

STATUS AND DISTRIBUTION OF THE COEUR D' ALENE SALAMANDER
(PLETHODON VANDYKEI IDAHOENSIS) IN IDAHO - PART II

BY

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February 1989

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IDAHO NATURAL HERITAGE PROGRAM

Cooperative Challenge Cost Share Project
Idaho Panhandle National Forest
Idaho Department of Fish and Game

Purchase Order No. 53-0281-8-54



INTRODUCTION

In 1987 the Natural Heritage Program conducted a status survey of the Coeur d'Alene salamander (Plethodon vandykei idahoensis in northern Idaho (Groves 1988). Prior to that survey the species had been reported from 29 localities in northern Idaho, of which at least 8 were no longer extant. The 1987 survey resulted in the discovery of 30 new sites, primarily in the North Fork Clearwater and St. Joe River drainages. Coeur d'Alene salamanders were found to occur in three different habitats: spring seepages, spray zones of waterfalls, and edges of streams.

Although a few new populations were located in the Coeur d'Alene drainage in the 1987 survey, more extensive surveys were needed in this drainage as well as the Pend Oreille and Kootenai River drainages. The purpose of this report is to summarize the surveys conducted in these Panhandle drainages during 1988.

METHODS

Surveys were conducted from September 29 through October 3, 1988. Due to the limited budget and time for these 1988 surveys, I tried to survey as many streams, waterfalls, and seepages as possible during this time. For details on the methods of these surveys see Groves (1988).

RESULTS AND DISCUSSION

Table 1 lists those areas on the Kaniksu National Forest, Coeur d'Alene National Forest, and private/state lands which were surveyed for Coeur d'Alene salamanders in 1988. Appendix 1 provides more detailed maps on these survey areas.

Only two new populations of Coeur d'Alene salamanders were located during 1988 (see Appendix 1 and Figure 1 for mapped locations). The first site, located at approximately the intersection of Frezkat Creek and the Callahan Creek Rd. (T59N R3E S22) on the Kootenai National Forest, was discovered by Al Wilson during his 1988 survey for Coeur d'Alene salamanders in Montana (Wilson and Simon 1988). I discovered the second site on Shoshone Creek (T51N R4E S20), a tributary of the upper Coeur d'Alene River on the Coeur d'Alene National Forest.

The Frezkat Creek site is a lightly flowing seepage on an east-facing roadcut 30 m west of the Frezcat Creek/Callahan Creek Rd. intersection. Wilson and Simon (1988) discovered this site on 14 May 1988 and found six salamanders. When I visited the site on October 1, it was completely dry and no salamanders could be located. I searched unsuccessfully for salamanders along both the South and North Forks of Callahan Creek at several sites.

The Shoshone Creek site is also a lightly flowing seepage located on a west-facing roadcut 1.7 mi above Dam Creek on the Shoshone Creek Rd. I found two animals in the rubble at the base of the seep.

Although my searches at Lake Cocollala, Spirit Lake, and Twin Lakes were unsuccessful, there was some potential habitat at Spirit Lake. There were south-facing fractured rock faces adjacent to the paved road on the north side of Spirit Lake which need further surveying. Although there were no obvious seeps in September 1988, spring searches here could prove fruitful.

During the 1987 surveys I was unable to confirm whether the historic populations at Wolf Lodge Bay and Beauty Creek remained extant (Groves 1988). Wilson (pers. comm.) visited these sites during spring 1988 and confirmed salamanders are still present. Coupled with the two new sites from 1988, the total number of extant sites for Coeur d'Alene salamanders in northern Idaho is now 50. The breakdown of these sites by watersheds is as follows: 3 - Selway/Lochsa drainage, 24 - North Fork Clearwater drainage, 13 - St. Joe drainage, 8 - Coeur d'Alene drainage, 1 - Kootenai drainage, and 1 - Moyie drainage.

Surveys in 1987 and 1988 indicate that the St. Joe River, North Fork Clearwater River, and Coeur d'Alene watersheds form the core of the Coeur d'Alene salamander's distribution in Idaho (Figure 1). In the northern part of its range in Idaho (Cabinet and Purcell Mountains - see Appendix 1), the lack of fractured rock types is probably the major factor in limiting the species' distribution, although Pleistocene glaciation, as well as climatic differences may also be important. Although the Coeur d'Alene salamander does not appear to be abundant in the northern

parts of its range, the droughts of 1987 and 1988 along with the timing of the 1988 survey (i.e., a dry autumn), undoubtedly resulted in some populations in these areas going undetected.

Besides locating new populations and gaining a better insight into the population status and distribution of this species, these surveys have revealed the importance of time of year and time of day in successful searches. First, many seepages which may contain salamanders in spring when the salamanders first emerge are dry by autumn, particularly in a drought year. Thus, surveys in September or October may not detect many seepage populations. Such was the case at Wolf Lodge Bay and Beauty Creek in 1987 and Frezcat Creek in 1988. Conversely, salamanders can rarely be detected along streams in spring due to high flows; autumn is the best time to search the streamside habitat. Second, as a generality, it is much more difficult to locate salamanders at a seepage or waterfall during the day as opposed to night. Probably the best technique is to place some type of marker at potential sites during the day, and then visit these sites at night to search for salamanders. Ideally, surveys should be conducted at seeps and falls during spring and along streams in autumn.

