



breeding pairs, from a 1950 estimate of 7000. Scotland's barn owl numbers have reflected this decline.

There are no known nest sites for barn owls in Clackmannanshire. However, some incidental sightings have occurred recently. In 2002, a sighting was reported by the Gartarry Roundabout near Alloa. Also in 2002, several sightings were made by gate security staff at Castlebridge Business Park at nearby Gartlove. A barn owl was reported trapped and subsequently found dead in Sauchie Tower near Alloa in October 2003. In 2003, a resident pair has also been reported (in the Wee County News) by Blairingone.

3. ECOLOGY and NATURE CONSERVATION IMPORTANCE

Ecology

Scottish barn owls live almost entirely within grasslands and forests. Their diet consists almost wholly of small mammals associated with these habitats, such as mice, shrews and voles, and they have a hunting range of about 10km from the nest/roost site, with 90% of prey taken within a 1km radius. Areas of moist, moderately long grassland are especially important for foraging, as is the provision of woodland belts for shelter and hunting perches.

Their feathers are specially structured for silent flight. By using their extremely sensitive hearing, barn owls can pick out and swoop noiselessly on prey. Although they can see perfectly well in daylight, they tend to hunt at night.

Suitable roosting and nesting sites can be holes in trees and rock faces, dense tree canopies and derelict buildings such as farm buildings, church towers and old chimneys. Nest sites must be dry and warm to prevent the fatal chilling of owlets in wet weather. Competitors for nest sites are jackdaws, stock doves, kestrels, tawny and little owls. A major factor influencing barn owl population levels is the number of field voles in any particular year, as vole population levels are cyclical.

Barn owls usually produce between 4-7 eggs, laid at an interval of 2-3 days. This gives a staggered hatch, with the first hatchling being as much as a week older than the last. In poor prey years, the youngest chicks are unlikely to fledge.

Nature Conservation Importance

The barn owl is recognised by the UK Biodiversity Group as a "Species of Conservation Concern". The Red Data Book for birds lists them at the "amber" level, meaning that they are of *medium* conservation concern. The criteria for amber listing of the barn owl are: moderate (25-49%) decline in UK breeding population or range over the previous 25 years; species with an unfavourable conservation status in Europe.

4. ASSOCIATED CULTURE and FOLKLORE

Owl broth was once given in the north of England as a cure for whooping cough, the coughs and wheezes of the bird being likened to the coughs and wheezes of the ailment in a clear example of belief in sympathetic magic.



5. CURRENT FACTORS AFFECTING THE SPECIES

Habitat loss, due to agricultural change and urbanisation, has had the most significant impact on barn owl numbers:

- Drainage of damp grasslands.
- Increase in cereal cropping and autumn sowing, and decline in haymaking.
- Grassland management increasingly involves rolling, raking and spraying.
- Loss of edge habitats such as hedgerows.
- Vermin proof grain storage has lessened the availability of prey around farmyards.
- Land-take for new roads, factories and housing schemes has reduced and fragmented suitable grassland habitats around urban areas.

There have been significant losses of traditional nest sites:

- Building improvements due to hygiene regulations, and modernisation of farm buildings.
- Forestry activity, and Dutch elm disease have reduced the number of suitable nest sites in tree hollows.

Accidental mortality can be significant:

- The wrong choice of rodenticide, or inappropriate usage of the chemical can cause accidental poisoning of barn owls.
- Barn owls hunting along road verges and railway lines can be killed. Their swooping, gliding flight makes them easily hit by vehicles and trains.
- Drowning in water troughs / cattle troughs is a concern during the breeding season. A simple solution is to place a floating object in the trough so that barn owls can climb out, but that cattle can quickly learn to push down to drink.

6. CURRENT PROJECTS and OPPORTUNITIES

Pest control firms in the UK are currently advised to take into account the risk to fauna when carrying out their work. Increasingly rodenticides less toxic to birds are used, and dead rodents are quickly removed.

Scottish Coal have recognised that their headquarters are in a potential core area for barn owls in Clackmannanshire and are:

- Providing nest boxes and advice to several landowners adjacent to their Castlebridge Headquarters.
- Monitoring a nest box positioned on one of the buildings at Castlebridge.
- Liasing with the Forestry Commission about provision of one or more nest boxes in forestry at Forestmill.
- Liasing with Scottish Water and Clackmannanshire Council about potential habitat improvements at Gartmorn Dam.
- Liasing with FWAG, the Stirling, Tayside and Fife Biodiversity Officers to encourage cross-border communication of sitings and implementation of joint projects to encourage the barn owl.



7. OBJECTIVES and TARGETS

Objective 1 To reverse the barn owl population decline in Clackmannanshire and surrounding districts.

Target 1.1 To maximise the potential for barn owls to breed in identified “core areas” by creation/restoration of high quality nesting and feeding habitat.

Objective 2 To restore and then manage, suitable habitats to ensure the long-term success of the barn owl in Clackmannanshire and surrounding districts.

Target 2.1 To identify adjacent suitable land, which given appropriate habitat enhancement, would allow for the emigration of surplus owls.

Target 2.2 To produce management proposals for these identified core, and future emigration areas.

Objective 3 Liaise with landowners on appropriate management of barn owl habitat.

Target 3.1 To encourage landowners to undertake appropriate habitat enhancement works and to erect artificial nest boxes.



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8. ACTIONS - BARN OWL									
ACTION	Deliverers		Year to be Completed or in Place					Meets Target	
	Lead	Partners	2004	2005	2006	2007	2008		
1. Policy and Legislation									
2. Species Safeguard and Management									
2.1 To encourage the construction by volunteers and erection by landowners of artificial barn owl nest boxes in proposed barn, steading and other appropriate agricultural or rural building developments or conversions.	FGWG	FWAG, SAC	*	*	*	*	*	1.1	3.1
2.2 Identify suitable land for barn owls by field visits and GIS, which given appropriate habitat enhancement would allow for surplus owls.	FGWG			*				2.1	
3. Advisory									
3.1 Reduce the threat of accidental poisoning of owls by increasing the awareness of pest control firms and landowners.	FGWG		*	*	*	*	*	1.1	3.1



3.2 Produce management proposals for land identified in action 2.2 by and distribute to relevant landowners by 2006.	contract ecologist £				*			2.2	
4. Research and Monitoring									
4.1 To increase the knowledge of barn owl distribution in Clackmannanshire by asking the general public for information through use of the Volunteer Wildlife Record Sheet.	CBP		*	*	*	*	*	2.1	3.1
5. Communications and Publicity									
5.1 Raise awareness of barn owl conservation issues through general liaison with landowners and inclusion of articles in relevant local newspapers and newsletters.	FGWG	SAC, FWAG, RSPB	*	*	*	*	*	3.1	
6. Plan Monitoring and Review									
6.1 Ensure the effectiveness and relevance of this plan by monitoring annually.	CBP		*	*	*	*	*	all	
6.2 Monitor the completion of actions and review the LBAP every 5 years.	CBP					*		all	



Acronyms

CBP	Clackmannanshire Biodiversity Partnership
FGWG	Farmland and Grassland Working Group (CBP)
FWAG	Farming and Wildlife Advisory Group
SAC	Scottish Agricultural College

9. KEY CONTACTS and ACKNOWLEDGEMENTS

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Farming & Wildlife Advisory Group (Central Scotland)
Clackmannanshire Council Countryside Ranger Service
Biodiversity Officers in Fife, Stirling and Tayside

10. REFERENCES

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