

Kanuti NWR Trip Report FY07-01
Kanuti Canyon and Kanuti Lake BBSs

Purpose: Conduct Kanuti Canyon and Kanuti Lake Breeding Bird Surveys (BBS)
Location: Kanuti River
Dates: June 9-12, 2006
Participants: Christopher Harwood, Curtis Knight
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Report Date: October 1, 2006

Summary:

Wildlife Biologist (WB) Harwood and Biological Technician (BT) Knight scouted the Kanuti Lake BBS and the Kanuti Canyon BBS on June 9 and 10, 2006, respectively. The Kanuti Canyon BBS was run on June 11 from 03:20 – 09:19. Survey conditions were entirely satisfactory. Harwood served as observer while Knight served as boat driver. We recorded 631 individuals of 43 species. The Kanuti Lake BBS was run on June 12 from 03:00 – 09:22. Again, survey conditions were quite satisfactory. We recorded 716 individuals of 51 species.

Results:

We (WB Harwood and BT Knight) departed the administrative cabin at Kanuti Lake on June 9 at 09:00. Heading upriver, we re-flagged (with biodegradable tape) stops #42-50 of the Kanuti Lake BBS route (Fig. 1). Returning to the cabin at 10:15, we loaded the new boat/motor (16' x 42" SeaArk with 30-hp 4-stroke Yamaha jet motor) with supplies and 45 gallons of gas (i.e., three 15-gal polyjugs). At 11:15 we resumed flagging points #41-01. We again relocated pin flags and/or decomposing orange flagging from 2005 and earlier for many of the points, assuring us that the GPS locations were again quite repeatable. We removed extraneous and/or decrepit flagging. We camped on a sand bar (aka "Curt's Bar;" N66.29200° x W152.18176°) at 18:00, about 45 min downriver of point #1. We observed 3 sets of cow moose with twins, 1 bull moose, and muskrat while scouting the route.

We left camp on June 10 at 11:00 and proceeded downriver to scout the Kanuti Canyon BBS route (Fig. 2). We located stop #50 at about 12:40 and #1 by 18:15. Because the gravel bar (N66.34835° x W152.92873°) we camped on in 2005 was mostly underwater, we camped a bit further downstream on a gravel bar opposite the mouth of Mentanontli River (N66.35569° x W152.97733°).

We awoke at 02:00 on June 11 and started the Kanuti Canyon BBS at 03:20. Start conditions were as follows: 44°F, no wind, and scattered clouds. We tallied 631 individuals of 43 species (versus 577 and 39, respectively, from 2005; Table 1). We finished surveying at 09:19, with conditions as follows: 55°F, no wind, and scattered clouds. Subsequent to the survey, we boated to and camped on a sandbar near the beginning of the Kanuti Lake BBS route (aka "Bob's Bar;" N66.23238° x W152.11368°), arriving at 13:00.

The Kanuti Lake BBS was run on June 12 from 03:00 – 09:22. Start conditions were as follows: 50°F, no wind, and broken clouds. We recorded 716 individuals of 51 species (versus 627 and 41, respectively, from 2005; Table 1). We finished surveying with the following conditions: 68°F, little wind, and clear skies. We returned to Kanuti Cabin at 11:00.

Table 2 shows species detected during activities incidental to the surveys proper (e.g., scouting routes, boating between stops, incidental scouting of lakes adjoining river, camping).