RECOMMENDATIONS

A management plan for the Coeur d'Alene salamander needs to be developed for those populations occurring on national forest lands. Because over 80 % of the known populations in Idaho occur on national forest lands, the conservation of these populations is obviously paramount to the conservation of the species. Logging and road-widening projects probably represent the greatest threats to these populations. The management plan should establish some sort of hierarchical protection plan for the highest quality sites (e.g. Quartz Creek, Lochsa River, Elk Creek Falls - see Groves 1988) and implement a long-term monitoring plan to insure the viability of this northern Idaho/western Montana endemic. Such a plan would best be prepared in conjunction with the Montana Natural Heritage Program and national forests in western Montana. If a suitable management plan can be prepared to insure conservation of the species, then it could be de-listed from its Sensitive Species status on the St. Joe, Coeur d'Alene, and Clearwater National Forests. However, due to its rarity on the Kaniksu National Forest, it should probably remain a Sensitive Species there.

LITERATURE CITED

Groves, C. 1988. Status and distribution of the Coeur d'Alene salamander (Plethodon vandykei idahoensis) in Idaho. Unpublished Nongame Report to U.S. Forest Service, Idaho Department of Fish and Game. 39pp.

Wilson, A.G. and E. M. Simon. 1988. Supplementary report on the status of the Coeur d'Alene salamander (Plethodon vandykei idahoensis) in Montana. Unpublished report to the Montana Natural Heritage Program. 63pp.

Table 1. List of areas surveyed for Coeur d'Alene salamanders in 1988 survey.

Kaniksu/Kootenai National Forests

Perkins Lake
Solomon lake
Deer Creek Rd.
West Branch Deer Creek Rd.
Moyie River Rd.
Boulder Creek Rd.
Raymond Creek Rd.
Callahan Creek Rd.
Char Falls
Halverson/Rattle Creek Rd.
Johnson Creek Falls

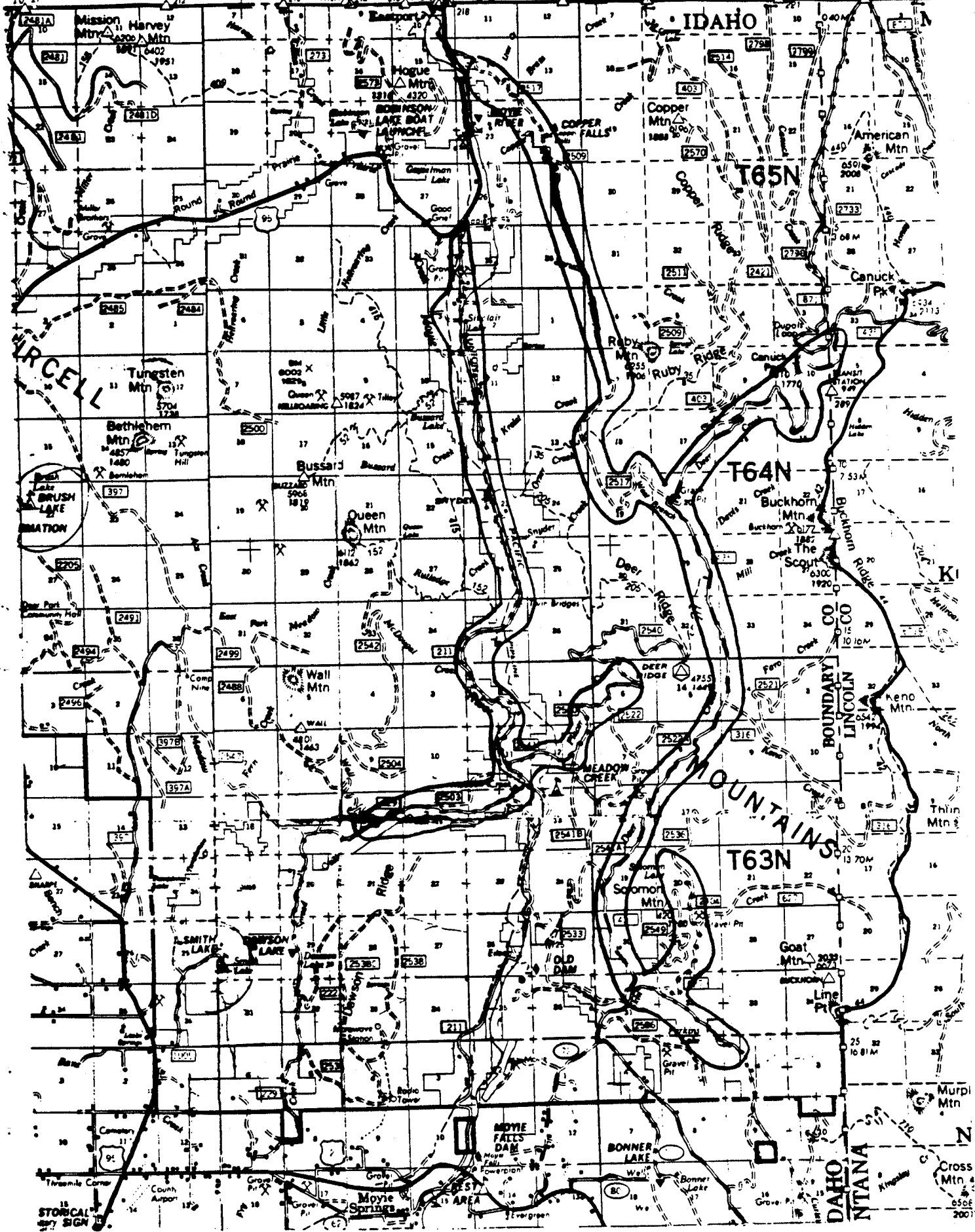
Coeur d'Alene National Forest

Shoshone Creek Rd.
East Fork Eagle Creek Rd.
Yellow Dog Creek/Fern Falls
Coeur d'Alene River Rd.
Lake Coeur d'Alene Rd. (Beauty Bay to Harrison)

