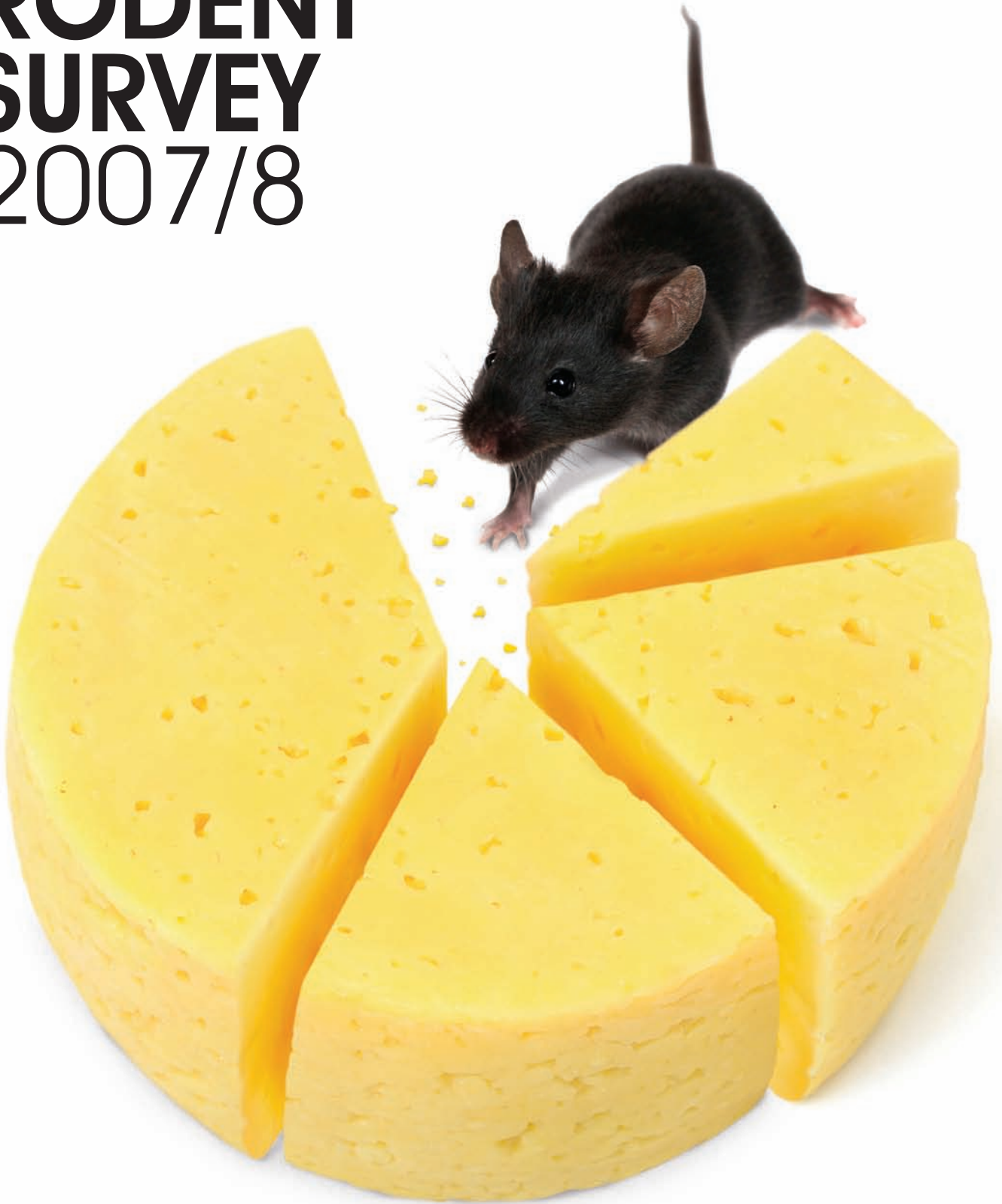


# NATIONAL RODENT SURVEY 2007/8



## CONTENTS

Summary	1
The Survey	2
Rodent Treatment Levels	3
The Developing Position	5
Rodent Control Issues	6
Local Initiatives	8
Regional Changes	9

