

Kanuti NWR Trip Report FY12
Multipurpose Kanuti River Boat Trip 2013

Purposes: Conduct Kanuti Canyon and Kanuti Lake Breeding Bird Surveys (BBSs)
Conduct Goshawk and other Raptor Survey
Conduct Invasive Weed Surveillance

Location: Kanuti River

Dates: June 12–19, 2013

Participants: Tim Craig, Les Dillard

Authors: Les Dillard, Chris Harwood

Report Date: July 31, 2013

Summary:

Wildlife Biologists Dillard (BBS observer) and Craig (boat driver) conducted the Kanuti Canyon BBS on June 17, 2013 and the Kanuti Lake BBS on June 18, 2013. A total of 308 individuals were recorded of 35 species on the Canyon survey, while 299 individuals of 31 species were recorded on the Lake survey. Craig and Dillard conducted the Goshawk survey along the Kanuti River June 12–16. See separate Goshawk Survey report for summary of Goshawks, other raptors, and incidental wildlife sightings. No invasive weeds were detected during the trip.

Trip Logistics:

In preparation for the trip, Dillard flew the refuge's 8GCBC Scout to the Kanuti Cabin on June 11 with a load of field gear that the team needed. Then, Dillard flew Craig to the Cabin on June 12 from Bettles. For the survey, we used the jet boat based at Kanuti Cabin. We boated upstream and downstream from the Cabin to complete all surveys and logged a total of approx. 400 river miles, using between 50-60 gallons of gasoline. The estimated cost for fuel was \$550, assuming \$10/gal for fuel acquired from the cabin.

Daily Activities:

June 12: We left Bettles in the Scout around 1100 and flew to the Cabin. We spent a few hours installing the jet motor that had been taken to Fairbanks over the fall/winter for repairs and launching the boat. We left in the jet boat and travelled upstream to the vicinity of Arnica Hill (approximately N66.220 ° x W151.416 °) and started the goshawk survey moving downstream on the river to consecutive stations. We completed a few of the goshawk calling stations before stopping at 1930 and camping at 1800, almost directly across from Canyon route BBS stop #1 at N66.2269388° x W151.4403709°.

June 13: We left camp at 0700 and surveyed goshawk calling stations going downstream, until arriving back at the Cabin. We stopped around 1900 and stayed at the cabin overnight.

June 14: When we started working at 0645, we found that a bear sow and cub had been in our boat overnight. They tipped over the gas tank, unsuccessfully tried to get into the bear barrels, threw our life jackets out of the boat (they were not lost), and stole 1 boat cushion that we could not find after walking the trails around the cabin. The bear(s) also got inside the Kanuti Cabin compound during the night, as Dillard heard noises outside during the night but thought it was Craig. One strand of electric fence wire was broken on the fence and one was disconnected from the insulator. We surmised that the fence was not operating at full strength and that was why the bears were able to get inside. We repaired the fence and ensured the charger was at full voltage output. At midmorning, after completing all fence repairs and searching for the missing boat cushion, we boated to our first station goshawk calling station of the day, where we left off the previous night, and surveyed calling stations all day long. We returned to the Cabin that night at 1915.

June 15: We left the cabin at 0700, boated downstream, and began surveying at calling stations where we had finished the previous evening. We surveyed goshawk stations all day long, and camped at the mouth of the Kilolitna River at 1830.

June 16: We left the Kilolitna camp at 0715 and finished the remaining goshawk calling stations. Then, we boated downstream to the beginning of the Kanuti Canyon BBS route. We camped just outside the Refuge boundary on a gravel bar at N66.2769915 ° x W152.3417581°, finishing the day at 1745.

June 17: We started the Kanuti Canyon BBS route at 0310 and completed it in midmorning. Then, we boated upstream to where the Kanuti Lake BBS route starts, ending the day at 1315. We camped directly across the river from Lake BBS survey location #1.

June 18: We started the Kanuti Lake BBS route at 0330 and completed it my midmorning. Then, we boated back to the Cabin and completed several tasks there including pulling up the jet boat using the cable winch, inventorying the fuel cache, cutting brush in the compound, etc. We completed our day at 1615.

June 19: We loaded the Scout with all of our gear and flew back to Bettles in one trip.

