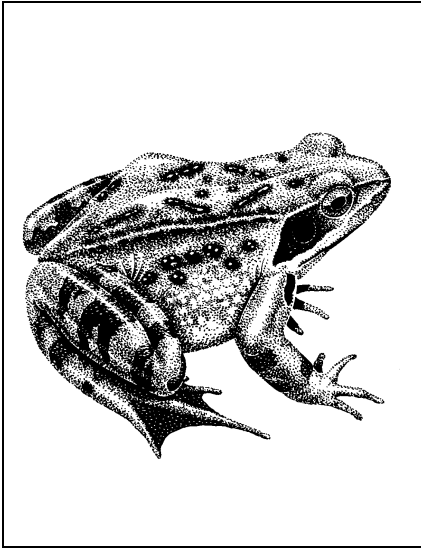


LANCASHIRE BAP TEMPLATE FOR SPECIES ACTION PLANS

COMMON FROG (*Rana temporaria*)



Summary

The Common Frog (*Rana temporaria*) is an amphibian known by almost everybody. It can be found in almost any habitat where suitable breeding ponds remain. Although its population size and distribution are not well recorded throughout Lancashire, the aquatic and terrestrial habitats on which it relies are in decline, particularly in the farmed environment. Garden ponds are now extremely important for Common Frogs and many populations in suburban areas depend on them.

Action for this species will also benefit a considerable number of lesser-known aquatic creatures.

Action Plan Aim

To identify and maintain healthy population sizes of the Common Frog by raising awareness of its aquatic and terrestrial habitats in urban Lancashire.

Species Description:

The life cycle of the Common Frog begins with spawning, which takes place, on average, in March. The tadpoles develop throughout the summer and emerge as froglets in wet weather during August and September. Well grown tadpoles are faintly speckled with gold which distinguishes them from the black Common Toad tadpoles. Adults can grow to almost 8cm and are generally a shade of brown or olive in colour with a dark patch behind the eye and bands of darker colour on the back legs. Common Frogs feed on a variety of invertebrates that are mostly caught at night. The frog's skin is smooth and needs to be moist at all times which limits this species to habitats close to fresh water or habitats that remain damp throughout the summer.

Main Habitats

The Common Frog requires both aquatic and terrestrial habitats to support its life cycle. These include ponds, lodges, mineral workings, temporary pools, ditches, scrub, hedgerows, arable, pasture & meadow, marsh, gardens and allotments.

National Status

For several decades, up until the 1970s, the Common Frog suffered a serious decline in Britain. Since the increase in popularity of garden ponds, however, it has experienced a recovery. Although garden ponds have become more popular, local populations remain vulnerable to the destruction and pollution of water bodies. Inbreeding in garden ponds caused by isolation is also thought to be a serious

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problem in some areas, leading to reduced immunity and a consequent increase in disease.

Regional Status

Unknown, but assumed to be widespread throughout lowland and upland fringe NW England including urban areas.

Local Status

Unknown, but assumed to be widespread throughout lowland and upland fringe Lancashire including urban areas.

Current factors affecting the Species

- Habitat Loss
- Agricultural Intensification
- Disease and Pollution
- Intensive Management
- Development
- Predation
- Wildfowl

Habitat Loss

The Common Frog requires both aquatic and terrestrial habitat for its life cycle. Spawning normally takes place in freshwater during early spring, though this appears to be happening increasingly earlier. Frogs often hibernate during the winter from as early as November through to as late as March. Females normally hibernate on land under logs and leaves. Males sometimes hibernate in deeper water. Frogs also require a supply of invertebrates for their food source. This can be provided through both the aquatic and terrestrial environments. Loss of habitat is a very significant factor in the number of frogs that are found. Because they require different habitats to breed and to hibernate and feed, they are particularly sensitive to any changes in their environment. Loss of breeding ponds is one of the principle reasons for declines in frog populations.

Agricultural Intensification

Agricultural intensification in the lowlands has generally led to neglect of ponds, which no longer serve an economic function. They may then be lost as a result of natural silting, become badly polluted by agricultural run-off, or be actively infilled to dispose of farm waste or to increase productive hectareage.