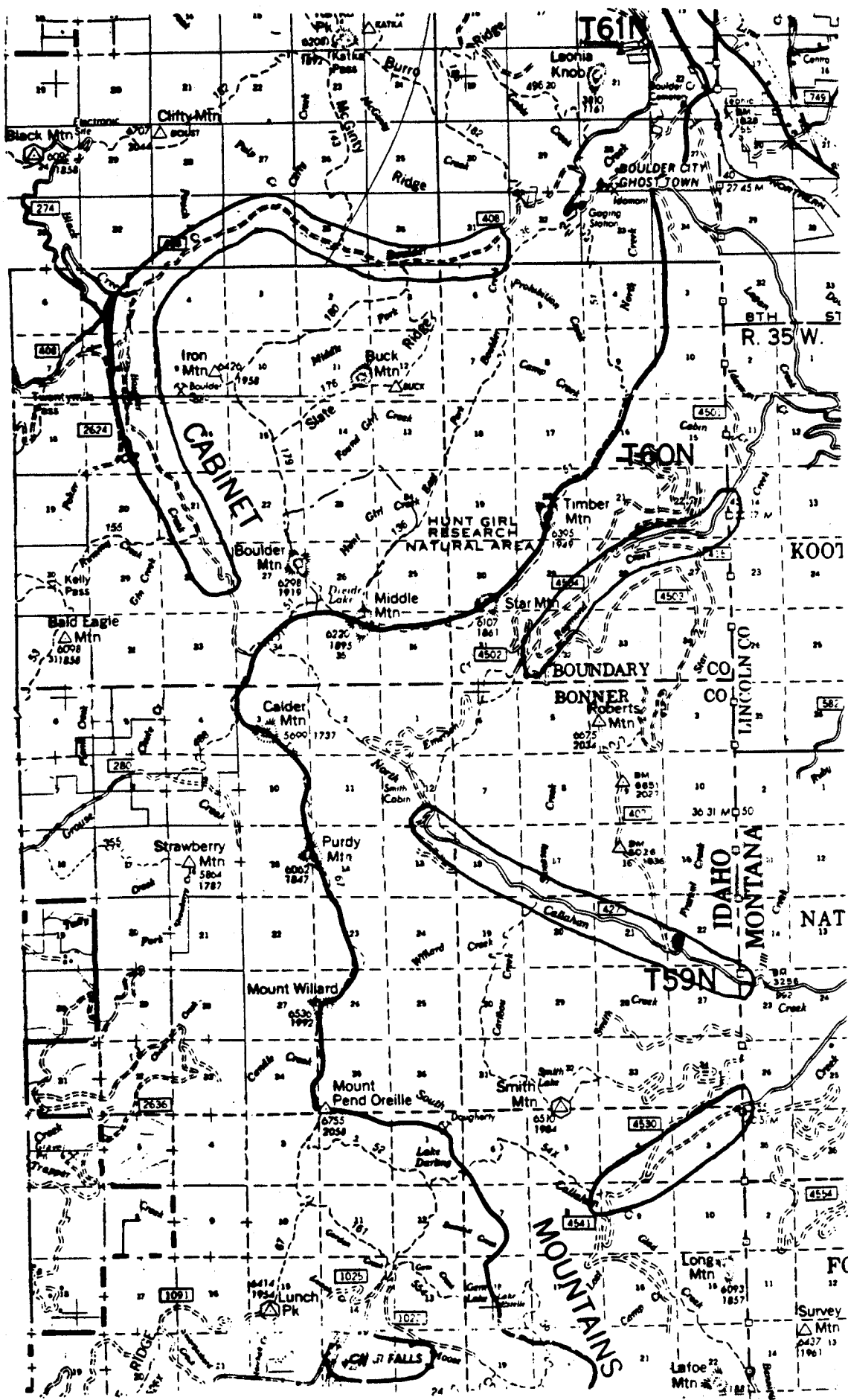
State/Private

Cocolalla Lake
Spirit Lake
Twin Lakes

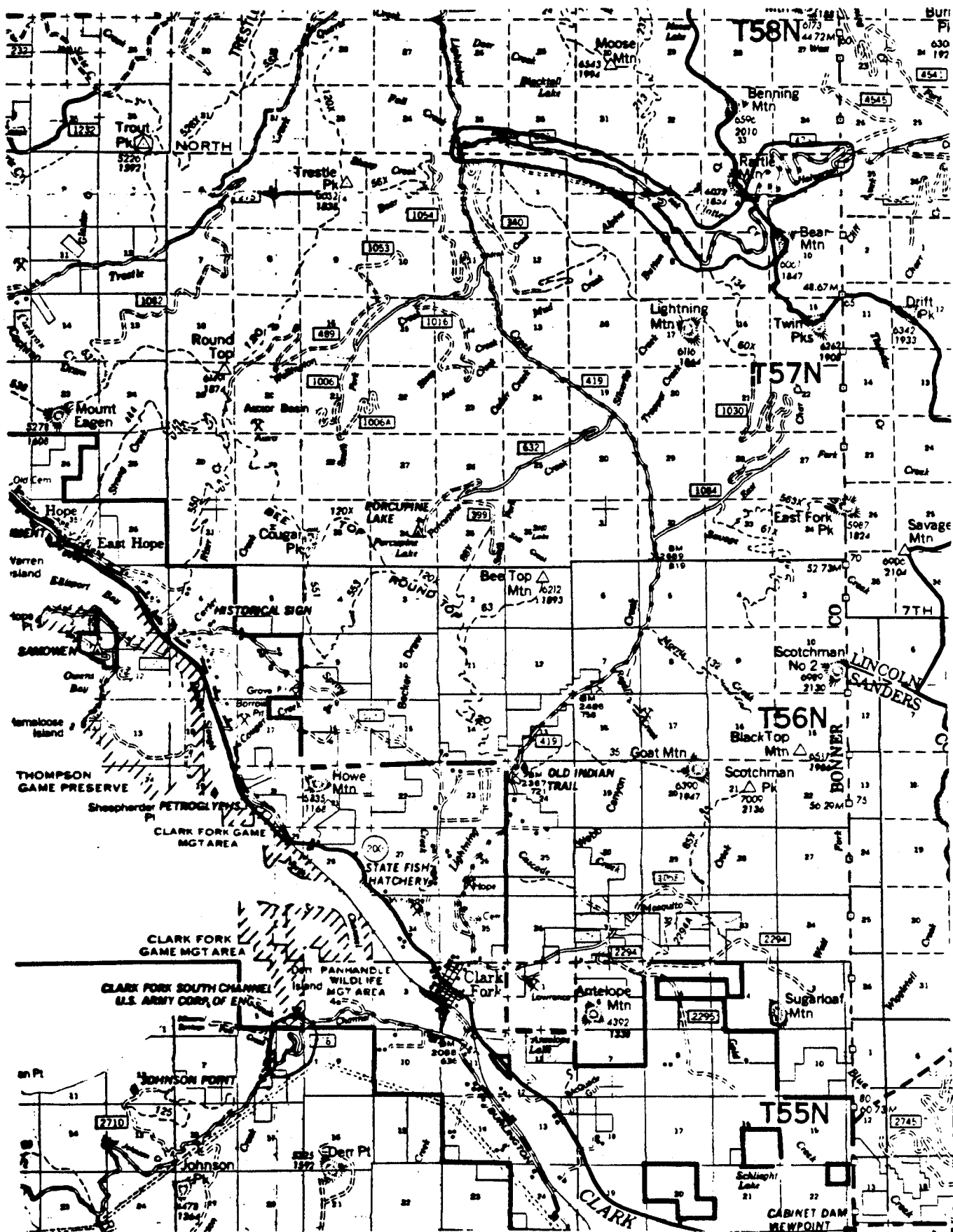
