

Ireland's  
**bloody**  
shame





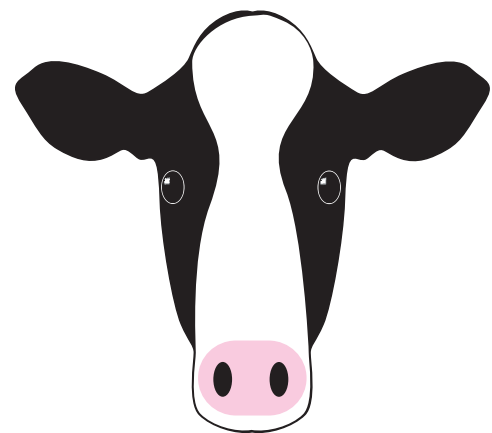
This is one of up to 6,000 snares set for badgers *each night* in the Republic of Ireland.

Exterminating badgers is supposed to help control bovine TB in cattle.

But so few badgers are left in Ireland, less than 6,000 are caught *each year*.

And bovine TB levels in Irish cattle are twice as high as in Great Britain, where badgers are not being killed.

(see p.2, col.2)



FACT: In 2006, 0.4% of Ireland's national herd was slaughtered with bovine TB, compared to 0.2% in Britain. The farming unions in Britain claim Ireland has been "successful" in controlling TB. Who are they kidding?  
(p.1, col.2)

## Ireland's bloody shame

### Summary

This is the first detailed report to reveal the appalling extent of the bloody wildlife massacre that is being executed in the Republic of Ireland.

Ireland's dairy and beef products, worth €3.6 billion in annual exports, are marketed as pure, natural and green. Tourism Ireland invites visitors to experience its "breathtaking countryside" and explore "wooded banks that shelter a wealth of wildlife"<sup>[1]</sup>.

But behind this fantasy, official figures confirm that each night up to 6,000 snares for badgers are laid across Ireland's farmland<sup>[2]</sup>. Badgers are being systematically strangled countrywide and no functioning safeguards are in place to ensure their survival.

Farming unions in Britain claim that the Republic of Ireland has been "successful" in controlling bovine TB in cattle. They have called upon the British Government's and Welsh Assembly's TB Advisory Groups (TBAGs) "to visit the Irish Republic, so as to learn from the apparently highly successful anti-TB strategy that has been implemented in that country"<sup>[3]</sup>.

NFU deputy president, Meurig Raymond, claims:

"The Irish experience highlights that to contain and eradicate bovine TB a managed wildlife cull is far more effective than pre-movement testing. A 40% reduction has been achieved in Ireland through abandoning pre-movement testing and concentrating on eliminating all vectors of the disease in wildlife."<sup>[4]</sup>

The TB Advisory Groups are due to visit Ireland in 2007. The Badger Trust and Badgerwatch Ireland, in partnership, have conducted a review of the "Irish experience", analysing more than 135 documents, reports and statements from Ireland and from Europe. In stark contrast to unreferenced claims made by the NFU and other pro-cull lobbyists, we have found that:

- Ireland's treatment of the Eurasian badger, a protected European species, is an international disgrace. So few badgers are left, they cannot possibly explain the high rates of bovine TB found in the Irish national herd. At best, the badger population is only 10% that of similar habitats in south west England. At worst, badgers are extinct in many areas. Only a fraction of the national population survives.
- Yet despite the mass extermination of badgers, bovine TB affects twice as many cattle, proportionately, in the Republic of Ireland as it does in Great Britain. In Ireland, 0.4% of the national herd was slaughtered with bovine TB in 2006, compared to 0.2% in Great Britain.
- Contrary to claims by Meurig Raymond from the NFU, TB rocketed when pre-movement TB testing was abandoned by the Republic of Ireland in 1996. The re-instatement of pre-movement testing has since been recommended by both Veterinary Ireland and the EU, but rejected by Irish government ministers.
- Most of Ireland's bovine TB research has never been published in peer reviewed journals and cannot be taken seriously.
- Ireland's badger killing strategy is based on snaring badgers within 2km of infected farms, yet genetic research shows that there is no relationship between those TB strains found in cattle and those found in badgers living within two or even five kilometres of those cattle.
- There is strong evidence of both cattle-to-cattle TB spread and of non-compliance with TB testing and livestock movement regulations. The EU has identified shocking inadequacies in TB testing regimes and other livestock regulations. EU regulations are currently enforced, to some