BBS Results:

On the Kanuti Canyon route, we tallied 308 individuals of 35 species (Table 1). On the Kanuti Lake route, we recorded 299 individuals of 31 species (Table 2). Total individuals detected/recorded were the fewest for both routes during the years 2005–2013 (i.e., while Dillard or Harwood has been observer), while the number of species detected was the lowest for the Lake route, and second lowest for the Canyon route.

Goshawk Results:

See separate Goshawk Survey report for summary of goshawks, other raptors, and incidental wildlife sightings.

Invasive Weed Survey Results:

While floating and boating during this survey, we looked for invasive species in riparian areas and on gravel bars along the Kanuti River. In particular, we searched for white sweetclover (*Melilotus alba*) and bird vetch (*Vicia cracca*). Since we searched while boating or conducting other surveys, we may have overlooked invaded areas. However, we did not detect any weeds during this trip.

Discussion Points

1. This trip was successful because multiple objectives were accomplished during this 8-day field project. In this era of declining budgets, it is important to plan multipurpose river-based trips to increase overall work efficiency on the Refuge.
2. BBS protocol requires that routes to be run in 6.5 hours and we were able to meet this protocol requirement although we did not do so last year. Our improved efficiency this year was probably because of improved teamwork and experience from last year; we ran at full throttle between points and were more adept at beaching/pushing off.
3. Total individuals and species detected were at or near all-time lows. When one compares the last two years with Dillard as observer versus the previous four with Harwood, there appears to be some observer bias, with Harwood's totals for individuals and species markedly exceeding those of the relatively inexperienced Dillard. However, low totals in 2013 may be due in part to a historically late and cold spring. For example, Dillard's detections of Alder Flycatcher on the Kanuti Lake route in 2012 were quite comparable to Harwood's, but in 2013 these detections were far fewer than for either observer, historically. Also, only 31 species were detected on the Lake route, versus the all-time high of 51 in 2006. While total species can include migrants, chance sightings of waterfowl, etc., this discrepancy might be attributed as much to a year effect as an observer effect.
4. With Dillard's departure from Refuge and Alaska, it appears likely that Harwood would assume the observer responsibilities he had from 2005–2008.

Table 1. Species detected on the Kanuti Canyon BBS, Kanuti NWR, Alaska. June 2005 - 2013. Table includes only species detected during official point counts.

Species	Individuals						Stops					
	2005	2006	2007	2008	2012	2013	2005	2006	2007	2008	2012	2013
Gr. White-fronted Goose	1	0	4	0	19	4	1	0	2	0	10	3
Canada Goose	0	2	1	2	4	0	0	2	1	2	2	0
Trumpeter Swan	2	0	0	1	0	2	1	0	0	1	0	1
American Wigeon	1	37	4	6	0	4	1	1	2	4	0	3
Mallard	0	0	0	0	0	0	0	0	0	0	0	0
Northern Shoveler	0	0	2	9	0	2	0	0	1	2	0	1
Northern Pintail	0	0	0	0	0	0	0	0	0	0	0	0
Green-winged Teal	3	0	0	4	18	0	3	0	0	2	2	0
Canvasback	0	0	0	0	0	0	0	0	0	0	0	0
Ring-necked Duck	0	0	0	0	0	0	0	0	0	0	0	0
Lesser Scaup	0	0	2	0	0	0	0	0	1	0	0	0
White-winged Scoter	0	0	0	0	0	0	0	0	0	0	0	0
Bufflehead	0	0	1	0	0	0	0	0	1	0	0	0
Common Goldeneye	0	0	0	0	0	0	0	0	0	0	0	0
Common Merganser	0	2	0	2	0	0	0	1	0	1	0	0
Red-breasted Merganser	0	2	5	2	0	0	0	1	2	1	0	0
Ruffed Grouse	0	1	0	1	0	0	0	1	0	1	0	0
Red-throated Loon	0	0	0	1	0	0	0	0	0	1	0	0
Common Loon	0	0	0	0	0	0	0	0	0	0	0	0
Osprey	0	0	0	0	1	0	0	0	0	0	1	0
Bald Eagle	0	0	0	0	0	0	0	0	0	0	0	0
Northern Harrier	0	0	0	0	0	0	0	0	0	0	0	0
Northern Goshawk	0	0	0	0	0	0	0	0	0	0	0	0
Red-tailed Hawk	0	2	0	0	0	0	0	2	0	0	0	0
American Kestrel	0	1	0	0	0	0	0	1	0	0	0	0
Merlin	0	2	0	1	0	0	0	1	0	1	0	0
Peregrine Falcon	2	0	4	1	2	3	2	0	3	1	2	2
Sandhill Crane	0	2	2	1	2	0	0	1	1	1	1	0
Semipalmated Plover	0	0	1	0	0	2	0	0	1	0	0	1
Spotted Sandpiper	24	28	19	41	3	3	20	22	13	28	3	2
Solitary Sandpiper	0	1	6	0	0	1	0	1	5	0	0	1
Lesser Yellowlegs	0	0	2	1	0	20	0	0	2	1	0	14
Upland Sandpiper	0	0	0	0	0	0	0	0	0	0	0	0
Wilson's Snipe	10	3	3	4	1	0	9	3	3	4	1	0
Long-tailed Jaeger	0	0	0	0	0	0	0	0	0	0	0	0
Mew Gull	0	0	1	0	0	2	0	0	1	0	0	2
Herring Gull	1	0	1	0	3	2	1	0	1	0	3	2
Glaucous-winged Gull	0	1	0	0	0	0	0	1	0	0	0	0
Great Horned Owl	4	2	3	1	1	0	4	2	3	1	1	0
Northern Hawk Owl	0	0	0	1	0	0	0	0	0	1	0	0
Belted Kingfisher	0	5	0	1	0	1	0	5	0	1	0	1
Downy Woodpecker	0	0	0	0	0	0	0	0	0	0	0	0
Three-toed Woodpecker	0	0	0	1	0	0	0	0	0	1	0	0