## FOREWORD

In the nine years from its inception in 1998/9 the National Pest Technicians Association (NPTA) National Rodent Survey has become the most valuable indication of current urban rat and mouse problems available. While it may be confined to local authority treatment data, the fact that this is now obtained from the overwhelming majority of UK councils makes it an invaluable resource for everyone concerned with rodent control in our local communities.

The benchmark study we, at Sorex, conducted with private and public sector pest controllers in 2008 as part of our national *'Think Rat'* control improvement initiative shows the vast majority of pest control professionals are finding both rat and mouse control more challenging these days. At the same time, over 90% report higher levels of rat activity in recent years and just under 80% greater mouse activity levels.

More frequent and bigger infestations and longer baiting periods are identified as the most important specific challenges along with a greater need to protect pets and other wildlife from accidental poisoning.

The scale of the problem we currently face is all too clear in the marked rise in annual local authority treatment levels revealed in this year's National Rodent Survey. And this despite the significant growth in public sector pest control charging.

The country needs to take this as a timely warning. We simply must ensure we keep on top of the rat and mouse populations on a regular basis through well co-ordinated and effective professional control with the best available rodenticide baits and baiting practices. Otherwise our communities will inevitably suffer increasing damage and nuisance as well as growing threats to public health.

As the UK's leading behaviour-led pest control specialists, we are delighted to help the NPTA bring you this year's National Rodent Survey Report. Together, we are looking to progressively improve the information the annual survey provides to those at the sharp end of rodent control and to commentators at large as it moves towards its second decade of publication.

**Martina Flynn, Sorex**

The NPTA would like to thank Sorex for their positive and professional input in helping us to compile this our ninth report.

**J. Barrie Sheard FCIEH - Chairman - on behalf of the NPTA**

# SUMMARY



**Our annual survey reveals a marked increase in both rat and mouse problems across the United Kingdom in 2007/8, completely reversing the welcome decline in rodent control treatments recorded in 2006/7.**

Altogether, the 80% of UK local authorities involved reported well over half a million complaints leading to rodent treatments in the year.

This suggests total national public sector-based treatment levels of more than 650,000 – by far the highest we have seen in our nine years of surveying.

What is more, the growing number of councils charging for rat and mouse control services or referring residents to commercial pest control businesses means our results inevitably underestimate the scale of rodent problems.

Even so, we are confident they represent the best available assessment of the scale of national rodent problems and the way in which these are changing.

Brown rats continue to be our most important national rodent pest, being responsible for nearly three quarters of the treatments recorded in 2007/8. At over 378,000, total brown rat treatments were up 44% on the previous year, with like-for-like treatment levels\* up more than 15%.

More detailed analysis shows the annual increase has been especially marked in some parts of the country and primarily in the winter months.

Mouse problems also increased substantially in 2007/8. Over 147,000 treatments were recorded as against little more than 100,000 in 2006/7 – an annual rise of 39%. Like-for-like treatments\*

increased by nearly 6% over the year, again with considerable variation in annual changes between our 15 defined regions.

The surge in rodent problems across the country in 2007/8 traces back directly to a failure to get on top of populations the previous year. The exceptionally mild winter of 2006/7 meant rats, in particular were far less evident than usual in and around buildings, leading to a marked decline in both complaints and treatments. As a result, relatively high populations profited from excellent early summer breeding conditions to cause major problems with the onset of colder autumn weather in 2007.

This clearly highlights the danger of assuming rats and mice aren't there because they aren't that obvious, underlining the need to keep on top of them continuously with effective control measures.