Discussion points

- 1) Like 2005, the 2006 BBS effort was again logistically uneventful. Use of the new boat, and particularly the new 4-stroke motor, was deemed a success as considerably less gas was used (roughly 35 gal in four days). With gas prices ever-increasing (\$4.12/gal in 2006) and weight a greater concern in the smaller boat, increased efficiency is critical. One drawback to the new set-up, however, is that “reverse” does not work. Seemingly the hull shape (with tunnel) thwarts “reverse;” this is different from the previous set-up where “reverse” was actually inoperable on the motor.
- 2) While recognizing that this is merely a two-year dataset, comparison of 2006 with 2005 results (within respective routes) nevertheless shows generally good concordance. Between-year results tend not to be off by orders of magnitude, with some showing species showing remarkably similar results, particularly for passerines and shorebirds. Non-territorial and/or non-singing species (e.g., waterfowl) naturally show more interannual variation in numbers detected and stops at which detected.
- 3) There has been some question as to whether both routes were being analyzed within the continental dataset, given that they are river- and not road-based routes. We have now been assured that both routes are being considered “legitimate” routes. The current continental BBS coordinator has some concern with the legitimacy of using survey data from river routes, as these routes are not randomly deployed (unlike routes within the road system), even though their points may be. River routes had been encouraged in Alaska to make up for the limited road system, which has since been saturated with routes. River routes do offer the benefit of covering some habitats not accessible within the road system, thus increasing the likelihood of detecting certain under-represented species (e.g., Solitary Sandpiper, Olive-sided Flycatcher, Blackpoll Warbler, Rusty Blackbird). We’ve been assured that should river routes ever be rejected in the continental analysis, we would be notified immediately so we can decide whether to continue our BBS effort. The value of the two BBSs in terms of the Kanuti Refuge’s monitoring program is limited; they are of greater value when used in the greater continental picture.
- 4) Budget for the 2006 BBS effort was raised from the longstanding \$2000 to \$4800, in part to address rising gas prices. Budget comparisons with prior years are eschewed here, however, for several reasons: 1) while the price of gas did go up from 2005 (\$3.98 to \$4.12 [this was partly reduced because gas was bought in bulk]), considerably less gas was purchased/carried (48 gal in 2006 vs. 68 in 2005) and even less was used because of the new motor; 2) survey dates fell on the weekend, thus Knight was paid a minimum of 16 hr overtime; 3) Refuge Manager Spindler was able to ferry personnel to and from the Kanuti Cabin using fleet aircraft (NPS’s C185 and Kanuti’s Scout), which considerably reduced this expense from chartering Brooks Range Aviation’s Beaver; and 4) several project costs (e.g., round trip airfare for Harwood and Knight from Fairbanks to Bettles, cost of shipping boat gas from Bettles to Kanuti Cabin) were either shared with or assumed by concurrent projects or eliminated this year. It is probably safe to assume, however, that while the project, as presently constituted, will not require \$4800, it will generally require \$2000-\$3000. This will depend on how/whether some expenses can be shared with or assumed by other projects.
- 5) With BT Knight securing a permanent position with the State in August 2006, we will be looking for a new boat driver. This will be the third boat driver to have moved on in this author’s short tenure (2003-2006) as observer. Nevertheless, qualified boat driver candidates likely still exist within Kanuti’s staff (though limited).

Table 1. Species detected on the Kanuti Canyon and Kanuti Lake BBSs, Kanuti NWR, June 11-12, 2005 & 2006. Table includes species only detected on official point counts (i.e., with numbers of individuals and stops). [Asterisk indicates first time officially recorded on Kanuti Canyon BBS]

Species	Kanuti Canyon BBS				Kanuti Lake BBS			
	Individuals		Stops		Individuals		Stops	
	2005	2006	2005	2006	2005	2006	2005	2006
Greater White-fronted Goose	1	0	1	0	19	5	2	4
Canada Goose	0	2	0	2	7	1	4	1
Trumpeter Swan	2	0	1	0	1	1	1	1
American Wigeon	1	37	1	1	6	8	6	5
Mallard	0	0	0	0	2	4	1	2
Northern Shoveler	0	0	0	0	0	25	0	1
Northern Pintail	0	0	0	0	0	3	0	1
Green-winged Teal	3	0	3	0	1	8	1	3
Lesser Scaup	0	0	0	0	0	2	0	1
Bufflehead	0	0	0	0	4	0	2	0
Common Goldeneye	0	0	0	0	3	2	2	2
Common Merganser	0	2	0	1	0	0	0	0
Red-breasted Merganser	0	2	0	1	0	0	0	0
Ruffed Grouse	0	1	0	1	0	0	0	0
Common Loon	0	0	0	0	0	2	0	2
Bald Eagle	0	0	0	0	0	1	0	1
Red-tailed Hawk	0	2	0	2	0	0	0	0
American Kestrel *	0	1	0	1	0	0	0	0
Merlin *	0	2	0	1	0	0	0	0
Peregrine Falcon	2	0	2	0	0	0	0	0
Sandhill Crane	0	2	0	1	1	1	1	1
Lesser Yellowlegs	0	0	0	0	7	3	6	3
Spotted Sandpiper	24	28	20	22	7	12	7	10
Solitary Sandpiper	0	1	0	1	2	1	2	1
Upland Sandpiper	0	0	0	0	1	0	1	0
Wilson's Snipe	10	3	9	3	14	15	13	14
Long-tailed Jaeger	0	0	0	0	0	2	0	1
Mew Gull	0	0	0	0	2	1	1	1
Herring Gull	1	0	1	0	0	1	0	1
Glaucous-winged Gull *	0	1	0	1	0	0	0	0
Great Horned Owl	4	2	4	2	0	0	0	0
Northern Hawk Owl	0	0	0	0	1	0	1	0
Belted Kingfisher	0	5	0	5	0	2	0	1
Downy Woodpecker	0	0	0	0	0	1	0	1
American Three-toed Woodpecker	0	0	0	0	1	2	1	2
Black-backed Woodpecker	0	0	0	0	1	0	1	0
Northern Flicker	2	1	2	1	0	0	0	0