## Ireland's bloody shame

May 2007

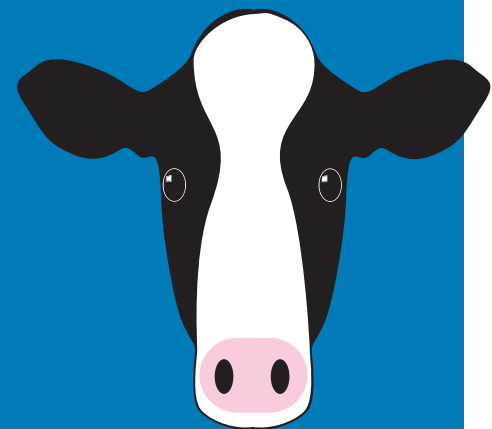


5 Tyrone Avenue, Lismore  
Lawn, Waterford City.  
[www.badgerwatch.ie](http://www.badgerwatch.ie)



## BADGER TRUST

2B Inworth Street  
London SW11 3EP  
[www.badgertrust.org.uk](http://www.badgertrust.org.uk)  
Charity no. 1111440



FACT: In Ireland, badgers had been exterminated from 72% of main badger setts before the Four Areas [badger killing] Project even started.  
(p.2., col.2)

extent, through a regime of on-the-spot inspections. Yet Ireland's agriculture minister, Mary Coughlan, is trying to secure EU approval for a 14-day notice period for farm inspections, at the request of Ireland's powerful farming lobby.

## Staining the Emerald Isle

It is popularly known as the Emerald Isle. But an ugly, bloody stain is spreading across the "lush pastures" of the Republic of Ireland. The badger, a protected European mammal, is being systematically erased from the countryside. In a landscape where the badger should have a European stronghold, the species has been all but exterminated in a miserable, pointless death. The fact has not been widely publicised in Ireland, no doubt because the people of Ireland will be ashamed to learn of it.

Badgers are a scapegoat for the spread of bovine TB from cattle, to cattle and to badgers. Despite the nightly strangling of Ireland's remaining badgers, in wire snares, attempts to eradicate bovine TB have stalled. It is easier for politicians and vets to point the finger at a voiceless wild animal than it is to tackle the economic might of one of Ireland's most powerful export industries.

Ireland's extensive pasturelands and damp, mild climate should provide a haven for the Eurasian badger. Hedgerows and woodlands offer suitable locations for setts. Earthworms, the staple diet of badgers in Ireland and the UK, abound and are available throughout the year. The badger population density in Ireland should equate to that in the south west of England.

Yet the very limited data available suggests that the vast majority of Ireland's badgers have been

exterminated in precisely those habitats where numbers should be greatest. Ireland's treatment of this protected European mammal is an international disgrace.

- On any given night, up to 6,000 snares are laid for badgers across Ireland's farmland<sup>[2]</sup> and any caught badgers are shot when the snare is inspected sometime in the next 24 hours. This equates to 1.3 million snares annually, yet so few badgers are left that not even 6,000 are caught each year.

- In the Four Areas [culling] Project (FAP) previous culls had reduced the badger population to just 1.9 badgers per square kilometre before the project even started. This density is less than 10% of the 23.1 badgers per square kilometre recorded in south west England<sup>[5]</sup>.

- In the FAP, a worrying 72% of main setts were devoid of badgers before the project even began<sup>[6]</sup>. Only 12% of setts contained one badger, just 5% contained two badgers and only 4% of setts contained more than five badgers, as a result of previous culls and illegal persecution.

- The extermination has top-line Government approval. Taoiseach Bertie Ahern committed 75 additional staff to the culling programme in 2000 to exterminate badgers across "20% of the country"<sup>[7]</sup>. This commitment was made any attempt was made to find scientific support for the strategy. In short, it is a political commitment to killing that drives the policy, not science.

- Ministers have approved the extermination of badgers across 30% of Ireland's agricultural land<sup>[8]</sup>. The Wildlife

[killing] Unit claims that this will result in a population reduction of "25-30% of the national badger population", but since the killing is focused on those areas where ministers admit that the badger population is highest<sup>[9]</sup>, a far higher proportion of the population will be killed.

- Ministers have no idea how many badgers are left or whether Ireland is complying with the Berne Convention, which forbids the extermination of badgers. The last population survey was conducted in 1995 and found a population estimated at 200,000 badgers<sup>[9]</sup>. More than ten years later, agriculture minister Mary Coughlan claimed that there were still 200,000 badgers in Ireland in 2006<sup>[10]</sup>, even though her own official figures show that 46,767 badgers are officially reported to have been killed in the interval<sup>[9, 13]</sup>.

- Although badgers may respond to the persecution by adjusting their fecundity, the limited evidence suggests that the culling, coupled with illegal persecution and road traffic deaths, has overwhelmed the badgers. Researchers financed by Mary Coughlan's Department of Agriculture admit that "the abundance of badgers is substantially less than that predicted in earlier national surveys"<sup>[11]</sup>. No data are given, but the Badger Trust understands that researchers in Ireland now believe that the population is less than 65,000. Badgers are locally extinct in many areas already.