Table 1 (cont.). Species detected on the Kanuti Canyon BBS, Kanuti NWR, Alaska. June 2005 - 2013. Table includes only species detected during official point counts.

Species	Individuals						Stops					
	2005	2006	2007	2008	2012	2013	2005	2006	2007	2008	2012	2013
Black-back. Woodpecker	0	0	0	0	0	0	0	0	0	0	0	0
Northern Flicker	2	1	0	1	0	0	2	1	0	1	0	0
Olive-sided Flycatcher	6	0	5	1	0	0	6	0	4	1	0	0
Western Wood-Pewee	2	0	0	0	1	0	1	0	0	0	1	0
Yellow-bellied Flycatcher	0	0	0	5	3	5	0	0	0	4	2	5
Alder Flycatcher	59	52	72	43	59	54	25	24	28	16	30	30
Hammond's Flycatcher	7	9	14	17	9	2	7	6	10	9	7	2
Gray Jay	12	5	8	8	1	5	10	4	7	8	1	5
Common Raven	3	4	5	4	2	2	3	3	4	2	1	2
Tree Swallow	0	1	0	2	0	0	0	1	0	1	0	0
Violet-green Swallow	3	15	8	13	0	0	2	6	3	4	0	0
Bank Swallow	2	18	17	25	0	12	2	4	3	6	0	1
Cliff Swallow	0	0	0	1	14	2	0	0	0	1	3	1
Black-capped Chickadee	2	0	0	0	0	7	1	0	0	0	0	7
Boreal Chickadee	4	5	5	4	3	0	2	4	5	3	2	0
Ruby-crowned Kinglet	8	8	7	3	1	3	7	7	7	2	1	2
Arctic Warbler	0	1	1	0	0	0	0	1	1	0	0	0
Townsend's Solitaire	11	9	4	2	0	0	9	8	4	2	0	0
Gray-cheeked Thrush	2	0	1	0	0	0	2	0	1	0	0	0
Swainson's Thrush	111	136	108	92	35	34	44	50	49	44	26	26
Hermit Thrush	0	1	2	2	11	3	0	1	1	2	8	3
American Robin	10	21	26	23	4	12	7	16	20	21	4	10
Varied Thrush	13	5	0	13	0	0	9	4	0	9	0	0
Bohemian Waxwing	6	0	1	0	0	1	3	0	1	0	0	1
Orange-crowned Warbler	50	39	81	92	28	42	28	25	42	41	19	31
Yellow Warbler	12	9	6	6	6	7	8	7	5	5	4	6
Yellow-rumped Warbler	29	21	19	7	8	14	17	14	12	6	7	12
Blackpoll Warbler	0	0	0	0	2	2	0	0	0	0	2	2
Northern Waterthrush	39	38	18	19	9	9	18	23	12	14	8	5
Wilson's Warbler	26	23	19	21	3	15	16	16	14	13	3	12
American Tree Sparrow	0	0	0	1	0	0	0	0	0	1	0	0
Savannah Sparrow	0	0	0	0	0	0	0	0	0	0	0	0
Fox Sparrow	3	1	9	2	0	0	2	1	8	2	0	0
Lincoln's Sparrow	5	9	17	13	2	3	4	5	10	8	2	2
White-crowned Sparrow	22	30	18	11	4	11	15	16	13	8	4	9
Dark-eyed Junco	72	62	55	48	36	6	35	32	33	30	20	5
Rusty Blackbird	0	1	0	1	0	0	0	1	0	1	0	0
Pine Grosbeak	0	0	0	0	0	0	0	0	0	0	0	0
White-winged Crossbill	4	6	0	5	0	0	3	2	0	5	0	0
Common Redpoll	6	10	7	5	19	11	6	8	6	4	9	5
TOTAL Individuals	579	631	594	571	314	308						
TOTAL Species	38	43	43	50	32	35						

