trail-breaking was so disgusting that

Heading up the Tiedemann Glacier from camp below Mts. Marcus Smith and Grenelle. Photo - J. Bryceland.

Climbing through the Bravo Glacier crevasses with Mt. Munday behind. Photo - J. Bryceland.



Camp above the Bravo headwall. Photo - J. Bryceland.

Hole-in-the-ground Camp below the summit tower, with Mt. Combatant buttresses behind. Photo - J. Bryceland.

we ended up making camp in the col; altitude 3000m - only 1000m to go. The trail-breaking above the col camp was no better; and there was a sensational crevasse-slump as we stood puzzling out how to cross this big slot. That decided things for us - lightweight from there on up. Since the summit tower is noted for its rock and ice fall, we split into two groups of four for the final climb. Greg, Eric, Darlene and I made the first attempt; Reinhard, Simon, Peter and David were to try two days later.

The first good cramponing of the ascent led us to our high camp below the final rock tower. We threw up some snow walls around a hole in the ground. (Shades of Monty Python: You had a hole in the ground? You were lucky! We used to dream of having a hole in the ground.) Unfortunately, the mist drifted in overnight and covered the rock in hoar frost. It was 11 next morning before the rock was climbable - not an early start. By the time we were in the Tooth-Waddington notch, the mist was down again and the wind was trying to blow us out of the notch. Darlene and I rappelled off; Greg and Eric went for it. Some hours later, we heard faint shouts which we interpreted as summit jubilation. Some more hours later, as darkness fell, the happy campers made their final rappel over the bergschrund and stumbled into the now-icy hole-in-the-ground, well satisfied with their ascent.

Descending next morning, we met the others ascending. After some discussion regarding the safety quotient of a party of four in the final summit chimney, Peter and David decided to descend with us, while Simon and Reinhard made tracks upward. The camp in Bravo col became a small community with the arrival of three other parties. The weather, however, was deteriorating. It held long enough for Simon and Reinhard to make the summit, but that evening the rain started. We procrastinated next morning for as long as possible, but eventually had to face the reality that it was not going to stop, so down we went. It was a long, long, wet, wet descent to the Tiedemann Glacier; the rappels being particularly trying. Navigating through the now-widened crevasses took constant vigilance. Any mistake would have had serious ramifications; so we didn't make any.

Three days of rain on the Tiedemann dumped of snow on the upper reaches of the mountain, rendering it unclimbable. But we had been there - well, some of us had - so we did not mind. Who was I fooling? I did mind! Six pitches from the top and I had to retreat again. But I have learned something: the bus driver's name is George Santayana; and as I got off he was heard to remark "those who cannot remember the past are condemned to repeat it". He can't be right of course, because I remember yet still seem to be repeating.

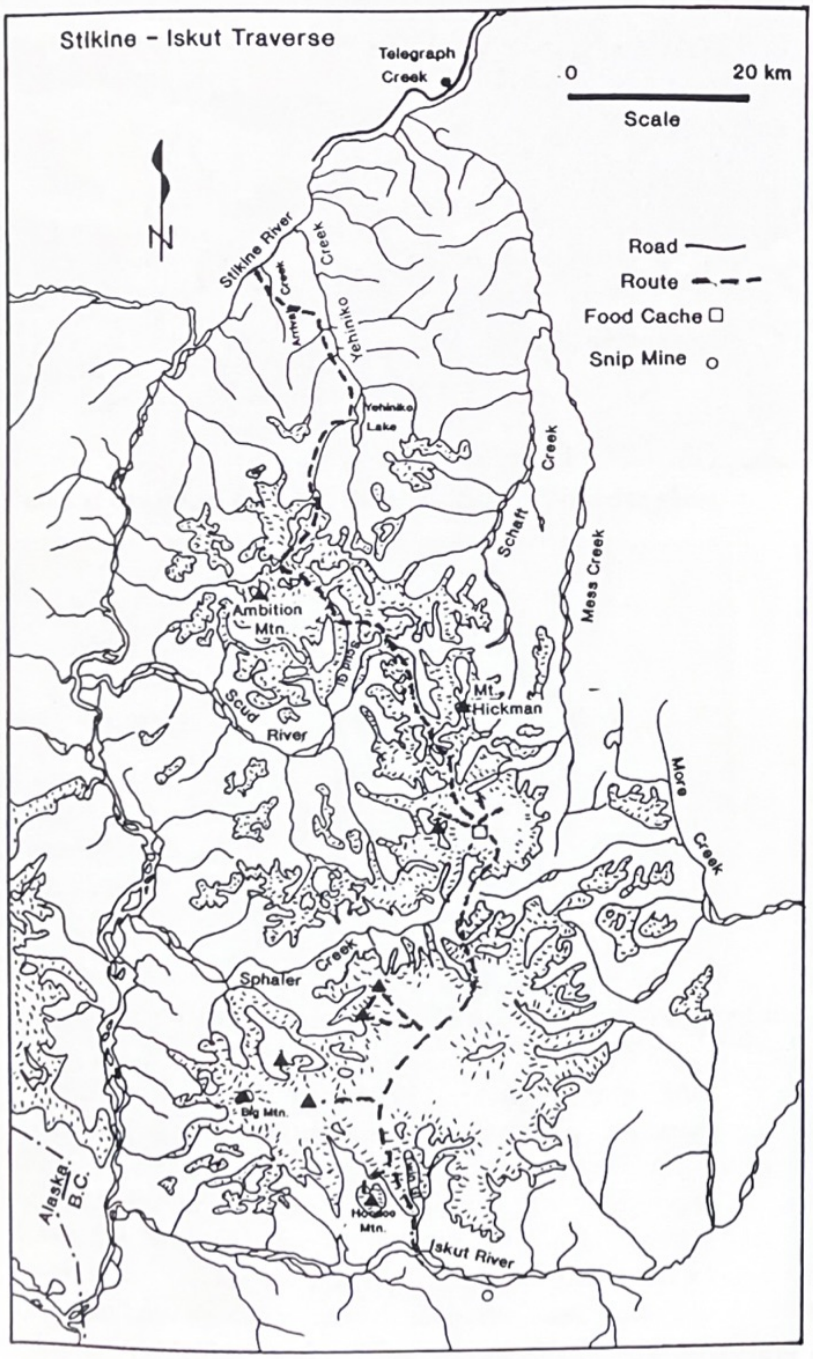
Anyway, it's further than I got last year.....maybe next year.

Party: Darlene Anderson, Simon Austen, Reinhard Fabische, David Stange, Peter Stange, Eric Obermayer, Greg Unruh, Jack Bryceland,

Markus climbing up from the Scud Glacier, Stikine - Iskut traverse, day 5. Photo - Brian Waddington.

STIKINE-ISKUT TRAVERSE (3-21 May, 1994) - by Brian and Betsy Waddington

In 1994 Dave Williams and Markus Kellerhals, accompanied by several of the usual suspects (Steve Sheffield, Betsy and Brian Waddington), continued their exploration of the Boundary Ranges with a ski traverse of glaciated country between Telegraph Creek and the Iskut River to the south.



Betsy near the col above the Scud Glacier, with Mt. Ambition behind. Photo - Brian Waddington.

The area is made up of two distinct regions - the northern half, roughly north of Mt. Hickman, is characterized by sharp peaks separated by large valley glaciers, whereas the southern part is more typical coastal icefield terrain, interrupted by numerous smaller peaks.

The traverse was skied north to south in three weeks, allowing plenty of time for side trips and storm days. One food cache was placed, south of Mt. Hickman, by ski plane from Telegraph Creek. Crazy Karpet sleds were carried, and proved useful for perhaps a third of the trip distance.

Looking south to Pk 2600+m on day 8. Photo - Brian Waddington.

Peter at camp on day 12. Photo - Brian Waddington.

Besty skiing along the icecap. Photo - Brian Waddington.

Turns on the icecap. Photo - Brian Waddington.

Help with local logistical arrangements was provided by Ron Jensen (unfortunately recently killed in a flying accident) of Telegraph Creek. Access to the northern end of the range was by boat down the Stikine from Telegraph Creek to Arrival Creek, from which a trapline trail led southward to Yehiniko Lake (locally known as New York Lake).

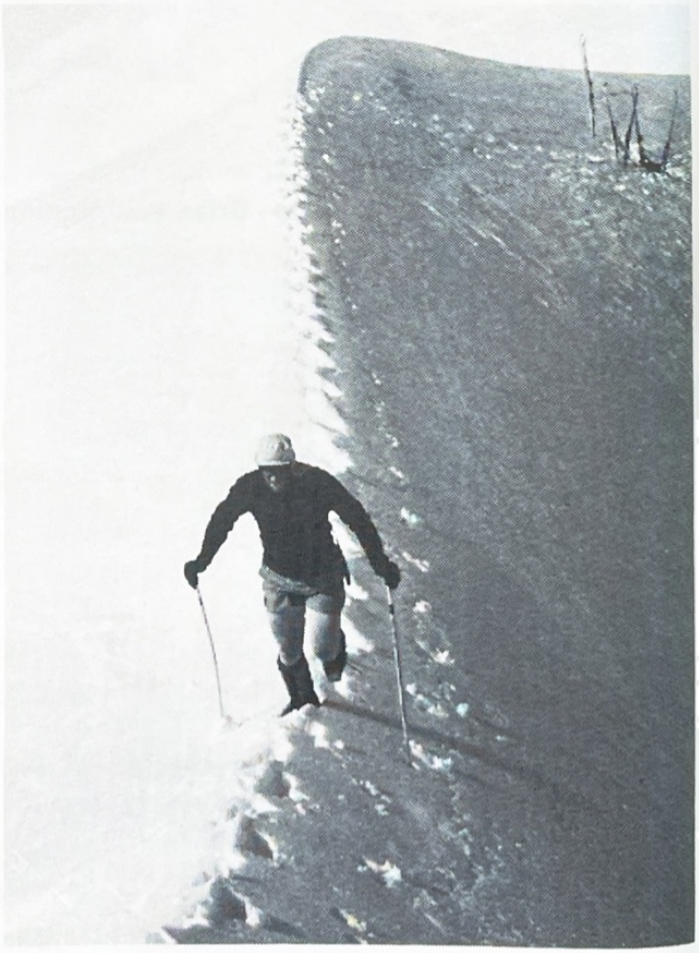
From Yehiniko Lake the route followed a tributary valley south-west, over a glaciated col onto the Scud Glacier. After descending the Scud Glacier a few kilometres the route followed a series of glaciers and passes west of Mt. Hickman towards the icecap country south of Mt. Hickman. The weather for this leg of the trip was spotty; brief clear spells were interspersed with white-outs, wet and dry snow flurries, and high winds, in various combinations. Several small peaks were climbed, but mostly this leg was a race to the food cache.