- It is not possible, using the limited published data, to accurately determine how many badgers are left in Ireland. We

have multiplied two alternative figures for population density (from the FAP in 2003) by the total land area of Ireland (69,000 square kilometres). This results in two population estimates: just 4,830 badgers for a density of 0.07 badgers killed per square kilometre (recorded in the first two years of the FAP, when removal rates were highest)<sup>[12]</sup>; and 131,100 badgers if a larger population estimate of 1.9 badgers per square kilometre<sup>[6]</sup> is used.

- These are crude estimates. The true population could be higher, due to badgers not being killed in some areas and due to badgers increasing their fecundity. Or it could be lower since badger densities vary with habitat, are killed on roads and since “interference at setts by blocking, digging etc continues to be reported<sup>[13]</sup>”. The Irish government has created a climate for badger persecution.

- Further evidence of low densities of badgers in Ireland comes from comparisons between the FAP in Ireland and the Randomised Badger Culling Trial (RBCT) in England. The RBCT used cage traps to catch badgers, which are less efficient than the snares used in Ireland. Yet despite using a less efficient capture method, the RBCT killed 360% more badgers in the initial culling period than the FAP and 540% more badgers overall, per square kilometre<sup>[14]</sup>. In part, the larger numbers of badgers killed in England can be attributed to badger immigration in the wake of culling<sup>[15]</sup>, but this cannot account for the huge differences overall.

As if the extent of the extermination was not serious enough, the methods used are appalling.

- The extermination is being carried out using snares. High densities of snares are laid in the vicinity of a sett and any surviving badgers are shot with a .22 rifle when the snares are checked sometime during the next 24 hours. No independent assessment has been carried out into how long badgers are left in snares.

- Non-target animals, including domestic pets, are caught. Six to eight dogs are caught in each county every year, but figures are not provided for other casualties such as cats, foxes and deer<sup>[2]</sup>.

- Ireland claims that snaring is “humane”<sup>[16]</sup>, but the welfare investigation was carried out by those responsible for the culling policy, not by independent experts, and has not been peer reviewed. Nor did the study consider the impact of distress and other psychological trauma.

- The investigation found that 2% of badgers suffered “significant injuries”. This is a highly subjective definition, described as “injuries impairing mobility and normal behaviour”. A further 23% of badgers suffered bruising to the muscles and 73% had localised oedema in subcutaneous tissue. Of the 46,767 badgers officially reported to have been killed between 1995 and 2006<sup>[9, 13]</sup>, this suggests that 34,140 badgers suffered localised oedema; 10,756 suffered muscle bruising; and 935 suffered serious injury.

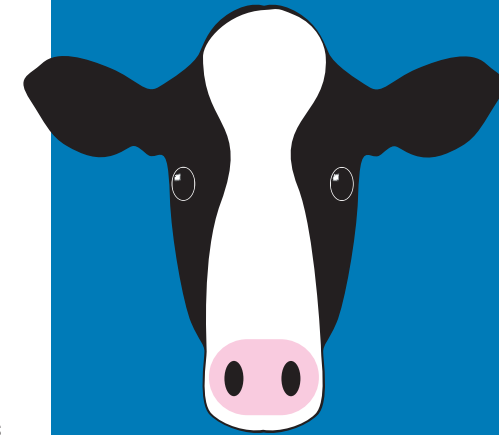
- Badger culling continues during the spring when cubs are born and remain

dependant on their mothers below ground<sup>[8]</sup>. As a result, many cubs die of starvation when their mothers are killed. The Wildlife [killing] Unit has not published any data on the number of lactating female badgers killed by its operatives.

- The Independent Scientific Group advising the British Government on bovine TB has observed that in Ireland’s Four Areas [culling] Project, “no consideration was given to badger welfare”<sup>[17]</sup>.

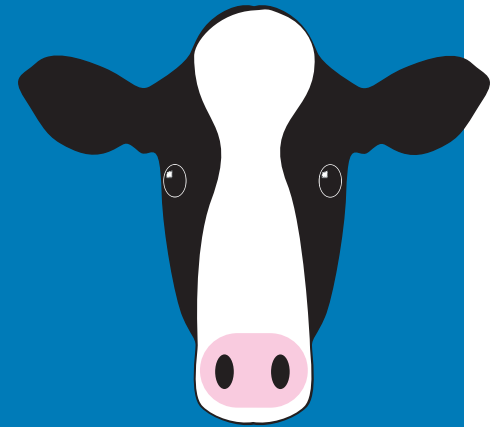
If 2% of domesticated livestock suffered injuries so serious that their mobility and normal behaviour was impaired in the 24 hours prior to slaughter, there would be a consumer uproar. There is no excuse for inflicting less humane treatment on wild animals. For vets to sanction the process is a disgrace to the profession.