Table 2. Species detected on the Kanuti Lake BBS, Kanuti NWR, Alaska. June 2005 - 2013. Table includes only species detected during official point counts.

Species	Individuals						Stops					
	2005	2006	2007	2008	2012	2013	2005	2006	2007	2008	2012	2013
Gr. White-fronted Goose	19	5	9	17	3	9	2	4	4	7	2	4
Canada Goose	7	1	14	4	16	3	4	1	6	1	6	2
Trumpeter Swan	1	1	4	1	2	0	1	1	2	1	2	0
American Wigeon	6	8	9	6	0	19	0	5	7	5	0	10
Mallard	2	4	8	0	0	0	1	2	2	0	0	0
Northern Shoveler	0	25	0	1	0	2	0	1	0	1	0	1
Northern Pintail	0	3	0	0	0	0	0	1	0	0	0	0
Green-winged Teal	1	8	1	3	0	0	1	3	1	3	0	0
Canvasback	0	0	0	0	2	0	0	0	0	0	1	0
Ring-necked Duck	0	0	0	1	0	0	0	0	0	1	0	0
Lesser Scaup	0	2	0	0	5	7	0	1	0	0	3	4
White-winged Scoter	0	0	0	0	1	0	0	0	0	0	1	0
Bufflehead	4	0	0	3	0	0	2	0	0	2	0	0
Common Goldeneye	3	2	0	1	3	0	2	2	0	1	2	0
Common Merganser	0	0	0	0	0	0	0	0	0	0	0	0
Red-breasted Merganser	0	0	0	0	0	0	0	0	0	0	0	0
Ruffed Grouse	0	0	0	0	0	0	0	0	0	0	0	0
Red-throated Loon	0	0	0	0	0	0	0	0	0	0	0	0
Common Loon	0	2	0	1	1	0	0	2	0	1	1	0
Osprey	0	0	0	0	0	0	0	0	0	0	0	0
Bald Eagle	0	1	0	0	1	0	0	1	0	0	1	0
Northern Harrier	0	0	0	0	1	0	0	0	0	0	1	0
Northern Goshawk	0	0	1	0	0	0	0	0	1	0	0	0
Red-tailed Hawk	0	0	0	1	2	0	0	0	0	1	2	0
American Kestrel	0	0	0	0	0	0	0	0	0	0	0	0
Merlin	0	0	0	0	0	0	0	0	0	0	0	0
Peregrine Falcon	0	0	0	0	0	0	0	0	0	0	0	0
Sandhill Crane	1	1	0	4	2	0	1	1	0	4	1	0
Semipalmated Plover	0	0	0	0	0	0	0	0	0	0	0	0
Spotted Sandpiper	7	12	8	6	3	4	7	10	5	4	3	4
Solitary Sandpiper	2	1	4	9	0	0	2	1	2	8	0	0
Lesser Yellowlegs	7	3	6	7	6	2	6	3	5	6	6	2
Upland Sandpiper	1	0	0	0	0	0	1	0	0	0	0	0
Wilson's Snipe	14	15	19	27	12	9	13	14	18	24	9	9
Long-tailed Jaeger	0	2	0	0	0	0	0	1	0	0	0	0
Mew Gull	2	1	0	0	0	0	1	1	0	0	0	0
Herring Gull	0	1	0	0	0	0	0	1	0	0	0	0
Glaucous-winged Gull	0	0	0	0	0	0	0	0	0	0	0	0
Great Horned Owl	0	0	0	0	1	0	0	0	0	0	1	0
Northern Hawk Owl	1	0	0	0	1	0	1	0	0	0	1	0
Belted Kingfisher	0	2	0	0	0	0	0	1	0	0	0	0
Downy Woodpecker	0	1	0	0	0	1	0	1	0	0	0	1
Three-toed Woodpecker	1	2	1	0	0	0	1	2	1	0	0	0

