A HISTORY OF THE BRITISH COLUMBIA PROVINCIAL FOREST INVENTORY PROGRAM*

PART ONE, 1912-1940

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^{*}This version contains some preliminary changes for the final edit by Jacy Eberlein, who digitized and created this file in July 2014 using a printed copy lent by Bob Breadon. Formatting, design and additional editing were carried out by John Parminter in 2015. A revised version, with updates to the appendix, was issued in 2016.

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My thanks to Dave Gilbert and Raoul Wiart of the Resources Inventory Branch for their help in getting this history project off the ground. I am also indebted to Bob Breadon, my writing partner, for his positive attitude and encouragement towards completing this report.

Most of the information and photographs in this report were provided by the pioneers who worked in forest surveys before 1940. I hope that I have adequately expressed my gratitude to them by writing their stories in the chapter on biographical sketches.

Ralph L. Schmidt Victoria, B.C. 1995



Ian McRae and Ron Webber fording the Blaeberry River.

EDITOR'S NOTES

Photographs are from the collections of Alf Bamford, Braham Griffith, Larry McMullan, Ian McRae, John Parminter, Mickey Pogue, Ronald Stromberg, Cedric Walker and unknown others. Line drawings of plants were done by A.K. Hellum.

Special thanks to Lesley McKnight, retired from the Research Branch of the B.C. Forest Service, for her excellent proofreading skills and suggestions for improvement.

As many people featured in the biographies have passed on since the time of first writing in 1995, there are some mixed present and past tenses in those items. Hopefully this will not distract the reader. The intent was to remain as loyal as possible to the original text and therefore new material is enclosed by parentheses.

John Parminter Victoria, B.C. 2015

TABLE OF CONTENTS

Chapter	Title	Page
-	Introduction	1
1	The pioneers	2
2	Tough times	6
3	Transportation	9
4	Wildlife stories	19
5	Booze	23
6	Twisted tales	26
7	Extraordinary cooks	33
8	Biographical sketches	37
	A. Brookman (Andy) Anderson	37
	Gerry S. Andrews	39
	Alf H. Bamford	41
	Percy M. Barr	43
	C. Eric Bennett	44
	Harold N. Cliff	47
	George L. Cornwall	49
	James D. Curtis	50
	Allen H. Dixon	53
	Ross R. Douglas	55
	J.G. Falconer	56
	Eric H. Garman	58
	Wally Hughes	59
	Chess P. Lyons	61
	Don MacLaurin	63
	D.L. (Larry) McMullan	64
	lan Mahood	66
	George Minns	68
	Frederick D. Mulholland	70
	G.W. (Dick) Nixon	73
	W. Cyril Phillips	75
	John W. Pickford	76
	H.M. (Mickey) Pogue	78
	Cecil John (Jack) Rhodes	81
	R.C.L. (Bob) Shaw	83
	Bill Sloan	84
	R.H. (Dick) Spilsbury	86
	John S. Stokes	87
	Lorne F. Swannell	89
	R. Cedric Telford	92
	D. Michael (Micky) Trew	93
	Cedric Walker	94
	ADDENDIV. cum av la actiona, reporte	07
	APPENDIX: survey locations, reports	97
	and maps	

INTRODUCTION

In 1991, while gathering material for articles on the early history of the Research Branch of the B.C. Forest Service, I began to realize that many old-timers of the 1920s and 1930s were still active and alert. I also discovered that several had worked in both the Research and Forest Surveys divisions. A little more digging indicated that there were still around 30 survivors who had worked in Forest Surveys during the pre-war period.

I felt that it would be worthwhile for someone to interview these old-timers, and preserve a record of their experiences in the B.C. Forest Service while the opportunity still existed. I discussed the matter with Dave Gilbert, Director of the current Resources Inventory Branch, and he concurred. He also felt that any history project of this nature should cover events right up to the present time.

The next step was to find someone who was interested in tackling the project. I contacted several retired members of the inventory program but could not find a willing candidate for the job. As a last resort I decided to tackle the project, although my only forest surveys experience was two summers (1947 & 1948) when I worked under George Silburn on the west coast of Vancouver Island. I decided to confine my efforts to the early days (1912-1940) as I was already involved in researching the forest history of that period.

I then commenced to seek a volunteer to write the next section of the project. Fortunately I obtained a favourable response when I contacted Bob Breadon. Bob and I had worked together on the Kyuquot Forest survey in 1947. At that time he was the Timber Cruiser and I was his Compassman. After graduation Bob worked in Forest Surveys during the 1950s and he was willing to write the history of the Forest Surveys and Inventory Division for the period 1940-1960.

Each section displays its own individuality in terms of content, organization and style. For this reason we decided to produce them as distinct parts of the publication.

My section is broken down into three parts. The first is a brief account of early developmental stages of the Forest Surveys Division. It identifies some of the pioneers and their impacts on the way that work was conducted. The second part contains six chapters, which contain vignettes – brief glimpses of yesteryear – and the people who took part. Some are humorous, others unpleasant, but all are human interest tales which reflect past times.

The final chapter contains biographical sketches of old staffers who were interviewed, plus a few exceptional individuals who are no longer with us.

CHAPTER 1: THE PIONEERS

H.R. MacMillan was the first Chief Forester in the B.C. Forest Branch, serving in that capacity from 1912 to 1915. Prior to his term as Chief Forester he had worked as a Timber Cruiser in many B.C. coastal forests during the summer of 1907, under Party Chief Roland Craig, an Ottawa forester. This work was Timber Licence staking, ventured for private interests.

Upon taking on the Chief Forester's job, MacMillan was already very much aware of the need for reliable forest inventory information. This is reflected in the high priority immediately given to forest surveys in 1912. In the B.C. Forest Branch annual report for that year, MacMillan made the following statement:

In every country in which the practice of forestry by the Government has been established successfully, it has been found that a comprehensive knowledge of the quality, condition, and extent of the forest resources in the country concerned is the prime requisite of their efficient administration.

The Forest Branch has already made a good beginning upon the forest surveys needed as a basis for its work. During the past season forest surveys were inaugurated on the Okanagan Lake Watershed, the Nicola Plateau, the North Thompson Watershed, the Salmon River Valley, and the Upper Columbia.

The purpose of these surveys is twofold. The most urgent need for them is to supply information needed as a basis for efficient work in the creation of forest reserves, the construction of permanent improvements, and the distribution of the field force. While satisfying these needs, these forest surveys will yield at the same time detailed information regarding the stand of commercial timber in the different regions, its size and quality, and its availability for successful lumbering operations, which will be of great practical value to lumbermen and other forest-users, as well as in the development of a progressive public timber-sale policy.

Naturally the completion of these forest surveys will take several years. As rapidly as they are completed the results will appear in the published reports of the Forest Branch, illustrated with the necessary maps of the regions. In the case of the more remote forest regions, it will be some time before the necessary work is done as a basis for its publication. But it is hoped well within a year to issue one or more of the forest survey reports of the Forest Branch.

H.K. Robinson, formerly a State Conservator of Forests in India, was hired as Chief of Forest Surveys. Early in 1912 he and R.E. Benedict, Chief of Operations, travelled through much of B.C., looking for experienced Timber Cruisers. They were successful in locating sufficient personnel to launch reconnaissance surveys covering 5.6 million acres in nine areas, mostly in remote localities. In 1913 fieldwork covered a total of 12.3 million acres. One Timber Cruiser reporting to E.G. McDougall completed a reconnaissance of 3.0 million acres. The following year he covered 5.0 million acres in the Lillooet and Cariboo regions.

The value of this early inventory work was soon recognized as evidenced from the following statement in the 1913 annual report:

The importance of the forest as the chief resource and source of support for the population in British Columbia has been borne out by these examinations. In every district it has been found that the greater portion of the acreage covered is most suitable for the production of timber, and that the most available and most important source of wealth was timber. The exploitation of the timber will in most instances hasten the settlement of the agricultural valleys. A most important result of the survey has been to show that in British Columbia we have measured and valued our timber by an altogether different standard from that current elsewhere in Canada. Close acquaintance with the big timber has caused us to place no value on many millions of acres of timber in the interior of the Province. Actual cruise shows that this timber forms a heavier stand per acre than the mixed spruce forests, which now form the main support of the lumbering industry in the other Provinces from the Rocky Mountains to the Atlantic. Transportation will give this timber its true value in the interior of British Columbia, and if protected from fire it will eventually return a magnificent revenue to the Province.

Most of the early surveys were of a reconnaissance nature, and based on few measurements. However some of the surveys seeking to identify specific wood supply potential were based upon a 5% timber cruise sample. The establishment of timber volumes on a reconnaissance survey was largely based on estimates made by an experienced Timber Cruiser, who would periodically check his estimates by measuring the timber on a circular sample plot. In areas covered by a 1.25% strip cruise, the usual procedure was to first survey a baseline. Sample strips would then be run one mile apart at right angles to the baseline.

Establishing the location of forest type lines based only on cruise information was subject to error. Aerial photos had not yet come into general usage during the 1930s. To reduce this error as much as possible, the Timber Cruiser would climb to a vantage point and obtain a panoramic view of the forests below. Forest type lines would then be sketched and consolidated with the timber cruise data.

Climbing to a high elevation viewpoint required some very strenuous exercise. Cedric Walker, who worked on forest survey crews for over 10 years, comments:

I enjoyed the exhilaration of these climbs, especially since the weather had to be favourable to facilitate observations. Even after I became a Party Chief, I still insisted on making these trips. Not only did I enjoy the experience of being in the alpine zone, but ultimately I would be responsible for the accuracy of the forest type boundaries.



Harold McWilliams sketching forest type boundaries from a vantage point, Upper Arrow survey of 1935.

The year 1913 also marked the beginning of cooperation between the B.C. Forest Branch and the Dominion Commission of Conservation. The commission appointed Dr. Harry N. Whitford and Roland D. Craig to assist the province by completing a general survey of the forests in B.C. Three years later the report *Forests of British Columbia* was submitted and then printed in 1918.

By 1915 World War I had a major impact upon the forest survey program, as only three areas were covered that year, and fieldwork ceased entirely for the next four years. The program resumed operations in 1920 when two field parties were active. By 1921 field operations were in full swing. The survey reports of the early 1920s did not provide the names of men on the field crews. And the annual report of the B.C. Forest Branch contained no personnel lists. No records by the Chief of Forest Surveys exist from after World War I to 1925, when F.D. Mulholland took over the job.

Mulholland's predominant interest was in forest management, and he played a strong role in establishing the concept of provincial forest reserves in 1925. This interest was also reflected in major changes in the organization and content of forest survey reports. In fact, under Mulholland's leadership these reports took on the form of working plans. Growth estimates obtained by forest survey crews on temporary sample plots were used

to strengthen existing yield data and enable the calculation of an allowable annual cut for a given forest reserve.

Unfortunately Mulholland's concepts were ahead of the times. In his struggle to advance the cause of forest management, he overlooked the fact that civil servants were not allowed to criticize government policy. He was eased out of the Forest Surveys Division in 1938, one year after producing an outstanding report, *The Forest Resources of British Columbia*. (See chapter 8 for a biographical sketch of F.D. Mulholland)

Activities of the Forest Surveys Division changed dramatically during 1939. The division lost its status and became part of the newly-created Forest Economics Division, which served as a catch-all, also including research, parks and reforestation. The outbreak of World War II in September 1939 also had an impact. Within a short time many staff members joined the Canadian armed forces and could not be replaced. As a consequence, field activities slowed down and then ceased entirely. The motor vessel *B.C. Forester* was pressed into wartime service as a utility vessel serving RCAF stations on the coast.



B.C. Forester in Jervis Inlet.

CHAPTER 2: TOUGH TIMES

Until more recent times forest inventory crews probably spent more time in the field than any other category of employee in the B.C. Forest Service. The rigours and unrelenting discomfort often associated with backpacking, boating or rafting, camping or running strip were most severe in the early days of the B.C. Forest Service before aircraft, insect repellents, radio communication, modern sleeping bags and airphotos came into common usage. Nevertheless, the extreme variation in weather and topography of B.C. guaranteed that there would always be an element of physical discomfort or downright hardship during fieldwork.

A tradition had long been established in the Forest Surveys Division wherein the experienced members of a field party would, by their example, set the standards for novices. These experienced Timber Cruisers would demonstrate that the job always came first, regardless of the vagaries of the weather, hazardous situations or such minor complications as running short of food. This process of educating succeeding generations continued for many decades. Here are a few colourful stories of these tough times, when you just gritted your teeth and carried on.

In 1913 Parker S. Bonney gained introduction to the B.C. Forest Branch as Party Chief responsible for a reconnaissance of the Nass and Skeena headwaters. Ten years later he became District Forester at Prince Rupert. Here are some excerpts from his 1913 report:

A trip of 23 days was next made from the mouth of the Meziadin River to Cabin No. 6 on the Yukon Telegraph Line, a distance of some 90 miles, through trailless country.

Approximately one thousand miles travel, exclusive of railway and steamship journeys, was done during the season, and with the exception of about 100 miles on which pack animals were used, the distance was done by backpacking.

Field work was halted in October when 12 inches of snow fell. Having no snowshoes, the crew set out for Hazelton, 150 miles distant, and reached that community on October 13. This trip was made with heavy packs on our backs over the Yukon Telegraph trail, which at the most favourable season of the year is bad enough, but that late in the fall it becomes little more than a streak of mud from end to end.

The following observations were made along the trail under conditions which obviously did not permit careful work and they are presented with the understanding that they are decidedly general.

In 1914 Charlie Cowan completed a reconnaissance of the Toba, Homathko and Klinaklini valleys. After completing fieldwork in the upper Homathko he and his crew started returning down river. Water levels were nearly at the flood stage due to rapid snowmelt. A tributary in flood had to be crossed. The crew had very little food remaining and could not wait for the river to recede. In desperation they built a raft, which soon broke apart on a log jam – with considerable loss of gear and equipment. They built another raft, binding the logs together with strips of a canvas groundsheet and a packsack. They managed to travel downstream several miles before wrecking this raft. Charlie describes the end of this trip as follows:

We reached the river mouth on the fifth day from the time of setting out on the first raft, and in order to reach the Indian Village, we were forced to resort to raft building again. We got across safely, and landed at the Village, where we had a supper of dried oolichans,* and then set out to cross the Inlet to Southgate River, where a logging camp was in operation. The Inlet, however, proved too rough for the little canoe we found, and we had to go hungry for another night.

Next day we caulked up a flat-bottomed boat, and safely got across to the Southgate Co.'s camp, where we were welcomed by Mr. Traft Bernard, the Manager. After a day's rest, Malcolm and I set out up the river, to finish our work and if possible, recover what stuff we had cached on the log-jam. This latter, however, proved impossible at that stage of the water, and we had to let the outfit go.

Cedric Walker, now retired on Saltspring Island, remembers many stories from more than 10 years of field work in Forest Surveys Division. He recalls one particular episode that produced the longest and most uncomfortable night in the woods.

Cedric was a Timber Cruiser on the 1928 Shuswap Forest survey. One evening in late September, Gerry McKee (who was Two I/C of the Forest Surveys Division) dropped in on the camp for a couple of days. The next morning he joined Cedric's crew for a day "on strip." As Cedric recalls:

It was a bright sunny morning, so we wore only light clothing. As the day wore on we reached a point in time when we should have wound up the chain and headed back to camp. However, by this time Gerry had become enthusiastic about high elevation forest types. Long after our lunch we continued climbing until it become obvious that darkness would prevent us from returning to camp. We selected a large spruce tree as a shelter and huddled underneath it. Toward midnight, snowflakes began to filter down through the canopy. Conditions were too dry to allow us to light a fire, so with growling stomachs and chattering teeth we sat and shivered until first light.

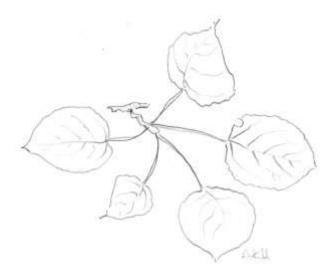
^{*}a smelt found along the Pacific coast of North America from northern California to Alaska.

In 1939 Eric Bennett was working on the Okanagan Forest survey when he took part in a rescue operation. It occurred just before the July 1st holiday. For that occasion the crew had planned a big party, and had already purchased a supply of overproof rum. On the last day of June, Eric and Andy Anderson were running a regeneration strip in a big burn on Silver Star Mountain. The area was covered by a maze of windfalls, which made access both difficult and treacherous.

After completing the day's work they started their return journey towards camp. Shortly afterwards Andy jumped off a windfall and severely damaged his ankle. Eric remembers the consequences:

After staggering along for about a half a mile, Andy was unable to continue and we decided that I should return to camp for help. Upon arriving at camp I had a bite to eat and, with some help, made up a couple of backpacks with flashlights, blankets, sandwiches and coffee, as well as a 40-ounce bottle of overproof rum. Three of my crewmates (Dick Nixon, Jack Mottishaw and Al Dixon) accompanied me back to the burn. It was soon dark so I used the compass to retrace my steps, and stumbled around using a flashlight. In the wee hours of the morning we finally saw a fire with Andy huddled up beside it.

In no time at all we made him comfortable and then we all had coffee generously laced with rum. The next morning we completed our rescue operation with considerable difficulty. When we finally returned to camp we were too exhausted to think about a July 1st party.



Populus tremuloides
Trembling aspen

CHAPTER 3: TRANSPORTATION

The steep and lofty mountain ranges and the restless and uncertain streams of B.C. often presented major challenges to forest survey crews as they went about their work. In the early days of the B.C. Forest Service roads or railways did not reach much of the hinterland in the province. Nevertheless, the Cruisers and Compassmen were expected to probe every watershed regardless of access difficulties. The young men who did the job had to become versatile and expedient. For the most part they depended upon a pair of strong legs, hardwearing caulked boots and good judgment. At the same time they would make use of whatever means of transportation could be devised. Here are some stories, which cover a variety of transportation methods utilized in the good old days.

LAND

1927 - DOG TEAMS ON THE BOWRON RIVER SURVEY

Forest surveys occasionally used toboggans pulled by dogs during the 1920s, and perhaps before then. Early survey reports indicate that they were primarily used in the Prince George Forest District in areas where travelling on frozen lakes and streams provided easy access to isolated areas. The other advantage to winter fieldwork was a complete absence of mosquitoes and other flying critters.

The very last time that dog teams were used by a forest survey crew was in 1927 on the Bowron River survey. A small crew headed by Pug Greggor left Aleza Lake on February 8, and ended up at Barkerville on March 12. Travelling by dog team at this latitude was not without its risks, as the following comments by Greggor point out:

Due to the light fall of snow, averaging about two feet only, travelling conditions in the woods were not favourable, while open water and weak ice on the river added to the difficulties. Considerable mild weather was experienced also, making speed imperative because of the danger from the river ice going out entirely while the party was still miles from any road.

PACKHORSES

In the early days of the B.C. Forest Branch, packhorses were frequently used in the Interior to transport supplies to forest survey crews working in remote areas. This practice continued during the 1920s and 1930s, but soon disappeared after World War II when aircraft became widely available.

At the beginning of the field season the Party Chief would arrange to hire a packer to provide horses and bring in supplies on a regular schedule. One of the most colourful packers was Barney Mulvaney who was a pioneer in the Burns Lake area.



Dog teams on the Bowron River survey of 1927, at Indianpoint Creek. Party Chief Pug Greggor at extreme right of photo.

Dick Spilsbury, who later became Forester-in-Charge of the Research Division, was a Compassman on the 1926 Babine Forest survey. Barney Mulvaney and his string of packhorses transported supplies. The following information was obtained from Dick and from a book published in 1973 by the Burns Lake Historical Society entitled *Burns Lake and District – a History Formal and Informal.*

Not only was Barney a skilled outdoorsman who expertly handled both horses and dog teams, but he also served as Justice of the Peace, Notary Public and Deputy Mining Recorder in Burns Lake. He owned and operated the first tent hotel in that community around 1913, and contributed in many ways to the early development of Burns Lake. He was in the real estate business for many years and ran a gambling den called the "Bucket of Blood" where alcoholic beverages were available.

Careful planning was required to establish the best route for packhorses. Eric Bennett recalls some of the problems during the 1939 Okanagan Forest survey:

I really improved my talent with handling an axe that summer. We were using packhorses to supply distant fly camps. We would carefully plan a suitable route for the horses by getting information on trail locations from the local Ranger. Invariably, the trail would pass through lodgepole pine stands and disappear under an endless mess of windfalls. Out would come the axes, and soon the blisters as well.



Heavy October snowfall forced the end of the field season for Dick Spilsbury and other members of the Momich survey crew of 1929.



Sometimes a small field party would be provided with a packhorse but no packer. An essential ingredient was the ability of a crewmember to be able to "throw" a diamond hitch, which insured a secure pack.

This photo shows Charlie Schultz completing the job on the Elk Forest survey of 1930.

GOVERNMENT MULES

After World War II, parachute drops from aircraft became a common method of transporting supplies to field crews. Previously, great reliance was placed upon backpacking, especially in areas where access was even too poor to permit the use of packhorses.



In 1929 Mickey Pogue (at 18 years of age) was in his third summer with Forest Surveys. Among his collection of photographs one picture shows three young men with huge backpacks (Bob Anderson, Harold McWilliams, Bob Shaw). Fly camps in the Shuswap Forest were very frequent that summer, and big heavy packs were the norm.

On the reverse side of the photo Mickey wrote the caption "Government Mules" – an ironic term the crew used to refer to themselves.



The second photo which illustrates this feature was provided by Dick Spilsbury. These heavily-laden beasts of burden were on fly camp in the Momich Forest in 1929.

WATER

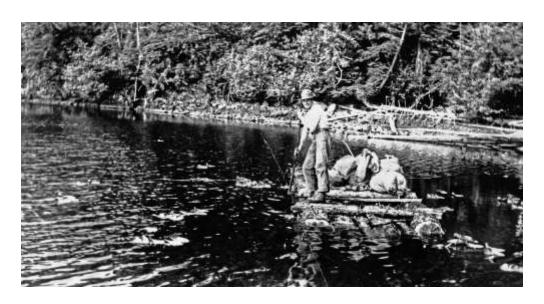
When it came to water transport, Timber Cruisers and Compassmen were as versatile as any outdoorsmen travelling through the wilds of British Columbia. For example, forest survey crews used collapsible canvas boats at the very dawning of the B.C. Forest Branch. In his report on a reconnaissance survey in South Omineca in 1912, J.B. Mitchell notes his three-man crew made use of one of these boats. In 1913, A.M.O. Gold also used one during a reconnaissance survey in South Cassiar.

Occasionally a field crew would build a raft to gain easier access to lands bordering a lake. Such a craft could become quite sophisticated. For example, the Morice Forest survey crew in 1931 built a raft, which was propelled by either wind or a motor. Cedric Walker, the Party Chief, had considerable experience with watercraft. He arranged for an outboard motor plus fuel to be backpacked to McBride Lake. A base camp was established on the lakeshore and a large streamlined raft was constructed. To conserve fuel, the raft was rigged with a sail, which was used whenever the wind was favourable.



The crew on the Queen Charlotte Islands [Haida Gwaii] in 1938 also took extraordinary measures on the northern part of Graham Island. A raft was constructed at Ian Lake, but Alf Bamford found that poling it was too clumsy, so it was rigged with sweeps as well as a sail.

Only one record was found of a raft being used to travel down a river in flood. The results were disastrous. See the story in the chapter "Tough Times" which describes a trip down the Homathko River by Charlie Cowan in 1914.



Alf Bamford rafting supplies across Ian Lake in 1938.

Field crews seldom had the time to construct even a crude bridge across a stream. One exception was the Horsefly cruise of 1923. Party Chief Percy Barr was interested in demonstrating his engineering ability so he supervised the construction of a bridge adjacent to the base camp.

In 1939 the Harrison Lake crew discovered a pole bridge spanning the Chehalis River. It had been built by sports fishermen transporting a boat up the valley to Chehalis Lake. Since Alf Bamford was the senior Timber Cruiser on the crew, he was given the honour of testing the structure for safety. He was cautioned to leave his pack behind, in case he fell in.



Alf Bamford testing a flimsy bridge crossing the Chehalis River in 1939.

Existing water transportation systems were used by field crews whenever available. For example, food supplies were carried by the CPR ship *Maquinna* on the west coast of Vancouver Island, while various Union steamships such as the *Cardena* serviced field parties on the mainland coast. The Upper Arrow Lake survey of 1935 used the CPR ferry *S.S. Minto* to move the base camp several times during the summer.



A very shallow draft enabled the *SS Minto* to nose in to the beach and take on men and equipment, 1935.



Native canoes were used for transport on Kennedy Lake, Vancouver Island, 1926.

For many years the motor launch *B.C. Forester* provided a home away from home for crews working in coastal areas. Originally built by the B.C. Forest Branch in 1923 to serve as a headquarters boat for the Vancouver Forest District, the boat was steadily used by Forest Surveys Division crews starting in 1932. In 1936 the *B.C. Forester* was lengthened, refurbished and a new engine installed to provide better accommodation. In 1972 the *B.C. Forester* was retired from the B.C. Forest Service and sold to private owners. It was renamed *Kwaietek*, and after 70 years of use is still a proud, well-maintained and seaworthy craft.

AIR

1934 - GERRY ANDREWS: NIMPKISH

Aircraft were readily available in B.C. during the 1930s. However, the Forest Surveys Division's budgets during the Depression were too constrained to allow much use of planes. Their first documented use of an aircraft was in 1934. In that year Gerry Andrews and Charlie Schultz – plus food and equipment – flew into the Nimpkish Valley to conduct a reconnaissance survey of that drainage plus several others on the north end of Vancouver Island. They landed first at Vernon Lake where they deposited a food cache and a canoe. The next stop was at Woss Lake where they left a food cache. The last leg of the flight was to Schoen Lake, at the headwaters of the Davie River, where they commenced their fieldwork. The trip was both strenuous and challenging, as shown by some of Gerry's recollections:

Fortunately, Charlie and I had a great deal of mutual respect, which made it a lot easier to share the hardships. We soon ran through our repertoires of jokes of all colors, and several times we were pretty low on food.