But our study raises a more important question. With so few badgers left in the pasturelands of Ireland, how can they possibly be blamed for causing so much bovine TB in Ireland’s national herd? Clearly, another factor is to blame: cattle.



**FACT:** Of the 46,767 badgers officially snared between 1995 and 2006, 34,140 suffered local oedema; 10,756 suffered muscle bruising; and 935 suffered serious injury.

(p.3., col.2)



## Bovine TB is not under control in Ireland

According to the NFU, the United Kingdom can learn from the “apparent success” in the Republic of Ireland of “a 40% reduction [in TB] through abandoning pre-movement testing and concentrating on eliminating all vectors of the disease in wildlife”. The NFU goes even further, promising that: “Experience ... in Eire has shown that if you clear an area of infected badgers, at the same time as slaughtering any infected cattle, you will greatly reduce and ultimately eliminate the disease”<sup>[18]</sup>.

The NFU did not provide statistical evidence to support its claim and it is not hard to see why. Bovine TB has not been eradicated anywhere in Ireland. Indeed, the opposite is true.

- The number of cattle slaughtered with bovine TB in Ireland in 2006 was 24,104<sup>[19]</sup>. That is 2,010 (9%) more than the 22,242 slaughtered in the whole of Great Britain in the same year. Yet the cattle population in Ireland (6.2 million<sup>[20]</sup>) is only 56% the size of that Great Britain (10.6 million<sup>[21]</sup>). Thus, twice the proportion of Ireland’s national herd (0.4%) was slaughtered with bovine TB than in Britain (0.2%) in 2006.
- Ireland has been progressively killing badgers since at least 1998, but the number of TB reactor cattle has never fallen below 25,000 per annum (until 2006) and for most of the badger culling era has varied between 30,000 and 45,000 reactors<sup>[22]</sup>.

The NFU’s Meurig Raymond has claimed that “abandoning” pre-movement testing of cattle has helped to control bovine TB. The reduction of 40%, to which he refers, is that quoted by

Ireland’s agriculture minister, Mary Coughlan, in the Dáil. Between 1998 and 2004, the number of TB reactors per thousand cattle did indeed decline from 4.2 to 2.6 – a reduction of 38.1%<sup>[23]</sup>. But this date range ignores what happened *before* 1998:

- Way back in 1988, the Irish Government introduced an “intensive four-year programme to limit cattle-to-cattle transmission”, at the same time as the “progressive adoption of reactive badger removal as a disease control strategy”<sup>[22]</sup>. Thereafter, until 1996, there was a steady reduction in bovine TB. But the absence of any controlled, scientific study means that it is impossible to determine the relative contribution to disease reduction made by badger culling or cattle-based measures.
- In 1996, pre-movement testing for cattle was abandoned. Contrary to claims made by Meurig Raymond, TB rocketed in Ireland from 27,000 reactors in 1997, to 44,000 cases in 1998 and more than 45,000 in 1999 – the highest level ever recorded<sup>[22, 24]</sup>.
- The Irish Farmers Association was quick to blame a lack of badger culling for this increase<sup>[25]</sup>, but badger culling had continued throughout this period and according to official figures more badgers were killed in 1999 than in any previous year<sup>[9]</sup>.
- In addition, brucellosis (another, less infectious cattle disease) increased at a similar rate during the same period<sup>[26]</sup>. Badgers are not involved in brucellosis transmission. This suggests that cattle management practices were behind the increases.

- In 2003, Veterinary Ireland estimated that pre-movement testing would reduce TB rates by 10%<sup>[27]</sup>, but the proposal was rejected by agriculture minister (and dairy industry professional) Joe Walsh<sup>[28]</sup> without providing a sound scientific or cost-benefit analysis supporting the decision.
- The resumption of pre-movement testing was also recommended by EU inspectors in 2003<sup>[29]</sup> but, again, this has been ignored.

## No scientific justification for badger culling

### Research quality in Ireland

The peer review process for scientific literature adds quality and value to papers, but it is not infallible. As Jennings observes, “Whether there is any such thing as a paper so bad that it cannot be published in any peer reviewed journal is debatable”<sup>[30]</sup>.

But it is widely accepted<sup>[31]</sup> that journals fall into a hierarchy. At the peak are the prestigious, multi-disciplinary journals that are globally respected across the scientific community. Below these, the focus of expertise becomes increasingly narrow, whilst the range of journals becomes wider and more standardised.

Bovine tuberculosis is a highly complex and dynamic disease that demands the very best in inter-disciplinary research, with robust experimental design and statistical data at its heart. By the same token, it is possible to have more confidence in inter-disciplinary research when the results have been peer reviewed in multi-disciplinary journals<sup>[32]</sup> and particularly in international journals that are able to draw on a

FACT: Bovine TB rocketed when Ireland abandoned pre-movement testing for cattle in 1996, from 27,000 reactors to more than 45,000 reactors in 1999. Badger culling continued throughout.