Table 2 (cont.). Species detected on the Kanuti Lake BBS, Kanuti NWR, Alaska. June 2005 - 2013. Table includes only species detected during official point counts.

Species	Individuals						Stops					
	2005	2006	2007	2008	2012	2013	2005	2006	2007	2008	2012	2013
Black-back. Woodpecker	1	0	0	0	0	0	1	0	0	0	0	0
Northern Flicker	0	0	0	0	0	0	0	0	0	0	0	0
Olive-sided Flycatcher	20	22	27	21	12	8	17	21	25	17	11	7
Western Wood-Pewee	0	4	1	8	1	1	0	4	1	6	1	1
Yellow-bellied Flycatcher	0	0	0	0	0	1	0	0	0	0	0	1
Alder Flycatcher	50	60	61	62	62	36	26	26	31	33	37	26
Hammond's Flycatcher	0	0	0	0	0	0	0	0	0	0	0	0
Gray Jay	12	10	18	22	1	5	11	10	18	18	1	5
Common Raven	4	1	2	1	0	0	3	1	2	1	0	0
Tree Swallow	0	4	0	4	1	1	0	3	0	4	1	1
Violet-green Swallow	0	0	0	0	0	0	0	0	0	0	0	0
Bank Swallow	1	3	0	1	0	0	1	2	0	1	0	0
Cliff Swallow	0	0	0	0	0	0	0	0	0	0	0	0
Black-capped Chickadee	0	0	1	0	0	3	0	0	1	0	0	3
Boreal Chickadee	6	1	3	5	6	0	3	1	3	4	5	0
Ruby-crowned Kinglet	22	35	34	20	16	9	17	25	23	17	10	8
Arctic Warbler	0	0	0	0	0	0	0	0	0	0	0	0
Townsend's Solitaire	0	0	0	0	0	0	0	0	0	0	0	0
Gray-cheeked Thrush	3	1	0	0	0	0	3	1	0	0	0	0
Swainson's Thrush	111	133	93	125	61	35	43	49	42	47	36	22
Hermit Thrush	0	0	0	0	0	0	0	0	0	0	0	0
American Robin	24	17	31	18	36	34	20	16	28	16	28	27
Varied Thrush	19	8	11	16	2	0	14	7	10	11	1	0
Bohemian Waxwing	17	4	3	7	0	0	8	4	3	5	0	0
Orange-crowned Warbler	14	16	46	25	15	9	10	11	29	15	10	7
Yellow Warbler	14	7	5	16	13	7	8	5	5	10	11	5
Yellow-rumped Warbler	47	58	45	49	15	24	30	31	27	30	11	19
Blackpoll Warbler	3	1	0	3	2	0	3	1	0	3	2	0
Northern Waterthrush	40	26	20	19	8	5	24	16	12	14	6	5
Wilson's Warbler	3	9	3	8	1	6	3	6	3	6	1	5
American Tree Sparrow	0	0	0	0	0	0	0	0	0	0	0	0
Savannah Sparrow	0	1	0	2	0	0	0	1	0	2	0	0
Fox Sparrow	2	3	5	3	3	5	2	2	5	3	2	4
Lincoln's Sparrow	10	20	28	23	10	6	9	17	22	12	7	5
White-crowned Sparrow	30	41	40	42	25	6	20	24	28	27	17	6
Dark-eyed Junco	58	83	39	67	36	11	36	40	26	36	26	8
Rusty Blackbird	15	2	1	2	3	3	9	2	1	2	2	2
Pine Grosbeak	0	0	2	1	0	0	0	0	2	1	0	0
White-winged Crossbill	23	32	5	28	0	1	11	6	5	13	0	1
Common Redpoll	6	11	11	10	7	27	6	11	11	9	6	10
TOTAL Individuals	634	716	619	700	398	299						
TOTAL Species	43	51	37	44	39	31						

