## Volume 1

## CONTENTS

The cognitive map concept and its consequences. C. Thinus-Blanc. $ \\$	1
Cognitive mechanisms in animal problem-solving. P. Ellen.	20
SECTION I. Experimental Animal Psychology.	
Behavior in relation to objects in space : some historical perspectives. M. E. Rashotte.	39
Behavior as a locationist views it. E.W. Menzel, Jr.	55
Local cues and distal arrays in the control of spatial behavior. W.K. Honig.	73
A comparative approach to cognitive mapping. J. Vauclair.	89
Detour and shortcut abilities in several species of mammals. N. Chapuis.	97
Movement through space and spatially organized behavior. J.M. Stahl, S.B. Bagley, J.L. McKenzie, and P.L. Hurst.	107
Study of cognitive processes used by dogs in spatial tasks. C. Fabrigoule.	114
Role of the spatial structure in multiple choice problem-solving b	эу
MC. Buhot, and H. Poucet.	124
Memory properties of spatial behaviours in cats and hamsters. B. Poucet, and G. Scotto.	135
The role of intramaze stimuli in spatial problem solving. C. Wages.	147
Rats use the geometry of surfaces for navigation. K. Cheng.	153
Dissociation between components of spatial memory in the rat during ontogeny.  F. Schenk.	ng 160

Spatial and nonspatial strategies in the orientation of the rat.  D. Einon and C. Pacteau	168
SECTION II. Neuroethology and Ethology.	
Neuroethology : toward a functional analysis of Stimulus-Respond mediating and modulating neural circuitries. $J_{\bullet}-P_{\bullet}$ Ewert.	ise 177
Cognitive maps and navigation in homing pigeons. W. Wiltschko and R. Wiltschko.	201
Accuracy of map-building and navigation by humans during "natura exploration: relative roles of magnetoreception and vision. R.R. Baker.	1" 217
The control of short-distance homing in the golden hamster. A.S. Etienne.	233
Cognitive map size and homing behavior.  J. Bovet.	252
The heuristic value of visual spatial orientation in insects. G. Beugnon.	266
Pigeon homing and the avian hippocampal complex: a complementary spation behavior paradigm. V.P. Bingman, P. Ioale, G. Casini, and P. Bagnoli.	i <b>al</b> 275
Effectiveness and limitation of random search in homing behaviour. M. Jamon.	284
Foraging and social behaviour of ungulates: proposals for a mathematic model.  S. Focardi and S. Toso.	295
Spatial memory in food-storing birds. D.F. Sherry.	305
Subject Index	323
Authors Index	327