It also reinforces our major concerns over the progressive introduction of rodent control charges and the parallel shift away from area to individual premises treatment, together with the increasing accessibility of attractive food sources through over-feeding of garden birds, littering and fly-tipping, poorly secured household waste and inadequately sealed compost bins.

These all encourage rodent populations to build and make controlling them increasingly less effective; especially so as more and more people are driven to undertake their own DIY control with little, if any, appreciation of best practice or the understanding of rat and mouse behaviour that underpins it.

Unless local authorities, utilities and other businesses can find new ways of working together and with householders to combat rats and mice through well-planned and co-ordinated professional treatment, we can only see our national rodent problem becoming progressively worse in the years ahead. Especially so if recessionary pressures bite as hard as currently seems inevitable.

*\*Like-for-like treatment comparisons taken from our 2007/8 survey eliminate the distorting effect of the very much higher level of local authority involvement we have seen this year (80% of UK Councils against 62% previously).*

# THE SURVEY



**Now in its ninth consecutive year, our 2007/8 National Rodent Control Survey involves responses from 80% of the 422 unitary authorities, district and borough councils in the UK. This is a very pleasing improvement on the 62% response rate of 2006/7, which we much appreciate.**

As in previous years, our questionnaires were completed by either the Chief Environmental Health Officer or officer responsible for pest control in each local authority.

From their records the officers provided us with information on the number of separate rat and mouse control treatments (defined as complaints or requests where an initial treatment was actually carried out) undertaken in both the 2006/7 and 2007/8 years (either calendar or fiscal).

They further broke down their rat control data into summer (April-September) and winter (October-March) treatments to give us an indication of the seasonality of infestations.

In addition, their responses to a number of topical questions about rodent control and council service arrangements have provided us with qualitative feedback to flesh out the numerical data and highlight possible reasons behind any changes.

This has been supported by valuable information on the scale of rodent problems and particular concerns from a growing number of our members in private practice – an innovation which has added significantly to this year's survey value and has been well-received by private sector members.

We have analysed this year's responses alongside those obtained in our previous surveys to make direct

comparisons with last year and across the whole dataset, both nationally and for 15 individual regions.

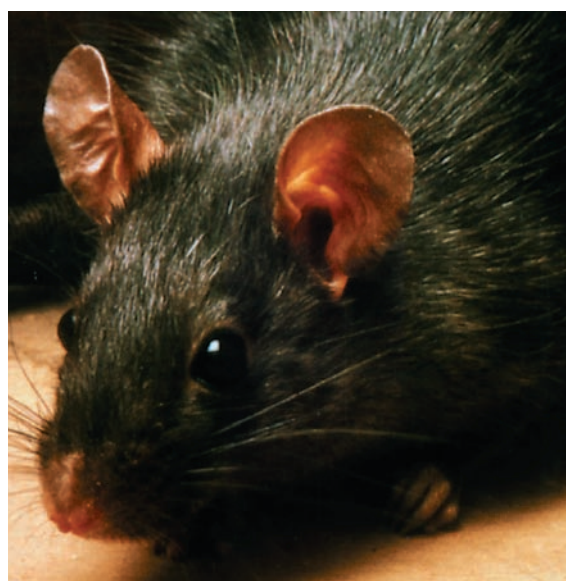
Data from all reporting authorities on both 2006/7 and 2007/8 treatment levels in this year's survey has enabled us to make like-for-like as well as absolute comparisons, thereby eliminating the distorting effect of the significantly increased response rate.

With local authority complaints and initial treatments closely related to rodent numbers, we are confident our survey represents the most accurate and up-to-date assessment of the level of rat and mouse problems being experienced across the UK.

The growing number of local authorities now charging for rodent control services and the strong negative correlation invariably seen between charges and reported complaints leading to treatment means our data increasingly under-estimates current rat and mouse levels in many cases.

Problems of charging are exacerbated by the fact that the survey cannot include commercially sensitive treatment data from the large numbers of professional pest controllers in private practice, unless under specific contract to responding local authorities.