Table 1 (cont.). Total numbers of individuals and stops for species detected on the Kanuti Canyon and Kanuti Lake BBSs, Kanuti NWR, June 11-12, 2005 and 2006.

Species	Kanuti Canyon BBS				Kanuti Lake BBS			
	Individuals		Stops		Individuals		Stops	
	2005	2006	2005	2006	2005	2006	2005	2006
Olive-sided Flycatcher	6	0	6	0	20	22	17	21
Western Wood-Pewee	2	0	1	0	0	4	0	4
Alder Flycatcher	59	52	25	24	50	60	26	26
Hammond's Flycatcher	7	9	7	6	0	0	0	0
Gray Jay	12	5	10	4	12	10	11	10
Common Raven	3	4	3	3	4	1	3	1
Tree Swallow	0	1	0	1	0	4	0	3
Violet-green Swallow	3	15	2	6	0	0	0	0
Bank Swallow	2	18	2	4	1	3	1	2
Black-capped Chickadee	2	0	1	0	0	0	0	0
Boreal Chickadee	4	5	2	4	6	1	3	1
Ruby-crowned Kinglet	8	8	7	7	22	35	17	25
Arctic Warbler	0	1	0	1	0	0	0	0
Townsend's Solitaire	11	9	9	8	0	0	0	0
Gray-cheeked Thrush	2	0	2	0	3	1	3	1
Swainson's Thrush	111	136	44	50	111	133	43	49
Hermit Thrush	0	1	0	1	0	0	0	0
American Robin	10	21	7	16	24	17	20	16
Varied Thrush	13	5	9	4	19	8	14	7
Bohemian Waxwing	6	0	3	0	17	4	8	4
Orange-crowned Warbler	50	39	28	25	14	16	10	11
Yellow Warbler	12	9	8	7	14	7	8	5
Yellow-rumped Warbler	29	21	17	14	47	58	30	31
Blackpoll Warbler	0	0	0	0	3	1	3	1
Northern Waterthrush	39	38	18	23	40	26	24	16
Wilson's Warbler	26	23	16	16	3	9	3	6
Savannah Sparrow	0	0	0	0	0	1	0	1
Fox Sparrow	3	1	2	1	2	3	2	2
Lincoln's Sparrow	5	9	4	5	10	20	9	17
White-crowned Sparrow	22	30	15	16	30	41	20	24
Dark-eyed Junco	72	62	35	32	58	83	36	40
Rusty Blackbird	0	1	0	1	15	2	9	2
White-winged Crossbill	4	6	3	2	23	32	11	6
Common Redpoll	6	10	6	8	6	11	6	11

Table 2. Additional species detected incidentally while scouting and running the Kanuti Canyon and Kanuti Lake BBS routes, Kanuti NWR, June 9-12, 2005 & 2006.

