

Accipiter gentilis see goshawk	mortality at edge of protected areas 8–9
Acinonyx jubatus see cheetah	population suppression impacts 7–8
ADMADE program, Zambia 240–1, 244	problems with acoustic repellents 81
Africa	rankings as a pest 258, 259–65
conflicts over responses to crop raiding	reasons for continuing threat to farmers
72-4	84-5
fatal attacks	recolonization of newly safe areas 9-10
by big cats 14	recovery in Kenya 360–2
by elephants 15–16	Selous Conservation Programme 151-2
by hippopotamuses 15–16	sport hunting in Zimbabwe 144–8
impact of crop-raiding 24-6, 72-3	threat to farmers' livelihood 72-3
lion attacks on humans 30-2, 35	use of Capsicum repellents 82-3
livestock losses to carnivores 17-18, 67	use of fences and barriers to exclude 80
use of non-lethal control measures 67	African lion (Panthera leo)
African elephant (Loxodonta africana)	attacks on humans 14, 30–2, 35, 162–4
as focus of human-wildlife conflict 252-3	avoidance of areas of lethal control 9-10
avoidance of areas of lethal control 9-10	collapse of geographic range 4-7
causes of mortality 7-8	fencing to exclude 60–2
conflicts with humans, SHNR, Kenya	Laikipia Predator Project, Kenya 286–8
224-5	lethal control and population sinks 8-9
crop damage compared to other causes	livestock losses to 17–18, 67
IIO—II	main diet and conservation status 50
crop-raiding and conflict with humans	man-killing/mauling 162–4
24–6, 267–75	non-target victims of lethal control 95-8,
culling due to value of ivory 98–9	97
destruction of electric fencing 61	population suppression impacts 7–8
effectiveness as crop raiders 74	radio-collared animals, Laikipia, Kenya
effects of crop damage on local attitudes	288, 293–7, 296
270-2	removal from hunting quota in Botswana
effects on structure of ecosystem 10–11	241-2
extractive use to offset other conflicts 149	safari hunting in Tanzania 151–2
factors influencing crop raiding 74-5	selection against livestock killers 295–6
fatal attacks on humans 15–16	African wild dog (Lycaon pictus)
feasibility and costs of translocation 83-4	collapse of geographic range 4–7, 5
fragmentation of habitats 230-1	Laikipia District, Kenya 286–8
guarding and scaring to prevent crop-	livestock losses to 17–18, 67
raiding 78–80	main diet and conservation status 50
historical trends in killing in Kenya 358–9	sensitivity to edge-effect mortality 8–9
human death and injury, Shimba Hills,	social effects of lethal control 9
Kenya 229–30	Ailuropoda melanoleuca see giant panda
lethal control 3, 7–8, 75–8	Alces alces see moose



Alectoris rufa see red-legged partridge	Asiatic black bear (Ursus thibetanus)
American black bear (Ursus americanus)	attacks on humans 30–2, 39
attacks on humans 14–15, 30–2, 39	main diet and conservation status 50
fencing to exclude 60–2	Asiatic golden cat ( <i>Felis temmincki</i> ), main
main diet and conservation status 50	diet and conservation status 50
non-target victims of lethal control 95–8	Asiatic lion ( <i>Panthera leo</i> )
rabies in 37	livestock losses to 67
what to do if attacked 45–7	main diet and conservation status 50
Amur tiger (Panthera tigris altaica)	nature of attacks on humans 30–2, 35 attacks on humans see human fatalities and
antagonistic attitude of hunters 315,	
316–17, 319–20 attacks	injuries
on domestic animals 308, 315–17, 317–18	baboons ( <i>Papio</i> spp.), rankings as a pest 258,
on humans 308, 312–14	259–65
commercial value on the black market	badger see European badger
308–10	barnacle goose (Branta leucopsis),
conflicts with people 305–6	populations in Scotland 176–9
conservation in Russian Far East 305–6,	bat-eared fox (Otocyon megalotis), rabies
32I	reservoirs 16–17
distribution and habitat 306–7 effects of human-caused mortality on	bean goose (Anser fabalis), population in Scotland 176–9
populations 309, 310	bears see also individual types of bear
fear of attack, and shooting by hunters 314	damage to bee hives 164–5
human-caused mortality 308–10, 319–20	man-killing/mauling 162–4
lethal control of problem animals 311–12	non-lethal control measures (North
level of perceived threat to local people	America) 66–7
307, 309, 313	provoked (defensive) attack behaviour
perceived competition with hunters for ungulates 319–20	· · · · · · · · · · · · · · · · · · ·
responses to the human-tiger conflict	unprovoked (predatory) attack behaviour 37
320-I	use of <i>Capsicum</i> repellents 82–3 what to do if attacked 45–7
work of the Tiger Response Team 314–15	beehives
Anser albifrons flavirostris see Greenland	damage by bears 164–5
white-fronted goose	damage by boars 104-5
Anser anser see greylag goose	electric fencing to protect 61
Anser brachyrhynchus see pink-footed goose	bighorn sheep (Ovis canadensis)
Anser fabalis see bean goose	population recovery in USA 340
antelopes, rankings as pests 258, 259–65	threat from cougar predation 170–1
anti-fertility measures, to control predators	bird pests
55, 64-5	acoustic repellents 81
Aquila adalberti see Spanish Imperial eagle	chemical repellents 81–3
Aquila audax see wedge-tailed eagle	bison (Bison bison)
Aquila chrysaetos see golden eagle	motives for eradication from plains 88
Aquila verreauxii see black eagle	recovery in Yellowstone National Park 340
Asia	transmission of brucellosis pathogen 17
fatal attacks by big cats 14	black-backed jackal (Canis mesomelas)
livestock losses to carnivores 17–18, 67	fencing to exclude 61
use of non-lethal control measures 67	livestock losses to 67
Asian elephant ( <i>Elephas maximus</i> )	main diet and conservation status 50
causes of mortality 7-8	rabies reservoirs 16–17
fatal attacks on humans 15–16	use of donkeys to guard livestock against 63
lethal control of 3	black bear see American black bear; Asiatic
population suppression impacts 7–8	black bear