We arrived at the icecap north of Mount Hickman, where our food cache was, on May 11, once again in white-out conditions. It had also been poor visibility when the food cache was placed. Thus, its exact location was not known. We spent several fruitless hours looking for it that evening, quitting when it became so whited out that it was difficult to find the camp again. Dinner that night was the remaining mashed potatoes and spaghetti, mixed together in an attempt to create a reasonable volume of food.

Steve on an unnamed peak near the Foremore Glacier. Day 14. Photo - M. Kellerhals.

The next morning visibility was somewhat improved, so after a breakfast of tea we split into two groups, spread out and started searching again. Finally 3 km down glacier from camp the marker wands were spotted. Cans were dug out and hauled back to camp in time for a very late breakfast of granola and fresh fruit. The next day was once again stormy, but we headed up a nearby peak anyway. After this the weather cleared and remained sunny for the rest of the trip. On May 14 Brian, Dave, Markus and Steve headed off to climb a 2600+ m peak west of camp. This looked steep and technical, so Peter and Betsy opted for a more moderate tour of bumps and ridges to the northeast of camp. Good views and good runs were had by all.

May 15 found us dropping briefly to treeline at the pass between Sphaler and More Creeks. Lots of big, fresh moraines in this area kept the



Markus on a side trip - Day 18. Photo - Brian Waddington.

Markus with Mt. Dokdaon behind. Photo - Brian Waddington.

geomorphology types (mostly Betsy) happy. We soon climbed south toward the next series of icecaps. Several of the peaks around the head of the Foremore Glacier provided excellent ski runs.

For the remainder of the trip the pattern was to move camp a few kilometres each day and climb several peaks along the way. For the most part the peaks were only a few hundred metres above the glacier and most were ski ascents.

May 18 we stayed in one place and most of the group climbed four 2100 m peaks while Betsy climbed one, then went back to camp to lie around and read. The next day we moved camp 8 km then went off on a 21 km 1500 m side trip to a 2200 m snow dome near Big Mountain. The relentlessly good weather just would not let us rest.

May 20, our last day on the icecaps, we skied down Twin Glacier towards Hoodoo Mountain, a big flat topped volcano. We skied up Hoodoo, not being able to pass up one last peak, before starting down toward the trees. An easy descent on the west side of the west Twin Glacier led us down to its snout. There we camped on rock and fresh moraines before finally heading down into the forest.

After a short but painful section of alder we entered older more pleasant forest and descended to the Iskut River valley. After only 2 hours of waiting we were picked up, as previously arranged, by a cargo hovercraft which took us to the mine at Bronson Creek, where we pigged out on pastries and coffee before flying back to Telegraph Creek.

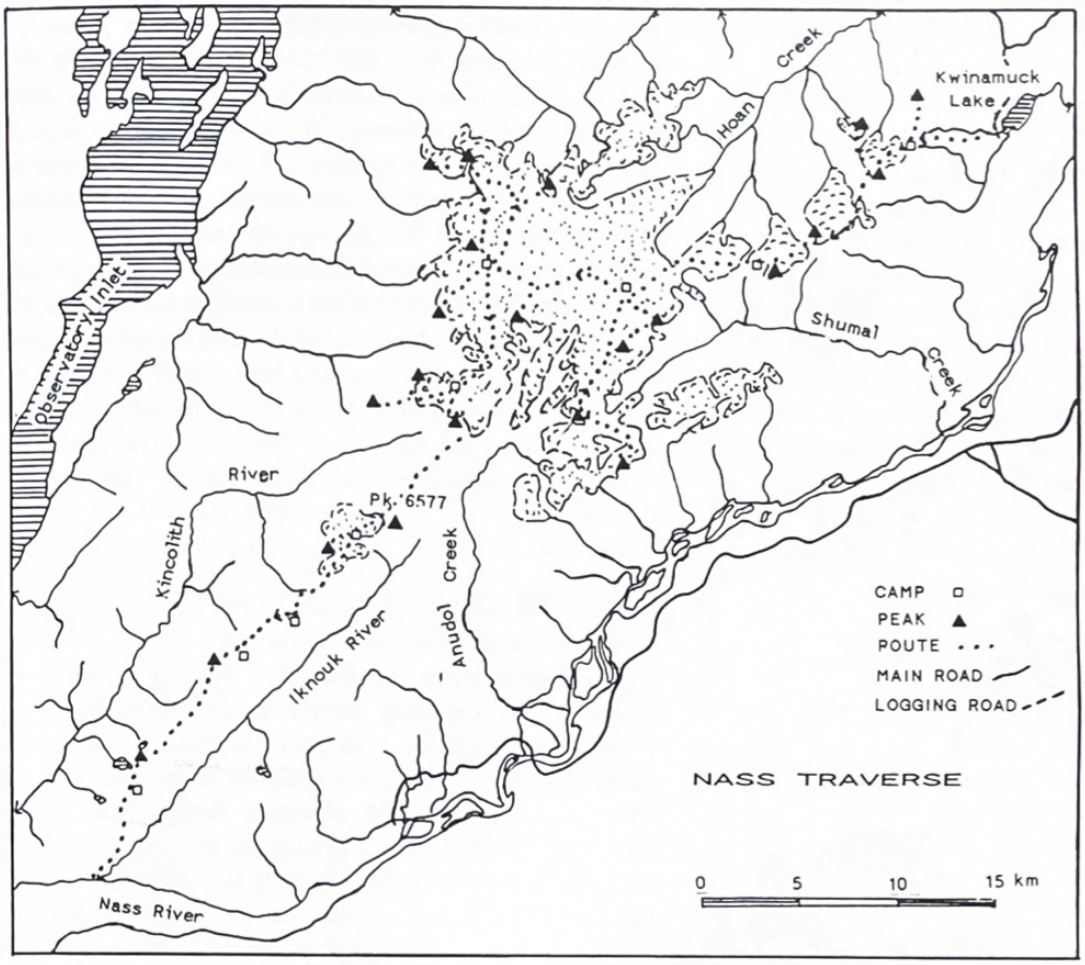
NASS TRAVERSE (1-14 May, 1995)

- by Betsy and Brian Waddington

The destination for the 1995 spring traverse was to be a small icecap between the Nass River and Alice Arm. Markus had had his eye on the area for several years, and as we seemed to be short of time this year, it was the obvious destination for the spring trip. This year's group contained the familiar core of Dave Williams, Markus Kellerhals, Betsy and Brian Waddington, with the addition of Matthias Jakob, a fellow geography grad student, and John Clarke.

A couple of days of driving brought us to Greenville where John had arranged for a couple of locals to drive us to the end of the logging roads by Kwinamuck Lake. From the lake a 1200 m climb led to treeline, followed by a couple of days along a gentle glaciated ridge to the icecap where we planned to spend several days climbing some of the surrounding peaks. From the icecap it was to be a 3 day ski out along a narrow, possibly sharp, ridge between the Iknouk and Kincolith Rivers before dropping down to the Nass-Iknouk confluence, where a boat was to meet us and take us back to Greenville. The trip was planned to take 12 days, and involved no food cache.

We arrived in Greenville on the afternoon of April 30 and drove to Kwinamuck Lake that evening, as John had arrived a couple of days earlier to arrange our rides. He had also taken a few things up to treeline to make his pack lighter for the climb (smart!). The next day was basically a long slog with



a very heavy pack up through pleasant open, but steep forest. Once we reached the ridge Dave, Markus, Brian, and Matthias headed off for the nearest peak while John and I collapsed on our packs, a pattern to be repeated many times on this traverse. After a brief discussion John and I decided that this was a good spot for our first camp, as it was late afternoon and the spot was flat. So we started building walls in the hope that if the others returned to a ready made camp there could be no idea of continuing any further that day.

The second day was mercifully not very nice, at least in the morning, and Mats and I were feeling quite unwell as a result of over-exerting and not drinking enough on the first day. So we stayed put for a day. In the afternoon the clouds parted a little and Brian, Dave, Markus and John went off to climb a nearby peak while Mats and I slept.

The next two days were spent skiing along the ridge toward our icecap and of course climbing about 5 peaks along the way. We then spent two nights at our first icecap camp. Day five was spent skiing along a subsidiary ridge to a prominent 2070m peak overlooking the Nass River. The next day we moved camp a few kilometres across the icecap and spent the afternoon and next day climbing another four or five peaks, some of which provided excellent ski runs. On one late-afternoon run our skis disturbed a very slight suncrust, causing pieces of it to swish down after us. Magical.

On day 8 we moved camp to the southwestern edge of the icecap, ready to start our exit ridge. From there we climbed a 1600m peak which gave us good views of our ridge. From a distance the ridge looked rather steep and intimidating, especially a glacier on the north side of Pk. 2005. This was one of the most spectacular peaks in the area, with a summit block surrounded on all sides by steep faces.

On day 9 we started skiing out the ridge. For the most part the ridge proved to be relatively narrow, but not very steep. As a result, it was easy skiing with great views into the unlogged valleys on either side. The glacier below Pk. 2005 proved to be much gentler than it looked from afar, and the peak itself proved to be an easy scramble. We were rewarded with great views into the Iknouk valley and the Nass valley beyond.

From Pk. 2005 we dropped down to camp by a small pond on a nearby glacier. The next morning Markus broke a ski shortly after leaving camp. This took a couple of hours to repair (by moving the binding over the break to hold it together) and by this time the weather was starting to close in. We continued until early afternoon when heavy

Markus skiing off Pk 2040 on day 8. Photo - Brian Waddington.

Heading to Pk 2005. Photo - Brian Waddington.

windblown rain convinced us to call an early halt.

That evening it cleared off again for a few hours to allow some film to be used, but the next morning was again socked in. By mid morning the fog had thinned a little so we continued along the ridge for a few more hours until we came to a section that required visibility. We spent the afternoon in the tents. This was day 11 and we were scheduled to be out the next afternoon, but we were still a day and a half away from our pick up point.

The following morning was still foggy, but with a possible hint of clearing. At this point we were faced with a tough decision - go up along the ridge which could be really aesthetic but which risked being further delayed by the weather, or drop down into the Iknouk valley bottom for 15 km of bushwacking which would get us to the beach but was certain to be unpleasant. In the end we decided to risk it and go up - and the gamble paid off! As we climbed a steep slope above camp the clouds began to lift and we started to get the occasional view. By afternoon the only cloud remaining was in the valleys and travel was easy.

We camped early that night on a little heather meadow at the end of the ridge, looking down on cloud in the Iknouk valley. It was wonderful to be off the snow again, even after just a short trip, and to be able to walk around barefoot. The next morning we started skiing down into the trees to roughly 700 m, where we ran out of snow. From there it was a steep but easy descent to the valley

Dave on the summit ridge of Pk 2040 on day 8. Photo - Brian Waddington.

Above the cloud-filled Nass and Iknouk valleys on day 13. Photo Brian Waddington.

bottom, followed by a few kilometres of thrashing through devils club, willow, etc. along the floodplain to the Nass River.