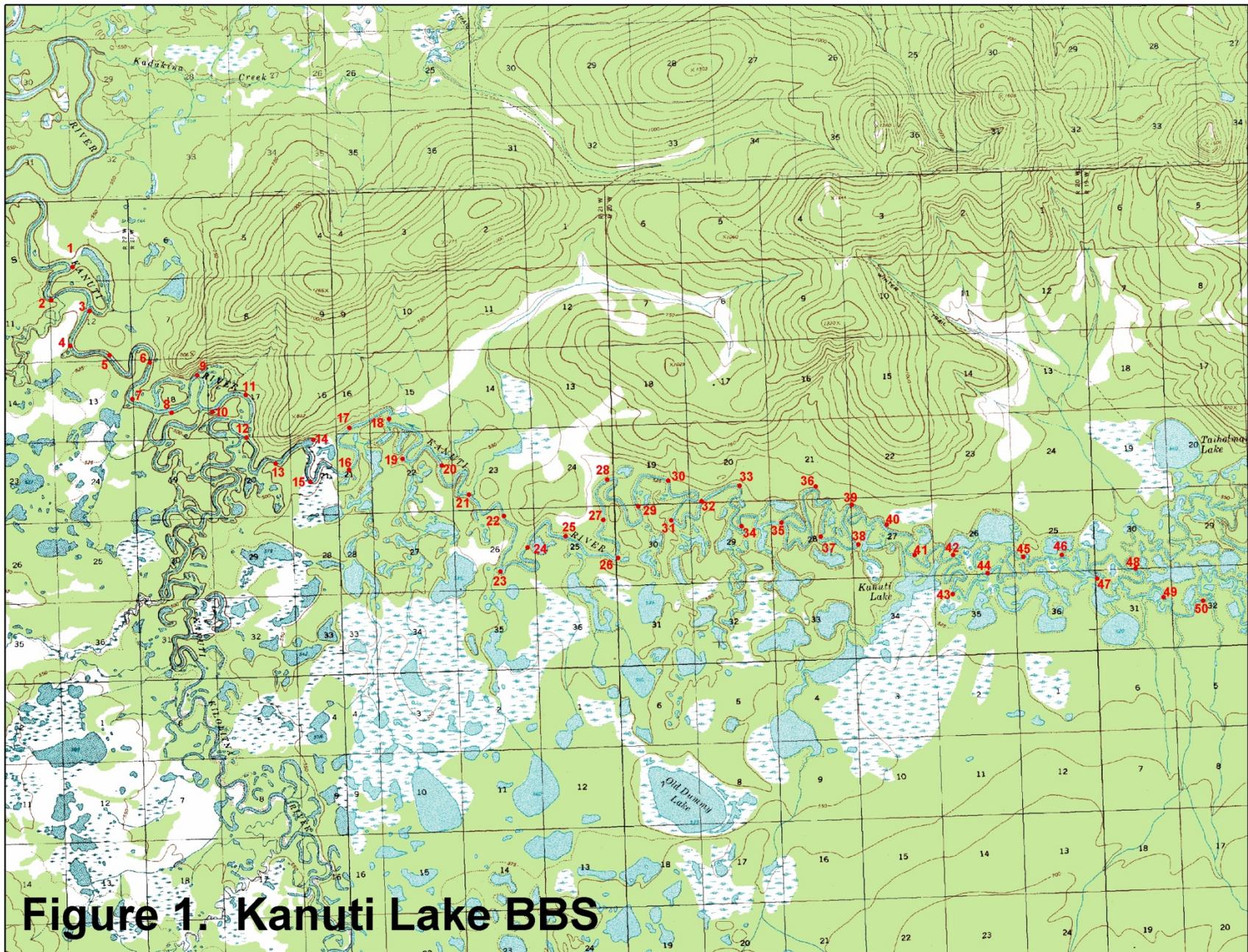


Figure 1. Kanuti Lake BBS

