Distributions of Fish Species within the South Nahanni River Watershed, Northwest Territories

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DISTRIBUTIONS OF FISH SPECIES WITHIN THE SOUTH NAHANNI RIVER WATERSHED, NORTHWEST TERRITORIES

by

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ABSTRACT

Babaluk, J.A., Sawatzky, C.D., Watkinson, D.A., Tate, D.P., Mochnacz, N.J., and Reist, J.D. 2015. Distributions of fish species within the South Nahanni River watershed, Northwest Territories. Can. Manuscr. Rep. Fish. Aquat. Sci. 3064: vii + 91 p.

An extensive literature search, field sampling programs conducted between 2004-2007, and personal communications with area residents and other researchers found 19 species of fish reported as occurring within the South Nahanni River watershed (mainly comprised of two national park reserves, Nahanni and Nááts'ihch'oh). Sixteen of these species were reported within Nahanni National Park Reserve while four species were reported within Nááts'ihch'oh National Park Reserve. One species reported as occurring in the South Nahanni River watershed and three species reported as occurring in Nahanni National Park Reserve are considered suspect. Six of the 16 species were also reported in the Nahanni North Karst area of Nahanni National Park Reserve, an area that is part of an adjacent watershed. Point distribution maps for individual species are presented. Map coordinates of capture locations, pertinent literature, and capture information and biological data from the field sampling programs are summarized.

Key words: catch records; fish distributions; fishery survey; Nááts'ihch'oh National Park Reserve; Nahanni National Park Reserve; Nahanni North Karst; South Nahanni River; South Nahanni River watershed.

RÉSUMÉ

Babaluk, J.A., Sawatzky, C.D., Watkinson, D.A., Tate, D.P., Mochnacz, N.J., and Reist, J.D. 2015. Distributions of fish species within the South Nahanni River watershed, Northwest Territories. Can. Manuscr. Rep. Fish. Aquat. Sci. 3064: vii + 91 p.

Une revue très complète de la littérature, les programmes d'échantillonnage sur le terrain effectués entre 2004-2007, et des communications personnelles avec les résidents de la région et d'autres chercheurs ont permis de recenser 19 espèces de poissons dans le bassin hydrographique de la rivière Nahanni Sud (principalement composé de deux réserves à vocation de parc national: Nahanni et Nááts'ihch'oh). Seize de ces espèces ont été aperçues dans la réserve de parc national du Canada Nahanni, alors que quatre espèces ont été répertoriées dans la réserve de parc national Nááts'ihch'oh. Une espèce signalée comme se trouvant dans le bassin hydrographique de la rivière Nahanni Sud et trois espèces signalées comme se trouvant dans la réserve de parc national du Canada Nahanni sont considérées comme suspectes. 6 des 16 espèces ont aussi été signalées dans la zone Nahanni Karst Nord de la réserve de parc national du Canada Nahanni, une région qui fait partie d'un bassin hydrographique adjacent. Des cartes avec points illustrant la répartition des espèces individuelles sont présentées. Les coordonnées cartographiques des endroits de capture, les documents scientifiques pertinents, et les renseignements sur la capture ainsi que les données biologiques provenant des programmes d'échantillonnage sur le terrain sont résumés.

Mots clés: registres des pêches; aires de répartition des poissons; relevés de pêche; réserve de parc national Nááts'ihch'oh; réserve de parc national Nahanni; karst de Nahanni Nord; rivière Nahanni Sud; bassin hydrographique de la rivière Nahanni Sud.

INTRODUCTION

Knowledge of the fish species present and their associated distributions within Nahanni National Park Reserve (Parks Canada 1984, 2009a) and Nááts'ihch'oh National Park Reserve (Parks Canada 2012), both within the South Nahanni River watershed, Northwest Territories, is integral to the development of Parks Canada's conservation and management plans (Parks Canada 2009b, 2012). The available scientific literature on fishes concentrated only on those species within the original boundary of Nahanni National Park Reserve (see Fig. 1) (e.g., Wickstrom 1977, 1979; Mochnacz 2002) and the two streams in the watershed that have mining developments associated with them: Prairie Creek (e.g., Beak Consultants Ltd. 1981a, b; Mochnacz 2002) and Flat River (e.g., Sigma Resource Consultants Ltd. 1976; Moore et al. 1978). Between 2004-2007, prior to expansion of Nahanni National Park Reserve in 2009 and the establishment of Nááts'ihch'oh National Park Reserve in 2012 (see Fig. 1), Fisheries and Oceans Canada (DFO), in collaboration with Parks Canada (Parks), conducted several fisheries surveys in the South Nahanni River watershed including areas now encompassed by both park reserves. The aim of the work was to further document the distribution of all fish species in the watershed and, in particular, the distribution of Bull Trout (*Salvelinus confluentus*).

The distributions of freshwater fishes in Canada's northern waters have been described in several publications (e.g., McPhail and Lindsey 1970; Scott and Crossman 1973). While the South Nahanni River watershed is included in these publications, in a general way as species distribution projections, there are few specific references to fish captured in the watershed as the publications noted above were published before any scientific fishing in the South Nahanni River watershed occurred, with one exception (Addison 1966). Lee et al. (1980) updated the distributions for Canada's north and the distributions of freshwater species in the mainland Northwest Territories, specifically, were further updated and refined by Sawatzky et al. (2007). While Sawatzky et al. (2007) added many point distributions for species in the South Nahanni River watershed, their mapping was on a large scale and capture details were limited.

This project, through a combination of an extensive literature search, our own field sampling, some more recent field sampling by other researchers, and personal communications with area residents collates, summarizes, and presents information on the distributions of fish species within the South Nahanni River watershed including Nahanni and Nááts'ihch'oh national park reserves.

MATERIALS AND METHODS

DESCRIPTION OF THE STUDY AREA

The South Nahanni River watershed encompasses an area of approximately 37 000 km^2 in the south-west corner of the Northwest Territories (Halliwell and Catto 1998) with its western edge laying on the border between the Northwest and Yukon territories (NT or NWT and YT, respectively) (Fig. 1). The headwaters of the South Nahanni River originate in The Moose Ponds area at the base of Mount Wilson (ca. 62.92° N, 129.67° W) and the river flows for approximately 550 km in a south-east direction through the Mackenzie Mountains roughly parallel to the NT-YT border before its confluence with the Liard River near Nahanni Butte, NT that in turn empties into the Mackenzie River (Halliwell and Catto 1998) (Fig. 1). Virginia Falls, at 96 m high, is located about two-thirds of the way down the South Nahanni River (Fig. 1). The falls form a natural migratory and distribution barrier to aquatic organisms (Parks Canada 1984). Major inflowing streams to the South Nahanni River above Virginia Falls include the Little Nahanni, Broken Skull, Sapper, and Rabbitkettle rivers while those below the falls include the Flat River, Meilleur River, and Prairie Creek.

Nahanni National Park Reserve (hereafter, Nahanni NPR) was established in 1972 covering an area of 4 766 km^2 along the South Nahanni and Flat rivers (Fig. 1, see original Nahanni NPR boundary). Nahanni NPR became a UNESCO World Heritage Site in 1978 (UNESCO 1978) and in 1987, the section of the South Nahanni River within Nahanni NPR was designated as a Canadian Heritage River (CHRSB 1987). In 2009, Nahanni NPR was expanded to cover a total area of 30 050 km^2 (Parks Canada 2009a) (Fig. 1, see current Nahanni NPR boundary). This expansion included the adjacent Nahanni North Karst area (Fig. 1). Although this karst area is not a part of the South Nahanni River watershed (actually, part of the North Nahanni River watershed), it was included in Nahanni NPR because of its many unique caves, canyons, rock towers, poljes (karst fields), and sinkholes (Parks Canada 2009a). The original Nahanni NPR and the South Nahanni River watershed are described in detail (including watershed water quality) in Parks Canada (1984) and, in particular, by Halliwell and Catto (1998). The Flat River and Prairie Creek have historical and current mining/industrial activity in their vicinity: the Cantung Mine (operating) at Tungsten, NT near the headwaters of the Flat River (Fig. 1) (North American Tungsten Corporation Ltd. 2014) and the Prairie Creek Mine (in development) on Prairie Creek (Fig. 1) (Spencer et al. 2008; Canadian Zinc Corporation 2014). Defined areas

around these mining operations have been excluded from Nahanni NPR (Fig. 1, see current Nahanni NPR boundary).

In 2012, Nááts'ihch'oh National Park Reserve (hereafter, Nááts'ihch'oh NPR) was established covering an area of 4 895 km^2 in the upper regions of the South Nahanni River watershed adjacent to Nahanni NPR (Parks Canada 2012). The combined areas of the two park reserves encompass and thus protect approximately 86% of the South Nahanni River watershed (Parks Canada 2012).

LITERATURE AND OTHER FISH RECORD SOURCES

Literature searches were conducted using WAVES (DFO 2015), Aquatic Sciences and Fisheries Abstracts (ASFA 2013), and the reference literature collection in the Arctic Fish Section at DFO (Freshwater Institute, Winnipeg, MB). Pertinent reports, articles, and maps held at Parks Canada, Fort Simpson, NT and fish collection records for the South Nahanni River watershed held at the Royal Ontario Museum (ROM), Toronto, ON were also accessed. Where applicable, the ROM specimen reference number is provided in the appendix for each species (e.g., see Appendix 1). Several researchers working recently in the South Nahanni River watershed area provided access to their pertinent unpublished data and personal communications with current and former residents of Fort Simpson were on several occasions used to confirm or refute catch records.

FIELD SAMPLING

Between 2004-2007, DFO and Parks conducted field surveys to further document the distribution of Bull Trout and other fish species within the South Nahanni River watershed. Field sampling was conducted during short periods in late summer and/or early fall: September 1-6, 2004, August 21-27, 2005, August 24-September 7, 2006, and August 21-25, 2007. As capture of Bull Trout was the main objective, sampling locations were chosen based on known or probable habitat preferences for the species determined from existing records of Bull Trout in the watershed and the scientific literature. Because of the rugged, mountainous terrain of the area, a helicopter was used for transport to selected sampling locations (see Appendix 21). Precise geographic location (i.e., map coordinates) of all sampling locations was determined using a hand-held GPS device. Fish were captured by electro-fishing, angling, gillnetting, and baited set-hooks. All fish captured were identified to species, enumerated, and, in most cases,

released. Selected specimens were retained and frozen for subsequent processing in the laboratory including confirmation of field identification, length and weight and other biological parameters, and tissues were collected for contaminants and genetic analyses.

MAPPING

Fish occurrence records for the South Nahanni River watershed from literature searches, field sampling, and other sources were entered into a Microsoft® Access (Microsoft, Redmond, WA) database. Map coordinates were taken from the articles/reports (if provided, therein), from applicable National Topographic Series (NTS) maps, or if only the water body name was provided in the report, taken from the Gazetteer of Canada: Northwest Territories (EMRC 1980). In most cases, the gazetteer only provided geographic centre-point coordinates for lake or river mouths, therefore coordinate precision varies. In recent years, Natural Resources Canada's online, interactive National Atlas of Canada was utilized to procure map coordinates (NRC 2015). The locations were mapped using ArcView 3.3 (ESRI, Redlands, CA). These mapped locations were then transcribed manually to maps of the South Nahanni River watershed using CorelDRAW®10 (Corel Corporation, Ottawa, ON) (e.g., see Fig. 1).

NOMENCLATURE

Families are organized phylogenetically following Page et al. (2013) and within-family species scientific names are organized alphabetically, where appropriate, in this report. All scientific and English common names used in this report are according to the American Fisheries Society (Page et al. 2013).

FISH PHOTOGRAPHS

A representative colour photograph of an adult specimen for each of the 19 fish species reported occurring in the South Nahanni River watershed is presented with each species distribution description. The photographs are not necessarily of specimens captured in the South Nahanni River watershed, thus variations from these photographs may occur with respect to specimens from the area. The photographs are not scaled. Size ranges including average and maximum lengths for selected populations in Canada for these species are given by Scott and Crossman (1973). All photographs were provided by Doug Watkinson with the exceptions

of Bull Trout (Neil Mochnacz) and Inconnu (*Stenodus leucichthys*) and Round Whitefish (*Prosopium cylindraceum*) (Colin Gallagher, DFO, Winnipeg).

NORTHWEST TERRITORIES CONSERVATION STATUS

Conservation status rankings according to the Working Group on General Status of NWT Species (2011) for individual fish species found in the South Nahanni River watershed are presented in Table 1. Of the 10 ranking categories used by the working group (Working Group on General Status of NWT Species 2011) only three were currently applicable to the fish species reported as occurring in the South Nahanni River watershed. These are:

- *May Be At Risk* (2nd of 10 rank categories): species that may be at risk of extinction or extirpation, and are therefore candidates for detailed risk assessment. This is the highest rank that can be given to a species using the General Status Ranking system independent of a more detailed assessment as noted in the *At Risk* category. These species are ranked with the highest priority for a more detailed assessment by COSEWIC (Committee on the Status of Endangered Wildlife in Canada) in Canada or SARC (Species At Risk Committee) in the NWT.

- *Sensitive* (3rd of 10 rank categories): species that are not at risk of extinction or extirpation but may require special attention or protection to prevent them from becoming at risk. These species are ranked with a medium priority for a detailed assessment.

- *Secure* (4th of 10 rank categories): species that are not at risk or sensitive. These species have the lowest priority for a detailed assessment.

COSEWIC STATUS

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) has a mandate to assess "the national status of wild species, subspecies, varieties, or other designatable units that are considered to be at risk in Canada" (COSEWIC 2014). Of the seven categories used by COSEWIC to describe wildlife species (COSEWIC 2014) only one is currently applicable to the fish species reported as occurring in the South Nahanni River watershed (Table 1). This is:

- *Special Concern*: a wildlife species that may become a threatened or an endangered wildlife species because of a combination of biological characteristics and identified threats.

RESULTS

FISH SPECIES DISTRIBUTIONS

Nineteen species of fish from eight families have been reported in the South Nahanni River watershed, 16 of these from within Nahanni NPR and four from within Nááts'ihch'oh NPR (Table 1).

Point distribution maps for all 19 species are presented in Figures 1-19 and the geographic location and references for each report of each species are presented in Appendices 1-19. Arctic Grayling (*Thymallus arcticus*) have been reported from the most locations within the watershed (n=143, Fig. 14, Appendix 14), followed by Bull Trout (n=84, Fig. 11, Appendix 11), Slimy Sculpin (*Cottus cognatus*) (n=79, Fig. 17, Appendix 17), Lake Trout (*Salvelinus namaycush*) (n=46, Fig. 12, Appendix 12), and Mountain Whitefish (*Prosopium williamsoni*) (n=20, Fig. 10, Appendix 10). All other species have been reported captured from fewer than 20 locations (e.g., Lake Chub (*Couesius plumbeus*), n=7, Fig. 1, Appendix 1). Some reported species are quite rare (e.g., Trout-perch (*Percopsis omiscomaycus*), n=2, Fig. 15, Appendix 15) and some reported occurrences are considered suspect: reports of Northern Pearl Dace (*Margariscus nachtriebi*) (Fig. 2, Appendix 2), Longnose Dace (*Rhinichthys cataractae*) (Fig. 4, Appendix 4), and Spoonhead Sculpin (*Cottus ricei*) (Fig. 18, Appendix 18).

Six species of fish have also been reported from the Nahanni North Karst area (in the North Nahanni River watershed) of Nahanni NPR (Table 1). The limited fish species distribution information available for the North Karst area is presented in Figure 20 and Appendix 20.

Information on the biology and habitat preferences for these 19 species is provided in Scott and Crossman (1973), Richardson et al. (2001), Evans et al. (2002), and Sawatzky et al. (2007). Additional information on life history and habitat use by Round Whitefish, Arctic Grayling, and Bull Trout in the Northwest Territories is provided by Stewart et al. (2007a, b, and c, respectively).

Family: Cyprinidae (Carps and Minnows)

Lake Chub (*Couesius plumbeus*)

Lake Chub are widely distributed in lakes and rivers within the Northwest Territories mainland, Yukon Territory, and southern areas of mainland Nunavut (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). In the Northwest Territories, this minnow species is present in Great Slave Lake and has been reported along the Mackenzie River from its outflow at Great Slave Lake to the outer edge of its delta near Tuktoyaktuk (Sawatzky et al. 2007). In the South Nahanni River watershed, Lake Chub has been reported in the South Nahanni River below Virginia Falls (Wickstrom 1979), tributaries of the South Nahanni River above and below the falls (e.g., Wickstrom 1979; this study), and in one lake (Rabbitkettle Lake, Wickstrom 1979). A recent report has Lake Chub present in Lened Creek (an upper South Nahanni River watershed tributary) just below the creek's outflow from a small lake (Morag McPherson, DFO, Yellowknife, NT, pers. comm. 2015) (Fig. 1, Appendix 1). Lake Chub have been reported from within Nahanni NPR but have not been reported in Nááts'ihch'oh NPR. Lake Chub specimens from Bluefish Creek and the unnamed tributary of the Flat River near Tungsten have been archived at the ROM (Addison 1966, Appendix 1). A point distribution map for Lake Chub reported in the South Nahanni River watershed is presented as Figure 1 and the geographic location and references for each report of the species are presented in Appendix 1. Detailed catch records for Lake Chub captured during the 2004-2007 field sampling surveys are presented in Appendices 22, 23, and 24. In the Nahanni North Karst, outside of the South Nahanni River watershed but still within Nahanni NPR, Lake Chub have been reported from the Tetcela River (Beak Consultants Ltd. 1981b) (Fig. 20, Appendix 20).

Northern Pearl Dace (*Margariscus nachtriebi*)

The Northern Pearl Dace has a very limited distribution in Arctic North America (>60° N). It has not been reported in Alaska, Yukon Territory, or Nunavut. In the Northwest Territories, Northern Pearl Dace occur in streams that flow into the south shore of Great Slave Lake (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). McPhail (2007) reported the presence of Northern Pearl Dace in north-eastern British Columbia which indicated the potential for occurrence in waters in the adjacent south-western Northwest Territories. There is a confirmed record of Northern Pearl Dace in the Mackenzie River watershed from the Hume River (65.80° N, 129.82° W), a tributary of the Mackenzie River near Fort Good Hope, NT (reference no. UBC 26477, Beaty Biodiversity Museum, University of British Columbia, Vancouver, BC) and two reported occurrences for the South Nahanni River watershed have been noted in Sawatzky et al. (2007): in the South Nahanni River near its confluence with the Liard River (Wickstrom 1977) and in the Nahanni NPR at Rabbitkettle Lake (Wickstrom 1977) (Fig. 2, Appendix 2). Given the distribution of Northern Pearl Dace as noted in the literature (Scott and Crossman 1973; Lee et al. 1980; McPhail 2007; Sawatzky et al. 2007), the reported occurrence in Rabbitkettle Lake (Wickstrom 1977) is suspect. The lake is >250 km upstream from the confluence of the South Nahanni and Liard rivers. Rabbitkettle Lake has no outlet to the South Nahanni River and is also located upstream of the 96 m high Virginia Falls. A fisheries survey of Rabbitkettle Lake in 1975 yielded only Arctic Grayling, White Sucker, and Northern Pearl Dace (Wickstrom 1977). However, a more intensive sampling of the lake in 1978 yielded Arctic Grayling, Burbot, Lake Chub, Longnose Dace, and White Sucker with no Northern Pearl Dace captured (Wickstrom 1979). With limited fishing in Rabbitkettle Lake in 2004 and 2005 by two of the authors of this report (DW and JB, respectively), only one cyprinid species was captured. These specimens were tentatively identified in the field as Northern Pearl Dace but upon further study in the laboratory they were identified as Lake Chub (Appendices 22 and 23). The reported occurrence of Northern Pearl Dace at the confluence of the South Nahanni and Liard rivers may be suspect, as well. However, with several isolated occurrences along the Mackenzie River (Sawatzky et al.

2007), the reported occurrence in the South Nahanni River (Wickstrom 1977) is plausible, although distinguishing between Northern Pearl Dace and Lake Chub in the field is difficult (Scott and Crossman 1973) and incorrect identification of the 1970s specimens was possible. A point distribution map for Northern Pearl Dace reported in the South Nahanni River watershed is presented as Figure 2 and the geographic location and reference for each report of the species are presented in Appendix 2.

Spottail Shiner (*Notropis hudsonius*)

In the Northwest Territories, Spottail Shiner occur only in the Mackenzie River watershed. This includes Great Slave Lake, the Mackenzie River from its Great Slave Lake outflow to its delta, and the Liard River (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). Spottail Shiner have been reported from two locations in the South Nahanni River watershed: Bluefish Creek (Addison 1966) and in the South Nahanni River (Parks Canada 1984). Both locations are near the confluence of the South Nahanni and Liard rivers and are outside the park reserves. A Spottail Shiner specimen from Bluefish Creek has been archived at the ROM (Addison 1966, Appendix 3). A point distribution map for Spottail Shiner reported in the South Nahanni River watershed is presented as Figure 3 and the geographic location and reference for each report of the species are presented in Appendix 3.

Longnose Dace (*Rhinichthys cataractae*)

In the Northwest Territories, Longnose Dace are distributed throughout the western side of the Mackenzie River watershed up to the southern edge of its delta including the western reaches of Great Slave Lake and the Liard River (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). Within the South Nahanni River watershed, the species has been reported in the South Nahanni River outside of the park reserves at Nahanni Butte near the Liard River (Parks Canada 1984) and from Rabbitkettle Lake within the Nahanni NPR (Wickstrom 1979). The reported occurrence in Rabbitkettle Lake is suspect because of its relative isolation from the nearest other reported occurrence (>250 km upstream of Nahanni Butte). Also, Rabbitkettle Lake has no outlet to the South Nahanni River and is located upstream of the 96 m high Virginia Falls. Although Longnose Dace have a unique, broad, triangular-shaped head and a non-protractile inferior mouth overhung by the snout with a small barbel at each corner (Scott and Crossman 1973), it is possible that the Rabbitkettle Lake specimen was a juvenile Longnose Sucker misidentified by Wickstrom (1979). Longnose Sucker is present in Rabbitkettle Lake (this study). A point distribution map for Longnose Dace reported in the South Nahanni River watershed is presented as Figure 4 and the geographic location and reference for each report of the species are presented in Appendix 4. Outside of the South Nahanni River watershed but still within Nahanni NPR (i.e., the Nahanni North Karst), Longnose Dace have been reported from the Tetcela River (Beak Consultants Ltd. 1981b) (Fig. 20, Appendix 20).

Family: Catostomidae (Suckers)

Longnose Sucker (*Catostomus catostomus*)

Longnose Sucker are widely distributed within the Northwest Territories mainland, Yukon Territory, and southern areas of mainland Nunavut (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). In the South Nahanni River watershed, Longnose Sucker occur in the South Nahanni River and some of its major tributaries both above and below Virginia Falls (Wickstrom 1977) and in the lower reaches of the Flat River (Parks Canada 1984). Longnose Sucker have also been reported in several lakes in the watershed such as McLeod Lake (Wickstrom and Lutz 1981) and Rabbitkettle Lake (this study, see Appendix 22). Interestingly, two years of scientific fishing in Rabbitkettle Lake during the 1970s found White Sucker but no Longnose Sucker in the lake (Wickstrom 1977, 1979). Except for two reports of Longnose Sucker from near Nahanni Butte, all reported occurrences of the species are from within Nahanni NPR. Longnose Sucker specimens from Bluefish Creek, Clausen Creek, and an unnamed, ox-bow lake adjacent to the South Nahanni River have been archived at the ROM (Addison 1966, Appendix 5). A point distribution map for Longnose Sucker reported in the South Nahanni River watershed is presented as Figure 5 and the geographic location and references for each report of the species are presented in Appendix 5. Detailed catch records for Longnose Sucker captured during the 2004-2007 field sampling programs are presented in Appendix 22.

White Sucker (*Catostomus commersonii*)

Although not as widely distributed as the Longnose Sucker in the Northwest Territories, White Sucker are distributed throughout the Mackenzie River system including Great Slave Lake and the Liard River in the Northwest Territories (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). In the South Nahanni River watershed, White Sucker have been reported in the South Nahanni River above and below Virginia Falls, (Wickstrom 1977, 1979), in the Flat River (DINA 1974d), and in McLeod and Seaplane lakes (Wickstrom and Lutz 1981) within Nahanni NPR. There are no reports of White Sucker occuring in Nááts'ihch'oh NPR. A point distribution map for White Sucker reported in the South Nahanni River watershed is presented as Figure 6 and the geographic location and reference for each report of the species are presented in Appendix 6.

Family: Esocidae (Pikes)

Northern Pike (*Esox lucius*)

Northern Pike are widely distributed throughout the mainland Northwest Territories, Nunavut, and Yukon Territory (Scott and Crossman 1973; Lee et al. 1980) although the species generally tends to be present east of the Mackenzie and Liard rivers (Sawatzky et al. 2007). In the South Nahanni watershed and within the Nahanni NPR, Northern Pike have been reported in the Flat River (Parks Canada 1984), in the South Nahanni River below the confluence with the Flat River (Wickstrom 1977), and in several tributaries of those rivers (e.g., Stewart and Low 2000). They have also been captured in a number of lakes in the watershed such as McLeod Lake (Wickstrom and Lutz 1981) and Seaplane Lake (Foote 1979). All locations of reported occurrences of Northern Pike in the watershed are from below Virginia Falls. A Northern Pike specimen from the South Nahanni River has been archived at the ROM (Addison 1966, Appendix 7). A point distribution map for Northern Pike reported in the South Nahanni River watershed is presented as Figure 7 and the geographic location and references for each report of the species are presented in Appendix 7. Outside of the South Nahanni River watershed but still within the Park Reserve (i.e., Nahanni North Karst), Northern Pike have been reported from the Tetcela River (Beak Consultants Ltd. 1981b) (Fig. 20, Appendix 20).

Family: Salmonidae (Salmons, Trouts, Chars, Whitefishes, and Grayling)

Lake Whitefish (*Coregonus clupeaformis*)

Lake Whitefish occur widely throughout mainland Northwest Territories, Nunavut, and Yukon Territory (Scott and Crossman 1973; Lee et al. 1980) and have been reported as far north as Banks and Victoria islands (Sawatzky et al. 2007). In the South Nahanni River watershed within Nahanni NPR, Lake Whitefish have been reported in the Flat River and in the South Nahanni River below its confluence with the Flat River (Parks Canada 1984). The species has also been captured in Nahanni NPR from McLeod Lake (Wickstrom 1979) and Seaplane Lake (Foote 1979). Lake Whitefish have also been reported from headwater lakes of the Flat River outside of Nahanni NPR (Addison 1966; Sigma Resource Consultants Ltd. 1976). However, Lake Whitefish have not been reported from any waters above Virginia Falls including no reports from Nááts'ihch'oh NPR. Specimens of Lake Whitefish from Divide and Mirror lakes in the South Nahanni River watershed have been archived at the ROM (Addison 1966, Appendix 8). A point distribution map for Lake Whitefish reported in the South Nahanni River watershed is presented as Figure 8 and the geographic location and references for each report of the species are presented in Appendix 8.