(p.4., col.2)

wide range of independent referees.

The work of the Independent Scientific Group, for example, which has overseen the Randomised Badger Culling Trial in England, has been peer reviewed by experts in two of the world's most prestigious multi-disciplinary journals: *Nature*<sup>[33]</sup> and the *Proceedings of the National Academy of Sciences*<sup>[15]</sup>. In both cases, the accepted paper is published alongside a wealth of supporting material that shows the extensive and robust statistical analysis of the data that has been undertaken. Supporting data has never been published in Ireland.

As Christopher Lee has pointed out, the reviewers in single-discipline journals may not have the “comprehensive authority, to evaluate both impact (results) and validity (methodology) to return a decision” on the value and reliability of inter-disciplinary research<sup>[32]</sup>.

Until recently, much of the historic research into bovine TB and badgers in the UK had been published in a small proportion of single-discipline veterinary journals. In Ireland, in particular, most of the research was not published in a peer reviewed journal at all. This is not to accuse anyone of incompetence or dishonesty, but to question the status of the evidence that is cited.

Simon More and Margaret Good, for example, describing the history of bovine TB control in Ireland in a special edition of *Veterinary Microbiology* with More as guest editor, cited almost 90 references. Of these, 31 were “selected papers” self-published by Eire’s Centre for Veterinary Epidemiology and Risk Analysis without peer review. Another ten references were other governmental, self-published documents that had not been peer reviewed.

Similarly, O’Keeffe’s *Description of a medium-term national strategy toward eradication of*

*tuberculosis in cattle in Ireland*<sup>[8]</sup> is a “selected paper” which sets out the “sound scientific” justification for the current badger culling strategy in Ireland, citing 11 references, six of which are other non-peer reviewed “selected papers” and two of which are other governmental, non-peer reviewed documents.

This poses a problem. As John Moore has argued in *Nature*: “The research community understands that scientific information that has not been peer reviewed should not be taken seriously.<sup>[34]</sup>”

Simon More cites non-peer reviewed “selected papers” in other scientific journals. But when the Badger Trust requested a copy of “selected papers” from 2004-5, we were “specifically [asked] that they not be used as part of any public debate in the UK or elsewhere” since “these papers were not peer-reviewed prior to publication”. Yet these papers are deemed suitable by More “to inform policy-makers and interested bodies (industry, farming bodies, farmers etc) of our work”<sup>[35]</sup>.

The variation in data given in different non-peer reviewed papers allows ministers to play fast and loose with figures provided in the Dáil. O’Keeffe claims that “upwards of 40% of the badgers are culture positive for tuberculosis”<sup>[8]</sup> in the vicinity of infected farms. Yet another non-peer reviewed paper, in the same report, finds that 12.8% of badgers culled around infected farms were positive for TB, from a massive sample of 24,986 animals<sup>[13]</sup>.

In December 2006, agriculture minister Mary Coughlan told the Dáil that: “The rate of infectivity [in badgers] is between 16% and 25%”, thereby doubling the most reliable of the two estimates<sup>[10]</sup>.

More recently, some research in Ireland has been published in peer-reviewed journals,

primarily in *Preventive Veterinary Medicine*. This journal, states the publisher, “is ranked 21<sup>st</sup> out of 129 veterinary science titles”.

### Research validity in Ireland

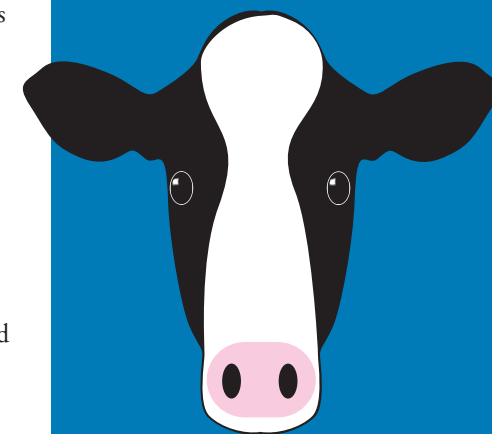
Against this background, the claim that badger culling in the Republic of Ireland is based on “sound science” cannot be taken seriously. Two large-scale badger culling projects undertaken in Ireland are cited by pro-cull advocates as evidence that badger culling is both essential and effective in the control of bovine TB.

But both, the East Offaly<sup>[36]</sup> culling project and the Four Areas [culling] Project (FAP)<sup>[12]</sup>, have serious weaknesses in their scientific methodology.