We lived like animals, carrying heavy backpacks all day long, and eating only basic foods like beans, bacon, bannock and corned beef. We would measure the trees on a circular plot, note its location with reference to an aerial photo, and then press on. We camped in a different location every night. We had plenty of rainy weather, and in the evenings the aerial photos would have to be dried out over the campfire. By the end of the trip many of them were toasted a golden brown.

When we arrived at Robson Bight, after completing the Tsitika watershed, we had to wait a few days for the Ranger. Someone had built a shelter near the shore, and we moved in. To our delight there was a big stack of Vancouver *Province* newspapers neatly arranged in chronological order.

Over two months had passed since our flight into the Nimpkish Valley, when we finally ended up in the Salmon River valley. We were picked up by the *B.C. Forester* at Kelsey Bay and brought back to civilization.

1935 – CEDRIC WALKER: UPPER ARROW

The Upper Arrow Lake had many large tributaries, and it was apparent that much fly camping would be required for forest inventory purposes. However, with only meagre information about the timber and the terrain in these valleys, it would be difficult to plan the fly camps. Fortunately a de Havilland Moth (the forerunner of the Tiger Moth) landed on the lake at the survey camp. The pilot, Cliff Peene, announced that he and his plane were available for hire.

Party Chief Cedric Walker accepted his price for a one-hour reconnaissance flight. Of primary concern was the upper Incomappleux River, which was very difficult to reach on the ground. The flight over this watershed, and other tributaries, helped considerably in planning the work schedules of the fly camp crews.



de Havilland Moth used by Upper Arrow Party Chief Cedric Walker.

1930s - GERRY ANDREWS and AIRPHOTOS

The introduction of airphotos in the Forest Surveys Division came in 1931 when RCAF photos were used on an exploratory basis by Party Chief Gerry Andrews on the Niskonlith Forest survey. Two years later during a lull when no work was available because of the Depression, Gerry travelled to Europe to study air photography under world authorities in the field. Upon returning to the Forest Surveys Division, Gerry began a research and development program aimed at expanding and refining the uses of airphotos in the B.C. Forest Branch.

The year 1936 marked the beginning of airphoto flying by the B.C. Forest Branch, when Gerry did the camera work for a small area near Nanaimo. New camera equipment was purchased in 1937 and used on a much larger project on the Queen Charlotte Islands [Haida Gwaii] when Gerry again handled the camera. Continued expansion of these activities necessitated the formation in 1938 of an Air Survey Section in the Forest Surveys Division. In 1948 this section became part of the Air Surveys Division of the Surveyor General's Branch of the Department of Lands, still with Gerry Andrews in charge.

Larix laricina
Western larch

CHAPTER 4: WILDLIFE STORIES

SNAKES GALORE

Dick Nixon was Party Chief of the Okanagan Forest survey in 1938 and 1939. In both years the base camp was at Kalamalka Lake, in the midst of rattlesnake infested areas. Dick recalls one of the problems that arose:

We experienced a high turnover rate of cook tent personnel that summer, all because of snakes. The warmth of the cookstove attracted rattlesnakes and our first Cook, Louis Carroni, became more nervous each time he encountered one. If I had realized just how much the snakes upset him, I would probably have done something about it.

One morning Louis reached into the woodbox beside the stove to get some wood for the fire and his fingers gripped a coiled rattlesnake. He quit on the spot, and departed from camp in minutes. I was able to hire another Cook but when he discovered snakes behind the stove, he also quit. Finally, I hired Archie Robb, who had been raised in the Okanagan, and was familiar with rattlesnakes. Archie provided added benefits by insisting on new rules of conduct and dress during meals. To gain entrance to the cook tent the crew had to wash up and wear clean clothes and swearing was prohibited.

Eric Bennett worked as a Compassman on the 1939 Okanagan Forest survey. He also remembers the snakes:

It was late in the day when we arrived at Honeymoon Bay on Kalamalka Lake to establish a base camp. By the time we had hurriedly cooked and eaten our supper, darkness had set in. Poles were needed to set up tents as well as for cot frames, so we took axes and, aided by flashlights, entered a nearby stand of young lodgepole pine and poplars. To our horror we found rattlesnakes all over the place and quickly decided to put off the job until the next day.

We were plagued with rattlesnakes around the camp that summer, but the cook tent was the worst place. In the evening the rattlers were attracted by the heat of the stove and they would spend the night coiled up in nearby nooks and crannies. As the weeks went by our Cook began to show signs of stress. Having experienced a severe problem with cooks and rattlers the year before, Dick Nixon (our Party Chief) decided to give the Cook a break before the reptiles really got to him. Dick asked the crew if anyone had cooking experience. I volunteered because I had cooked for a crew at Buttle Lake in the summer of 1932. The Cook was given a week of R and R, and I took on the job as his replacement. The results of my culinary ability seemed to pass muster. Nobody got sick and nobody complained. Upon returning, the Cook managed to cope for the rest of the summer.

In the summer of 1938 a second and much smaller survey party also worked in the Okanagan Valley. Chess Lyons worked as a Compassman on this "economic and special study." He recalls the impact of snakes on the crew:

This was George Silburn's first experience in the Southern Interior of the province, and he was leery of rattlesnakes. One day he nearly stepped on one, and he responded by jumping several feet in the air. I had been raised in Penticton, so I proceeded to show him how an Okanagan native could calmly and quickly dispatch a rattler. As George calmed down he made some admiring comments about the rattler's skin. I skinned the snake immediately, and later on I tanned it and sent a rattlesnake belt to George for Christmas. After that summer I believe that George confined his field work to coastal areas.

SUICIDAL SAFEGUARD

During the late 1930s Gerry Andrews of the Forest Surveys Division conducted research and development work to extend the application of photography to many aspects of B.C. Forest Branch work. In 1936 Gerry and his assistant Doug Macdougall visited fire lookouts and worked on visibility mapping and panoramic photography. Doug always carried a .22 pistol and frequently contributed a grouse to the pot.

One day far out in the backwoods, they met a couple of tourists. One of them took an interest in Doug's pistol –

- "What have you got there?"
- "Just an ordinary pistol."
- "What calibre is it?"
- "Just a .22."
- "What do you use it for?"
- "Just in case I come face to face with a charging grizzly bear."

The stranger snorted and jeered, "That pea shooter would never stop a grizzly." Macdougall calmly replied, "I wouldn't use it on the grizzly, I would just shoot myself."

MORE SAFEGUARDS AGAINST GRIZZLY ATTACKS

Alfie Wade was the Draftsman on the 1930 Morice Forest survey under Party Chief Cedric Walker. Wade was a Provincial Land Surveyor (BCLS 1928) but he took on the job of Draftsman as the duties were quite varied and jobs were scarce. A good-sized tent provided space for office work as well as a place for the Draftsman to sleep.

Alfie tended to be rather naive. In fact, at times he was quite gullible. When his fellow crewmen discovered that he was deathly afraid of bears, they concocted terrifying stories about the ferocity of the grizzlies of the Morice Forest. Every night Alfie was besieged with stories that got worse and worse. Then, one night the crew made a phony set of bear tracks in the sand leading up to Alfie's tent.

The next morning Alfie took protective measures. Immediately after breakfast he moved his cot to the cook tent next to the Cook's bed. He then constructed an intricate network of wires and tin cans to serve as a warning system outside of the tent – and peace returned to the valley.

THE SIDEHILL GOUGER

Dr. Don MacLaurin, retired Vice-President of the University of Victoria, recalled a "wildlife story" from the summer of 1928 when he worked as a Compassman on the Nehalliston Forest survey:

Midway during the summer's work one of the Compassmen quit, and was replaced by a greenhorn, a city lad who had never experienced the great outdoors. He was nervous, naive and gullible. R. McKechnie, a Timber Cruiser, immediately identified the opportunity for playing a practical joke. After a few evenings around the campfire he had convinced the greenhorn that a fierce animal called a sidehill gouger inhabited the surrounding hills. The beast was equipped with two short legs and two long legs adapted for speedy travel along steep slopes. McKechnie also explained that the gouger was aggressive toward humans.

One evening, over the objections of Party Chief Ed Bassett, McKechnie and two accomplices constructed their version of a sidehill gouger on the trail between the camp and a stream where the young lad was fishing. They attached a cow's skull to a wooden frame, which they covered with tattered burlap. Considerable moonlight penetrated the forest canopy and the gouger took on a menacing appearance as it blocked the trail.

As he returned from fishing the lad bumped into the gouger, let out a scream and raced into camp. He would have quit on the spot if the camp had been closer to a road. Somehow he managed to recover his wits, lasted out the summer and worked for Forest Surveys for several more field seasons.

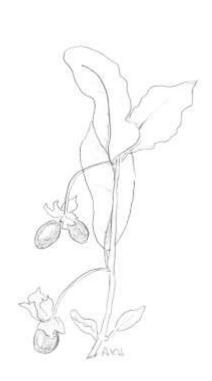
BINGO AND THE BEAR

Timber Cruisers and Compassmen seldom if ever were accompanied in the field by a pet dog. Dick Nixon recalls the time that he agreed to take a spunky little terrier called Bingo on a fly camp as a favour to his bride who was not allowed to keep a dog in their new Vancouver apartment.

For the most part Bingo added a positive dimension to camp life, but one day it nearly got them into trouble. It was the summer of 1937 and Dick and his Compassman, Jack Mottishaw, were starting a day's work on the Esquimalt and Nanaimo Railway Company Land Grant survey on south-eastern Vancouver Island. They were in a stand with a dense understory, so Jack soon passed out of sight as he headed out on a compass bearing.

The sound of breaking branches off to one side prompted Dick to shout out loudly to Jack, that he had strayed off course. Jack replied strongly that he had not done so. Dick looked more intently toward the source of the noise and saw a large black bear clamber onto the far end of the windfall that Dick was standing on. Upon spying the bear, Bingo ran toward it, yapping furiously. When the dog reached the bear, it took a healthy swipe at Bingo, but missed. Bingo immediately raced along the windfall toward his master with the bear in hot pursuit.

Meanwhile Jack had joined Dick, and the two of them made as much noise as they could. The bear reversed its direction and started to climb a tree at the far end of the windfall. Bingo again decided that it was playtime and ran after the bear. The bear just couldn't tolerate this barking so started descending from the tree. Again Dick and Jack produced more sound effects. The bear retreated and climbed higher. Bingo was very proud of his antics, but this time he was held securely in his master's arms. Their day's work resumed with considerable dispatch.



Lonicera involucrata
Bracted honeysuckle

CHAPTER 5: BOOZE

As a rule, alcoholic beverages of any kind were seldom available to forest survey field crews in the good old days. A policy of no booze allowed aboard the *B.C. Forester* was usually enforced. A major exception to the norm was when homebrew was made at a base camp.

Occasionally a crew would organize a party to coincide with a public holiday, such as July 1st. Having completed half of the field season, the "boys" were ready to kick up their heels.

THE LOST WEEKEND

Alf Bamford recalls a party on the July 1st weekend of 1938. The Graham Forest survey crew was spending the weekend aboard the *B.C. Forester* tied up at the Port Clements wharf. The crew made plans to attend a dance at the local schoolhouse, which coincidentally was also used for Sunday School classes. The CN boat had also tied up for the night and around a dozen tourists joined the frivolities. The crew was able to buy beer at the hotel and a good time was had by all.

The next day a couple of the kids at Sunday School discovered a full case of beer hidden behind the school. The hotel proprietor accused Alf of leaving it there, saying that Alf was the only person who had bought that particular brand of beer. Alf had been so engrossed in having a good time at the dance that he couldn't even remember buying any beer.

R & R AT BELLA COOLA

Between the two world wars, John Collins spent considerable time in the wilds of B.C., a good part of it on forest reconnaissance work. On one occasion John and his native guide arrived in Bella Coola after several months in the Chilcotin. They had suffered a steady diet of poor weather, mosquitoes and flies. Moreover, for several weeks they had been on rather short rations of food. They were more than ready to get cleaned up, have a few drinks and take on a square meal.

They found a place to stay, and immediately had a bath, a shave, and put on clean clothes. These preliminaries completed, John purchased a 40-ounce bottle of overproof rum and he and his guide decided to have a few appetizers before their dinner.

A few drinks turned into a few more, and as the celebration grew, so did the noise level. Several complaints from distinguished Bella Coola citizens persuaded the local constabulary to lock them up in jail to protect them from their own antics.

The next day found both of them thick-headed and very hungry. They took comfort in the fact that they had indeed consumed all of the rum before being apprehended by the law.

BOOM TOWN

After working for three summers in forest surveys, Al Dixon graduated as a Forest Engineer in 1940 and became a Ranger at Zeballos on the west coast of Vancouver Island. The area was in the midst of a gold rush and Zeballos was a booming mining camp complete with bootleggers and houses of pleasure. Al recalls how he gained acceptance in the community:

My home was the motor launch *Tamarack* and I travelled aboard through all parts of my ranger district. After my first few trips I was approached by a delegation of townspeople and asked to lower the flag when nearing Zeballos upon my return from a field trip. They explained that the *Tamarack* was easily mistaken for the police boat, and when sighted, all bootlegging operations and houses of ill repute were shut down at great inconvenience to all concerned. I willingly complied and thereby established solid rapport with the locals.



The *Tamarack* at Maple Bay, Vancouver Island, 2007.

VANILLA VENTURE

George Minns spent four summers (1935-1938) in forest survey field parties. The two previous years he worked as a logger on the Queen Charlotte Islands [Haida Gwaii]. He recalls an event at the J.R. Morgan camp:

Technically, liquor was not allowed in camp, but plenty was hidden under beds. Then there was always vanilla extract. The Cook in the advance Faller's camp had not seen the bright lights for several months and he went on a vanilla binge. After consuming several bottles, he dumped two barrels of flour on the cookhouse floor, added several pails of water, got out a mop and commenced to swab the floor.

He was fired immediately, but as soon as the Fallers heard about this, they quit in protest, because he was the best Cook they'd had. The Cook was hastily rehired, and the Fallers pitched in and helped clean up the awful mess he had made.



Aconitum sp.

Monkshood

CHAPTER 6: TWISTED TALES - OFFBEAT STORIES, REAL AND IMAGINARY

During the early days of the B.C. Forest Branch, reliance was placed upon very extensive reconnaissance information to create a forest inventory. An experienced Timber Cruiser would travel through the hinterland and cover a very large area. For example, in 1913, one individual covered three million acres, although much of it was semi-open forest and rangelands.

Only a few of these Cruisers stayed in the B.C. Forest Service for their entire career. A.E. (John) Collins was in this category. He started in 1913 as a casual employee and worked on permanent staff from 1925 to 1959. Not only was John highly regarded as a Timber Cruiser, but he also displayed great talent as a raconteur of stories that were distilled from his experiences in remote parts of the province.



John Collins wearing special headgear to protect the neck from mosquitoes, 1926.

Sadly, most of his stories are now long forgotten. However, a few have survived and are repeated below.

A COUGAR-IN-TRAINING

Here is one that took place during the 1920s. Early one morning John was walking along a riverbank, intent on reaching the headwaters of the stream. Suddenly he heard a noise overhead and looked up to see a huge cougar crouched on a windfall, 20 feet above the trail. John noted that its left ear was torn and hanging limply. As their eyes made contact, the cougar leapt at John. Somehow it erred in its judgment and sailed a couple of feet over John's head. The leap carried it over the edge of the riverbank and it tumbled down to the gravel bar below. Meanwhile John departed with considerable dispatch and continued up the valley.

Upon finishing his day's work in late afternoon, John started his return journey, well aware that he must pass the site of his morning encounter with the cougar. As he neared the locale, he stopped periodically and listened for any sound of the animal's presence. Suddenly he heard scuffling and thumping sounds. Carefully he crept forward until he saw movement ahead.

There was the same cougar with the tattered ear but it showed no interest in John. Instead, it was intently practicing shorter jumps.

THE RETALIATING BLACK BEAR

On this particular fieldtrip, John was accompanied by a young assistant full of energy and exuberance. They had established a camp at the main fork of a river. Upon returning to camp after working all day up one tributary, they discovered a black bear sniffing around their camp. They started hooting and hollering to scare it away, but instead of leaving, the bear climbed a tree near the tent.

The assistant immediately got his razor sharp axe and started to chop down the tree. The bear soon decided to climb down, but when he got within range the assistant poked him in the backside, whereupon he scampered back up.

After repeating this a couple of times there was a pause in the action followed by a colossal bear bowel movement which scored a direct hit on the Axeman below. A very messy assistant headed for the river to clean himself, while the bear scampered to the ground and took off into the woods with a sore bum and a broad smirk on his face.

THE GRATEFUL GRIZZLY

Here is one of John's kinder stories:

A female tourist was picking blueberries in a thicket of bushes and heard a faint whimpering on the other side. She parted the branches and peeked through. There stood a huge grizzly bear. He was licking a front paw and whimpering every time his tongue touched a certain place. The berry picker noticed a huge thorn stuck in the paw and there appeared to be no way the bear could dislodge it.

"Oh, you poor animal" said the berry picker and without a thought of danger, she skipped around the bush, grabbed the paw and removed the thorn with one quick jerk. The bear stood there amazed, licked his paw and dropped to the ground. Around the bush he went, picked up the pail, quickly filled it with blueberries and handed it to the stunned lady.

BOUNTEOUS BUGS

Exaggerations abound concerning the ferocity, size and abundance of mosquitoes which pestered forest survey crews in the wilds of B.C. Don MacLaurin, who worked as a Compassman on the Nehalliston Forest survey in 1928, may well have set a record for overstatement.

On a clear sunny day, Don and a Timber Cruiser were returning to base camp after completing a fly camp. They had been plagued by hordes of mosquitoes all morning, so it was a great relief to come upon a neat little cabin around lunchtime. They extracted their lunches from their backpacks, entered the cabin, and quickly shut the door.

The clouds of mosquitoes, which had trailed them all morning, immediately launched an attack on the cabin. Within a few minutes the screens protecting the windows became covered with layer upon layer of mosquitoes, and in no time at all, darkness fell inside the cabin. They fumbled around, found a candle, and enjoyed their lunch in semi-darkness accompanied by the high-pitched humming of millions of mosquitoes while the sun shone brightly outside.

TONSORIAL TRAGEDY

George Cornwall worked in the Forest Surveys Division for four summers, from 1927 to 1930. In 1994 he completed a 40-page report on the 1927 Babine Forest survey. Here is one of his stories describing an unusual event, which occurred in camp:

At times there were some high-jinx, but occasionally some nastiness crept in. I recall one such event. We worked six days a week, and took Sunday off to write letters, do laundry, mend clothes, etc. On one particular Sunday a senior official was staying at our camp. When he heard that Billy Hall wanted a haircut, he offered his services. His first action was to use the clippers to clear-cut a two-inch swath from Billy's forehead to the nape of his neck.

Billy was not amused and, after looking in the mirror, requested that all of his hair be shorn. Billy then told the barber "You'll be sorry." After completion of the haircut, Billy entered his tent, picked up a sharp axe and attacked the barber's pants, which had been laundered and spread out against a log to dry. With three rapid strokes Billy cut the pants in two, from belt to crotch. Instead of a pair of pants, there were now two extended legs. He then turned to the barber and said "Now, you S.O.B., we're even."

ABOUNDING TALENT

Field crews were made up of young men who came from many different walks of life, and possessed a variety of talents. Dick Nixon was Party Chief for both the 1938 and 1939 Okanagan Forest surveys. He recalls some of the talents displayed by his 1939 crew:

John Mottishaw was a very accomplished baseball pitcher and Bill Sloan was no slouch at second base. In those days baseball tournaments with cash prizes were popular throughout the Okanagan. On most Sundays John and Bill would sign up to play for a nearby town. Their shares of prize money would sometime exceed their week's earnings as a Compassman.

And then there was Al Dixon, who could sing like a bird. Late on a Saturday night after an evening of dancing and rum, the crew would end up in a restaurant. Al would burst into song and entertain both customers and staff. In fact, his singing attracted customers and if fly camps had been less frequent the restaurant entertainment manager probably would have hired him.

THE CIVIL WAR FUGITIVE

Cedric Walker was Party Chief for six years during the Depression. During three of those summers he used the motor launch *B.C. Forester* as his headquarters. Cedric describes meeting a recluse in a remote area on the mainland coast:

When first entering an inlet or sizeable bay it was customary for the crew to search the shoreline for evidence of human habitation, either a small cabin or smoke from a cookstove. At the head of Toba Inlet in 1934 there was a cabin and a few puffs of smoke just visible behind some trees along the shoreline across the inlet from our night-time anchorage. Early in the morning, two of us got aboard our clinker-built lifeboat and headed toward the cabin. We were welcomed by a very elderly man who invited us in for coffee. He looked like Santa Claus. During our visit we asked the old trapper about timber, trails, and how far we might be able to get up the Klite River by boat.

He had trapped up that valley for many years but admitted he couldn't go very far any more. He had a small rowboat, which he rowed every spring to Lund, a few miles north of Powell River, to sell his furs and buy essential supplies for the next year.

We asked how long he had lived at the mouth of the Klite River. He replied that he had been there since the U.S. Civil War. He said that he had shot one of his officers and had to get a long way away fast. He joined a party heading west on the Oregon Trail. But Oregon was still not far enough for him so he headed for Canada, and eventually up the B.C. coast. I asked if he had any relatives or friends who could help him out in his old age. His answer was that he had a brother in Alaska and had written to him about 30 years ago but hadn't had an answer yet.

LIVING IT UP IN BURNS LAKE

Dick Spilsbury recalls a Saturday night on the town in Burns Lake:

My first summer in Forest Surveys was in 1926 when I worked as a Compassman on the Babine Forest survey. Our small crew worked on land use classifications and we were independent of the main survey crew.

One Saturday after work, Fisher, our Party Chief, decided that all of us would drive into Burns Lake that evening for supplies. Ian MacQueen was driving our Model T Ford, and as we approached Burns Lake, he hit a rock at the side of the road. The result was a broken axle.

The local mechanic promised to have the car fixed by Sunday morning. This meant we would have to stay overnight in Burns Lake. We encountered a serious accommodation problem. There was a schoolteacher's convention that weekend and every room in the hotel was taken. As a concession we were given two double beds in the attic for the five of us.

As it happened, there was a dance in town that night, so Willo Matthews and I attended. When the party was over, at around two or three in the morning, we retired to our attic, only to find the beds fully occupied. However, there was a building across the street that had rooms upstairs, so we proceeded to Sam's.

The door was open so we went in, but there was no one around. We went upstairs and saw a crack of light under a door, so we knocked. The door opened slightly and a voice asked what we wanted. However, another voice from within the room said, "Open the door Sam, I know them." This was Barney Mulvaney, with a glass in his hand. A few weeks earlier we had met Barney leading a string of packhorses with supplies for the main survey crew. He insisted we have a drink with him and it was nearly 4:00 am before we convinced them that we really only wanted a bed.

We woke up about 10:00 am to find we had been abandoned. Fisher and the rest of the crew, after a good night's sleep, had breakfast, and after looking for us in vain, took off for camp over 20 miles away. The boss was so angry with us that he did not return until two days later. With Willo there was never a dull moment. We met the banker's daughter and played tennis all Sunday. When we were finally picked up in disgrace we looked like the cat that ate the canary.

UNDERGRADUATE PARTY CHIEFS

In the good old days advancement to the rank of Party Chief in charge of a field party was not easily obtained. The job requirements included several summers as both Compassman and Cruiser, some experience as an Assistant Party Chief, and one had to be a full-time employee.

However, there were two notable exceptions where a forestry student was able to become Party Chief while still an undergraduate. The first was Percy Barr in 1923, one year before his graduation in 1924. The second was Mickey Pogue in 1939, also one year prior to his graduation.

In both instances this display of leadership ability proved to be an early sign of greater competence. Percy Barr became head of the newly-formed Research Division in 1927, obtained his PhD from Yale University in 1929 and then carved out a successful career as a professor at the University of California (Berkeley). Mickey Pogue returned from a military career in 1945 and joined the Forest Surveys section of the Forest Economics Division, taking charge in 1947. Three years later he played the leading role in developing and restructuring the Forest Surveys and Inventory Division, and in developing innovative methodologies in forest inventory.

POTHOLES AND BEDBUGS

Motor vehicle travel was often both slow and difficult during the 1920s, even on the main roads. The highway west of Prince George was no exception. Dick Spilsbury remembers well his first trip on this road:

In 1926 I was a member of a soil evaluation crew on the Babine Forest survey. At the beginning of the field season we left Prince George early one morning, heading for Burns Lake. We made very slow progress, spending all day to get to Vanderhoof. The road consisted of deep muddy holes connected by deep muddy ruts. We were completely stuck many times. The usual solution was to cut down a couple of lodgepole pine trees and use them to pry the vehicle out of the holes.

After an exhausting day of extricating the car from the mud we arrived at Vanderhoof around 8:00 pm. We ate a late supper and collapsed in our hotel room. We awoke in the morning, a bit stiff and sore from our labours the day before, only to discover that overnight we had gained an additional discomfort. We were all covered with bedbug bites.

MALIBU MEMORIES

Cedric Walker spent many field seasons on forest survey field parties, and over the years he experienced both negative and positive experiences. Here is one of his stories in the latter category:

I enjoyed the many summers that I spent aboard the *B.C. Forester*. It seemed that something of special interest would invariably happen to spark up our daily routine.

