

DEPTH CHARTS OF SOME LAKES IN UTSJOKI,
FINNISH LAPLAND

AATOS PETÄJÄ

Department of Zoology, University of Turku,
Turku, Finland

The following soundings were made to obtain preliminary information about relative depths and differences in bottom morphology of some lakes in the Utsjoki district. Sounded lakes were chosen on the basis of already made or planned scientific investigations, which require a chart with depth curves. For the present, the difficulty of transporting a boat in roadless terrain to some other interesting lakes has eliminated all sounding in these.

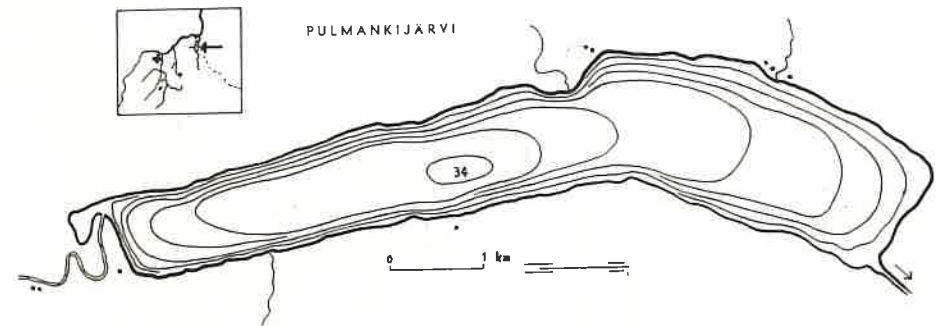
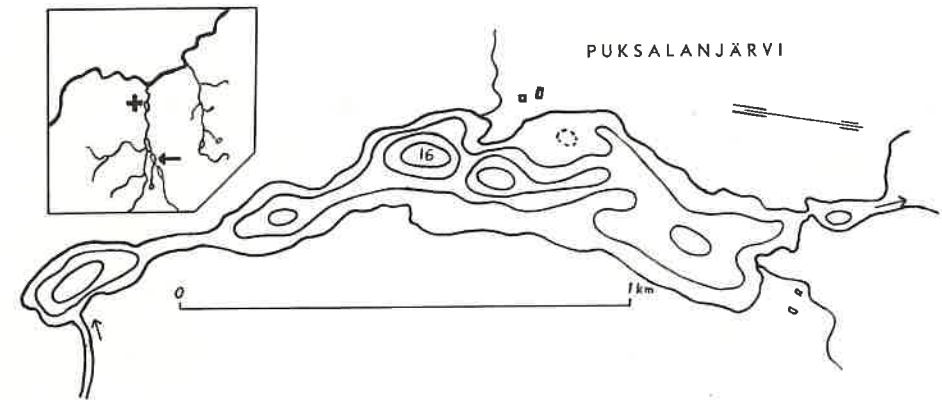
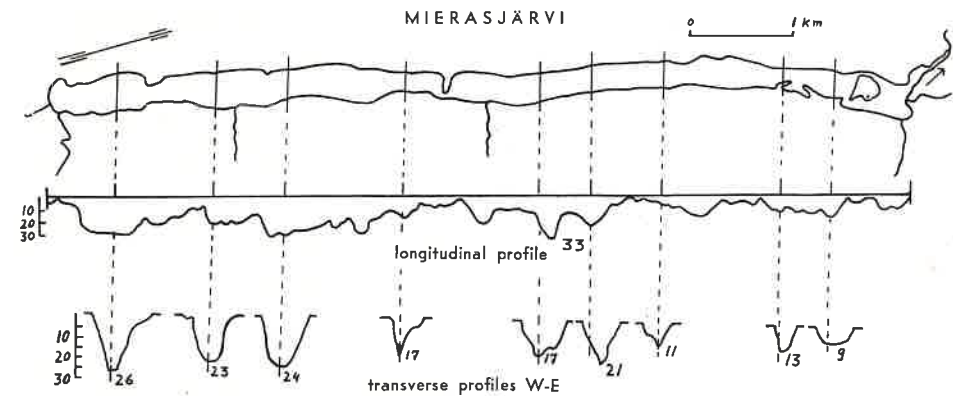
Bendix Echo Sounder model DR-15 (accumulator-powered) was used in a boat with an outboard motor. The transducer of the echo sounder was fitted to the boat by means of an outboard supportive stand. Every lake was sounded with as many profiles as necessary to obtain reliable information concerning relative depths. Depth curves were calculated from echograms and drawn on maps based on aerial photographs. The echo sounder used gave insufficient information about the composition of bottom sediments so that only depth relations are reported here. Lake Mierashjärvi is described with profiles only.