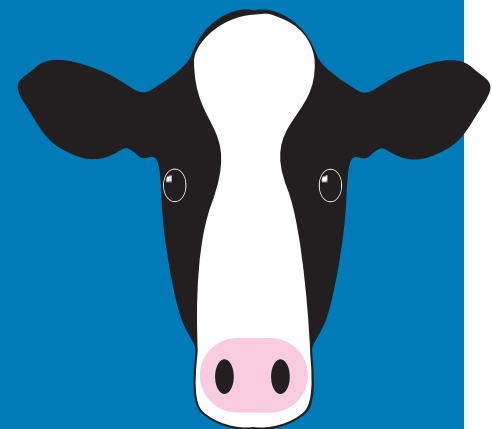
Some of these weaknesses stem from the “perturbation effect”, in which killing badgers encourages badgers from neighbouring territories to enter vacant territory and experience increased rates of contact with infected cattle or remaining badgers<sup>[37]</sup>. This leads to the spread of bovine TB outside the culling zone and this negative effect has been demonstrated in the Randomised Badger Culling Trial in England<sup>[15, 33, 37]</sup>.

Glaring weaknesses in the Republic of Ireland culling trials include:

- Neither study had a sound scientific “control” area, in which no culling was done. Such a control is essential to provide an accurate comparison between culling versus no culling. In the East Offaly project, the “control” had been subject to previous culls<sup>[22]</sup>. In the FAP, “reactive” culling took place on farms in the “reference” areas used for comparison with the “removal” areas. Badgers had also been culled in both removal and reference areas before the study began. As a result, the perturbation effect is



**FACT: TB infection in Irish badgers around infected farms is said by vets to be “12.8%”, by the agriculture minister to be “between 16% and 25%” and by the head of the badger killing unit to be “40%”.**  
(p.5., col.2)



FACT: There is no significant association between the TB strains found in cattle in Ireland and the TB strains found in badgers within 2km or even 5km of those cattle.

(p.6., col.2)

likely to have exaggerated the apparent benefits of culling in both studies. The authors claim “there is no evidence in support of such an effect” but, without proper scientific controls, absence of evidence is not evidence of absence.

- The study areas were not randomly selected. Non-randomised studies introduce selective bias into results, which means they cannot be applied to other areas. In the FAP, for example, the selected areas had coastal and major river barriers to badger immigration. Such barriers do not exist across the rest of Ireland, which means the same conclusions cannot be applied elsewhere.

## Persecuting the innocent

On 1 January 2004, the Irish government set about exterminating badgers with ruthless vengeance, issuing a licence to kill 60,000 animals.

James O’Keeffe, head of Ireland’s Wildlife [killing] Unit, explained the strategy to policy-makers and farmers in a non-peer reviewed paper in 2006<sup>[8]</sup>. Badgers are eradicated within 2km of any farm that suffers a bovine TB breakdown, if evidence of badgers is found within 1km of the farm.

The rationale for the 2km distance is that bovine TB is a disease found in “clusters” of cattle herds. Killing local badgers will “result in lowering the risk of cattle herds becoming infected with TB from TB infected badgers in the local environment”. It is, in effect, a reactive culling strategy. Trials of a similar strategy in England were halted when it emerged that reactive culling actually increases the risk of

bovine TB<sup>[33]</sup>.

It sounds so simple: remove the local badgers, remove the risk of infection. And since Ireland’s researchers insist that “there is no evidence in support of [the perturbation] effect”<sup>[12]</sup>, farmers should have nothing more to worry about.

- But O’Keeffe, in presenting this “sound scientific” justification in 2006, omitted two key pieces of research. First, in 2003, Olea-Popelka *et al* reported that setts containing infected badgers in Ireland are not clustered<sup>[6]</sup>.

- Second, in 2005, Olea-Popelka *et al* used a genetic technique called RFLP to distinguish between the different bovine TB strains found in badgers and cattle<sup>[38]</sup>. If local badgers were to blame for clustered TB infection in cattle, the same strains should be found in both badgers and cattle. Instead, Olea-Popelka *et al* found no significant association between the strains in badgers within two or even five kilometres of the strains in infected herds.

These revelations are hugely embarrassing and have multiple implications:

- If infected badgers are not clustered around infected cattle herds, the 2km cull radius is a nonsense. The Irish government is busy slaughtering blameless badgers.

- It begs the question: what is to blame for these TB clusters in cattle? Two possible agents could be blamed: any badger, from anywhere; or other cattle. As we show in the next chapter, there is strong evidence that cattle are the primary vectors.

But the researchers blame badgers. They conclude that their “original assumption about

## Mocking the dead

In a statement that would not be out of place in a Pythonesque “dead parrot” sketch, O’Keeffe claims that the medium term badger extermination strategy will contribute towards the “key objective” of “a healthy badger population nationally”<sup>[8]</sup>.