We would like to thank all those local authorities and private practitioners who have taken the time and trouble to provide us with their data, information and views. Together they enable us to maintain the best possible picture of UK rodent problems available.



# RODENT TREATMENT LEVELS

**After the welcome decline seen in 2006/7, the number of rodent control treatments reported by UK local authorities in our annual survey rose markedly to over half a million in 2007/8.**

This represents an annual increase of more than 150,000 treatments, bringing the level to well above that seen in our previous record year of 2005/6.

While the growing number of local authorities reporting (344 against 261 in 2006/7) clearly accounts for a significant part of this increase, on a like-for-like basis treatments were still up on 2006/7 by a good 15% for rats and 6% for mice.

Nearly three quarters of 2007/8 treatments (72%) involved rat infestations with just over a quarter (28%) related to mice. Similar to the balance recorded annually since we started our surveying in 1998/9, this underlines the extent to which rats continue to be our most important national rodent pest.

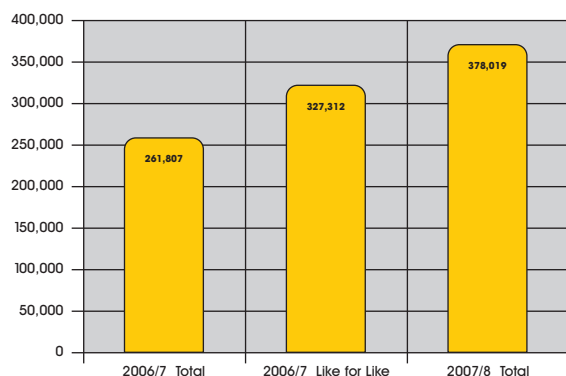
## Brown Rat Problems

At over 378,000, reported brown rat treatments in 2007/8 were up some 44% on the previous year, with like-for-like treatment levels\* showing an increase of more than 15% (Figure 1).

One of the biggest annual increases we have recorded in the nine years of our surveying, this is a complete turn-around on last year's decrease, indicating a substantial real growth in the scale of annual rat problems.

Our more detailed analysis shows an increase in like-for-like rat treatment levels across all parts of the UK, with considerable variation between our 15 defined regions (Appendix A).

**Figure 1: Recorded Annual Brown Rat Treatments 2006/7 – 2007/8**



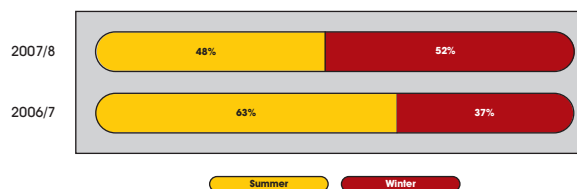
Especially marked annual increases in like-for-like treatment levels (20% or more) were evident over the past year in Yorkshire, the South East, North West and Midlands.

In contrast, notably lower than average like-for-like increases (10% or less) were reported in the Northern Home Counties, London, the North, East England and Scotland, as well as in the Isle of Man and Northern Ireland.

Nationally, just under half the recorded 2007/8 treatments took place in the summer months (April-September) and just over half in the winter (October-March).

Mainly as a result of very much higher levels of winter treatment, this represents a clear change from the previous year when over 60% of rat treatments were in the summer (Figure 2).