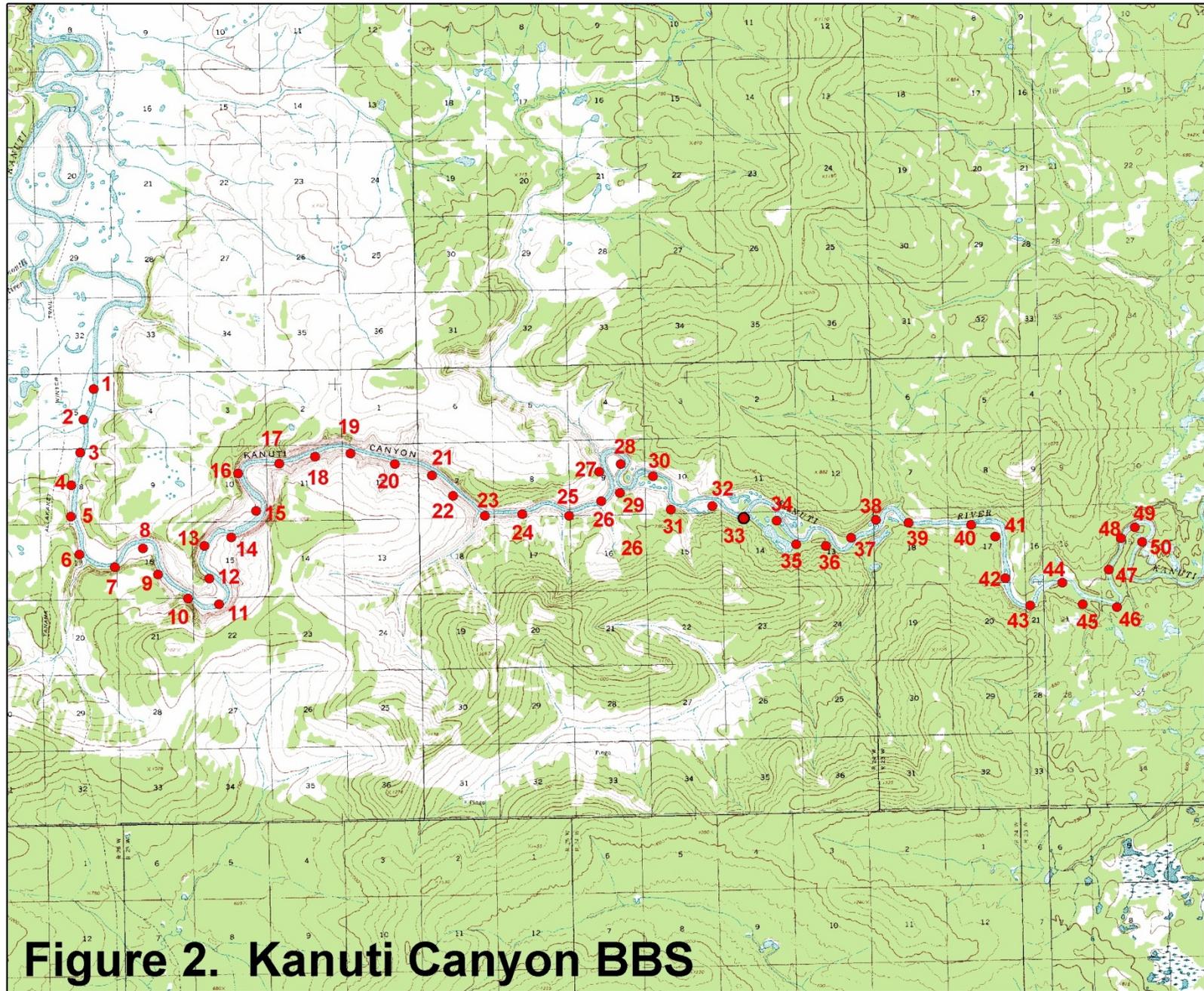


Figure 2. Kanuti Canyon BBS