The tens of thousands of perfectly healthy badgers that have already been snared would surely disagree.

the stationarity [sic] of badger social groups is not consistent with our data. It seems more probable that we have underestimated the actual extent of badger movements”<sup>[38]</sup>. More claims that this extensive movement of badgers cannot be blamed on the perturbation effect created by culling, since “long distance badger movements were recorded in Ireland in the 1980s before strategic removal operations were common”<sup>[22]</sup>. Yet if badgers are indeed as mobile as claimed, confining culling to within 2km of outbreak herds will not ensure that the wider badger population is protected.

Thus, the “strategic” slaughter of local badgers is not a rational strategy at all. It certainly has no founding in “sound science”.

## Cattle are to blame

O’Keeffe argues that Ireland’s “comprehensive testing regime would be expected to successfully eradicate tuberculosis from the national cattle herd, as was the experience of many of our EU neighbours”. But farming practices and other



variables vary widely within Ireland and within the EU. There is therefore no evidential basis to support O’Keeffe’s claim.

In fact, TB persists in EU member states in the absence of any wildlife reservoir, including Italy, Spain and Portugal, since “the variety of cattle breeding systems and environmental conditions in the EU leads to different epidemiological situations”<sup>[39]</sup>.

As Moda has argued, social and economic constraints on disease control also play their part, including “a social reluctance to recognise the importance of seeking eradication as the goal of disease control, effective communication of technical issues, the training and the organization of veterinary services, the relationship between the regional authority and farmers and their representatives, and data management and epidemiological reporting”<sup>[40]</sup>.

Here, the Badger Trust and Badgerwatch Ireland show that farming practices, problems with monitoring compliance and weaknesses in Ireland’s monitoring system have allowed the spread of bovine TB between cattle to persist.

Some of the evidence lies in the problems that Ireland continues to face with brucellosis. This disease is primarily transmitted through uterine discharge fluids so, in contrast to the aerosol transmission of bovine TB, brucellosis is less infectious. In 1998, the Irish Government advised EU inspectors that: “80% of the source of [brucellosis] spread is between neighbouring farms. The usual picture in infected herds is that one animal is initially exposed and then within herd spread takes place. The critical mass of infection, due to within herd spread, quickly increases, thus posing a severe threat to the surrounding herds”.

This problem has been confirmed by an EU inspection, which reported that: “Farms often

have fragmented land parcels with uncontrolled animal movements between the parcels within the holding ... quite often pregnant heifers are grazed on separated land parcels and brought back into the farm at the time of calving, with a higher risk of introduction and/or spread of [brucellosis] infection.”<sup>[41]</sup>

If the bulk of less infectious brucellosis is spread between neighbouring farms in Ireland through “uncontrolled animal movements” between parcels of fragmented farms, the opportunities for the spread of more infectious bovine TB amongst cattle are surely greater.

As More himself has hinted – in a non-peer reviewed report on work in progress – the opportunities for cattle to cattle spread are enormous<sup>[42]</sup>. He reveals that an index farm in a tuberculosis outbreak in the south east of Ireland was fragmented into four land parcels adjacent to land parcels from other farms. Six of the contiguous farms were “potentially significant in terms of source and/or spread”. This is a huge multiplying factor.

In another TB cluster involving seven farms in the north east, More shows that between 1998 and 2005, there was no period when all seven farms were free of bovine TB. At times, five out of seven farms were under TB restriction. In 2004, gamma interferon testing on one farm yielded 11 “hidden” reactors, alongside 14 conclusive skin test reactors, confirming that the skin test was missing large numbers of infected cattle. Yet although four other adjacent farms were under restriction at the same time, only one other was subject to gamma interferon, yielding one hidden, positive reactor.

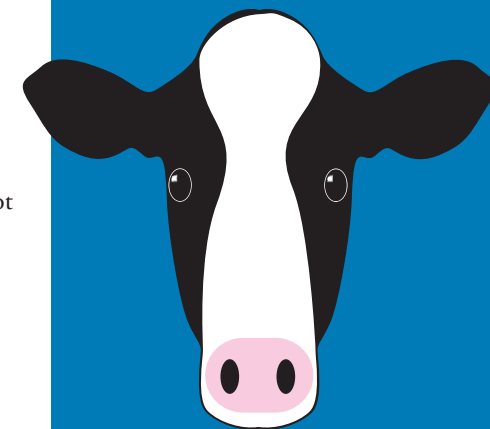
More’s report does not rule out the possibility of badger involvement. But it does reveal the huge opportunities for cattle to cattle spread between contiguous herds.