The afternoon and evening were spent trying to attract passing boats, without success. Then, at 10 pm as darkness fell, after we had given up on being picked up that night, our ride showed up. We quickly packed up and climbed aboard. Then it was a long ride in the dark up the Nass river, listening to the echo sounder beep at all the shallows. We arrived back in Greenville about midnight to find that our driver had radioed ahead to his wife who had a dinner all ready for us. We spent the night in their basement then got an early start the next morning for the long drive back to town.

Columbia and Rocky Mountains

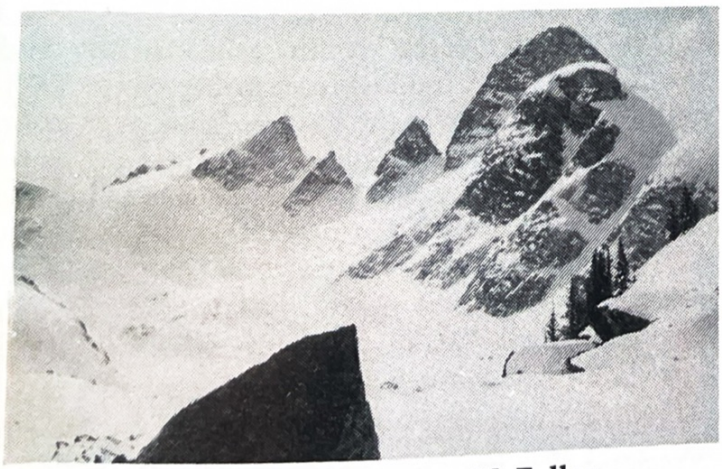
SUNSET LAKES SKIING (April 1994)

- by Michael Feller

For years I had worked on a ridge between the North Thompson and Adams rivers north of Clearwater. On the far side of the Adams, to the east, lay an enticing range of mountains, between the Adams and Seymour rivers. Known as the Seymour Range, it was succinctly described in the new 1992 Columbia Mountains guidebook as *"no climbing is reported"*. This, plus the fact that it was a proposed protected area, made it even more enticing. A trip was definitely called for, so it became the venue for our 1994 spring ski trip.

The helicopter deposited us between 2 of literally dozens of lakes at the head of Sunset Ck., a tributary of the Adams River. With glacier-clad mountains to

the north and south of us, the forested lakes seemed strategically located. Unfortunately, we never got to the mountains to the north because the weather was bad for much of the trip. The bad weather did mean powder snow, however, so while people on the coast were complaining about poor wet snow conditions, we were experiencing exquisite powder runs.



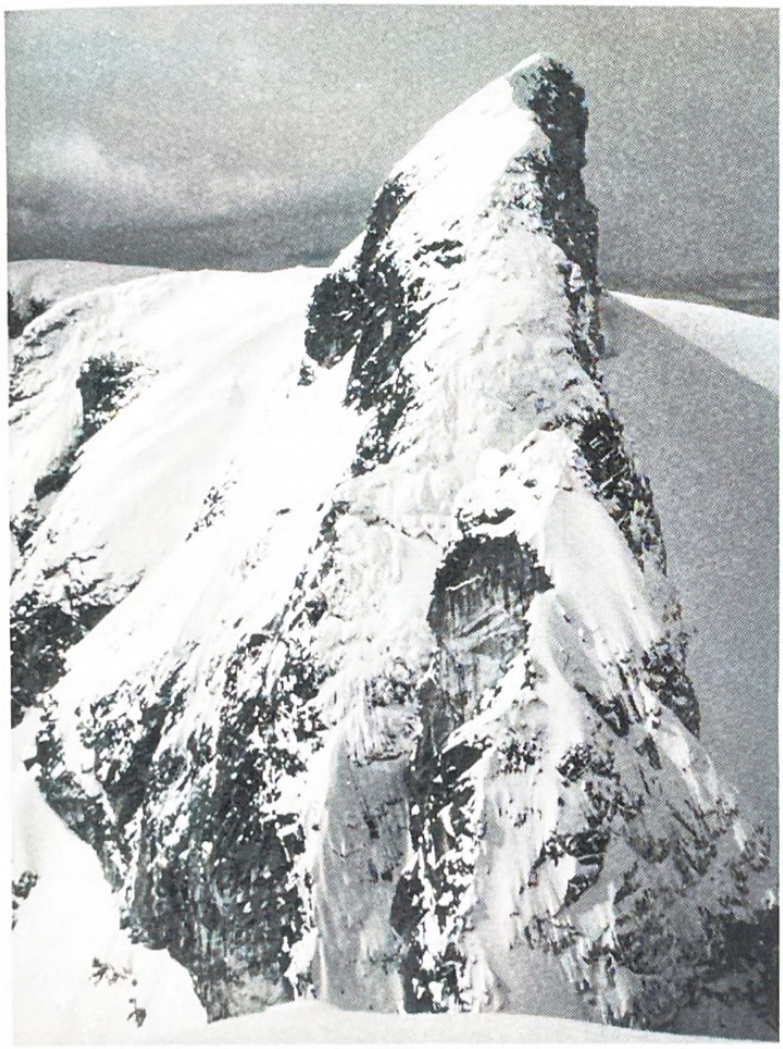
Sunset Lakes area vistas. Photos - M. Feller.

Our first objective was the easternmost peak (2400m) in the group to the south. Impressive settling of the snow and formation of deep cracks every few steps below its NE ridge caused a detour to the gentler glacier on the N face. On the summit we encountered a pole with a flag on it. The incessant droning of a helicopter across the Seymour River to the east of us allowed us to put 2 and 2 together. We got 4 - we were in heliski country. (This subsequently caused me to find out the locations of all heliski tenures in the Columbia Mtns. - the shocking result is that from the Bugaboos to Prince George virtually all of these mountains, with the exception of national, and some provincial, parks,have been given to the heliskiers).

The next day we chose a 2450m peak in the middle of the group. We ascended one glacier, cut up to the N ridge of this peak, then across to another glacier on its NW face, up which we skied to the summit. Our peace and relaxed lunch was soon broken by a helicopter disgorging heliskiers on an adjacent, lower peak 1 km to the east. Peter was furious that his untracked glacier was about to be trashed, so he shot off for the untracked powder. The rest of us took our time watching two waves of skiers descend the glacier. Eventually we, too, descended to find that Peter's fury with the heliskiers had mysteriously vanished when they offered him a helicopter ride back up.

An attempt on another peak the next day was thwarted by the weather. After a good dump of snow we set out again the following day, this time ascending one of a series of spire-like peaks at the western end of the group. Our peak was the lowest of these, at 2450m, and was definitely not a heliski peak so perhaps it was a first ascent. It offered a magnificent view of an adjacent 2500m spire which was highly visible from across the valley and which appeared to offer no easy route.

For the next few days the weather was generally stormy, allowing me to ascend only a 1920m hill above our camp, before we had to fly out. Flying out was done with reluctance because this area was generally one of the most interesting I have ever been to. It had such an incredible variety of vistas, both near and far. Around every corner, or over every hill something new and different and



The 2500 m rock spire. Photo - M. Feller.

interesting popped out. Snowy glades, miniature hills, lakes, rock formations or just large boulders of different hues and textures, clusters of trees, topographic patterns, small ridges, hidden lakes, rock spires and snow domes - all were present and all contributed to a visual feast, the likes of which I have never encountered on any other trip into the mountains. The aesthetic diversity of this area alone should have qualified it for protected area status. Unfortunately, however, the Kamloops LRMP group did not recommend it for protection.

Party: Peter de Visser, Ellen Woodd, Ross Wyborn, and Michael Feller

MT. VREELAND AT LAST (August, 1994)

- by Michael Feller

Monkman Park lies in the Hart Ranges of the northern Rockies. It had attracted me partly because of its waterfalls, which we had ample time to see on our 1993 summer camp (Feller, 1994), but mainly because it seemed to contain a number of glaciated unclimbed mountains, one of the highest of which was Mt. Vreeland, named after Frederick Vreeland, an early explorer of the area.

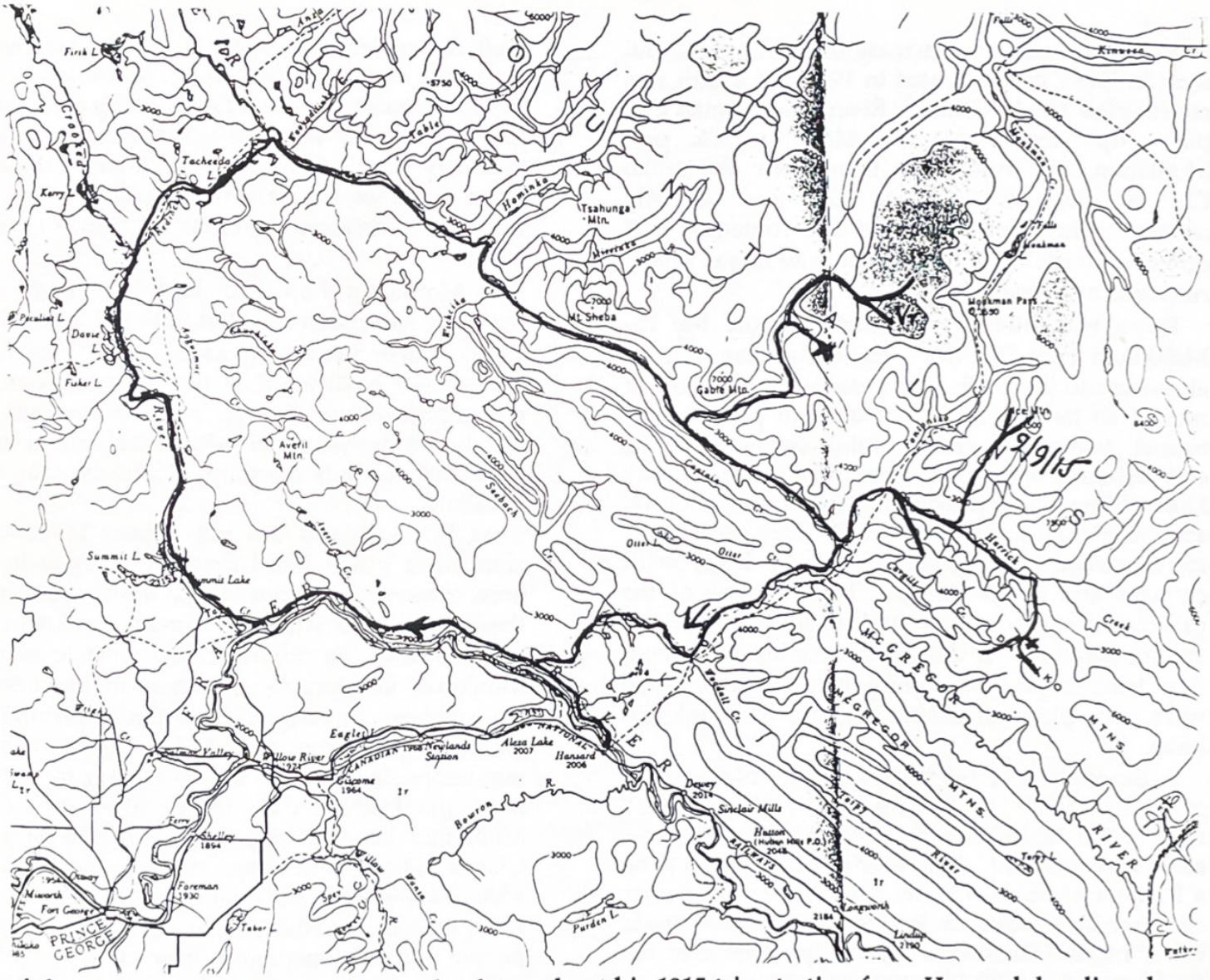
Vreeland, like so many of the northern Rockies early explorers, was an American. He spent 4 years in the 1912-1916 period exploring the mountains between the Fraser and Peace rivers. As was pointed out in the 1994 B.C. Mountaineer, Vreeland was the first person to discover the easiest approach to the summit of Mt. Kitchi (Sir Alexander) and his route-finding skills were such that, today, roads now traverse some of his old exploration routes.