black eagle (Aquila verreauxii)	removal of iton from safari nunting quota
beneficial hyrax predation 20–1	241-2
livestock losses to 20-1	right of community to sell quotas 245
black-footed ferret (Mustela nigripes)	bovine tuberculosis
decline due to prairie dog decline 212,	control of European badgers (UK) 89
217–18	pathogen transmission from wild animals
extinction in the wild 10–11	17
black rhinoceros (Diceros bicornis)	Branta canadensis see Canada goose
recovery in Kenya 360–2	Branta leucopsis see barnacle goose
Selous Conservation Programme	brown (grizzly) bear (Ursus arctos)
151-2	collapse of geographic range 4-7
black-tailed prairie dog (Cynomys	core protection area in Slovenia 170
ludovicianus)	effects of public hunting (Norway) 92
benefits to the ecosystem 210-II	effects on ecosystem structure 10–11
conservation decision-making process	fatal attacks on humans 14–15
218–21	fencing to exclude 60-2
ecology and impact on livestock	impact on moose populations 21
production 210–11	in Norway and Sweden 323, 324, 326-30
effects of recreational shooting 211-12	lethal control and population sinks 8-9
effects of urban sprawl 211-12	livestock losses to (Europe) 18–19
eradication programmes 211–12	main diet and conservation status 50
human perspectives and reasons for	nature of attacks on humans 30-2, 37-8
decline 211–12	non-lethal control measures (Europe) 65-6
improving management of conflict 221-3	non-target victims of lethal control 95-8
introduction of plague (Yersinia pestis) 211	provoked attacks 29-33, 36-7
link with black-footed ferret recovery 212,	sensitivity to edge-effect mortality 8-9
217–18	verification of livestock loss due to IIO-II
management stakeholders, social process	what to do if attacked 45-7
analysis 214–18	brown hyaena (Hyaena brunnea), main diet
socio-political challenges to conservation	and conservation status 50
209–10, 212	Brucella abortus (cause of brucellosis),
views	transmission from wild animals 17
of agency personnel 216, 217–18	brucellosis, pathogen transmission from
of animal rights activists 216, 217–18	wild animals 17
of conservationists 215-16, 217-18	buffalo (Syncerus caffer)
of Native Americans 216, 217–18	rankings as a pest 258, 259–65
of ranchers 215, 217–18	recovery in Kenya 360-2
of recreational shooters 216-18	safari hunting in Tanzania 151–2
of the American public 217	bush pig (Potamochoerus spp.)
of urban developers 217	crop-raiding 24-6, 252-3, 267-75
black wildebeeste (Connochaetes gnou),	rankings as pests 258, 259-65
recovery on private land 239	buzzard (Buteo buteo), impact on field vole
blesbok (Damaliscus albifrons), recovery on	populations 23
private land 239	Bwindi Impenetrable National Park
bobcat (Lynx rufus), main diet and	(Uganda) 150–1
conservation status 50	
boma fencing 55, 60-2, 298-300	CAMPFIRE programme, Zimbabwe 146-7
Bonasia bonasia see hazel grouse	240-1, 247-8
Bonelli's eagle (Hieraetus fasciatus), collapse	campsites, electric fencing to protect 61
of geographic range 4-7	Canada goose (Branta canadensis),
Botswana	population in Scotland 176–9
distribution of hunting benefits 242-3	cane rat (Thryonomys swinderianus),
regulation of low-cost hunting 246-7	rankings as a pest 258, 259-65



canids, transmission of tapeworm to	Carolina parakeet (Conuropsis carolinensis),
humans 17	extinction 3–4
Canis aureus see golden jackal	cattle ranches 283–4
Canis familiaris see dog	Ceratotherium simum see white rhinoceros
Canis latrans see coyote	Cercopithecus ascanius see red-tailed monkey
Canis lupus see grey wolf	Cervus elaphus see red deer
Canis lupus dingo see dingo	Charlemagne, Emperor, use of wolf-hunters
Canis mesomelas see black-backed jackal	2-3
Canis rufus see red wolf	cheetah (Acinonyx jubatus)
Cape mountain zebra (Equus zebra zebra),	collapse of geographic range 4-7
recovery on private land 239	Laikipia District, Kenya 286–8
capercaillie (Tetrao urogallus), impact of	livestock losses to 67
predation on populations 22	main diet and conservation status 50
Capsicum repellent systems 45, 82-3	sport hunting 145, 149
caracal (Caracal caracal)	use of donkeys to guard livestock against
fencing to exclude 61	63
main diet and conservation status 50	Chen spp. see white geese
use of donkeys to guard livestock against 63	chimpanzee (Pan troglodytes)
caribou (Rangifer tarandus), impact of	crop-raiding 24–6
predation by carnivores 21	lethal control of 3, 9
carnivore conservation see also predators	Circus cyaneus see hen harrier
addressing potential conflict in protected	Chobe Enclave Conservation Trust,
areas 171	Botswana 240-I
and compensation programmes 70–1	coexistence
and wild prey availability 67, 68–71	accepting costs of living with wildlife 405
compatible human activities 164	achievability 388–9
conflict mitigation as part of conservation	conservation in a multi-use landscape 389
strategy 373–4	economic development and changing
conservation challenges 305	societal values 403–4
conservation in protected areas 167–8	economic incentives to encourage
dispersal distances 167	tolerance 399–400
home range size in relation to zoning 167	effectiveness of conflict resolution
hunting to reduce social conflict 172–3	methods 395–6
in multiple-use landscapes 68–71, 167–8	importance of involvement of local people
integration of non-lethal controls 68–71	
Norway and Sweden	in areas of low primary productivity and a
	in areas of low primary productivity 392–3
conflicts in 325	management strategies and policies to
differences in impacts in 326–30, 334	encourage 395–403
hunting policies in 330–3	need for combination of measures 396
population and distribution goals 333–4	partitioning the landscape as alternative
solutions to conflicts in 334–7, 338–9	to 389–91
species in 323–4	community-based conservation, limitations
predation	of 134–5
on game 2I-2	community-based tourism 123–4, 125 see also
on livestock 17–19	tourism
regional differences in extent of conflicts	accessibility of sites 126
164-5	as a niche market 130
sources of conflict with humans 162–4	building on existing tourism circuit 127
species and regional variation in	criteria for commercial viability 124–8
conservation status 165	economic and social viability 128–9
species differences in extent of conflicts	effects of non-commercial priorities
164–5	129-30
tendency to avoid killing livestock 95–8	health and security issues 126, 127



community-based tourism (cont.)	conditioned taste aversion (CTA) 55, 63-4
importance of marketing 127	conflict in conservation, improving conflict
lack of access to capital 129	management processes 221–3
lack of understanding of tourism 130	Connochaetes gnou see black wildebeeste
limitations and trade-offs 125, 129–30	Connochaetes taurinus see wildebeeste
measures of success 138-9	conservation
opportunity costs of foregone activities 128	agencies conflict with rural populations
potential for unmet expectations and	(Africa) 72–4
increased poverty 129	and economic development 122-3
pricing and demand 127–8	and predator removal 94–5
quality of wildlife viewing experience	developing public support 222–3
126–7	distribution of costs and benefits 122-3
Torra conservancy, northern Namibia 136	enforcing policies on tourist hunting
uniqueness of wildlife 127	241-3
wildlife conflict costs 128	illegal hunting and local livelihood
wildlife conservation costs 128	insecurity 242
community-based tourist hunting see tourist	improving conflict management
hunting (community-based)	processes 221–3
compensation schemes	lethal control options and choices 86-7,
administration costs 113–14	103-6
and carnivore conservation 70-1	limitations of communal approaches
and private insurance 115–16	134-5
benefits attributed to 109-10	practice-based strategies (adaptive
core elements 110	management) 222
evaluation of 107–8	preventing subversion of tourism benefits
for agricultural damage by geese 180–1	134–5
for damage by protected species 108–9	recognizing both sides of a conflict 284–5
for human injury or death 112–13	consumptive use of wildlife, and conflict
for livestock depredation	mitigation 138–9
Europe 65–6	Conuropsis carolinensis see Carolina parakeet
India 67	corvids
funding 113–14	control on grouse moors 193–4
historical use of bounties 108	impact of predation on small game 22
importance of prompt and fair payment	livestock losses to 20–I
III–12	
	cougar (Puma concolor); see also puma
incentives and moral hazard 114–15	effects of culling (USA) 92 fatal attacks on humans 14
limitations of 399–400	and attacks on numans 14
more cost-effective alternatives 117–19	geographical variation in attack frequency
need to evaluate success of 116–17	40-I
negative effects	management zones in North America
of agricultural subsidy 115	I70-I
of influx of funds 115	man-killing/mauling 162–4
Norway and Sweden 325–6, 329, 333,	nature of attacks on humans 30–2, 34–5
334-7	predation on domestic dogs 162–4
participation of local people II3	threat to bighorn sheep 170-1
performance payments approach 118–19	what to do if attacked 45-7
Project Snow Leopard (Pakistan) 116	coyote (Canis latrans)
summary of review 119-21	effects of culling (USA) 92
targeted 138–9	fencing to exclude 55, 60–2
typical arrangements 108	lethal control of I, 3
undesirable effects 114-15	livestock losses to 19
verification of damage IIO-II	main diet and conservation status 50
wolf recovery in the USA 109	non-lethal control measures 66–7