APPENDIX 1
MAPS OF SURVEY SITES



PURCELL MOUNTAINS (MOYIE RIVER) SURVEY SITES

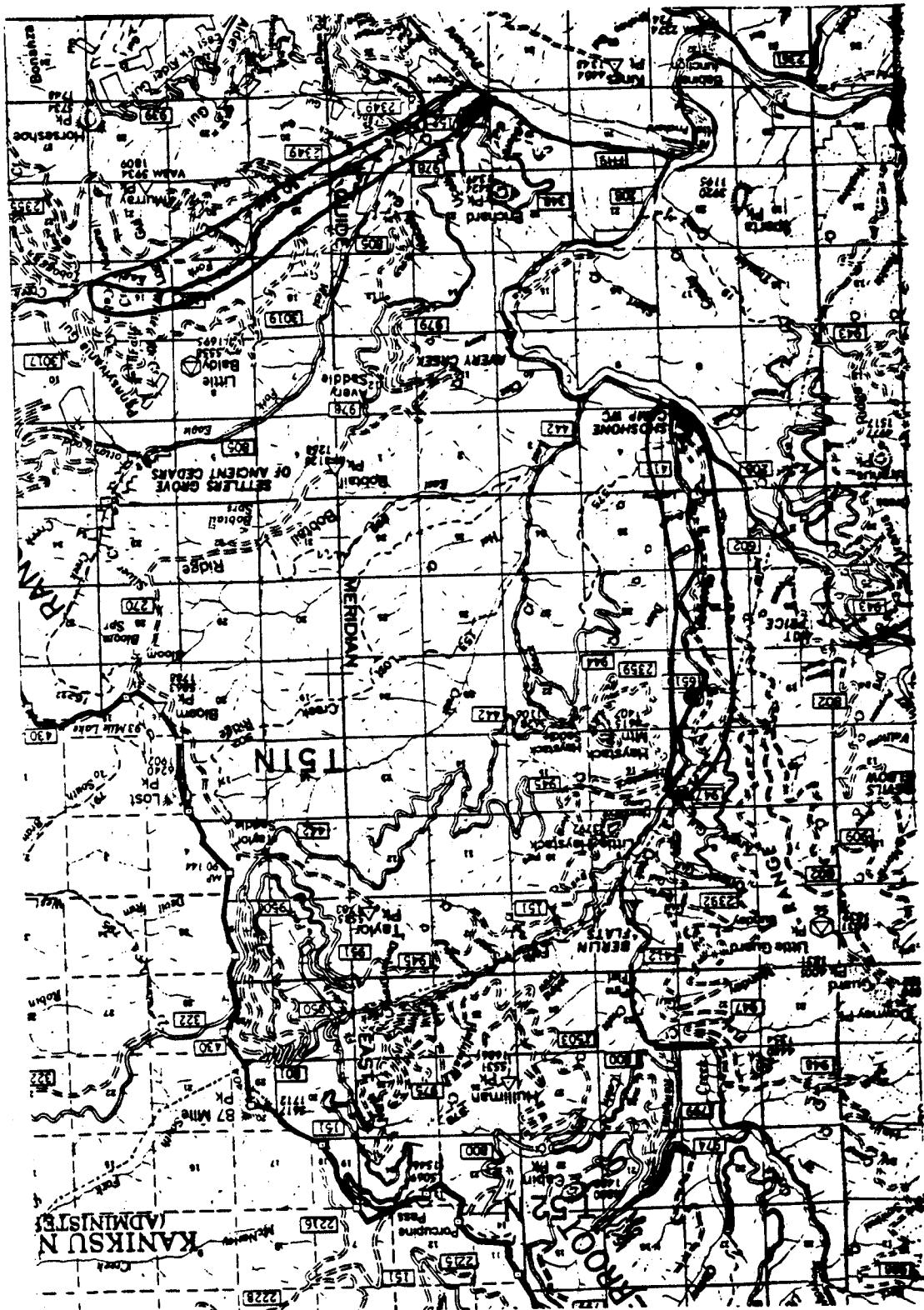