**Figure 2: Recorded Annual Brown Rat Treatments 2006/7 – 2007/8**



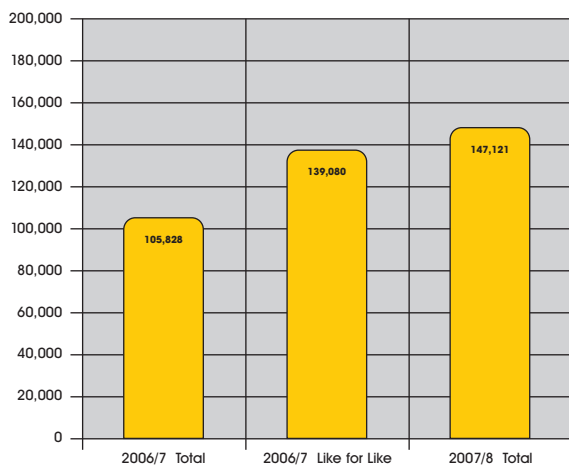
*\*Like-for-like treatment comparisons taken from our 2007/8 survey eliminate the distorting effect of the very much higher level of local authority involvement we have seen this year (80% of UK Councils against 62% previously).*

# RODENT TREATMENT LEVELS

## Mouse Problems

Recorded annual mouse treatments were up some 39% on the previous year at more than 147,000, with like-for-like treatment levels just under 6% ahead of 2006/7 (Figure 3)

**Figure 3: Recorded Annual Mouse Treatments 2006/7 – 2007/8**



Again, this is a complete turn-around on last year and represents one of the largest annual increases we have recorded since 1998/9.

As with rat treatments, we saw considerable variation in annual like-for-like changes between our 15 defined regions (Appendix B).

Compared with 2006/7, marked increases in like-for-like treatment levels\* (10% or more) were recorded in the North West, Scotland, Wales and the Midlands.

In contrast, decreased like-for-like treatment levels were evident in six regions – the Isle of Man, Northern Home Counties, Northern Ireland, East Midlands, North and Yorkshire.

\*Like-for-like treatment comparisons taken from our 2007/8 survey eliminate the distorting effect of the very much higher level of local authority involvement we have seen this year (80% of UK Councils against 62% previously).



# THE DEVELOPING POSITION

**We can trace the clear increase in rodent problems across the country in 2007/8 directly back to a failure to get on top of populations the previous year.**

Exceptionally mild conditions through the 2006/7 winter meant rats, in particular, were far less evident than usual in and around buildings. Exacerbated by the decreasing availability of free local authority rodent control in many areas, this led to a marked decline in both complaints and treatments.

As a result relatively high rodent populations went into the spring of 2007 to profit from excellent early summer breeding conditions. Only with the onset of the colder autumn weather did the legacy of the previous year's control failure become evident in most areas, leading to a huge surge in complaints and treatments.

This underlines the danger of assuming rats and mice aren't there and don't need effective professional control simply because they aren't that obvious.

Unless acutely over-crowded or disturbed, we know rodents feed almost exclusively at night, remaining well-concealed in burrows and nests for most of the day. This means only a small minority of the population is ever seen, making infestations very easy to under-estimate until they reach serious levels.

We also know that each female rat and mouse can produce eight young every 3-4 weeks under favourable conditions. So control rates in excess of 80% are essential if treated populations are not to re-establish themselves in little more than a month.



As this year's survey so clearly illustrates, dropping our rodent control guard for even a short while can be disastrous.

Indeed, we are seeing the consequences continue today across the country, with the 2007/8 population growth clearly proving too much for many control regimes to cope with. As a result, our members have reported large numbers of mature rats and mice surviving into the summer of 2008 and far higher levels of breeding.

Although very wet, a relatively warm early autumn and an abundance of external food have meant lower levels of immediately obvious early winter rodent activity this year. Yet we know they are there and are very concerned that inadequate control could easily let rats and mice off the hook once again this winter.

As well as continual monitoring for the tell-tale signs of infestations and immediate action as soon as they become evident, we urge all concerned to employ the highest possible standards of practice, including rodent proofing and drainage/sewer repairs, to ensure rodent control is as effective and safe as it can be.

# RODENT CONTROL ISSUES



**Responses to topical questions in this year's survey and general feedback from the local authorities involved identify a number of growing rodent control issues and concerns across the UK.**

## Rodent Control Charges

Serious budgetary pressures mean that more than two thirds of UK local authorities now make some charge for rodent control services that most used to provide free as a public health service. In 2007/8 our survey shows that the level of these charges varied widely, from around £10 per visit to over £100 per course of treatment.