I recall the day in 1933 on the Sechelt Peninsula and Jervis Inlet survey when we tied up at the Malibu Lodge on Princess Louisa Inlet. The boat alongside was a very fancy yacht sporting the Stars and Stripes. A couple of us stood on deck admiring the yacht when the owner appeared on deck. We had only chatted for a few minutes when he invited us over for a drink. The yacht turned out to be the *Infanta* and the owner was John Barrymore of Hollywood fame.



Campanula rapunculoides
Creeping bellflower

CHAPTER 7: EXTRAORDINARY COOKS

The Cook of a forest survey crew played a key role. First and foremost he was expected to produce appetizing and nourishing meals at the lowest possible cost. The Party Chief also relied on him (there is no record of female cooks before World War II) to promote compatibility among crew members, both between and during meals. Most cooks were older than the Timber Cruisers and Compassmen. Consequently a middle-aged Cook would almost be regarded as a father figure who could be treated by the crew as a confidant on matters of personal concern.

JACK NEWMAN

Most cooks were hired locally and worked only one or two summers. As a result they were not widely remembered and only fragmentary stories remain. The major exception was Jack Newman who was respected by many, and admired both as a Cook and as a friend.

On the reverse side of one of Mickey Pogue's photographs he wrote "Best of all cooks." It is a picture of a big smiling man holding a string of freshly-caught trout. Apparently it was not unusual for Jack Newman to get up very early in the morning in order to present the crew with fresh trout at the breakfast table.



Jack Newman with a string of freshly-caught trout, Nehalliston Forest survey of 1928.

Jack Newman may well hold the seniority record among cooks who worked on forest survey field parties during the 1920s and 1930s. He worked on the Babine Forest in 1926 and 1927, the Nehalliston Forest in 1928, the Momich Forest in 1929 and 1930 and the Morice Forest in 1931.

In addition to his culinary skills, Jack was also respected for his ability to maintain a high morale among the crew. He accomplished this in many ways. For example, when the crews returned to camp after a tough day in wet weather, they immediately headed for the cook tent where they were supplied with hot tea laced with a couple of ounces of "white lightning."

Here is a story written by Dick Spilsbury, which illustrates Jack's versatility as a distiller of strong spirits:

John Liersch was Party Chief of the Momich survey in 1929. He was a strong teetotaller. His Cook was Jack Newman. Jack had a homestead at Newlands, on the Grand Trunk Railroad east of Prince George, and there operated a still in the woods. Jack supplied a clear, volatile moonshine to the train crews who worked between Edmonton and Prince Rupert during the prohibition era. In his spare time he was a camp Cook.

On the Momich survey, Jack had a 10-gallon galvanized pail hidden behind the stove. Into it went potato peelings, elderberries and a variety of dried fruit, along with sugar and a cake of yeast. In due course the mash would be ready for distilling. On this day, three of us would be delegated to play bridge with John Liersch in the office tent, to remove him from the activity taking place in the cook tent. The rest of us carried buckets of cold water from the creek to the cook tent.

The process was ingenious. The 10-gallon bucket containing the mash was heated on the stove. In it was placed an inverted 10-inch diameter serving dish. On top of this was placed a larger dish. Over the top of the pail a large metal bread-mixing pan was placed. As the mash boiled, the steam rose and condensed against the bottom of the bread-mixing pan that was kept cold with successive buckets of cold water. The condensate dripped into the lower upturned dish. After about two hours we would be rewarded with about a quart of firewater, and the bridge game would soon break up.

I don't believe that Liersch was so naive he did not know what was going on, but he largely ignored it, though he did complain about the large amounts of dried fruit ordered by the Cook each week.

Lorne Swannell also recalls a "Jack Newman" incident from around 70 years ago. Here is Lorne's story from the 1926 Babine Forest survey:

Jack Newman always tried to keep a good supply of doughnuts on hand for between meals snacks. But the doughnuts seemed to disappear much too rapidly. By careful checking he discovered that the depletion took place after bedtime. So one evening he set a mousetrap in the doughnut tin before going to bed at the far end of the cook tent.

He sat up and waited with a flashlight in his hand. About 15 minutes later he heard someone moving near the tent entrance. A few minutes later the mouse trap snapped, some four-letter words were uttered and the doughnut tin crashed to the floor. When Jack turned on his flashlight he caught Scotty Fraser, a novice Compassman, jumping around in a panic with two fingers caught in the mouse trap.



Jack Newman filling a bottle with freshly-distilled moonshine, Momich Forest survey of 1929.

Here is a story from George Cornwall's report on the Babine Forest survey of 1927:

Jack Newman was a very likeable man, about as well-known as anyone in the woods. He had many friends and I have never heard of an enemy. He was a good-sized man, of perhaps fifty years of age, with silver-gray hair. On the very few times I saw him annoyed, he was eight feet tall. It was his belief that no one was all bad and that no one was perfect, no matter who he was. Anyone who carried his weight and did his job had Jack's support. For the shiftless, he had no time.

During five months of each field season he was employed as a Cook by the B.C. Forest Branch. During the winter he lived in his home, in a small village somewhere east of Prince George, close to the Yellowhead Highway. It was said that his door was always open to anyone down on his luck and in need of a meal. Over the years he had worked in logging camps and although he had no first aid training, knew a lot about bush medicine and had helped many people.

He was held in high regard by the B.C. Forest Branch for his responsibility and his ability to plan and order food supplies for bush meals, far in advance, when lack of one item could cause serious problems. To the members of survey crews, he was a great Cook and to many, a friend. I was fortunate to be one.

On an average workday, his alarm clock rang at four in the morning. He rose to pummel a batch of bread dough, which had been wrapped in blankets overnight to rise. With his sheet metal stove, with a flattop of about twenty by thirty-eight inches, a firebox for wood and an oven, he baked twelve to sixteen loaves of bread each day. In addition there were breakfasts and suppers to prepare for a crew of sixteen. When the baseliners joined the main camp, he had Mac MacLain as an assistant and his stove to relieve the

pressure. After supper he usually prepared a batch of dough to rise for the morrow. I could never understand how he was able to do all these things, keep his health and his good humour, as well as make a batch of doughnuts each week.

Due to a kind and tolerant attitude, he was the recipient of many confidences and to my knowledge he disclosed none. To add to these accomplishments, he was a great raconteur with an amazing number of stories, within which were comments, ribald to unprintable, all humorous.

ALEX HOLD

Many of the old-timers can recall cooks who were rather temperamental at times. Here is a story by Andy Anderson, recalling the antics of Alex Hold, the Cook aboard the *B.C. Forester* during the Graham Forest survey of 1938:

Alex had a character of many contradictions. Although he had a very cultured English accent, he often punctuated his conversation with four-letter expletives. In the galley he reigned supreme, very domineering. On the other hand he proved to be a very capable and courteous bridge player. Alex would go to great lengths to prepare a special dish. But if the crew did not indulge heartily he would promptly throw it overboard, platter and all.

Perhaps he reached the acme of his success as an innovative Cook when he prepared trifle for dessert. First he baked a huge sponge cake. It nearly covered the entire galley table on the *B.C. Forester*. He then discovered that there was no sherry to be had. Without hesitation he gave the dessert a liberal lacing of gin. Every man on the crew indulged in second and third helpings and nothing was thrown overboard.

Alf Bamford was also a member of this 1938 crew and his story corroborates Andy Anderson's. The 1938 Graham Forest survey had just been completed and the *B.C. Forester* plus survey crew was heading down Johnstone Strait to complete another job before heading to Vancouver. The weather was fine, and Alf Bamford was on deck at the stem of the boat, enjoying the sunshine. He glanced down into the galley and noted that Alex Hold was preparing to do some baking. A big tug was passing at the time. The *B.C. Forester* had a tendency to roll very easily, and it wallowed heavily in the wake of the tug.

Unfortunately the Cook had just placed the mixing bowl full of cake batter on the counter. Suddenly the empty mixing bowl accompanied by a volley of curses narrowly missed Alf's ear. The bowl went over the side into the water. The cursing continued, so Alf peered into the galley where the entire floor was covered with a sticky mess of cake batter.

CHAPTER 8: BIOGRAPHICAL SKETCHES

My original intent was to prepare biographical sketches of all survivors who had worked for Forest Surveys Division before 1940, plus those deceased individuals of that era who had made outstanding contributions. The number of individuals in the latter category was subsequently reduced to one, Fred Mulholland, strictly because of space limitations. Mulholland had to be included in this report for his achievements as head of the Forest Surveys Division from 1925 to 1938. In this role he blazed many new trails and displayed great leadership talent.

A. BROOKMAN (ANDY) ANDERSON

Andy was born in Regina, Saskatchewan on November 14, 1915. As a junior employee of the Imperial Bank of Canada, his father was frequently transferred, until in 1923, he was shifted from the prairies to a bank manager position in Vancouver. The family soon put down their roots in that city and when another job transfer appeared on the horizon, his father decided to change careers and remain in Vancouver.

Andy entered UBC in 1933 and graduated as a Forest Engineer in 1938. Like many other forestry undergraduates during the Depression years, Andy had difficulty obtaining summer employment in his chosen field of study. In his first summer he found no work at all. The next year he considered himself lucky to get a job "chalking the odds" for horse races at three racetracks in Greater Vancouver.

Andy was more fortunate during his last two summers as a student. He found forestry work, which provided excellent experience and much personal satisfaction:

In my third summer (1936) I worked as an Axeman and Chainman in the engineering crew of the Merrill Ring and Wilson Logging Co. operation at Rock Bay on Vancouver Island – a large railroad camp with some 400 loggers.

The Logging Engineer whom I worked for was Ernest Touzeau (UBC 1928). P.A. Wilson, the active partner in the company, was one of the logging eccentrics of his day.

In my fourth summer (1937) I had an unusual job for a summer student, that of an acting official Scaler, scaling logs for two Japanese companies: the Fraser Logging Company Ltd., at Rolley Lake near Stave Falls, and the Fernridge Lumber Company at the same location. The logging company was the sole provider of logs to the mill and neither trusted the other. My direct boss, Bill Byers, Superintendent of Scalers, had little use for either company. The result was a frantic summer for one neophyte Scaler.

Upon graduation in 1938, Andy was employed as a Junior Forester in the Forest Surveys Division of the B.C. Forest Branch. He worked on the Queen Charlotte Islands [Haida Gwaii] as a Compassman on the Graham Forest survey under Party Chief Cy Phillips (UBC 1935) for much of the summer, finishing on the Hardwicke, West Thurlow, East Thurlow and Sonora Island forest surveys — and all under the demanding supervision of Bob Shaw, perhaps the most experienced Cruiser in the B.C. Forest Branch. Andy spent the winter working on forest inventory maps, including the production of the official linen master copy of the Moresby Forest survey maps.

In 1939 he worked under Party Chief Dick Nixon (UBC 1932) as a cruiser on the Okanagan Forest survey. The summer ended on a very disappointing and painful note. In late August, Andy broke and sprained his right ankle on White Star Mountain near Vernon. It was remote enough that it took most of the following day to pack him out on a stretcher to the Vernon hospital, and severe enough that it bothers him to this day, after 54 years. Following a few days of treatment in the hospital he spent the rest of the summer on crutches, hunched over the camp drafting table.

In 1940 Andy spent the summer working out of Victoria on a variety of projects, including a reconnaissance inventory of cascara, which had gained importance for medical supplies during the war.

In May 1941 he joined the Royal Canadian Engineers in the regular army. After serving as an Instructor to novice army engineers, he went overseas in December of 1942. Shortly after D-Day his unit went to France. At the end of the war he was in Holland where he served until January of 1946. He then returned to Canada and was discharged as a Captain.

Upon his return to civilian life, Andy carefully evaluated job opportunities in forestry. Although he had enjoyed working on survey crews for the B.C. Forest Branch a few years previously, he decided to explore the job situation in the private sector. He soon obtained employment with the Alaska Pine Company as a Compassman at Port McNeill. Within a few months he became an Assistant Logging Engineer under Tom Groves (UBC 1931) at the Gordon River operation of Western Forest Industries Ltd., a subsidiary of the Alaska Pine Company.

This was followed by his appointment as a Logging Engineer at the Meade Creek operation of Western Forest Industries Ltd., in 1947. Andy describes his advancement as follows:

Four years later I was promoted to Office Manager of the Forestry and Forest Engineering departments at head office in Vancouver where I worked under the Chief Forester, Ross Douglas (UBC 1935). The company was now known as Alaska Pine and Cellulose Limited, shortly to be renamed Rayonier Canada Limited. Three years later I became the Executive Assistant to Ross Douglas, who in the meantime had been promoted to Vice-President Forest Operations.

In 1963 I was promoted to Assistant Manager of Log Trading, and in 1965 to Manager of Forestry and Lands. As such I was responsible for the forest management and land management of the timber supply for four sawmills and two pulp mills, including three major Tree Farm Licences (Numbers 6, 24 and 26).

Throughout his career Andy was a public-spirited individual, and made time available to take an active role in forestry organizations. For many years he served on the Council of Forest Industries, and at the time of his retirement in 1980 was a member of the Director's Forestry and Logging Committee as well as Chairman of the Forest Management Committee. He also served on the Associate Committee on University Forestry Research for the National Research Council of Canada. From 1963 to 1980 he served as a trustee of the Western Forestry and Conservation Association. In 1975 he served a term as President of the Association of British Columbia Professional Foresters. In 1977 he was President of the Canadian Institute of Forestry.

Poor health since retirement curtailed many of Andy's activities, and he concentrated on researching his family genealogy. He completed a six-volume history on the Anderson Family before his death on April 13, 1995.

GERRY S. ANDREWS

"Mid-December 1903 in Winnipeg's deep freeze at 124 Colony Street, my first sniff of air was the rich aroma from Shae's Brewery across the road."

Gerry Andrews wrote the above in an autobiography titled *The Making of a Surveyor General*, published in *The Link* (July 1989 issue).

Gerry is a man of many careers, with notable accomplishments in all of them. He progressed from teacher to forester, to airphoto specialist in both forestry and the military, to senior administrator. His passion for accomplishment has endured during nearly 30 years of retirement, during which he has written many reports and books.

At an early age, Gerry decided to become a forester. The decision occurred in 1920 while attending high school in Calgary, where one of his teachers extolled on opportunities in forestry. For Gerry, the main attraction of a forestry career was the opportunity for outdoor life in the wilds doing work that demanded brains as well as brawn.

Having decided to study forestry, Gerry made plans to save the money needed for university. He qualified as a teacher at the age of 18 and accepted jobs in remote country schools in British Columbia. Among the challenges he faced was the language barrier. He taught school at Kelly Lake, where the children spoke only Cree.

In 1985, Gerry wrote a book (*Métis Outpost*) in which he reminisced about his teaching days at Kelly Lake. Here are a couple of excerpts from this book:

Christmas Concert at Kelly Lake School, 1923

My father, a druggist in Elgin, Manitoba, had just sent me an ingenious little portable gramophone with some records, including one or two Christmas numbers. He suggested I might stage a surprise with it. Our concert was the opportunity. I hid it in a corner behind a large wall map, all set to go. At the end of the kids' program and just before refreshments, I sneaked behind the map and triggered the machine. Suddenly, the hymn "Joy to the World...the Lord is come!" boomed out in rousing volume, almost lifting the sod roof. Eyes opened like saucers and jaws dropped down on chests. It was a smashing finale to our program. Candy, biscuits, etc. from Jim's store were dished out with lots of hot sweet tea. They had brought their own mugs. The first-ever Kelly Lake school concert was a signal success.

New Year's Dinner at Kelly Lake, 1923

It came time to prepare our New Year's dinner. Jim rather liked basic cooking, so this was a joint effort. We went "all out" on the turkey. For the traditional stuffing was assembled the usual ingredients: bread crust, onions, raisins and spices – but we had no sage as such. However, when leaving Big Bar the previous July, I had gathered some blue sage (*Artemisia tridentata*) to put in my trunk for moth deterrent and because I loved its pungent aroma. So a liberal portion of this was chopped up and added to the mix. The well-stuffed bird went into the oven to roast gently and long. Finally the feast was ready, and our appetites razor-sharp. Jim carved the roast, emitting its aromatic vapours, and we loaded our plates. Horror of horrors! The turkey was inedible, as though it had been stewed in turpentine. It was a sad case of too much of a good thing. A tiny pinch of Big Bar sage would have sufficed.

At the age of 23 Gerry commenced his forestry training at the University of Toronto, and earned his BScF in 1930. During the previous summer he had enjoyed working in the wilderness of B.C. on a forest survey of the Elk Forest, so he headed to Victoria immediately upon graduation, and was hired by the Forest Surveys Division of the B.C. Forest Branch. Again he trekked out to the backwoods with packhorses, this time as Party Chief. The area tackled was the Flathead Forest, even more remote than the locale of the previous summer. While mapping, compiling and writing up the survey report the following winter, Gerry became intrigued with the possibilities of using vertical airphotos as a tool for many applications in forest inventory work.

In 1933, Gerry faced unemployment along with several other junior foresters in the division. He seized this opportunity to improve his knowledge of aerial photogrammetry by traveling overseas to study under world authorities in the field. After a little more than a year in Europe, he returned to the Forest Surveys Division and continued with research on improving aerial photographic applications.

In 1940 Gerry joined the army and went overseas intent on more involvement with aerial photography. His army career lasted more than five years, and his achievements in military applications of aerial photography earned him The Most Excellent Order of the British Empire.

In 1946, upon his return to "civvy street" he found new and challenging opportunities by leaving the B.C. Forest Service and joining the Department of Lands. This decision initiated a 22-year career, during 17 of which he served as Surveyor General and Director of Mapping for British Columbia.

After retiring in 1968, Gerry started yet another career. Over the years he had developed an inner sanctum in his home, complete with file drawers bulging with entries going back to the 1930s, as well as a reference library that occupied many rows of shelves. But the real key to his retirement success as a writer is an excellent memory and a profound interest in western Canadian history.

Gerry's contribution to his province and his country are widely recognized. In 1990 he was awarded the Order of British Columbia, and the following year he received the Order of Canada. In his nineties Gerry still devoted much of his time and energy to research on several historical topics. (He died on December 5, 2005 – a week short of his 102nd birthday.)

ALF H. BAMFORD

Alf's first job with the B.C. Forest Branch was in 1935. He retired in 1976. During that span of time he worked for the Reforestation, Research and Surveys divisions.

In 1936, Alf was given a minor work assignment which turned out to be the first step toward a long career dedicated to reforestation. At the time he was a member of the Young Men's Forestry Training Plan crew stationed at the Aleza Lake Experiment Station. The primary activity of this crew involved making improvements at the station. Under the capable direction of Hayward Kinghorn, new buildings were constructed, older buildings upgraded, water and electrical systems installed, roads improved and the trail system extended.

In mid-summer a request was received for collections of Interior spruce cones. Making these collections required someone with sufficient forestry expertise to identify tree species and to use a compass to avoid getting lost. Most of the crew were city boys with no experience in any aspect of forestry. Alf was the exception. He had been raised on a farm near Francois Lake and in Smithers. In 1935 he worked in the YMFTP at Smithers where he gained early experience in running compass for Ranger Ike Martin

on railway tie timber sales. Moreover, his first job at Aleza Lake in 1936 was as a Compassman for Dr. G. Barnes on a regeneration survey. Kinghorn was confident that Alf was equipped to handle the cone collection job. Alf took on the first of many projects associated with reforestation.

Later in the summer of 1936, Alf was given yet another opportunity to broaden his forestry experience. Cy Oldham and his summer assistant, Alan Orr-Ewing, were re-measuring growth and yield plots in the Okanagan Valley. Alan had to leave before the job was completed. An experienced woodsman was desirable, so Alf was sent to replace him. This brief exposure to research led to a research assistant job in 1937. During that summer, Alf again got the opportunity to experience job variety. Under Harold McWilliams, Alf ran compass for plantation survival surveys at the Green Timbers Forest Experiment Station, on West Thurlow Island and in the Campbell River Experimental Forest. He also assisted McWilliams in assessing direct seeding experiments in the Cowichan Valley. As the summer drew to a close he worked as a research assistant for Eric Garman on history map studies in the Cowichan Valley and at Great Central Lake. All of this work contributed to a knowledge base, which he would ultimately apply in reforestation projects.

Alf was born in Vancouver on September 5, 1915, but spent his youth in the Northern Interior of the province. His father, a dentist, was advised to move to a different climate for health reasons. When Alf was four years old, the family moved to a farm near Francois Lake. This locale was sparsely settled and had no school. Alf's father donated an acre of land for a school, the neighbours got together and built it, and Alf's formal education was launched. This was the Nithi River School.

The farm was not a paying proposition, and after a few years the family moved to Smithers where Alf's father opened up a dental practice. Alf became interested in forestry through his father's friendship with Pug Greggor, the Assistant District Forester at Prince Rupert. It was Greggor who convinced Alf's father that Alf should study forestry at the University of Washington.

In 1938, seeking more variety in work experience, Alf applied for a summer job with the Forest Surveys Division. He was hired to work as a Cruiser on the Graham Forest survey under Cy Phillips. The field party operated from the *B.C. Forester*, which provided comfortable accommodation and transportation. A combination of better than average weather, periodic social events ashore and a compatible crew produced an enjoyable summer. When the Graham Forest survey was completed, the operation moved south to cover some of the islands in Johnstone Strait as well as the Beaver Cove area on Vancouver Island.

Alf graduated from the University of Washington in 1939, and was hired as a Timber Cruiser on the Harrison Forest survey. The following winter he worked as a Draftsman, assisting Ralf Sheldon Williams in preparing maps for the Forest Surveys Section.

In 1940, Alf became a part of the Reforestation Section of the Forest Economics Division. This section consisted of four men (McWilliams, Whiting, Wharf and Bamford) who occupied a very crowded office in the Campbell Building. Reforestation of the area burned by the Campbell River – Courtenay fire had commenced in 1939. In 1940 this effort was expanded and Alf joined Harold McWilliams on a planting project on the south side of the Campbell River.

Alf continued to work on reforestation projects until he joined the army in 1942. Upon his demobilization in 1946, he was hired by the newly-created Reforestation Division. Within a few years, Alf became responsible for much of the technical work of the Reforestation Division, although he was never officially recognized as Forester I/C of that division. His good efforts and his contribution to forestry were recognized when he was honoured with the Distinguished Forester Award from the Association of B.C. Professional Foresters in February 1977, a few months after his retirement. The citation for the award ended with the statement "He is now known internationally as Mr. Reforestation."

A comprehensive account of Alf's career in the Reforestation Division is being prepared for a report on the history of reforestation by a consultant, Zoe Lambert, with financial support from Canada Council and Green Gold grants. (On January 15, 2005, Alf Bamford died peacefully in Victoria after a long illness.)

PERCY M. BARR

Percy Barr contributed substantially to forest research in B.C., both as a researcher and as a research administrator. He had plenty of energy and enthusiasm plus the ability to identify key objectives for problem solving. He played a major role in establishing the Aleza Lake Experiment Station and in shaping a research program that was ahead of its time. Although the Depression ruined the main thrust of his plans, some of the original experimental plots established over sixty years ago are still of value today.

Before Barr started to work for research, he was a member of a small group of World War I veterans who were pioneers in forest surveys. After being demobilized from the RAF in 1919, he enrolled at UBC to study Forest Engineering. Each summer he worked on a forest survey field party. There is only a smattering of information about these field parties, as there are no survivors from forest survey crews that operated before 1926. We do know that Percy Barr, Geh Ternan and Ernest Manning were Timber Cruisers under Party Chief C.D. Orchard on the Nass River survey in 1922. In 1923, while still an undergraduate, Barr was promoted to Party Chief in charge of a 12-man crew on the Horsefly cruise.

Barr graduated from UBC in 1924 and was hired by the B.C. Forest Branch to obtain information relevant to the establishment of an experiment station in the Central Interior, and to plan the development of this station. His four years of experience in forest surveys in the Interior of the province equipped him well for the assignment. Assisted by Harold McWilliams and John Harvey, Percy Barr established temporary sample plots throughout the forest that eventually became the Aleza Lake Experiment Station.

One of the primary objectives for this station was to demonstrate sustained yield forestry at a practical level. An annual harvest of one million FBM (foot board measure) followed up by successful regeneration was projected as the main thrust of this demonstration forest. Accordingly, Barr visited nearby sawmills and evaluated log supply requirements as to species and size. He prepared a report with positive recommendations and the Aleza Lake Experiment Station became officially recognized in late 1924.

The next assignment for Percy Barr was to take charge of developing the station. His first priority was to obtain an accurate forest inventory upon which to base a sustained yield potential. A four-man survey crew began this operation in 1925, and the job was finished in 1926. Barr also took charge of building a camp and developing road access.

In 1927, the Research Division was created and Barr was promoted to Forester-in-Charge. For the next two summers he continued to spend most of his time at the Aleza Lake Experiment Station, developing a research program and obtaining data for his PhD (Yale, 1929).

The newly-established Research Division enjoyed solid financial support and expanded rapidly during its first three years of existence. Another experiment station was established at Cowichan Lake, and a variety of research projects were started there. But the Depression had a devastating effect upon the Research Division. As money became scarce most of the researchers left to take on teaching jobs at American universities. By 1936 only two researchers remained. Percy Barr had left in 1932 and launched a successful teaching career at the University of California (Berkeley).

There is little doubt that Percy Barr was a remarkable organizer, motivator and producer. He had demonstrated these traits in both his inventory and research work. His loss from the B.C. Forest Branch was felt for many years. Following one of his usual full days of work at his office, he died quietly on August 27, 1960. A more comprehensive biographical sketch of Percy Barr is in *An Early History of the Research Branch*.*

C. ERIC BENNETT

Few foresters can match Eric Bennett in terms of occupational diversity. In the logging industry he worked as Dishwasher, Cook, Chokerman, Rig-up Crewman, Rigging Slinger, Chaser, Donkey Puncher, High Rigger and Forest Engineer. In the B.C. Forest Service he worked as a Compassman and Cruiser in forest surveys, and eventually as Two I/C of the Forest Inventory Division. He worked in the Research Section of the Forest Economics Division, and in various positions in three forest districts (Vancouver, Prince Rupert and Prince George) as well as in the Victoria Management office.