Round Whitefish (*Prosopium cylindraceum*)

Round Whitefish are distributed throughout mainland Northwest Territories, Nunavut, and Yukon Territory (Scott and Crossman 1973; Lee et al. 1980) with the majority of the populations reported to the east of the Mackenzie River (Sawatzky et al. 2007). Round Whitefish occur in the South Nahanni River watershed with reports of the species in the South Nahanni River below the confluence with the Flat River (e.g., Wickstrom 1977), in the upper reaches of the Flat River (e.g., this study; see Appendices 23 and 24), and in headwater lakes of the Flat River (Sigma Resource Consultants Ltd. 1976). In the South Nahanni River watershed, Round Whitefish have not been documented in waters above Virginia Falls. A point distribution map for Round Whitefish reported in the South Nahanni River watershed is presented as Figure 9 and the geographic location and reference for each report of the species are presented in Appendix 9. Detailed catch records for Round Whitefish captured during the 2004-2007 field sampling surveys are presented in Appendices 23 and 24.

Both Round Whitefish and Mountain Whitefish (see below) have been reported to occur in the South Nahanni River watershed (e.g., Guinn 1982; Moore et al. 1978, respectively). There are many similarities in the external features of the Round Whitefish and Mountain Whitefish, especially in smaller specimens (i.e., juveniles). The main external meristic character that distinguishes the two species is gill raker count and these are usually enumerated under magnification in a laboratory. Round Whitefish usually have 13-20 gill rakers while Mountain Whitefish have 20-25 (Scott and Crossman 1973). There is potential for erroneous in-field identification of both species. All of the whitefishes collected as part of the DFO/Parks surveys between 2004-2007 (see Appendices 23 and 24) were preserved in the field and later identified in the laboratory by gill raker count as Round Whitefish.

Mountain Whitefish (*Prosopium williamsoni*)

Prior to the early 1970s, Mountain Whitefish were reported in the Liard River watershed in northern British Columbia. However, Mountain Whitefish were not reported in the Northwest Territories portion of the Liard River watershed or the Mackenzie River (McPhail and Lindsey 1970; Scott and Crossman 1973). With increased interest in oil and gas exploration in the lower Mackenzie River and Beaufort Sea areas and interest in a pipeline along the Mackenzie River Valley in the 1970s, more fisheries survey work was conducted in the area (e.g., Stein et al. 1973). This resulted in reports of Mountain Whitefish in the Northwest Territories in the mid- and more southern portions of the Mackenzie River system including the Liard River and South Nahanni River watershed (Lee et al. 1980; Sawatzky et al. 2007). There is a report of Mountain Whitefish occurring in the South Nahanni River near its confluence with the Liard River (DINA 1974d; Stewart and Low 2000) although other reports of Mountain Whitefish are associated with smaller tributaries of the South Nahanni River (e.g., Beak Consultants Ltd. 1981b; Mochnacz et al. 2004). There are also several reports of Mountain Whitefish occurring in the Flat River (e.g., Moore et al. 1978). All reports of Mountain Whitefish occurring in the South Nahanni River watershed are from below Virginia Falls with the exception of one specimen from Brintnell Creek (DINA 1974b, c; Stewart and Low 2000). Mountain Whitefish have not been reported captured in Nááts'ihch'oh NPR. A point distribution map for Mountain Whitefish reported in the South Nahanni River watershed is presented as Figure 10 and the geographic location and references for each report of the species are presented in Appendix 10.

The DFO/Parks fisheries surveys (2004-2007) captured only Round Whitefish in the upper regions of the Flat River (Fig. 9, Appendix 9) while others (Sigma Resources Consultants Ltd. 1976; Moore et al. 1978; Wickstrom and Lutz 1981) reported only Mountain Whitefish from waters in the same area (Fig. 10, Appendix 10). As noted earlier in this report, there is potential for misidentification of Mountain Whitefish and Round Whitefish in the field. For future studies in

the area, when identifying any whitefish species, a thorough examination of each specimen, including gill raker counts, should be done.

Bull Trout (*Salvelinus confluentus*)

Bull Trout occur in south-eastern Alaska (Mecklenburg et al. 2002), the south-eastern area of the Yukon Territory (Lee et al. 1980), and may occur in south-western areas of the Yukon Territory based upon their occurrence in north-western British Columbia (McPhail 2007). Bull Trout do not occur in Nunavut. In the Northwest Territories, Bull Trout occur in the south-western portion of the Mackenzie River watershed north to Great Bear River (Sawatzky et al. 2007). Recently, their distribution has been extended further north along the Mackenzie River by approximately 200 km to the Gayna River (~65.28° N, 129.35° W) where they co-occur with northern form Dolly Varden (*Salvelinus malma malma*) (Mochnacz et al. 2013). The current known distribution of Bull Trout and Dolly Varden in north-western Canada is illustrated in Mochnacz et al. (2013). Historically, in the South Nahanni River watershed Bull Trout were often misidentified as Dolly Varden (Reist et al. 2002). Several older Bull Trout records for the South Nahanni River watershed found in our literature search were identified as Dolly Varden (e.g., Wickstrom and Lutz 1981; Heap 1984) so based on current knowledge of Bull Trout and Dolly Varden distributions (Reist et al. 2002; Mochnacz et al. 2013), we have changed these Dolly Varden records to Bull Trout (see Fig. 11, Appendix 11). Historically, Bull Trout (previously Dolly Varden) have been reported in the South Nahanni River both below and above Virginia Falls (e.g., Addison 1966; Moore 2000, respectively) and in, at least, one lake (one of the Secret Lakes) located above Virginia Falls (Heap 1984; Jowett 1985; Catto 1986).

Extensive fishing during the DFO/Parks fisheries surveys (2004-2007) found both Bull Trout and Lake Trout in the South Nahanni River below Virginia Falls (see Fig. 11-12 and Appendices 11-12). However, during these surveys, fishing in the South Nahanni River and tributaries above

the falls only captured Lake Trout and gillnetting in the Secret Lakes only captured Lake Trout (Fig. 12, Appendix 12). A single, juvenile specimen identified in the field as a Bull Trout was captured in Dolf Mountain Creek (above Virginia Falls) by West et al. (2006) (Fig. 11, Appendix 11). However, after enumeration and in-field identification, it was released. The researchers did not have an identification key with them, did not photograph the fish, and assumed that the fish was a Bull Trout (David West, University of Saskatchewan, Saskatoon, SK, pers. comm. 2006). Because juveniles of the genus *Salvelinus* can be difficult to correctly identify without enumerating meristic characteristics (e.g., gill rakers, pyloric caecae, etc.) (Scott and Crossman 1973), this fish may have been incorrectly identified. These results lead the authors to speculate that fish captured above Virginia Falls and previously identified as Bull Trout (or Dolly Varden) may be Lake Trout. However, as the authors suspect but cannot confirm that these fish are Lake Trout, these records are included with Bull Trout. Bull Trout specimens from Clausen Creek and Mirror Lake (headwaters of the Flat River), both below Virginia Falls, have been archived at the ROM (Addison 1966, Appendix 11). A point distribution map for all Bull Trout reported in the South Nahanni River watershed is presented as Figure 11 and the geographic location and references for each report of the species are presented in Appendix 11. Detailed catch records for Bull Trout captured during the 2004-2007 field sampling surveys are presented in Appendices 22, 23, and 24. The Bull Trout is considered a "may be at risk" species by the Working Group on General Status of NWT Species (2011) and a species of "special concern" in this region by COSEWIC (COSEWIC 2012) (Table 1).

Lake Trout (*Salvelinus namaycush*)

Lake Trout is one of the most widely distributed fish species in mainland Arctic Canada including some of the southern Arctic islands (Banks and Victoria islands) (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). For the most part Lake Trout occur in lakes in the

Northwest Territories (Sawatzky et al. 2007). In the South Nahanni River watershed, while Lake Trout is present in several lakes (e.g., Cathedral and Oxbow lakes, Wickstrom 1979), the majority of the reports of their occurrence in the watershed are from rivers and streams including the South Nahanni River both above and below Virginia Falls (e.g., this study, see Fig. 12 and Appendix 12). Lake Trout are known to primarily spawn in lakes. River spawning is rare but has been reported at the mouth of the Hay River (Scott and Wheaton 1954; MacDonald and Stewart 1980). With little or no access to lakes, the Lake Trout reported in the South Nahanni River and its tributaries most likely spawn in the South Nahanni River or its tributaries. A recent report has Lake Trout present in several headwater creeks near outlets from headwater lakes in the upper reaches of the watershed (Morag McPherson, pers. comm. 2015, Fig. 12, Appendix 12). A Lake Trout specimen from Flat Lakes has been archived at the ROM (Addison 1966, Appendix 12). A point distribution map for all Lake Trout reported in the South Nahanni River watershed is presented as Figure 12 and the geographic location and references for each report of the species are presented in Appendix 12. Detailed catch records for Lake Trout captured during the 2004-2007 field sampling surveys are presented in Appendices 22, 23, 24, and 25.

Inconnu (*Stenodus leucichthys*)

In the Canadian Arctic, Inconnu occur in the Northwest and Yukon territories. In the Northwest Territories, Inconnu distribution is limited to the Mackenzie River watershed (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). In the South Nahanni River watershed there have been three documented reports of Inconnu. Two of the reported occurrences are from within Nahanni NPR: one from Clausen Creek, a tributary of the South Nahanni River (Addison 1966) and one from the South Nahanni River near the mouth of Prairie Creek (Mochnacz et al. 2004) (Fig. 13; Appendix 13). The third report is from the South Nahanni River several kilometers upstream of Nahanni Butte but outside Nahanni NPR (George Tsetso,

Nahanni Butte, NT, pers. comm. 2014). An Inconnu specimen from Clausen Creek has been archived at the ROM (Addison 1966, Appendix 13). A point distribution map for all Inconnu reported in the South Nahanni River watershed is presented as Figure 13 and the geographic location and reference for each report of the species are presented in Appendix 13. The Inconnu is considered a "sensitive" species by the Working Group on General Status of NWT Species (2011) (Table 1).

Arctic Grayling (*Thymallus arcticus*)

Arctic Grayling are one of the most widely distributed fish species in mainland Arctic Canada (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). Arctic Grayling are common in the Mackenzie River watershed including the South Nahanni River and its tributaries, occurring above and below Virginia Falls (Sawatzky et al. 2007). Arctic Grayling is the most widely reported species in the South Nahanni River watershed within and outside of the park reserves. Arctic Grayling specimens from several locations in the South Nahanni River watershed (Divide, Glacier, Flat Lakes, and Prairie Creek) have been archived at the ROM (Addison 1966, Appendix 14). A point distribution map for all Arctic Grayling reported in the South Nahanni River watershed is presented as Figure 14 and the geographic location and reference for each report of the species are presented in Appendix 14. Detailed catch records for Arctic Grayling captured during the 2004-2007 field sampling surveys are presented in Appendices 22, 23, 24, and 25. Outside of the South Nahanni River watershed but within Nahanni NPR (i.e., Nahanni North Karst), Arctic Grayling have been reported from the Tetcela River and a tributary of Sundog Creek (Beak Consultants Ltd. 1981b) and Sundog Creek and a tributary of the Ram River (E.B. (Rick) Taylor, University of British Columbia, Vancouver, BC,

pers. comm. 2014) (Fig. 20, Appendix 20). The Arctic Grayling is considered a "sensitive" species by the Working Group on General Status of NWT Species (2011) (Table 1).

Family: Percopsidae (Trout-perches)

Trout-perch (*Percopsis omiscomaycus*)

In the Northwest Territories, Trout-perch are limited in distribution to the Mackenzie River watershed (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). There have been two reports of Trout-perch in the South Nahanni River watershed, both outside the Park Reserve boundary: Bluefish Creek, a tributary of the South Nahanni River, near Nahanni Butte (Addison 1966; Parks Canada 1984) and in the South Nahanni River in the same area (Parks Canada 1984) (Fig. 15, Appendix 15). A Trout-perch specimen from Bluefish Creek has been archived at the ROM (Addison 1966, Appendix 15). A point distribution map for all Trout-perch reported in the South Nahanni River watershed is presented as Figure 15 and the geographic location and references for each report of the species are presented in Appendix 15.

Family: Gadidae (Cods)

Burbot (*Lota lota*)

Burbot occur throughout the mainland Northwest Territories, Yukon Territory, and Nunavut (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). In the South Nahanni River watershed, the species has been reported in the South Nahanni River both above (Wickstrom 1979; this study) and below Virginia Falls (e.g., Wickstrom 1977; Lafferty 1990). Burbot are also present in McLeod and Rabbitkettle lakes (Wickstrom 1979). The species has also been reported in the headwaters of South Nahanni River in Nááts'ihch'oh NPR (this study) and Flat River (DINA 1974c; Stewart and Low 2000). A recent report has Burbot present in Guthrie Creek in the upper reaches of the watershed (Morag McPherson, pers. comm. 2015) (Fig. 16, Appendix 16). A point distribution map for all Burbot reported in the South Nahanni River watershed is presented as Figure 16 and the geographic location and references for each report of the species are presented in Appendix 16. Detailed catch records for Burbot captured during the 2004-2007 field sampling surveys are presented in Appendices 22, 24, and 25. Outside of the South Nahanni River watershed but within the Nahanni NPR (i.e., Nahanni North Karst), Burbot have been reported from the Tetcela River (Beak Consultants Ltd. 1981b) (Fig. 20, Appendix 20).

Family: Cottidae (Sculpins)

Two species of sculpin have been reported in the South Nahanni River watershed: Slimy Sculpin (*Cottus cognatus*) and Spoonhead Sculpin (*Cottus ricei*). Difficulties in species identification may arise because some sculpin species are quite variable in morphometric and meristics traits within and among populations and there is often overlap in these traits between species. Provided key anatomical traits are correctly discerned (e.g., number of chin pores), there should be no difficulty in identifying the two species that have been reported in the watershed. These traits would require viewing under relatively low-power magnification (e.g., stereo-microscope). While the majority of the sculpins collected for our study were identified in the laboratory under a microscope, the authors cannot ascertain if specimens from other published reports were identified in a similar manner.

Slimy Sculpin (*Cottus cognatus*)

The Slimy Sculpin is widely distributed throughout mainland Northwest Territories, Yukon Territory and Nunavut (Scott and Crossman 1973; Lee et al. 1980; Page and Burr 2011; Sawatzky et al. 2007). Slimy Sculpin are ubiquitous in the South Nahanni River watershed including both park reserves and records of their occurrence in the watershed were greatly expanded by West et al. (2006) and this study. A Slimy Sculpin specimen from Prairie Creek has been archived at the ROM (Appendix 17). A point distribution map for all Slimy Sculpin reported in the South Nahanni River watershed is presented as Figure 17 and the geographic location and reference for each report of the species are presented in Appendix 17. Detailed catch records for Slimy Sculpin captured during the 2004-2007 field sampling surveys are presented in Appendices 22, 23, 24, and 25. Outside of the South Nahanni River watershed but within the Park Reserve (i.e., Nahanni North Karst), Slimy Sculpin have been reported from the Tetcela River (Beak Consultants Ltd. 1981b) (Fig. 20, Appendix 20).

Spoonhead Sculpin (*Cottus ricei*)

In the Northwest Territories, Spoonhead Sculpin occur mainly throughout the Mackenzie River system and although they have been reported all along the length of the Mackenzie River, they are not as common as the Slimy Sculpin (Scott and Crossman 1973; Lee et al. 1980; Sawatzky et al. 2007). In the South Nahanni River watershed, Sergy et al. (1977) and Moore et al. (1978), sharing the same catch, reported Spoonhead Sculpin from the upper reaches of the Flat River in the vicinity of Tungsten (61.950° N, 128.235° W) (Fig. 18, Appendix 18). They conducted an extensive fisheries survey in the upper Flat River area using several fishing methods including electro-fishing and the only sculpin species that both research groups reported capturing was the Spoonhead Sculpin (n=9). This capture location is several hundred kilometers outside of the Spoonhead Sculpin distribution as noted in Scott and Crossman (1973), Lee et al. (1980), and Page and Burr (2011). Our survey conducted in 2005 and 2006 in the same area of the Flat River and using electro-fishing gear only captured Slimy Sculpin (n=29, Appendices 23 and 24). All of our specimens were preserved in the field and later identified in the laboratory using the "key to sculpin species" from Scott and Crossman (1973). Based on our capture records, we consider the report of Spoonhead Sculpin in the Flat River as suspect. A point distribution map for Spoonhead Sculpin reported in the South Nahanni River watershed is presented as Figure 18 and the geographic location and references for each report of the species are presented in Appendix 18.

Family: Percidae (Perches)

Walleye (*Sander vitreus*)

Walleye are widely distributed in the mainland Northwest Territories including throughout the entire length of the Mackenzie River from its outflow at Great Slave Lake to its delta along the Beaufort Sea coast. Although Walleye have been reported in the Liard River near the confluence of the South Nahanni River, they had not been recorded in the South Nahanni River watershed (Scott and Crossman 1973; Lee et al. 1980; Page and Burr 2011). However, Scotter et al. (1971) and DINA (1974a) indicated that Walleye were present in the South Nahanni River watershed at McLeod Creek (Fig. 19, Appendix 19). Both were reporting anecdotal information and did not confirm the reported occurrence. Scotter et al. (1971) reported the following: "Gus Kraus told Addison that yellow walleye are found in the lake on McLeod Creek. Addison was unable to confirm this observation". The source of the reported occurrence noted on the land use topographic map (DINA 1974a) was “residents of the Yukon or Northwest Territories, advice”. Sawatzky et al. (2007) also reported this reference to Walleye occurring in McLeod Creek but noted that its occurrence was "uncertain". More recent information suggests that the McLeod Creek/Lake record is suspect as: 1) it is well outside the known distributional range for the species (Scott and Crossman 1973; Lee et al. 1980; Page and Burr 2011; Sawatzky et al. 2007); 2) Wickstrom (1979) and Wickstrom and Lutz (1981), who fished the McLeod Lake area with gillnets, captured only Burbot, Lake Trout, Lake Whitefish, Longnose Sucker, Northern Pike, and White Sucker in McLeod Lake; 3) one of the original wardens in Nahanni NPR was an avid sports-fisher who had fished in the Macleod Creek/Lake area but never captured Walleye

(Lou Comin, Canyon, BC, pers. comm. 2007); and 4) traditional ecological knowledge suggests that there are no Walleye in the Macleod Creek/Lake area (Jonas Antoine, Naha Dehe Consensus Team, Fort Simpson, pers. comm. 2007). There is, however, a recent, credible report of Walleye occurring in the lower reaches of the South Nahanni River. While on a school field trip on the river several kilometers upstream of Nahanni Butte in 2009, several fish species including one Walleye were gillnetted by the students and their instructor (George Tsetso, pers. comm. 2014) (Fig. 19, Appendix 19). A point distribution map for Walleye reported in the South Nahanni River watershed is presented as Figure 19 and the geographic location and references for each report of the species are presented in Appendix 19. The Walleye is considered a "sensitive" species by the Working Group on General Status of NWT Species (2011) (Table 1).

FIELD SAMPLING

2004

Between September 1-6, 2004, DFO and Parks personnel captured 139 fish in the South Nahanni River watershed. All fish captured, except for six Bull Trout and 12 Slimy Sculpin, were enumerated, measured, weighed, and then released. The remaining Bull Trout and Slimy Sculpin were dead-sampled. Capture information and limited biological data for these fish are summarized and presented in Appendix 22. Arctic Grayling was the most abundant species captured (n=88, 63.3%), followed by Slimy Sculpin (n=23, 16.5%), Bull Trout (n=12, 8.6%), Lake Trout (n=11, 7.9%), Longnose Sucker (n=2, 1.4%), Lake Chub (n=2, 1.4%), and Burbot (n=1, 0.7%).

2005

Between August 21-27, 2005, DFO and Parks personnel captured 202 fish in the South Nahanni River watershed. All of the fish captured were dead-sampled. Capture information and limited biological data for these fish are summarized and presented in Appendix 23. Slimy Sculpin was the most abundant species in the catch (n=114, 56.4%), followed by Bull Trout (n=41, 20.3%), Arctic Grayling (n=21, 10.4%), and Lake Chub (n=21, 10.4%). Round Whitefish (n=3, 1.5%) and Lake Trout (n=2, 1.0%) completed the catch.

2006

Between August 24-September 7, 2006, DFO and Parks personnel captured 87 fish in the South Nahanni River watershed. The majority of captured fish were enumerated and released including three Bull Trout that were measured and t-bar-tagged before being released. However, some Lake Trout, Slimy Sculpin, Arctic Grayling, and a Round Whitefish were dead-sampled. Capture information and limited biological data for these fish are summarized and presented in Appendix 24. Slimy Sculpin was the most abundant species in the catch (n=39, 44.8%), followed by Arctic Grayling (n=24, 27.6%), Bull Trout (n=10, 11.5%), Lake Chub (n=7, 8.0%), and Lake Trout (n=5, 5.7%). Burbot (n=1) and Round Whitefish (n=1) each accounted for 1.1 % of the total catch.

2007

Between August 21-25, 2007, DFO and Parks personnel captured 60 fish in the South Nahanni River watershed. The majority of captured fish were enumerated and released. However, all Lake Trout and Burbot were dead-sampled. Capture information and limited biological data for these fish are summarized and presented in Appendix 25. Slimy Sculpin was the most abundant species captured (n=40, 66.7%), followed by Lake Trout (n=16, 26.7%). Arctic Grayling (n=2) and Burbot (n=2) each accounted for 3.3% of the total catch.

KNOWLEDGE GAPS AND POTENTIAL FUTURE RESEARCH

With the expansion of Nahanni National Park Reserve in 2009 and the recent creation of Nááts'ihch'oh National Park Reserve, almost 90% of the South Nahanni River watershed is now protected and managed by Parks Canada. Sound, long-term conservation and management strategies for these park reserves require accurate and up to date knowledge of the park reserves' natural resources, in this case fishes. This compilation of fish distributions of the South Nahanni River watershed will be valuable in designing future research and monitoring programs in the park reserves.

Current field programs in the South Nahanni River watershed are collecting 1) additional fish distribution data that, along with data from this report, will be used to develop stream sampling protocols based on likelihood of detection for sensitive species (e.g., Arctic Grayling, see Table 1) and species of special concern (e.g., Bull Trout, see Table 1) (N. Mochnacz, pers. comm.)

and 2) physical and chemical data (e.g., stream gradient, elevation, water quality) that will be used to develop occupancy models to help understand the ecological requirements of particular fish species (N. Mochnacz, pers. comm.). These sampling protocols can be used to monitor fish populations in the park reserves while the models can be used to predict the distribution of fish species in unsurveyed areas of the watershed. These approaches could improve management of the fisheries resources in the park reserves through identification of ecologically important areas, assessment of impacts of local developments, or regional impacts from factors such as climate change and may be transferrable to other sub-arctic and arctic watersheds.

We offer some recommendations (below) that if implemented would contribute to increasing the fisheries knowledge-base within the watershed and park reserves and could contribute to future conservation and management strategies.

- Figures 14 and 17, showing the distributions of Arctic Grayling and Slimy Sculpin, (two of the most widely distributed fish species in the South Nahanni River watershed), provide an indication of gaps in fisheries data coverage. Within the expanded boundary of Nahanni NPR, there is a lack of fisheries-related data from its southern reaches (e.g., Stonemarten lakes, Caribou River) and relatively limited data from its northern areas (e.g., South Nahanni River tributaries such as the Broken Skull River). Within the recently created Nááts'ihch'oh NPR, which includes a majority of the northern, upper areas of the watershed, there has been some sampling in the South Nahanni River and some of its minor tributaries but very limited sampling in the eastern portion of the park reserve. There is also limited fisheries-related data from the Nahanni North Karst area (not part of South Nahanni River watershed) but a recent addition to Nahanni NPR. More scientific fishing in these areas would reduce the gaps in the fisheries data.

- Bull Trout have been reported in the South Nahanni River watershed both above and below Virginia Falls; however, only Bull Trout specimens captured below the falls have actually been verified as Bull Trout. The capture of Bull Trout was one of the goals of the DFO/Parks sampling surveys conducted in the watershed between 2004-2007. During the surveys, Lake Trout were captured both above and below Virginia Falls while Bull Trout were only captured in waters below the falls (including the Flat River drainage). This suggests that previous reports of Bull Trout (and Dolly Varden) from above the falls are likely misidentified Lake Trout. Additional sampling directed at determining the presence or absence of Bull Trout above Virginia Falls would be beneficial; such a

program would include proper preservation of any specimens with subsequent identification in the laboratory (morphometric and meristic and genetic analyses).

- Walleye have been reported in the Liard River in the vicinity of Nahanni Butte and there is a credible report of a Walleye taken from the South Nahanni River just upstream of Nahanni Butte. There are no verified reports of Walleye being captured further upstream in the South Nahanni River watershed. There is an anecdotal record from a respected pioneer of the Fort Simpson area that a spawning population of Walleye exists in the McLeod Lake system of the watershed (within Nahanni NPR). However, local traditional ecological knowledge and scientific and sport fishing records suggest that Walleye do not occur in the McLeod Lake system. A sampling program directed specifically at determining the presence or absence of Walleye in the McLeod Lake system is recommended. If Walleye are present in McLeod Lake, it would be a significant westward extension of their current known distribution and its isolation might make it a unique population.

- Rabbitkettle Lake, within Nahanni NPR, has not been extensively sampled for fish since the 1970s. The lake is potentially occupied by eight fish species. It is recommended that a sampling program be undertaken to determine the current fish species composition in the lake, in particular to confirm the presence or absence of Northern Pearl Dace and Longnose Dace. If one or both species are present in the lake, it would confirm a notable range extension for each species. As Parks Canada maintains a facility at Rabbitkettle Lake, conducting such a sampling program would be feasible.

- Currently 11 of the 19 fish species reported to occur in the South Nahanni River watershed have been preserved, identified, catalogued, and archived at the ROM (Addison 1966). Representative specimens from the remaining eight species: Northern Pearl Dace, Longnose Dace, White Sucker, Round Whitefish, Mountain Whitefish, Burbot, Spoonhead Sculpin, and Walleye, if indeed present in the watershed and captured, should be archived in a similar manner. If Bull Trout is confirmed to occur in the watershed above Virginia Falls, a representative specimen should also be archived in a similar manner.

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Table 1. Common and scientific names and NWT conservation and COSEWIC status of fish species reported occurring in the South Nahanni River watershed and the Nahanni North Karst, NT.

Common name	Scientific name	Species code[1]	South Nahanni River watershed	Nahanni National Park Reserve	Nahanni National Park Reserve (Nahanni North Karst, only)	Náàts'ihch'oh National Park Reserve	NWT conservation status[2]	COSEWIC[3] status
Lake Chub	*Couesius plumbeus*	LKCB	√	√	√		Secure	
Northern Pearl Dace	*Margariscus nachtriebi*	PLDC	√	√*			Secure	
Spottail Shiner	*Notropis hudsonius*	STSH	√				Secure	
Longnose Dace	*Rhinichthys cataractae*	LNDC	√	√*	√		Secure	
Longnose Sucker	*Catostomus catostomus*	LNSK	√	√			Secure	
White Sucker	*Catostomus commersonii*	WHSK	√	√			Secure	
Northern Pike	*Esox lucius*	NRPK	√	√	√		Secure	
Lake Whitefish	*Coregonus clupeaformis*	LKWF	√	√			Secure	
Round Whitefish	*Prosopium cylindraceum*	RDWF	√	√			Secure	
Mountain Whitefish	*Prosopium williamsoni*	MTWF	√	√			Secure	
Bull Trout	*Salvelinus confluentus*	BLTR	√	√			May be at risk	Special concern
Lake Trout	*Salvelinus namaycush*	LKTR	√	√		√	Secure	
Inconnu	*Stenodus leucichthys*	INCN	√	√			Sensitive	
Arctic Grayling	*Thymallus arcticus*	ARGR	√	√	√	√	Sensitive	
Trout-perch	*Percopsis omiscomaycus*	TRPC	√				Secure	
Burbot	*Lota lota*	BURB	√	√	√	√	Secure	
Slimy Sculpin	*Cottus cognatus*	SLSC	√	√	√	√	Secure	
Spoonhead Sculpin	*Cottus ricei*	SHSC	√*				Secure	
Walleye	*Sander vitreus*	WALL	√	√*			Sensitive	

√ = reported present, "blank" = not reported.