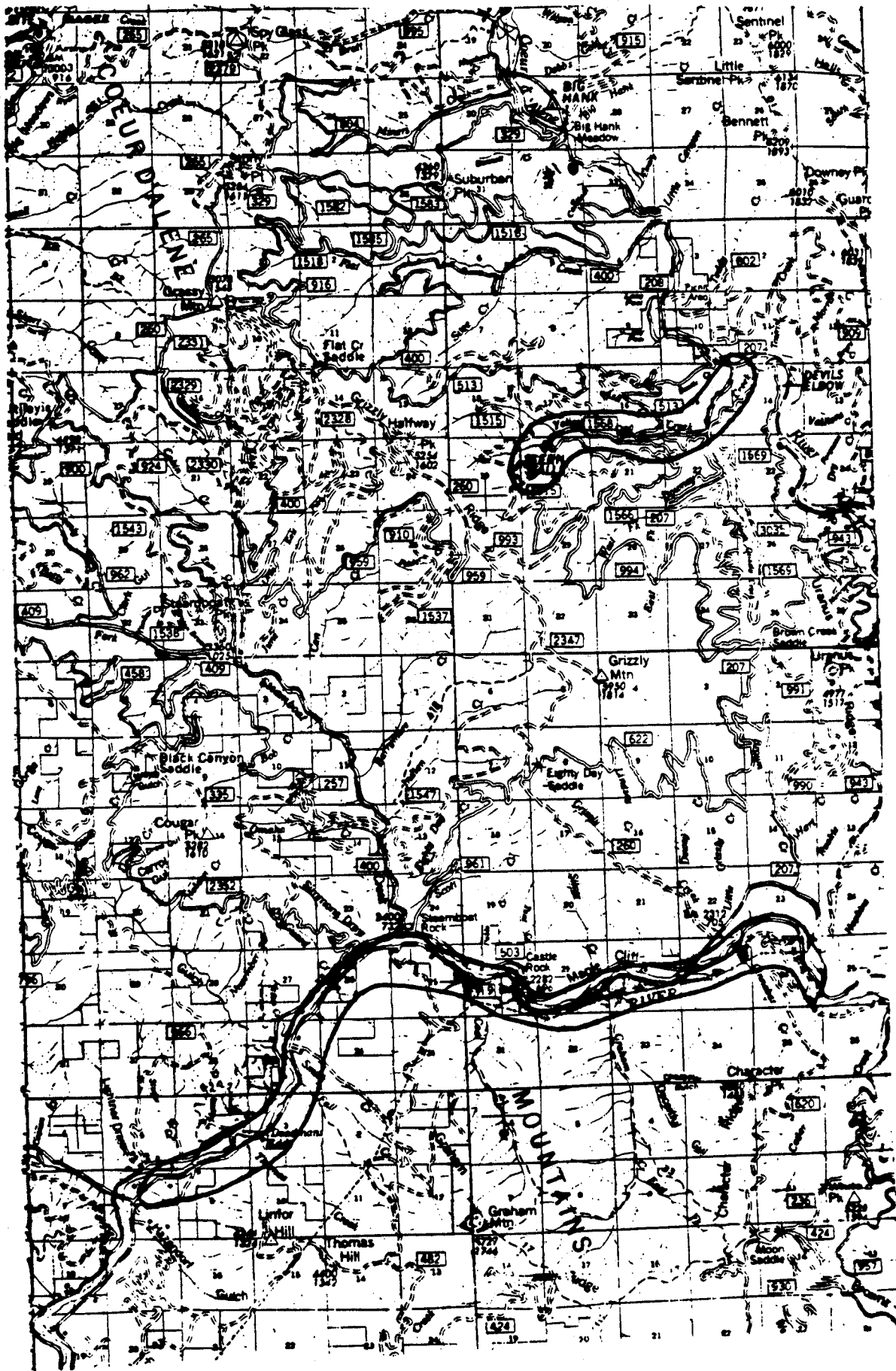
CABINET MOUNTAINS SURVEY SITES
 Dot = Location of Frezcat Creek population