^{*}Schmidt, Ralph L. and John Parminter. 2006. An early history of the Research Branch, British Columbia Ministry of Forests and Range. Research Branch, Ministry of Forests and Range, Victoria, B.C. Technical Report 036. viii + 91 p. http://www.for.gov.bc.ca/hfd/pubs/Docs/Tr/Tr036.htm

To this impressive list, add a Royal Canadian Air Force (RCAF) career in World War II in which he piloted a bomber on 35 missions, became a Flight Lieutenant and was awarded the Distinguished Flying Cross, and we gain an appreciation of Eric's versatility.

Eric was a native son of B.C., born at Creston on July 3, 1914. His father, a Bank Manager, was transferred to Fernie in 1924. The Depression had a devastating effect on this coal-producing town, and few businesses survived, so Eric's father was transferred to Vancouver in 1931.

From his mother, Eric heard many stories of her father's exploits as a CPR railway builder. He was the first Road Master of the Mountain Division of the CPR mainline, had built railway lines in the Rocky Mountains and had served as superintendent of the Crow's Nest Pass Division of the railway and also as the superintendent of the CPR Logging and Milling Division. These stories made a lasting impression on Eric, and he decided to become a Forest Engineer.

Eric attended UBC in the fall of 1931, but had difficulty in adjusting to university life. When the school year ended in May, he went looking for a job in the forest industry. He found work and a totally different lifestyle, as he relates:

My first taste of logging camp life was on my 18th birthday in 1932. Jobs were scarce, and I considered myself lucky to be hired as a dishwasher by the Elk River Timber Co. at Camp 8 west of Campbell River. As things turned out, I was probably too diligent and thorough in cleaning cutlery and china, and comments were made about the need to speed up the operation in order to hold one's job.

After a couple of months on this job, I met Harry Baxter, the Elk River Timber Co. Logging Engineer. Years before, he had worked for my grandfather on the Kootenay Central Railway. Harry was taking a survey crew to the Buttle Lake area and needed a Cook. I was hired and though I had little talent for cooking, I managed to cope. No one praised my cooking, but I didn't get fired either.

The next year, I got a job on a railway track-laying crew at the Bloedel Stewart and Welch operation at Franklin River. After four months I got the opportunity to work as a logger, and I alternated between Chokerman and Rig-up Crew duties. Most of the Chokerman jobs were on old machines, which were not fast, and therefore reasonably safe. When the company purchased the "high-ball" Lidgerwood skidder with steel spar, I avoided the Chokerman's job and worked primarily on the Back-rigging crew. All in all, those months were a great opportunity to learn about rigging and splicing, and even some tree climbing for fun.

My next logging job was in 1934 at a Victoria Lumber and Manufacturing camp in the Cowichan Lake area. Again I worked on the Rig-up crew, but found the operation was very inefficient (haywire) in comparison with the Bloedel Stewart and Welch operation at Franklin River.

In 1935 I worked for the Rainy River Timber Co. near Port Mellon. This was a truck show using plank roads. Again, I worked on the Rig-up Crew. I returned to Franklin River in 1938 for another summer while attending UBC. After the war, I checked out B.C. Forest Service salaries, and decided I could do better in the logging camps. I worked for the F & R Logging Company at Phillips Arm.

This was a small operation and I enjoyed the work. For one thing, my duties were flexible and I was happy to alternate between the duties of Donkey Puncher, Chaser and High Rigger. My wife accompanied me to this isolated logging camp. The remoteness, as well as the heavy traffic of grizzly bears through our yard, eventually contributed to our departure in 1947. I accepted a job as Assistant Forest Engineer for B.C. Forest Products. After a year at Port Renfrew, I decided to explore employment opportunities in the B.C. Forest Service.

Eric's first experience with the B.C. Forest Service was in the summer of 1939, when he was hired as a Compassman on the Okanagan Forest survey. This crew must have conformed to a healthy lifestyle, because most of the individuals are still with us (Dick Nixon - Party Chief, Al Dixon - Cruiser, Bill Sloan, Harold Cliff and Eric Bennett - Compassmen and John Pickford - Junior Assistant).

Some particular episodes of that summer stand out in Eric's memories:

I really improved my talent with handling an axe that summer. We were using packhorses to supply distant fly camps. We would carefully plan a suitable route for the horses by getting information on trail locations from the local Ranger. Invariably, the trail would pass through lodgepole pine stands and disappear under an endless mess of windfalls. Out would come the axes, and soon the blisters as well.

I recall one trip where half the crew had preceded the packhorses in order to run some strips as well as prepare a campsite. Two of us followed with the packhorses. Our progress was held up by windfalls and when darkness fell we had not yet reached our objective. Fortunately our mates heard us cutting trees and joined us in the dark, since we had all the food. Although there was no water available we somehow put together a half-decent meal and spent the night on the sidehill.

After graduating from UBC in 1940, Eric became a Cruiser on the North Shore field party under Party Chief Mickey Pogue. The social highlight of the summer was a party with a group of prison guards during the Chilliwack Cherry Festival. When the 1940 fieldwork

was completed, Eric continued to work for the Forest Economics Division on a variety of jobs. As he recalls:

Our first job that fall was aboard the *B.C. Forester* with Slim LeMare and Howard Elsie, locating and measuring Growth and Yield plots around the Gulf of Georgia. Lou King was the Skipper and we also had a Cook. When the fieldwork was completed, I worked in the office compiling the plot data, as well as assisting several foresters in Research and Forest Surveys. In early spring I was out in the field running lines for Alf Bamford's planting crews at Lois Lake near Powell River. I then returned to Vancouver Island to assist Angus MacBean in the field. This job was very short-lived, because I joined the Royal Canadian Air Force in May of 1941.

As noted previously, Eric's first civilian job after the war was at a remote logging camp. From there he moved to Port Renfrew as an Assistant Forest Engineer for B.C. Forest Products. A year later this job ended and Eric returned to the B.C. Forest Service. He worked in the Management office in the Vancouver District, and four years later became I/C of Management. In 1955 he was transferred to Prince Rupert as Assistant District Forester, and in 1960 he was transferred to Assistant District Forester at Prince George. Four years later he became Two I/C of the Forest Inventory Division in Victoria. In 1968, he moved to the Planning Section of the Management office in Victoria where he remained until his retirement in 1979.

During his sixteenth year of retirement, Eric looked back on his B.C. Forest Service career with considerable enjoyment. He recalled the following memories with particular satisfaction: Dr. Orchard's capacity to relate to people and his philosophy on forest management; the Okanagan Forest survey, because it was great country for outdoor living; the two-month stint aboard the *B.C. Forester* with only a small crew; the Prince Rupert Forest District with its varied terrain and rugged scenery; and the summer of 1964 in the Forest Surveys and Inventory Division, when Eric had the opportunity to travel extensively throughout the province.

HAROLD N. CLIFF

For many years, the inventory program was regarded as the "training ground" for new forestry graduates. The physical demands of the fieldwork tested their mettle as well as their ability to get along with their co-workers under difficult circumstances. The field experiences also provided a broad knowledge of forestry condition throughout the province's diverse regions.

Most foresters enjoyed the portion of their careers spent in inventory. Few enjoyed it more than Harold Cliff. On one occasion he left for a job elsewhere in the B.C. Forest Service, only to return and ultimately retire from the Inventory Division.

Harold was born on November 26, 1913 in Moose Jaw, Saskatchewan. His father worked as a boilermaker for the CPR, and after promotion was transferred several times – to Brandon, then Winnipeg, and finally to Revelstoke. Upon his father's death in 1933, Harold's family took up residence in Vancouver.

After a few years of sporadic employment, Harold entered UBC, obtained a BA in 1941, and his BSF in 1942. Harold's first forestry job was in the summer of 1937 at the federal forest entomology laboratory in Vernon. It was both an enjoyable and educational experience.

In 1938, Harold worked for the Research Division of the B.C. Forest Branch, first for Harold McWilliams on a forest mensuration project, and then for Eric Garman on a silviculture project at the Cowichan Lake Experiment Station.

His first opportunity to work in Forest Surveys arose in 1939 on the Okanagan Forest survey. Despite an overabundance of wasps and rattlesnakes that summer, Harold enjoyed the experience and became intent on a career in forest inventory work. He continued to work in Forest Surveys for the next three years: 1940 at Slocan, 1941 at Fraser South and 1942 at Sayward.

The most memorable summer was in 1941 when Harold worked under Party Chief Mickey Pogue. He became impressed with Mickey's style of running a field party. Mickey, a genuine product of tough times during the Depression, could always find a way of solving a problem and still maintain a high level of productivity at minimum cost.

Harold recalls an event in 1941 in the Chilliwack area:

Mickey was death on taxis and hotels. As a consequence, I slept in some unusual places during my years in Surveys. My first experience of this nature involved an overnight stay in a barn near Chilliwack. Our crew was about to establish a major fly camp at Chilliwack Lake. Travel to the site involved a hike of 10 miles from the end of the road, and a decision was made to use packhorses for hauling supplies. To get an early start, I was delegated to sleep on a farm with the horses, get them on the road at the crack of dawn, and make a rendezvous with Mickey who would provide a truckload of food and gear.

No mention had been made about breakfast, so I pocketed a hard-boiled egg and an orange before leaving camp on my way to the farm that evening. The next day everything went according to plan, and without delay we established a camp at Chilliwack Lake.

Harold joined the army in January 1943, and served in the Royal Canadian Engineers, primarily as a re-enforcement officer. He was discharged in April 1946 and immediately took up where he had left off three years previously. His first post-war job was as an Assistant Party Chief under George Silburn on the Clayoquot survey. Partway through the summer he was transferred to the Esquimalt and Nanaimo Railway Company Land

Grant survey where he was an assistant to Davis Carey. He and Davis soon discovered that they both enjoyed scrounging "useful" collectibles at abandoned logging camps and sawmill sites. Their friendship continued for many years.

Harold became a Party Chief in 1947 and worked in that capacity for three years (1947 - Sayward, 1948 - Sayward and Similkameen and 1949 - Similkameen). In 1950 Harold became one of Mickey's right-hand men and spent most of the summer going from one field party to another on trouble-shooting missions.

During the 1940s, the Forest Economics Division served as a catchall for surveys, research and reforestation personnel. At the beginning of 1951, the Forest Economics Division disappeared, and the Forest Surveys and Inventory Division was established. In the same year an accelerated inventory program was launched as a result of the Federal-Provincial cost-sharing agreement. The net result was a huge increase in field personnel as well as changes in methodology.

Mickey devised a system whereby he and Harold would leave Victoria simultaneously but go their separate ways. One of them would travel by airplane and boat to visit field parties on the Coast, while the other would drive a 1947 Mercury sedan and visit Interior field parties. Then they would meet in Prince Rupert and switch roles, arriving back in Victoria a few weeks later for a few days off.

Harold finally decided that it was time for a change, and 1959 became Two I/C of the Working Plans Division. A year later Mickey Pogue also left the Forest Surveys and Inventory Division to take charge of the Working Plans Division. As interesting as his new job was, the Forest Inventory Division still held considerable attraction for Harold. In 1967 he returned to that division as Two I/C, remaining there until his retirement in 1978.

Harold's retirement activities included a great deal of golf and fishing, as well as extensive travel with his wife Peggy in their motorhome. Long-lasting friendships were maintained through the bridge club, consisting mainly of foresters and their wives. This club flourished for 35 years. (He died on June 27, 2008 in Victoria.)

GEORGE L. CORNWALL

Although George Cornwall's career developed into directions far removed from the forests of British Columbia, he still looks back at the five summers spent on survey crews as the most enjoyable time of his life. George was born in Vancouver on September 13, 1908 and was educated in that city. He attended UBC from 1924 to 1931, first taking courses in economics and the humanities before obtaining a degree in Chemical Engineering.

George's first summer in the wilds of British Columbia was in the Kingcome Valley in 1926, where he worked on a crew which was surveying agricultural land. He spent the next four summers working as an instrument man on Forest Surveys Division crews in the B.C. Forest Branch:

1927	Babine Forest	Party Chief: Ken McCannel
1928	Nehalliston Forest	Party Chief: Ed Bassett
1929	Elk Forest	Party Chief: Hugh Hodgins
1930	Flathead Forest	Party Chief: Gerry Andrews

At the present time George is painstakingly preparing detailed memoirs of the days he enjoyed in these once wild and remote areas of British Columbia. Several of his stories appear elsewhere in this report.

During World War II he played a vital role conducting research on strategic metals production as part of Canada's war effort. He also spent a good part of his career working for the Toronto Star – developing a manufacturing plant for ink, as well as conducting research on paper.

After his retirement in 1968, he and his wife traveled extensively, including a sevenmonth round-the-world journey. They also became true "snowbirds," spending the winter in Florida and summer at their home in Torrance, Ontario.

George sent me a copy of his memoirs covering the Kingcome River survey of 1926. This 38-page document is an excellent reflection of a keen memory and an appreciation of the natural history of the area. Good luck on the ones you're still working on!

JAMES D. CURTIS

A biographical sketch of Jim Curtis containing considerable detail is included in *An Early History of the Research Branch*. To avoid repetition the following is much abbreviated, and of course, focused on the Forest Surveys Division.

In the fall of 1935, Jim Curtis arrived at an important crossroads in his life. He must decide whether or not to leave his native province and country. He had just completed fieldwork as a timber cruiser on the Upper Arrow Forest survey. It had been a temporary summer job, and Jim could not find any other forestry employment opportunities in B.C.

Previously he worked in the Research Division, starting in 1929, but was laid off during a staffing cutback in November 1932. During the intervening years, he traveled extensively and obtained an MF degree at Harvard University. Now he had to decide where his future would be most promising.

It was really not such a tough decision. If he remained in B.C. it might take several years to find continuous employment in forestry. On the other hand, he had heard that there were a few openings for forestry instructors at some colleges in the eastern United States. Without hesitation he applied to Massachusetts State College, and was accepted. This move to the United States marked the beginning of a 30-year career in that country – 11 years of teaching as well as 19 years as a researcher and research administrator.

Jim was born in Vancouver on June 6, 1905. He attended UBC where he obtained his BA in 1929 and his BASc in Forest Engineering in 1930. His first job with the B.C. Forest Branch was in 1929 when he worked for the Research Division.

Jim's memory is well above average for a person of his years. His memory is especially keen concerning the summer of 1935. After all, that was the first, last and only time he worked for the Forest Surveys Division, and the experience left a lasting impression on him. As Jim recalls:

That year of 1935 was my last year with the BCFS. It was a great summer and I thoroughly enjoyed it. Cedric Walker was Party Chief and we had a great group of fellows. I nicknamed Lorne Swannell "Gazelle Swannell" because of his prowess on the trails. He took great pride in his packing ability too. Harold McWilliams was also on the party as a Cruiser, and he and I tented together. Ed Senkler was his Compassman.

I remember I had a fellow called Jack Allen, but my recollection of the summer as a whole is that it was just a great big party! Great *esprit de corps*. I figured that by the time the summer was over, I had climbed the equivalent of Mt. Everest several times!

Different members of the party had some experiences of various kinds. McWilliams and Senkler got capsized with all their gear trying to cross a river. Jack Allen and I ran into a bear that would not let us go through his territory and treed us. Cy Phillips and Bob Shaw were circled by a grizzly as they sat on the snow having their lunch. They figured this was it! No tree to climb or stump to scramble up! Eventually the bear wandered away.

But all in all, it was a great summer and I enjoyed it. As I remember, there were times when the flies and mosquitoes were pretty annoying and you wondered why you got into forestry! Harold McWilliams and I used to talk about this, but we both agreed it was a good life.

I remember I was coming back from a fly camp with Jack Allen, my Compassman, and I was ahead of him on the trail, when suddenly I heard a great commotion ahead of me, and as I looked up I saw a bear coming down a big Douglas-fir, 10 feet at a lick, until he reached the ground. The tree had a big shallow crotch in it about 80 feet from the ground and it apparently had been snoozing there and heard our coming, so decided to reach *terra firma*. The bear followed us into the main camp.

I remember Ken McCannel came by during the summer on an inspection trip, and during his stay he asked us if Cedric Walker was giving us easy strips! We told him what we had long since decided among ourselves – "All strips are tough – some are tougher than others!!" There was an older fellow from Surveys in Victoria in the party too, but I can't recall his name.

Ed Senkler and I quit at the same time and went down to the Coast together. I left shortly thereafter for Amherst, Massachusetts to try my hand at teaching. Ed Senkler ended up in Seattle and I regret I never looked him up. He was a jolly soul with a great sense of humour and hard as nails – played rugby. He was a big fellow. He wore out a good pair of woods boots and used to wire them on every morning for weeks! He finally had to get a new pair. He recently passed away I think.

Every few weeks we would shift our camp to another location on the lakeshore. Moving camp was a breeze. We would contact the CPR ferryboat, the *Minto*. She would run her shallow bow up on the beach whenever we were camped. Our crew had all our belongings ready to put onto the foredeck and then we were taken to our next campsite, where all our gear was quickly unloaded. Very convenient and economical.

Some time in July or August we moved to St. Leon Hot Springs on the east side of the lake, about 20 miles north of Nakusp. There was an old resort hotel there with an elderly lady from Revelstoke acting as caretaker, but the hotel was not open for business. However, about six or seven girls from Nakusp had just arrived and set up their camp beside the hotel. They were there on a short summer vacation.

There was an excellent sandy beach and good swimming. We all soon met of course, and we all got along well together. There was an old piano in the public lounge of the hotel and one or two were piano players. On Saturday night someone suggested we should have something to drink and more fun would ensue. Our small boat was really quite a speedboat, so it was suggested the Party Chief should take off for Nakusp and somehow get a bottle or two. Luckily, the local Ranger (Percy Young) was home and he managed to round up two bottles, which were duly paid for, and they reached St. Leon shortly thereafter. There was quite a party that night in the old hotel – singing and dancing, etc. However, the caretaker saw to it that no couples went up to the bedrooms. But it wasn't that kind of party anyway.

Many years later, I took my wife to Upper Arrow Lake while the paddlewheel steamer *Minto* was still plying the lake and rode from Arrowhead to Nakusp. I showed her where we spent the summer of 1935 and the hills we climbed to timberline every day!

Jim and his wife had led a quiet retirement life at Comox for the last 29 years at the time of writing. When I finished my first interview with him, he looked out to the islands in Georgia Strait and to the Beaufort Range, and said:

During the years since I retired I have had plenty of time to think about the many experiences during my forestry career, and I've come to the conclusion that if I had to do it over again, I wouldn't change a thing. (Jim died on May 16, 1996.)

ALLEN H. DIXON

Choosing a career in forestry was a very natural decision for Al Dixon, who explains:

It was not by accident or by chance that I took an interest in forestry at an early age. My paternal grandfather owned and operated a paper mill in Yorkshire around the turn of the century. My father emigrated to Canada and settled in B.C., where he was in the sawmilling business for several decades. My older brother also worked in the lumber industry as an inspector for the Pacific Lumber Inspection Bureau.

I was prepared to follow in my father's footsteps in the sawmilling business, but my mother convinced me otherwise. She stressed the economic vagaries of the lumber industry. It had been boom or bust for our family, and at her suggestion, I decided to become a forester, and get a job, which offered more security than the cyclical lumber industry.

My first job in forestry was at age 15 when I cut firewood on the UBC lands during the depression. After completing high school, I worked on night shift at a sawmill to earn enough money to enable me to attend UBC.

Al was born in Vancouver on April 11, 1915, the youngest of five children. The family soon moved to the Queen Charlotte Islands [Haida Gwaii] where his father established a sawmill to cut Sitka spruce lumber for aircraft construction during World War I. Over the years, his family moved several times as his father tackled different sawmill enterprises (Port Moody and Squamish).

In 1935 Al enrolled at UBC. The graduating class of 1940 turned out to be the largest class up to that time, and included several individuals who established long-term careers in the B.C. Forest Service (Bennett, Cameron, Carey, Dixon and Poque).

It was difficult to find summer employment during the 1930s, and Al relied on an older brother's connections in the forest industry to get his first summer job in 1936. He was hired as a Spark Chaser at the Bloedel Stewart & Welch operation at Great Central Lake. This job had a very broad interpretation of duties:

A good part of the time I split firewood for the donkey engine. On other days, I helped out in the blacksmith shop repairing rigging. As the official Spark Chaser, one of my duties was to ensure that no fires were started by friction from running lines or from sparks spread by the donkey engine. This meant checking the logging setting after the rigging crew had departed for camp. When I completed my inspection, I would walk the three miles to camp.

In the summer of 1937, Al got a job on a mining survey crew at Ainsworth, near Nelson. A couple of weeks later he received an offer from the B.C. Forest Branch to work on a Forest Surveys Division crew. He left immediately and headed for the Queen Charlotte Islands [Haida Gwaii] to join the crew on the motor launch *B.C. Forester* under Party

Chief Bill Hall. Having had one summer's experience in the woods, Al easily adapted to the rigours of running compass for "high-ball" Cruisers.

Upon graduation from UBC in 1940, Al accepted a ranger position on the west coast of Vancouver Island at Zeballos where he replaced Cedric Telford. In 1941 Al was transferred to the Port Hardy ranger district. Again most of his travel was by boat, the *Nesika* (this boat is still seaworthy). The following quote is from the B.C. Forest Branch newsletter of December 1941:

The second marine accident of the year occurred on October 6th when the launch *Nesika* in charge of Ranger A.H. Dixon of Port Hardy caught fire while at sea. The Foamite fire extinguisher was turned on and the fire extinguished, with the exception of under the floor boards in the forecastle where the Foamite would not reach. Consequently it was necessary to open the sea cocks and flood that part of the vessel. The flames also caught the gas arising from the batteries, which exploded, rendering some of them useless.

The boat was taken into Dumaresq's camp, where, after examination, it was found she could proceed under her own power to Port Hardy, and later she came on down to the Fraser River Plant for repairs. On arrival at the plant it was found that the damage was comparatively slight; but for the prompt action of Ranger Dixon and the Engineer H.G.M. Colbeck in opening the sea cocks, the vessel might have been a total loss.

Al left Port Hardy near the end of 1942 to join the army, and was posted overseas in early 1943. He served as a Lieutenant in the Royal Canadian Engineers in Holland, Belgium and Germany with primary activities consisting of road and bridge repairing as well as mine clearing.

After demobilizing in 1945, Al again joined the B.C. Forest Service as I/C Management in the Prince George Forest District. After two years he was promoted to Assistant District Forester at Prince George, working under Lorne Swannell. In 1951 he was promoted to the Two I/C position in the Protection Division in Victoria under Gerry McKee.

Four years later Al again transferred to a different section of the B.C. Forest Service, this time as Two I/C of the Ranger School at Green Timbers. A year later he was placed in charge of the Ranger School.

In 1959, Al again returned to a district, this time as District Forester at Prince George. These were exciting times for him, as development in the north experienced considerable activity.

In 1965, Al moved to Kamloops to become District Forester, and remained in this position until his retirement in 1978. Upon retiring Al served for three years on the Forest Arbitration Board, which heard appeals against Forest Service decisions.

Although arthritis curbed some of his activities (especially golf) Al keeps busy with puttering in his garden at home as well as at his cabin in the Cariboo. (Allen passed away on August 9, 2004.)

ROSS R. DOUGLAS

Actions taken on the recommendations of the Sloan Royal Commission of 1945 created much broader employment opportunities for graduate foresters in British Columbia. The government created Forest Management Licences (later Tree Farm Licences) as well as a professional foresters act. Previously, employment in private companies had been largely limited to forest engineering jobs. With the advent of a new tenure system, most of the big companies looked for a forester who had a solid background in forest inventory work.

Ross Douglas was of this era. He was born in Vancouver on January 22, 1914. After attending schools in New Westminster and Burnaby he commenced his university training at UBC in 1929 at the age of 15. During the early 1930s there were few opportunities for summer employment in forestry. In desperation Ross volunteered to work for no wages at the Green Timbers Forest Experiment Station in 1934. The B.C. Forest Branch accepted his offer, and he worked on various jobs in the nursery as well as in the adjacent plantations.

He graduated in 1935 as a Forest Engineer. Personal contacts made the previous summer helped him land a job as a Compassman on the West Kettle Forest survey. He made long-lasting friendships with fellow crewmen Hugh Hodgins, Marc Gormely, Larry McMullan and George Silburn. In the summer of 1936 Ross again worked for the Forest Surveys Division, this time as a Timber Cruiser in the Lower Arrow Provincial Forest.

In 1937 he became Ranger at Port Neville, and in 1938 was transferred to the Nelson Forest District. As a Junior Forester he was given a considerable variety of work in administration, fire suppression and timber cruising.

Ross joined the Canadian Army as a private soldier in 1940 (motorized infantry of the Westminster regiment). He served for five years overseas in Italy and the Netherlands, was wounded, and returned to Canada with the rank of Captain. Immediately after his discharge from the army in 1945 he began work in Forest Operations under Ed Bassett in Victoria. In the spring of 1947 he was temporarily transferred to the Nelson Forest District as District Forester to replace the ailing Sam Marling.

Later that year Ross's career finally stabilized when he started to work for Alaska Pine Ltd. as a forester. Ross came to them with broad forestry credentials. He had worked for three field seasons in the Forest Surveys Division (1934 - West Kettle, 1935 - Kettle and 1936 - Lower Arrow). He had been the Ranger at Port Neville. He had also worked in the Nelson Forest District (Forest Management) and at Victoria headquarters (Operations). His forestry experiences would probably have been even broader, had he not served during World War II.