2005

Tundra Swan
Northern Shoveler
Northern Pintail
Lesser Scaup
Common Merganser
Red-breasted Merganser
Red-throated Loon
Horned Grebe
Bald Eagle
Golden Eagle
Red-tailed Hawk
Golden Eagle
Semipalmated Plover
Bonaparte's Gull
Belted Kingfisher
Tree Swallow
American Tree Sparrow
Pine Grosbeak

2006

Tundra Swan
Ring-necked Duck
Greater Scaup
Bufflehead
Red-throated Loon
Pacific Loon
Horned Grebe
Red-necked Grebe
Semipalmated Plover
Bonaparte's Gull
Glaucous Gull
Arctic Tern
American Tree Sparrow
Pine Grosbeak

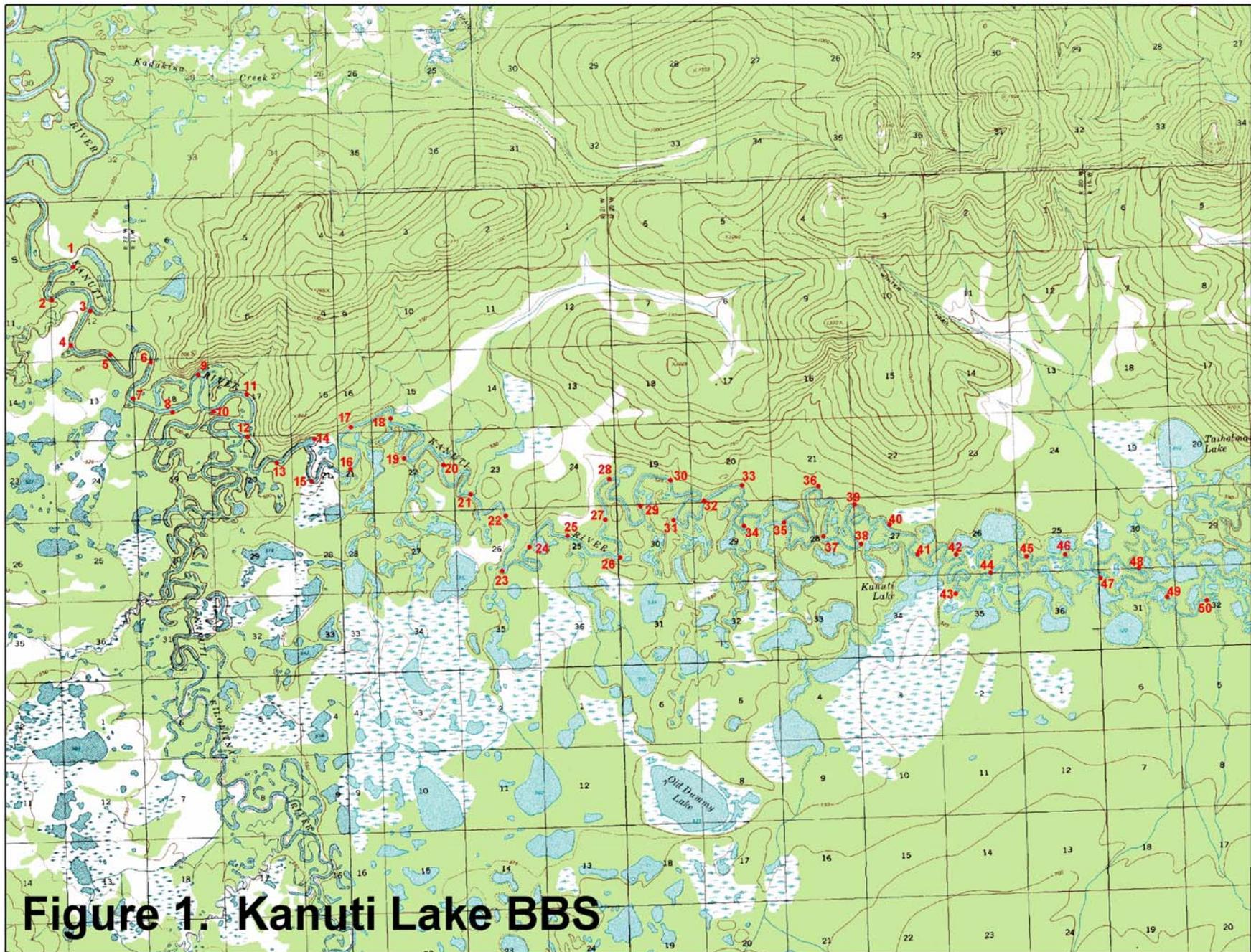


Figure 1. Kanuti Lake BBS

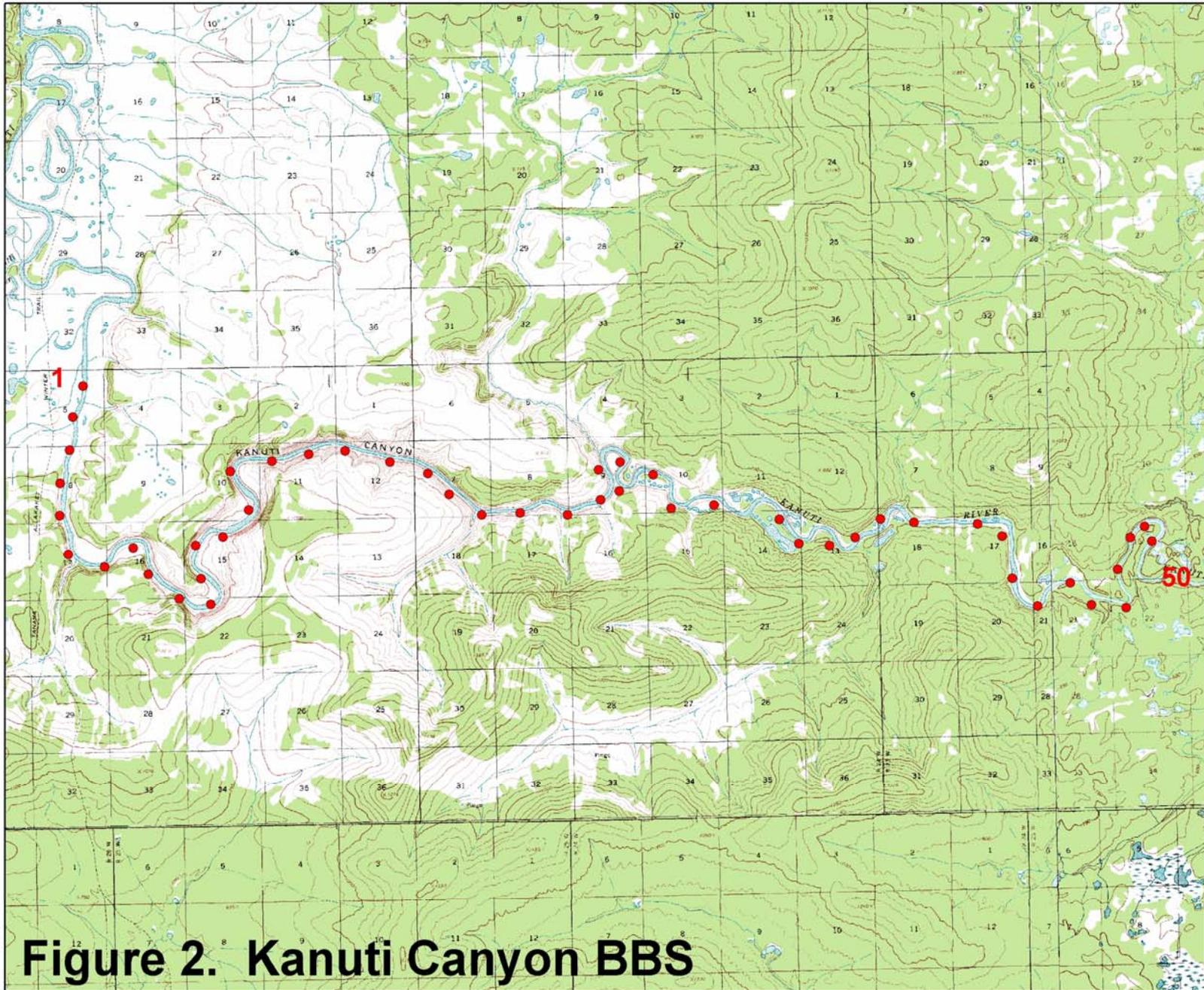


Figure 2. Kanuti Canyon BBS