At the same time, a growing number of local authorities now no longer operate their own in-house or sub-contracted rodent control service, referring residents instead to private sector contractors operating commercial services.

As well as a reduction in local authority complaints leading to treatments, charging for professional rodent control services appears to be driving more and more people to undertake their own DIY treatment with rodenticides available to the general public.

Failure to use the right product, place it in the right location and top-up levels frequently enough to ensure all rats can consume a lethal dose – amongst other key elements of best rodent control practice – will inevitably lead to growing populations and problems.

Equally, insufficient general public understanding of the dangers of rodenticides and care in placing them in secure locations seriously increases the risk of secondary poisoning to young children and household pets in particular.

Against the background of this year's increased problems in particular, we are extremely concerned about the serious public health consequences of inadequate rodent control.

Not least because rodents in the UK have recently tested positive for Ljungam virus, first isolated from rodents in Northern Sweden several years ago and implicated in a number of human health problems, including diabetes, still births and sudden infant deaths.

## Control in Isolation

Our concern is heightened by the parallel shift away from area to individual premises treatment as control becomes an individual rather than society responsibility.

The fragmentation and privatisation of utilities and other local service providers is also resulting in far less effective co-operation in rodent control between key organisations than in the past.

For instance, we are seeing a perfectly understandable though hugely regrettable decline in co-ordinated area rat control programmes involving water companies, businesses and local authorities as well as individual households.

Isolated control measures allow rats to survive simply because their entire territories – including the sewers and ducting they use to travel relatively long distances in their foraging – is not adequately covered by co-ordinated rodenticide baiting across an area at the same time. The survivors then multiply rapidly to re-infest their immediate neighbourhoods.



# RODENT CONTROL ISSUES

## Local Food Availability

We continue to be very concerned about the growing availability of attractive food sources for rodents throughout the country.

Over-feeding of wild birds in domestic gardens without sufficient care and attention has become a serious issue, giving rats and mice a regular supply of nutritious food which is easy to both locate and access.

Together with fly tipping, litter, discarded food and containers from fast food outlets also provide ready sources of nutrition for rats and mice in many areas.

Poorly secured household waste is a further problem; made worse where Alternate Weekly Collections for entirely commendable waste minimisation purposes are not fully embraced or well enough managed by all concerned.

On top of this, recycling of biodegradable rubbish in compost bins inadequately sealed from rodents provides just the combination of food and warmth in a relatively undisturbed location that rats prefer.

As well as encouraging rodent populations to build, the ready availability of alternative food sources is well known to be one of the most common causes of control failure by preventing sufficient uptake of rodenticide baits.

## Recessionary Pressures

The deepening economic crisis means growing financial pressures on households, businesses and local authorities alike. And with them increasingly less incentive for individuals, companies and organisations to employ professional pest control services sufficiently early or effectively enough to prevent rodent problems escalating.

We see the proliferation of poorly-undertaken DIY treatments, in particular, contributing to a progressive build-up of even greater rat and mouse problems as well as increasing secondary poisoning risks in many areas.

We are also concerned about the cut price attractions of 'cowboy' services in difficult times, with ill-trained and unqualified operators both failing to control rodents and leaving potentially dangerous poisons exposed to pets and other wildlife over extended periods.

If we are not very careful indeed, the recession will also play into the hands of both rats and mice by providing them with an increasing supply of vacant houses and empty or seriously under-used commercial and industrial premises; just the sort of safe and undisturbed environments completely free from pest control in which they thrive.



## Statement by Dr Stephen Battersby, President, Chartered Institute of Environmental Health

"It is probably more important than ever for local authorities to maintain a capacity for effective pest management. Local authorities are in the forefront of helping us cope with climate change, and pests and emerging diseases are one aspect of this."

