CONTENTS

INTRODUCTION	13
BARN OWL NOMENCLATURE	14
HISTORY	24
Prehistory	24
Historical human-owl relations	25
Owls in antiquity	25
Owls and myth	26
Owls in art and religion	27
Owls today	28
TAXONOMY, DISTRIBUTION AND ABUNDANCE	30
Taxonomy and distribution	30
Barn Owl abundance in Europe	33
The occurrence of subspecies in the Czech Republic	33
Trends in European abundance	34
DESCRIPTION	52
General description of the Barn Owl	52
Detailed description of a dead central European Barn Owl	52
The upper-side of the wing	55
Flight feathers	55
Bastard wing Alula	57
The under-side of the wing	57
Tail - the upper-part	62
Tail - the under-part	62
Abnormal colouring	62
Differences between the sexes	70
Differences between juveniles and adults	77
Senses	77
Notes on anatomy	79
Barn Owl Biometrics	80
BARN OWL SOUNDS	84
Territorial call	84
Contact calls	84
Calls of distress and alarm	85

BARN OWL NESTING SITE PREFERENCESIN THE CZECH REPUBLIC	86
A commentary on Barn Owl nesting sites in the Czech Republic	89
Photographic documentation of farm buildings with occupied Barn Owl nesting boxes 1998–2007	·104
Breeding site preferences in selected European countries	116
The height of nests above ground	
Nest site fidelity	116
Do fledglings breed in the same nest in consecutive years?	117
Do individuals prefer the same type of nesting site as the one in which they were hatched?	117
The use of nesting sites outside the breeding season	118
Spatial orientation	118
ALTITUDINAL DISTRIBUTION OF THE BARN OWL	120
Barn Owl occurence in selected geomorphological units of the Czech Republic	121
Barn Owl breeding at higher elevations in other countries	123
BREEDING BIOLOGY	124
Age of maturity	124
Courtship at Barn Owl breeding sites	124
The onset of Barn Owl breeding	125
Eggs	128
Number of eggs in the first clutch	130
Number of eggs in the second clutch	132
Number of eggs in the third clutch	134
Young	136
Same pair second broods in one year	160
Same pair third broods in one year	162
Same pair fourth broods in one year	164
Factors affecting high reproductive output	164
Breeding success	164
Site and mate fidelity	168
Polygamy	169
Incest	171
Interspecies relations	171
FEEDING ECOLOGY	172
Barn Owl diet	172
Commentary on selected mammal species commonly found in the Barn Owl's diet	175
Barn Owl diet in Europe	183
Barn Owl pellets	187
Selection and preference of hunting territories	202
The size of hunting/feeding territory	
Killing, transporting and eating prey	204
Does the Barn Owl drink?	207
Evidence of Barn Owl presence	208

B	ARN OWL MOVEMENT	212
	Disperal or migration?	212
	Ringing results for the Barn Owl in the Czech Republic	213
	First recoveries	213
	Long distance movement of siblings in different directions	215
	Collective movement of siblings	215
	Results of the statistical tests measuring the flight distances of Barn Owls ringed in the Czech Re	public218
	Statistical test of flight direction in the Czech Barn Owl population	218
	Long-distance movement of Barn Owls in Europe	220
	Records of ringed Barn Owls from Russia	221
	Ringing results from Slovakia	221
	Some types of bird rings used for the Barn Owl	221
B	ARN OWL OCCURRENCE IN THE CZECH REPUBLIC	232
	Barn Owl breeding sites in the Czech Republic before 1940	232
	Barn Owl breeding sites in the Czech Republic before 1940	233
	Barn Owl breeding sites in the Czech Republic 1940-1960	234
	Barn Owl breeding sites in the Czech Republic 1961-1969	235
	Barn Owl breeding sites in the Czech Republic 1970-1976	235
	Barn Owl breeding sites in the Czech Republic 1977-1985	236
	Barn Owl breeding sites in the Czech Republic 1986-1991	236
	Barn Owl breeding occurrence in the Czech Republic 1992–1997	236
	Barn Owl breeding occurrence in the Czech Republic 1998-2002	236
	Barn Owl breeding sites in the Czech Republic 2003–2007	237
	Barn Owl nesting in cities	239
	Assessing Barn Owl breeding in the Czech Republic	240
В	ARN OWL BREEDING DENSITY	278
	Barn Owl density in the Czech Republic	278
	Two Barn Owls pairs nesting in one village	281
	Two Barn Owl pairs breeding in one village in other countries	284
	Three or more pairs of Barn Owls nesting in one village	284
	Two or more pairs of Barn Owls nesting in the same building	284
C	AUSES OF BARN OWL DECLINE	286
	Changes in the agricultural landscape	286
	Sufficient prey availability	286
	Severe and adverse winters	290
	Disappearance of traditional breeding sites	292
	Closing of church buildings	292
	Decline of nesting sites on farms	293
	Chemicals on farms	295
	Secondary intoxication	295
	Residual and heavy metal contamination	296
	Road and rail traffic	300
	Collisions with trains	302
	Predation	303
	Trapped in buildings	306

Threats to Barn Owls from various mechanical devices and materials on farms	200
Trapped in nooks and crannies	
Transmission wires and electrocution	
Deaths in tanks and cisterns	
Disturbance at nesting sites	
Purposeful killing	
Tuposcur Kiiiiig	014
BARN OWL MORTALITY AND LONGEVITY	316
Causes of death in the Barn Owl in the Czech Republic	316
Barn Owl mortality in the Czech Republic	316
Barn Owl mortality in Europe	318
Barn Owl age in the Czech Republic	319
Barn Owl as prey of other owl species	321
Barn Owl parasites	321
CONSERVATION AND PROTECTION	322
Ensuring church nesting sites are accessible	
Barn Owl conservation on farms	
Nesting boxes for Barn Owls	
Putting Barn Owl protection into practice in the Czech Republic	
Barn Owl protection measures abroad	
Public education	
Preventing death by drowning in tanks and cisterns on farms	
Preventing Barn Owl losses in air-exchange pipes	
Preventing Barn Owl losses in chimneys	
Rescue and release programmes	
Miscellany	
Legislative protection	
ABBREVIATIONS	344
ACKNOWLEDGEMENTS	
Ministry of Environment of the Czech Republic	
Further support for the preparation and publication of this book	348
ITERATURE	352