non-target victims of lethal control 95–8	use of repellent systems $80-3$
potential to hybridize with wolves 346-7	wildlife versus other pests 254-6
use of anti-fertility measures to control 55,	crow (Corvus corone), control on grouse
64–5	moors 193–4
use of donkeys to guard livestock against	culling 88–90
63	as possible control measure for geese
use of llamas to guard livestock against 63	(Scotland) 179–80
crocodile (various species), ranching for	European badgers and TB control (UK) 89
sustainable benefits 148–9	illegal killing of endangered species 98–9
Crocuta crocuta see spotted hyaena	impact on viability of populations 98–9
crop-raiding	killing of non-target animals 95–8 reasons for short-lived effects 92, 95–8
and farmers' vigilance 74–5 and negative attitudes towards wildlife	
	review of programmes 91–3, 92 varying public tolerance of 100–3, 101
72−3 around Kibale National Park, Uganda	curlew ( <i>Numenius arquata</i> ), on heather
	moorland 193
270, 271, 272 as source of conflict 24–6	Cynictis penicullata see yellow mongoose
by domestic livestock IIO-II, 273	Cynomys ludovicianus see black-tailed prairie
by threatened species 72, 73–4	dog
collective versus individual risk strategies	Cynomys spp. see prairie dogs
256–7	-1
conflict with rural populations (Africa)	Damaliscus albifrons see blesbok
72-4	Defenders of Wildlife compensation
control by fences and barriers 80	programmes 109
control by guarding and scaring 78–80	democratization, and human-wildlife
costs of damage 72, 272-5	conflict 404
differences between villages (Kibale	deterrents, to reduce livestock depredation
National Park, Uganda) 272, 273	55, 63–4
environmental impacts 74	Diceros bicornis see black rhinoceros
factors affecting tolerance of 252-3	Digo (Mijikenda) people
harvest zones to help reduce conflict 150-1	cultural beliefs and categories of land use
individual risk and landholding size	227-9
275–6	effects of poor treatment by outsiders
local response to, Kibale National Park,	234-5
Uganda (case study) 267–75	effects of population growth 230-1
need to devolve responsibility to farmers	effects of Shimba Hills National Reserve
84-5	on life and culture 227–9
perceptions of risk 252–3	need for empowerment of marginalized
predictors of risk 74–5	communities 237–8
problem animal control (PAC) units	need to have culture and beliefs respected
76–8, 84	236-7
reasons for continuing conflict 84–5	need to see benefits from Shimba Hills
reasons for intervention failures 84	National Reserve 237
residents' coping strategies 270–2	negative cultural view of fencing
risk exposure and ability to cope	234-5
(vulnerability) 256–7 Shimba Hills, Kenya 229–30	dingo (Canis lupus dingo) collapse of geographic range 4-7
strategies for damage control 75–6	fencing to exclude 55, 60–2
strategies to reduce human–wildlife	main diet and conservation status 50
conflict (Uganda) 276–7	population suppression impacts 7–8
translocation of problem animals 83–4	zoning in Australia 168–9
use of lethal control 76–8	disease, as factor in unprovoked attacks on
use of non-lethal control methods 78–83	humans 33
, , , , , , , , , , , , , , , , , , , ,	" " " ))



Elephas maximus see Asian elephant
elk (Cervus elaphus)
cost of hunting 244-5
population recovery in USA 340
endangered species
crop-raiding by 72, 73-4
lethal control
preferred form of 103-5
problem of using I
verification of livestock loss due to 110–11
Enhydra lutris see sea otter
environmental impacts of crop loss 74
Equus burchelli see zebra
Equus zebra zebra see Cape mountain zebra
eradication campaigns 88
European badgers (Ireland) 92
grey wolf (USA) 345–6
motives for bison eradication from plains
88
possible unpredictable effects 90–1
Eurasian lynx ( <i>Lynx lynx</i> )
collapse of geographic range 4-7
conflicts over sheep and deer (Swiss Alps)
68–9, 70
fencing to exclude 60–2
in Norway and Sweden 323, 324, 326-30
livestock losses to 18-19
main diet and conservation status 50
non-lethal control measures 65-6
European badger (Meles meles)
lethal control (for bovine tuberculosis)
(UK) 89, 92
non-target victims of lethal control 95–8
population suppression impacts 7–8
transmission of bovine tuberculosis
pathogen 17
extinction
and behavioural responses to lethal
control 9–10
due to edge mortality 8–9
due to lethal control 3–4, 75–6
due to trophic cascades 10–11
threats from human–wildlife conflict II–I2
extractive use of wildlife
as incentive for conservation 140-1
as part of a suite of conflict-reducing
measures 149
balance and distribution of benefits and
costs 154–60
CAMPFIRE programme, Zimbabwe
146-7, 240-1, 247-8
cropping, meat hunting and resident
hunting 158–9



difficulty of implementation 160-1	game
distribution of costs and benefits 141-3	competition between hunters and
effects compared to wildlife tourism	carnivores 162–4
153-4	losses to wild animals 21–4
effects of banning 150-3	game birds
harvest zones to help reduce conflict 150-1	effects of predation by raptors 22-4
hunting of problem species for meat	impact of predation on populations 22
144–8	game management
hunting with hounds 142-3	and predator removal 93-5
lack of evidence of positive results 160-1	public attitudes towards 100-3
live capture 157–8	garbage dumps, electric fencing to protect 61
natural product collection 156–7	geese, population levels in Scotland 177
political difficulties with 150-3	geographic ranges, collapse due to lethal
problem animal control 154–6	controls 4–7
ranching 157	giant panda (Ailuropoda melanoleuca)
ranching of crocodiles 148–9	attacks on humans 39
species other than problem species 149	conservation status 165
sport hunting 144–8, 159–60	golden eagle (Aquila chrysaetos)
to offset costs of conflict 140–1	collapse of geographic range 4–7
	livestock losses to 20–1
to offset negative attitudes towards	on heather moorland 193
protected areas 142–4, 145 unequal distribution of costs and benefits	
-	golden jackal (Canis aureus), main diet and
160–1	conservation status 50
п. 1	golden plover ( <i>Pluvialis apricaria</i> ), on
Falco peregrinus see peregrine falcon	heather moorland 193
Falco rusticolus see gyrfalcon	goose–agriculture conflict
Falkland Island wolf (Dusicyon australis),	benefits from tourism and wildfowling
extinction 3–4	187–9
farmers, need to devolve responsibility to 84,	compensation schemes for farmers 180–1
84-5	co-ordinated goose management schemes
fear of large carnivores	181–4
as source of conflict 162–4	costs of management schemes 187–9,
species variations 164–5	190–1
Felis temmincki see Asiatic golden cat	culling as possible control measure
fencing	179–80
anti-predator types and uses 55, 60–2	damage to agriculture in Scotland
as source of wire for snares 389–91	177, 178
bomas 55, 60-2, 298-300	implementation of goose management
disruption of migration routes 390-1	schemes (Scotland) 178, 184–9
electric 55, 61, 80, 231–2	Loch of Strathbeg goose management
fladries 55, 62	scheme (Scotland) 178, 186
natural materials 55, 60–2	management of reserves for geese 181
problems caused by 389–91	national and international protection of
Shimba Hills National Reserve	populations 176–9
224-5	National Policy Framework (NPF) for
to control crop-raiding 80	Scotland 182-4, 190
to partition the landscape 389–91	need for flexible local solutions 181-4,
wire-netting 55, 60–2	189–90
field vole (Microtus agrestis), impact of	possible solutions 179–81
buzzard predation 23	potential benefits from the presence of
fladries 55, 62, 352	geese 187–9
fox (Vulpes vulpes) see red fox	public support for protection of geese 189
fur seal, lethal control of 2–3	scaring as possible control measure 180
	0 1