* = suspect occurrence.

[1] abbreviations arbitrarily set by authors.

[2] as determined by the Working Group on General Status of NWT Species (2011).

[3] Committee on the Status of Endangered Wildlife in Canada.

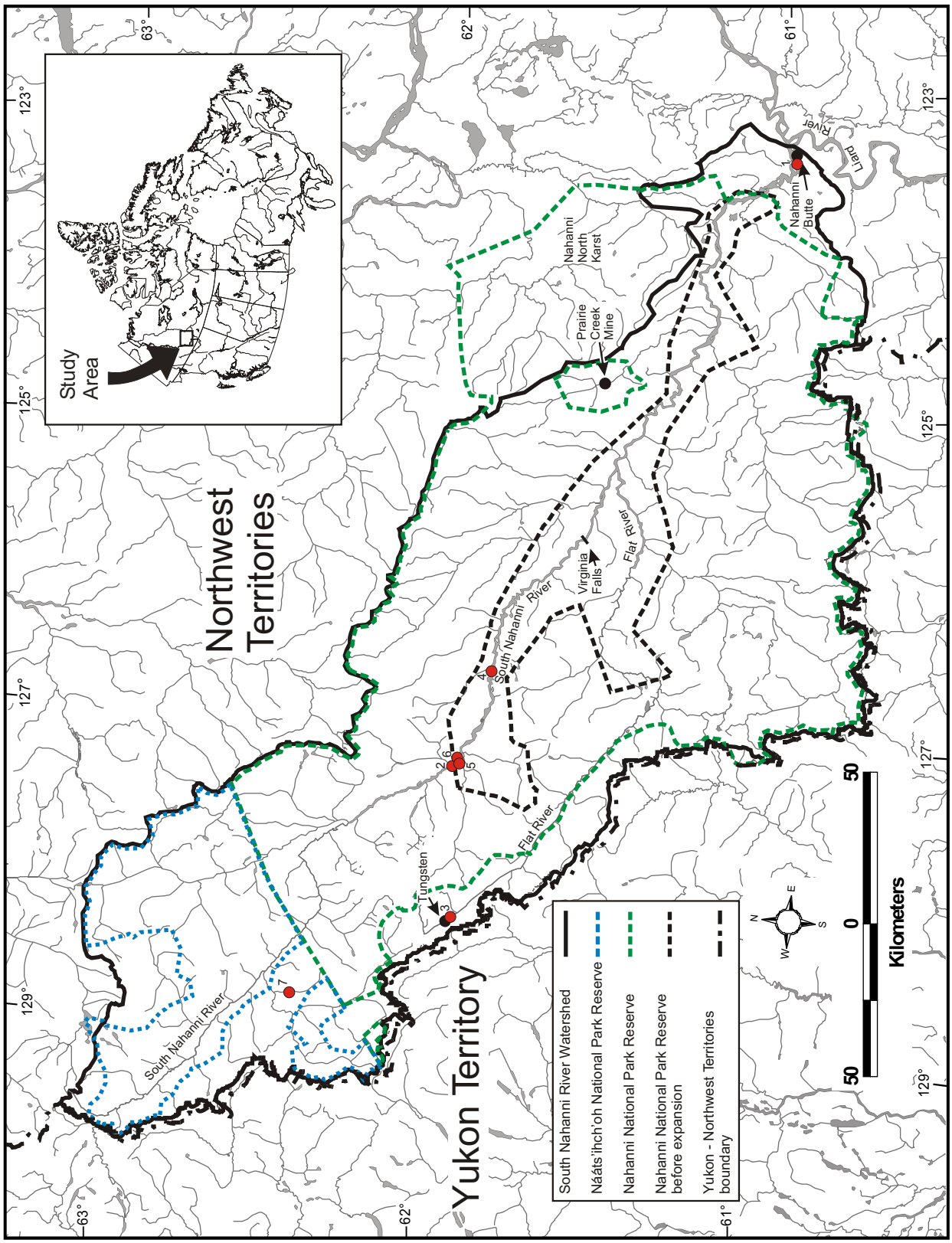


Figure 1. Reported occurrences (red dots) of Lake Chub in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 1). Watershed, park reserve, and territorial boundaries are indicated and defined in legend.

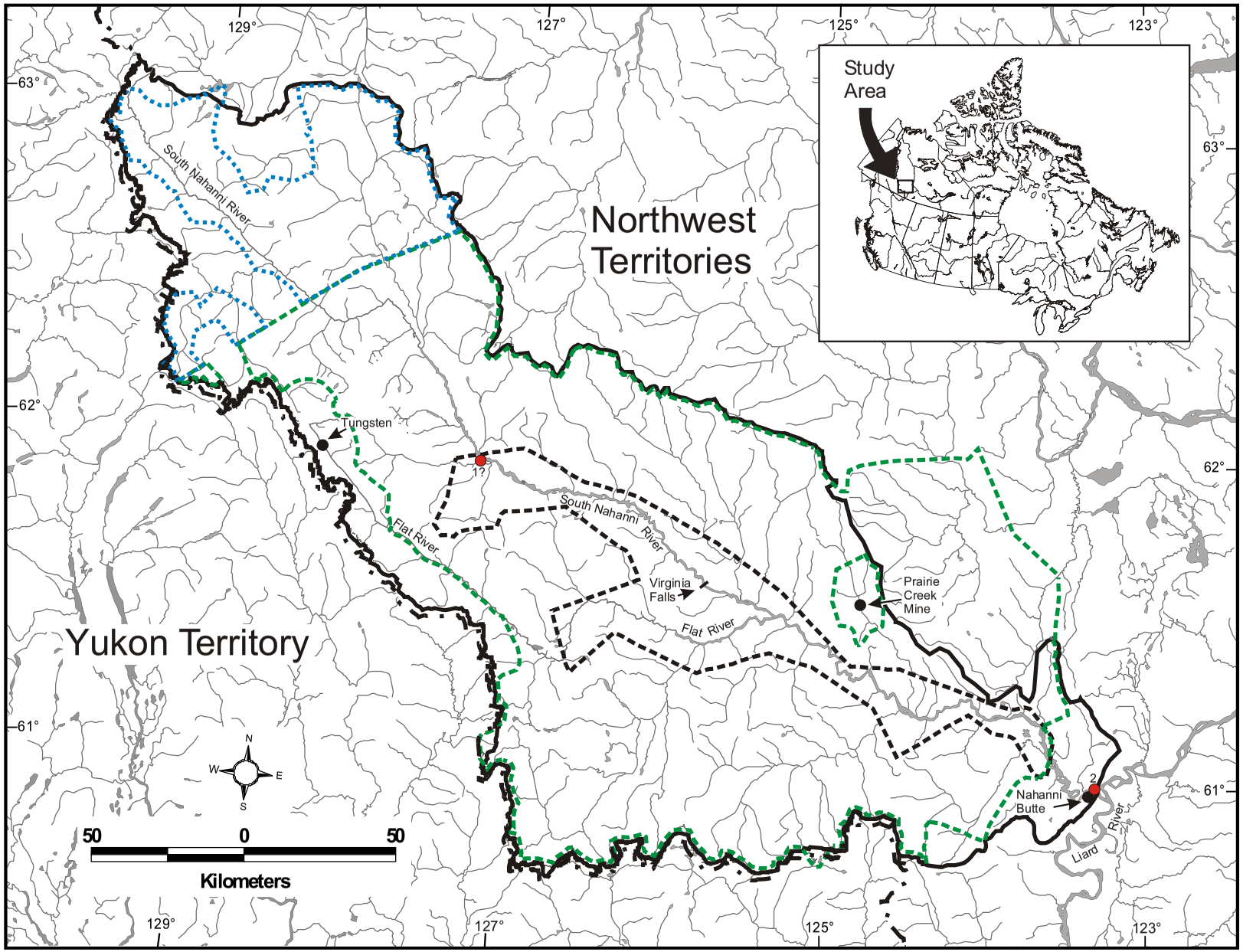


Figure 2. Reported occurrences (red dots) of Northern Pearl Dace in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 2). Question mark (?) indicates suspect occurrence. Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

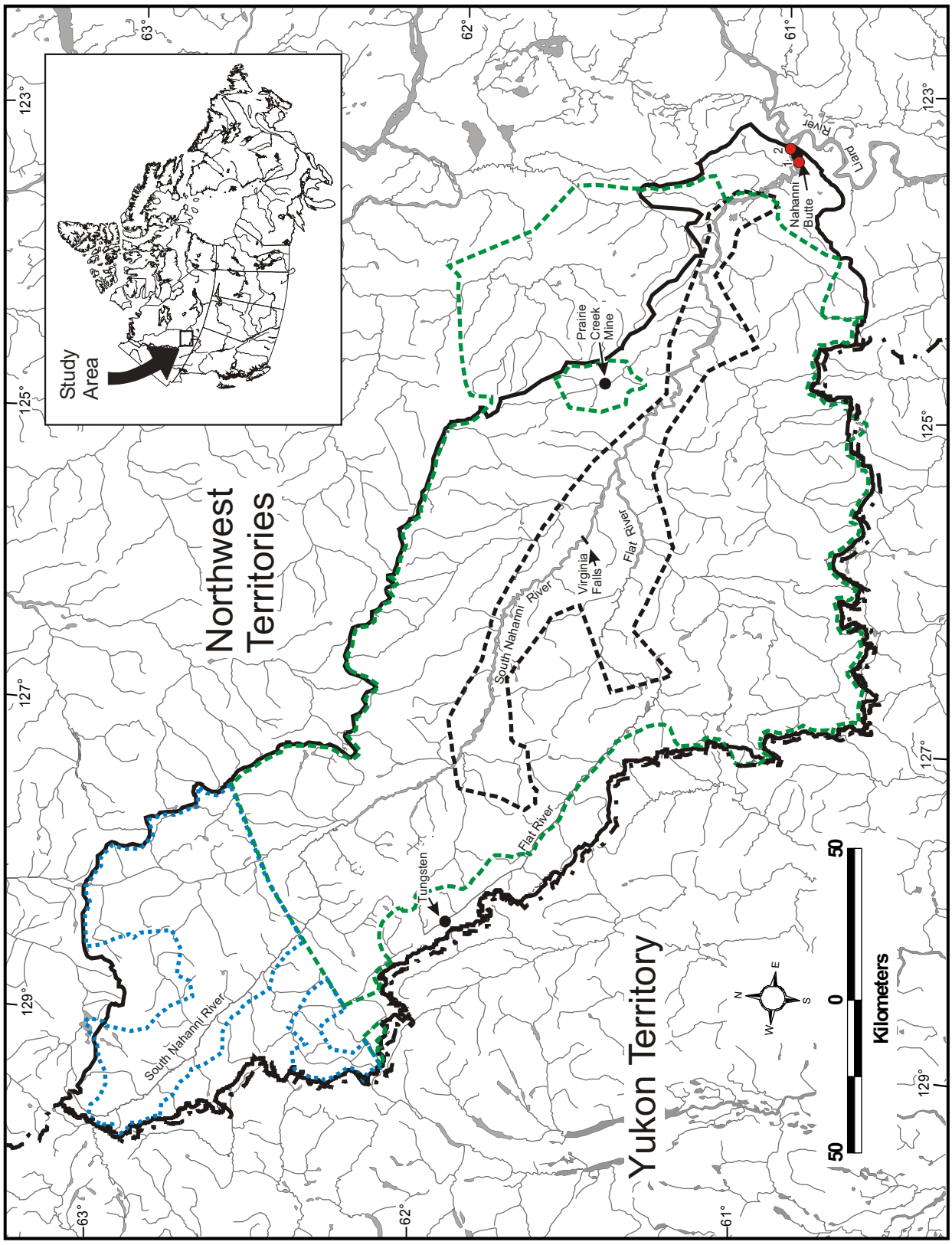


Figure 3. Reported occurrences (red dots) of Spottail Shiner in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 3). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

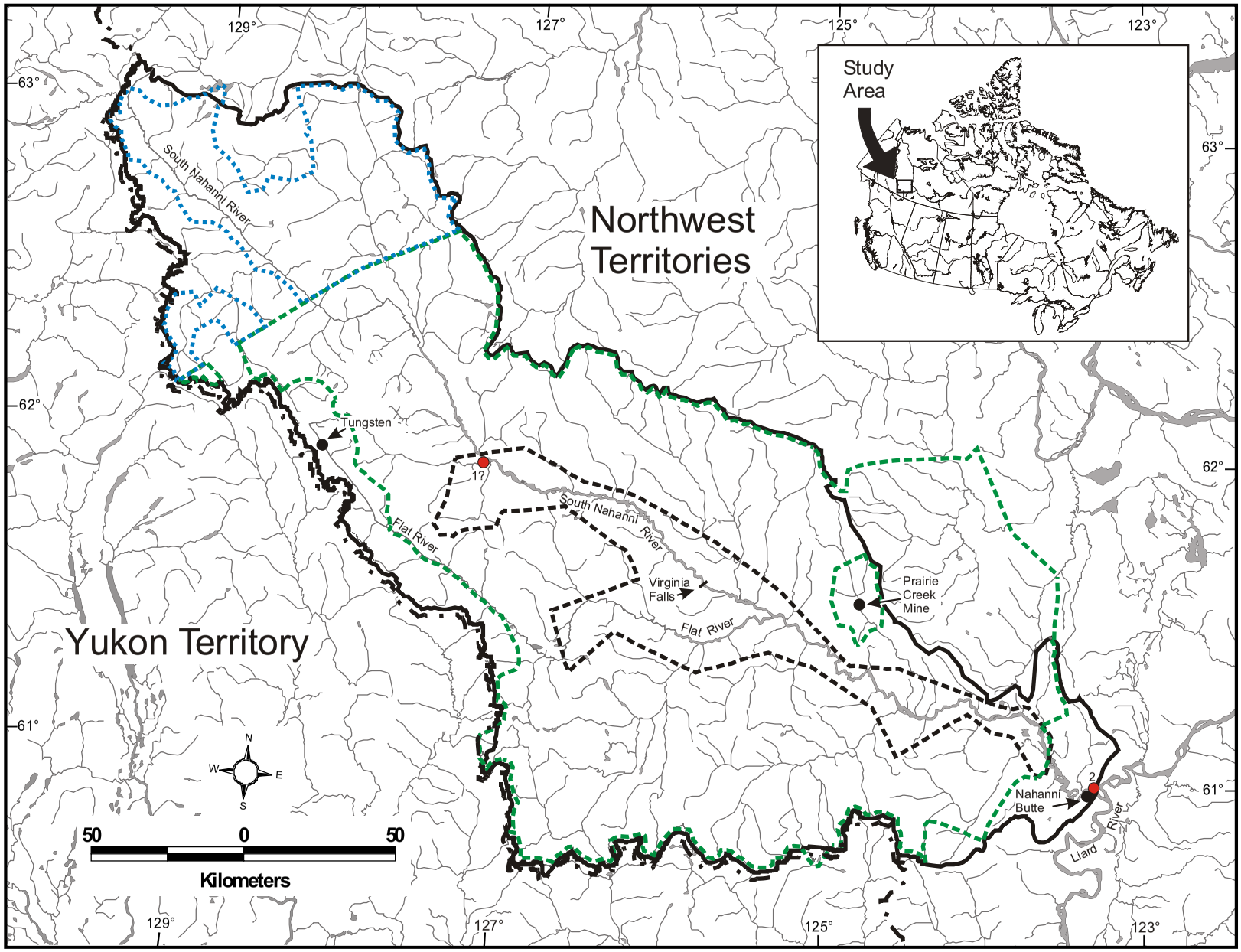


Figure 4. Reported occurrences (red dots) of Longnose Dace in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 4). Question mark (?) indicates suspect occurrence. Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

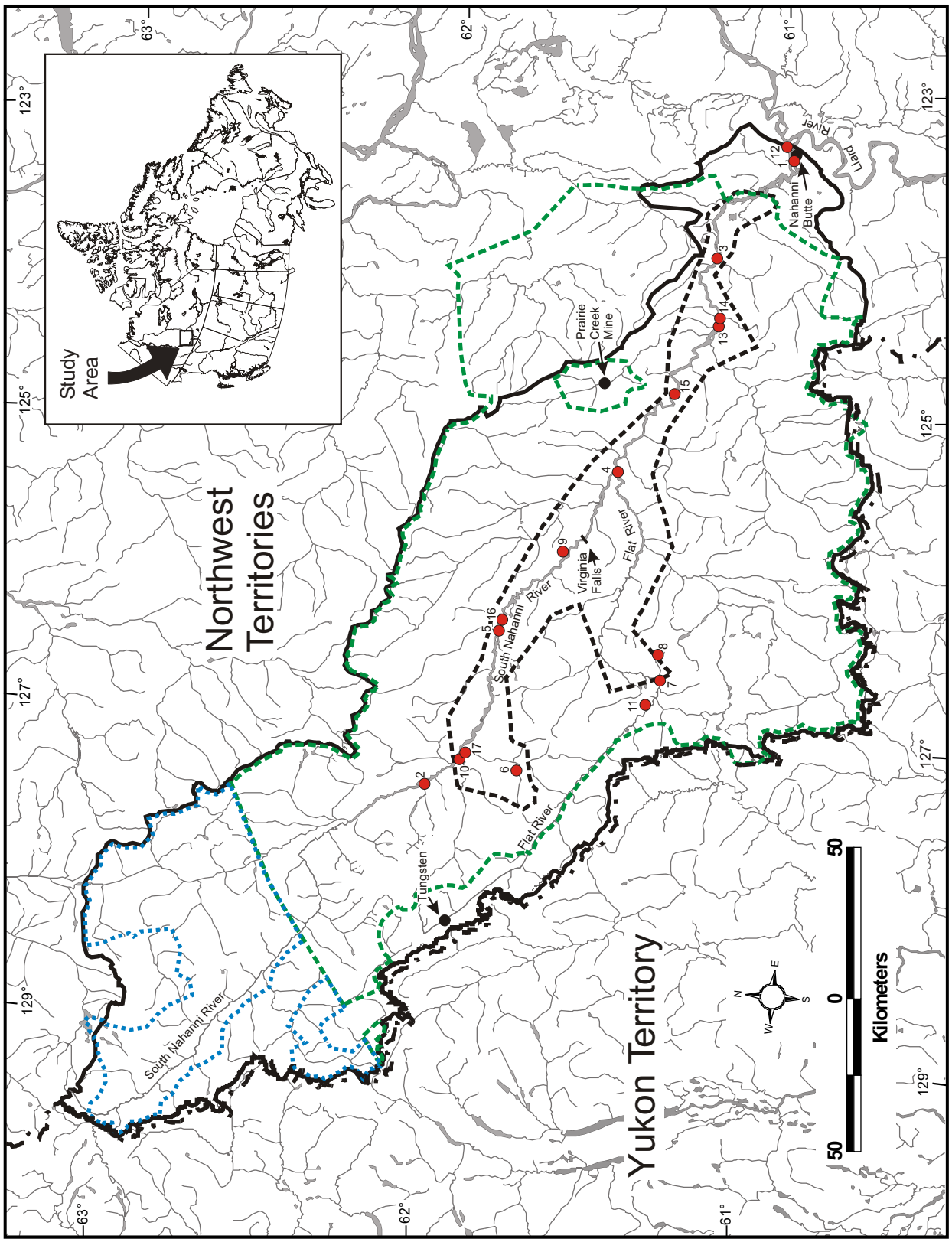


Figure 5. Reported occurrences (red dots) of Longnose Sucker in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 5). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

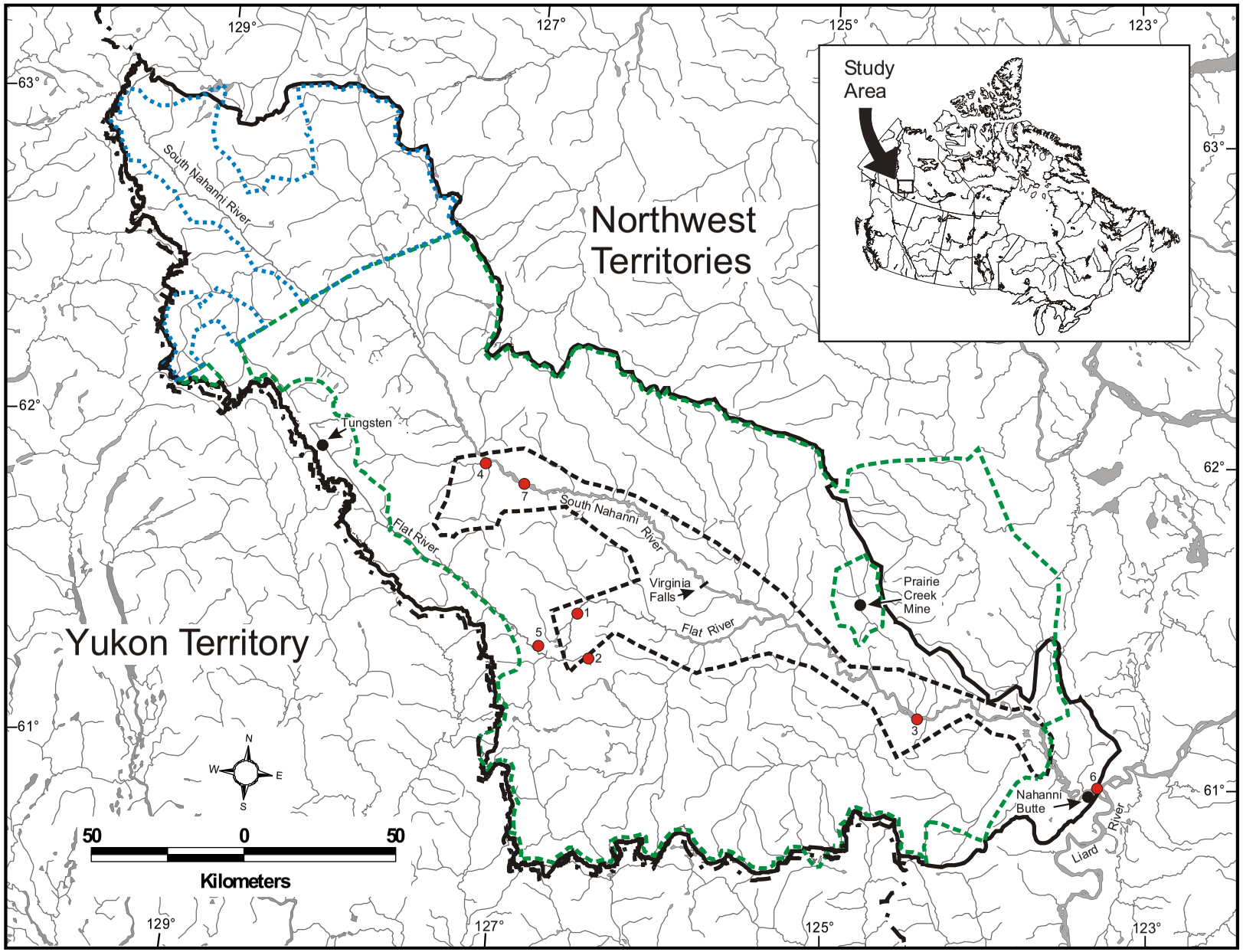


Figure 6. Reported occurrences (red dots) of White Sucker in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 6). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

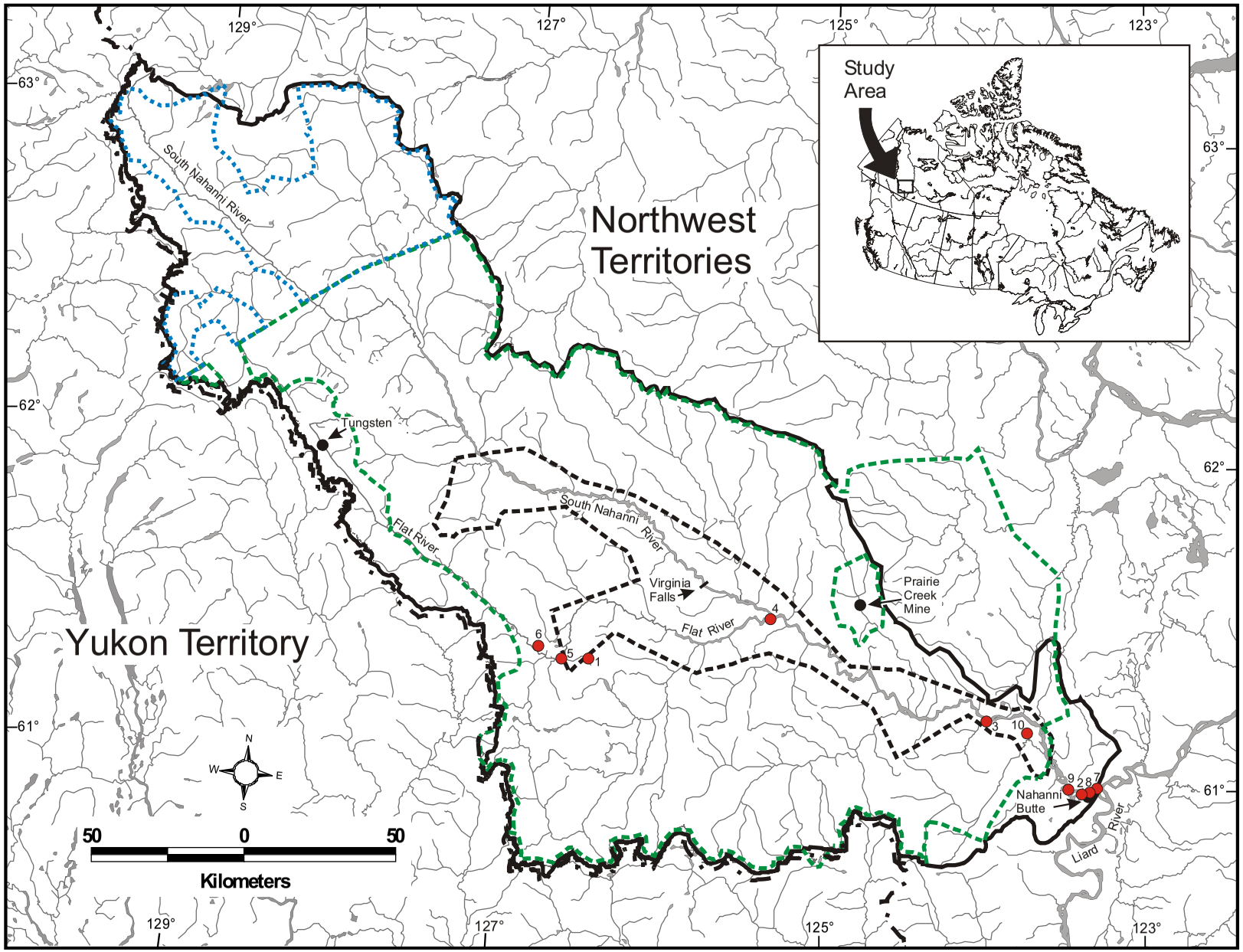


Figure 7. Reported occurrences (red dots) of Northern Pike in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 7). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