Vreeland summarized his first 3 explorations as follows:

"The first year's journey included a 1,400 mile circuit, starting from Yellowhead Pass, through the Fraser, Crooked, Pack, Parsnip and Peace Rivers to Peace River Crossing with a side trip to Laurier Pass. The second was a reconnaisance of the canoe route from the Fraser River up the Big Salmon River (now McGregor River). On the third we pushed our way up the Parsnip River to its source in the glacier which Mackenzie saw from a distance and decribed as "a great valley filled with snow, which must be several hundred feet deep". From the mountains above this glacier we sighted a great ice dome of very extraordinary formation, practically the whole top of the mountain being covered with ice forming flowing glaciers on all sides. After locating it in long. 121° 9' west, lat. 54° 25' north and following Mackenzie's route over the "Bad River" divide to the North Fork of the Big Salmon (now Herrick Creek), we succeeded in climbing the great ice dome." (Vreeland, 1930)

This "great ice dome" is now called Ice Mtn. and was first climbed by Vreeland in September 1915. He saw it from above the Parsnip River. A map on which he subsequently located his routes suggested that he travelled up the Parsnip Glacier and down the Monkman Glacier. He would thus have been the first non-Indian to have seen what is now called Monkman Lake. He would also have walked by what is now called Mt. Vreeland, although he did not climb it.

After learning that Ottawa proposed to name Mt. Vreeland after him, he wrote, rather humbly, *"I have no valid claim for the naming of this particular*



Copy of the map on which Frederick Vreeland traced out his 1915 trip starting from Hansard, heading down the Fraser R., thence to Summit Lake and the Parsnip Glacier, thence down and across to James and Herrick Cks., thence down the McGregor back to the Fraser R. His route is marked with a heavy black line Reprinted with permission of Bob Vreeland.

mountain" and asked that the mountain not be named after him. His son, Bob Vreeland, indicated in a recent letter that his father was particularly interested in the "great ice dome" and "*if he had a choice, he would have chosen the "great ice dome" to be Mt. Vreeland rather than the one that was chosen by the Canadian government*".

The valley down which Vreeland would have looked to what is now called Monkman Lake, was the upper Monkman Creek valley. A low pass, south of the lake, now called Monkman Pass, had been used as an Indian travel route for many years.

Seven years after Vreeland visited the area, Alex Monkman travelled through the pass while trapping. Monkman was born in Manitoba and had run around North America looking for ways to make more money. He finally became a rancher near Grande Prairie.

In 1936 a group of people gathered to talk about a route from the Peace through to the coast to get supplies and send off produce. This lead to the formation of the Monkman Pass Highway Association whose objective was to construct a road through the pass named after Monkman, in order to

further settlement and increase trade, markets, and wealth. Work crews started in 1937 and a trail was constructed up the Murray River to Monkman Ck., then up the E side of Monkman Ck. past Monkman Lake to the pass, then down Fontoniko Ck. to Herrick Ck. A car was actually driven/pushed/hauled along this route in 1938 down to Herrick Ck. There it sat until it was finally retrieved by jetboats in 1967.

There was little government support for the Monkman Pass "highway" as roads were wanted elsewhere to the north. The association ran short of money so its members then tried to promote the tourist values of their route, calling for the establishment of a national park beginning at Stony Lake, to the NE, and including the Wapiti, Murray, and Monkman drainages. In 1939 there were plans to construct a lodge at Monkman Lake, with cottages and a bus service. However, one of the principals headed south and developed tracked-vehicle rides on the Columbia Icefields. Monkman then tried to promote mining in the region. There were also plans to extend logging to Monkman Lake.

A description of the history of the "highway" is given by Stacey (1974). This history concludes by saying that *"today there us a steady stream of traffic over the narrow trail"*. This steady stream seems to be a figment of Stacey's imagination, as are a number of other statements in this remarkably inaccurate book. In 1993 there was essentially no trace of the trail from Monkman Lake to the south.

Monkman provides quite a contrast with Vreeland. Monkman's preoccupation seems to have been with accumulating wealth. He saw the Monkman Pass route as a means of doing that, and did not seem averse to promoting whatever type of land exploitation would facilitate the construction of the highway. Vreeland, however, seemed more interested in exploration and aesthetics. The latter is exemplified by his description of the upper Fraser valley during his 1912/1913 trips -

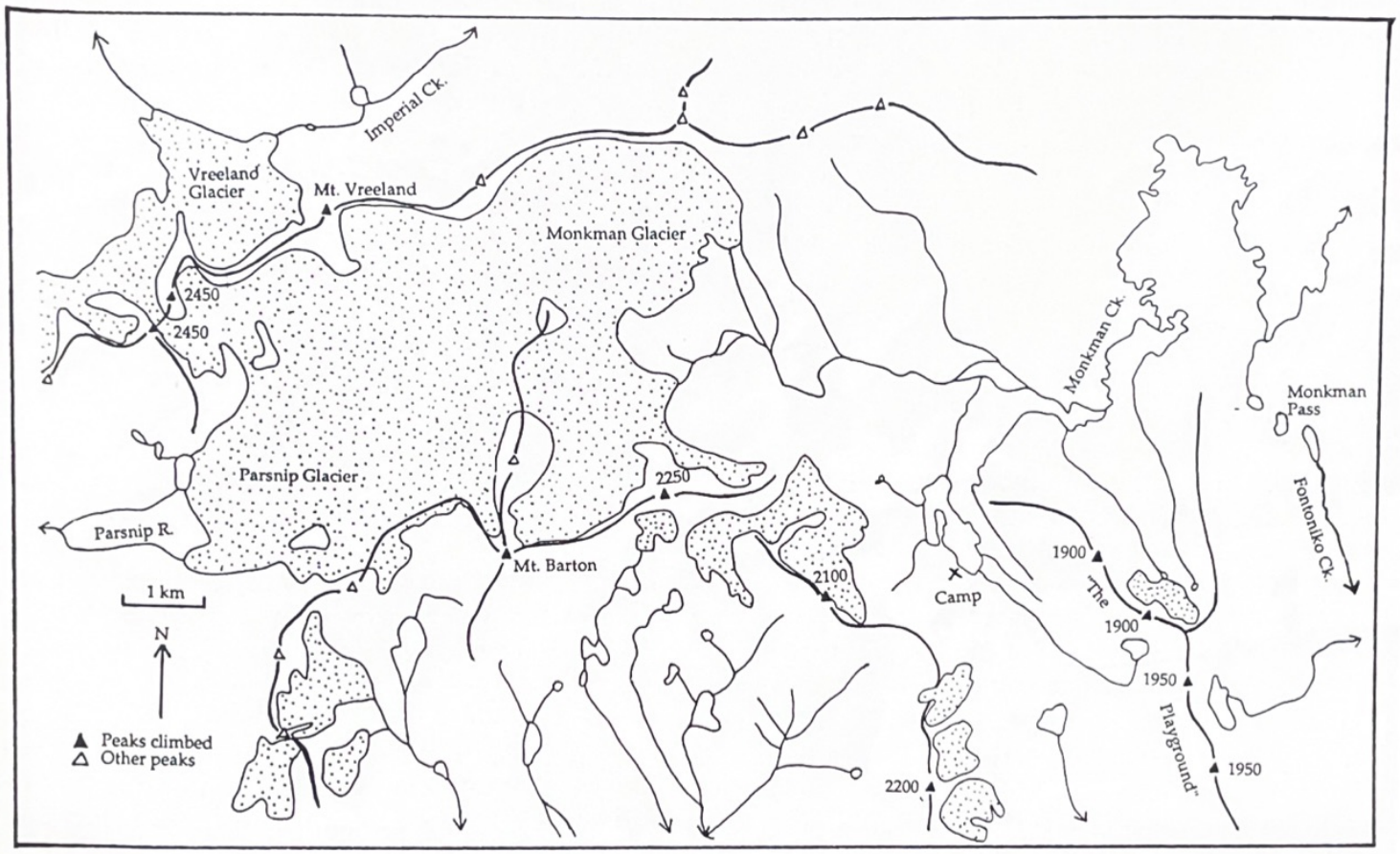
"The valley of the upper Fraser River is forested throughout. Great havoc, however, has been wrought by the railroad construction crews, who start fires to clear the right-of-way and allow them to spread over the whole mountain side. As far as active work has proceeded, these burnings are not the exception, but the rule, and the destruction of fine forest is appalling. I understand the fault lies mainly with the contractors, and that steps have been taken to check their depredations. This is highly desirable since the Fraser valley contains much fine timber, and its burning means not only great pecuniary loss, but the ruining of a scenic route whose value would be immeasurably greater if it were not marred by blackened skeletons of trees." (Vreeland, 1914)

If Monkman had had his way, there would probably have been little left in the Monkman Creek valley worth protecting as a park. Once again I believe we have another unfortunate example of geographic place naming. A town or road could clearly be named after Monkman, but a natural object of beauty is more appropriately named after Vreeland.

As Mt. Vreeland did not appear to have been climbed in 1992 when I first began researching the area, it seemed an appropriate destination. In 1993 the plan was to walk in to near Monkman Lake, then traverse the divide to the west to reach the Monkman Glacier. As described in the 1994 B.C. Mountaineer, this trip collapsed at Monkman Lake, where a great time was had exploring the local mountains. In 1994, the new plan was to helicopter from the Herrick Ck. valley in to the edge of Monkman Park, in the vicintiy of the Monkman Glacier. The chosen camp site was near a lake at 1500m, about 4 km WSW of Monkman Pass.

So, on the first Saturday afternoon of August, 18 people were helicoptered from the Herrick Ck. valley up the Fontoniko Ck. valley to a superb campsite on a small grassy/heathery ridge above a beautiful lake. Flowery meadows surrounded the lake, with rock and ice peaks to the west, an interesting-looking rocky ridge to the east, and a drop off to the upper Monkman Ck. valley to the north, with the peaks around Monkman Lake forming the skyline.