goose (cont.)	mortality at edge of protected areas 8-9
shooting as part of management solution	nature of attacks on humans 30-2,
179–80	39-41
Solway Firth barnacle goose management	non-lethal control measures 65–6
scheme (Scotland) 178, 185	population suppression impacts 7–8
gorilla (Gorilla gorilla), reducing conflict	potential to hybridize with dogs and
around protected areas (Uganda)	coyotes 346–7
149, 150–1	predation on domestic dogs 162-4
goshawk (Accipiter gentilis) 23	predatory attacks on humans 15
Greenland white-fronted goose (Anser	preservation of wolf habitat (USA) 347
albifrons flavirostris), population in	propaganda against 345–6
Scotland 176–9	rabid attacks on humans 15, 162–4
grey partridge ( <i>Perdix perdix</i> ) 22, 23	rabies-influenced attacks on humans
grey wolf (Canis lupus)	
attacks	30-2, 40, 4I, 42
	recolonization following translocation
on dogs 162–4, 342–4, 350	91–3, 92
on humans 15, 162–4, 348	recovery zones in North America 169–70
collapse of geographic range 4-7, 5	restoration of ungulate prey populations
compensation and recovery in the USA 109	340, 347
competition with human hunters for	source–sink population effects 8–9
ungulates 352–3	symbolism of wolves to humans 353-5
conflict over livestock depredations (USA)	targeted lethal control 92
342-4, 348-50, 351-2	tourist attraction in Yellowstone National
conflicts over return to the Alps 69–70	Park 353–5
conservation programmes (USA) 347–8	traditions of hunting 2-3
defensive attacks on humans 15	use of fladries to exclude 55, 62
effects of changing social values about	use of livestock guarding dogs (LGDs)
wildlife 355–6	62–3
effects of extirpation of prey species 340	vulnerability to dog diseases and parasites
effects of predation on ungulate	346-7
populations 21, 352–3	greylag goose (Anser anser), populations in
effects on ecosystem structure 10–11	Scotland 176-9
eradication benefits to Scottish sheep	grizzly bear see brown (grizzly) bear
90-8	ground squirrel (Spermophilus californicus),
extent of human-caused mortality 346	lethal control I
extermination campaigns (USA) 345-6	grouse see hazel grouse; red grouse; willow
extirpation and recovery in western USA	grouse
34°, 34¹, 342–4	grouse moors
fatal attacks on children 15	assessing impact of hen harrier predation
fear and resentment of 345–6, 348, 350,	194–200
	effects on management on bird species
35I-2	
genetic diversity in recovering	193-4
populations 345	illegal raptor control 193–4
geographical variation in attack frequency	impact of raptor predation on shooting
40-I	bags 196–200
habitat in northern Rocky Mountains,	importance for heather moorland
USA 345	conservation 193–4
habituation and attacks on humans 30–2,	management for shooting red grouse
40	193-4
in Norway and Sweden 323-4, 326-30	possible solutions to hen harrier conflict
isolated incidents of predation 91-3	200–6
livestock losses to 17–19, 67	Guadelupe caracara (Polyborus lutosus),
main diet and conservation status 50	extinction 3-4



guarding of crops, dangers and social costs	modelling to find acceptable solutions 206 possible solutions 200–6
Gulo gulo see wolverine	the way forward 206–8
gyrfalcon (Falco rusticolus), impact on ptarmigan populations 23	use of combined management solutions
ptarinigan populations 25	use of zoning and Special Protected Area
habitat destruction	(SPAs) 205–6
and local lack of livelihood security 242	using predators to control harriers 203
impacts of human–wildlife conflicts II	Hieraetus fasciatus see Bonelli's eagle
Haliaeetus albicilla see white-tailed eagle	hippopotamus (Hippopotamus amphibius)
hare ( <i>Lepus europaeus</i> ), hunting in Britain	15–16, 72–3
142–3	honey badger (Mellivora capensis)
harrier see also hen harrier	damage to beehives 164–5
impact on grey partridge populations 23	main diet and conservation status 50
harvest zones, to help reduce conflict over	human–elephant conflict 252–3
crop raiding 150–1	benefits from electric fencing 232–3
hazel grouse ( <i>Bonasia bonasia</i> ), impact of	problems after fencing 231–2, 233–5
goshawk predation 23	human fatalities and injuries
heather moorland	•
conservation importance of grouse	attack prevention 43–5 attacks
management 193–4	by African lions 30–2, 35
	by American black bears 30–2, 39
conservation significance of bird life 193	
importance as a habitat 193	by Asiatic black bears 30–2, 39
management for grouse shooting 193–4	by Asiatic lions 30–2, 35
predator control on grouse moors 193–4	by bears 14–15
hen harrier (Circus cyaneus)	by big cats 14, 30–2, 33–6
assessing impact of predation on grouse	by brown (grizzly) bears 30–2, 37–8
194–200	by cougars 30–2, 34–5
collapse of geographic range 4–7, 5	by giant pandas 39
conflict with red grouse shooting 192	by jaguars 30–2, 36
effects of lethal control 193–4	by leopards 30–2, 35–6
impact of predation on shooting bags	by mega-herbivores 15–16
196–200	by polar bears 30–2, 38
impact on red grouse populations 22-3	by sloth bears 30-2, 38-9
importance of heather moorland 193	by spectacled bears 30-2, 39
influences on density and diet on	by spotted hyaenas 30-2, 41-2
moorland 195–6, 197	by sun bears 30-2, 39
lethal control and population sinks 8–9	by tigers 30-2, 33-4
prey species 195–6	by wolves 15, 30-2, 39-41, 42
reasons for lethal control on grouse moors	due to disease 33
194–5	bear attack behaviour 36-7
hen harrier–grouse moor conflict	challenge to understand and reduce
consequences of doing nothing 200	conflict 47–8
deadlock between hunters and	geographical variation in frequency of
conservationists 206–8	attacks 40–1, 42
difficulties with compensation payments	link with food availability 44–5
200 <b>-</b> I	man-killing/mauling by large carnivores
diversionary feeding of harriers 201-3	162–4
habitat management 201, 203–4	need for better understanding of attacks
lethal control to limit harrier density	27–9
204-5	predatory attacks 33
modelling of management scenarios	provoked attacks 29-33
206	right-of-way attacks 33