He spent the next 30 years with that company and its successors. He experienced rapid promotion and became Chief Forester in 1950, Vice-President of Forestry Operations (forestry, logging and log supply) and a member of the Board of Directors.

Ross retired in 1977, but stays active with golf, gardening and reading. He has a special interest in historical books. (He lived in White Rock until passing away on March 13, 2002.)

JOE G. FALCONER

Joe Falconer died in Victoria on March 2, 1993, just seven months short of his 100th birthday. He had lived a very exceptional life. Unlike the majority who retire in their midsixties, Joe did not retire until he reached the age of 93. During 75 years of working life he kept busy as a homesteader, contract grain harvester, businessman, teacher, rancher, forester, realtor, and stockbroker, as well as a member of the RCAF during World War II.

In more normal times Joe would probably have worked as a forester for most of his career, but the Depression intervened. After obtaining his PhD at Yale University in 1932, he was unable to find employment in forestry despite previous experience and personal contacts in the B.C. Forest Branch, the Ontario Forest Service and the Dominion Forest Service.

Joe was born near Morden, Manitoba on October 8, 1893. At the age of 17 he and his father filed homesteads in southern Alberta. In the same year Joe briefly attended Normal School in Winnipeg and got a job teaching in a small community near Lake Manitoba:

I got \$50 a month for teaching and paid \$16 a month for room and board and washing. Nearly all the residents were Icelanders so fish was my diet six days a week and if lucky, it was meat on Sunday.

At this time Joe decided to make plans to obtain university training. During the next ten years he seized every available opportunity to earn money to pay for his education. His activities included a water delivery service, operating a livery stable, hauling oats for CPR construction projects, teaching school in Saskatchewan, selling hail insurance, selling farm machinery and operating a contract harvesting business.

In his memoirs Joe describes how he nearly became involved in an illegal activity:

A carpenter came along and saw what I was doing then asked for a job – so I gave him one right away. He suggested that we convert a corner of the livery stable into living quarters for ourselves. I told him I had a cookstove at the homestead, so we hauled it to town and installed it in our new quarters.

The next day along came a chap who said he was a Cook – he had cooked in the railroad construction camps. I said I could not afford to hire a Cook. He said he did not want any salary, only his board. That suited me fine and he agreed to help with the water delivery business. Little did I know that he had intentions of also delivering "firewater."

I had to get some oats for my feed barn from Medicine Hat, 70 miles away. This new Cook asked me to buy two cases of G&W Special Rye Whiskey for him. This was a new idea to me but I did it. He was to pay me when I got back, which he did. He got rid of the whiskey by selling most of it to the freighters. When I learned that he was bootlegging, I told him no more of that for me as it was against the law.

In 1922 Joe registered at UBC and graduated as a Forest Engineer in 1926. His first job as a forester was with the Research Section of the B.C. Forest Branch at the Aleza Lake Experiment Station. Percy Barr was in charge, and he encouraged Joe to pursue post-graduate studies. At the time Percy was doing post-graduate work at Yale University. Joe followed in his footsteps and went to Yale, where he obtained his MF in 1929 and his PhD in 1932. During the summers he worked in forestry in different parts of Canada, with the Dominion Forest Service, the Ontario Forest Service as well as the Forest Surveys Division of the B.C. Forest Branch. It was in 1929 that Joe worked on the Yahk Forest survey. The only survivors from his 14-man crew are Gerry Andrews and George Cornwall.

During his youth Joe had taught school in the prairie provinces, so in 1932 he again sought employment as a teacher, and landed a job in Swallwell, Alberta. He then managed to get a better job teaching high school in Chilliwack. He then worked for Canadian Industries Limited for a short time before teaching at the Langley High School. It was at this time that his wife died of leukemia.

In 1939 Joe joined the RCAF at the age of 46 as a personnel selection officer and then became a navigation instructor. Upon his discharge in 1945 he resumed teaching at Langley, but soon switched to become the manager of a building supply business in Vancouver. In 1946 Joe remarried and he and his wife adopted a son and a daughter. The family moved to Williams Lake where Joe ran a planer mill. They soon moved to Kamloops where Joe taught agriculture in the Kamloops High School. His teaching career came to a halt in 1958 when he reached the age of 65.

His retirement was short-lived. Upon leaving the school he immediately got a real estate licence and soon owned his own business. At the age of 76 Joe launched yet another career. He took a course in investments and became a stockbroker in Trail. In 1974 he switched to a company that had an office in Victoria, and was successful in obtaining a transfer to the capital city. Before his death Joe was the oldest survivor of the Research Division and the Forest Surveys Division.

ERIC H. GARMAN

Eric was born in England in 1898 and accompanied his family to B.C. in 1909. He joined the army in 1915 and served overseas. Upon his return to civilian life in 1918, he attended condensed education classes designed for ex-servicemen, and obtained his high school diploma in two years. A more detailed biographical sketch was prepared for *An Early History of the Research Branch*.

Eric spent practically his entire forestry career in the Research Division of the B.C. Forest Service, where he started continuous employment in 1927. However, his first job was on a forest survey crew in the Nass Valley in 1921. The Party Chief was C.D. Orchard. Other crew members were Percy Barr, Geh Ternan, M. Gregg and Ernest Manning. In 1922 Eric again worked on the Nass survey. He recalls:

We traveled by Union steamship to Nass Harbour where a BCFS ranger boat awaited our arrival to take us up the river. I don't remember many details, but I do recall that the Cook made sure that our provisions included several cases of vanilla extract. Our mascot for the summer was a little terrier.

There was a store at Aiyansh where we purchased supplies during the summer. A government subsidized river-crossing boat was operated by a local Indian. On Sundays he wore a top hat, a striped suit and was the reader in church.

Eric then worked in forest research (there was no Research Division until 1927) for three summers: in 1923, 1925 and 1926. He commenced university training at UBC in 1924, but shifted to Oregon State University in 1926 and obtained his BScF in 1927. In that year he also commenced full-time employment with the Research Division, obtained a fellowship and undertook post-graduate studies at Yale University where he obtained his MF.

The primary focus of Eric's research work was regeneration problems after logging in coastal forest types. His first experience in this line of work was in 1923 when he assisted J.L. Alexander on regeneration studies in the Cowichan Lake area. As his research progressed over the years, Eric studied many facets of the problem including seed production, direct seeding and seed depredation by rodents.

Eric retired in 1962 and was an active member of his church, the Royal Canadian Legion and the James Bay New Horizons [seniors] Society until a short time before his death on April 1, 1993.

WALLY HUGHES

The Young Men's Forestry Training Plan (YMFTP) created opportunities for many unemployed young men to get a job, receive training in forestry and bring some positive focus into their lives. Among the hundreds who passed through this enlightened relief program few obtained more benefits than Wally Hughes.

Wally matriculated from Victoria High School in 1931. For the next five years he sought to identify career goals. After a few odd jobs he joined the B.C. Provincial Police. After several postings involving maintaining the peace during labour disputes, he decided that the duties did not suit his temperament. He resigned after a year. He seriously considered becoming a teacher, but after looking into it thoroughly, that occupation also lost its attraction.

Finally, in 1936, he was made aware of the YMFTP, applied for a job, and was accepted. He was sent to the Cowichan Lake Experiment Station along with around 50 other young men. The contacts that he made with forestry personnel that summer would play a big role in shaping his future.

There were several foresters at Cowichan Lake who made lasting impressions on Wally. Malcolm Knapp, an instructor from UBC, spent over a week there, enthusiastically lecturing on a variety of forestry subjects. Jim Robertson, a researcher based at the station, was a sympathetic listener and friendly advisor. However, the one person who most strongly influenced Wally was Alec Gordon. Alec had worked on forest survey crews in many parts of the province for over ten years. He was in charge of the YMFTP at Cowichan Lake, having been seconded from the Forest Surveys Division.

Alec selected Wally to be the boat operator, ferrying people and staff across Cowichan Lake. As the weeks unfolded, Wally saw a lot of Alec, and heard many stories of the adventures and lifestyle of the survey crews in the wild hinterlands of B.C. It awakened Wally's interest in this kind of work, so Alec inquired at the Victoria headquarters as to whether there were any employment possibilities on any of the survey crews now working in the field. By coincidence, two Compassmen were needed on the Seymour Forest survey, and Wally was immediately offered a job.

Fred Mulholland, I/C of Forest Surveys Division, was planning to visit the Seymour field party, so Wally accompanied him by car to Campbell River, where the *B.C. Forester* picked them up. On the drive to Campbell River, Mulholland spent much of the time enthusiastically predicting a great future for foresters in B.C.

The crew of the Seymour Forest survey included several foresters as well as budding foresters, all enthusiastic about the profession. Bill Hall, Clark McBride, Dick Nixon, George Minns, John Stokes, and last but not least, Mickey Pogue. It was Mickey who took Wally under his wing after Wally's first day as a Compassman, which left him exhausted, sore, cold and soaking wet. In his casual, low-key manner, Mickey explained that the work was simple, that you couldn't do anything about the weather anyway, so you might as well make the best of it if you really wanted a career in forestry.

The Seymour Forest survey crew disbanded in September and Wally applied for a job in the newly-conceived relief program designed to provide jobs during the winter (Forest Development Project or FDP). He was again posted to the Cowichan Lake Experiment Station and got the job of Timekeeper for a road construction crew.

In the summer of 1937, there were very limited job opportunities in the Forest Surveys Division, so Wally again applied for work with the Youth Forestry Training Plan (YFTP) – the name was changed from YMFTP as a result of Dominion government financial support. This time he was assigned to work on provincial park projects. The first job involved trail building in Tweedsmuir Park, where packhorses were used extensively. Wally was then assigned to Englishman River Falls Park and finally to Silver Creek. During the winter of 1937-1938, Wally again worked on an FDP at Cowichan Lake.

Starting in 1938, Wally worked three consecutive summers with the B.C. Forest Branch on forest survey crews:

1938 Coast Islands Working Circle
 1939 Harrison
 1940 Slocan
 Party Chief: Cy Phillips
 Party Chief: Larry McMullan
 Party Chief: Dick Nixon

Meanwhile, Wally had commenced forestry studies at the College of Forestry, University of Washington, in 1939. He studied the entire year of 1941 there and earned his BSF in 1942. He and his bride Peggy moved to Powell River where he worked in the wood products laboratory for the Powell River Co. At the time Wally thought there was a future for him as a wood products researcher.

In the spring of 1943 Wally joined the RCAF, became a navigator, and served overseas and on the European Continent. Upon demobilization in 1946, he returned to Powell River for a short time before undertaking post-graduate studies in wood products at the University of Washington. A year later, having received his MF, he realized two things about his career orientation. He would require much more specialized training before he would be successful as a researcher in wood products. And secondly, he missed the personal association and friendship of other foresters. Without any further consideration he gave up a potential career in forest products research and again applied for a job with the B.C. Forest Service.

In the summer of 1947 he re-joined the Forest Surveys Section and became a Party Chief on Quadra Island and then at Smith Inlet. In 1948 he again worked on two field parties, first the Sechelt and then the North Coast to finish off the Smith Inlet survey.

In 1949 Wally transferred to the Management Division in Victoria. Two years later he was promoted to Forester I/C Working Plans Division. In 1959 he became Forester I/C Management Division, and continued in that position until 1972 when he became District Forester at Prince Rupert. Two years later Wally returned to Victoria as Assistant Chief Forester I/C Operations.

Wally retired in 1976 at the age of 62. More recently he has had to slow down on his golfing game, but he still enjoys long-lasting friendships, many of them made while in Forest Surveys over 50 years ago. (He passed away on February 19, 2015, in his 102nd year.)

CHESS P. LYONS

Chess was born on September 13, 1915 at Tregarva, Saskatchewan – a few miles north of Regina. His family soon moved to Penticton, swapping wheat for fruit trees. Ten acres of orchard gave Chess room to move about, and later a source of never-ending work.

Chess grew up as a free-spirited teenager in the Depression years and got most of his enjoyment outdoors, exploring the forests and streams in the mountains east of Penticton. Sometimes it was possible to get in some stream fishing before attending school. When school pressures built up, he would pack up a few necessities and "take to the hills" for a few days. His classmates jokingly called this "communing with nature" which in retrospect is exactly what it was.

When Chess entered UBC in 1934 he was uncertain as to a choice of career, but it had to involve outdoor activity. As Chess recalls:

By the time I had finished my second year at UBC, I had narrowed my choice to geology and forestry. Then one day, as a guest in a fraternity house, I was shown a photograph album. I came upon a picture of a rugged outdoorsman, striding along a mountain ridge, pack on his back and a rifle in hand. My host explained, "That's Charlie Schultz. He works for the Forest Branch. He spends a good part of the summer cruising timber." That did it! Two hours later I was signing up for the course in Forest Engineering. There were five of us.

It was difficult to find summer employment in forestry during the Depression, but finally in 1938 Chess was hired by the B.C. Forest Branch as a Compassman to work in a very small field party which was conducting an "economic and special study" in the North Okanagan.

Chess graduated from UBC in 1939 and was hired by the B.C. Forest Branch to work on the Harrison Forest survey under Larry McMullan. As Chess remembers, this was a summer of close calls. Here is his story about one of them:

Harrison Lake extended up the middle of the area that we covered, and provided our main transportation route. It was a bad lake for storms. We used a flat-bottomed riverboat and the oldest and most unreliable outboard motor owned by the Forest Branch. It would conk out frequently, and take a good deal of tinkering to re-start.

One day this happened during a very strong wind, which raised some mighty high waves. We had no lifejackets, and since caulk boots would act like anchors we took them off and tied them to the boat. Then with a shirt attached to an oar, we waved frantically until we were finally picked up. I developed a deep hatred for that motor.

At this point in his career, Chess began to realize that his concept of forestry went beyond climbing up and down mountains counting trees. He had initially been attracted to forestry by the scenery of the subalpine and alpine forest zones. In actual fact, he had seen nothing of these places. The love of the outdoors – which he had cultured as a youth – needed a broader interpretation of forestry than forest surveys could offer. A brief meeting with Ernest Manning, Chief Forester at that time, suggested wider horizons for foresters interested in wildlife and the recreational use of forests.

As the 1939 field season drew to a close, and with the encouragement of Hugh Hodgins, Chess started making plans to take a Masters degree in wildlife management under Professor Aldo Leopold at the University of Michigan. Shortly after he was told that since he wasn't interested in forestry, he wouldn't be returning to Victoria with the rest of the crew.

A week later, he managed to get a job as an Assistant Logging Engineer with the Lake Logging company, working out of their camp at Rounds near Cowichan Lake. In the spring of 1940, Hugh Hodgins arranged for Chess to return to the B.C. Forest Branch to work under Ken McCannel. Ken was in charge of the provincial relief projects which started in 1935. A considerable part of the relief work took place in the development and improvement of provincial parks. This aspect of the work increased and in 1939 Ken McCannel was given the title of Park Engineer, thus becoming the first technical employee of the Parks section of the Forest Economics Division. Chess Lyons became the second.

Chess would spend the next 23 years on a variety of projects focused on park establishment and development. A strong public relations program was carried out at every opportunity, aimed at making provincial parks more prominent in the public view. In 1943 he made a movie on his and Micky Trew's travels in Tweedsmuir Park. Chess can well remember the public reaction to this movie:

To everyone's surprise, this film became very popular among the films available in the Forest Service Library. It soon topped the list of the most-viewed film. The fact that I was a novice cameraman had been overcome by the dramatic shots of scenery and wildlife.

After his first success, Chess turned out a film on each of ten major parks examined. This greatly fostered public use of provincial parks. He also wrote many articles about parks for newspapers, and gave illustrated lectures.

Meanwhile, major organizational changes had taken place. In 1948, the Parks Section was taken out of the Forest Economics Division, and became the Parks and Recreation Division of the B.C. Forest Service. In 1957 this division became a part of the Department of Recreation and Conservation.

Plans were made to celebrate the B.C. Centennial in 1958. Chess Lyons was given the responsibility of restoring Barkerville, the focal point of gold rush to the Cariboo. Another project was the "Stop of Interest" sign program. The design and writing of text for these was a second major project. But after four years, funds for the restoration of Barkerville began to decline. The government appeared to have lost interest in historic preservation. With no funds available, even to make plans for the future, Chess became rather disillusioned and left the government after 23 years of service.

On the surface, his sudden departure appeared a risky thing to do, but after many years of public relations experience, Chess had become internationally recognized as an entertaining lecturer on natural history and travel topics. He spent several months each year narrating films under the auspices of the National Audubon Society. A contract with the film series *The World Around Us* added to a busy life of photographing, editing and film tours. His expertise in filmmaking attracted the interest of the Canadian Broadcasting Corporation and he was a frequent contributor to *Klahanie*, a popular outdoors program that ran for 12 years.

In between these commitments he conducted natural history tours to Mexico, Guatemala, and England. Later these turned into managing tours to many distant countries.

At the age of 79, Chess may have slowed down a bit. However, most of his time is still spent on the activities he loves best. He spent a good part of 1992 revising *Trees*, *Shrubs and Flowers to Know in British Columbia*, which he originally wrote in 1952. He plans to spend the summer of 1993 on "botanizing" trips in B.C. and Washington in preparation for up-dating the plant identification book for that state. (He passed away on December 20, 1998 and is in Wikipedia https://en.wikipedia.org/wiki/C. P. Lyons.)

DON MacLAURIN

Perseverance and versatility were key elements in Don MacLaurin's approach to his work. The rewards included a high degree of success in the careers he chose. He attained positions of responsibility in the pulp and paper industry, the RCAF and at the University of Victoria. His only connection with the B.C. Forest Branch was during the summer of 1928 when he worked as a Compassman on the Nehalliston Forest survey.

Don was born on June 26, 1909 at Revelstoke. His father, a school inspector, was transferred to Victoria in 1911, and Don was raised and educated there. He attended Victoria College from 1926-1930, and then earned his BASc (Chemical Engineering) at UBC in 1932. During the summers he worked at the Woodfibre and Port Alice pulp mills. In his graduation year, the Port Alice pulp mill ceased production, and Don got a job at Rogers Sugar in Vancouver.

Don was intent on getting more specialized training in wood chemistry. The most highly rated post-graduate school was at Appleton, Wisconsin and Don obtained a Masters degree there in 1937. He was immediately hired by Kimberly Clark (at Kapuskasing, Ontario) where he worked in the quality control laboratory until 1940. Then Don joined the RCAF and served overseas as an Aeronautical Engineer. He was discharged as a Squadron Leader in 1945.

His first civilian job was at the Powell River Company's mill at Powell River, where he took charge of the quality control laboratory. The job lost some of its appeal in 1961 when the company was amalgamated with MacMillan and Bloedel.

In 1961, Don became a chemistry professor at the University of Victoria. He returned to Appleton, Wisconsin, where he earned a PhD in 1969. In 1973 he retired after serving as Vice-President of the University of Victoria.

Don recalled many interesting stories of his one summer in the Forest Surveys Division, and several of them appear elsewhere in this text. (He passed away May 8, 2014 after a lengthy illness.)

D.L. (LARRY) McMULLAN

By good fortune I interviewed Larry on March 4, 1992, the month before his death on April 9, 1992 following a severe heart attack. Subsequently his son Don sent me a copy of an autobiography, which Larry had just completed, as well as his photograph albums.

Larry was born on July 7, 1907 on a farm in Manitoba, which his father had homesteaded in 1903. The family moved to Salmon Arm, B.C. in 1918. Larry became interested in forestry through a close association with the local Dominion Forest Service staff. His first job in forestry was in 1928 when he got a summer job as Compassman for a Dominion Forest Service forest survey crew. He had vivid memories of that summer:

Our crew assembled at Field where Charlie Laurence, of Golden, met us with his pack train. Charlie's horse was a big strong animal. We had to cross the Emerald River on the way into our campsite. Charlie took us across, two at a time, a man on each side of the horse with a single foot in the stirrup and Charlie on the saddle. That was three men on one horse. It worked fine.

The two Cruisers on our crew were supplied with calipers to measure tree diameters. These instruments were awkward to carry, particularly in areas with plenty of buckbrush. So the Cruisers took the calipers out of camp in the morning and ditched them beside the trail, depending on ocular estimation of diameters.

Larry commenced university in the fall of 1928. The following summer he worked as a Compassman on the PGE Resource Survey, which was primarily northeast of Prince

George. Hayward Kinghorn was in charge of the forestry component of this survey and Larry ran compass for Charlie Schultz. Larry recalls many details of this summer:

Our crew left Vancouver in early May. We took the Union Steamship to Squamish and then boarded the train for Williams Lake. It was a mixed train of passenger cars, freight cars and cattle cars. There was no dining car so the train stopped for meals at various places. Our first stop was for dinner at Alta Lake. At Williams Lake we met the District Forester, George Copley, and the Assistant District Forester, Doug Greggor.

The field parties made use of whatever facilities were available. Larry mentions several varieties. Here is one:

On another occasion, we started from Antoine Creek, and three days later came out at the Hamilton Ranch on the road to Likely. We spent one night in a trapper's tiny cabin. It was so small that one could not stand upright in it. Charlie Schultz cooked breakfast over a fire on the dirt floor without getting out of bed.

Larry and Charlie Schultz were again partnered off in the summer of 1931 when they worked for the B.C. Forest Branch on the Elk River Forest survey under Hugh Hodgins. Larry enjoyed a summer of many fly camps in beautiful mountain scenery supported by packhorses, which transported food, supplies and equipment.

In his memoirs he described the trip from Vancouver at the beginning of the 1931 field season:

Most of the crew rode on top of a truck heavily loaded with supplies, camping gear and equipment. We stopped overnight at Lytton. In those days that was a day's travel as the road was unpaved. It was quite a thrill riding on top of a loaded truck along the narrow road through the canyon. We could see the Fraser River far below, shining in the moonlight. We did not reach Lytton until well towards midnight.

By spring of 1933, the effects of the Depression were severely felt by the Forest Surveys Division of the B.C. Forest Branch and Larry had to look elsewhere for employment. Fortunately his friend, Tom Fraser (a co-worker in 1930), was a Logging Engineer for Industrial Timber Mills (ITM) at Youbou. Larry was offered a job on the engineering crew at Camp 6 (Caycuse) and accepted without delay. In his memoirs he recalls:

Before leaving UBC in the spring, Ian MacQueen and I agreed we would report back to UBC about 10 days or more late. This was to help our finances as we could have this extra working time and would save board in Vancouver. The Forestry Department couldn't do much about it as we were the entire 5th year class. Our problem with coming in late was that we were required to submit a thesis about a month after university opened.

I wrote my thesis on the Vernon Creek Trestle Bridge and in spite of having to dash it off in a hurry, it – to my great surprise – won the Moberry Book Prize for being rated the best thesis in 5th year Engineering. I guess it was because it was such a practical type of subject and showed some originality. The prize was only \$25, but in those days it would buy something and I got five technical books. One was an engineering handbook which would probably cost \$50 or more now.

In the spring of 1934, Larry graduated with top ranking in the Faculty of Applied Science, and won the Convocation Prize. He noted that this amounted to \$50, which was enough to buy an engagement ring that Nell accepted on April 29, 1934.

In 1935 Larry left Camp 6 to re-join the Forest Surveys Division and work on the Kettle River Forest survey. In 1936 and 1937 he worked as a party chief on the Esquimalt and Nanaimo Railway Company Land Grant survey. The following year he produced a major report on these lands, in which he addressed silvicultural problems as well as future management considerations.

During the next four years Larry worked on a variety of projects within the newly-formed Forest Economics Division. He tried to enlist in the RCAF but was turned down because of eyesight problems. In 1942 he was transferred to Prince George as acting Assistant District Forester.

He returned briefly to Victoria in 1946 but soon accepted a job in the fledgling B.C. Forest Products Ltd. He became the first forester hired by this company, at nearly double the salary he had earned in the B.C. Forest Service.

He was soon promoted to Chief Forester. In this role he spent considerable time and effort selling the sustained yield concept to his seniors in the company, and was active in preparing the company's Forest Management Licence application. In 1958, he became Manager of Timber and Lands, a position he held until he retired in 1972. Upon retirement Larry and his wife left the city and built a house on a quiet street in Royston overlooking Georgia Strait.

IAN MAHOOD

lan Mahood was inspired to choose forestry as a career at a young and tender age. His father was a ranger in the B.C. Forest Branch for over thirty years, mostly in the Fraser Valley. As a teenager, lan accompanied his father on field trips and assisted whenever he could, sometimes by running compass or searching for corner posts, or simply by being available to provide whatever help was needed.

It was a learning experience and Ian enjoyed helping his father over a wide range of conditions in the outdoors. He also met foresters from Victoria, who would stop at Chilliwack to visit his father. Men like Mulholland, McCannel and Gormely left a lasting impression. While still a young teenager Ian decided that he would study forestry.

lan was born on December 5, 1915 in North Vancouver, a few months after his father had departed overseas with the Canadian Army. After being demobilized, his father joined the B.C. Forest Branch and worked as a ranger until 1950. Ian attended high school in Chilliwack.

In the fall of 1936, Ian started his university education at UBC. While an undergraduate he spent three summers in Forest Surveys Section field parties for the B.C. Forest Branch. This began in 1938. Ian started working that summer as a Chokerman for the Bloedel, Stewart and Welch camp at Franklin River. Six weeks later the coastal region logging camps were closed due to severe fire danger. Through a fortunate contact with Fred Mulholland, Ian was hired to work as a Compassman for the B.C. Forest Branch on a small (four-man) Okanagan Forest survey party whose title was "Economic and Special Study" under Party Chief C. McBride.

