

CONTENTS

1.	INTRODUCTION	1
2.	ECHOSOUNDINGS	3
2.1.	Introduction	3
2.2.	Instrumentation	3
2.3.	Preparations	6
	Working map	6
	Sounding tracks	6
	Pilot survey	6
	Calibration	7
2.4.	Field-work	7
3.	BATHYMETRIC MAP CONSTRUCTION	9
4.	MORPHOMETRY	12
4.1.	Optimization of lake hydrography surveys - the information value of bathymetric maps	12
4.2.	The intensity of the survey	15
4.3.	Practical use of the optimization model-manuals ...	17
	4.3.1. Manual - unknown lake	18
	4.3.2. Manual - already echosounded lake	22
4.4.	Morphometrical parameters	26
	Maximum length	26
	Maximum effective length	26
	Effective length	27
	Effective fetch	27
	Maximum width	30
	Maximum effective width	31
	Mean width	31
	Maximum depth	33
	Mean depth	33
	Median depth	34
	Quartile depths	34

Relative depth	35
Direction of major axis	36
Shoreline length	36
Contour-line length	39
Total lake area	40
Lake area	40
Volume	41
Slope	46
Mean slope	48
Median slope	50
Shore development	50
Lake bottom roughness	52
Form roughness	53
Volume development	55
Islands, islets and rocks	56
Insulosity	59
Profiles	59
The slope curve	62
The hypsographic curve	64
The percentage hypsographic curve	64
The relative hypsographic curve	65
The volume curve	65
The percentage volume curve	65
The relative volume curve	67
The lake form	67
The lake type	70
 5. ACKNOWLEDGEMENTS	73
 6. APPENDIX	75
 7. REFERENCES	77