human fatalities and injuries (cont.)	crop-raiding 24–6
solutions for coexistence 42–8	damage to lives and livelihoods 26
summary of carnivore behaviour 42	design of control programmes 103-6
unprovoked attacks 30-2, 33	differing human values for different
what to do if attacked 45-7	species 357–8
human population growth, impacts on	due to fear of wild animal attacks 14, 16
elephants in Shimba Hills, Kenya	due to return of carnivores 18–19
230-1	effects of democratization 404
human social conflicts, and controversy over	evolution of policy in Kenya 361, 362,
wildlife 162–4	363–8, 369
human–tiger conflict	extinction threat for vulnerable species
a policy framework for coexistence 385–7	II-I2
compensation for livestock depredation	factors which intensify conflict 253–4, 255
	fear, dislike and social conflicts 162–4
383-4 conflict mitigation to foster coexistence	
<u> </u>	geese and agriculture (Scotland) 176–9,
376, 380–5	177, 178
extent of conflict zones in India 376,	generating revenues from wildlife
377-9	399–400
killing of humans and man-eating	historical trends in Kenya 358–9
379–380, 383	historical use of lethal control 86
relocation of human settlements 376,	husbandry practices and problem animals
384-5	391–2
retaliatory killing over livestock	impacts on ecosystem function 10–11
depredation 376, 377-9	impacts on wild ecosystems II-I2
human-wildlife conflict	importance of involvement of local people
addressing conflict in conservation areas	402-3
171	improving conflict management
and availability of wild prey 393–4	processes 221–3
and economic development 403-4	in multiple-use landscapes 68–71
and habitat destruction II	incorporating mitigation into national
and transmission of disease 16-17	policy 371–2
and urbanization 404	life and culture of indigenous peoples
and wildlife policy in Kenya 370–1	227-9
and wildlife policy reform in Kenya	limitations of compensation 399-400
360-2	livestock depredation 20-1, 162-4
areas of conflict 1-2	man-killing/mauling 162–4
assessing effects of lethal control 90-8	modelling conflict solutions 283-4
biological information not sufficient on	need for combination of measures 396
its own 395–6	opportunity for contact as predictor 391–2
broader view of human–biodiversity	patchy distribution of conflicts 391
conflict 357–8	patterns and predictors 391–5
carnivores and social conflicts 172–3	possibility of coexistence 405
causes in Kenya 360, 361	possible role of lethal control 398–9
challenge to understand and reduce 47–8	predation on domestic dogs 162–4
challenges for biodiversity policy-making	predation on game 21–4
357–8	predation on livestock 17–21
comparing 'worst pest' rankings 258,	predation on investock 1/=21 predators and human hunters 21-4
259–65	primary productivity level as predictor
compensation schemes (summary) 119–21	392-3
competition for game animals 162–4	problems caused by protectionist
conflicts over access to wild prey 397–8	legislation 400–2
crop losses to wildlife versus other pests	rabies reservoirs 16–17
254–6	reasons for continuing conflict 84-5



reasons for intervention failures 84 recognising both sides 284–5	Hyaena brunnea see brown hyaena Hyaena hyaena see striped hyaena
resentment of legal protection of wildlife	hyaenas, fencing to exclude 60-2 see also
400-2	brown hyaena; spotted hyaena;
role of tourism in a mitigation strategy	striped hyaena
138–9	
Shimba Hills National Reserve, Kenya	Iberian lynx ( <i>Lynx pardinus</i> ), conservation
224-5	status 165
socioecological factors 252-3	India
technical solutions 396–9	deaths from rabies 16–17
urban–rural divide 404	fatal attacks
use of traditional approaches 396–7	by bears 14–15
with recovering wildlife populations	by big cats 14
394-5	by elephants 15–16
human-wildlife interactions	wolves 15
dangers of feeding 44-5	leopard attacks on humans 30–2, 35–6
negative aspects for humans 13	tiger
positive aspects for humans 13	as flagship species for biodiversity
humans, vulnerability of early hominids	protection 373-4
27-9	attacks on humans 30–2, 33–4
hunters	conflict mitigation as part of
competition with carnivores over game	conservation strategy 373-4
162–4	habitat loss and fragmentation 374-5,
conflict with endangered raptors 22-4	376
hunting see also safari hunting; sport hunting; tourist hunting; trophy	insurance schemes 138–9
hunting	jackal (Canis mesomelas) see black-backed
as incentive for conservation 142-3	jackal
by the public 90	jaguar (Panthera onca)
costs and effectiveness as control measure	addressing ranchers' concerns 283-4
76–8	collapse of geographic range 4-7
cropping, meat hunting and resident	effects of shortage of wild prey 279-80
hunting 158–9	factors affecting livestock depredation
impact on moose populations 21	279–80
of problem species for meat 144–8	main diet and conservation status 50
to reduce social conflict over carnivores	nature of attacks on humans 30–2
172-3	negative perceptions from ranchers 281,
traditional use of snares (Africa) 247–8	283
trophy and meat hunting (Tanzania)	ongoing conflict over livestock
151-2	depredation 278, 279, 280
wildfowling benefits from wild geese	protection from hunting 279
(Scotland) 187–9	recognizing both sides of the conflict
hunting, public	284-5
and tolerance of damage by wild game	survey of status and distribution 281
100–3, 101	threat from hunting 280
benefits and problems 105	
for non-threatened species 105	Kenya
impact on viability of populations 99	bushmeat trade 286
killing of non-target animals 95-8	causes of human-wildlife conflict 360, 361
potential problems 92, 95	causes of reduction in predator numbers
reasons for short-lived effects 92, 95-8	286
review of programmes 91-3, 92	historical trends in human-wildlife
varying public tolerance of 100-3	conflict 358–9