During the next two summers Ian worked under Party Chief Mickey Pogue. In 1939 they tackled the Quatsino Inlet survey and in 1940 the North Shore survey. Ian obtained a commerce degree at UBC in 1940 and a forestry degree in 1941. Immediately after graduation Ian was hired by the Canadian Western Lumber Company to conduct quality control testing in their plywood plant. He soon left this work to enlist in the Westminster Regiment. In early 1943, he went overseas with the First Canadian Air Survey Company under Major L.G. Trorey, who had worked for the B.C. Forest Branch in the Forest Surveys Division.

lan was demobilized in 1946 and in rapid succession worked for Western Plywoods, Columbia Hardwoods and the B.C. Forest Service at the Vancouver Forest District headquarters office. On January 1, 1948 he was hired by the Department of Finance as a Timberland Appraiser. He organized and administered a tree farm tax system for privately-owned land. Three-and-a-half years later, lan accepted the position of Assistant Chief Forester with the H.R. MacMillan Export Company. His first task was to plan a forest management schedule for privately-held lands. Upon completion of this assignment he became Manager of Forest Operations.

In 1960 Ian left MacMillan Bloedel and became self-employed, starting with operating a logging camp on the west coast of Vancouver Island. The next year he expanded his activities by taking on the job of Vice-President of the Council of Forest Industries. He left this position in 1966 to continue with his own business interests and to carry the banner for small logging companies.

In the late sixties, Ian took up writing and in 1971 published an historical novel (*The Land of Maquinna*) which has been well received. In 1990 he and Ken Drushka co-authored *Three Men and a Forester*. A good part of that book provides a much more detailed biographical account of Ian's career than this report.

On recalling his experiences in many aspects of forestry, Ian gave special importance to the three summers that he spent in the Forest Surveys Section while still an undergraduate. He learned a lot and made friendships that lasted a lifetime. (Ian died on February 13, 2002.)

GEORGE MINNS

As a young man, George Minns was strongly attracted by the Queen Charlotte Islands [Haida Gwaii]. He first went there as a logger for a couple of years before starting his university training. Then after one year at UBC, he returned to the Charlottes again, to work as a logger in order to finance his stay at UBC. While attending university he spent four summers on Forest Surveys Division crews for the B.C. Forest Branch, two of them on the Queen Charlotte Islands [Haida Gwaii] – the Moresby Forest survey in 1937 and the Graham Forest survey in 1938.

His fascination with the Charlottes started on the first day that he saw them, as George recalls:

I will never forget my first glimpse of the islands we passed on the way to the J.R. Morgan camp on Sedgewick Bay where I was to start work as a Chokerman. It was a beautiful day near the end of October. Although the air felt a little cool, these pristine islands looked almost tropical and serene, and I thought, "Boy, this is going to be a great place to work."

We were still some distance from the logging camp and did not go to work until the following morning. By this time the weather had returned to a more normal condition with a cold southeaster roaring full tilt. We went ashore in a fishing dory let out by rope from the tug that had brought us from camp. As soon as we touched the rocky shore, it was every man for himself, over the side in hip-deep water, and then stagger to the shore where several inches of snow had fallen. To me the mood of the Charlottes was always unpredictable and dramatic, and I guess that is what attracted me.

Here is a story that George recalls from his first year as a logger:

At this point in time, logs from the Q.C.I. were cabled together in a massive Benson raft (which followed the Davis raft) to enable long distance towing over stormy seas to Vancouver. The logging company required a powerful tugboat to do the towing job. President Roosevelt had ended prohibition in the USA and several once-proud rumrunners found their way to the market.

J.P. Morgan was able to purchase one of these, the *SS Prince Albert* (once a CNR ship), complete with crew for a favourable price.

The news of this purchase sifted down to the loggers, and the poker players among them rubbed their hands in anticipating some new blood. The ship's crew would be an easy mark at the dry-room poker table. The *Prince Albert* arrived and tied up at the float camp. The ship's crew turned out to be a tough gang of Mexicans armed with knives, who had survived several years of rum running battles without losing any. One look at this hard-bitten bunch and even the toughest logger decided against mixing culture at the poker table or anywhere else.

George spent four successive summers aboard the *B.C. Forester*, on forest survey crews (1935 - Kingcome, 1936 - Seymour, 1937 - Moresby and 1938 - Graham). In the fall of 1936 he also worked for a month on the Esquimalt and Nanaimo Railway Company Land Grant survey out of Parksville.

George's memory of those days is still sharp and he recalls some entertaining events. Several of his stories have been included in various chapters of this text.

George graduated as a Forest Engineer from UBC in 1939, and immediately joined the Ranger ranks of the B.C. Forest Branch. His first posting was to the Port Neville Ranger District. A year later he moved to Prince Rupert. That ranger district had 1800 miles of coastline, which George covered in the *Alpine Fir*, a launch with a cruising speed of six knots. He spent much of his time at sea, or at anchor awaiting favourable tides.

George joined the Canadian army in January 1942 and went overseas to Scotland in June as a member of the Canadian Forestry Corps. He was in charge of timber supply inventory for the biggest sawmill in Great Britain (operated by the CFC). The operation was only four miles from Balmoral Castle, and George recalls a visit by the Queen Mother, Princess Elizabeth and Princess Margaret:

I managed to give Margaret two Canadian chocolates. She was about to accept a third, when her mother caught her eye, whereupon she reluctantly declined.

Soon after D-Day, George and his unit landed in France and immediately got another sawmill into production. George was again in charge of locating a supply of suitable logs. The beleaguered French foresters tried to convince George to do a sanitary thinning, taking only cull trees. However there was such a strong demand for 2 x 8" planking and the CFC took higher quality trees to meet production demands. Pieces of shrapnel buried in the trees were a constant hazard in the sawmill.

All of George's pre-war forestry experience had taken place in the coastal forest regions of B.C. and he had indeed explored a considerable portion during these 13 years. Upon his discharge from the Army, he made an about-face and went to work in the interior of the province where he spent the next 21 years. He was posted to Nelson and within a few years was in charge of the management section of the Nelson Forest District following the transfer of his immediate supervisor Cy Phillips to Victoria.

In 1951, George left the B.C. Forest Service and opened up a consulting practice, first at Penticton and then at Oliver. Much of his work involved organizing and supervising several small Tree Farm Licences.

He retired from his consulting business in 1967 and accepted an overseas assignment from the Canadian International Development Agency (CIDA). This enabled him and his wife to spend winters in Jamaica and summers in Oliver for a seven-year period. When the political situation in Jamaica took a turn for the worse in 1975, George returned to B.C. He then spent one year as a B.C. Regional Forester for the Department of Indian

Affairs. He became involved in forest planning for around ten reserves widely scattered throughout the province.

From 1976 to 1983 he worked each summer on a succession of Canadian Executive Service Organization (CESO) assignments that took him and his wife on a variety of forestry missions to Mexico, Central America, South America, the Philippines and South-East Asia.

In 1984, George finally hung up his boots and reached for his golf clubs. After five enjoyable years of retirement he was dealt two severe blows. His wife died, and leg problems put a stop to his golfing. As George puts it:

I thought that the end of the world had come, but over time I discovered that even without golf, life can be enjoyable. My natural optimism returned, and I re-married in August 1992 and "lived happily ever after." How could I get so lucky so late in life?

(George passed away in his 99th year at Oliver, B.C. on March 4, 2010.)

FREDERICK D. MULHOLLAND

"FD" was one of the most widely-known and respected foresters in the B.C. Forest Branch during his term as Chief of the Forest Surveys Division (1925 to December 1938). His interests in forestry extended far beyond developing a forest inventory for the province. He was vitally concerned with problems facing the inception of forest management, and he had many ideas concerning the organization and staffing of the B.C. Forest Branch as well as the policies required to launch sustained yield initiatives.

Soon after he took charge of the Forest Surveys Division, he introduced changes to the inventory system. The preparation of a working plan became an essential component of the individual forest survey report. In turn, this usually necessitated staffing the field party with a soils expert who would identify and exclude potentially arable land from a given forest management area, and with a forest mensurationist to obtain growth estimates for calculation of sustained yield levels.

FD was born in Stockton-on-Tees, England in 1888. He started his education at St. Edmonds in Canterbury, and matriculated in Oxford in 1907. He emigrated to British Columbia in 1911, and worked mostly on railway construction projects. He also worked from time to time for Dr. Harry Smith's grandfather on a farm near Chinook Cove, north of Kamloops.

In 1915, FD and an uncle of Dr. Harry Smith's joined the Canadian army and served overseas together in the 47th (New Westminster) Battalion. They were both severely wounded in August 1917, and disabled out of the army.

Soon after his discharge, FD entered Edinburgh University, where he took first class honours, as well as the University Medal in Forest Engineering in 1920. After

graduating, Mulholland applied for jobs with the Colonial Forestry Service in Tanganyika, East Africa and with the B.C. Forest Branch. When the latter's offer came in, FD headed for British Columbia and began employment with the B.C. Forest Branch as a Forest Assistant in Prince Rupert. He tackled a variety of jobs including a reconnaissance survey in the Lakelse area in 1921.

In 1922, FD was promoted to the Vancouver office where he took charge of Forest Management and Timber Sales. Among other things he was Party Chief of a forest survey in the Capilano Valley. In 1923, he wrote a five-page article on stumpage appraisal and in 1924 a three-page article on forest policy.

In December 1924, he was posted to Victoria as Assistant Forester in the Management Division. In 1925 he became Chief of the Forest Surveys and Working Plans Section in the Management Division. In that year he also supervised the establishment of 97 permanent growth and yield plots in the southern interior.

FD had plenty of ideas about improving many aspects of forestry in B.C. and he was not bashful in offering them to his superiors. Here are two examples:

1). In 1935 the Young Men's Forestry Training Plan (YMFTP) experienced its first summer, and it was a success. Unemployed young men worked throughout the province in Ranger District offices, on trail building crews and at three large camps (Cowichan Lake, Aleza Lake and Green Timbers).

It was the Green Timbers camp that attracted FD's attention. The YMFTP crew constructed a variety of facilities for the nursery and had also expanded the production capacity of the nursery. Mulholland visualized a golden opportunity to expand the YMFTP and develop a large-scale reforestation program. In his report he identified 600,000 acres of productive land in need of planting and recommended that the YMFTP be used to develop three primary nurseries (at Green Timbers, Campbell River and Powell River) with an annual capacity of 30 million seedlings.

He also recommended local transplant nurseries and site preparation projects. Of course he was way ahead of his time. The annual production of 30 million seedlings was not reached until over three decades later.

2). On December 18, 1935, shortly after Chief Forester Caverhill's death, FD prepared a proposal concerning re-organization, and submitted it to the Minister of Lands.

He proposed the establishment of an Economics Division which would absorb and expand the work of the Forest Surveys Division by advancing a more detailed approach to sustained yield planning to bring the forests under more regulated control. An expanded reforestation program would constitute a part of this new division.

The Forest Economics Division was eventually established after FD had left the B.C. Forest Branch. This new division bore little resemblance to FD's concept. Instead it was used as a convenience to bring a number of separate functions under one administration.

The year 1937 was probably the most eventful of FD's life. In that year he completed his report, *The Forest Resources of British Columbia*, and then set out on a forestry tour of Europe, largely at his own expense. Both accomplishments affected his future within a short time.

FD did not confine the 1937 report to a presentation of forest inventory data. Indeed, he expressed more concern about forest management issues than about the inventory *per se*. He stressed the need for a forest management policy that would promote sustained yield. He deplored inadequate restocking after logging of coastal forests.

His information showed that the coastal forests were being cut at a level beyond the sustained yield capacity. He expanded concern regarding the need for government regulation of forestry on private lands, and warned about the effect of overcutting on the permanence of communities wholly dependent on the forest industry.

After returning from Europe in 1937 he wrote a speech titled "Forestry in Sweden and Finland." He was soon in very strong demand as a public speaker. At the conclusion of his speech he identified seven specific directions in which the B.C. government forestry policy could be improved, and this soon got him into hot water with both the Minister and Deputy Minister. In the summer of 1938, he was cautioned by the Minister not to give his speech at a meeting in Alberni. In early November, FD was invited to present his talk at a meeting of the Society of American Foresters. He requested approval to do so, but was denied by the Deputy Minister. In late November he was asked to write an article for the Forest Club Quarterly of the University of Washington. The reply from the B.C. Forest Branch a week later was signed by Hugh Hodgins, Two I/C of the Forest Surveys Division. It stated:

I regret to tell you that Mr. Mulholland is on extended leave at the present time, and although he would be pleased to have written this article under normal conditions he will be unable to do so now.

In actual fact, FD had already been fired on December 1.

FD soon re-appeared in the Department of Lands leading a small section concerned with land use surveys. He held this position until 1944 when he became the Chief Forester for the Canadian Western Lumber Co. (later Crown Zellerbach Canada).

A major achievement for FD was obtaining a Forest Management Licence for the Canadian Western Lumber Co. in strict accordance with rules and procedures. During his few years with this company, FD took every opportunity to get out of town and work on field projects.

In 1955 Mulholland resigned to become a special advisor to Chief Justice Sloan and his second Royal Commission on forestry. However, FD died on May 16, 1957 – before the report appeared in print.

In addition to his direct contributions to forestry, F.D. Mulholland also gave freely of his time in establishing the Association of British Columbia Foresters (now the Association of British Columbia Forest Professionals) and becoming the first President. He was also a founder and first president of the Public Service Branch of the Canadian Legion, and he was President of the Canadian Society of Forest Engineers (now the Canadian Institute of Forestry) in 1940.*

G.W. (DICK) NIXON

Dick Nixon sampled a very wide spectrum of forestry work before trading in his caulked boots for a fishing rod. The main focus of his career was in logging, although he did work for the B.C. Forest Branch as a Compassman, Timber Cruiser and Party Chief in Forest Surveys, and also as a Timber Appraisals Officer in several forest districts.

Over the years he gained a thorough knowledge of logging, mostly based on practical experience. He was active in road location surveys, road construction projects, rigging, scaling, bullbucking, loading and research aimed primarily at reducing wood waste during logging operations.

During his army career he was in charge of a logging operation in Scotland for the Canadian Army Corps, and later on he was responsible for timber supply acquisition for the British Army in Germany. He worked nine years with the Vancouver Forest Products Laboratory in charge of logging research in the Utilization Division. And then he worked as a private consultant for the next 14 years on a great variety of jobs, mostly associated with logging.

Dick was born on January 11, 1909 at Duncan and first got interested in forestry during his boyhood years:

We lived on waterfront property on Thetis Island. Many times during the day I would hear the prolonged whistles of the steam locomotives in the distance as they brought huge trainloads of logs to be dumped at Chemainus and Ladysmith. Later on we moved to Victoria where I completed my high school training. One day while I was attending Oak Bay High, someone from the BCFS gave the students a lecture on the future of forestry in B.C. I was very impressed, and decided that I would become a Forest Engineer.

^{*}A complete biography of F.D. Mulholland exists as Gerry Burch and John Parminter. 2008. Frederick Davison Mulholland, P. Eng., B.C.R.F. – the father of sustained yield forestry in British Columbia. Forest History Association of British Columbia, Victoria, B.C. http://fhabc.org/publications

Dick attended UBC from 1928 to 1932 and graduated as a Forest Engineer. There were only two students in his class, himself and Bill Hall. They both excelled in sports and remained close friends for many years. While attending UBC, Dick spent the summers on a variety of jobs, including logging for the Alberni Pacific Lumber Company at their China Creek operation.

The job market was in bad shape when he graduated, but Dick's previous contacts with the logging industry helped him find employment. He worked for Byles and Groves at Port Neville for four years. He found it very interesting to survey and construct fore and aft plank roads that accommodated logging trucks with solid rubber tires. The logging company ceased operation in the winter of 1935-1936.

The next spring, Dick contacted the B.C. Forest Branch and got a job on the Seymour Forest survey. The launch *B.C. Forester* had been assigned to this field party, however a major extension and refit job was undertaken on the boat during the previous winter. This work was behind schedule, and the boat was not ready at the beginning of the 1936 field season. Dick recalls the consequences:

At the last minute the BCFS leased the *Elfine* from Rodd Bros. Boatworks in Victoria. The *Elfine* was about 2/3 the size of the *B.C. Forester*, and could not possibly accommodate the 10-man crew. To help ease the problem, Mickey Pogue and I camped ashore on our own. Since we didn't have to backpack our supplies, we were stocked with a great abundance of food. The *Elfine* dropped us off and we proceeded to make camp. Although we thought we had ordered every possible food item, we discovered that we had no bread. Mickey in his usual practical way solved the problem by putting cheese between two slabs of cake. We didn't suffer any pangs of hunger.

Dick spent the next four years in forest surveys: 1937 - Esquimalt and Nanaimo Railway Company Land Grant, 1938 and 1939 - Okanagan and 1940 - Slocan. He was Party Chief for the last three years. In 1941 he was assigned the task of obtaining logging cost data as a basis for stumpage appraisals, and he worked in both the interior and in the Vancouver Forest District. In early 1942, he was transferred to the Management Division in Victoria as a Timber Appraisals Officer.

After being discharged from the army in 1945, Dick's first civilian job was in the Management Section of the Vancouver Forest District. In 1947, a new opportunity appeared and he accepted a position as head of the Logging Section of the Utilization Division of the Vancouver Forest Products Laboratory. These were busy times for him. He conducted research on re-logging and small-wood logging on Vancouver Island as well as on selective logging using horses in the interior.

In 1956 he decided to be his own boss and left the forest products lab to become a consultant. He continued in private practice until 1970, when he found the fieldwork a little too strenuous.

His retirement home on the shore of Thetis Island has provided plenty of opportunity for salmon fishing, clam digging and oyster shucking during the last two decades. When I asked Dick to identify his most interesting and satisfying work in forestry, he replied:

I got the most enjoyment out of locating a logging road and then ensuring that it was built exactly as my specifications indicated.

W. CYRIL PHILLIPS

Cy Phillips' interest in forestry began on his grandfather's farm near Chilliwack. Although the economic well-being of this farm depended upon its dairy herd, there were many acres of forest. As a young lad, Cy spent a good part of his summer holidays on the farm. He often hiked in the woods and developed a strong attachment to outdoor life.

Cy was born in New Westminster on October 13, 1913. His father worked as a conductor for the B.C. Electric, initially on city streetcars, but eventually on the interurban railway, which ran between Vancouver and New Westminster.

His formal education at UBC began in 1930. Jobs were scarce in those days, but Cy managed to work for three summers at a New Westminster cannery that processed vegetables. The pay was only 35 cents per hour, but when the crop came in the crew worked 12 to 14 hours per day.

Finally in 1934, Cy was able to get a summer job with the B.C. Forest Branch on the Kettle Valley survey. Since there were few roads in the area, much use was made of packhorses to transport supplies to the main camps. Beyond these, the necessities were transported to remote fly camps by backpacking. Social life was practically nil that summer. Most of the camps were too far removed from roads.

Cy graduated in Forest Engineering in 1935 and again worked for the Forest Surveys Division, this time in the Upper Arrow Forest. Cedric Walker was the Party Chief and Lorne Swannell was his assistant. Cy ran compass for Bob Shaw who was then the most experienced Timber Cruiser in the division. Bob's previous experiences with grizzly bears came in handy that summer, as several contacts with these unpredictable animals took place.

When the field season ended, Cy worked in the office in Victoria until the end of the year. A budget cutback occurred in January 1936, and he was let go. He soon got a job as a Scaler for Bloedel, Stewart and Welch at Great Central Lake, and worked there until May 1937 when the Forest Surveys Division again hired him. He worked as a Cruiser under Bill Hall on the Moresby Forest. Part-way through the field season, Cy suffered a severe case of blood poisoning brought on by an encounter with devil's-club. After treatment in the Prince Rupert hospital he did not return to the Queen Charlotte Islands [Haida Gwaii]. Instead he took the responsibility of running a small survey party doing a cottonwood inventory on the lands bordering the Skeena River.

In 1938, Cy was Party Chief in charge of the Graham Forest survey for the first part of the summer, and then on the Coast Islands Working Circle for the balance of the field season. The field party used the launch *B.C. Forester*. In these Depression days, the B.C. Forest Branch did not hire a skipper to operate the boats. Cy explained this in some detail:

In order to save money, the Party Chief was stuck with the skipper's duties, and an Engineer was hired to make sure that the boat was operable. When I took on the responsibility of Party Chief in 1938, it was made abundantly clear to me that I and I alone was responsible for the well-being of both the vessel and the crew. The key to success was "learn fast," and I tried my best to do so. I found the job most challenging when we conducted a large-scale regeneration cruise on Quadra Island near the end of the field season.

The size of Quadra Island accommodated only one complete strip, which transected the island each day. I would drop off the crew on the west side of the island first thing in the morning, and then take the *B.C. Forester* around the island to pick up the crew on the east side. Contending with Ripple Rock to the west in the morning and two rapids in the east in the afternoon was also very conducive to "fast learning."

In 1941 the Forest Surveys Section reversed its position and hired a skipper instead of an Engineer. The skipper had to have sufficient engineering qualifications to keep the boat operational.

At the beginning of 1938, Cy accepted the position of Ranger at Ocean Falls. He and his bride took up residence on the Ranger boat. After one year as a Ranger, Cy was promoted to the Nelson Forest District in charge of management.

In 1947 he was appointed Assistant District Forester at Kamloops and in 1952, District Forester at Prince George. In 1957 he returned to Kamloops as District Forester, and remained there until September 1965 when he was promoted to Forester-in-Charge of the Protection Division in Victoria – a position he held until his retirement in 1973.

In his retirement, Cy's primary concession to age has been a reduction in his golfing to four games a week.

JOHN W. PICKFORD

In B.C. the forestry profession has many examples of a son following in his father's footsteps by becoming a forester. Perhaps the very first example occurred in the Pickford family. John is the son of Arthur Pickford who worked for the B.C. Forest Branch during the 1920s and 1930s. Arthur was a pioneer researcher in coastal forests. He conducted regeneration research on logged lands as well as on nursery techniques for raising planting stock at the experimental nursery on Shelbourne Street in Victoria.

John was born on November 12, 1919 at Nelson, where his father worked for the B.C. Forest Branch. In 1924, the Pickford family moved to Victoria where Arthur had accepted an offer to become a forest researcher. Arthur's major project involved studying natural regeneration after logging. The lands around Cowichan Lake supported plenty of active logging and Arthur spent a good part of his time there. He established a temporary camp on the lakeshore and used this as a base camp. Eventually this location was named after him, being called Pick's Point. The Pickford family joined their father at this camp for a few weeks each summer, and it was during these times that John first accompanied his father into the forest, and gradually developed an interest in forestry.

John got his first forestry job in 1937 when he worked in a YFTP crew at the Cowichan Lake Experiment Station. He was attached to a road construction crew whose major project was to improve the public road connecting the station to Lake Cowichan village.

In 1939, John got a job as a Compassman with a Forest Surveys Section crew in the Okanagan under party chief Dick Nixon. He has many fond memories of this work and the crew of that summer. This includes the problem of dealing with rattlesnakes invading a campsite on Kalamalka Lake.

That fall, John registered at UBC in a double degree course in commerce and forestry.

In 1940, the Forest Surveys Section hired him again. This time he worked as a Compassman in the Slocan Forest, again under Party Chief Dick Nixon. For most of the summer he was paired off with Timber Cruiser Harold Cliff. John recalls several experiences involving grizzly bears.

John obtained his commerce degree in 1942 and worked for the Forest Economics Division of the B.C. Forest Branch that summer. He started the season assisting Angus MacBean in the Research Section on regeneration studies near Port Alberni. In midsummer he worked with Al McMinn and Clark McBride on Christmas tree sales areas near Invermere. This work marked the beginning of the issuance of Christmas tree cutting permits for *bona fide* farmers. John recalls:

Because we were a small crew covering a large area, we did not set up our own camp. Instead we lived in hotels and boarding houses. A broad spectrum of boarders was encountered that summer, including the undertaker who at the commencement of each dinner would solemnly announce who he had made up that day, and what a good job he had done. And there was always someone ready for an argument on religion or politics or any other subject.

Upon receiving his forestry degree in 1943, John accepted an engineering job with Canadian Forest Products in the Nimpkish Valley. A good part of the time was spent on railway location and construction, but occasionally he undertook timber cruising assignments.

In 1946, John moved to Canfor's Eburne Sawmills as an Assistant Superintendent. After 40 years with the company he retired in 1984. He keeps very busy, mostly with golf, gardening and cabinet making. (John passed away suddenly at home on August 8, 2003.)

H.M. (MICKEY) POGUE

Mickey Pogue established a special reputation in the Forest Surveys Division at a young and tender age. He was fifteen years old when he got his first surveys job at the beginning of May 1927. Mickey started the field season in excellent physical shape. Moreover, it did not take long before his superiors realized that Mickey was willing to tackle any job, and quite capable of finding a practical solution to most problems encountered. These attributes stayed with Mickey throughout his career.

Although he was by far the youngest crewmember that first summer, he was by no means the most inexperienced in the woods. Mickey had already spent a lot of time on the mountains of the North Shore of Burrard Inlet. In the summer he did a lot of hiking and exploring and in the winter he would ski on Hollyburn Mountain whenever possible.

Mickey worked for surveys in most years from 1927 to 1960. The exceptions were three summers (1932-1934) during the Depression, when the level of funding could not accommodate many field parties, and four years in the RCAF during World War II.

Mickey was born in Toronto on May 29, 1911. In that same year the Pogue family moved to Vancouver where his father worked as a journalist. He was very independent and often worked as a freelance writer. He often wrote articles for the local newspaper in the seclusion of a cabin on Hollyburn Mountain. When Mickey became a teenager, he was introduced to outdoor life in the mountain by spending time with his father on North Shore hiking and camping trips.