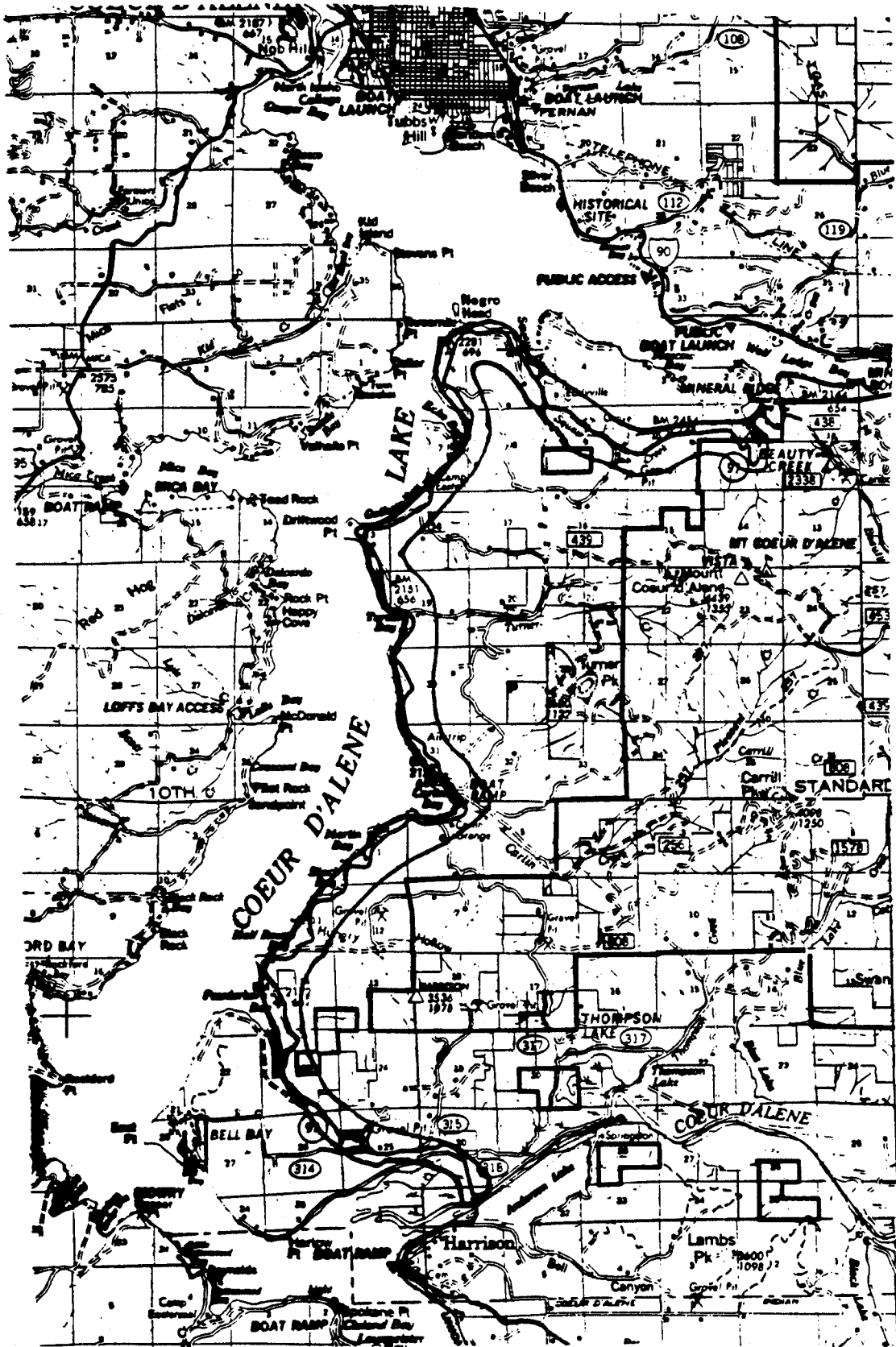
CABINET MOUNTAIN AND JOHNSON CREEK FALLS SURVEY SITES

COEUR D'ALENE MOUNTAINS SURVEY SITES
Dot = Location of Shoshone Creek population

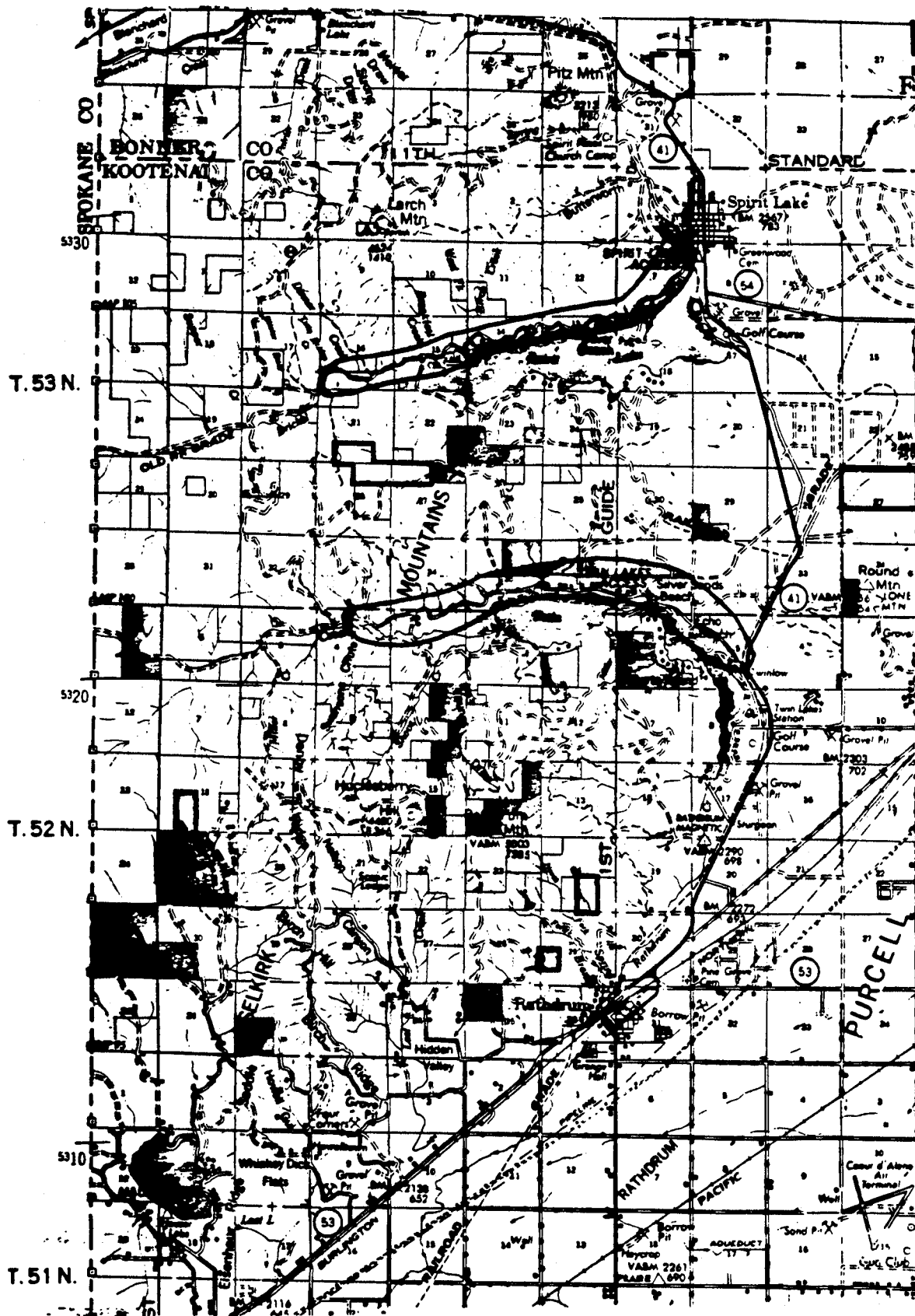




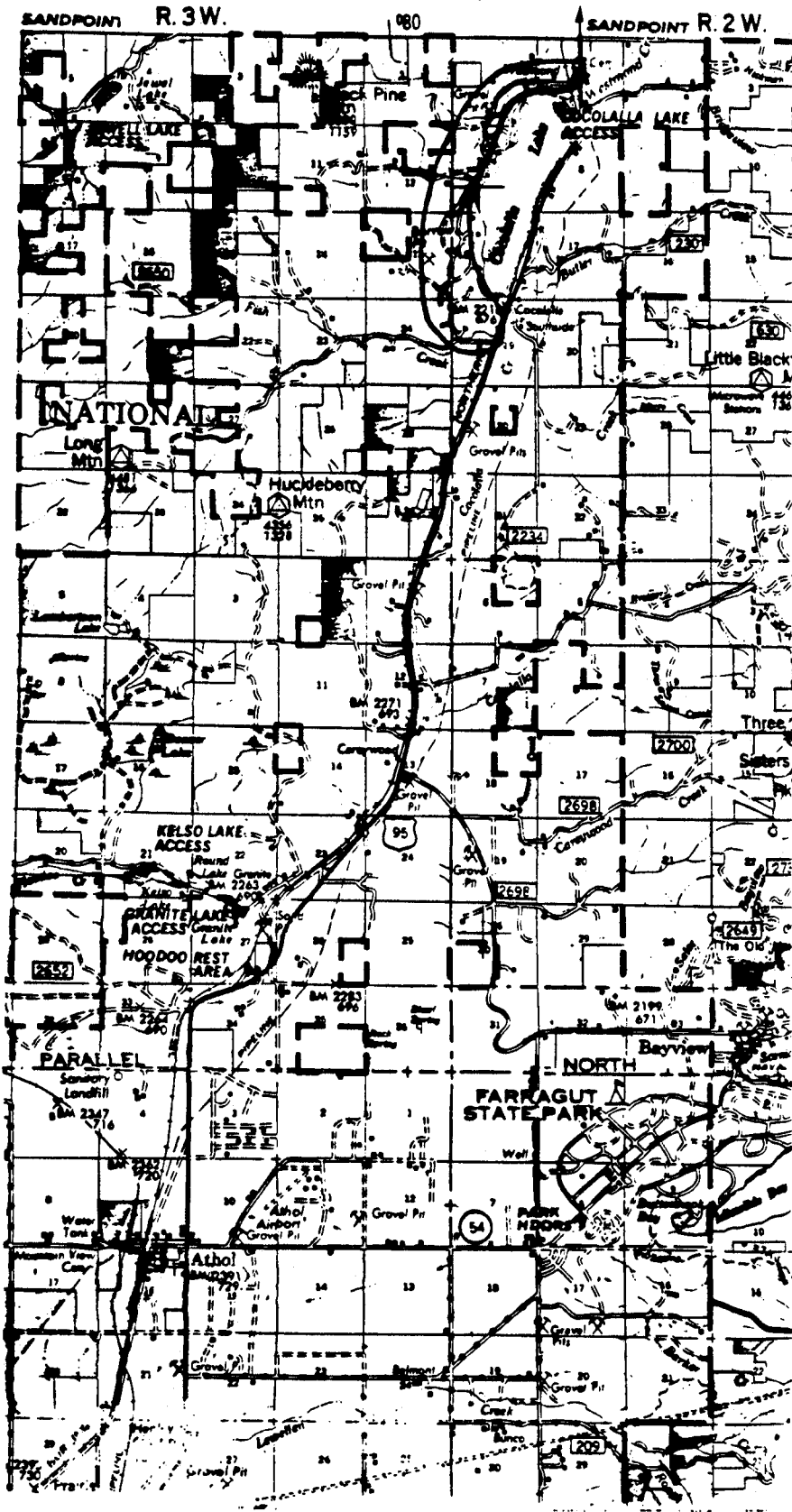