Kenya (cont.)	Lepus europaeus see hare
human-wildlife conflict and wildlife	Lepus timidus see mountain hare
policy 360–2, 370–1	lethal control
Laikipia Predator Project 286–8	and collapse of geographic ranges 4-7, 5
mitigation of human-wildlife conflict	and species extinctions 3-4
360–2	behavioural responses to 9-10
Kenya human–wildlife conflict policy	costs and effectiveness against crop
1977 Wildlife Policy 363–5	raiding 76–8
1994 review and public debate	criteria for evaluation of effects 87
365-7	culling programmes 88–90
1997 Wildlife Policy	current population impacts 7–10
framework 367–8	effectiveness on reducing threats 90–8
in practice 361, 362, 368–70, 369	effects on non-target protected species
withdrawal of in 1998 370	II-I2, 77
evolution 361, 362, 363–8, 369	endangered species 1, 103–5
measures of success of 361, 362, 368–70	eradication campaigns 88
Kibale National Park, Uganda	European badgers (UK) 89
amount and distribution of crop damage	for game management 93–5
270, 271, 272	for livestock protection 94–5
crop damage differences between villages	historical use of 2–3, 3–7, 86
272, 273	impact of illegal killing 98–9
effects of crop-raiding on local attitudes	impact on viability of populations 98–9
275–6	improving accuracy of selective removal
local response to crop damage (case study)	104–5
267–75	indirect effects on population density 9
residents' strategies for coping with crop	large-scale population suppression 7–8
damage 270–2	need to reduce killing of problem wildlife
strategies to reduce human–wildlife	II-I2
conflict 276–7	non-target mortality 95–8, 97
variable and localized nature of crop	numbers of animals killed (USA) 87–90
raiding 275-6	options and choices in wildlife
Komodo dragon (Varanus komodoensis),	management 103–6
costs and benefits of park-based	outcomes for different species 75–6
tourism 131-2	possible role in conservation programmes
100118111 131-2	86–7, 398–9
lagomorphs, impact of predation on	possible unpredictable effects of
populations 22	eradication 90–1
Lagopus lagopus see willow grouse	problem tigers 381
Lagopus lagopus scoticus see red grouse	public hunting 90
Lagopus mutus see ptarmigan	resilient pest species 1
Laikipia Predator Project (Kenya) 286–8	review of various removal programmes
Lama glama see llama	
legal protection of threatened wildlife 400–2	91–3, 92 selective removal 90
leopard ( <i>Panthera pardus</i> ) culling due to value of skins 98–9	social effects on group viability 9
-	source–sink population dynamics 8–9
fencing to exclude 61	threat to large carnivores 49–54
Laikipia District, Kenya 286–8	traditional and innovative methods 3
livestock losses to 17–18, 67	types of removal programmes 87–90
main diet and conservation status 50	varying public attitudes towards 100–3
man-killing/mauling 162–4	lion see African lion; Asiatic lion
nature of attacks on humans 30–2, 35–6	live capture, as extractive use of wildlife 157–8
predation on domestic dogs 162–4	logges to rebing 16, 17
safari hunting in Tanzania 151–2	losses to rabies 16–17



```
pathogen transmission from wild animals
                                               Masai Mara National Reserve, Kenya,
                                                      distribution of costs and benefits
         17
livestock depredation
  and availability of wild prey 67, 297-8
                                               Masai pastoralists, conflict with wildebeeste
  and carnivore conservation 68-71
  and drought 297-8
                                               mega-herbivores, fatal attacks on humans
  anti-fertility measures to control predators
                                               Meles meles see European badger
         55, 64-5
  as source of conflict 162-4
                                               Mellivora capensis see honey badger
  carnivores' tendency to avoid killing
                                               Melursus ursinus see sloth bear
         livestock 95-8
                                               Mephitis mephitis see striped skunk
  compensation schemes
                                               Microtus agrestis see field vole
    in Europe 65–6
                                               migration routes, disruption by fencing
    in Norway and Sweden 325-6, 329, 333,
                                               mink (Mustela vison), hunting in Britain
  conflict with the grey wolf (USA) 342-4,
                                               monkeys (including baboons), rankings as
         348-50, 351-2
  costs of predation by carnivores 17-19
                                                      pests 258, 259-65
  guarding by shepherds 54-60
                                               moose (Alces alces)
  impact on local people's livelihoods
                                                 destruction of electric fencing 61
         290-3, 294
                                                 impact of predation by carnivores 21
  non-lethal control measures 65-7
                                                 population recovery in USA 340
  patterns for different predators 288-9,
                                               mountain hare (Lepus timidus), impact of
                                                      predation on populations 22
  reindeer in Norway and Sweden 325
                                               mule deer (Odocoileus hemionus), population
  review of preventive measures 54-65
                                                      recovery in USA 340
  sheep in Norway and Sweden 325
                                               multiple-use landscapes
  technical solutions 298-300
                                                 conservation of carnivores 68-71, 167-8
  translocation of problem animals 55, 65
                                                 use of zoning 167–8
  use of anti-predator fencing 55, 60-2
                                               Mustela erminea see stoat
  use of bomas (night-time corrals) 55,
                                               Mustela nigripes see black-footed ferret
         60-2, 298-300
                                               Mustela vison see mink
                                               Mycobacterium bovis (cause of bovine
  use of deterrents and repellents 55, 63-4
  use of lethal control 49-54
                                                      tuberculosis), transmission from
  ways to offset the costs 300-2
                                                      wild animals 17
  worldwide losses to carnivores 49-54
  zootechnical preventive methods 54-60
                                               Namibia, distribution of hunting benefits
livestock guarding animals (LGAs) 55, 62-3
                                                      242-3
livestock guarding dogs (LGDs) 55, 62-3
                                               Native Americans, ownership of tourist
livestock protection collars 55, 63-4
                                                      hunting enterprises 244-5
llama (Lama glama), as livestock guarding
                                               natural fencing 55, 60-2
       animals (LGAs) 55, 63
                                               natural product collection 156-7
Loxodonta africana see African elephant
                                               non-lethal control techniques
Lutra lutra see otter (European)
                                                 and carnivore conservation 68-71
Lycaon pictus see African wild dog
                                                 to reduce depredation 54-65
Lynx lynx see Eurasian lynx
                                                 websites with additional information 60
Lynx pardinus see Iberian lynx
                                               non-target mortality (lethal control)
Lynx rufus see bobcat
                                                 improving selective removal techniques
macaques, lethal control of crop-raiders
                                                        104-5
                                               North America
       (Japan) 78
man-killing see human fatalities and injuries
                                                 attacks
Martes martes see pine marten
                                                    by bears 14-15
```



North America (cont.)	Polyborus lutosus see Guadelupe caracara
by wolves 15	Pongo pygmaeus see orang utan
impact of predators on moose and caribou	population density, indirect effects of lethal
21	control 9
livestock losses to predators 66-7	population levels, source-sink dynamics 8-9
use of non-lethal control measures 66–7 Norway	population suppression, due to lethal control 7–8
land use policies and subsidies 325–6,	population viability, impact of lethal control
338-9	98–9
large carnivore species 323–4	Potamochoerus spp.see bush pig
Numenius arquata see curlew	prairie dogs ( <i>Cynomys</i> spp.) see also black- tailed prairie dog
Odocoileus hemionus see mule deer	collapse of geographic range 4-7
Odocoileus virginianus see white-tailed deer	lethal control of 2-3
olive baboon ( <i>Papio cynocephalus</i> ), crop	trophic cascade caused by local
raiding 24–6, 267–75	eradication 10–11
orang utan (Pongo pygmaeus), lethal control	predator removal
of 2–3	for game management 93-5
Otocyon megalotis see bat-eared fox	for livestock protection 94-5
otter (European) (Lutra lutra), main diet and	predators see also carnivore conservation
conservation status 50	effects on vertebrate prey populations
Ovis aries see sheep	21-4
Ovis canadensis see bighorn sheep	factors affecting tolerance of 302-3
	impacts of local people on (Laikipia,
Pan troglodytes see chimpanzee	Kenya) 293–7
Panthera leo see African lion; Asiatic lion	translocation of problem animals 55, 65
Panthera onca see jaguar	use of anti-fertility measures 55, 64–5
Panthera pardus see leopard	use of deterrents and repellents 55, 63-4
Panthera tigris see tiger	primates
Panthera tigris altaica see Amur tiger	crop-raiding by 7–8, 267–75
Papio cynocephalus see olive baboon	effectiveness as crop-raiders 74
Papio spp. see baboons	feasibility and costs of translocation 83-4
Perdix perdix see grey partridge	guarding and scaring to prevent crop-
peregrine falcon (Falco peregrinus)	raiding 78–80
impact on red grouse populations 22–3	inducing taste aversion in crop-raiders 81–3
lethal control of 2–3	predator avoidance behaviour 27–9
on heather moorland 193	reasons for continuing threat to farmers
performance payments, instead of	84-5
compensation schemes 118–19	threat to farmers' livelihood 72-3
pheasant ( <i>Phasianus colchicus</i> ), impact of	use and effectiveness of lethal control
goshawk predation 23	76–8
pine marten (Martes martes), impact of	use of Capsicum repellents 82-3
predation on small game 22	use of fences and barriers to exclude 80
pink-footed goose (Anser brachyrhynchus),	problem animal control
population in Scotland 176–9	as cause of elephant mortality 7–8
Pluvialis apricaria see golden plover	dealing with endangered species 103–5
poaching, as cause of elephant mortality 7–8	hunting for meat 144–8
polar bear (Ursus maritimus)	selective removal 90
cost of hunting 244–5	sport hunting 144–8
fatal attacks on humans 14–15	translocation 83–4
fencing to exclude 60–2	Problem Animal Control (PAC) units 76–8
nature of attacks on humans 30–2, 38	84
provoked attacks 29–33	Procyon lotor see racoon
Provokcu allacks 29-55	1 TOUYOU WHOI SEE TACOOTT