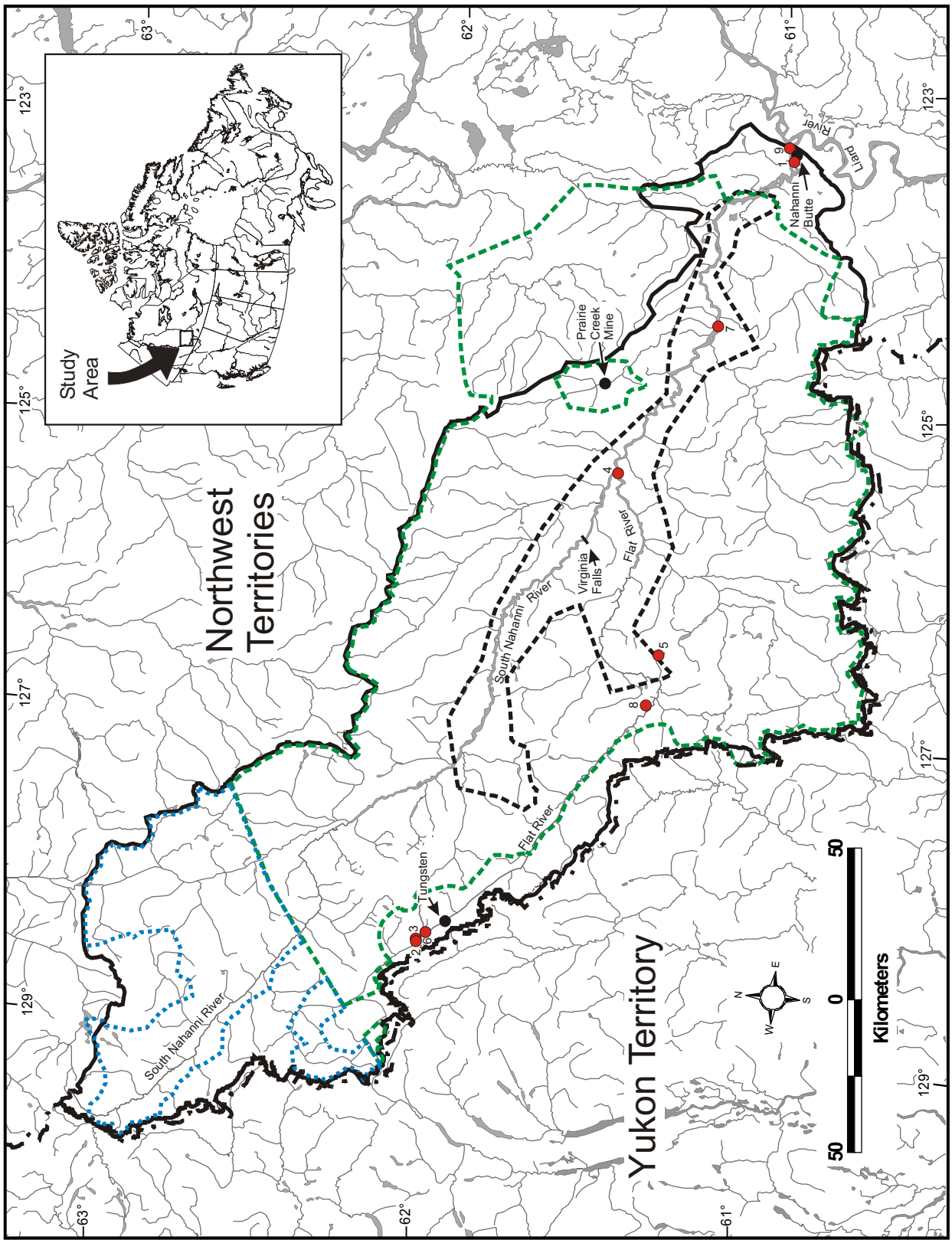


Figure 8. Reported occurrences (red dots) of Lake Whitefish in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 8). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

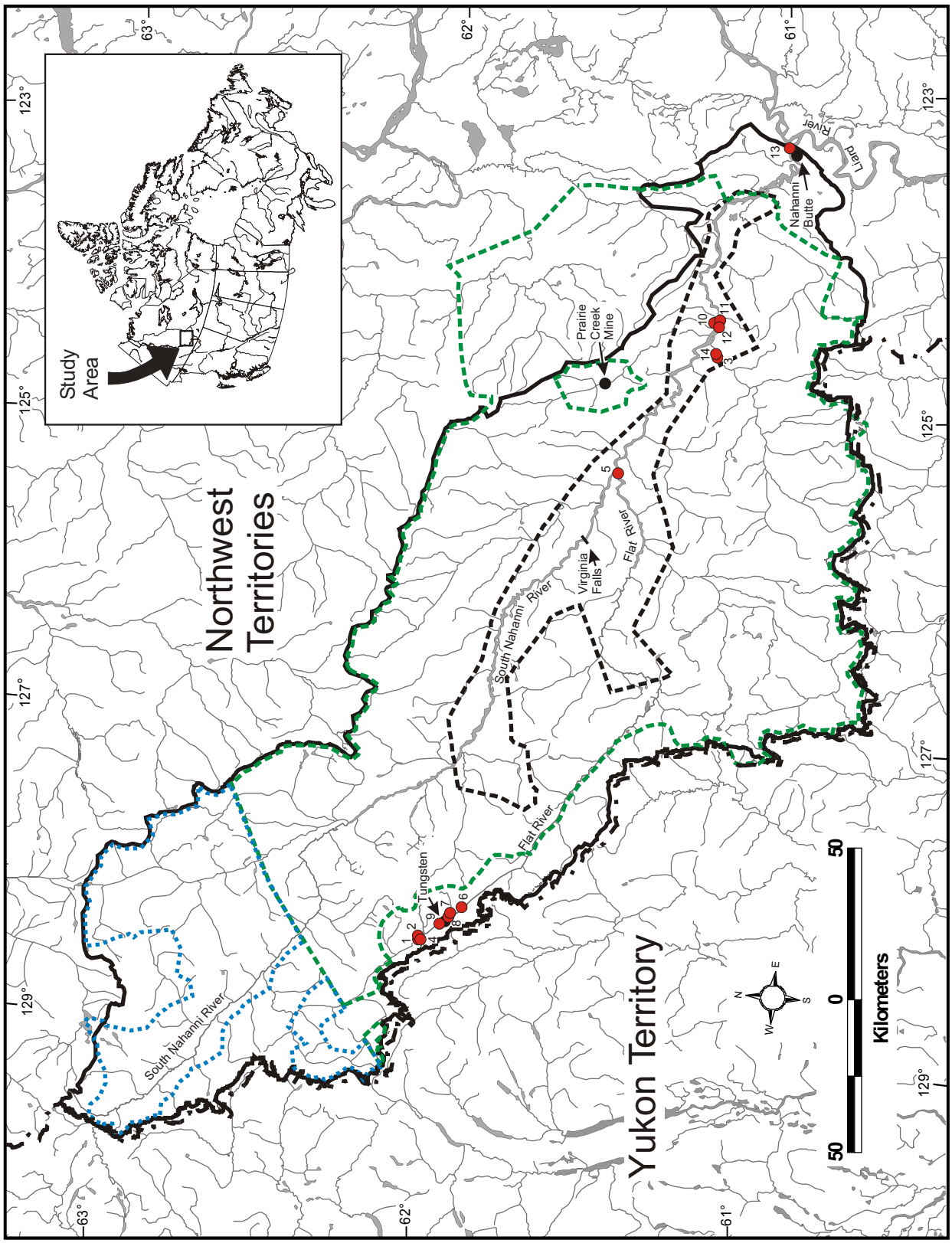


Figure 9. Reported occurrences (red dots) of Round Whitefish in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 9). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure1.

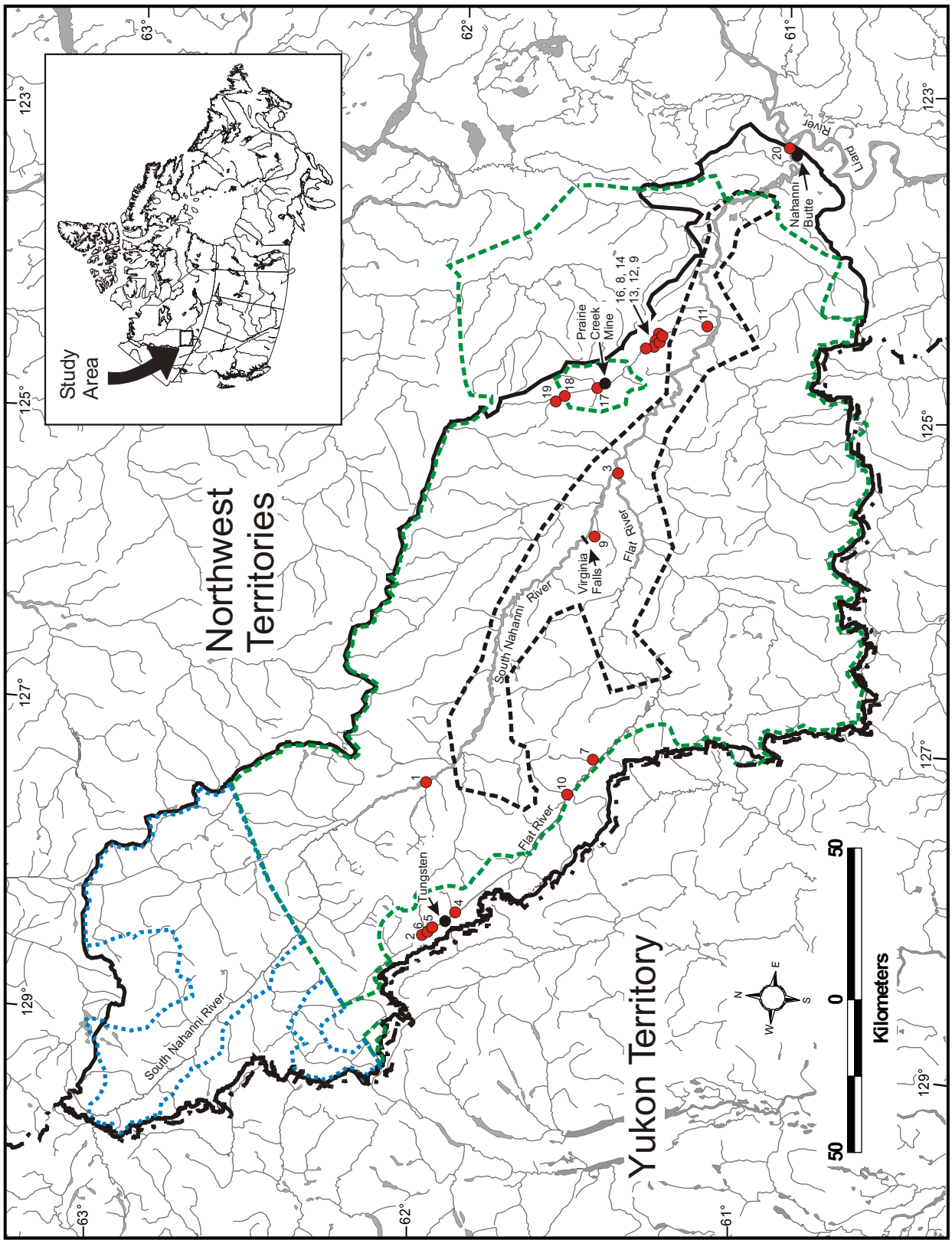


Figure 10. Reported occurrences (red dots) of Mountain Whitefish in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 10). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

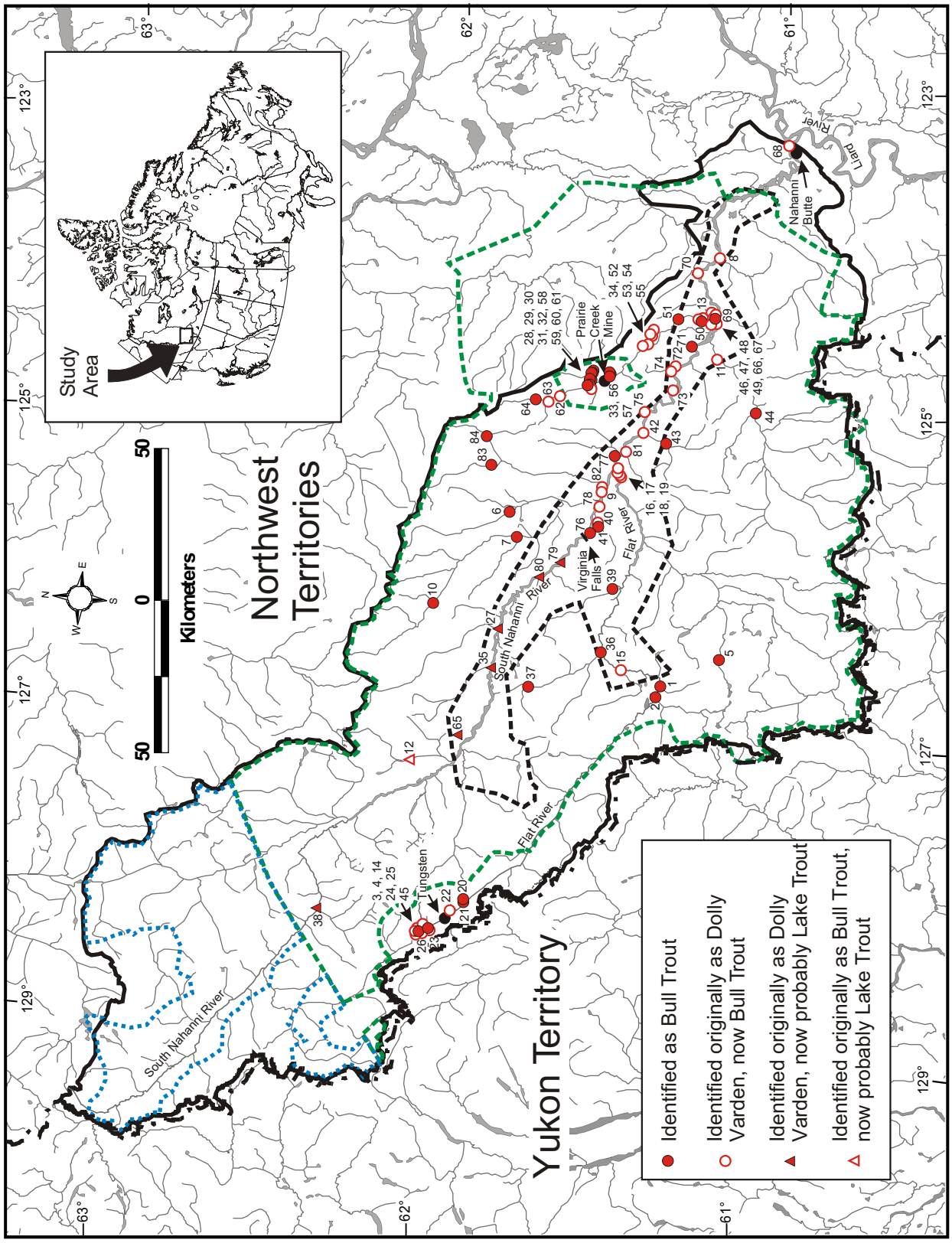


Figure 11. Reported occurrences of Bull Trout in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 11). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

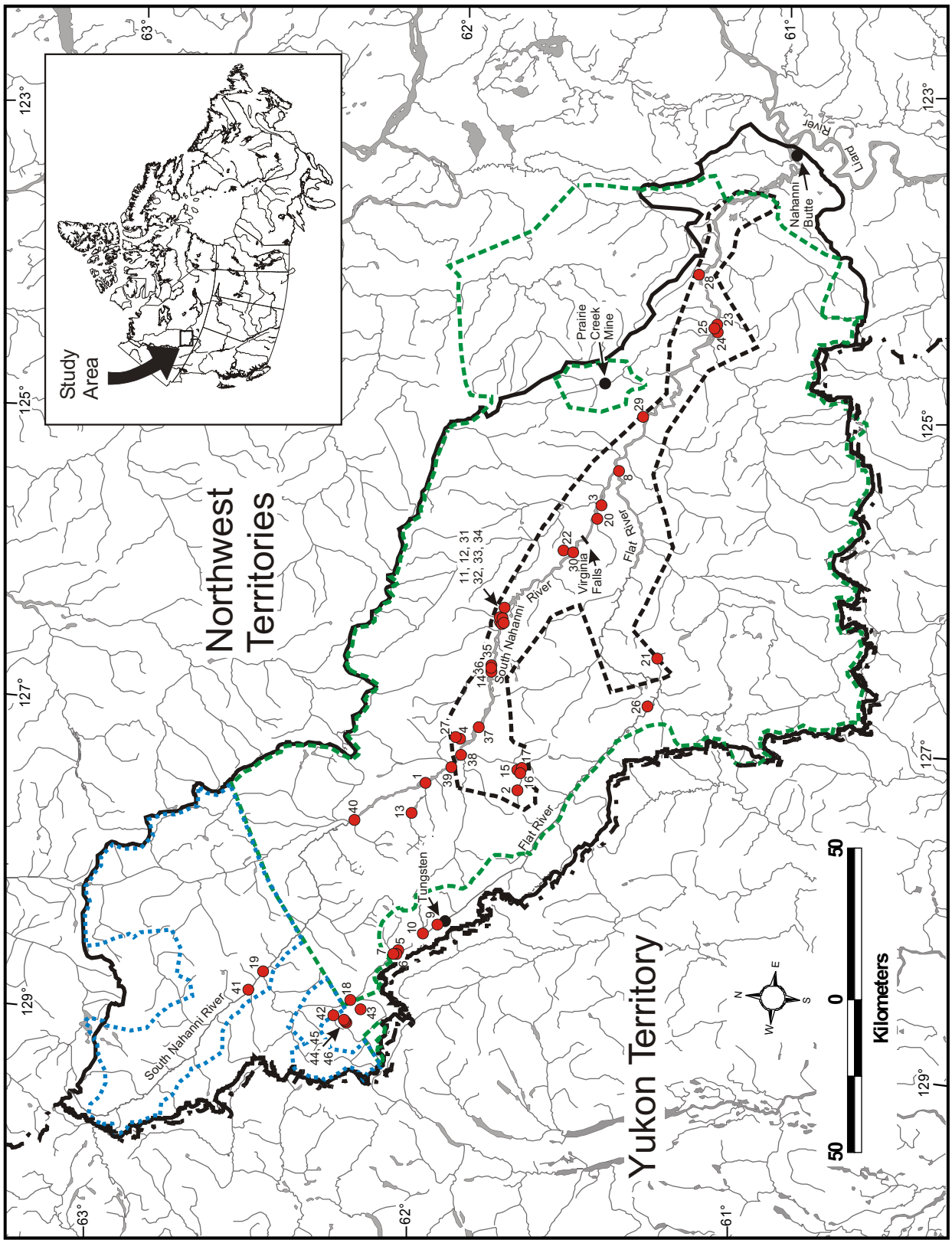


Figure 12. Reported occurrences (red dots) of Lake Trout in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 12). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

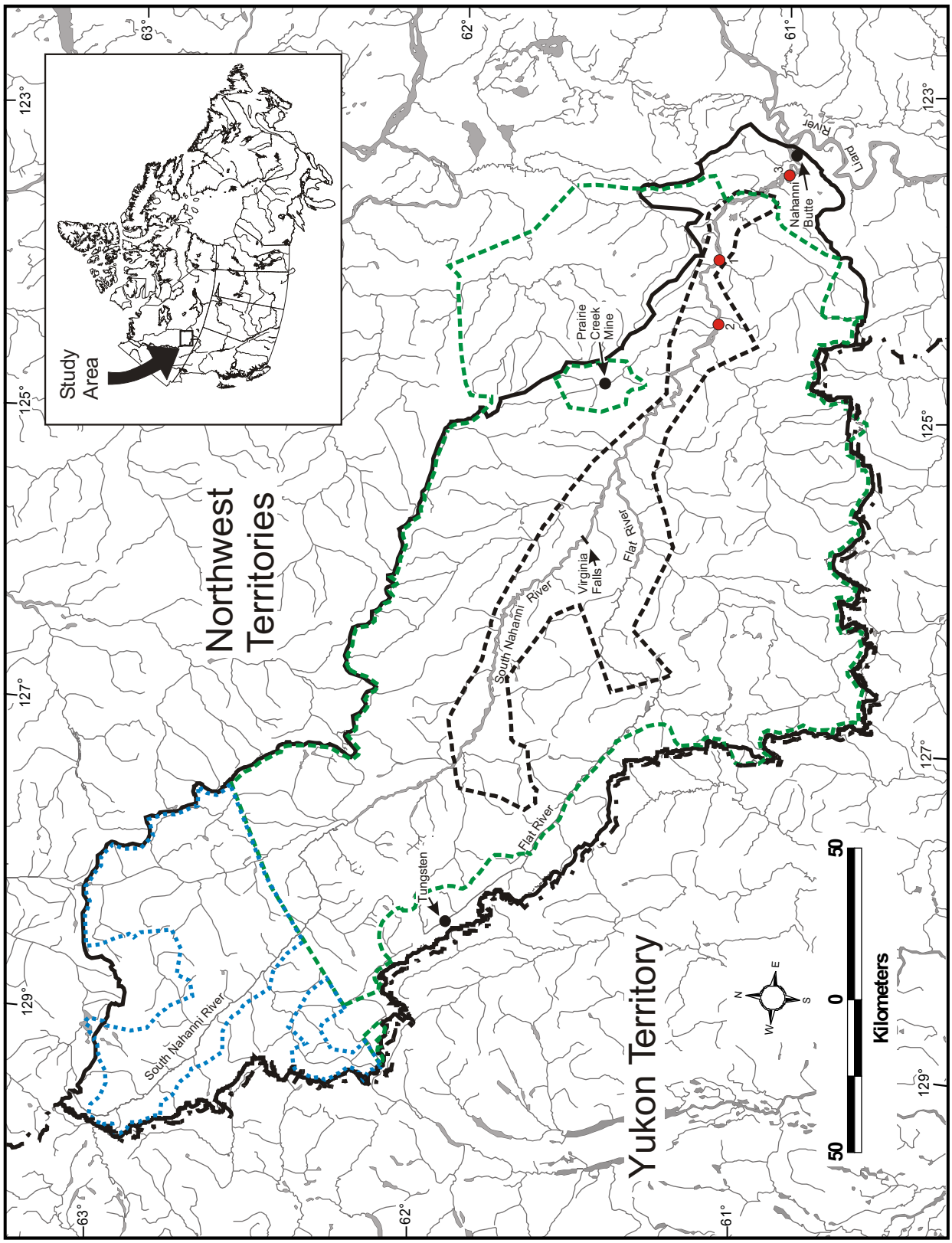


Figure 13. Reported occurrences (red dots) of Inconnu in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 13). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

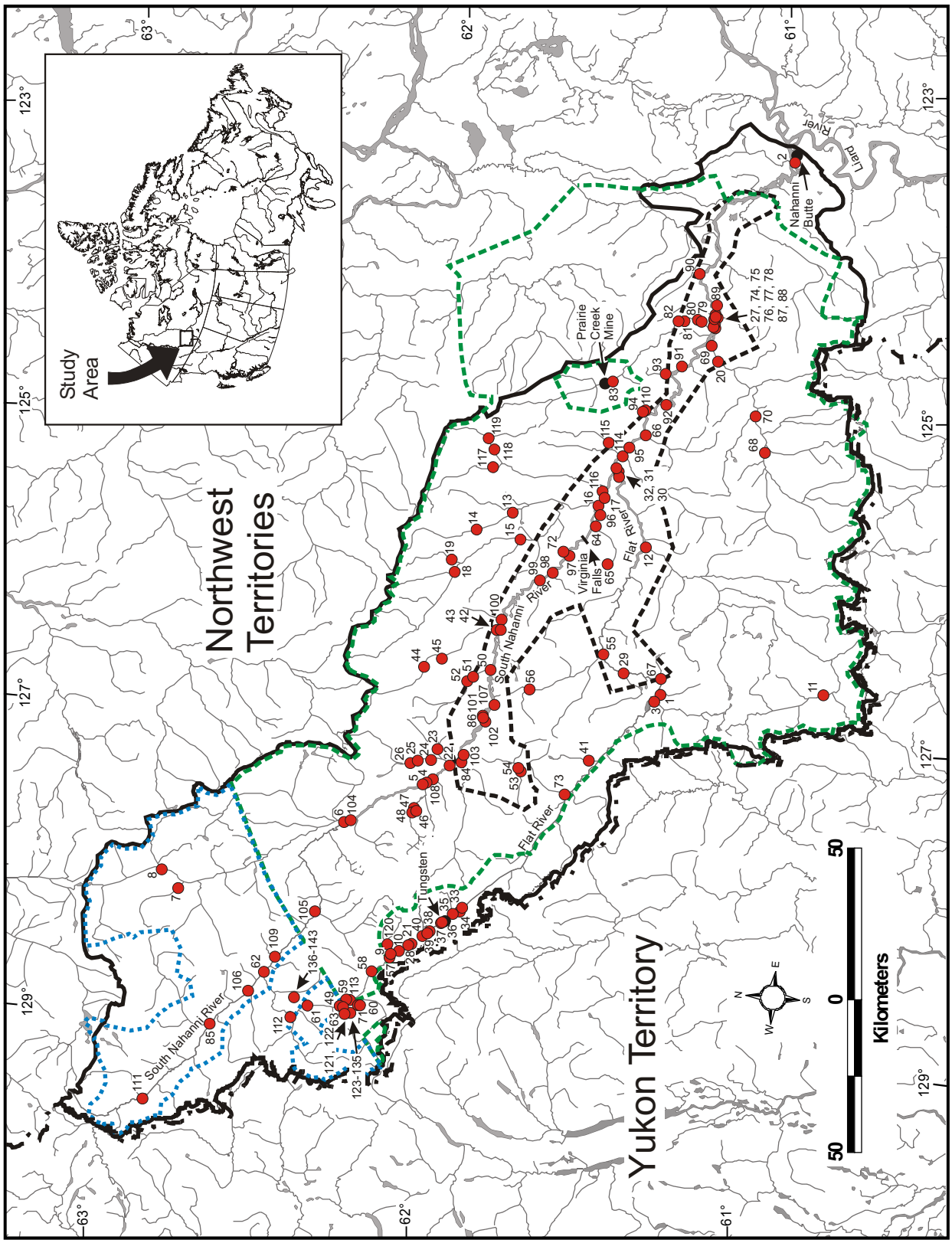


Figure 14. Reported occurrences (red dots) of Arctic Grayling in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 14). Watershed, park reserve, and territorial boundaries are indicated and defined in Figure 1.