Disease & Pollution

Frogs are an excellent indicator of the ecological health of the local environment and are particularly sensitive to pollution.

Ponds and other water habitats can become polluted through contamination of the natural or artificial water supply, including runoff associated with industry, farming, domestic drains and highways; which can dramatically affect the health and viability of ponds to the extent that aquatic life is threatened. Where ponds are topped-up

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with tap water, they can suffer from an excess of nitrates and other nutrients and chemicals present in treated water.

Frogspawn is vulnerable to fungal infection. Iodine deficiency prevents tadpoles from maturing. In recent years, the Common Frog has also been afflicted by a number of other diseases. "Red Leg" virus, is the most notable disease to have affected frogs in recent years; this can infect adult frogs, usually causing deaths over several weeks in July and August. This disease was first observed in the UK in south-eastern England and has now spread throughout the country. Froglife www.froglife.fsnet.co.uk is an organisation that monitors the loss of frogs through disease and is trying to determine the cause of "Red-Leg". People may spread diseases through well-intentioned transfers of adults, tadpoles, and spawn between ponds.

Insensitive Management

The drainage of ornamental ponds for cleaning can have a very negative effect on the Common Frog. From April to June, breeding occurs and tadpoles are developing for many of the following months. From November to March, male frogs may use the pond for hibernation. The best time for pond clearance is in late autumn (October).

Pond management should also aim to minimise the use of tap water and maximise that of collected rainwater, as this contains less introduced chemicals.

Development

Hard development, particularly roads and car parks, may create barriers between adult frog populations and ponds suitable for spawning. Millponds or "lodges", characteristic of upland fringe Lancashire, may also be lost to development through drainage, demolition or infill.

Predation

Accidental or deliberate introduction of fishes into ponds can impact on frog populations in urban areas, particularly as a result of increased predation on larvae and especially where ponds are small and offer tadpoles little covering vegetation.

Wildfowl

Encouragement of wildfowl, typically Mallard and feral duck, by supplementary feeding can also produce artificially high populations of these birds, which can lead to eutrophication of ponds and destruction of marginal vegetation.

Current Action / Mechanisms

- *Policy*

There is no special protection afforded to the Common Frog in England. However, this species is subject to a very limited degree of protection under Section 9(5) of the Wildlife and Countryside Act 1981 (as amended). This means that the sale, transportation or advertising for sale of these animals is prohibited. Catching them, keeping them as pets, or even killing them is not currently prohibited, subject to the general controls relating to animal welfare.

- *Site Safeguard*

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No site in Lancashire has been statutorily protected as cSAC or SSSI on the basis of its Common Frog populations.

Although sites could be identified as Lancashire County Biological Heritage Sites under selection guideline *Am2*, if they were to support “exceptional” populations of Common Frog, no such sites have been identified to date. Current recording and monitoring effort is not adequate to objectively assess what size of population would be “exceptional” for this species across the county.

Guidance is given in the *Herpetofauna Workers' Manual* (Gent and Gibson 1998) for possible approaches to the defence of amphibian & reptile sites. Sites are scored on the basis of assemblages of amphibians (*i.e.* Common Frog, Common Toad, Smooth Newt, Palmate Newt), with a minimum score of 10 needed for sites to be considered for selection. When a survey of an area has been completed, the site with the highest score should be designated if no site reaches a value of 10.

- *Land Management*

Some local authorities offer grants to community groups for projects that may include the creation, restoration and maintenance of ponds and semi-natural vegetation that may provide habitats for Common Frog in urban areas.

Lancashire Environment Fund and Lancashire Small Sites Reclamation Programme may provide grants for biodiversity action for Common Frog in urban areas.

- *Advisory*

Advisory information on the creation of amphibian friendly ponds is available in various forms. The *Herpetofauna Workers' Manual* provides a good digest of surveying and management best practice. Froglife produced it in 1998 on behalf of the Herpetofauna Groups of Britain and Ireland. It is published by the JNCC.