Once Mickey started working for the Forest Surveys Division he was able to continue for five consecutive summers:

1927	Nehalliston	Party Chief: D. Greggor
1928	Nehalliston	Party Chief: E. Bassett
1929	Shuswap	Party Chief: J. Liersch
1930	Elk .	Party Chief: H. Hodgins
1931	Niskonlith	Party Chief: G. Andrews

Mickey completed high school in 1932 and faced a dilemma. He wanted to study forestry at UBC, but did not have enough money. Moreover he could no longer get a job with the B.C. Forest Branch. The budget cutback was so severe in 1932 that only one forest survey field party was activated, and it was staffed entirely by full-time employees.

The situation did not improve, so for three years Mickey chased after any available work. He built several ski cabins, helped with the construction of a ski jump, loaded boxcars, worked as a roofer and accepted any job he could find. Finally Mickey's luck changed in

1935. The Forest Surveys Division again hired him, and he registered at UBC. The year 1935 marked the first of seven consecutive seasons working for Forest Surveys:

1935	Kingcome	Party Chief: M. Gormely
1936	Seymour	Party Chief: W. Hall
1937	Moresby	Party Chief: W. Hall
1938	Okanagan	Party Chief: R. Nixon
1939	Quatsino	Party Chief: M. Pogue
1940	North Shore	Party Chief: M. Pogue
1941	Fraser South	Party Chief: M. Pogue

Mickey recalls the long-lasting effects of the Depression:

The job situation during those years prevented me from starting my forestry training at university until I was 24 years old. I could not even get a Compassman job from 1932 to 1935, even though I had five summers of experience as a Compassman.

In 1935 the job situation improved and I was hired as a Compassman in the Kingcome survey. That summer, to save money, the Forest Branch did not hire a Cook. Instead the three Compassmen took turns cooking on a weekly rotational basis. I could cook tolerably well, but I excelled at making pumpkin pies.

Finally in 1936, I became a Timber Cruiser on the Seymour survey. It was now my turn to help the greenhorn Compassmen to cope with the rigours of running strip and of fly camping. Two of the novice Compassmen that year were John Stokes and Wally Hughes – Stokes starting in May and Hughes later in the season. Each of them was paired off with me for some initial training. I guess I did a tolerable job, for they didn't lose their incentive to pursue a career in forestry.

In 1939, while still attending UBC, Mickey was promoted to Party Chief. This was only the second time that an undergraduate had advanced to this position. The previous occasion was in 1923 when Percy Barr (class of 1924) was Party Chief on the Horsefly cruise.

After serving three years (1942-1945) as a Navigation Instructor in the RCAF, Mickey returned to Victoria and re-joined the Forest Economics Division of the B.C. Forest Service. He worked on a few different projects before resuming a full-time job in the Forest Surveys Section. These projects included navigating a plane during the aerial application of herbicide on a Vancouver Island forest where the hemlock looper was a problem. Mickey also completed a regeneration survey of white spruce after logging in the Prince George Forest District and published a report.

Finally, in 1947, Mickey was promoted to Forester-in-Charge of the Forest Surveys Section of the Forest Economics Division. His first task was to prepare a guide to help train inexperienced field personnel. The Forest Surveys Manual was used as reference text for a two-week course at the Cowichan Lake Experiment Station in May, 1947. Most of the field training sessions were held in the Robertson Valley, which, among other things, offered some very steep slopes.

The day's exercise would usually start with a steep and rapid climb through logging slash to the timber above. It was soon apparent that Mickey's stamina had stayed with him for many years. He would lead the class up the mountain, but would outpace everyone and reach the timber way ahead of young men about half his age.

Mickey's biggest opportunity for a challenging job arose at the end of 1950. As Mickey recalls:

One day I received a phone call from the Chief Forester. I could tell by the tone of his voice that Mr. Orchard was a bit excited about something. He asked me to visit his office as soon as possible.

Mr. Orchard explained that an opportunity existed for a major expansion of forest inventory under a cooperative financial agreement with the Federal Government. He then asked me if I thought it feasible to complete the job for the whole province in five years. I told him that we could do the job in five years for \$1 million per year.

Negotiations for a cooperative inventory program went ahead. In recognition of the forthcoming major expansion in workload and staff, the Forest Economics Division was eliminated, and the Forest Surveys and Inventory Division became a reality with Mickey Pogue as Forester-in-Charge.

Mickey immediately recognized that the undertaking would require a complete rethinking of all procedures in order to meet the job specifications within a five-year period. The "strip a mile" system was replaced with scientific random sampling within the various forest populations, carefully calculated to provide the accuracy required. To accomplish this task Mickey assembled key personnel and endorsed a teamwork approach. He designated Bob Malcolm as Technical Coordinator and assigned areas of responsibility to over a dozen key personnel. Full-time involvement was required in developing some of the components, e.g. Carl Highsted (sampling), Bob Breadon (volume tables) and Ted Browne (decay). In his own quiet way, Mickey's ability to inspire the staff proved effective. The teamwork approach resulted in a new inventory system in time to get the total job completed on target.

Between 1927 and 1960 Mickey's forestry career was focused on forest inventory in one capacity or another. He then left the Forest Surveys and Inventory Division to take charge of the Working Plans Division of the B.C. Forest Service, where he contributed to the development of sustained yield units of various forms until 1965.

Finally, from 1965 to 1976 he administered a wide variety of forestry activities as District Forester, first in the Prince Rupert Forest District and then in the Vancouver Forest District. Mickey presents it very succinctly when he states:

I have been known to summarize my career by saying that I counted all the trees, allocated all the trees and administered forestry activities in all the trees to the best of my ability.

In 1976 Mickey retired to a cottage on a quiet Vancouver Island beach, where he enjoyed fishing, beachcombing and clam digging until his death on December 1, 1994.

CECIL JOHN (JACK) RHODES

The term "Jack-of-all-Trades" could well have originated from observations of Jack Rhodes during his career. Although he was officially classified as a Draftsman while in the Forest Surveys Division, he was often called upon to fill a broad spectrum of unrelated duties. No job seemed to be out of his reach.

It was not a question of having taken formalized training in different trades. Jack's formal school training ended at age 16 when he was obliged to get a job to help support the family. His father had lost his job as a result of the Depression. It was during this stage in Jack's life that he developed the versatility to cope with a variety of job skills which varied from selling newspapers to repairing used cars and reselling them.

Jack was born on September 9, 1913 at Vernon where his father held a many-faceted job in the hospital. The family moved to an 80-acre farm on Gabriola Island. After a few years on the farm, they moved to Victoria in 1927 to enable the children to attend school.

Soon after Jack joined the workforce he decided to get some training to be eligible for a better job. He enrolled in the Sprott Shaw School. When not at school, he was working on whatever job was available at the time.

Jack soon found out that a bit of luck was sometimes needed to get a job. One of the first jobs that offered some promise of continuity and a decent wage was a posting at the Island Blue Print Co. for a Printer and a Junior Draftsman. Jack describes the circumstances:

I stood in a waiting room with about 15 other applicants, all seeking the same job. I think I was the youngest of the lot. It had been raining that morning, and I wore my yellow slicker, which I had decorated with cartoon characters like Maggie and Jiggs and Mutt and Jeff. The personnel man at Island Blue Print was so impressed by my cartoon drawing skills, that I got the job.

The experience and training at Island Blue Print opened the door for a long career in drafting and mapping. Over the next five or six years Jack completed many drafting jobs

for Land Surveyors and Architects. He also worked for the City of Victoria as a Chainman, Rod Man and Draftsman.

Finally, in the spring of 1937, a more stable employment opportunity presented itself. Jack was hired by the Management Section of the B.C. Forest Branch to prepare ranger station drawings and material listings. Then in June 1937 he got a job in the Forest Surveys Division as a Draftsman. Jack enjoyed the variety of projects that crossed his desk. He describes an unusual one:

I recall the hustle and bustle during the 1938 Campbell River fire. Since this fire threatened several communities, the Forest Branch was intent on charting its progress daily. This was accomplished by aerial photography. Each morning Gerry Andrews would sling a camera under a plane and fly the periphery of the fire. I would then study these photos and map the new fire boundaries.

Jack continued to demonstrate versatility in his new job and a gradually increasing number of duties were assigned to him. From time to time, he went out with field parties – primarily to help out with mapping problems, but inevitably he would be asked to assist in solving a variety of practical problems. Jack got the reputation of being a successful trouble-shooter.

A stroke of good luck occurred in 1936. Jack, George Silburn and Larry McMullan bought a lottery ticket that proved to be a winner. With his share of 1000 pounds sterling, Jack was able to build his first home. He performed in several of the building trades himself during the construction.

In 1941, Jack joined the Royal Canadian Navy (RCN). His first big project was the preparation of huge wall maps 15 by 35 feet of the Pacific war theatre for the Operational Room at the Esquimalt Naval Base. Upon completion, Jack was sent with a civilian Engineer on a variety of navy installation jobs. From time to time he also instructed young RCN Ratings to develop their engineering drawing skills. One morning, Jack spotted the *B.C. Forester* tied up at Prince Rupert. She had been commandeered by the RCAF for the duration of hostilities. Jack immediately realized that a problem was developing:

The crew had the bow snubbed up to some pilings on a falling tide. I went over and asked them if they knew about the 22-foot tides in Prince Rupert. Apparently they didn't. They slacked her off. If they hadn't she'd have hung by the bow and sunk by the stern.

In early 1945 Jack returned to Esquimalt, and after a short stint of teaching, he was discharged, and went back into the B.C. Forest Service in March. The *B.C. Forester* also went back into the B.C. Forest Service, and Jack accompanied a survey party headed by George Silburn to the Clayoquot Forest. Jack spent most of his time on plotting and mapping work, but usually dropped off and picked up crews on their daily routines. In 1946 Jack again spend a good part of the summer in the same survey.

In this same year, more draftsmen were hired, and Jack was promoted to head the section:

The year 1946 was an eventful year for me. When I returned to Victoria from the Clayoquot survey I was told that more draftsmen had been hired, and I was promoted to head the section. I also became involved in assisting Air Survey personnel in the preparation of base maps. That same year I proposed plans for remodelling an ex-army vessel, the *Colonel Ward*, that the Forest Service bought, refitted and named the *Forest Surveyor*.

Jack's job responsibilities continued to expand over the years. In 1951 he spent several weeks locating comer posts in the Nicola Forest. During 1952 he was placed in charge of new forest survey installations around the province, as well as Regional Supervisor headquarters in several forest districts. There was great variety in the problems encountered. Jack recalls an issue at Kamloops:

The first headquarters near Kamloops was just south of town, beside a goose farm. It was a little messy underfoot until we fenced them off better. Then one morning the farmer came over and said our boys were relieving themselves in plain view of the farmhouse, much to the distress of the daughter. I promised to correct this outrageous situation. I decided that the existing outhouse was not adequate when a big crew came to town. We built an additional two-holer, and I arranged for the seats to be just a few inches higher than usual, so your feet couldn't reach the floor. Nobody lingered, no further complaints and anyhow, after all this, we soon moved the HQ to Paul Lake.

In the late 1960s Jack moved less about the province, and settled down to his primary duties of Head Draftsman, until his retirement in 1976. (Jack passed away on November 8, 2010 in Victoria at the age of 97 years.)

R.C.L. (BOB) SHAW

Scores of young men worked on forest survey crews during the 1920s and 1930s. Many were embryonic foresters who eventually established forestry careers in B.C., either in government or in the forest industry. Others were attracted to this rugged life merely to obtain a job for the summer. Bob Shaw was in a category all his own. He was a Saanich farmer who enjoyed outdoor work in remote areas of the province. During the many summers that he worked for Forest Surveys he developed the skills of a competent woodsman. The old timers who worked with him sixty years ago knew him well, and respected and admired him.

Bob's grandparents were of United Empire Loyalist stock, and came to the Victoria area before the turn of the century. Bob was born on January 17, 1909. His father acquired land in Saanich and gradually cleared off heavy forest cover to establish a farm. The main production was fruit, berries and vegetables – plus a few animals. Today the fourth generation of the family lives on part of the original farm.

Unfortunately, Bob became afflicted with Alzheimer's disease several years prior to my writing this biography. As a consequence, this sketch is based upon information from his family as well as old timers who worked with Bob long ago.

Bob became a Compassman in 1927, on the Babine Forest survey, and then spent the next three summers on forest survey crews. Jobs became scarce during the Depression and Bob was unable to get hired again until 1935 (Upper Arrow). After that he continued to work each summer for the next four years (1936 - Lower Arrow, 1937 - Moresby, 1938 - Graham and 1939 - Quatsino).

Bob worked as a Timber Cruiser for seven years and probably trained more Compassmen than any other Forest Surveys Cruiser, with the exception of Mickey Pogue. His co-workers share the view that Bob was the ultimate outdoorsman, noted for his stamina and determination. He was also highly rated as a fly camp Cook. Dick Spilsbury recalls fly camping with Bob on the 1929 Momich Forest survey:

Bob Shaw always tried to make the meals more appetizing. One of his greatest successes was steamed jam pudding cooked over a campfire. He also specialized in producing a tasty fricassee of grouse.

Bob was a "high-baller" on the job. There were few Compassmen who could go fast enough for him. He would do a speedy but accurate job, finish the strip around lunchtime and stroll leisurely through the woods in the afternoon.

He passed away on March 14, 1994 at the age of 85.

BILL SLOAN

Bill Sloan had an interesting and successful forestry career despite having no formalized training. His university degree was in Commerce, but one could say that he obtained his forestry training in the school of hard knocks. Four field seasons in the Forest Surveys Division of the B.C. Forest Branch in the 1930s provided a key component of his forestry background.

When Bill was born on December 5, 1919 his family lived in Nanaimo, where his father owned a clothing store. His father had made a name for himself as a pioneer. He had been a successful prospector in the early days of the Klondike and helped to trigger the gold rush. He also distinguished himself in political circles, first as an MP in Ottawa and then as an MLA in Victoria when he served as the Minister of Mines in the McBride government. His half-brother was Chief Justice Gordon McG. Sloan, who officiated over the second and third Royal Commissions on forestry in B.C.

Bill was not yet 17 years old when he was hired as a junior assistant on the Lower Arrow Lake survey in 1936 under Party Chief Mark Gormely. The specifications for the job were broad, loosely-defined and included cutting firewood and assisting the Cook and Party Chief in many ways. Fortunately for Bill, the crew became short a Compassman, and Bill took over those duties. He was paired up with Bob Shaw, the most experienced

Cruiser in the Forest Surveys Division. Bob was also noted for being very tough physically. Bill soon learned what a "high-ball" Cruiser expected of a Compassman.

In the summer of 1937, Bill worked on a very small crew on one of three Esquimalt and Nanaimo Railway Company Land Grant field parties. His Party Chief was Larry McMullan. Most of the time they were fly camping. Among other things, Bill was designated to supply fresh trout for the table, and he enjoyed this task to the utmost.

Bill commenced studies at Victoria College that fall. The next summer he hired on as a Compassman on the Graham Forest survey under Party Chief Cy Phillips. It was Bill's worst summer. He suffered a very bad case of blood poisoning from devil's-club thorns and had to be treated at the Vancouver General Hospital. The disease was very persistent and healing was not completed until March of the next year.

Bill's most enjoyable summer was in 1939 when he worked on the Okanagan Forest survey under Dick Nixon. The Assistant Party Chief was Jack Mottishaw. Jack and Bill were both pretty good baseball players, and were paid by the Winfield ball team to play in tournaments – Jack as Pitcher and Bill as Second Baseman.

In the summer of 1940, Bill got a chance to work for the Research Section of the B.C. Forest Branch. He started out as Angus MacBean's assistant on regeneration studies near Port Alberni. He was then stationed at the Cowichan Lake Experiment Station, and worked for Dick Spilsbury. Dick was mapping land use potential to separate agricultural land from forestland. Bill Sloan dug many soil pits in the Cowichan Valley.

Partway during the summer, Bill left the B.C. Forest Branch to join the army, and after considerable training went overseas in November with the Canadian Forestry Corps. He was given timber inventory responsibilities to provide wood for a large sawmill in Scotland operated by the Canadian Forestry Corps.

In June 1945 his unit went on the continent and set up a sawmill in France, and then in Germany. Bill was again given the responsibility of locating adequate log supplies to keep the sawmill going.

Activities were wrapped up by the fall, and Bill returned to Canada in November 1945. He registered at UBC to complete his commerce degree, and graduated in 1947. His first job after graduation was with the Sorg Pulp Company that owned the Port Mellon pulp mill. They made special paper, which required the addition of lodgepole pine. Bill was responsible for locating supplies of this species in the interior of the province, and shipping them on the PGE Railway to Squamish. The company folded suddenly in 1948 and Bill took on a job as Timber Cruiser for B.C. Pulp in the Quatsino Sound area.

Within a short time, the Federal Government offered Bill a job in the Far North. In June 1949, he accepted the position as Superintendent of Forestry and Wildlife for the Yukon, Northwest Territories and Wood Buffalo National Park. After three years in the North, Bill accepted a job offer from Hugh Hodgins to take charge of his Edmonton office.

At the time there was a need for extensive forest inventory work for the Fort St. John Lumber Co.

Bill's most promising opportunity occurred in 1956, when the CPR offered him a job as Assistant Land Agent for the Esquimalt and Nanaimo Railway Company lands on Vancouver Island. Bill's first task was to review the company's resource policy. The company was so pleased with Bill's recommendations that he was promoted to Vice-President of the Esquimalt and Nanaimo Railway Company lands. In this capacity Bill was entrusted with land management responsibilities. The Pacific Logging Co. was activated and, after taxation problems were straightened out, it became a fully viable company.

Bill appears to have retired since 1984, if you observe him on the golf course in the middle of the week. However this perception is somewhat misleading, since he functions as a Manager of the Brenda Bay tree farm (formerly Western Forest Industries lands near Honeymoon Bay) and also as a consultant for Japanese interests in the B.C. forest industry. (He passed away in 2010.)

R.H. (DICK) SPILSBURY

Dick Spilsbury's forestry career was distinguished by his pioneering work in ecological classification. However, he also provided a valuable contribution to our understanding of the history of the inventory program.

Dick has maintained keen memories of those early days (1926 - Babine, 1927 - Willow River and 1929 - Momich). Even during his 80s, he still had a feeling for a good story and a willingness to commit his memories to paper. Several of his anecdotes are contained in this report. Dick was also a great help in checking the accuracy of this report.

Dick was born in North Vancouver in 1907. He entered UBC (Fairview Campus) in 1925 in the Faculty of Arts. After working on the Babine Forest survey in 1926 with two competent soil surveyors, Dick switched from Arts to Agriculture, and obtaining his BSA in 1929.

After graduating, Dick worked for nearly ten years on a joint federal – provincial soil survey of agricultural areas in many parts of the province. Tight budgets prevented continuous employment, so Dick undertook post-graduate studies at UBC, and obtained a Masters degree in Soil Science in 1936.

As 1939 drew to a close, Dick was offered continuous employment with the B.C. Forest Branch. On January 1, 1940, he started work in the Forest Surveys Section of the newly-created Forest Economics Division. This job opening materialized as a result of an expanding reforestation program triggered by the Campbell River fire of 1938. The B.C. Forest Branch required that potentially arable land be excluded from operational tree planting projects. Dick was assigned the job of mapping soil types in terms of potential land use.

The soil survey work continued until 1944 when Dick switched to the Research Section of the Forest Economics Division to initiate studies on the ecological classification of coastal Douglas-fir forests. Dick and his assistant, Doug Smith, collaborated on this work and produced the 1947 B.C. Forest Service publication *Site Types of the Pacific Northwest*.

In 1951 the Forest Economics Division was disbanded and the Research Division regained its identity with Dick as Forester-in-Charge. He continued in that capacity until his retirement in 1971. (He passed away on October 5, 1999.)

A more detailed biographical sketch of Dick Spilsbury was prepared for *An Early History of the Research Branch*.

JOHN S. STOKES

John Stokes followed a career path which was almost ideal in terms of obtaining first-hand experience for nearly every possible rung on the promotional ladder. He started in Forest Surveys Division with two summers as a Compassman, then one summer as a Timber Cruiser and then two years as an Assistant Party Chief after his graduation from UBC.

His career was interrupted by four years in the RCAF. After the war he served as a Ranger for one year, and was then posted to the Prince Rupert Forest District office as Assistant District Forester. He then spent three years as I/C Management in the Vancouver Forest District office before accepting a promotion to Victoria as Two I/C of the Forest Management Division. Two years later he was promoted to I/C Planning and six years later he became Assistant Chief Forester, Operations. In another four years he became Deputy Minister where he served until his retirement nine years later.

John was born in Victoria on December 24, 1913. He obtained much of his education in Victoria, but finished up his high school years in Vancouver. He then took one year at Victoria College and tried to get a job.

John first became interested in forestry during summer holidays while still in high school. During one summer he and a friend logged cedar poles in the Highlands, just outside of Victoria. The next summer they cut huge piles of cordwood for firewood. Unfortunately, transportation problems ate up their profit and they made very little money for their effort.

John recalls the experience that convinced him to seek a career in the outdoors:

From 1932 to 1935 I worked in a meat packing plant. The building was poorly ventilated and had no windows. A forestry career in the fresh air began to look very attractive and so I registered at UBC in the fall of 1935 to study forestry.

In the spring of 1936, John applied for a job with the Forest Surveys Division, but was told that all positions were already filled. However, he got lucky at the last moment. Someone was unable to show up for work and John was hired as Compassman on the Seymour Forest survey. John recalls some of the events of that summer:

The B.C. Forest Branch leased a smaller boat, the *Elfine*, as a substitute until the *B.C. Forester*'s refit was finished. The *Elfine* was much too small to accommodate the crew, so a land-based camp was established ashore at Drury Inlet.

I soon found out that I was a complete greenhorn in this timber cruising game, but worst of all, I was lacking in physical conditioning. Fortunately, I was paired off with Mickey Pogue – who was both patient and understanding. Gradually my muscles toughened up and I was able to move at a satisfactory pace.

In 1937, John was again hired by the Forest Surveys Division, this time to work on the Moresby Forest in the Queen Charlotte Islands [Haida Gwaii]. While at UBC during the preceding winter, John did a lot of running to get in shape for the rigours of fieldwork. As luck would have it, he was paired off with Bob Shaw – the most experienced and "high-ball" cruiser in the Forest Surveys Division. No matter how fast John ran his compass line, Bob Shaw was only a few feet behind him most of the time.

The weather in 1937 was cool and wet and as the field season drew to a close, Hugh Hodgins, the Two I/C of the Forest Surveys Division, told the crew that he would try to get them on a crew in a drier climate the next year. Consequently in 1938, nearly half of the Moresby crew (Mickey Pogue, John Stokes, Al Dixon and Slim LeMare) was posted to the Okanagan Forest survey.

John joined the RCAF in 1941 to become an Instructor in navigation and meteorology. He enjoyed the life and benefited from the experience. John explains:

Before joining the RCAF, I would get quite nervous when required to stand up and speak to a group of people. Suddenly as an instructor in the RCAF it became necessary for me to give lectures every working day. At times I would be teaching meteorology to a class of 150 airmen. I became so focused on getting my message across that my shyness left me and I was able to relax and present well-organized lectures. These traits were to help me considerably in my Forest Service career.

Immediately after leaving the RCAF, I accepted a posting to a Forest Ranger job in Ocean Falls. My wife and I had living quarters ashore, but I spent a good part of the time traveling aboard the *White Spruce*. In retrospect, this brief period as a Ranger was probably the most enjoyable of my Forest Service career. Radio communication was nil, and I functioned from day to day without interference or red tape. My only problem as a Ranger arose

when I fired the Engineer of the *White Spruce*. In the end, I showed just cause and my decision was supported.

After only one year at Ocean Falls I was sent to Prince Rupert as Assistant District Forester. This was quite a jump for me. One has to remember that there was a shortage of trained staff in those years. The job at Prince Rupert lasted only one year and then I transferred to Vancouver as I/C Management.

Three years later I was sent to Victoria as Two I/C Forest Management. I did not want a Victoria posting. Instead I wanted to get District experience in protection work. Gerry McKee promised to move me out of Victoria in two years. This never came to pass. Instead I stayed in Victoria until my retirement from the post of Deputy Minister, 27 years later, in 1976.

After retirement I took on a few consulting jobs. The biggest one involved a six-month stay in Swaziland for the Canadian International Development Agency (CIDA). I worked on a few local jobs as well, for Victoria-based consultants. There were times when the work interfered with my golf, so I finally put away my briefcase, and devoted more time to my golfing activities.

John passed away on December 1, 1994 at the age of 80.

LORNE F. SWANNELL

There were only a handful of men who worked for ten years or more on Forest Surveys Division field parties during the 1920s and 1930s. Lorne Swannell was one of these. He worked on field parties for ten consecutive field seasons, from 1926 to 1935, and for him it was the most enjoyable decade of his long career in the B.C. Forest Service. As Lorne comments:

The outdoor life in the woods held the greatest appeal for me. Then there were the physical demands imposed by the rigours of the job. One soon became aware of just how much stamina was required to cope with these demands. At the end of the day, there was the satisfaction of having accomplished something worthwhile, some days after being severely tested by the elements.

Lorne does not remember exactly why he decided to make forestry a career. As he recalls:

My first choice was to become a Land Surveyor and follow in the footsteps of my father, but he persuaded me to look in other directions. I guess what ultimately steered me toward forestry was the attraction of outdoor life. At the time, I was too young to realize that promotions would eventually curtail fieldwork and lead to more time behind a desk. Overall, I would spend 2/3 of my career in an office.

Lorne was born on September 2, 1908 in Victoria. He attended Victoria College in 1924 and 1925, and then entered UBC, earning his BA in 1930 and graduating with honours in Forest Engineering in 1931.

Lorne's first job in the woods was in 1925 when he worked on a logging railway survey crew at China Creek. He then worked for the Forest Surveys Division on a seasonal basis until he eventually became a continuous employee.