In this part of Monkman park, the mountains did not look like the traditional Rockies, as layercake rock structures were not at all evident. The rock appeared to be primarily a type of conglomerate and the peaks had the appearance of the Columbia Mountains. One exception to this generalization was the broad rocky ridge to the east and southeast of our camp. This came to be known as "The Playground" because it consisted of a complex series of parallel rocky outcrops with small layercake cliffs



The Monkman - Parsnip glacier area in the vicinity of the 1995 BCMC camp. Map by M. Feller.

on their northeastern sides, interspersed with flowery and grassy meadows - secret places known only to their inhabitants. A party of 100 could easily hide themselves there. Several parties rambled through The Playground to its broad ridge, scrambling up its high points, lounging in its meadows, luxuriating in its beauty, and scanning the vistas down to Monkman Pass, the upper Monkman Ck. valley with its swamps and moose, and the Monkman Lake peaks and high meadows of the previous year.

In addition to the 4 peaks of The Playground, 7 other peaks were climbed around the Parsnip and Monkman glaciers. The first was Mt. Barton, which had an interesting mixed snow and rock East Ridge, although Ellen and Leslie opted for the steep snow and ice NE Face. While most of the party were on Barton, Randy and Norbert sneaked in an ascent of Mt Vreeland via its East Ridge.

The following day almost half of the party climbed Vreeland via its S Face/SE ridge, while another large group climbed Pk 2200, 3 km south of our camp. This latter peak provided perhaps the most technical snow and ice climbing for the trip, on its northeastern glaciated slopes.

Mt. Vreeland was probably the least technical, being a walk except for a steep section of ice/snow climbing up to the Parsnip Glacier. Its warm summit afforded magnificent views down an impressive 1200m drop to the Imperial Ck. valley to the north. This valley is threatened with logging and is the reason Monkman Park consists of 2 pieces - the area around Kinuseo falls and the Monkman Ck. drainage. The area between these pieces is required for logging road access to Imperial Ck. Pushing this temporarily to the back of my mind, scanning the Monkman and Parsnip glaciers which clothed the south of Mt. Vreeland, I could only think of Frederick Vreeland trudging across these glaciers 80

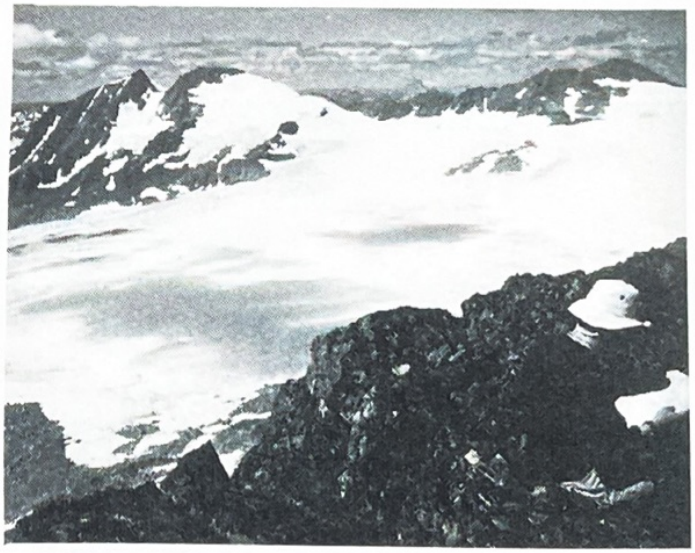
Monkman camp with Pk 2100 m behind. Photo - M. Feller.

Monkman camp. Photo - M. Feller.

Flowers near Monkman camp, with Pk 2200 m behind. Photo - M. Feller.

North side of Pk. 2250 m seen from the Monkman Glacier. Photo - M. Feller.

Mt. Barton with the E ridge on the left at the snow/rock interface. Photo - M. Feller.



From the summit of Mt. Barton looking towards Mt. Vreeland (right) and Pks 2450 and 2450 (left) Photo - M. Feller.

Evelyn and others ascending the E ridge of Mt. Barton, with Pk 2250 m behind. Photo - M. Feller

From the summit of Mt. Vreeland looking NE to the peaks west of Monkman Lake. Photo - M. Feller.

Descending from the summit of Mt. Vreeland. Photo - M. Feller.

View from the ridge crest of "The Playground". Photo - M. Feller.

years earlier. Was it really 80 years before people trod their snow again?

Another noteworthy climb was the East Ridge, broad but somewhat complex, of Pk. 2250m, lying 2 km ENE of Mt. Barton. This peak was climbed by most of the party in several groups on different days, as word got around that it provided the best views of Monkman Lake and the Monkman Ck. valley.

The area is definitely one of the many gems of the northern Rockies, offering a wide variety of experiences, scenery, wildlife, and challenges. The generally sunny weather assisted to make this a highly successful camp.

Party: Marsha Ablowitz, Monica Bittel, Jack Bryceland, Doug Carter, Marrilyn Cram, Norbert Eckert, Randy Enomoto, Jenny Faulkner, Evelyn and Michael Feller, Ron Gerhards, Leslie Kemp, Chris Lüneburg, Dan Mcauliffe, Theo Mosterman, Shirley Rempel, John Sapac, Ellen Woodd.

Ascents:

Mt. Barton, E Ridge - Bryceland, Mosterman, Cram, Mcauliffe, Gerhards, Lüneburg, Rempel, Carter, Bittel, E. and M. Feller,

NE Face - Woodd, Kemp

Mt. Vreeland, E Ridge - Enomoto, Eckert

S Face/SE Ridge - 1) Rempel, Carter, Bittel, Faulkner, Sapac, E. and M. Feller

2) Mosterman, Bryceland, Cram, Lüneburg, Mcauliffe, Gerhards, Woodd, Kemp.

Pk 2450 (2km SW of Vreeland), **SE Ridge** - Carter, Rempel, Enomoto, Eckert

Pk. 2450 (500m SSW of previous pk.), **NW Ridge** - Carter, Rempel, Enomoto, Eckert

Pk 2250 (2km ENE of Barton), **E Ridge** -

1) Enomoto, Eckert,
2) Bittel, E. and M. Feller,
3) Lüneburg, Kemp, Gerhards, Ablowitz

S Ridge - Mosterman, Mcauliffe

Pk 2100 (1.5 km SW of camp), **NE Face/E Ridge** (descent via N Face) -

1) Bittel, Carter, Rempel, M. Feller
2) Sapac, Faulkner, Ablowitz

N Face/NW Ridge - Mosterman, Mcauliffe

Pk 2200 (3km S of camp), **N Ridge** (descent via NE Face) - Bryceland, Mosterman, Enomoto, Eckert, Woodd, Mcauliffe, Gerhards

Pk 1900 "(The Playground)"

1) Sapac, Faulkner,
2) Bryceland, Mosterman, Mcauliffe, Cram
3) Carter, Rempel

Pks 1900 and **1950** (4 pks on "The Playground") - Woodd, Bittel, E. and M. Feller

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Postscript: - **The essence of the Northern Rockies**

Kinuseo Falls in Monkman Park occurs on the Murray River and not on Kinuseo Ck., which is a tributary of the Murray, joining it approximately 10 km downstream of the falls. Kinuseo is the Cree Indian word for "fish".

Kinuseo Ck. arises in the foothills east of Monkman Park. Near its origin is a lake - Stony Lake - on the old road route from the Peace River country to Monkman Pass. This area inspired Pearl Cook who, a number of years ago, wrote the poem "Autumn in the Foothills" and dedicated it to Stony Lake.

"It is autumn in the foothills,
Nature paints a vision grand.
'Tis a scene of wondrous beauty
In that far off northern land.

If you could but see the picture,
Only then you'd understand,
What enchantment lies before me
Painted by a master's hand.

There's a lake that gently nestles,
Folded in by mountains grand,
And as evening spreads her curtains
It is coloured by God's hand.

From the setting sun the glory
Of whose shades there's none surpassed,
Softly like a cloak of crimson
O'er the waters they are cast.

From a distance hear the honking
Of a flock of geese that light
On the surface of the water
Resting on their southern flight.

Hark, there comes a mournful wailing,
'Tis the ever dreary Loon
Sending up his cry of freedom
To the pale September moon.

And as ever from the shadows
Of some dark and stately pine,
Comes the echo of the hoot owl
From his lonely tree top shrine.

Now the dusk has cast her mantle,
Evening takes her solemn stand.
So another day has vanished
In our glorious northern land."

MT. SMYTHE, KWADACHA PARK (August 1995) - by Michael Feller

"After the forests, loneliness is the supreme motif of Western Canada. Unlike the valleys of the Alps and Himalayas, it is uninhabited except for the few trading posts and Indian settlements. Its atmosphere cares nothing for the past, for there was no past save for a few roaming Indians, no ancient civilisation ever populated its valleys. Its swift-slipping rivers, its dark forests, its shining snows are immobile, absolute beneath the pure deep blue of the northern sky. It is silent, very silent, this country. It does not welcome the intruder, nor does it

reject him; it is Nature, raw, untamed, and untrodden. Between the walls of pines and the fragrance of their resin in the breath of the cold green river, the traveller moves as though in a dream, a dream without beginning and without end. And that is the charm of the north-land. It is absolute, and because it is significant of naught but God and the works of God, it strips a man of all his complexities and pretensions, likening him in his manner of life and thought to its own peace and simplicity."

Thus described Frank Smythe (1950) the northern Rockies. Smythe was describing the Rockies of an earlier era. He climbed there just after the second world war, visiting the northern Rockies in 1947. Almost 50 years later his words are still true. Yes, guide outfitters have built an occasional cabin around the edges of the mountains, and oil and gas exploration cuts have laid waste to the forests to the east, but the mountain core today is exactly as Smythe described it. In fact, there appears to be no record of mountaineering in Smythe's part of the northern Rockies since Smythe's visit. Mt. Smythe itself, named after Frank Smythe, appeared to be unclimbed.

Smythe's party, a mixed British-Canadian-American one, composed of Noel Odell (Honorary B.C.M.C. member until his recent death). Rex Gibson, Henry Hall, David Wessel, John Ross, Nona, and himself, flew in by float plane to Haworth Lake, on the west side of the heavily glaciated Lloyd George mountains in the Muskwa Ranges. They experienced much rain and lightning and countless bugs. In one month they managed to climb the two highest peaks - Mts. Lloyd George and Glendower - as well as Cloudmaker Mtn., south of Haworth Lake, and some minor peaks on the SE edge of the Lloyd George Icefield - a gently sloping icefield over 25 km^2 in area, bounded by mountains of 2800-3000 m to the north, and lesser, gentler peaks of 2500-2600 m to the south. The icefield flows through a gap in the mountains on its eastern edge down to the Lloyd George glacier - an approx. 9 km long north-south glacier, dropping on both ends. On the east side of this glacier is the 2770 m Mt. Smythe and adjacent peaks. The eastern sides of these mountains drop precipitously over 1300 m to the Tuchodi river valley.