Project Snow Leopard (Pakistan) 116	control on grouse moors 193–4
protected areas	effects of culling (UK) 92
edge-effect mortality 8–9	hunting in Britain 142–3
harvest zones to help reduce conflict	impact of predation on small game 22
(Uganda) 150–1	non-lethal control measures 65–6
source-sink population dynamics 8-9	population suppression impacts 7–8
utility in conserving large carnivores	rabies reservoirs 16–17
167–8	use of anti-fertility measures to control 55,
protected species, effects of non-specific	64-5
lethal controls 77	use of donkeys to guard livestock against
ptarmigan (Lagopus mutus), impact of	63
gyrfalcon predation 23	use of llamas to guard livestock against 63
public opinion	red grouse (Lagopus lagopus scoticus) see also
and design of control programmes 103-6	grouse moors
levels of acceptance of zoning 172-3	assessing impact of hen harrier predation
protection versus use of wildlife 100–3	194–200
support for protection of geese (Scotland)	hen harrier impact on grouse shooting 192
189	impact of raptor predation 22-3
varying acceptability of lethal control	importance of heather moorland 193
100-3	moorland management for shooting
puma (puma concolor) see also cougar	193-4
main diet and conservation status 50	red-legged partridge (Alectoris rufa), impact
non-lethal control measures 66–7	of goshawk predation 23
Puma concolor see cougar; puma	red wolf (Canis rufus)
	collapse of geographic range 4-7
Quelea quelea see red-billed quelea	main diet and conservation status 50
	red-tailed monkey (Cercopithecus ascanius),
rabies	crop-raiding by 24–6, 267–75
in bears 37	reindeer (Rangifer tarandus) (semi-domestic)
livestock losses to 16-17	impacts of carnivore depredation 162-4
risk from wolf attacks 162-4	losses to carnivores in Norway and
rabies reservoirs, and human–wildlife	Sweden 18-19, 326-30, 334, 337,
conflicts 16–17	338-9
racoon ( <i>Procyon lotor</i> ), rabies reservoirs	reindeer husbandry
16–17	carnivores in conflict with Saami people
ranching	325
as extractive use of wildlife 157	Norway and Sweden 325-6, 337
of crocodiles 148–9	repellent systems
range collapses, due to lethal control 4-7, 5	acoustic 81
Rangifer tarandus see caribou; reindeer	Capsicum repellents 82–3
raptors	chemical 81–3
collapse of geographic ranges 4–7, 5	to control crop-raiding 80–3
illegal killing of 98–9, 193–4	to reduce livestock depredation 55,
impacts of lethal control 4–7, 5, 194	63–4
livestock losses to 20–I	visual 81
predation on game 22–4	reserves, edge-effect mortality 8–9
recolonization following translocation	rhinoceros see black rhinoceros; white
(grey wolf) 91–3, 92	rhinoceros
red-billed quelea (Quelea quelea), lethal	river otter ( <i>Lutra lutra</i> ), non-lethal control
control I, 75–6	measures 65–6
red deer (Cervus elaphus), hunting in Britain	rodents, rankings as pests 258, 259–65
142-3, 144-8	rural heritage, commitment to preserve
red fox (Vulpes vulpes)	404



safari hunting see also hunting; sport	need for indigenous peoples to see
hunting; tourist hunting; trophy	benefits from 237
hunting	need to incorporate indigenous culture
government role in supporting	and beliefs 236–7
conservation 244	problems caused by presence of fencing
need for involvement in rural	234-5
development 250	survival issues related to the fence project
responsibilities of government 250	236
revenue from private game ranches 240	threat from habitat destruction 234-5
revenues generated worldwide 239	sloth bear (Melursus ursinus), attacks on
sources of income 239	humans 14-15, 30-2, 38-9
Tanzania 151–2	snaring 247–8, 389–91
threat from corruption 250	snow leopard (Uncia uncia)
wildlife conservation on private ranches	compensation payments for kills 116
239	lethal control of 2-3
sea otter (Enhydra lutris), role in structure of	livestock losses to 17–18, 67
marine communities 10–11	main diet and conservation status 50
selective (targeted) control	social conflict
non-target mortality 95–8	and carnivore conservation 172-3
review of programmes 91–3	due to zoning and protected areas 172-3
selective (targeted) removal	wolves in Norway 172-3
avoiding non-target mortality 104-5	source-sink population dynamics 8-9
for endangered species 103-5	South Africa, extent of private game ranches
impact on viability of populations 99	239, 240
improving accuracy 104-5	Spanish Imperial eagle (Aquila adalberti),
of problem animals 90	collapse of geographic range 4-7
varying public attitudes towards 101, 102-3	spectacled bear (Tremarctos ornatus)
Selous Game Reserve (Tanzania) 151–2	attacks on humans 30-2, 39
sheep (Ovis aries) in Norway and Sweden	main diet and conservation status 50
325–6, 334, 335–6, 338–9	Spermophilus californicus see ground squirrel
sheep-farming, zoning of dingoes in	sport hunting see also hunting; safari
Australia 168–9	hunting; tourist hunting; trophy
shepherding of livestock	hunting
integration with other measures 65–6	CAMPFIRE in Zimbabwe 146–7
to prevent depredation 54-60, 55, 62-3	cheetahs on Namibian farmland 145
with livestock guarding dogs (LGDs) 55,	distribution of benefits and costs 159-60
62-3	of problem species 144–8
Shimba Hills National Reserve (SHNR),	opportunities to offset conflicts 159–60
Kenya	to generate revenues for conservation
and the culture of indigenous peoples	399–400
43-5, 224-5	to offset depredation costs (Africa) 300-2
baboon crop-raiders 234-5	spotted hyaena (Crocuta crocuta)
biodiversity and conservation importance	frequency of attacks on humans 30-2, 41
224-5	Laikipia District, Kenya 286–8
description and history 225-7	livestock losses to 17–18, 67
effects of elephant overpopulation	main diet and conservation status 50
229-35	nature of attacks on humans 30-2, 41-2
effects on life and culture of Digo people	stoat (Mustela erminea), control on grouse
227-9	moors 193–4
electric fencing 231-4	striped hyaena (Hyaena hyaena)
human-elephant conflicts 224-5, 226	Laikipia District, Kenya 286–8
need for empowerment of marginalized	livestock losses to 67
communities 237–8	main diet and conservation status 50