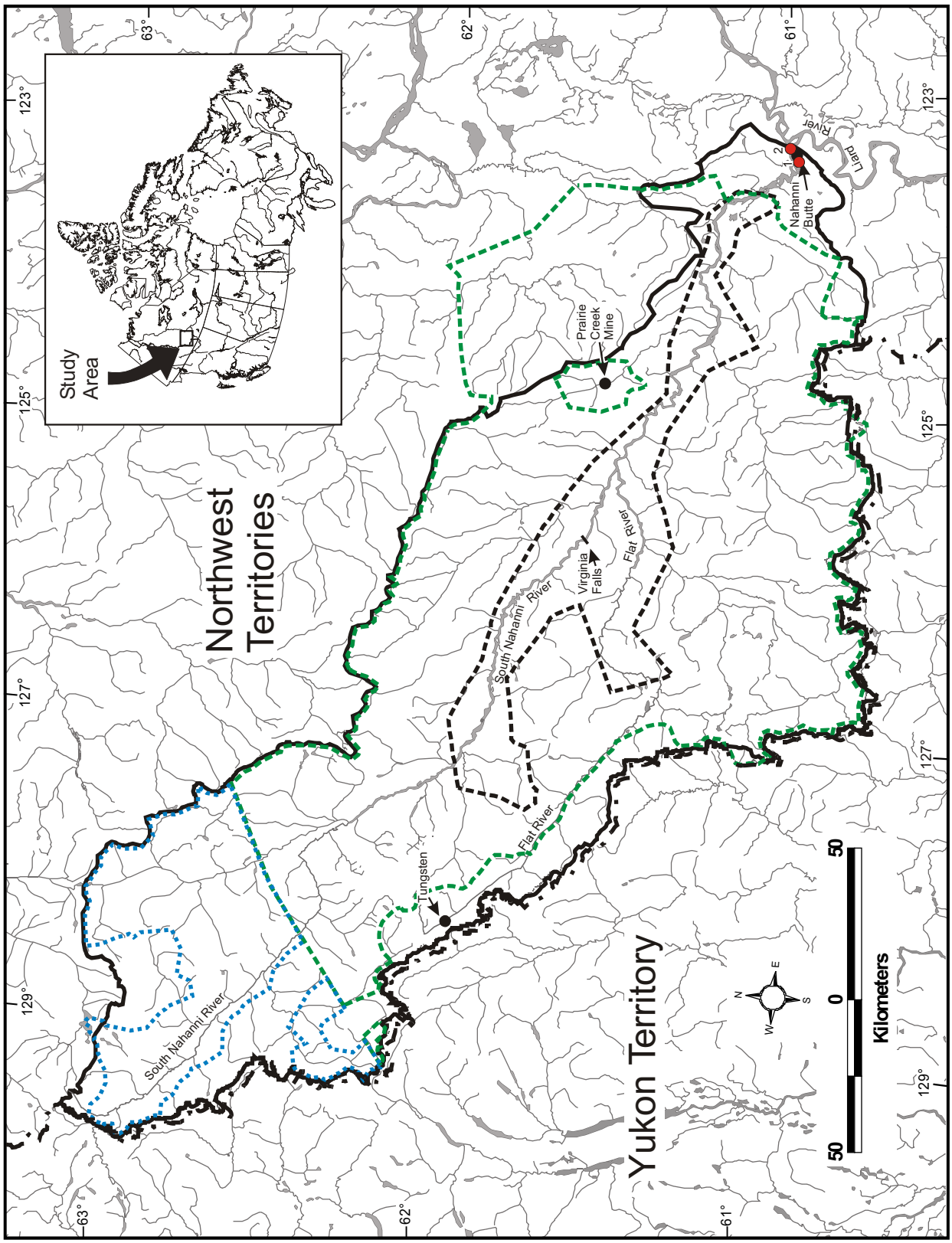


Figure 15. Reported occurrences (red dots) of Trout-perch in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 15). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

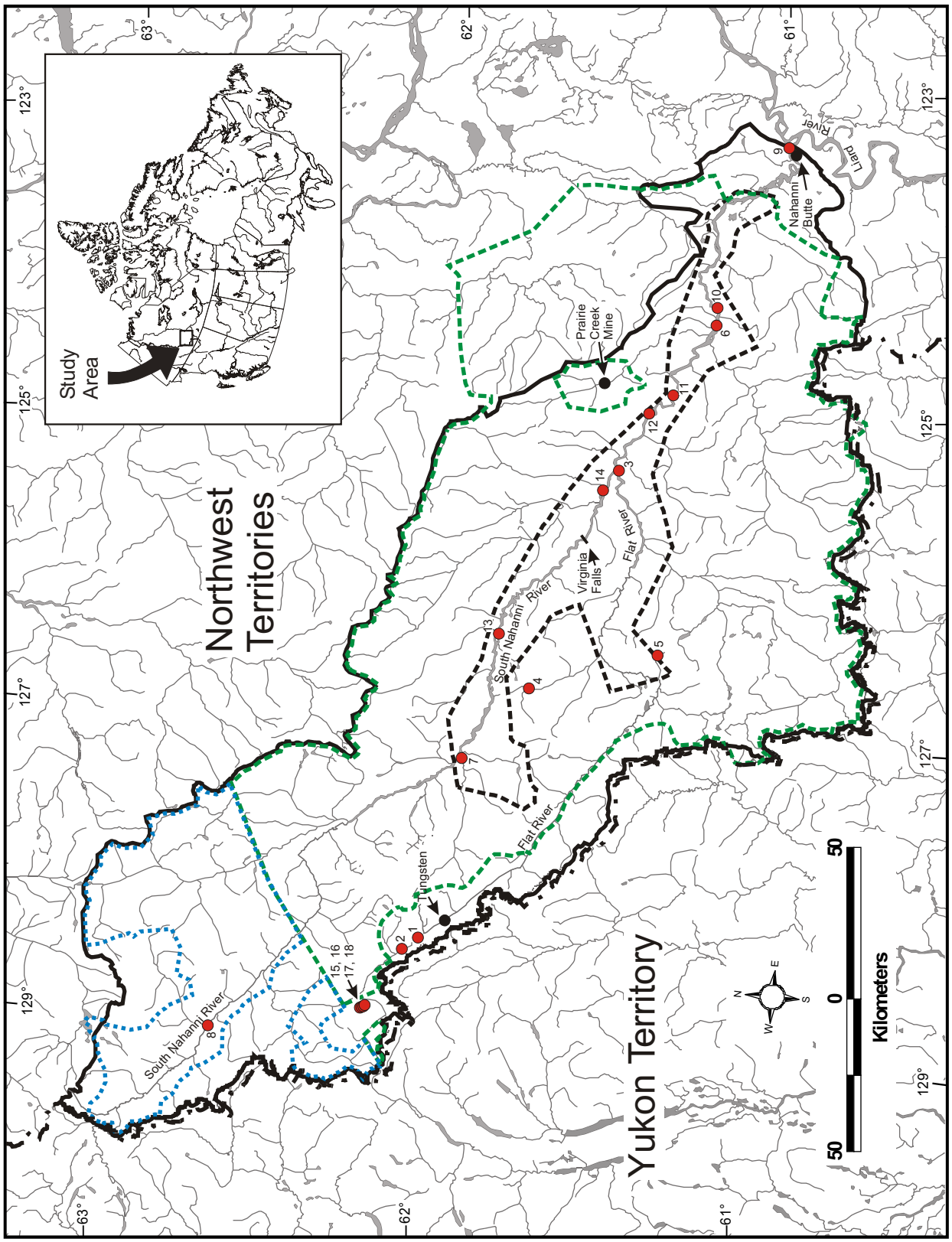


Figure 16. Reported occurrences (red dots) of Burbot in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 16). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

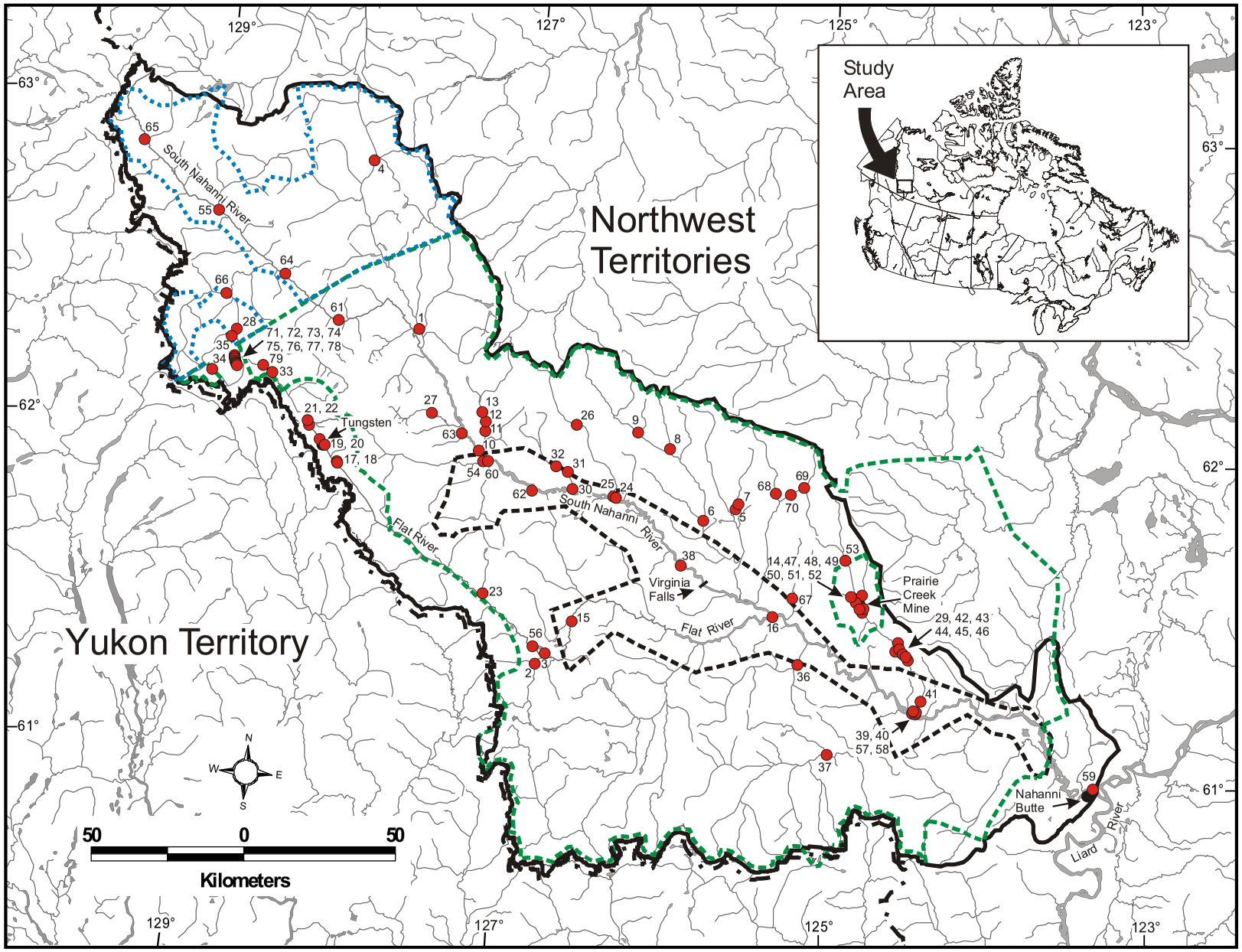


Figure 17. Reported occurrences (red dots) of Slimy Sculpin in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 17). Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

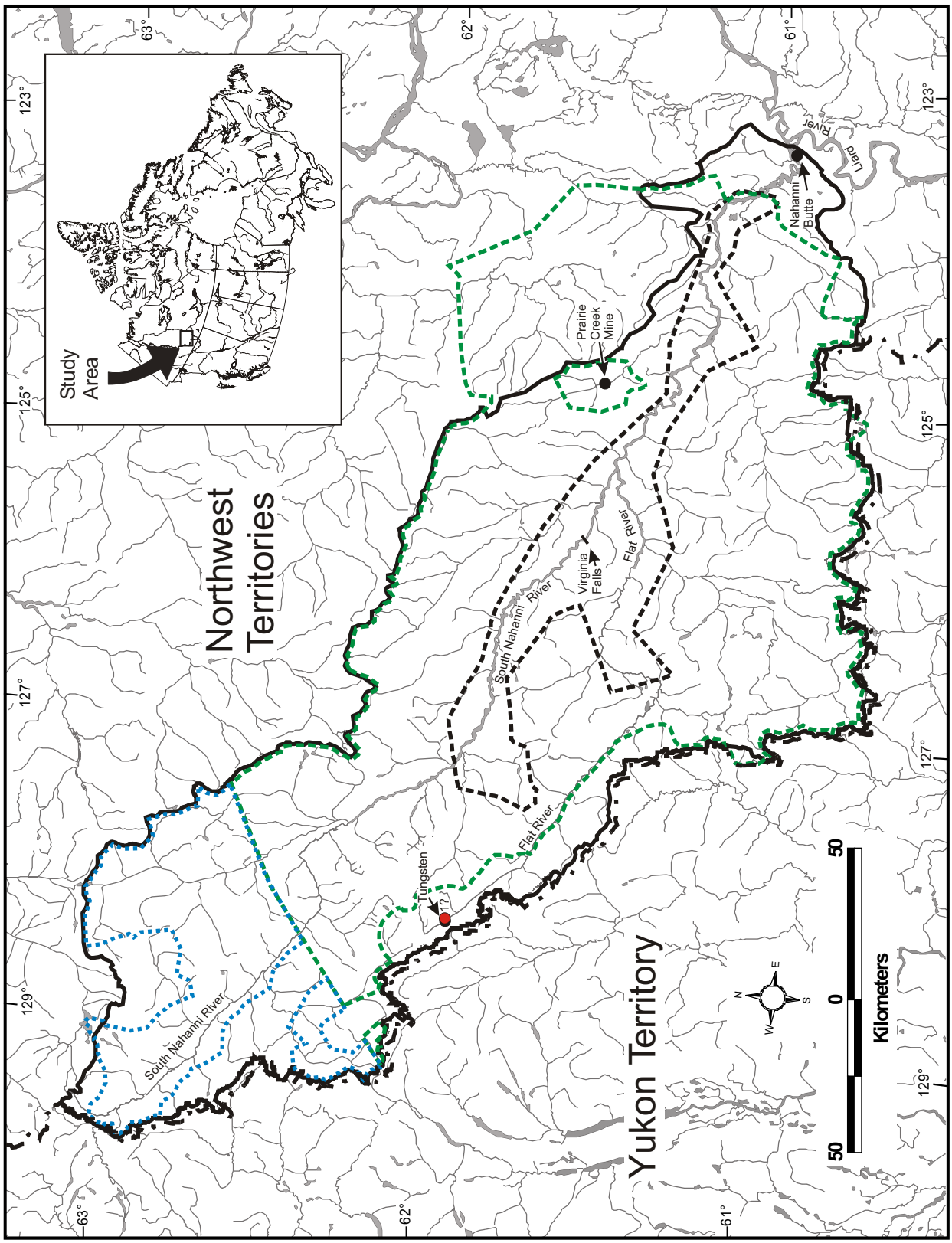


Figure 18. Reported occurrence (red dot) of Spoonhead Sculpin in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 18). Question mark (?) indicates suspect occurrence. Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

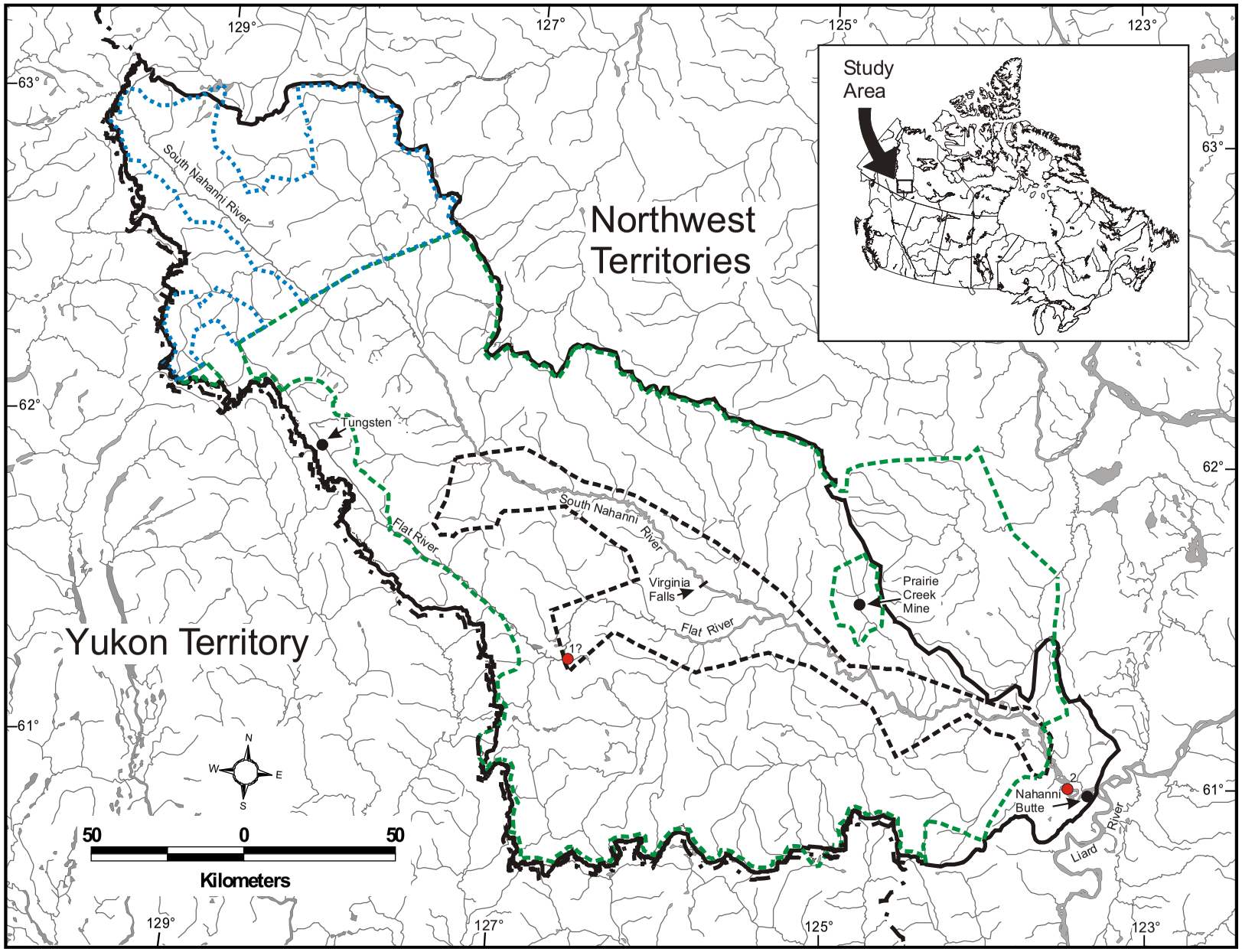


Figure 19. Reported occurrences (red dots) of Walleye in the South Nahanni River watershed, NT. Number refers to catch record (see Appendix 19). Question mark (?) indicates suspect occurrence. Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

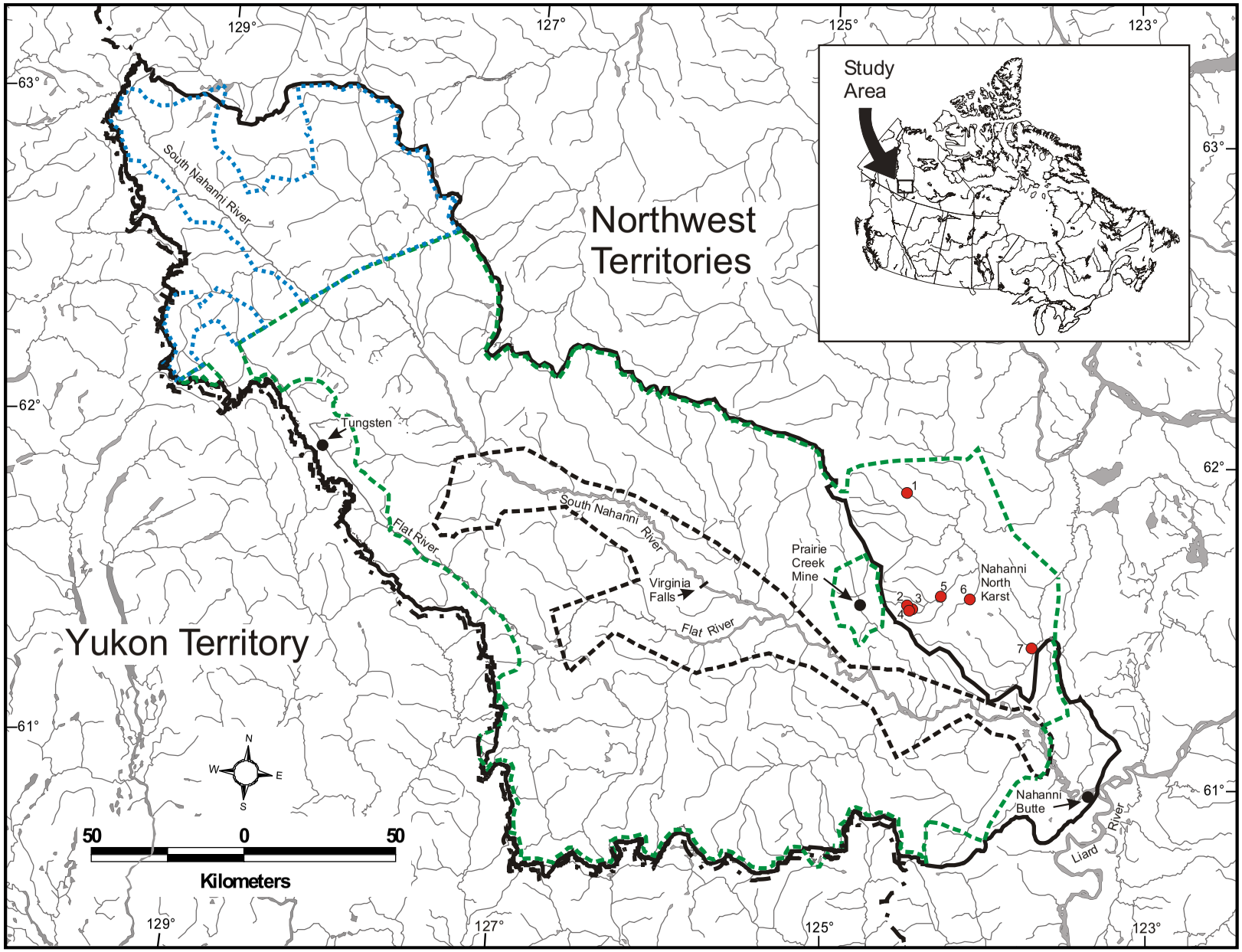


Figure 20. Reported occurrences (red dots) of fishes in the Nahanni North Karst region of Nahanni National Park Reserve, NT. Number refers to catch record (see Appendix 20). South Nahanni River watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

Appendix 1. Reported occurrences of Lake Chub in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Bluefish Creek (1)	61.03333° N, 123.4333° W	Addison (1966, ROM26600)
Dolf Mountain Creek (2)	61.97722° N, 127.2372° W	This study (Appendix 24)
Flat River tributary (3)	61.95000° N, 128.2000° W	Addison (1966, ROM26599)
Hell Roaring Creek (4)	61.87222° N, 126.6250° W	Wickstrom (1979)
Rabbitkettle Lake (5)	61.95000° N, 127.2167° W	Wickstrom (1979); This study (Appendices 22 and 23)
South Nahanni River (6)	61.95000° N, 127.1667° W	Wickstrom (1979)
Lened Creek (7)	62.38452° N, 128.7569° W	M. McPherson (DFO, Yellowknife, NT, pers. comm. 2015)

*number refers to map (Figure 1) reference no.

Appendix 2. Reported occurrences of Northern Pearl Dace in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Rabbitkettle Lake (1?)	61.95000° N, 127.2167° W	Wickstrom (1977)
South Nahanni River (2)	61.05000° N, 123.3500° W	Wickstrom (1977)

*number refers to map (Figure 2) reference no.
? = suspect occurrence.

Appendix 3. Reported occurrences of Spottail Shiner in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Bluefish Creek (1)	61.03333° N, 123.4333° W	Addison (1966, ROM26597)
South Nahanni River (2)	61.05000° N, 123.3500° W	Parks Canada (1984)

*number refers to map (Figure 3) reference no.

Appendix 4. Reported occurrences of Longnose Dace in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Rabbitkettle Lake (1?)	61.95000° N, 127.2167° W	Wickstrom (1979)
South Nahanni River (2)	61.05000° N, 123.3500° W	Parks Canada (1984)

*number refers to map (Figure 4) reference no.
? = suspect occurrence.

Appendix 5. Reported occurrences of Longnose Sucker in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Bluefish Creek (1)	61.03333° N, 123.4333° W	Addison (1966, ROM26005)
Brintnell Creek (2)	62.05000° N, 127.3667° W	DINA (1974b); Stewart and Low (2000)
Clausen Creek (3)	61.25000° N, 124.0333° W	Addison (1966, ROM26005)
Flat River (4)	61.53333° N, 125.3667° W	DINA (1974d); Parks Canada (1984)
Flood Creek (5)	61.85000° N, 126.3833° W	Parks Canada (1984)
Hole in the Wall Lake (6)	61.78333° N, 127.2500° W	Wickstrom (1979)
McLeod Creek (7)	61.38334° N, 126.6333° W	Stewart and Low (2000)
McLeod Lake (8)	61.38333° N, 126.5000° W	Wickstrom and Lutz (1981)
Oxbow Lake (9)	61.67500° N, 125.8861° W	Addison (1966, ROM26005)
Rabbitkettle Lake (10)	61.95836° N, 127.2169° W	This study (Appendix 22)
Seaplane Lake (11)	61.41667° N, 126.8000° W	Wickstrom and Lutz (1981)
South Nahanni River (12)	61.05000° N, 123.3500° W	Wickstrom (1977)
South Nahanni River (13)	61.24166° N, 124.4458° W	DINA (1974d); Wickstrom (1977)
South Nahanni River (14)	61.24445° N, 124.3917° W	Wickstrom (1977)
South Nahanni River (15)	61.37500° N, 124.8714° W	DINA (1974d); Wickstrom (1977)
South Nahanni River (16)	61.85000° N, 126.3000° W	Wickstrom (1979)
South Nahanni River (17)	61.95000° N, 127.1667° W	Wickstrom (1979)

*number refers to map (Figure 5) reference no.

Appendix 6. Reported occurrences of White Sucker in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Flat River (1)	61.48389° N, 126.6083° W	DINA (1974d)
McLeod Lake (2)	61.38333° N, 126.5000° W	Wickstrom and Lutz (1981)
Prairie Creek (3)	61.24722° N, 124.4417° W	Wickstrom (1977)
Rabbitkettle Lake (4)	61.95000° N, 127.2167° W	Wickstrom (1977, 1979)
Seaplane Lake (5)	61.41667° N, 126.8000° W	Wickstrom and Lutz (1981)
South Nahanni River (6)	61.05000° N, 123.3500° W	Wickstrom (1977)
South Nahanni River (7)	61.88334° N, 126.9333° W	Wickstrom (1979)

*number refers to map (Figure 6) reference no.