# LOCAL INITIATIVES



**Despite our concerns, we are encouraged by a number of recent initiatives undertaken by UK pest controllers that are adding significantly to our understanding of rodent problems and the factors behind them as well as our ability to control both rats and mice.**

## **Western Pest Liaison Group (WPLG) Study**

The extent to which rat infestations are linked to wild bird feeding has been highlighted in a major study undertaken by Pest Control Officers in 13 local authorities in the South West. Involving professional site assessments of over 6400 reported rat problems in the first half of 2007, the study found that no less than 28% could be attributed to bird feeding or feeders, with 14% linked to compost bins or heaps and 10% to defective drains or sewers.

Also identified as the single most likely cause of rat problems in 4% or more of cases were the keeping of domestic animals or birds, sheds and garages, poor building maintenance, proximity to agricultural or horticultural land, and rubbish in gardens providing harbourages.

## **Yorkshire Water Sewer Control Liaison**

Yorkshire Water is taking major steps to improve rat control throughout its area by working closely with its key contractor and all 23 local authorities. Its recently developed 'Rats on Maps' system provides environmental health officers with access to continually updated information on rodent baiting dating back to

1997 at every sewer manhole through a password protected intranet. This and an annual liaison meeting involving all concerned helps to highlight hotspots and build trust to ensure altogether more effective co-ordination of sewer baiting and local authority rodent control programmes. It is an excellent model we would very much like to see extended across the country.

## **The London Initiative**

The special new joint working protocol developed between the Association of London Environmental Health Managers (ALEHM) and Thames Water to co-ordinate the treatment of rats in sewers is also having a major impact on the effectiveness of control measures throughout the capital. As in Yorkshire, it is building important bridges between professionals responsible for rodent control to improve their own individual as well as joint efforts.

## **The Northern Ireland Advisory Group**

In 2008 the province resurrected its Pest Advisory Group under a new chairman and made arrangements to both distribute our rodent survey questionnaires and more importantly, collect them at the end of the survey period. As a direct result, Northern Ireland achieved a 90% return rate in this year's survey against less than 50% previously.

## **Welsh Assembly Rodent Focus**

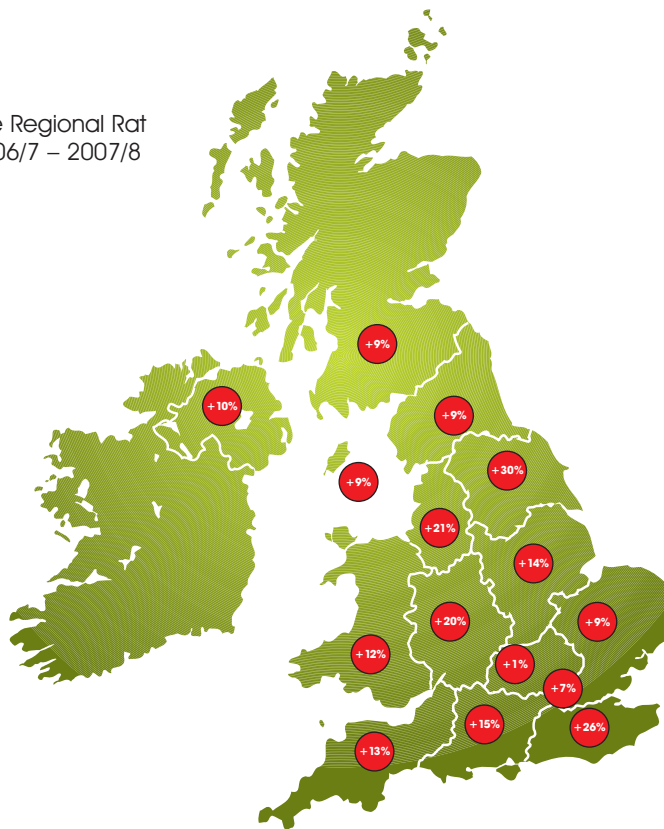
The Welsh Assembly's Environmental Health Unit has also sharpened its focus on rodent problems in the past year, demonstrating the importance attached to effective control by including our annual rodent report as a main agenda item. As in Northern Ireland, this has led to a dramatic increase in Council involvement in the national survey, boosted returns from just over 60% to nearly 80%.