striped skunk (Mephitis mephitis), rabies	improving among individuals 130–5
reservoirs 16–17	socioecological factors shaping local
sun bear, attacks on humans 30-2, 39	support 252–3
Sweden	tourism, wildlife see ecotourism
land use policies and subsidies 325-6,	tourism ventures
338-9	accessibility of sites 126
large carnivore species 323-4	building on existing tourism circuit 127
Syncerus caffer see buffalo	criteria for commercial viability 124–8
-	distribution of costs and benefits 131, 131-2
Tanzania, over-hunting in concessions	economic and social viability 128-9
241-2	health and security issues 126, 127
tapeworm (Echinococcus multilocularis),	importance of marketing 127
human transmission by canids 17	opportunity costs of foregone activities 128
taste aversion, to control crop raiding	potential for unmet expectations and
primates 81–3	increased poverty 129
Taurotragus oryx see eland	pricing and demand 127–8
Tetrao urogallus see capercaillie	quality of wildlife viewing experience 126–7
Thryonomys swinderianus see cane rat	uniqueness of wildlife 127
thylacine (marsupial wolf) ( <i>Thylacinus</i>	wildlife conflict costs 128
cynocephalus), extinction 3–4	wildlife conservation costs 128
tiger (Panthera tigris) see also Amur tiger;	tourist hunting see also hunting; safari
human–tiger conflict	hunting; sport hunting; trophy
capture and removal of problem tigers 382	hunting
conflict mitigation as part of conservation	adverse effects of low-cost non-safari
	hunts 246–7
strategy 373-4	benefits of employing local hunters 246
distribution of populations in India 376,	
377–9 fatal attacks on humans 14	conservation programmes supported by
guarding and barriers to protect livestock	244 need for certification of conservation
	standards 245–6, 250–1
3 <sup>8</sup> 3 historical mass slaughter policy in India	need for international agreements to
	support conservation 245–6, 250–1
375 illegal killing in India 150–3	tourist hunting (community-based)
lethal control of problem tigers 381	
	addressing local livelihood insecurity 242
livestock losses to 67	ambiguity of ownership and incentives for
loss and fragmentation of habitat in India	communities 239–40
374–5, 376	and state ownership of wildlife 239–40
main diet and conservation status 50	community ownership of hunting
man-killing/mauling 162–4	enterprise 244–5
nature of attacks on humans 30–2, 33–4	constraints for success on community
non-lethal aversive conditioning 383	(or customary) land 239–40
potential habitat in India 376, 377–9	different user-right models 244–5
problems associated with translocation	distribution of benefits to communities
382	242-3
protection and hunting ban in 1970s	distribution of costs and benefits to
376–7	communities 239–40
threats to populations in India 373-4	economic incentives for communities
tolerance of wildlife	239-41
and distribution of costs and benefits 131,	enforcing policies which support
131–2	conservation 241–3
and perceived linkages with tourism	government controls 239-40
benefits 132–4	government role in supporting
factors shaping local attitudes 266-7	conservation 244



tourist hunting (community-based) (cont.) illegal hunting and lack of food security 248	white-tailed deer ( <i>Odocoileus virginianus</i> ) tolerance of damage caused by 266–7
incentives to stop using snares 247-8	population recovery in USA 340
investing in local hunters 249	white-tailed eagle (Haliaeetus albicilla)
investing in local needs 248	collapse of geographic range 4-7
joint-ventures with the private sector 245	livestock losses to 20-1
linking benefits with community effort	wild pigs (Africa), threat to farmers'
242	livelihood 72–3
payment of producer fees for key species	wildebeeste (Connochaetes taurinus), habitat
247–8	destruction by humans II
.,	wildlife
policies to reduce illegal hunting 247–8	
potential for corruption 243-4	illegal use and lack of livelihood security
revenue investment strategies, (Zambia)	242
248–50	state ownership 239–40, 245
risks for local community ventures 241–3	wildlife attacks on humans see human
supporting local poultry production	fatalities and injuries
249-50	willow grouse (Lagopus lagopus)
training local poachers for alternative	impact of goshawk predation 23
livelihoods 249	impact of predation on populations 22
use of snaring to meet local food needs 248	wire-netting fencing 55, 60–2
Toxoplasma gondii (protozoan pathogen),	wolf see grey wolf; red wolf
human transmission by felids 17	wolverine (Gulo gulo)
translocation of problem animals 55, 65	conflicts within a conservation area
feasibility and costs 83-4	(Norway) 171
recolonization following (grey wolf)	conservation by performance payments
91-3	(Sweden) 118–19
tigers in India 382	effects of public hunting (Norway) 92
Tremarctos ornatus see spectacled bear	in Norway and Sweden 323, 324, 326–30
trophic cascades, impacts of human-wildlife	livestock losses to 18–19
conflict 10–11	main diet and conservation status 50
trophy hunting 300–2 see also hunting;	non-lethal control measures 65–6
safari hunting; sport hunting; tourist	non remar control measures of
hunting	yellow mongoose (Cynictis penicullata),
nuntnig	rabies reservoirs 16–17
urban–rural divide on human–wildlife	Yellowstone National Park, public interest
conflict 404	in wolves 353–5
Uncia uncia see snow leopard	<b>7</b> 1
Ursus americanus see American black bear	Zambia, temporary ban on tourist hunting
Ursus arctos see brown (grizzly) bear	241-2
Ursus maritimus see polar bear	zebra (Equus burchelli), recovery in Kenya
Ursus thibetanus see Asiatic black bear	360–2; see also Cape mountain zebra
	zoning
Varanus komodoensis see Komodo dragon	addressing potential conflict in carnivore
Vulpes vulpes see red fox	zones 171
	advantages and disadvantages 174
websites, information on non-lethal control	and size of carnivores' home ranges 167
techniques 60	as alternative to coexistence 389–91
wedge-tailed eagle (Aquila audax), livestock	avoiding increase in social conflict 172-3
losses to 20-I	carnivore conservation in multi-use
white geese (Chen spp.), culling in North	landscapes 167–8
America 179–80	diversity of public opinion 175
white rhinoceros ( <i>Ceratotherium simum</i> ),	forms and goals 162
recovery on private land 239	levels of public acceptance 172–3



Index 497

methods of implementation 165–6 technical challenges 174–5 zoning of large carnivores brown bear core protection area, Slovenia 170 cougar management, North America 170–1 dingoes, Australia 168–9

social conflict over wolves, Norway 172–3 wolf recovery zones, North America 169–70 wolverine conservation area, Norway 171 zoonotic diseases of humans, and conflicts with wildlife 16–17 zootechnical methods, to prevent livestock depredation 54–60, 55