Appendix 7. Reported occurrences of Northern Pike in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Bennett Creek (1)	61.38334° N, 126.7167° W	Stewart and Low (2000)
Bluefish Creek (2)	61.03333° N, 123.4333° W	Jessop and Lilley (1975)
Clausen Creek (3)	61.25000° N, 124.0333° W	Addison (1966)
Flat River (4)	61.53333° N, 125.3667° W	Parks Canada (1984)
McLeod Lake (5)	61.38333° N, 126.5000° W	Wickstrom and Lutz (1981)
Seaplane Lake (6)	61.41667° N, 126.8000° W	Foote (1979)
South Nahanni River (7)	61.03333° N, 123.3833° W	Addison (1966, ROM26618)
South Nahanni River (8)	61.05000° N, 123.3500° W	Wickstrom (1977)
South Nahanni River (9)	61.03785° N, 123.5270° W	G. Tsetso (Nahanni Butte, NT, pers. comm. 2014)
Yohin Lake (10)	61.20000° N, 123.7667° W	DINA (1976); Wickstrom (1977)

*number refers to map (Figure 7) reference no.

Appendix 8. Reported occurrences of Lake Whitefish in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Bluefish Creek (1)	61.03333° N, 123.4333° W	Jessop and Lilley (1975)
Cache (Divide) Lake (2)	62.03333° N, 128.3333° W	Sigma Resource Consultants Ltd. (1976)
Divide Lake (3)	62.03333° N, 128.3333° W	Addison (1966, ROM26610); Guinn (1982)
Flat River (4)	61.53333° N, 125.3667° W	Parks Canada (1984)
McLeod Lake (5)	61.38334° N, 126.5000° W	Wickstrom (1979)
Mirror Lake (6)	62.02998° N, 128.2852° W	Addison (1966, ROM26611)
Prairie Creek (7)	61.24722° N, 124.4417° W	Wickstrom (1977)
Seaplane Lake (8)	61.41667° N, 126.8000° W	Foote (1979)
South Nahanni River (9)	61.05000° N, 123.3500° W	Parks Canada (1984)

*number refers to map (Figure 8) reference no.

Appendix 9. Reported occurrences of Round Whitefish in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Cache (Divide) Lake (1)	62.03333° N, 128.3333° W	Sigma Resource Consultants Ltd. (1976)
Cache (Divide) Lake outlet (2)	62.02500° N, 128.3083° W	Sigma Resource Consultants Ltd. (1976)
Creek TRC 115439 (3)	61.25000° N, 124.6500° W	Parks Canada (1984)
Divide Lake (4)	62.03333° N, 128.3333° W	Guinn (1982)
Flat River (5)	61.53333° N, 125.3667° W	Parks Canada (1984)
Flat River (6)	61.90736° N, 128.0979° W	This study (Appendix 24)
Flat River (7)	61.90738° N, 128.0988° W	This study (Appendix 23)
Flat River (8)	61.95120° N, 128.1882° W	West et al. (2006)
Flat River (9)	62.01921° N, 128.3027° W	This study (Appendix 23)
Prairie Creek (10)	61.24722° N, 124.4417° W	Wickstrom (1977)
Prairie Creek (11)	61.25834° N, 124.4458° W	Jowett (1985); Catto (1986)
Sheaf Creek (12)	61.25139° N, 124.4708° W	Wickstrom (1977)
South Nahanni River (13)	61.05000° N, 123.3500° W	Wickstrom (1977)
Turret Creek (14)	61.25139° N, 124.6417° W	Wickstrom (1977)

*number refers to map (Figure 9) reference no.

Appendix 10. Reported occurrences of Mountain Whitefish in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Brintnell Creek (1)	62.05000° N, 127.3667° W	DINA (1974b, c); Stewart and Low (2000)
Flat Lakes (2)	62.08333° N, 128.4333° W	DINA (1974c)
Flat River (3)	61.53333° N, 125.3667° W	Sigma Resource Consultants Ltd. (1976); Wickstrom and Lutz (1981)
Flat River (4)	61.93333° N, 128.1583° W	Moore et al. (1978)
Flat River (5)	61.99722° N, 128.2833° W	Moore et al. (1978)
Flat River (6)	62.01667° N, 128.3083° W	Moore et al. (1978)
Flat River tributary (7)	61.58333° N, 127.1667° W	Stewart and Low (2000)
Harrison Creek (8)	61.43333° N, 124.5333° W	Beak Consultants Ltd. (1981b)
Marengo Creek (9)	61.59225° N, 125.8007° W	Mochnacz et al. (2004)
Pass Creek (10)	61.63334° N, 127.3833° W	Stewart and Low (2000)
Prairie Creek (11)	61.28889° N, 124.4333° W	Beak Consultants Ltd (1981b)
Prairie Creek (12)	61.41945° N, 124.4972° W	Beak Consultants Ltd. (1981b)
Prairie Creek (13)	61.42500° N, 124.5167° W	Beak Consultants Ltd. (1981b)
Prairie Creek (14)	61.42916° N, 124.5500° W	Beak Consultants Ltd. (1981b)
Prairie Creek (15)	61.43611° N, 124.5667° W	Beak Consultants Ltd. (1981b)
Prairie Creek (16)	61.45833° N, 124.5833° W	Beak Consultants Ltd. (1981b)
Prairie Creek (17)	61.60000° N, 124.8667° W	Beak Consultants Ltd. (1981b)
Prairie Creek (18)	61.69167° N, 124.9083° W	Beak Consultants Ltd. (1981a)
Prairie Creek (19)	61.72500° N, 124.9500° W	Beak Consultants Ltd. (1981a)
South Nahanni River (20)	61.05000° N, 123.3500° W	DINA (1974d); Stewart and Low (2000)

*number refers to map (Figure 10) reference no.

Appendix 11. Reported occurrences of Bull Trout in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Bennett Creek (1)	61.38098° N, 126.6969° W	This study (Appendix 24)
Borden Creek (2)	61.38902° N, 126.7601° W	This study (Appendix 22)
Cache (Divide) Lake (3)	62.03333° N, 128.3333° W	Sigma Resource Consultants Ltd. (1976)[1]
Cache (Divide) Lake outlet (4)	62.02500° N, 128.3083° W	Sigma Resource Consultants Ltd. (1976)[1]
Canyon Creek (5)	61.20077° N, 126.4887° W	This study (Appendix 22)
Cathedral Creek (6)	61.83912° N, 125.6501° W	West et al. (2006)
Cathedral Creek tributary (7)	61.81068° N, 125.8058° W	West et al. (2006)
Clausen Creek (8)	61.25000° N, 124.0333° W	Addison (1966, ROM26617)[1]
Clearwater Creek (9)	61.57500° N, 125.5917° W	Heap (1984)[1]; Catto (1986)[1]
Clearwater Creek (10)	62.05510° N, 126.2359° W	West et al. (2006)
Creek TRC 115439 (11)	61.25000° N, 124.6500° W	Wickstrom (1977)[1]; Parks Canada (1984)[1]
Dolf Mountain Creek (12)	62.08793° N, 127.2331° W	West et al. (2006)[2]
Dry Canyon Creek (13)	61.25834° N, 124.3750° W	Lafferty (1990)[1]
Flat Lakes (14)	62.08333° N, 128.4333° W	DINA (1974c)[1]
Flat River (15)	61.48389° N, 126.6083° W	Wickstrom and Lutz (1981)[1]
Flat River (16)	61.51667° N, 125.3333° W	Jowett (1985)[1]
Flat River (17)	61.52222° N, 125.3000° W	Catto (1986)[1]
Flat River (18)	61.53333° N, 125.3500° W	Wickstrom (1979)[1]
Flat River (19)	61.53333° N, 125.3667° W	Sigma Resource Consultants Ltd. (1976)[1]; Wickstrom and Lutz (1981)[1]
Flat River (20)	61.90736° N, 128.0979° W	This study (Appendix 24)
Flat River (21)	61.90736° N, 128.0988° W	This study (Appendix 23)
Flat River (22)	61.93333° N, 128.1583° W	Moore et al. (1978)[1]
Flat River (23)	61.99415° N, 128.2688° W	West et al. (2006)
Flat River (24)	61.99722° N, 128.2833° W	Moore et al. (1978)[1]
Flat River (25)	62.01667° N, 128.3083° W	Moore et al. (1978)[1]
Flat River (26)	62.01921° N, 128.3027° W	This study (Appendix 23)
Flood Creek (27)	61.86666° N, 126.3667° W	Jowett (1985)[3]; Catto (1986)[3]
Funeral Creek (28)	61.60000° N, 124.7333° W	Mochnacz (2002)
Funeral Creek (29)	61.60611° N, 124.8023° W	This study (Appendix 22)
Funeral Creek (30)	61.60636° N, 124.8080° W	Mochnacz et al. (2004)
Funeral Creek (31)	61.60942° N, 124.7344° W	This study (Appendix 23)
Funeral Creek (32)	61.61042° N, 124.7367° W	Mochnacz et al. (2004)
Galena Creek (33)	61.54536° N, 124.7842° W	Mochnacz et al. (2004)
Harrison Creek (34)	61.43333° N, 124.5333° W	Beak Consultants Ltd. (1981b)[1]
Hell Roaring Creek (35)	61.87222° N, 126.6250° W	Jowett (1985)[1]; Lafferty (1990)[1]
Irvine Creek (36)	61.55000° N, 126.5000° W	Mochnacz (2002)
Irvine Creek (37)	61.75447° N, 126.7463° W	This study (Appendix 22)
Island Lakes (38)	62.34445° N, 128.2239° W	Moore (2000)[3]
Jorgensen Creek (39)	61.52961° N, 126.0956° W	Mochnacz et al. (2004)
Marengo Creek (40)	61.58333° N, 125.6833° W	Heap (1984)[1]; Jowett (1985)[1]; Catto (1986)[1]; Lafferty (1990)[1]
Marengo Creek (41)	61.58887° N, 125.6872° W	Mochnacz et al. (2004)
Mary River (42)	61.44167° N, 125.1083° W	Heap (1984)[1]
Mary River tributary (43)	61.38633° N, 125.1953° W	This study (Appendix 22)
Meilleur River tributary (44)	61.12794° N, 124.9908° W	This study (Appendix 22)
Mirror Lake (45)	62.01667° N, 128.2833° W	Addison (1966, ROM26616)[1]
Prairie Creek (46)	61.24722° N, 124.4417° W	DINA (1974c)[1]; Wickstrom (1977)[1]

Appendix 11. continued.

Location*	Map coordinates	Reference
Prairie Creek (47)	61.25834° N, 124.4458° W	Heap (1984)[1]; Jowett (1985)[1]; Catto (1986)[1]
Prairie Creek (48)	61.28333° N, 124.4333° W	Lafferty (1990)[1]
Prairie Creek (49)	61.28889° N, 124.4333° W	Beak Consultants Ltd. (1981b)[1]
Prairie Creek (50)	61.30242° N, 124.4234° W	Mochnacz et al. (2004)
Prairie Creek (51)	61.36413° N, 124.4362° W	This study (Appendix 23)
Prairie Creek (52)	61.41945° N, 124.4972° W	Beak Consultants Ltd. (1981b)[1]
Prairie Creek (53)	61.42500° N, 124.5167° W	Beak Consultants Ltd. (1981b)[1]
Prairie Creek (54)	61.43611° N, 124.5667° W	Beak Consultants Ltd. (1981b)[1]
Prairie Creek (55)	61.45833° N, 124.5833° W	Beak Consultants Ltd. (1981b)[1]
Prairie Creek (56)	61.54210° N, 124.7751° W	West et al. (2006)
Prairie Creek (57)	61.54980° N, 124.7925° W	West et al. (2006)
Prairie Creek (58)	61.60000° N, 124.8667° W	Beak Consultants Ltd. (1981b)[1]
Prairie Creek (59)	61.60474° N, 124.8366° W	This study (Appendix 23)
Prairie Creek (60)	61.60502° N, 124.8355° W	This study (Appendix 23)
Prairie Creek (61)	61.60814° N, 124.8205° W	Mochnacz et al. (2004)
Prairie Creek (62)	61.69167° N, 124.9083° W	Beak Consultants Ltd. (1981a)[1]
Prairie Creek (63)	61.72500° N, 124.9500° W	Beak Consultants Ltd. (1981a)[1]
Prairie Creek (64)	61.74757° N, 124.9408° W	This study (Appendix 23)
Secret Lakes (65)	61.95000° N, 127.0500° W	Heap (1984)[3]; Jowett (1985)[3]; Catto (1986)[3]
Sheaf Creek (66)	61.25000° N, 124.4500° W	Heap (1984)[1]
Sheaf Creek (67)	61.25139° N, 124.4708° W	Wickstrom (1977)[1]
South Nahanni River (68)	61.05000° N, 123.3500° W	DINA (1974c)[1]; Wickstrom (1977)[1]
South Nahanni River (69)	61.24939° N, 124.4081° W	Mochnacz et al. (2004)
South Nahanni River (70)	61.30833° N, 124.1250° W	Heap (1984)[1]; Catto (1986)[1]
South Nahanni River (71)	61.31080° N, 124.5893° W	This study (Appendix 24)
South Nahanni River (72)	61.35000° N, 124.7000° W	Lafferty (1990)[1]
South Nahanni River (73)	61.37500° N, 124.8714° W	Wickstrom (1977)[1]
South Nahanni River (74)	61.39722° N, 124.7458° W	Catto (1986)[1]
South Nahanni River (75)	61.45500° N, 125.0100° W	Heap (1984)[1]; Jowett (1985)[1]; Catto (1986)[1]
South Nahanni River (76)	61.60483° N, 125.7480° W	Mochnacz et al. (2004)
South Nahanni River (77)	61.52778° N, 125.2758° W	This study (Appendix 24)
South Nahanni River (78)	61.56667° N, 125.5389° W	Jowett (1985)[1]
South Nahanni River (79)	61.67222° N, 125.9333° W	Jowett (1985)[1]
South Nahanni River (80)	61.74166° N, 126.0500° W	DINA (1974c)[3]; Lafferty (1990)[3]
Vera Creek (81)	61.51111° N, 125.2333° W	Jowett (1985)[1]
Wrigley Creek (82)	61.56667° N, 125.5000° W	Catto (1986)[1]; Lafferty (1990)[1]
Wrigley Creek (83)	61.90513° N, 125.3650° W	West et al. (2006)
Wrigley Creek (84)	61.91836° N, 125.1860° W	This study (Appendix 22)

*number refers to map (Figure 11) reference no.
[1] originally identified as Dolly Varden, now Bull Trout.
[2] originally identified as Bull Trout, now probably Lake Trout.
[3] originally identified as Dolly Varden, now probably Lake Trout.

Appendix 12. Reported occurrences of Lake Trout in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Brintnell Creek (1)	62.05177° N, 127.3544° W	DINA (1974b); Stewart and Low (2000); This study (Appendix 22)
Cathedral Lake (2)	61.77629° N, 127.3660° W	Wickstrom (1979); This study (Appendix 23)
Clearwater Creek (3)	61.57500° N, 125.5917° W	Catto (1986); Lafferty (1990)
First Secret Lake (4)	61.97223° N, 127.0441° W	This study (Appendix 24)
Flat Lakes (5)	62.08333° N, 128.4333° W	Addison (1966, ROM26614)
Flat Lakes (6)	62.09167° N, 128.4417° W	DINA (1974c); Envirocon Ltd. (1976)
Flat Lakes (7)	62.09167° N, 128.4500° W	Envirocon Ltd. (1976)
Flat River (8)	61.53333° N, 125.3667° W	Wickstrom and Lutz (1981)
Flat River (9)	61.96667° N, 128.2333° W	Sergy (1975)
Flat River (10)	62.01667° N, 128.3083° W	Moore et al. (1978)
Flood Creek (11)	61.85000° N, 126.3833° W	Parks Canada (1984)
Flood Creek (12)	61.86666° N, 126.3667° W	Catto (1986); Lafferty (1990)
Glacier Lake (13)	62.08333° N, 127.5500° W	Addison (1966); DINA (1974b); Wickstrom (1979)
Hell Roaring Creek (14)	61.86666° N, 126.8417° W	Catto (1986)
Hole In The Wall Lake (15)	61.78323° N, 127.2483° W	This study (Appendix 23)
Hole In The Wall Lake (16)	61.78333° N, 127.2500° W	Wickstrom (1979)
Hole In The Wall Lake (17)	61.79167° N, 127.2417° W	Catto (1986)
Little Nahanni River (18)	62.22500° N, 128.7667° W	Envirocon Ltd. (1976)
Little Nahanni River (19)	62.48069° N, 128.6309° W	This study (Appendix 22)
Marengo Creek (20)	61.58333° N, 125.6833° W	Heap (1984); Catto (1986); Lafferty (1990)
McLeod Lake (21)	61.38333° N, 126.5000° W	Wickstrom and Lutz (1981)
Oxbow Lake (22)	61.67500° N, 125.8861° W	Wickstrom (1979); Heap (1984); Jowett (1985); Catto (1986); Lafferty (1990)
Prairie Creek (23)	61.24722° N, 124.4417° W	Wickstrom (1977)
Prairie Creek (24)	61.25000° N, 124.4500° W	Ker, Priestman and Associates Ltd. (1980)
Prairie Creek (25)	61.25834° N, 124.4458° W	Lafferty (1990)
Seaplane Lake (26)	61.41667° N, 126.8000° W	Wickstrom and Lutz (1981)
Secret Lakes (27)	61.95000° N, 127.0500° W	Heap (1984); Jowett (1985); Catto (1986)
South Nahanni River (28)	61.30833° N, 124.1250° W	Catto (1986)
South Nahanni River (29)	61.45500° N, 125.0100° W	Lafferty (1990)
South Nahanni River (30)	61.65556° N, 125.8750° W	Jowett (1985)
South Nahanni River (31)	61.85000° N, 126.3000° W	Wickstrom (1979)
South Nahanni River (32)	61.85833° N, 126.4833° W	Catto (1986)
South Nahanni River (33)	61.86203° N, 126.3884° W	This study (Appendix 25)
South Nahanni River (34)	61.86211° N, 126.3858° W	This study (Appendix 22)
South Nahanni River (35)	61.87319° N, 126.6292° W	This study (Appendix 25)
South Nahanni River (36)	61.87344° N, 126.6294° W	This study (Appendix 24)
South Nahanni River (37)	61.89867° N, 126.9881° W	This study (Appendix 25)
South Nahanni River (38)	61.95000° N, 127.1667° W	Wickstrom (1979)
South Nahanni River (39)	61.97587° N, 127.2398° W	This study (Appendix 25)
South Nahanni River (40)	62.24430° N, 127.6126° W	This study (Appendix 22)
South Nahanni River (41)	62.52730° N, 128.7592° W	This study (Appendix 22)
Fork Creek (42)	62.26533° N, 128.8460° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (43)	62.20764° N, 128.7973° W	M. McPherson (pers. comm. 2015)
Unnamed creek near Fork Ck. (44)	62.22190° N, 128.8959° W	M. McPherson (pers. comm. 2015)
Unnamed creek near Fork Ck. (45)	62.22396° N, 128.8892° W	M. McPherson (pers. comm. 2015)
Unnamed creek near Fork Ck. (46)	62.22548° N, 128.8806° W	M. McPherson (pers. comm. 2015)

*number refers to map (Figure 12) reference no.

Appendix 13. Reported occurrences of Inconnu in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Clausen Creek (1)	61.25000° N, 124.0333° W	Addison (1966, ROM26594)
South Nahanni River (2)	61.24939° N, 124.4081° W	Mochnacz et al. (2004)
South Nahanni River (3)	61.03785° N, 123.5270° W	G. Tsetso (Nahanni Butte, NT, pers. comm. 2014)

*number refers to map (Figure 13) reference no.

Appendix 14. Reported occurrences of Arctic Grayling in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Bennett Creek (1)	61.38334° N, 126.7167° W	Stewart and Low (2000)
Bluefish Creek (2)	61.03333° N, 123.4333° W	Jessop and Lilley (1975)
Borden Creek (3)	61.38902° N, 126.7601° W	This study (Appendix 22)
Brintnell Creek (4)	62.05000° N, 127.3667° W	Stewart and Low (2000)
Brintnell Creek (5)	62.05188° N, 127.3550° W	E.B. Taylor (University of British Columbia, Vancouver, BC, pers. comm. 2014)
Broken Skull River (6)	62.26686° N, 127.6524° W	This study (Appendix 22)
Broken Skull River (7)	62.75609° N, 128.1358° W	E.B. Taylor (pers. comm. 2014)
Broken Skull River (8)	62.80875° N, 128.0268° W	This study (Appendix 23)
Cache (Divide) Lake (9)	62.03333° N, 128.3333° W	Sigma Resource Consultants Ltd. (1976)
Cache (Divide) Lake outlet (10)	62.02500° N, 128.3083° W	Sigma Resource Consultants Ltd. (1976)
Caribou River (11)	60.87664° N, 126.6628° W	E.B. Taylor (pers. comm. 2014)
Caribou River (12)	61.45000° N, 125.7833° W	Stewart and Low (2000)
Cathedral Creek (13)	61.83912° N, 125.6501° W	West et al. (2006)
Cathedral Creek (14)	61.94107° N, 125.7598° W	E.B. Taylor (pers. comm. 2014)
Cathedral Creek tributary (15)	61.81068° N, 125.8058° W	West et al. (2006)
Clearwater Creek (16)	61.57500° N, 125.5917° W	Heap (1984); Jowett (1985); Catto (1986)
Clearwater Creek (17)	61.58333° N, 125.5667° W	DINA (1974d); Stewart and Low (2000)
Clearwater Creek (18)	62.01322° N, 126.0644° W	This study (Appendix 22)
Clearwater Creek tributary (19)	61.99997° N, 125.9675° W	E.B. Taylor (pers. comm. 2014)
Creek TRC 115439 (20)	61.25000° N, 124.6500° W	Wickstrom (1979); Parks Canada (1984)
Divide Lake (21)	62.03333° N, 128.3333° W	Addison (1966, ROM26591)
Dolf Mountain Creek (22)	61.97722° N, 127.2372° W	This study (Appendix 24)
Dolf Mountain Creek (23)	62.01953° N, 127.1437° W	West et al. (2006)
Dolf Mountain Creek (24)	62.03415° N, 127.2107° W	This study (Appendix 24)
Dolf Mountain Creek (25)	62.07138° N, 127.2224° W	This study (Appendix 25)
Dolf Mountain Creek (26)	62.08793° N, 127.2331° W	This study (Appendix 25)
Dry Canyon Creek (27)	61.25834° N, 124.3750° W	Heap (1984); Catto (1986); Lafferty (1990)
Flat Lakes (28)	62.08333° N, 128.4333° W	Addison (1966, ROM26590); DINA (1974c); Stewart and Low (2000)
Flat River (29)	61.48389° N, 126.6083° W	DINA (1974d); Wickstrom and Lutz (1981)
Flat River (30)	61.52222° N, 125.3000° W	Catto (1986); Lafferty (1990)
Flat River (31)	61.53333° N, 125.3500° W	Wickstrom (1979)
Flat River (32)	61.53333° N, 125.3667° W	Sigma Resource Consultants Ltd. (1976); Wickstrom and Lutz (1981)
Flat River (33)	61.90736° N, 128.0979° W	This study (Appendix 24)
Flat River (34)	61.90736° N, 128.0988° W	This study (Appendix 23)
Flat River (35)	61.93333° N, 128.1583° W	Moore et al. (1978)
Flat River (36)	61.95120° N, 128.1882° W	West et al. (2006)
Flat River (37)	61.96080° N, 128.2043° W	West et al. (2006)
Flat River (38)	61.99415° N, 128.2688° W	West et al. (2006)
Flat River (39)	61.99722° N, 128.2833° W	Moore et al. (1978)
Flat River (40)	62.01667° N, 128.3083° W	Moore et al., (1978)
Flat River tributary (41)	61.58333° N, 127.1667° W	Stewart and Low (2000)
Flood Creek (42)	61.85000° N, 126.3833° W	Parks Canada (1984)
Flood Creek (43)	61.86666° N, 126.3667° W	Heap (1984); Jowett (1985); Catto (1986); Lafferty (1990)
Flood Creek (44)	62.07565° N, 126.6398° W	West et al. (2006)
Flood Creek tributary (45)	62.02419° N, 126.5838° W	This study (Appendix 22)
Glacier Lake (46)	62.07350° N, 127.5070° W	E.B. Taylor (pers. comm. 2014)
Glacier Lake (47)	62.08333° N, 127.5500° W	Addison (1966, ROM26592); DINA (1974b); Wickstrom (1979)

Appendix 14. continued.

Location*	Map coordinates	Reference
Glacier Lake (48)	62.08708° N, 127.5868° W	This study (Appendix 22)
Guthrie Creek (49)	62.22840° N, 128.7988° W	Selwyn Resources Ltd. (2008)
Hell Roaring Creek (50)	61.87222° N, 126.6250° W	Wickstrom (1979); Catto (1986); Jowett (1985); Lafferty (1990)
Hell Roaring Creek (51)	61.93169° N, 126.6986° W	This study (Appendix 22)
Hell Roaring Creek (52)	61.94741° N, 126.7164° W	This study (Appendix 24)
Hole in the Wall Lake (53)	61.78333° N, 127.2500° W	Wickstrom (1979)
Hole In The Wall Lake (54)	61.79167° N, 127.2417° W	Catto (1986)
Irvine Creek (55)	61.55833° N, 126.4833° W	Catto (1986)
Irvine Creek (56)	61.75447° N, 126.7463° W	This study (Appendix 22)
Little Nahanni River (57)	62.10000° N, 128.4667° W	Envirocon Ltd. (1976)
Little Nahanni River (58)	62.15583° N, 128.5601° W	This study (Appendix 23)
Little Nahanni River (59)	62.21667° N, 128.7625° W	Envirocon Ltd. (1976)
Little Nahanni River (60)	62.22500° N, 128.7667° W	Envirocon Ltd. (1976)
Little Nahanni River (61)	62.33333° N, 128.8167° W	Envirocon Ltd. (1976)
Little Nahanni River (62)	62.48069° N, 128.6309° W	This study (Appendix 22)
Mac Creek (63)	62.21400° N, 128.7695° W	Selwyn Resources Ltd. (2008)
Marengo Creek (64)	61.58333° N, 125.6833° W	Heap (1984); Jowett (1985); Catto (1986); Lafferty (1990)
Marengo Creek (65)	61.59225° N, 125.8007° W	Mochnacz et al., 2004
Mary River (66)	61.44167° N, 125.1083° W	Jowett (1985); Catto (1986); Lafferty (1990)
McLeod Creek (67)	61.38334° N, 126.6333° W	Stewart and Low (2000)
Meilleur River (68)	61.11511° N, 125.2125° W	E.B. Taylor (pers. comm. 2014)
Meilleur River (69)	61.27222° N, 124.5500° W	Catto (1986)
Meilleur River tributary (70)	61.12794° N, 124.9908° W	This study (Appendix 22)
Moose Lake (71)	62.18333° N, 128.7917° W	Envirocon Ltd. (1976)
Oxbow Lake (72)	61.67500° N, 125.8861° W	Wickstrom (1979); Heap (1984); Catto (1986); Lafferty (1990)
Pass Creek (73)	61.63334° N, 127.3833° W	Stewart and Low (2000)
Prairie Creek (74)	61.24722° N, 124.4417° W	DINA (1974d); Wickstrom (1977)
Prairie Creek (75)	61.24788° N, 124.4465° W	This study (Appendix 22)
Prairie Creek (76)	61.24931° N, 124.4080° W	Mochnacz et al. (2004)
Prairie Creek (77)	61.25000° N, 124.4500° W	Addison (1966, ROM26593)
Prairie Creek (78)	61.25834° N, 124.4458° W	Heap (1984); Jowett (1985); Catto (1986); Lafferty (1990)
Prairie Creek (79)	61.28889° N, 124.4333° W	Beak Consultants Ltd. (1981b)
Prairie Creek (80)	61.30242° N, 124.4234° W	Mochnacz et al. (2004)
Prairie Creek (81)	61.34374° N, 124.4117° W	E.B. Taylor (pers. comm. 2014)
Prairie Creek (82)	61.36416° N, 124.4362° W	This study (Appendix 24)
Prairie Creek (83)	61.55883° N, 124.7853° W	Mochnacz et al. (2004)
Rabbitkettle Lake (84)	61.95000° N, 127.2167° W	Wickstrom (1977); Wickstrom (1979); Wickstrom and Lutz (1981)
Sapper River (85)	62.63106° N, 129.0029° W	This study (Appendix 24)
Secret Lakes outlet (86)	61.89167° N, 126.8833° W	Jowett (1985)
Sheaf Creek (87)	61.25000° N, 124.4500° W	Heap (1984); Lafferty (1990)
Sheaf Creek (88)	61.25139° N, 124.4708° W	Wickstrom (1977)
South Nahanni River (89)	61.25139° N, 124.3250° W	Catto (1986); Lafferty (1990)
South Nahanni River (90)	61.30833° N, 124.1250° W	Catto (1986); Jowett (1985); Lafferty (1990)
South Nahanni River (91)	61.35000° N, 124.7000° W	Catto (1986); Lafferty (1990)
South Nahanni River (92)	61.39167° N, 124.9333° W	Catto (1986)
South Nahanni River (93)	61.39722° N, 124.7458° W	DINA (1974d); Catto (1986); Heap (1984); Jowett (1985)
South Nahanni River (94)	61.45500° N, 125.0100° W	Catto (1986); Heap (1984); Jowett (1985); Lafferty (1990)

Appendix 14. continued.