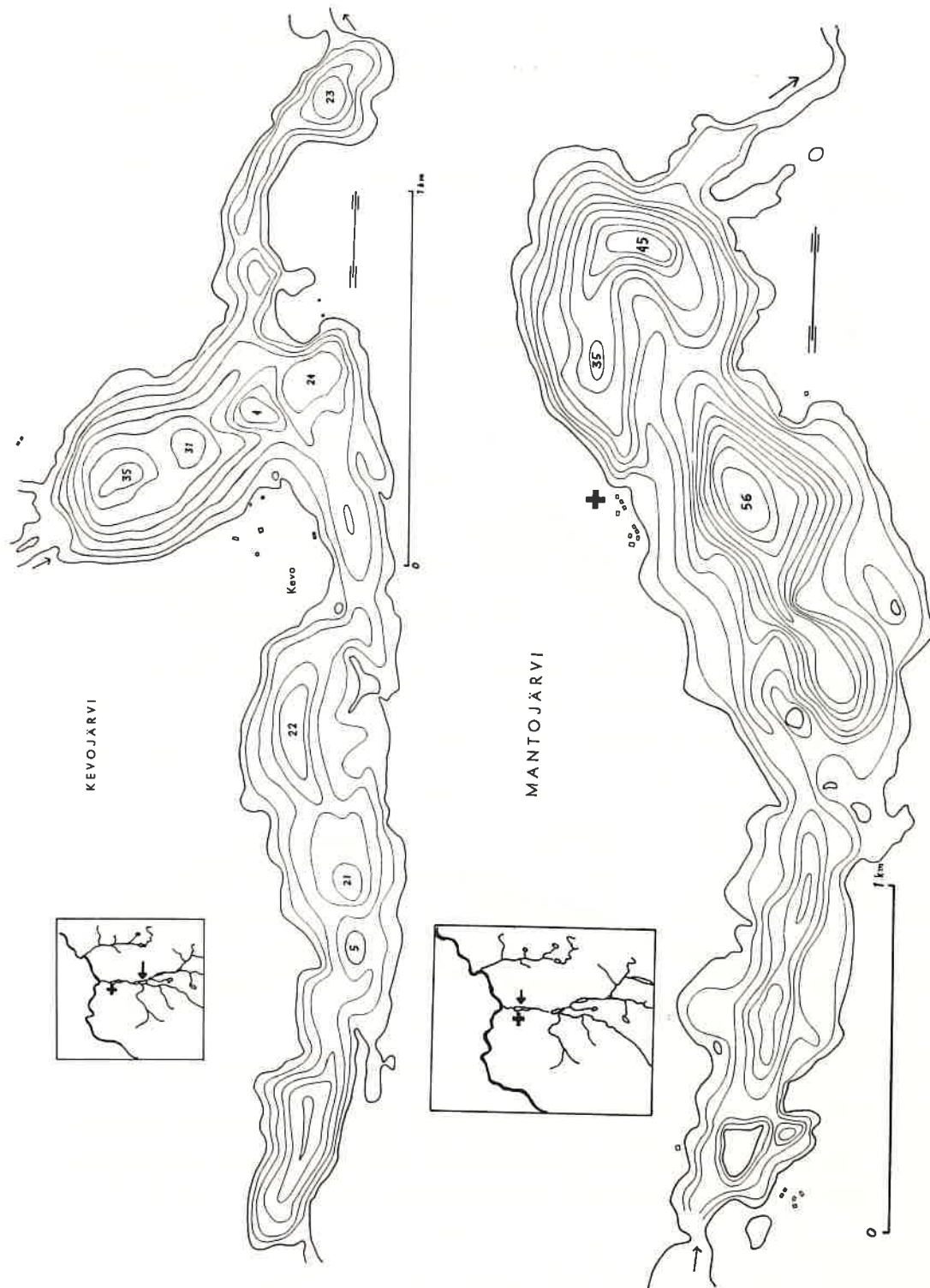
In the following charts every depth curve represents an altitude interval of 5 metres, the greatest depth found and some leading values are also indicated. An orientation map is added to some charts.

Main dimensions of sounded lakes

	Length km	Breadth km	Area sqkm	Max. depth m
Lake Mierashjärvi	8.1	0.36	5.6	33
„ Puksaljärvi	1.6	0.3	0.3	16
„ Kevojärvi	3.2	1	1.0	35
„ Mantojärvi	3	0.75	1.6	56
„ Pulmankijärvi	9.2	1.6	11.2	34

The first four lakes mentioned belong to the Utsjoki river-valley system and are morphologically somewhat alike. They are situated one after another and have a winding shore line and comparatively rough and uneven bottom morphology. Lake Mierashjärvi is the highest in the system and resembles a canyon lake between high and steep cliffs. The lower end of this valley





system near Lake Mantojärvi is broad and soft-featured. All these lakes have some sudden pit-like deeps and sandy or stony shallows.

The bottom morphology of Lake Pulmankijärvi is quite different, the shore line is almost straight, very steeply inclined below water level except to the north and the bottom is almost as flat as a board. MANSIKKANIEMI (1964) explained this as being caused by a mass of ice remaining in the lake during the postglacial period.

REFERENCE

- MANSIKKANIEMI, H., 1964: Main features of the glacial and postglacial development of Pulmanki valley in northernmost Finland. — *Ann. Univ. Turku. A, II*: 32 (Rep. Kevo Subarctic Sta. 1), 322—337.