Smythe's party confined themselves to the Lloyd George Icefield peaks leaving the Lloyd George Glacier peaks alone. It was these latter peaks which were the prime objective of our B.C.M.C. party, although we positioned ourselves to be able to attempt the Icefield peaks as well.

Prior to Smythe's expedition there had really been no other mountain climbing in the area. Indians, trappers, and prospectors had told stories of high mountains and an occasional geological surveyor had seen them from afar, but it was not until 1914 that the first information of geographical value was obtained from a surveying party that travelled up the Finlay River and climbed Prairie Mtn. near the later-established Hudson Bay post of Fort Ware. From Prairie Mtn. they obtained data to produce a topographic sketch map of the mountains around Haworth Lake.

In 1916, Paul Haworth, an American explorer, paddled and portaged, with one companion, over 1600 km from the nearest railway (near Prince George) up the Finlay to near its confluence with the Fox and Kwadacha rivers, where Fort Ware now stands. They continued on up the Kwadacha, but lack of food and fatigue prevented them from travelling very far. They climbed to some open slopes above the river to glimpse the glaciated mountains they sought. A mountain in this vicinity is now called Mt. Haworth.

Back in New York, Haworth wrote a book "To the headwaters of the Peace River", naming the mountains the Lloyd George Range after the then prime minister of England. In 1918 he returned with 3 others and a canoe with an outboard. The outboard broke down about 240 km below Fort Ware, however, so the group continued the way of previous parties - paddling. They paddled up the Kwadacha, but some 50 km upstream from Fort Ware, the Kwadacha turned away from the mountains, coming from the S.E. Had they continued on, they would have been able to head north again up the North Kwadacha right to the edge of the glaciated mountains. However, Haworth and one of his companions - Dr. Alban Chesterfield - set off on foot climbing up over a ridge, descending into a valley containing a large lake - now called Chesterfield Lake, and Chesterfield Ck. valley. Their goal was beyond this valley, however, so they crossed another ridge, now containing Mt. Chesterfield and Cloudmaker Mountain, sighting a beautiful lake to the north, to

which they descended. Chesterfield was by then suffering from a "mental blackout" so Haworth continued on exploring the lake's edges heading towards the promised land of glaciated peaks at its northeastern end. Major cliffs put an end to his exploration so they retreated from what is now called Haworth Lake.

It was not until 1934 that another party of explorers visited the area. This was the Bedaux or Citröen expedition, which travelled from the east, up the Muskwa, crossing over what is now known as Bedaux Pass into the North Kwadacha, then into the Chesterfield then down the Warneford and Kwadacha rivers back to Fort Ware. Frank Smythe's party was the next to visit.

Kwadacha wilderness provincial park, centered on the Haworth Lake - Lloyd George mountains, was established in 1973, while an area to the southeast, centred on the Warneford and Kwadacha rivers, was designated as Kwadacha Recreation Area in 1987. Kwadacha is a Sekani Indian word for "white water".

Into this area, relatively devoid of mountaineering history, a B.C.M.C. party helicoptered in August, 1995. Frank Smythe, who also used aircraft access, eloquently depicted the dilemma of using aircraft to access mountains -

"In these days of air travel, when the explorer or mountaineer, his equipment and food, can be dumped into an unexplored country, our methods, if efficient in achieving their objective, seem petty, presumptuous, even impertinent as compared with those of the hardy pioneers who by canoe and bushwacking carved out the wealth and the glory that is western Canada. Their scope was more limited; they did not always attain their objectives, but the sense of adventure and of achievement must have been strong within them, for it is Nature's immutable law that the harder the struggle the greater is the prize" (Smythe, 1950)

For some this dilemma is easily resolved, one way or the other. For others, such as myself, it presents a continual subconscious struggle between two inner selves. Putting aside these thoughts, we were entranced by the country we were flying over - the Serenghetti of B.C., the single largest remaining wilderness area in the province. What is the justification for protecting only 12% of an intact wilderness area? Which 12% of the moose, elk, grizzlies, sheep, and numerous other animals below us would be protected?

In mixed sun, cloud, and rain/snow, we landed near the pass between Mounts Smythe and Walsh, between the very heads of the Tuchodi and Muskwa rivers. A bench below the pass became home for the next week of wind, rain, snow, and cloud. Our day of arrival was to have the best weather for the week. We were barely able to fly out, and couldn't be returned to a car left at Summit Lake, due to the snowed up whiteout conditions that prevailed at the time.

On our first day, eager to explore, despite the cloudy weather, we wandered through meadows and scree up to the pass, then down the other side, traversing through lush meadows and krummholz, being forced westward until we found a route through a major cliff band on the S ridge of Mt. Smythe. We scrambled up a 2240 m minor peak 2 km SW of Mt. Smythe, directly above the Lloyd George Glacier. The Lloyd George Icefields and their mountains remained clothed in cloud, hidden to us. In fact, not once during the entire week did we see their summits as cloud prevailed. Between the icefield and the glacier, the impressive cliffs of the Bardsey Ridge reared 400 m above the glacier. To the north and west Mt. Smythe looked impregnable, at least what could be seen below the clouds. A glacier rose up its south face between the south and southeast ridges, with a steep ice wall at its head. The south ridge consisted of numerous towering gendarmes above vertical cliffs, while the lower section of the southeast ridge consisted of impressive steep cliffs. The map suggested a route on the glacier to the north might be feasible, but traversing the west face to reach this glacier did not look trivial. As with other areas in the Rockies, cliffs appeared where the map indicated none. The upper slopes of Smythe remained hidden by cloud.

The next day, inspired by a glimpse of the very snowy summit pyramid of Smythe from our camp the evening before, we retraced our steps to the bottom of the glacier on Smythe's south face. Cramponing up, we ascended the white ice, roping up before we had to negotiate a maze of crevasses. We had decided to try the glacier as it looked more feasible than the rock, large lumps of which littered the glacier and adjacent slopes. We reached the cloud level and slowed, waiting for a route to

Mt. Smythe camp with Mt. Walsh behind. Photo - M. Feller.

The S side of Mt. Smythe. Photo - M. Feller.

Ascending the flat section of the glacier on the S side of Mt. Smythe. Photo - M. Feller.

The Lloyd George Icefield dropping to the Lloyd George Glacier, with Bardsey Ridge to left. View from the SE ridge of Mt. Smythe. Photo - M. Feller.

Summit of Mt. Smythe, taken from the SE ridge. Photo - M. Feller.

become apparent. Through a break in the clouds, the steep icy upper slopes of the glacier looked particularly uninviting. The cliffs of the south ridge looked less inviting, but a chink in Smythe's armour had now appeared - a series of ledges and gullies leading from the glacier up to the southeast ridge. With luck we could hit the ridge above the steep cliffs.

This we did. The first 100m or so of the ridge was an airy class 3 scramble, but then the ridge widened and became less steep. Snow appeared and we trudged upward, increasingly confident of reaching the summit which we had still not seen. The clouds briefly parted, revealing an easy snow climb to the top. On top we lingered, hoping to glimpse something through the clouds. Our wait was not totally in vain as we did get some views of the

cloudy icefield area, and even a clear view down to our camp, over 1100 m below.

The next few days brought cloud, rain, and fierce tent-ripping winds, despite our relatively sheltered location. Much reading was accomplished. One day a solitary caribou walked past our camp. On another we decided to explore the valley beneath our camp. An extremely well maintained animal trail lead us down to a small lake. Resting in some warm pleasant vegetation, sheltered from the wind near the lake, we spotted the ubiquitous moose, and found that the lake had no surface outlet, contrary to the map. The stream appeared some distance lower. We wandered 200m up the meadowy N ridge of Walsh before traversing back to the valley then up to camp.

Following a night of rain and low snow, our helicopter miraculously arrived and we flew off leaving the mountain and meadow vastness to its loneliness and its rightful owners.

Party: Erich Hinze, Peter de Visser, Dave Hughes, Jack Bryceland, Chris Lüneburg, Evelyn and Michael Feller