Location*	Map coordinates	Reference
South Nahanni River (95)	61.49444° N, 125.2167° W	Catto (1986)
South Nahanni River (96)	61.56667° N, 125.5389° W	Heap (1984); Jowett (1985)
South Nahanni River (97)	61.65556° N, 125.8750° W	Jowett (1985)
South Nahanni River (98)	61.71667° N, 125.9958° W	Catto (1986); Lafferty (1990)
South Nahanni River (99)	61.74166° N, 126.0500° W	Catto (1986); Lafferty (1990)
South Nahanni River (100)	61.85000° N, 126.3000° W	Wickstrom (1979)
South Nahanni River (101)	61.85833° N, 126.8417° W	Catto (1986)
South Nahanni River (102)	61.86666° N, 126.9167° W	Catto (1986)
South Nahanni River (103)	61.95000° N, 127.1667° W	DINA (1974c); Wickstrom (1979)
South Nahanni River (104)	62.24430° N, 127.6126° W	This study (Appendix 22)
South Nahanni River (105)	62.34445° N, 128.2239° W	Moore (2000)
South Nahanni River (106)	62.52730° N, 128.7592° W	This study (Appendix 22)
South Nahanni River tributary (107)	61.87361° N, 126.8583° W	Wickstrom (1979)
South Nahanni River tributary (108)	62.02301° N, 127.3291° W	This study (Appendix 23)
South Nahanni River tributary (109)	62.45175° N, 128.5427° W	This study (Appendix 23)
South Nahanni River tributary (110)	61.45833° N, 124.9722° W	Catto (1986)
South Nahanni River tributary (111)	62.80811° N, 129.5156° W	This study (Appendix 24)
Steel Creek (112)	62.38333° N, 128.9000° W	Envirocon Ltd. (1976)
Unnamed stream near Mac Creek (113)	62.18333° N, 128.7750° W	Envirocon Ltd. (1976)
Vera Creek (114)	61.51111° N, 125.2333° W	Catto (1986)
Vera Creek (115)	61.56418° N, 125.1846° W	West et al. (2006)
Wrigley Creek (116)	61.56667° N, 125.5000° W	Catto (1986); Lafferty (1990)
Wrigley Creek (117)	61.90513° N, 125.3650° W	West et al. (2006)
Wrigley Creek (118)	61.91352° N, 125.2054° W	E.B. Taylor (pers. comm. 2014)
Wrigley Creek (118)	61.91836° N, 125.1850° W	This study (Appendix 22)
Zenchuk Creek (120)	62.11768° N, 128.4222° W	E.B. Taylor (pers. comm. 2014)
Fork Creek (121)	62.26915° N, 128.8381° W	M. McPherson (pers. comm. 2015)
Fork Creek (122)	62.26533° N, 128.8460° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (123)	62.19120° N, 128.7947° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (124)	62.21517° N, 128.7977° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (125)	62.19422° N, 128.7974° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (126)	62.19617° N, 128.7979° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (127)	62.20764° N, 128.7973° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (128)	62.21651° N, 128.7974° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (129)	62.19855° N, 128.7997° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (130)	62.20148° N, 128.7969° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (131)	62.18720° N, 128.8103° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (132)	62.22680° N, 128.7979° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (133)	62.22635° N, 128.7979° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (134)	62.19766° N, 128.8034° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (135)	62.19350° N, 128.8091° W	M. McPherson (pers. comm. 2015)
Lened Creek (136)	62.38492° N, 128.7529° W	M. McPherson (pers. comm. 2015)
Lened Creek (137)	62.38453° N, 128.7569° W	M. McPherson (pers. comm. 2015)
Lened Creek (138)	62.38307° N, 128.7640° W	M. McPherson (pers. comm. 2015)
Lened Creek (139)	62.38378° N, 128.7590° W	M. McPherson (pers. comm. 2015)
Lened Creek (140)	62.34950° N, 128.7529° W	M. McPherson (pers. comm. 2015)
Lened Creek (141)	62.38344° N, 128.7603° W	M. McPherson (pers. comm. 2015)
Lened Creek (142)	62.38309° N, 128.7640° W	M. McPherson (pers. comm. 2015)
Lened Creek (143)	62.37799° N, 128.7515° W	M. McPherson (pers. comm. 2015)

*number refers to map (Figure 14) reference no.

Appendix 15. Reported occurrences of Trout-perch in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Bluefish Creek (1)	61.03333° N, 123.4333° W	Addison (1966, ROM26596); Parks Canada (1984)
South Nahanni River (2)	61.05000° N, 123.3500° W	Parks Canada (1984)

*number refers to map (Figure 15) reference no.

Appendix 16. Reported occurrences of Burbot in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Cache (Divide) Lake (1)	62.03333° N, 128.3333° W	Sigma Resource Consultants Ltd. (1976)
Flat Lakes (2)	62.08333° N, 128.4333° W	DINA (1974c); Stewart and Low (2000)
Flat River (3)	61.53333° N, 125.3500° W	Wickstrom (1979)
Irvine Creek (4)	61.75447° N, 126.7463° W	This study (Appendix 22)
McLeod Lake (5)	61.38334° N, 126.5000° W	Wickstrom (1979)
Prairie Creek (6)	61.24722° N, 124.4417° W	Wickstrom (1977)
Rabbitkettle Lake (7)	61.95000° N, 127.2167° W	Wickstrom (1979); Wickstrom and Lutz (1981)
Sapper River (8)	62.63106° N, 129.0029° W	This study (Appendix 24)
South Nahanni River (9)	61.05000° N, 123.3500° W	Wickstrom (1977)
South Nahanni River (10)	61.25139° N, 124.3250° W	Lafferty (1990)
South Nahanni River (11)	61.37500° N, 124.8714° W	Wickstrom (1977)
South Nahanni River (12)	61.45404° N, 125.0448° W	Catto (1986)
South Nahanni River (13)	61.86203° N, 126.3884° W	This study (Appendix 25)
Wrigley Creek (14)	61.56667° N, 125.5000° W	Lafferty (1990)
Guthrie Creek (15)	62.19120° N, 128.7947° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (16)	62.19422° N, 128.7974° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (17)	62.19617° N, 128.7979° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (18)	62.19855° N, 128.7997° W	M. McPherson (pers. comm. 2015)

*number refers to map (Figure 16) reference no.

Appendix 17. Reported occurrences of Slimy Sculpin in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Black Wolf Creek (1)	62.30816° N, 127.6487° W	This study (Appendix 24)
Borden Creek (2)	61.35888° N, 126.8203° W	West et al. (2006)
Borden Creek (3)	61.38902° N, 126.7601° W	This study (Appendix 22)
Broken Skull River (4)	62.80875° N, 128.0268° W	This study (Appendix 23)
Cathedral Creek (5)	61.83912° N, 125.6501° W	West et al. (2006)
Cathedral Creek tributary (6)	61.81068° N, 125.8058° W	West et al. (2006)
Cathedral Creek tributary (7)	61.84102° N, 125.6065° W	West et al. (2006)
Clearwater Creek (8)	62.01322° N, 126.0644° W	This study (Appendix 22)
Clearwater Creek (9)	62.05510° N, 126.2359° W	West et al. (2006)
Dolf Mountain Creek (10)	61.97722° N, 127.2372° W	This study (Appendix 24)
Dolf Mountain Creek (11)	62.03415° N, 127.2107° W	This study (Appendix 24)
Dolf Mountain Creek (12)	62.07138° N, 127.2224° W	This study (Appendix 24)
Dolf Mountain Creek (13)	62.08793° N, 127.2331° W	West et al. (2006); This study (Appendix 25)
Fast Creek (14)	61.61000° N, 124.8100° W	Mochnacz et al. (2004)
Flat River (15)	61.48389° N, 126.6083° W	Wickstrom and Lutz (1981)
Flat River (16)	61.53333° N, 125.3500° W	Wickstrom (1979)
Flat River (17)	61.90736° N, 128.0979° W	This study (Appendix 24)
Flat River (18)	61.90738° N, 128.0988° W	This study (Appendix 23)
Flat River (19)	61.95120° N, 128.1882° W	West et al. (2006)
Flat River (20)	61.96080° N, 128.2043° W	West et al. (2006)
Flat River (21)	61.99415° N, 128.2688° W	West et al. (2006)
Flat River (22)	62.01921° N, 128.3027° W	This study (Appendix 23)
Flat River tributary (23)	61.55770° N, 127.1665° W	West et al. (2006)
Flood Creek (24)	61.86111° N, 126.3861° W	Wickstrom (1979)
Flood Creek (25)	61.86203° N, 126.3884° W	This study (Appendix 25)
Flood Creek (26)	62.07565° N, 126.6398° W	West et al. (2006)
Glacier Lake (27)	62.08333° N, 127.5500° W	Parks Canada (1984)
Guthrie Creek (28)	62.22840° N, 128.7988° W	Selwyn Resources Ltd. (2008)
Harrison Creek (29)	61.43333° N, 124.5333° W	Beak Consultants Ltd. (1981b)
Hell Roaring Creek (30)	61.87222° N, 126.6250° W	Wickstrom (1979)
Hell Roaring Creek (31)	61.93169° N, 126.6986° W	This study (Appendix 22)
Hell Roaring Creek (32)	61.94995° N. 126.7817° W	West et al. (2006)
Little Nahanni River (33)	62.15583° N, 128.5601° W	This study (Appendix 23)
Mac Creek (34)	62.15548° N, 128.9421° W	This study (Appendix 24)
Mac Creek (35)	62.21400° N, 128.7695° W	Selwyn Resources Ltd. (2008)
Mary River tributary (36)	61.38633° N, 125.1953° W	This study (Appendix 22)
Meilleur River tributary (37)	61.12794° N, 124.9908° W	This study (Appendix 22)
Osprey Creek (38)	61.68008° N, 125.9579° W	This study (Appendix 24)
Prairie Creek (39)	61.24722° N, 124.4417° W	Wickstrom (1977)
Prairie Creek (40)	61.25000° N, 124.4500° W	Addison (1966, ROM26602)
Prairie Creek (41)	61.28889° N, 124.4333° W	Beak Consultants Ltd. (1981b)
Prairie Creek (42)	61.41945° N, 124.4972° W	Beak Consultants Ltd. (1981b)
Prairie Creek (43)	61.42500° N, 124.5167° W	Beak Consultants Ltd. (1981b)
Prairie Creek (44)	61.42917° N, 124.5500° W	Beak Consultants Ltd.(1981b)
Prairie Creek (45)	61.43611° N, 124.5667° W	Beak Consultants Ltd. (1981b)
Prairie Creek (46)	61.45833° N, 124.5833° W	Beak Consultants Ltd. (1981b)
Prairie Creek (47)	61.54210° N, 124.7751° W	West et al. (2006)
Prairie Creek (48)	61.54499° N, 124.7796° W	This study (Appendix 23)
Prairie Creek (49)	61.54547° N, 124.7810° W	This study (Appendix 23)
Prairie Creek (50)	61.54980° N, 124.7925° W	West et al. (2006)
Prairie Creek (51)	61.57370° N, 124.8254° W	West et al. (2006)

Appendix 17. continued.

Location*	Map coordinates	Reference
Prairie Creek (52)	61.60000° N, 124.8667° W	Beak Consultants Ltd. (1981b)
Prairie Creek (53)	61.70179° N, 124.9066° W	This study (Appendix 23)
Rabbitkettle Lake (54)	61.95000° N, 127.2167° W	Parks Canada (1984)
Sapper River (55)	62.63106° N, 129.0029° W	This study (Appendix 24)
Seaplane Lake (56)	61.41667° N, 126.8000° W	Foote (1979)
Sheaf Creek (57)	61.25000° N, 124.4500° W	Mochnacz et al. (2004)
Sheaf Creek (58)	61.25139° N, 124.4708° W	Wickstrom (1977)
South Nahanni River (59)	61.05000° N, 123.3500° W	Wickstrom (1977)
South Nahanni River (60)	61.95000° N, 127.1667° W	Wickstrom (1979)
South Nahanni River (61)	62.33810° N, 128.1779° W	This study (Appendix 25)
South Nahanni River tributary (62)	61.87361° N, 126.8583° W	Wickstrom (1979)
South Nahanni River tributary (63)	62.02301° N, 127.3291° W	This study (Appendix 23)
South Nahanni River tributary (64)	62.45175° N, 128.5427° W	This study (Appendix 23)
South Nahanni River tributary (65)	62.80811° N, 129.5156° W	This study (Appendix 24)
Steel Creek (66)	62.38477° N, 128.9151° W	This study (Appendix 24)
Vera Creek (67)	61.61117° N, 125.2424° W	West et al. (2006)
Wrigley Creek (68)	61.90513° N, 125.3650° W	West et al. (2006)
Wrigley Creek (69)	61.91836° N, 125.1860° W	This study (Appendix 22)
Wrigley Creek tributary (70)	61.89942° N, 125.2476° W	West et al. (2006)
Guthrie Creek (71)	62.19120° N, 128.7947° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (72)	62.19617° N, 128.7979° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (73)	62.19855° N, 128.7997° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (74)	62.21517° N, 128.7977° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (75)	62.20764° N, 128.7973° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (76)76	62.20148° N, 128.7969° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (77)	62.19422° N, 128.7974° W	M. McPherson (pers. comm. 2015)
Guthrie Creek (78)	62.19100° N, 128.7956 W	M. McPherson (pers. comm. 2015)
Little Nahanni River (79)	62.17629° N, 128.6180° W	M. McPherson (pers. comm. 2015)

*number refers to map (Figure 17) reference no.

Appendix 18. Reported occurrences of Spoonhead Sculpin in the South Nahanni River watershed, NT.

Location*	Map coordinates	Reference
Flat River (1?)	61.95000° N, 128.23500° W	Sergy et al. (1977); Moore et al. (1978)

*number refers to map (Figure 18) reference no.
? = suspect occurrence.

Appendix 19. Reported occurrences of Walleye in the South Nahanni River watershed, NT.

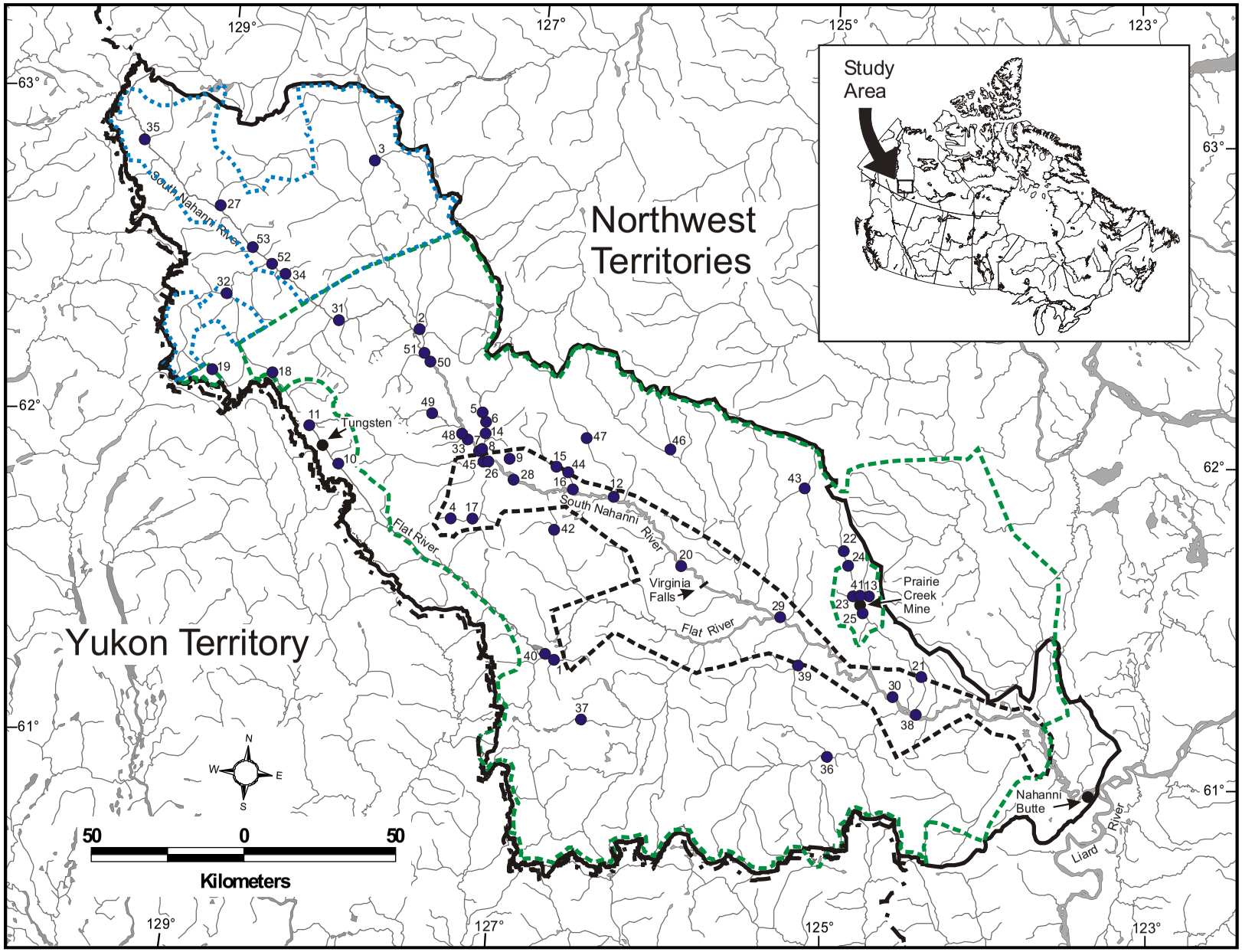
Location*	Map coordinates	Reference
McLeod Creek (1?)	61.38334° N, 126.6333° W	Scotter et al. (1971); DINA (1974a)
South Nahanni River (2)	61.03785° N, 123.5270° W	G. Tsetso (Nahanni Butte, NT, pers. comm. 2014)

*number refers to map (Figure 19) reference no.
? = suspect occurrence.

Appendix 20. Reported occurrences of fishes in the Nahanni North Karst region of South Nahanni National Park Reserve, NT.

Location*	Map coordinates	Species reported[1]	Reference
Ram River tributary (1)	61.91689° N, 124.5806° W	ARGR	E.B. Taylor (University of British Columbia, Vancouver, BC, pers. comm. 2014)
Sundog Creek (2)	61.57221° N, 124.5065° W	ARGR	E.B. Taylor (pers. comm. 2014)
Sundog Creek (3)	61.56813° N, 124.4956° W	ARGR	E.B. Taylor (pers. comm. 2014)
Sundog Creek (4)	61.56900° N, 124.4946° W	ARGR	E.B. Taylor (pers. comm. 2014)
Sundog Creek (5)	61.60637° N, 124.3429° W	ARGR	E.B. Taylor (pers. comm. 2014)
Sundog Creek tributary (6)	61.61858° N, 124.1131° W	ARGR	Beak Consultants Ltd. (1981b)
Tetcela River (7)	61.46239° N, 123.7389° W	ARGR, BURB, LKCB, LNDC, NRPK, SLSC	Beak Consultants Ltd. (1981b)

* number refers to map (Figure 20) reference no.
[1] see Table 1 for species codes.



Appendix 21. Map of the South Nahanni River watershed, NT showing DFO/Parks fish collection sites (numbered, blue dots), 2004-2007. Numbers indicate sites listed in Appendices 22-25. Watershed, park reserve, and territorial boundaries are indicated and are defined in Figure 1.

Appendix 22. Capture information and biological data for fish collected by DFO from the South Nahanni River watershed, NT, September, 2004.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, fresh)	Total length (mm, thawed)	Weight (g, fresh)	Sex[4]	Age (yr+)
1-Sep-04	41	Funeral Creek	61.60611° N, 124.8023° W	EF	BLTR	173		60		
1-Sep-04	41	Funeral Creek	61.60611° N, 124.8023° W	EF	BLTR	224		120		
1-Sep-04	41	Funeral Creek	61.60611° N, 124.8023° W	EF	BLTR	324		230		
1-Sep-04	41	Funeral Creek	61.60611° N, 124.8023° W	EF	BLTR	186		60		
1-Sep-04	41	Funeral Creek	61.60611° N, 124.8023° W	EF	BLTR	172		40		
1-Sep-04	39	Mary River tributary	61.38633° N, 125.1953° W	EF	BLTR	309		280	M	9
1-Sep-04	39	Mary River tributary	61.38633° N, 125.1953° W	EF	SLSC		73			
1-Sep-04	39	Mary River tributary	61.38633° N, 125.1953° W	EF	SLSC		106			
1-Sep-04	39	Mary River tributary	61.38633° N, 125.1953° W	EF	SLSC		81			
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	ARGR	241		200		
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	ARGR	284		260		
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	ARGR	218		110		
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	ARGR	200		90		
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	ARGR	66				
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	ARGR	56				
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	ARGR	62				
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	ARGR	63				
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	ARGR	60				
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	ARGR	60				
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	SLSC	43				
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	SLSC	44				
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	SLSC	46				
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	SLSC	47				
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	SLSC	47				
1-Sep-04	36	Meilleur River tributary	61.12794° N, 124.9908° W	EF	BLTR	259		180	M	6
2-Sep-04	43	Wrigley Creek	61.91836° N, 125.1860° W	EF	ARGR	63				
2-Sep-04	43	Wrigley Creek	61.91836° N, 125.1860° W	EF	ARGR	218		110		
2-Sep-04	43	Wrigley Creek	61.91836° N, 125.1860° W	EF	SLSC		56			
2-Sep-04	43	Wrigley Creek	61.91836° N, 125.1860° W	EF	SLSC		81			
2-Sep-04	43	Wrigley Creek	61.91836° N, 125.1860° W	EF	SLSC		84			
2-Sep-04	43	Wrigley Creek	61.91836° N, 125.1860° W	EF	BLTR	233		120		
2-Sep-04	43	Wrigley Creek	61.91836° N, 125.1860° W	EF	BLTR	226		110	F	5
2-Sep-04	46	Clearwater Creek	62.01322° N, 126.0644° W	EF	SLSC		65			
2-Sep-04	46	Clearwater Creek	62.01322° N, 126.0644° W	EF	ARGR	221		140		
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	BLTR	280		200	M	9
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	ARGR	68				

Appendix 22. continued.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, fresh)	Total length (mm, thawed)	Weight (g, fresh)	Sex[4]	Age (yr+)
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	ARGR	86				
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	ARGR	66				
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	ARGR	138				
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	ARGR	62				
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	ARGR	48				
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	ARGR	56				
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	ARGR	74				
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	ARGR	62				
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	ARGR	44				
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	ARGR	38				
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	SLSC		46			
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	SLSC		75			
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	SLSC		43			
2-Sep-04	40	Borden Creek	61.38902° N, 126.7601° W	EF	SLSC		20			
2-Sep-04	37	Canyon Creek	61.20077° N, 126.4887° W	EF	BLTR	193		70	F	4
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	63				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	63				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	111				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	108				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	47				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	58				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	52				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	52				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	63				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	48				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	58				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	62				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	53				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	63				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	71				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	58				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	61				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	77				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	66				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	67				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	66				

Appendix 22. continued.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, fresh)	Total length (mm, thawed)	Weight (g, fresh)	Sex[4]	Age (yr+)
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	64				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	66				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	56				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	56				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	59				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	63				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	54				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	61				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	61				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	54				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	58				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	52				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	63				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	48				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	52				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	64				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	53				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	ARGR	68				
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		88			
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		77			
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		77			
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		82			
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		83			
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		66			
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		67			
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		87			
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		72			
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		77			
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		64			
3-Sep-04	44	Hell Roaring Creek	61.93169° N, 126.6986° W	EF	SLSC		71			
3-Sep-04	47	Flood Creek tributary	62.02419° N, 126.5838° W	EF	ARGR	296		260		
3-Sep-04	47	Flood Creek tributary	62.02419° N, 126.5838° W	EF	ARGR	151		30		
3-Sep-04	47	Flood Creek tributary	62.02419° N, 126.5838° W	EF	ARGR	176		50		
3-Sep-04	42	Irvine Creek, upper	61.75447° N, 126.7463° W	EF	BURB		93			
3-Sep-04	42	Irvine Creek, upper	61.75447° N, 126.7463° W	EF	ARGR	58				
3-Sep-04	42	Irvine Creek, upper	61.75447° N, 126.7463° W	EF	ARGR	50				

Appendix 22. continued.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, fresh)	Total length (mm, thawed)	Weight (g, fresh)	Sex[4]	Age (yr+)
3-Sep-04	42	Irvine Creek, upper	61.75447° N, 126.7463° W	EF	ARGR	58				
3-Sep-04	42	Irvine Creek	61.75447° N, 126.7463° W	EF	ARGR	57				
3-Sep-04	42	Irvine Creek	61.75447° N, 126.7463° W	EF	ARGR	52				
3-Sep-04	42	Irvine Creek	61.75447° N, 126.7463° W	EF	ARGR	50				
3-Sep-04	42	Irvine Creek	61.75447° N, 126.7463° W	EF	ARGR	68				
3-Sep-04	42	Irvine Creek	61.75447° N, 126.7463° W	EF	ARGR	58				
3-Sep-04	42	Irvine Creek	61.75447° N, 126.7463° W	EF	BLTR	243		160	M	5
4-Sep-04	50	South Nahanni River	62.24430° N, 127.6126° W	EF	ARGR	240		160		
4-Sep-04	50	South Nahanni River	62.24430° N, 127.6126° W	EF	LKTR	460		1090		
4-Sep-04	48	Britnell Creek	62.05177° N, 127.3544° W	EF	LKTR	425		740		
4-Sep-04	48	Britnell Creek	62.05177° N, 127.3544° W	EF	LKTR	488		1220		
5-Sep-04	52	Little Nahanni River	62.48069° N, 128.6309° W	EF	LKTR	508		1460		
5-Sep-04	52	Little Nahanni River	62.48069° N, 128.6309° W	EF	LKTR	495		1350		
5-Sep-04	52	Little Nahanni River	62.48069° N, 128.6309° W	EF	LKTR	546		1690		
5-Sep-04	52	Little Nahanni River	62.48069° N, 128.6309° W	EF	LKTR	570		1910		
5-Sep-04	52	Little Nahanni River	62.48069° N, 128.6309° W	EF	LKTR	700		3080		
5-Sep-04	52	Little Nahanni River	62.48069° N, 128.6309° W	EF	LKTR	660		2800		
5-Sep-04	52	Little Nahanni River	62.48069° N, 128.6309° W	EF	ARGR	280		210		
5-Sep-04	52	Little Nahanni River	62.48069° N, 128.6309° W	EF	ARGR	316		310		
5-Sep-04	52	Little Nahanni River	62.48069° N, 128.6309° W	EF	ARGR	296		260		
5-Sep-04	53	South Nahanni River	62.52730° N, 128.7592° W	EF	LKTR	458		940		
5-Sep-04	53	South Nahanni River	62.52730° N, 128.7592° W	EF	ARGR	278		210		
5-Sep-04	53	South Nahanni River	62.52730° N, 128.7592° W	EF	ARGR	350		400		
5-Sep-04	51	Broken Skull River	62.26686° N, 127.6524° W	EF	ARGR	282		240		
5-Sep-04	49	Glacier Lake	62.08708° N, 127.5868° W	EF	ARGR	360		500		
5-Sep-04	45	Rabbitkettle Lake	61.95836° N, 127.2169° W	GN	LNSK					
5-Sep-04	45	Rabbitkettle Lake	61.95836° N, 127.2169° W	GN	LNSK					
5-Sep-04	45	Rabbitkettle Lake	61.95836° N, 127.2169° W	DN	LKCB					
5-Sep-04	45	Rabbitkettle Lake	61.95836° N, 127.2169° W	DN	LKCB					
6-Sep-04	12	South Nahanni River	61.86211° N, 126.3858° W	EF	LKTR	690		3340		
6-Sep-04	38	South Nahanni River	61.24788° N, 124.4465° W	EF	ARGR	320		400		

[1] corresponds to locations shown in Appendix 21.
[2] EF = electrofisher; GN = gillnet; DN = dip net.
[3] see Table 1.
[4] M = male; F = female.