Lorne left the Forest Surveys Division on April 1, 1936 to become a Ranger at Kamloops. One year later he became a Junior Forester in the Kamloops Forest District's Management office. In January 1939, he was promoted to Assistant District Forester in Prince George. Lorne terminated this job (with leave of absence) to join the Canadian army in September 1939. He served in the war until August 1945 with the Royal Canadian Artillery, ultimately achieving the rank of Major as Battery Commander in the 2nd Survey Regiment.

After serving in Great Britain, France, Belgium, Holland and Germany, Lorne returned to Canada and resumed his forestry career as Assistant District Forester at Prince George. In May 1947 he was promoted to District Forester at Prince George. In April 1952 he became District Forester at Kamloops. Six years later he was promoted to Assistant Chief Forester, Operations in Victoria. In 1965 he became Chief Forester and held that post until his retirement in 1972.

Lorne still remembers a great deal about his life in Forest Survey field parties over 60 years ago. Space limitations of this report will not allow the inclusion of many of the stories he tells of those days. Here then is a brief summary of the field parties on which he worked as well as a smattering of experiences and events of those days.

He worked as an undergraduate (summers only) for five years:

1926	Babine	Party Chief: Carlyle
1927	Nehalliston	Party Chief: Greggor
1928	Nehalliston	Party Chief: Bassett
1929	Okanagan	Party Chief: Hodgins
1930	Flathead	Party Chief: Andrews

As a graduate forester, he worked another five years:

Niskonlith	Party Chief: Andrews
Railway Belt	Party Chief: Hodgins
Sechelt-Jervis	Party Chief: McCannel
Penticton	Party Chief: Hodgins
Upper Arrow	Party Chief: Walker
	Railway Belt Sechelt-Jervis Penticton

One's ability to complete the workload laid down by the Party Chief largely depended on physical condition. Lorne recalls coping with the rigours of fieldwork:

There were indeed some "high-ballers" on the crews over the years, and at an early stage I decided that I would keep up with the best of them, on strip as well as on the long back-packing trips which frequently occurred. To keep in shape during the winters, I participated in sports and did a lot of running on a regular basis. My stamina never left me.

The 1927 summer stands out in my mind. A total of 28 men were divided into two field parties. Most of them were on the timber cruising crew. I was a part of a smaller crew that surveyed base lines, and usually worked about ten miles ahead of the cruising crew. Packhorses were used to provide supplies and move camp for the cruising crew. However our small survey crew did not have this convenience, so we were constantly backpacking. By the end of the summer I had lost nearly twenty pounds.

Music has always been a big part of my life, but I can recall only a couple of summers when we were able to enjoy it in a survey camp. In 1926, my first summer in Forest Surveys, the Party Chief Ken Carlyle somehow managed to bring a big cabinet radio to camp. And in 1930 on the Flathead survey we had a gramophone and a box of records. Listening to the music contrasted markedly with our remoteness. We saw no one except the other members of our crew for three months.

Lorne vividly remembers how difficult it was to get steady employment in the first few years following graduation:

After several months of no work in the winter of 1931-1932, I was offered a job to do survey work on a reforestation project in March of 1932. It turned out to be the first operational reforestation project conducted by the Forest Service. It set a record for maximum number of forestry graduates employed on one reforestation project. There were a total of nine forestry graduates on the payroll, including the Project Leader Ken McCannel who was then Two I/C for the Surveys Division. The others were J. Crickmay, C. Dunham, M. Gormely, T. Groves, W. Latta, J. Liersch, C. Schultz and myself. The pay of 45 cents an hour was certainly attractive in those days.

Funds were so scarce the next year that the Surveys Division was able to activate only one field party. The launch *B.C. Forester* was used as a base for the crew working in the Sechelt and Jervis Inlet areas. The crew was made up entirely of Party Chiefs and others who already had considerable experience with surveys. There was job rotation and everyone accepted this in good spirits. Bill Hall was the Cook for most of the summer, until I broke my ribs and replaced him during my convalescence.

Lorne's agenda of retirement activities has been both varied and long. He has been both teacher and student, having taught a forest mensuration course at Camosun College as well as attending courses at the University of Victoria and taking several correspondence courses from the Open University program. He has worked for short periods over several years as a consulting forester – both in B.C. and abroad.

For many years Lorne kept in good shape by a regular jogging routine and by square dancing. A recent leg injury had curtailed these activities, but he was still able to have a daily workout on an exercise bike. He and his wife Grace travelled on long trips to enjoy different cultures in far-off lands. (Lorne died peacefully in Victoria on May 18, 2011, in his 103rd year.)

R. CEDRIC TELFORD

Cedric died on June 25, 1992 – six weeks after being interviewed. His career in forestry extended over four decades, and included working for the forest industry as well as the provincial and federal governments. In his varied career he encountered many new circumstances, and demonstrated his ability to rise to the occasion both as a problem solver and leader.

A native of Vancouver (born on August 20, 1909), Cedric moved to California with his family in the early 1920s. The family returned to B.C. in 1935 and resided at Gibsons Landing. Cedric's first experience in forestry was with the Young Men's Forestry Training Plan when he was assigned to general duties in the Sechelt Ranger District. The following summer he worked as a Lookoutman on Texada Island.

Cedric decided to study forestry and gained admittance to the University of Washington in 1936. During the summers Cedric worked for the B.C. Forest Branch on forest surveys. In 1937 he worked on the Esquimalt and Nanaimo Railway Company lands and in 1938 on the Graham Forest survey.

In the spring of 1939 Cedric graduated from the University of Washington and was immediately hired as a Ranger, headquartered at Ucluelet. Initially he was provided with a forty-foot launch, the *Dogwood*, for transportation throughout the district that extended to the northern end of Vancouver Island. However, the hazardous west coast waters demanded a sturdier vessel, and a fifty-foot seiner, the *Tamarack* was soon provided.

In 1941 Cedric got married and was moved to Thurston Bay to take charge of the Coast Islands Working Circle. The main objective was to develop a practical demonstration forest conforming to a managed forest concept. The project was soon abandoned and Cedric was transferred to district headquarters in Vancouver.

In the fall of 1944 Cedric was transferred to Victoria where he was assigned to the Forest Economics Division. The Chief Forester was intent on developing a new system of forest management of Crown lands, to establish a more active role for the forest industry. Cedric did much of the research and preparatory work that eventually culminated in the Tree Farm Licence system.

In 1951 Cedric left the B.C. Forest Service to accept the Chief Forester position with Columbia Cellulose in Prince Rupert. In 1955 he was promoted to Woods Manager and moved to Terrace. After fourteen years in the northern operations, Cedric was transferred to head office in Vancouver, where he primarily liaised with government agencies. In 1967 he accepted a job with the federal government as Regional Forester for the Department of Indian Affairs. He travelled extensively throughout B.C. and the Yukon, developing forestry initiatives with both individual natives and native bands.

In 1974, at the age of 65, Cedric retired, and five years later was asked to serve as a consultant for Canadian Executive Services Overseas (CESO) projects in underdeveloped countries.

Throughout his varied career Cedric faced many unique challenges, which placed heavy demands on him. He took greatest satisfaction for his work in northern B.C.:

Working at Columbia Cellulose was most satisfactory because I could see great progress being made. We initiated the building of more than 150 miles of roads and the production and shipping of millions of FBM [foot board measure] of logs. We solved the many problems in using three different means of transport, road, rail and water.

D. MICHAEL (MICKY) TREW

Micky's career embraced a very broad spectrum of forestry as well as other activities. He worked for the B.C. Forest Service from 1938 to 1956. For the next six years, he worked as a private consultant (except for one year with the Canadian Forest Service). From 1962 to 1975 he worked on International Aid projects under the United Nations or the World Council of Churches. Since 1975 Micky has been more or less retired from mainstream activities. However, he has remained very active as a forestry critic, espousing the cause of selective logging in B.C. forests.

Micky was born in Victoria on January 27, 1913. His mother was from Alsace, France and her family owned factories and substantial forests. His father was English, a veteran of the Boer War. In 1922, the family decided to leave Victoria and migrate back to Alsace. Micky obtained most of his education in French institutions. After completing his senior matriculation, plus a year of engineering in Paris, Micky traveled to the U.S.A. and entered Pennsylvania State College when he completed a two-year forestry course in 1935. He then returned to B.C. and went job hunting.

During the next 40 years, Micky changed jobs frequently. The following is a resume of the many jobs he held:

1935-1938	In various logging camps on a variety of jobs including Bullcook, Whistle Punk and timber cruising.
1938-1941	With Forest Surveys in the B.C. Forest Branch, mostly in the Air Surveys Section. Also on various field parties to refine air-photo interpretation.
1941-1944	In the Reforestation Section of the Forest Economics Division, B.C. Forest Branch, on various planting projects and plantation survival surveys.
1944-1947	Parks Section of the Forest Economics Division, B.C. Forest Service (mostly on reconnaissance and inventory).
1947-1950	Parks and Recreation Division, B.C. Forest Service (mostly on reconnaissance and inventory).
1950	Management Division, B.C. Forest Service (Farm Woodlot Licences).
1951	Working Plans Division, B.C. Forest Service (Farm Woodlot Licences).
1952-1953	Silviculture Section, Prince George Forest District, B.C. Forest Service.
1954-1955	Management Licences, Prince George Forest District, B.C. Forest Service.
1955	Left the B.C. Forest Service to work for consultants.
1955-1960	Worked for Barney Johnson, C.D. Schultz and Forestal.
1960-1975	Worked in many foreign assignments for the Colombo Plan and other International Aid Agencies.
1975	Retired.

Micky's most pleasant memories of his career in the B.C. Forest Service involve the time spent in the Air Surveys Section, where he obtained a solid foundation on the use of aerial photography in forest inventory work. Throughout his career, he made abundant use of this knowledge.

He also enjoyed six years in the Parks Section of the B.C. Forest Service. A good part of this time was spent outdoors with Chess Lyons during any season of the year.

His most unpleasant memories revolve around his failure to convince the B.C. Forest Service to endorse intensive selection harvesting for all the forests in B.C. His convictions on this matter were still very strong in 1995, when he was in his eighties, and Micky continued an aggressive Letter-to-the-Editor campaign. (Micky died on May 12, 2004 at the age of 91.)

CEDRIC WALKER

At 88 years of age, Cedric still displays the vigour and enthusiasm that characterized his outlook during a long and varied forest career spanning the better part of six decades. These attributes combined with a good memory, several photographic albums, plus the ability to tell a good yarn provide a major contribution to our understanding of the Forest Surveys Division in the 1920s and 1930s.

Cedric was born in London, England on August 26, 1907. A year later, his family moved to Victoria where his father, a doctor, had accepted a position at the William Head Quarantine Station. Cedric can tell many stories about life in Victoria in those days. Perhaps a few should be included here:

Initially we lived at William Head. Since there was no connecting road to Victoria, we travelled to the city on board a small steamboat called the *Madge*.

My interest in forestry started in our parlour, listening to conversations between my father and Martin Grainger. I think that I should explain how they became good friends.

My father wanted to obtain more specialized medical training, so the whole family departed for a year's stay in Edinburgh. On the return trip in January 1913, we boarded a train in Montreal for Vancouver. My father had purchased several books in the railway station, including one [from 1908] written by Martin Grainger called *Woodsmen of the West*. It contained stories of loggers and their antics on the B.C. coast.

Upon arriving in Victoria, my father opened a private practice in the Belmont building. By some strange coincidence, his very first patient was Martin Grainger, who was the then an assistant to Chief Forester H.R. MacMillan.

The two men became friends, and within a short time, a social routine was established. The Walker and Grainger families shared brunch each Sunday, alternating between the two homes.

Cedric matriculated from Brentwood College in 1924, and entered the College of Forestry at the University of Washington that fall. The next summer he got his first job with the B.C. Forest Branch at the newly-established Aleza Lake Experiment Station. In the summer of 1926 he worked on the west coast of Vancouver Island and at Thurston Bay. This marked the beginning of many years of service in the forest surveys program.

For a brief time Cedric underwent a major change in career plans. Here is his story:

I graduated from the University of Washington in May 1928. After working on the Shuswap survey that summer, I stopped in Vancouver, and decided to explore employment opportunities outside of the Forest Service. I made an appointment for an interview with H.R. MacMillan, who offered me a job in Vancouver at \$80.00 per month. As I left his office, I made a few mental calculations, and decided that the cost of living in Vancouver would eat up most of my salary, leaving very little for the finer things in life.

On impulse, I walked across the street to an investment firm and inquired about a job. After a short interview, I was offered \$30.00 per week, and immediately accepted. Within a short time, I became a stockbroker and traded on the floor of the Vancouver Stock Exchange. Within six months, I got a better position with the biggest brokerage firm in Canada. It opened a new office in Victoria, and I was soon back in my old stamping grounds.

Hundreds of stockbrokers lost their jobs after the crash of October 1929, and I was no exception. When my job disappeared I was living at my parent's home in Victoria, took stock of the situation, bought a set of golf clubs for \$50.00 and a brand new Model A Ford Roadster for \$746.00. When I wasn't looking for a job I could be found at the Victoria Golf Club (which I joined for \$25.00).

Despite his newly-acquired love for golf, Cedric was relieved when he was again offered a job in the Forest Surveys Division. In the summer of 1930 he worked at Barriere under Party Chief John Liersch. The following year Cedric was promoted to Party Chief, in charge of the Morice Forest survey. He continued as Party Chief in various parts of the province until 1937 when he started a two-year stint in the Management Section of the Kamloops Forest District. In 1940 he again worked in Forest Surveys as a Party Chief for the North Shore survey.

In 1941, Cedric joined the RCAF, taught navigation to air crew trainees, and then spent a short time as a personnel counsellor before being discharged in 1945. His first civilian job was again with the B.C Forest Service, this time as a Stumpage Appraisals Officer in the Vancouver Forest District office. After only a few months he left the B.C. Forest Service to work as a consultant with C.D. Schultz and Company.

He remained with that firm until 1958, when he accepted an offer from Swan Wooster Ltd. Cedric soon switched to Forestal International where he became Vice-President. His work took him to most provinces in Canada and to many foreign countries. When he retired in 1974 he accepted the position as Registrar of the Association of B.C. Professional Foresters where he remained until 1979 when he retired for the second and final time.

For Cedric, retirement means much more time for golf and boating. He finally had to sell his boat when his wife could no longer cope. Cedric is still a keen golfer with enough optimism to constantly work at improving his game. He lived in a Saltspring Island home, which he designed himself, (and died on November 24, 2003, aged 96.)

APPENDIX: ANNUAL INVENTORY SURVEY LOCATIONS AS LISTED IN THE B.C. FOREST BRANCH ANNUAL REPORTS*

1912

Adams River to Seymour Creek; Bulkley Valley; upper Columbia; north and south forks of the Fraser River; upper Fraser; upper Kettle River; west of the Kootenay River north to Fort Steele; Nation Lakes; Nicola Plateau; North Thompson – Clearwater valleys; Okanagan Lake; Salmon River (Vancouver Island); Shuswap.

1913

Bella Coola and Dean valleys; Bonaparte and San Jose valleys; south Cassiar (Babine, Driftwood, Omineca, Finlay and Parsnip); upper Kettle River; Kettle Valley west of Okanagan Lake; west of the Kootenay River and north to Fort Steele; Nass Valley – upper Skeena; North Thompson and Barriere valleys; Shuswap; Thompson and Canoe valleys.

1914

Babine and Stuart lakes area; Harrison Lake – Pemberton Meadows – Toba River – lower Homathko and Klinaklini rivers; North Thompson – Clearwater rivers; upper Parsnip River; Pine Pass; Willow and Bowron river headwaters.

1915

Francois, Ootsa and Eutsuk lakes region; Parsnip River and north fork of the Fraser River; lower Parsnip and Manson rivers; upper Peace River; Pine River; Zymoetz valley.

1916

None due to enlistments of field staff.

1917-1919

None mentioned.

1920

North Thompson.

1921

Clearwater – Myrtle valleys; Fraser and Bowron valleys; Kitimat Valley; Kitlope Valley; McGregor area; Masset Inlet; Nass Valley; North Thompson; Tahtsa Lake area.

1922

Capilano Valley; Clearwater Valley (Kitimat); upper Elk River; Flathead Valley; Nass Valley; Wigwam – Lodgepole valleys.

^{*}includes surveys, cruises, reconnaissance and land classification. Some entries might refer only to office compilation work. Not necessarily a complete list.

1923

Fraser River (Longworth to Dewey and Little Shuswap); Horsefly; Kootenay Lake; Queen Charlotte Islands [Haida Gwaii]; plus exploratory reconnaissance surveys west of the PGE Railway (Bridge River – Chilako – Homathko – Klinaklini – Bella Coola and Dean valleys) and east of the PGE Railway (McKinley – Barkerville – Isaac Lake – Swamp River – Ghost Lake – Quesnel Lake).

1924

Cottonwood and Swift rivers; McGregor area; McKinley and Crooked River areas; Raft River.

1925

Bear and Granite creeks (Tulameen); McGregor River; Quesnel Lake.

1926

Aberdeen; Babine; between Nootka and Barkley sounds; upper Yakoun River (Queen Charlotte Islands [Haida Gwaii]).

1927

Babine; Kildala Arm; Morice River; Nehalliston (Railway Belt to Mahood Lake); Redonda Islands.

1928

Herrick River (McGregor); Kingcome River; upper Nechako; Nehalliston; Sayward; Shuswap (south of the Railway Belt); Yahk.

1929

Elk; Momich (Adams and Seymour valleys); west side of Okanagan Lake; Powell Lake; Shuswap; upper Skeena (plus the Kispiox, Alankis, Sustut, Bear and Suskwa valleys); Yahk.

1930

Barriere Valley; Elk Valley; Flathead Valley; Lillooet River – Harrison Lake – upper Stave and Pitt rivers; Momich (Adams and Seymour valleys); west side of Okanagan Lake; Powell River; Quadra Island.

1931

Former Railway Belt (Fly Hill, Long Lake, Nicola, Niskonlith, Martin Mountain, Monte Hills and Tranquille).

1932

Former Railway Belt (Arrowstone, Fly Hill, Hat Creek, Larch Hills, Martin Mountain Monte Hills, Mount Ida, Niskonlith and Shuswap).

1933

Jervis Inlet and Sechelt Peninsula.

1934

West Kettle River; Nimpkish; Toba Inlet.

1935

Kettle River; Lower Coast (Simoom Sound to Drury Inlets); Upper Arrow Lake.

1936

Esquimalt and Nanaimo Railway Company Land Grant; Lower Arrow Lake; Lower Coast (Seymour, Belize and tributary inlets); Upper Arrow Lake.

1937

Esquimalt and Nanaimo Railway Company Land Grant; Lower Arrow Lake; Queen Charlotte Islands [Haida Gwaii] (Moresby); Skeena River.

1938

East and West Thurlow islands; Hardwicke; Okanagan; Queen Charlotte Islands [Haida Gwaii] (Graham); Sonora.

1939

Dome; Douglas and Harrison; north Okanagan; Quatsino Inlet.

<u>1940</u>

Dome; North Shore (Howe Sound to Harrison); Slocan.

BC FOREST BRANCH FOREST SURVEY REPORTS AVAILABLE ONLINE AND/OR AS HARDCOPY FROM THE J.T. FYLES NATURAL RESOURCES LIBRARY*

1910 - 1919

Reconnaissance of Adams River Beard, F.W. 1912 Call number 634.92859 B368 1 https://www.for.gov.bc.ca/hfd/library/documents/bib36640.pdf

Reconnaissance from Hazelton to Burns Lake Caverhill, P.Z. 1912 Call number 634.92859 C381 1 https://www.for.gov.bc.ca/hfd/library/documents/bib37326.pdf

Reconnaissance from Nation Lakes to Stuart Lake Mitchell, J.B. 1912 Call number 634.92859 M681 1 https://www.for.gov.bc.ca/hfd/library/documents/bib37260.pdf

Report on exploratory reconnaissance of a portion of the Naas River watershed, and headwaters of Skeena River: May to November - 1913 Bonney, P.S. 1913
Call number 634.92859 B717 1
https://www.for.gov.bc.ca/hfd/library/documents/bib36730.pdf

Report on a reconnaissance survey of the lands along the Canadian Northern Railway and in the Canoe River Valley Clark, D.E. 1913
Call number 634.92859 C592 1
https://www.for.gov.bc.ca/hfd/library/documents/bib36619.pdf

Reconnaissance of 23 sections north of Koprino Harbour, Quatsino Sound Clark, J.F. 1913
Call number 634.92859 C593 1
https://www.for.gov.bc.ca/hfd/library/documents/bib37343.pdf

Reconnaissance of Kootenay Valley (Fort Steele section)
Gareau, J.R. 1913
Call number 634.92859 G229B 1
https://www.for.gov.bc.ca/hfd/library/documents/bib37339.pdf

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^{*1810} Blanshard St. Victoria, BC V8W 9N3

Reconnaissance of East Kootenay Valley Gold, A.M.O. 1913 Call number 634.92859 G618B 1 https://www.for.gov.bc.ca/hfd/library/documents/bib37416.pdf

Reconnaissance in South Cassiar Gold, A.M.O. 1913 Call number 634.92859 G618A 1 https://www.for.gov.bc.ca/hfd/library/documents/bib38044.pdf

Reconnaissance of E. portion Lillooet District McDougall, E.G. 1913 Call number 634.92859 M137 C.1 https://www.for.gov.bc.ca/hfd/library/documents/bib37440.pdf

Reconnaissance of N. Thompson and Barriere rivers Murray, H.B. 1913 Call number 634.92859 M982A 1 https://www.for.gov.bc.ca/hfd/library/documents/bib36723.pdf

Reconnaissance Tacla Lake & vicinity
Turnbull, J. 1913
Call number 634.92859 T942 1
https://www.for.gov.bc.ca/hfd/library/documents/bib37421.pdf

Reconnaissance Toba, Homolko & Klene-A-Klene valleys Cowan, C.S. 1914 Call number 634.92859 C874A 1 https://www.for.gov.bc.ca/hfd/library/documents/bib37270.pdf

Report on the forest species of the Toba, Homolko & Klene-A-Klene valleys Cowan, C.S. 1914
Call number 634.92859 C874 1
https://www.for.gov.bc.ca/hfd/library/documents/bib37267.pdf

Reconnaissance of Upper Columbia Valley Gareau, J.R. 1914 Call number 634.92859 G229A 1 https://www.for.gov.bc.ca/hfd/library/documents/bib26981.pdf

Reconnaissance of Willow & Bowron rivers
Gareau, J.R. 1914
Call number 634.92859 G229 1
https://www.for.gov.bc.ca/hfd/library/documents/bib36614.pdf

Forest reconnaissance of Babine Lake District Gold, A.M.O. 1914 Call number 634.92859 G618 1 https://www.for.gov.bc.ca/hfd/library/documents/bib25237.pdf

Reconnaissance in Lillooet & Cariboo districts
McDougall, E.G. 1914
Call number 634.92859 M137B
https://www.for.gov.bc.ca/hfd/library/documents/bib26574.pdf

Reconnaissance Upper Kootenay Valley Murray, H.B. 1914 Call number 634.92859 M982 C.1 https://www.for.gov.bc.ca/hfd/library/documents/bib37415.pdf

Reconnaissance South Pine & Misinchinka watershed Murray, N.F. 1914
Call number 634.92859 M983 C.1
https://www.for.gov.bc.ca/hfd/library/documents/bib37387.pdf

Reconnaissance along 53rd parallel Shives, A.K. 1914 Call number 634.92859 S558 1 https://www.for.gov.bc.ca/hfd/library/documents/bib37316.pdf

Reconnaissance of Parsnip River and McGregor River watersheds Copley, G.V. 1915
Call number 634.92859 C784 1
https://www.for.gov.bc.ca/hfd/library/documents/bib37279.pdf

Reconnaissance of Zymoetz or Copper River watershed Kinghorn, H.C. 1915
Call number 634.92859 K54 C.1
https://www.for.gov.bc.ca/hfd/library/documents/bib37313.pdf

Reconnaissance of Zeballos River Mumford, A.G. 1915 Call number 634.92859 M962 1 https://www.for.gov.bc.ca/hfd/library/documents/bib37312.pdf

Reconnaissance Pine & Misinchinka watershed Murray, N.F. 1914 - 1915 Call number 634.92859 M983A 1 https://www.for.gov.bc.ca/hfd/library/documents/bib37388.pdf 1920 - 1929

Cruise of Massett Inlet Casey, L. 1921 Call number 634.92859 C338 1 https://www.for.gov.bc.ca/hfd/library/documents/bib697.pdf

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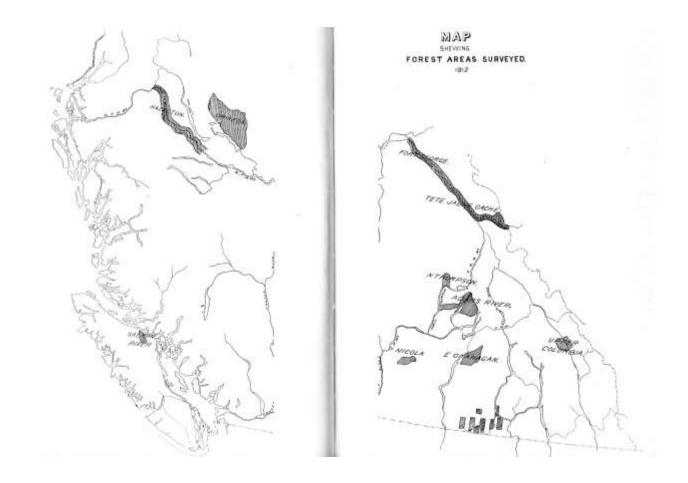
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Compiled by John Parminter
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For some years during the 1910s and 1920s, the published annual reports of the B.C. Forest Branch contain maps showing the areas surveyed each field season. Those that exist are included here.