COEUR D'ALENE MOUNTAINS SURVEY SITES



COEUR D'ALENE LAKE SURVEY SITE

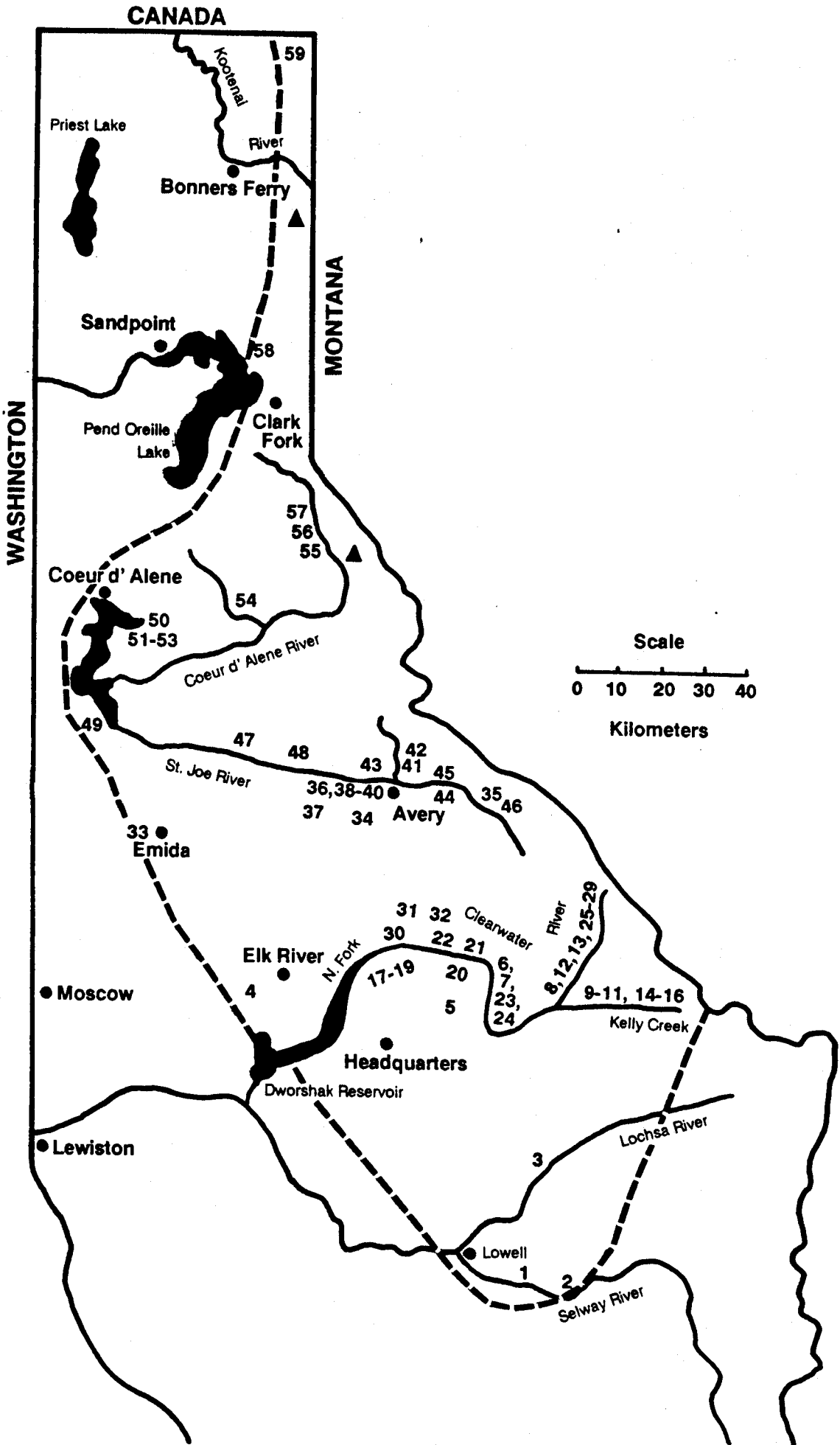


TWIN LAKES AND SPIRIT LAKE SURVEY SITES



COCOLALLA LAKE SURVEY SITE

Figure 1. Distribution of the Coeur d'Alene salamander in Idaho. Numbers refer to populations identified in Groves (1988). Triangles represent locations of new populations discovered during 1988 surveys. Dotted line represents probable range of distribution in Idaho.



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