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MOUNTAIN SCIENCE

OVERLORD AND WEDGEMOUNT GLACIERS - A CENTURY OF SHRINKAGE

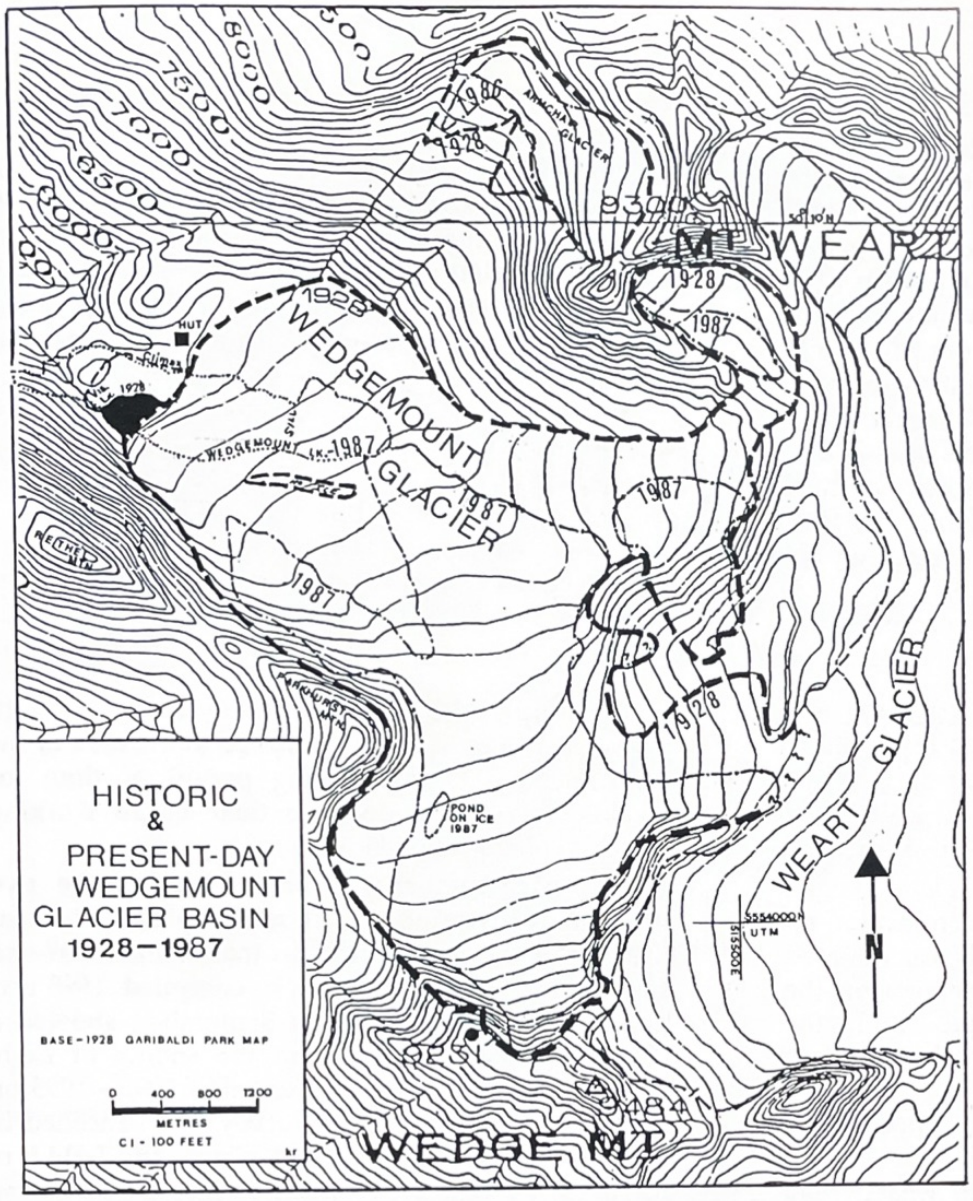
- by Karl Ricker and William Tupper

Ten and twenty years of measurements on the Overlord and Wedgemount glaciers, respectively, have gone by. Actually, work on the latter began with an inclement trip in 1973 which netted no results, other than a future plan which was initiated in 1975. For the first ten years our reports on the enlargement of Wedgemount Lake and the corresponding recession of its glacier (then without a name) were published annually in the Canadian Alpine Journal (CAJ). The reports first appeared in 1976 and were terminated in 1986 after a new regime took over the publication, with a nasty note in CAJ, 1987 saying that our reports were no longer appreciated. So, taking a hint the Wedgemount work has continued at low profile, while the BC Mountaineer graciously took on the role of publishing our work on Overlord Glacier which began in 1988. Now a century, more or less, of glacier recession has lapsed. For Overlord Glacier it is a bit longer, while for Wedgemount it appears to be a bit less; more on this later.

However, Bill, whose photogrammetric equipment we used to measure the glacier movements, retires from BCIT this year. The Institute has decided to cancel the photogrammetry courses altogether, and so the equipment will be mothballed or sold off. Thus, this is our final year of elaborate work on Wedgemount, and the backlog of data, plus any new spot measurements, will be wound up with a final analysis in a 25th anniversary report to be published at the turn of the century. That is not a long period of time for glaciologists. Some dedicate their entire working career to one or two glaciers.

Recent Measurements - Brief visits to the two glaciers are an annual ritual, taking place at or near the end of the melt season so that a final year-end status on their behaviour can be compiled. 1995 was no exception; the surveys in September, showed a decidedly negative status on the snouts of each: (-)33.8 m for the two-year interval of 1993 - 1995 on Overlord Glacier (the 1994 survey was cancelled in order to help search for a lost hiker), and (-)14.5 m for the 1994 year on Wedgemount. Bill also found some time to analyze the 1994 photos and so there is a determination of (-)39.0 m retreat of Wedgemount for the 1990-1994 period as well (1992 and 1993 photos are not yet analyzed). Spuriously, we had suggested 55-60 m of retreat for 1990 - 1993 (BC Mountaineer 1994) based on the length of the exposed outwash apron between glacier edge and lake shore.

When surveying the snout in 1994, however, we failed to find our lake edge cairns left in 1993. Either the cairns were being maliciously destroyed, or the rather active outwash apron between the receding glacier edge and the lake shore was engulfing the markers. In 1994 a fool-proof marking system was re-established and it turned out that the outwash had advanced into the lake at a rate of 8.9 m for the 1994-1995 year. So, we were measuring not only



snout retreat but also delta advance into the lake. The rather large "silled-off" bay at the east end of the lake, as shown on the map, could be filled in 50 to 100 years hence, if the 1994/1995 rate of delta advance is maintained. The maximum length of Wedgemount Lake was realized by 1991 when ice receded onto its shoreline. It is now shortening in concert with the receding glacier at its head. Because the meltwater discharge is copious, and the gradient of the glacier stream near the glacier snout is noticeable, this vigorous sediment transport will persist until a barrier to trap movement is established. Either a bedrock sill across the valley floor will have to be exposed by the dwindling glacier, or a marked ice advance back into the lake will be required.

Historical Climax Advance - From their climax positions, the trend of glacier shrinkage over the ensuing years of this century is shown by the histograms of average annual retreat and the graphs of cumulative retreat. The unknowns in this are: (1) the lack of year-to-year measurements in the earlier years, which necessitate the averaging of values between a few known dated glacier positions, and (2) the exact year when each glacier attained a climax growth position. Climatically, Mathews' (1951) analysis of local weather records and of tree ring widths indicates that most of the 19th century was cool, with warming not appearing until the late 1880s, and so the climax should occur near the end of the 19th century. The time lag response to changing climates varies, with glacier length, elevation of the accumulation zone, slope, etc., being important controls.

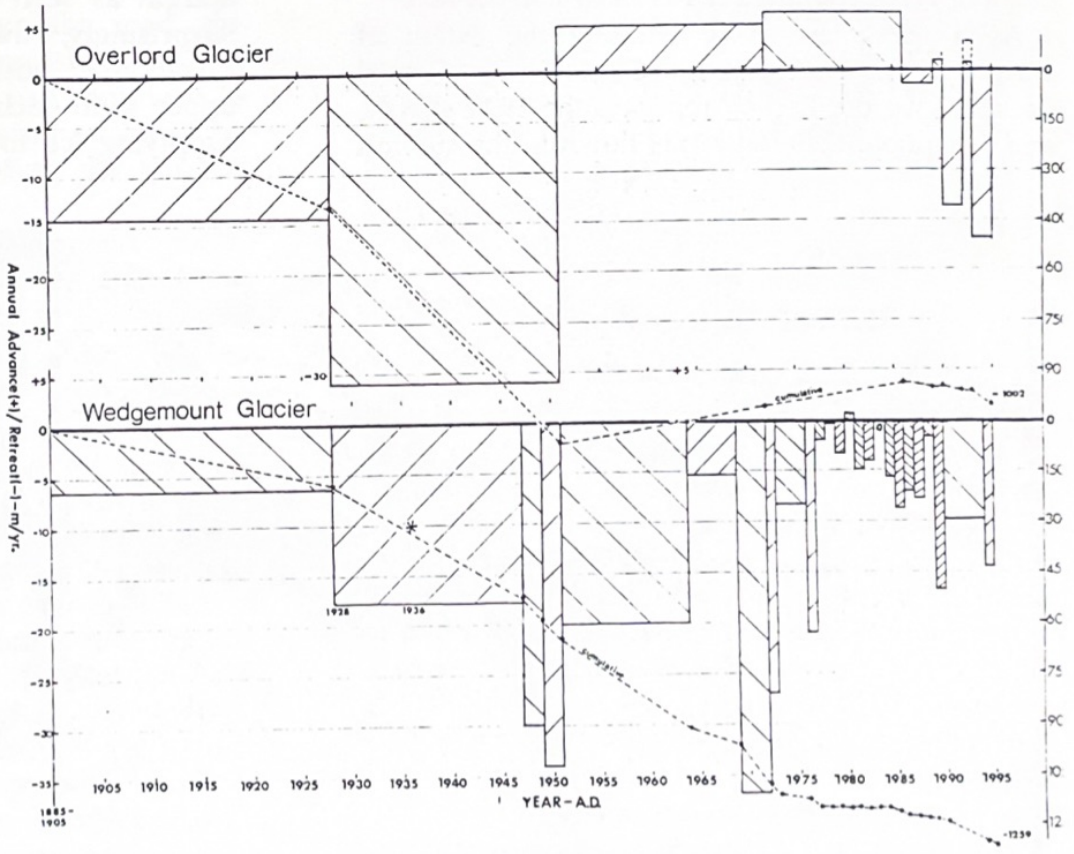
For Wedgemount Glacier, the analysis of tree ring samples taken within and near its outer climax margin points to a maximum position reached in either 1900-1910 or the early 1860s (CAJ, 1977). This date jibes with Mathews' (1951) interpretation of the climax date for nearby Helm Glacier at Garibaldi Lake. However, Helm is very short and has a much lower and smaller accumulation zone, and hence it is a victim to any "flutter" in the weather pattern. A subsequent year of further wood sampling, and measurement of lichen thalli diameters on boulders of the climax moraine of Wedgemount, has lead to the conclusion that the glacier had either reached or maintained a climax position during 1901-1906 (CAJ, 1978). Nearby Armchair Glacier, however, appears to have reached its outer moraine position (see map) a few years earlier.

On Overlord Glacier, the outermost tree-covered moraine ("A") has not yet been sampled because it is not present as a turn of the century crest below the

Russet Lake cabin area. Instead, the obvious high and multi-crested barren moraine ("B") was inspected for lichen thalli which measured to a time interval of 1875-1884 on its outer (cabin side) crest and 1911-1923 on the inner crest facing the glacier. The map of the glacier is shown in the BC Mountaineer (1988) and the measurements are in the 1990 volume. The former date on the outer crest jibes with an alternate date for the Helm Glacier climax, as shown by Mathews' (1951) data, and he also shows a probable 1900 climax date for samples taken at Lava Glacier (south outlet lobe of the Garibaldi Névé).

Elsewhere, but nearby, we have also recorded climax advance dates in the early 1900s and the 1890s. So, for comparative calculation purposes, the histogram and graph of glacier oscillations have used 1900 as the climax date benchmark from which the average annual retreat is calculated to 1928. For Overlord Glacier this may yield a rate that is too high (14.7m) and if the 1875 - 1884 reference date is used the rate drops to about 8.0m/year (dashed line on the histogram).

Historical Retreat - The 1928 date is a very important benchmark to nearly all glacier studies in Garibaldi Park and the adjacent Cheakamus - Green River Valley corridor, as shown on the graph, photo and map accompanying this article. The Garibaldi Park survey of 1927/1928, which followed the El Niño years of 1925/26, relied on terrestrial photo-theodolite methodology to record the topography, and the position and elevation of glacier margins and surfaces, which had just experienced the probable first significant "melt-down" since the turn of the century. The surveyor-in-charge, A.J. Campbell, hiked to key summits and ridge crests to record the vistas with stereo images recorded on glass photographic plates. Unfortunately Campbell did not deploy a set up on Mt. Weart (see map), or the ridge connecting it to Wedge Mountain. While he had a good stereo view of most of Wedgemount Glacier, the actual snout at the time lay hidden behind Parkhurst Mtn., and the view of a small portion of the lake (beyond the glacier snout) was visible on only the plate exposed at station 9231 (on the west ridge crest of Wedge Mtn.). Comparing the plates taken there to that from the summit station (9484), he could rationalize the snout position but the full extent of the lake to the west was hidden from his views. Thus, contours of Wedgemount Creek valley were drawn from very distant camera station postitions to the west (e.g. Rainbow Mtn.), and so the east/west axis on his map is somewhat telescoped to the west of Rethel Mtn. as shown by the overlay of the correct extent of Wedgemount Lake onto his map. This "short sightedness" was not recognized until 1947, which marked the first photographic survey of western Garibaldi Park (the east side was flown in 1931).