Appendix 23. Capture information and biological data for fish collected by DFO from the South Nahanni River watershed, NT, August, 2005.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, thawed)	Total length (mm, thawed)	Weight (g, thawed)	Sex[4]	Age (yr+)
21-Aug-05	13	Funeral Creek	61.60942° N, 124.7344° W	AN	BLTR	312		342	M	7
21-Aug-05	13	Funeral Creek	61.60942° N, 124.7344° W	EF	BLTR	221		126	M	6
21-Aug-05	13	Funeral Creek	61.60942° N, 124.7344° W	EF	BLTR	324		369	F	10
21-Aug-05	13	Funeral Creek	61.60942° N, 124.7344° W	EF	BLTR	138		31	F	3
21-Aug-05	13	Funeral Creek	61.60942° N, 124.7344° W	EF	BLTR	109		13	F	2
21-Aug-05	13	Funeral Creek	61.60942° N, 124.7344° W	EF	BLTR	105		12	M	2
21-Aug-05	13	Funeral Creek	61.60942° N, 124.7344° W	EF	BLTR	104		11	M	2
21-Aug-05	13	Funeral Creek	61.60942° N, 124.7344° W	EF	BLTR	77		4.3	M	1
21-Aug-05	13	Funeral Creek	61.60942° N, 124.7344° W	EF	BLTR	37		0.5		0
21-Aug-05	13	Funeral Creek	61.60942° N, 124.7344° W	EF	BLTR	40		0.5		0
21-Aug-05	23	Prairie Creek	61.60474° N, 124.8366° W	EF	BLTR	163		44	M	5
21-Aug-05	22	Prairie Creek	61.60502° N, 124.8355° W	EF	BLTR	97		9.0	F	2
22-Aug-05	22	Prairie Creek	61.74757° N, 124.9408° W	AN	BLTR	290		256	F	7
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		72	3.7	M	6
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		81	6.4	F	8
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		74	4.4	F	7
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		77	4.4	M	8
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		65	3.2	F	4
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		61	2.9	M	5
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		51	1.4	M	2
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		36	0.4		1
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		52	1.2	M	2
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		62	2.3	M	4
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		68	3.5		6
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		84	6.5	M	7
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		69	3.3	M	3
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		53	1.5		
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		54	1.4		2
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		38	0.4		1
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		35	0.4		1
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		36	0.3		1
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		30	0.2		1
22-Aug-05	24	Prairie Creek	61.70179° N, 124.9066° W	EF	SLSC		35	0.4		1
22-Aug-05	25	Prairie Creek	61.54499° N, 124.7796° W	EF	SLSC		77	4.4	M	5
22-Aug-05	25	Prairie Creek	61.54499° N, 124.7796° W	EF	SLSC		73	3.6	M	5
22-Aug-05	25	Prairie Creek	61.54499° N, 124.7796° W	EF	SLSC		79	4.4	F	6
22-Aug-05	25	Prairie Creek	61.54499° N, 124.7796° W	EF	SLSC		84	5.7	M	6

Appendix 23. continued.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, thawed)	Total length (mm, thawed)	Weight (g, thawed)	Sex[4]	Age (yr+)
22-Aug-05	25	Prairie Creek	61.54499° N, 124.7796° W	EF	SLSC		90	5.2	F	6
22-Aug-05	25	Prairie Creek	61.54499° N, 124.7796° W	EF	SLSC		71	3.7	F	7
22-Aug-05	25	Prairie Creek	61.54499° N, 124.7796° W	EF	SLSC		79	4.2	F	8
22-Aug-05	25	Prairie Creek	61.54499° N, 124.7796° W	EF	SLSC		78	3.4	M	7
22-Aug-05	25	Prairie Creek	61.54499° N, 124.7796° W	EF	SLSC		64	2.6		4
22-Aug-05	25	Prairie Creek	61.54499° N, 124.7796° W	EF	SLSC		73	4.2	M	7
22-Aug-05	25	Prairie Creek	61.54547° N, 124.7810° W	EF	SLSC		63	2.3	F	5
22-Aug-05	25	Prairie Creek	61.54547° N, 124.7810° W	EF	SLSC		62	2.6	F	6
22-Aug-05	25	Prairie Creek	61.54547° N, 124.7810° W	EF	SLSC		55	1.7	F	3
22-Aug-05	25	Prairie Creek	61.54547° N, 124.7810° W	EF	SLSC		59	2.0		3
22-Aug-05	25	Prairie Creek	61.54547° N, 124.7810° W	EF	SLSC		48	0.8	M	2
22-Aug-05	25	Prairie Creek	61.54547° N, 124.7810° W	EF	SLSC		42	0.8	F	2
22-Aug-05	25	Prairie Creek	61.54547° N, 124.7810° W	EF	SLSC		49	0.9	M	2
22-Aug-05	25	Prairie Creek	61.54547° N, 124.7810° W	EF	SLSC		45	0.9	F	2
22-Aug-05	25	Prairie Creek	61.54547° N, 124.7810° W	EF	SLSC		36	0.4		1
22-Aug-05	25	Prairie Creek	61.54547° N, 124.7810° W	EF	SLSC		37	0.4		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	BLTR	167		53	F	2
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	RDWF	48				0
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	RDWF	49				0
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		75	4.7	F	4
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		95	8.3	F	6
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC			4.1	F	5
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		61	2.0	M	3
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		56	1.6	M	2
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		39	0.5		2
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		59	2.1	F	2
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		51	1.3	F	2
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		43	0.7		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		38	0.5		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		42	0.7		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		39	0.6		2
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		49	1.1	M	2
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		40	0.6		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		38	0.5		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		44	0.8		2
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		58	1.9		3
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		43	0.8		1

Appendix 23. continued.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, thawed)	Total length (mm, thawed)	Weight (g, thawed)	Sex[4]	Age (yr+)
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		44	1.0		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		39	0.7		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		37	0.5		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		36	0.4		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		40	0.6		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		43	0.7		1
23-Aug-05	11	Flat River	62.01921° N, 128.3027° W	EF	SLSC		41	0.8		1
24-Aug-05	4	Cathedral Lake	61.77629° N, 127.3660° W	AN	LKTR	403				
24-Aug-05	10	Flat River	61.90736° N, 128.0988° W	EF	ARGR	114		18	F	1
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	ARGR	45		0.6		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	ARGR	45		0.4		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	ARGR	56		1.2		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	ARGR	57		1.1		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	ARGR	52				0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	ARGR	39				0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	ARGR					
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	103		14	M	1
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	85		7.0	M	1
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	83		6.6	M	1
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	54		1.7		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	53		1.7		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	50		1.3		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	46		1.0		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	41		0.8		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	38		0.4		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	40		0.7		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	35		0.3		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR					0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	39		0.5		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	40		0.3		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	42		0.5		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR			0.6		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	48		0.7		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	42		0.4		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	44		0.5		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR			0.4		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	39		0.4		0

Appendix 23. continued.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, thawed)	Total length (mm, thawed)	Weight (g, thawed)	Sex[4]	Age (yr+)
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	55		1.1		1
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	49		0.6		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	47		0.8		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	46		0.7		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	40		0.4		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	BLTR	44		0.6		0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	RDWF	52				0
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		58	2.1		2
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		60	2.4		4
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		54	1.9		3
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		34	0.4		1
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		35	0.6		1
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		51	1.9		2
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		65	3.2		3
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		79	5.1	F	5
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		90	7.8	M	4
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		59	2.3		2
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		98	10	H	6
24-Aug-05	10	Flat River	61.90738° N, 128.0988° W	EF	SLSC		105	12	M	7
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	ARGR	108		14	M	2
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	ARGR	101		9.8	F	1
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	ARGR	92		7.5	M	1
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	ARGR	108		13	M	2
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	ARGR	102		11	M	1
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	ARGR	47		0.8		0
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	ARGR	39		0.6		0
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	60		1.8	F	5
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	60		2.2	F	5
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	61		1.9	F	2
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	69		3.1	M	5
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	62		1.7	M	2
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	80		5.2	M	6
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	69		3.1	F	9
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	69		2.6	M	4
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	82		5.0	M	7
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	81		5.1	M	8
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	79		4.5	M	7

Appendix 23. continued.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, thawed)	Total length (mm, thawed)	Weight (g, thawed)	Sex[4]	Age (yr+)
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	80		5.5	M	5
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	75		4.3	M	5
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	70		3.5	M	8
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC			1.4		2
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	65		2.8	F	5
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	62		2.1	F	4
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	77		5.1	M	4
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	58		1.8	F	4
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	68		3.2	M	7
25-Aug-05	3	Broken Skull River	62.80875° N, 128.0268° W	EF	SLSC	15		0.1		0
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	41		0.8		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	57		2.2		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	62		3.2		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	54		2.0		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	60		2.8		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	52		1.8		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	58		2.6		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	77		8.1		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	75		6.1		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	57		2.7		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	71		4.8		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	54		2.1		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	40		1.0		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	80		7.7		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	53		1.9		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	55		2.0		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	57		2.6		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	89		10		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	55		2.1		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	41		0.8		
25-Aug-05	26	Rabbitkettle Lake	61.95000° N, 127.2167° W	DN	LKCB	46		1.2		
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	ARGR	98		12	F	1
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	SLSC		102	14	F	
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	SLSC		75	4.8	M	
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	SLSC		87	9.4	M	
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	SLSC		89	11	M	
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	SLSC		78	5.5	F	

Appendix 23. continued.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, thawed)	Total length (mm, thawed)	Weight (g, thawed)	Sex[4]	Age (yr+)
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	SLSC		71	5.2	M	
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	SLSC		79	5.8	F	
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	SLSC		104	12	F	
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	SLSC		79	6.1	F	
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	SLSC		90	9.5	F	
26-Aug-05	33	South Nahanni River tributary	62.02301° N, 127.3291° W	EF	SLSC		93	11	F	
26-Aug-05	34	South Nahanni River tributary	62.45175° N, 128.5427° W	EF	ARGR		85	6.0	F	1
26-Aug-05	34	South Nahanni River tributary	62.45175° N, 128.5427° W	EF	SLSC		86	11	M	
27-Aug-05	17	Hole In The Wall Lake	61.78323° N, 127.2483° W	AN	LKTR	337		508	F	11
27-Aug-05	18	Little Nahanni River	62.15583° N, 128.5601° W	EF	ARGR	96		9.3	F	1
27-Aug-05	18	Little Nahanni River	62.15583° N, 128.5601° W	EF	ARGR	88		7.3	F	1
27-Aug-05	18	Little Nahanni River	62.15583° N, 128.5601° W	EF	ARGR	54		1.5		0
27-Aug-05	18	Little Nahanni River	62.15583° N, 128.5601° W	EF	ARGR	46		0.9		0
27-Aug-05	18	Little Nahanni River	62.15583° N, 128.5601° W	EF	SLSC		59	1.0	F	4
27-Aug-05	18	Little Nahanni River	62.15583° N, 128.5601° W	EF	SLSC		75	3.1	F	4
27-Aug-05	18	Little Nahanni River	62.15583° N, 128.5601° W	EF	SLSC		84	7.3	F	5
27-Aug-05	18	Little Nahanni River	62.15583° N, 128.5601° W	EF	SLSC		71	3.8		4

[1] corresponds to locations shown in Appendix 21.
[2] EF = electrofisher; AN = angling; DN = dip net.
[3] see Table 1.
[4] M = male; F = female; H = hermaphrodite.

Appendix 24. Capture information and biological data for fish collected by DFO from the South Nahanni River watershed, NT, August, 2006.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, fresh)	Total length (mm, thawed)	Weight (g, fresh)	Sex[4]	Age (yr+)	Comments
24-Aug-06	21	Prairie Creek	61.36413° N, 124.4362° W	AN	BLTR	293					Tag A05301
24-Aug-06	21	Prairie Creek	61.36413° N, 124.4362° W	AN	BLTR	304					Tag A05302
24-Aug-06	21	Prairie Creek	61.36413° N, 124.4362° W	AN	ARGR	370					
25-Aug-06	1	Bennett Creek	61.38098° N, 126.6969° W	AN	BLTR	344					Tag A05303
25-Aug-06	20	Osprey Creek	61.68008° N, 125.9579° W	KN	SLSC						
26-Aug-06	9	First Secret Lake	61.97223° N, 127.0441° W	GN	LKTR	357		474	M	14	
26-Aug-06	9	First Secret Lake	61.97223° N, 127.0441° W	GN	LKTR	375		497	F	12	
26-Aug-06	9	First Secret Lake	61.97223° N, 127.0441° W	GN	LKTR	378		559	M	21	
26-Aug-06	9	First Secret Lake	61.97223° N, 127.0441° W	GN	LKTR	546					
27-Aug-06	7	Dolf Mountain Creek	61.97722° N, 127.2372° W	AN	ARGR						
27-Aug-06	7	Dolf Mountain Creek	61.97722° N, 127.2372° W	DN	SLSC						
27-Aug-06	7	Dolf Mountain Creek	61.97722° N, 127.2372° W	EF	ARGR						
27-Aug-06	7	Dolf Mountain Creek	61.97722° N, 127.2372° W	EF	ARGR						
27-Aug-06	7	Dolf Mountain Creek	61.97722° N, 127.2372° W	EF	LKCB						
27-Aug-06	7	Dolf Mountain Creek	61.97722° N, 127.2372° W	EF	LKCB						
27-Aug-06	7	Dolf Mountain Creek	61.97722° N, 127.2372° W	EF	LKCB						
27-Aug-06	7	Dolf Mountain Creek	61.97722° N, 127.2372° W	EF	LKCB						
27-Aug-06	7	Dolf Mountain Creek	61.97721° N, 127.2372° W	EF	LKCB						
27-Aug-06	7	Dolf Mountain Creek	61.97721° N, 127.2372° W	EF	LKCB						
27-Aug-06	7	Dolf Mountain Creek	61.97721° N, 127.2372° W	EF	LKCB						
27-Aug-06	7	Dolf Mountain Creek	61.97721° N, 127.2372° W	EF	SLSC						
27-Aug-06	7	Dolf Mountain Creek	61.97721° N, 127.2372° W	EF	SLSC						
27-Aug-06	7	Dolf Mountain Creek	61.97721° N, 127.2372° W	EF	SLSC						
27-Aug-06	7	Dolf Mountain Creek	61.97721° N, 127.2372° W	EF	SLSC						
27-Aug-06	7	Dolf Mountain Creek	61.97721° N, 127.2372° W	EF	SLSC						
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	AN	ARGR						
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	AN	ARGR						
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	AN	ARGR						
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	AN	ARGR						
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	EF	ARGR						
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	EF	ARGR						
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	EF	SLSC		90	5.6	M		
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	EF	SLSC		75	3.4	M		
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	EF	SLSC						
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	EF	SLSC						
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	EF	SLSC						

Appendix 24. continued.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, fresh)	Total length (mm, thawed)	Weight (g, fresh)	Sex[4]	Age (yr+)	Comments
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	EF	SLSC						
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	EF	SLSC						
27-Aug-06	14	Dolf Mountain Creek	62.03415° N, 127.2107° W	EF	SLSC						
27-Aug-06	15	Hell Roaring Creek	61.94741° N, 126.7164° W	EF	ARGR						
27-Aug-06	15	Hell Roaring Creek	61.94741° N, 126.7164° W	EF	ARGR						
27-Aug-06	15	Hell Roaring Creek	61.94741° N, 126.7164° W	EF	ARGR						
27-Aug-06	15	Hell Roaring Creek	61.94741° N, 126.7164° W	EF	ARGR						
27-Aug-06	15	Hell Roaring Creek	61.94741° N, 126.7164° W	EF	ARGR						
27-Aug-06	15	Hell Roaring Creek	61.94741° N, 126.7164° W	EF	ARGR						
27-Aug-06	15	Hell Roaring Creek	61.94741° N, 126.7164° W	EF	ARGR						
27-Aug-06	15	Hell Roaring Creek	61.94741° N, 126.7164° W	EF	ARGR						
27-Aug-06	15	Hell Roaring Creek	61.94741° N, 126.7164° W	EF	ARGR						
27-Aug-06	15	Hell Roaring Creek	61.94741° N, 126.7164° W	EF	ARGR						
27-Aug-06	16	Hell Roaring Creek	61.87344° N, 126.6294° W	AN	LKTR						
28-Aug-06	10	Flat River	61.90736° N, 128.0979° W	EF	BLTR						
28-Aug-06	10	Flat River	61.90736° N, 128.0979° W	EF	BLTR						
28-Aug-06	10	Flat River	61.90736° N, 128.0979° W	EF	BLTR						
28-Aug-06	10	Flat River	61.90736° N, 128.0979° W	EF	BLTR						
28-Aug-06	10	Flat River	61.90736° N, 128.0979° W	EF	BLTR						
28-Aug-06	10	Flat River	61.90736° N, 128.0979° W	EF	ARGR						
28-Aug-06	10	Flat River	61.90736° N, 128.0979° W	EF	RDWF	82		6.7			
28-Aug-06	10	Flat River	61.90736° N, 128.0979° W	EF	SLSC		84	5.1	M		
28-Aug-06	10	Flat River	61.90736° N, 128.0979° W	EF	SLSC		88	6.5	M		
28-Aug-06	10	Flat River	61.90736° N, 128.0979° W	EF	SLSC		98	9.4	M		
28-Aug-06	10	Flat River	61.90736° N, 128.0979° W	EF	SLSC		85	6.2	M		
28-Aug-06	19	Mac Creek	62.15548° N, 128.9421° W	EF	SLSC		81	4.9	M		
28-Aug-06	19	Mac Creek	62.15548° N, 128.9421° W	EF	SLSC						
28-Aug-06	19	Mac Creek	62.15548° N, 128.9421° W	EF	SLSC						
28-Aug-06	19	Mac Creek	62.15548° N, 128.9421° W	EF	SLSC						
28-Aug-06	19	Mac Creek	62.15548° N, 128.9421° W	EF	SLSC						
28-Aug-06	32	Steel Creek	62.38477° N, 128.9151° W	EF	SLSC		72	3.3	M		
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC		67	3.2	M		
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC						
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC						
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC						
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC						

Appendix 24. continued.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, fresh)	Total length (mm, thawed)	Weight (g, fresh)	Sex[4]	Age (yr+)	Comments
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC						
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC						
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC						
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC						
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC						
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC						
29-Aug-06	2	Black Wolf Creek	62.30816° N, 127.6487° W	EF	SLSC						
29-Aug-06	27	Sapper River	62.63106° N, 129.0029° W	EF	ARGR						
29-Aug-06	27	Sapper River	62.63106° N, 129.0029° W	EF	ARGR						
29-Aug-06	27	Sapper River	62.63106° N, 129.0029° W	EF	SLSC						
29-Aug-06	27	Sapper River	62.63106° N, 129.0029° W	EF	BURB						
29-Aug-06	35	South Nahanni R. tributary	62.80811° N, 129.5156° W	EF	ARGR						
29-Aug-06	35	South Nahanni R. tributary	62.80811° N, 129.5156° W	EF	SLSC		73	3.8	M		
05-Sep-06	29	South Nahanni River	61.52778° N, 125.2758° W	AN	BLTR						
07-Sep-06	30	South Nahanni River	61.31080° N, 124.5893° W	AN	BLTR						

[1] corresponds to locations shown in Appendix 21.
[2] EF = electrofisher; AN = angling; GN = gillnet; DN = dip net.
[3] see Table 1.
[4] M = male; F = female.

Appendix 25. Capture information and biological data for fish collected by DFO from the South Nahanni River watershed, NT, August, 2007.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, fresh)	Total length (mm, thawed)	Weight (g, fresh)	Sex[4]	Age (yr+)
21-Aug-07	5	Dolf Mountain Creek	62.08793° N, 127.2331° W	EF	SLSC					
21-Aug-07	5	Dolf Mountain Creek	62.08793° N, 127.2331° W	EF	SLSC					
21-Aug-07	5	Dolf Mountain Creek	62.08793° N, 127.2331° W	EF	ARGR					
21-Aug-07	5	Dolf Mountain Creek	62.08793° N, 127.2331° W	EF	SLSC					
21-Aug-07	5	Dolf Mountain Creek	62.08793° N, 127.2331° W	EF	SLSC					
22-Aug-07	31	South Nahanni River	62.33810° N, 128.1779° W	EF	SLSC					
22-Aug-07	31	South Nahanni River	62.33810° N, 128.1779° W	EF	SLSC					
22-Aug-07	31	South Nahanni River	62.33810° N, 128.1779° W	EF	SLSC					
23-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
23-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
23-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
23-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
23-Aug-07	28	South Nahanni River	61.89867° N, 126.9881° W	GN	LKTR	672		3136	M	30
24-Aug-07	5	Dolf Mountain Creek	62.08793° N, 127.2331° W	EF	SLSC					
24-Aug-07	5	Dolf Mountain Creek	62.08793° N, 127.2331° W	EF	SLSC					
24-Aug-07	5	Dolf Mountain Creek	62.08793° N, 127.2331° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	ARGR					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					

Appendix 25. continued.

Date	Site ID[1]	Location	Map coordinates	Gear type[2]	Species code[3]	Fork length (mm, fresh)	Total length (mm, thawed)	Weight (g, fresh)	Sex[4]	Age (yr+)
24-Aug-07	6	Dolf Mountain Creek	62.07138° N, 127.2224° W	EF	SLSC					
24-Aug-07	8	South Nahanni River	61.97587° N, 127.2398° W	GN	LKTR	330		365	M	7
24-Aug-07	12	South Nahanni River	61.86203° N, 126.3884° W	EF	SLSC					
24-Aug-07	12	South Nahanni River	61.86203° N, 126.3884° W	EF	SLSC					
24-Aug-07	12	South Nahanni River	61.86203° N, 126.3884° W	EF	SLSC					
24-Aug-07	12	South Nahanni River	61.86203° N, 126.3884° W	EF	SLSC					
24-Aug-07	12	South Nahanni River	61.86203° N, 126.3884° W	EF	SLSC					
24-Aug-07	12	South Nahanni River	61.86203° N, 126.3884° W	EF	SLSC					
24-Aug-07	16	South Nahanni River	61.87319° N, 126.6292° W	SH	LKTR	629		2655	F	20
24-Aug-07	16	South Nahanni River	61.87319° N, 126.6292° W	SH	LKTR	659		3158	M	22
25-Aug-07	8	South Nahanni River	61.97587° N, 127.2398° W	SL	LKTR	440		857	F	8
25-Aug-07	8	South Nahanni River	61.97587° N, 127.2398° W	SL	LKTR	675		3025	M	
25-Aug-07	8	South Nahanni River	61.97587° N, 127.2398° W	SH	LKTR	565		1837	M	15
25-Aug-07	8	South Nahanni River	61.97587° N, 127.2398° W	SH	LKTR					
25-Aug-07	12	South Nahanni River	61.86203° N, 126.3884° W	GN	LKTR	560		1938	M	13
25-Aug-07	12	South Nahanni River	61.86203° N, 126.3884° W	SH	LKTR	520		1474	F	15
25-Aug-07	12	South Nahanni River	61.86203° N, 126.3884° W	SH	BURB		448	519	M	9
25-Aug-07	12	South Nahanni River	61.86203° N, 126.3884° W	SH	BURB		550	813	M	10
25-Aug-07	16	South Nahanni River	61.87319° N, 126.6292° W	SH	LKTR	585		2087	M	16
25-Aug-07	16	South Nahanni River	61.87319° N, 126.6292° W	SH	LKTR	483		1193	M	13
25-Aug-07	16	South Nahanni River	61.87319° N, 126.6292° W	SH	LKTR	735		4045	M	27
25-Aug-07	16	South Nahanni River	61.87319° N, 126.6292° W	SH	LKTR	531		1532	F	15
25-Aug-07	16	South Nahanni River	61.87319° N, 126.6292° W	SH	LKTR	678		3227	M	21
25-Aug-07	16	South Nahanni River	61.87319° N, 126.6292° W	SH	LKTR					

[1] corresponds to locations shown in Appendix 21.
[2] EF = electrofisher; GN = gillnet; SH = baited, single set hook; SL = baited set line.
[3] see Table 1.
[4] M = male; F = female.