These and other initiatives clearly indicate a renewed interest in improving rodent control through better working relationships and practices in many parts of the UK.

We look forward to seeing such work replicated as widely as possible across the country so we can regain the initiative in the fight against rodent pests to guard against the real threat they pose to protect public health as well as reducing both the damage and nuisance they cause.

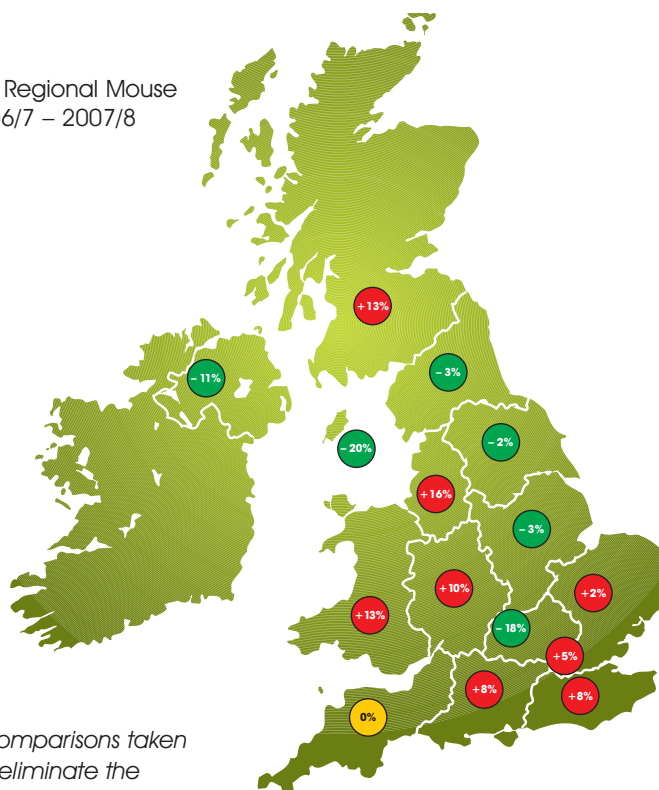
# REGIONAL CHANGES

**Appendix A:** Like for Like Regional Rat Treatment\* Changes 2006/7 – 2007/8



Scotland	+9%
Isle of Man	+9%
Northern Ireland	+10%
North East	+9%
Yorkshire	+30%
North West	+21%
East Midlands	+14%
Midlands	+20%
Wales	+12%
East England	+9%
Northern Home Counties	+1%
London	+7%
South East	+26%
South	+15%
South West	+13%

**Appendix B:** Like for Like Regional Mouse Treatment\* Changes 2006/7 – 2007/8



Scotland	+13%
Isle of Man	-20%
Northern Ireland	-11%
North East	-3%
Yorkshire	-2%
North West	+16%
East Midlands	-3%
Midlands	+10%
Wales	+13%
East England	+2%
Northern Home Counties	-18%
London	+5%
South East	+8%
South	+8%
South West	0%

\*Like-for-like treatment comparisons taken from our 2007/8 survey eliminate the distorting effect of the very much higher level of local authority involvement we have seen this year (80% of UK Councils against 62% previously).

This Report, together with a copy of the 2007/8 questionnaire, list of local authorities involved, plus detailed statistics and specific comments from local authority and private sector pest controllers responding to the survey, are published at [www.npta.org.uk](http://www.npta.org.uk) and [www.behaviourled.com](http://www.behaviourled.com)



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