Annual advance or retreat of the Overlord and Wedgemount glaciers as a function of time

For Overlord Glacier, Campbell was not encumbered with such difficulties. The snout was clearly visible from his numerous stations on the Tremor Mountain massif, Mt. Pattison, and possibly from Mt. Overlord and Fissile Mtn. as well (see article on Tremor Mtn. elsewhere in this journal).

To satisfy our curiosity over the problems with the 1928 survey at Wedgemount, we obtained Campbell's photos from Wedge Mtn. The photos indicate very little recession of Wedgemount Glacier up to 1928, as shown by the climax snout position plotted on the accompanying map. Support for this situation is shown in climatic records; Mathews' (1951) data analysis shows a lower than normal mean annual temperature for the 1903 to 1920 period. So, comparing 1928 to the climax (see photo) the overall glacierized area is the same. However, ablation in the early 1920s had dropped the overall surface elevation of the glacier and a nunatak had emerged between Parkhurst Mtn. and the eventual basin of Wedgemount Lake as shown on the map.

As a quick means of gauging the extent of shrinkage of Wedgemount Glacier over several decades, we decided to replicate the 1928 survey, and our photo-theodolite was flown to the summit ridge of Wedge Mtn. in August, 1986. The tremendous reduction of ice in the basin over the ensuing 58 years was immediately striking when comparing the old and new photos. Our photograph, reproduced here, indicates the following changes: from climax (as shown by moraines and trimlines) to the 1928 ice limits shown on Campbell's plate, to the present (1986) greatly reduced scene

From 1928 to 1947 (1st aerial photos) the amount of ice lost was tremendous, with most of the forefield in front of the hut being exposed. But when did the meltdown actually begin in this 19 year interval? Mathews (1951) quotes data taken at Garibaldi Lake in the early 1930s which suggest below normal temperatures. Fortuitously, the late Mr. Pip Brock provided us with a summit panorama taken from Wedge Mtn. on May 1, 1936. Despite the snow-covered landscape, and lack of a stereo view, it provides a clear image of the glacier margin as seen by Campbell eight years earlier. Surprisingly, there is little change in surface elevation or position of the ice margin. Even the upper south-facing cirque on Mt. Weart was still supplying ice to Wedgemount Glacier. Thus, the

Wedgemount Lake and Glacier, mid August, 1986, from the summit of Wedge Mtn. Photo - W. Tupper.

period 1936 to 1947 must account for the gross wastage of ice and the opening up of the main 65 metre deep basin of Wedgemount Lake itself. Thus, the 17.9 m average rate of ice retreat for 1928-1947 shown on the histogram is a polite understatement. More likely, it was a negligible rate of retreat for 1928-1936 (hence the asterix) and a value of about 30 m (or more) per year for 1936-1947. The key years generating the large ice losses were probably 1940-1942. A very significant El Niño event took place in the North Pacific at this time which warmed up oceanic waters noticeably over this time interval, as it had done beforehand in 1925-1926. Mathews' (1951) analysis of the weather records for the Pemberton Meadows and New Westminster stations confirms an atmospheric analogue of the event (roughly 2 to 3°C warmer at the former, and 1° warmer at the latter), and he also noted that the maximum spring snowpack at Grouse Mountain was half of normal in the years preceding and post-dating the event. Lack of snowpack means that, seven or more years hence down the road, the glacier snout is being undernourished by ice flowing to it. That is, the El Niño had continued to wreak havoc long after it disappeared as shown by the histograms up to and including the time of aerial photography of 1951.

Sometime after 1951, the glacier regimen began to change; the winter of 1949-1950 was one of the coldest and snowiest on record throughout the province; the 1963-1964, and 1971-1972 winters were no slouches as well. While Overlord Glacier responded to the challenge with significant advances covering at least 20 years (as elsewhere in the world), Wedgemount answered the change with only a jerky slow-down in retreat. Why? By 1947 much of lower Wedgemount Glacier was a floating (?) ice shelf. The underlying lake was sufficiently large to have a broad thermal influence on its stability. Normal summer solar ablation of the ice surface was being supplemented by aquatic thermal "erosion". Not until the late 1970s was ice retreat sufficient to reduce this underwater influence. That is, little lake basin remained underneath the ice, and hence a token series of ice standstills at the glacier snout took place.

Another major factor in the lack of growth response is the orientation of one arm of the glacier itself. The northeast trunk feeder to the glacier from Mt. Weart faces directly into the sun. Between 1936 and 1951, its upper cirque glacier thinned to the point of being separated from this arm of the tributary glacier entirely. In the 1970s the lower part of the arm had only a thin connection to the main glacier, and in 1987 it was severed altogether (see map). Hence, the north side of the snout lost an important source of ice up valley, and it began to downwaste and retreat at a greater rate relative to the south side, which is fed from the high north-facing basin under Wedge Mountain.

In the 1980s the fortunes of both glaciers began to change; the winter of 1976/77 was cold but very dry throughout the Pacific Northwest. (Whistler had shut down its skiing for several weeks and ice skating on Alta Lake was the weekend past-time.) In 1983 another very severe El Niño returned once again. The new accelerating losses are shown on the histogram.

Epilogue: The shrinkage of Wedgemount Glacier is shown on the map; it matches the 1987 outline (prepared by R. J. Page) to that of 1928. Since 1987 another 80 m of retreat has taken place, with about 50 m being beyond the margin of the lakeshore. A century of glacier ablation has yielded 1259 m of retreat at the average rate of 12.6 m/year. That is, roughly 35% of its linear extent has disappeared. Losses are again accelerating, but as the snout recedes upslope into an ever-thickening ice mass, and towards a critical elevation between 2000 and 2100 m, the shrinkage will likely abate. For Overlord Glacier, retreat reached 1112 m in 1951 as shown by the aerial photography. Lack of records between 1951 and 1964 cannot define the full extent of retreat, but the average annual rate of recession was at least 16.6 m (1884-1951). While this may appear to be surprisingly high, the geometry of the glacier is that of a narrow outlet tongue attached to an extensive high accumulation zone. Variations in annual accumulation are amplified through a confined outlet. Its present renewed recession has yet to reach its previous position of withdrawal at mid-century as shown on the graph. Another 110 m of retreat is required to match its 1951 position which, at the present rate, will be attained in 6 to 7 years. In 2000 we will try to rest our case with a further and final report, sparing readers of the 1998 journal of another update status report on our glaciers. It would be a privilege to quote some

famous lines of the poet, Samuel Coleridge, at that time, but a renewed advance could be another 100 years away.

Acknowledgements: Our surveys over the years have witnessed many helpers in the field and in the laboratory. Contributions and assistance by the following should not go unnoticed: John Fairley, Dr. Chris Frankich, Kevin Fairley, Robbie Tupper, R. Don Lyon, Dr. K. Hunt, Dr. G. Dellavalle, Dr. S. Paterson, Dr. G. Clarke, Dr. E. Waddington, Bruce McKnight, Albert Parke, Ray Bremner, Heather Lyon, Dave Lyon, Peter Lyon, Jörli Ricker, Dr. N. Ricker, Skoki Ricker, Ken Bracewell, R.J. Page, survey and post-graduate geophysics students of BCIT and UBC, respectively, and various suppliers of aerial photography and the helicopter assistance.

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TREADING ON THE BRUCE TRAIL'S TREES - by Eric Dagenais

For over 30 years now, hikers on Ontario's Bruce Trail, nature lovers every last one of them, have been unknowingly visiting, and unwittingly putting the boot to, a very special and unusual forest.

Every year, over 40,000 pairs of high-tech hiking shoes, steel shanked boots and plain old runners trample parts, and sometimes the entire length, of the 730 km long trail.

It is along sections of this trail that researchers from nearby Guelph University, avid hikers every last one of them, have been making startling discoveries, and are now lamenting the "nonconsumptive anthropogenic disturbances" caused by so many hikers and nature lovers, to "one of the oldest, most extensive, and most intact old growth ecosystems known to exist in eastern North America".

The Bruce Trail follows the contours of the Niagara Escarpment, starting 10 km downstream from the falls of the same name and ending at the tip of the Bruce Peninsula which juts out into Lake Huron and forms the western shore of Georgian Bay.

About 140 km of the escarpment appears as white limestone cliffs rising up to 60m above the surrounding landscape. From these cliff-edges, where the deciduous canopy of the plateaux end, hikers enjoy panoramic views of pastoral farmlands, hills and vales, and at the northernmost end, of the crystal blue waters of Georgian Bay.

Along these cliffs, framing the vistas and providing support for more daring onlookers, are highly stunted and grossly deformed eastern white cedars.

These slow growing, diminutive *Thuja occidentalis* trees, harassed by summer squalls and violent snowstorms, their stems bent over by the weight of each winter's ice, have been the source of great excitement within the Department of Botany at Guelph University.

Dr. Douglas Larson, actually a lichenologist by training, has been hiking the trail since 1966, when his parents first took him along on a nature walk.

As is often the case, he, in his own words, "just sort of stumbled upon the discovery" that these small, twisted trees were in fact very ancient and incredibly slow growing. So ancient that many predate the arrival of any Europeans to North America, even Irish Monks and Vikings.

These gnarled dwarves, it has been discovered, can live to be as much as 1,650 years old. Although as ancient as many of the towering stands of cedar and sitka spruce on the west coast, the cliff-side cedars grow about 1,000 times slower. After one year a seedling is often no taller than 1 cm. One nine year old tree has been found that was less than 3 cm high with a stem less than 2 mm wide. A 430 year old cedar stands less than 1m tall with a stem that is not yet 2.5 cm thick.

Many core samples revealed growth, the space between annual rings, that was only two cells wide. So small that they can only be detected through a microscope. These are in fact, some of the slowest growing plants on the planet.

As is usual in our times, all is not well in the forest. The members of the research group are concerned by what they see along the trail, at the top of the cliffs, where the views are so breathtaking, where hard vibram sole meets minuscule cedar sapling and where loamy topsoil is compacted and then eroded away.

There are almost no seedlings to be found in these areas. In fact, trees less than 60 years old are very rare. The average age of the cliff top trees is

increasing. The number of seeds falling below, nestling into cracks and crags of the limestone face is diminishing. With less recruitment of new cedars, the forest is under siege.

There are sections of the trail that have been abandoned over 10 years ago but these areas are still not showing any regeneration of cedars. The cliff researchers find that - "*these cliff-edge forests have been more or less permanently transformed into structures that do not resemble the original environment.*"

Fortunately Dr. Larson can express some optimism. "*Everyone who enjoys the outdoors will treat it better if they know more about it.*"

Now sections of the trail are being rerouted, parents are showing their children tiny little trees that are older than themselves. And the children in turn, are being very, very careful where they tread.

Cover, 87 - 99