- *Research and Monitoring*

None known.

- *Public Relations*

None known.

Species Targets

Target	Area	Measure	Timescale
<i>To identify the population size and distribution of the Common Frog</i>	<i>Urban Lancashire</i>	Monitoring	<i>2010</i>
<i>To raise general awareness of the Common Frog as a 'flagship' species for amphibians</i>	<i>Urban Lancashire</i>	Publicity and Advisory	<i>2010</i>
<i>To maintain a healthy population of the Common Frog</i>	<i>Urban Lancashire</i>	Ongoing monitoring and raising awareness of habitat	

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Proposed Actions

Action (priority: H, M, L)	Area	Measure / Milestone	Partners	Timescale
Research and Monitoring				
Carry out sample survey of Common Frog (H)	Areas of urban Lancashire	Number / size of population to be obtained	TWT, ARG groups, NHSs, Froglife, LCC, NE	2010
Establish a centralised Common Frog database as part of a Biological Records Network (H)	Areas of urban Lancashire	Accurate records of population size maintained	TWT, LHG, NHSs, Froglife, LCC, NE	2010
Organise an event aimed at raising awareness and training in monitoring methods for volunteer surveyors per year (H)	Lancashire	Number of events	LCC, LHG, TWT, NE	Annual
Site safeguard and monitoring				
Establish and train a network of surveyors to monitor enough sites to allow a rigorous assessment of Common Frog status (M)	Lancashire	Obtaining accurate record of population size of Common Frog	LCC, LHG, TWT, NE	2012
Species protection and management				
Promote amphibian habitat creation in urban private gardens and public land (M)	Areas within BBC and BDBC areas, Lancashire	Number of new habitats created	TWT, NE, Froglife, LCC, BBC, BDBC	Ongoing
Advisory				
Carry out one event raising awareness of amphibians in Lancashire aimed at developers, planners and land managers (M)	Lancashire	Success of event	TWT, LHG, Froglife, LCC, LAs	2007
Publicity				
Publicise through leaflets, websites and other means ways in which the public can assist Common Frogs and other urban wetland wildlife through pond provision and maintenance and sympathetic gardening practices (M)	Lancashire	Increase in awareness	TWT, NE, Froglife, LCC, BBC, BDBC	2006

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Related Action Plans

Great Crested Newt

References and additional reading

Beebee, T. & Griffiths, R., *The New Naturalist: Amphibians and reptiles- a natural history of the British herpetofauna*, Harper Collins Publishers, London, 2000.

Froglife: - <http://www.froglife.fsnet.co.uk/>

- Froglife Advice Sheet 1, *Frog, Toads and Newts in Garden Ponds*
- Froglife Advice Sheet 7, *Unusual Frog Mortality*
- Froglife Advice Sheet 8, *Exotic Amphibians And Reptiles In The Wild*
- Froglife Advice Sheet 9, *The Planning System and Site Defence*
- *The Herpetofauna Workers' Guide*, Froglife, 2000
- *Pond Heaven – How to create your own wildlife pond*, Froglife, 2000

Gent, A.H. & Gibson, S.D. (editors), *Herpetofauna Workers' Manual*, Joint Nature Conservation Committee (JNCC), Peterborough, 1998

The Herpetological Conservation Trust- *Common Frog* fact sheet (January 2003):
<http://www.hcontrst.f9.co.uk>

Abbreviations

BBC = Blackpool Borough Council
BDDB = Blackburn with Darwen Borough Council
BHS P/ship = Biological Heritage Sites Partnership (EN, LCC, TWT)
BW = British Waterways
EA = Environment Agency
EN = English Nature
HA = Highways Agency
LAs = Local Authorities
LCC = Lancashire County Council
LHG = Lancashire Herpetofauna Group (proposed)
NBN = National Biodiversity Network
NHSS = Local Natural History Societies
TWT = The Wildlife Trust for Lancashire, Manchester & North Merseyside
UU = United Utilities plc

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