## Exposing the real culprits

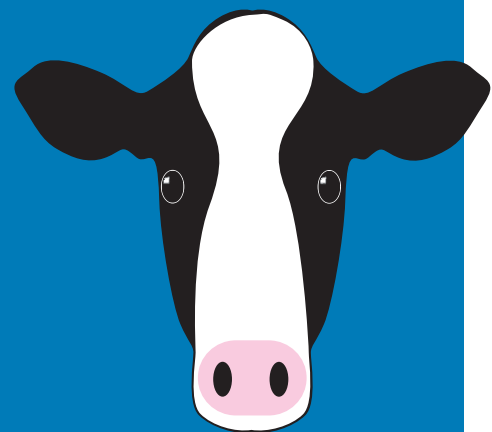
For the Irish government to confidently heap so much blame for bovine TB upon badgers, it should be able to show that its cattle monitoring and TB testing regime is removing all infected cattle from herds and is not vulnerable to fraud on the part of farmers. In fact, the opposite is true.

Although neither of the two volumes of documents published by the Veterinary Epidemiology and Tuberculosis Investigation Unit since 2001 makes a single reference to potential weaknesses in the bovine TB testing regime or the impact of illegal livestock movements, we have found that:

- TB incidence began to decline again in Ireland following the introduction of gamma interferon TB testing and the use of the anamnestic-ELISA assay in 1999<sup>[22]</sup>.
- The recent decline in bovine TB cannot be attributed to badger culling. Gamma interferon and the anamnestic-ELISA assay have been extended, alongside the introduction of a computerised cattle movement monitoring system and a reactor herd management system<sup>[22]</sup>.
- Other cattle-based TB control measures, only recently introduced, include: “the tightening up on illegal cattle movements, the regulation of dealers, prosecutions for breaches and the imposition of penalties for a failure to comply with animal disease and identification regulations<sup>[10]</sup>”.
- Ireland’s TB problems have often been at their highest density alongside the border with Northern Ireland<sup>[43]</sup>. An



**FACT:** In Ireland, 80% of brucellosis is spread through the “uncontrolled” movement of infected cattle between land parcels of fragmented farms. TB is more infectious than brucellosis.  
(p.7., col.1)



**FACT:** In Ireland, the proportion of new herd restrictions detected at slaughter increased from 27% in 2000 to 35% in 2002. The skin test is missing huge numbers of infected cattle.

(p.8., col.1)

investigation is currently underway into the illegal movement of cattle, under TB restriction, across the border<sup>[44]</sup>.

- Between 1 January 2004 and 23 April 2007, Northern Ireland's Department for Agriculture and Rural Development (DARD) detained and slaughtered 13 cattle that were illegally imported from the Republic of Ireland. During the same period, as part of 145 separate investigations, DARD detained and destroyed 422 cattle under EC Regulation 494/98. The identification of these cattle was unknown and therefore their movement histories and origins were also unknown<sup>[45]</sup>. These cattle could have been illegally imported from the Republic of Ireland.

- In the same period, DARD's Central Enforcement Team (CET) successfully prosecuted 38 people for breaches of cattle identification, registration and movement regulations.

- Prosecution records obtained for the Republic of Ireland do not distinguish between TB, brucellosis and cattle identification offences. Between 1996 and 2006, there were 149 successful prosecutions for such offences. Only 7 prosecutions were recorded before 1999, when the number increased dramatically to 31 in 2001. Prosecutions averaged 21 per annum between 2002 and 2006. However, as of 1 May 2007, 35 prosecutions are pending; the highest number yet recorded in one year<sup>[46]</sup>.

- A substantial number of TB cases in Ireland (26.8% in 2000 to 34.6% in 2002) are detected at slaughter<sup>[29]</sup>. Despite annual testing, this suggests that

## A catalogue of failure in Irish TB control – as reported by EU inspectors<sup>[29]</sup>

“[On farm] shortcomings in relation to the holding register, movement notifications, movements of animals and movement controls ... testing of forward traced animals was not always carried out as instructed ... the requirement for cleaning and disinfecting of a holding following a breakdown is not specified ... big differences existed between the number of animal [sic] present on the holding (210 according to the owner), the number of passports (152 available on the farm during the visit plus nine presented later) and the number of animals in the holding register (310); animals had left the holding without passports; passports of animals that had been recently bought were not available on-the-spot; [the identification for one animal differed in the TB test listing for the herd and the herd file held by the Divisional Veterinary Office, and the animal “could not be located in any holding”]; movement notifications had not been made to the central database within the required time intervals; for different animals, information on the holding register did not match data from the central database; animals indicated as ‘present’ in the register were indicated as ‘exit’ in the database (they were ‘located’ in another holding) and vice versa ...

Deadlines for the removal of reactor animals are generally between 3-4 weeks ... the cleaning and disinfection

of some means of transport, performed by the drivers themselves, was very superficial and done without wearing protective gear ... the laboratory is not accredited for TB testing and is located in old buildings, which are not well maintained ...

5.3% of the contiguous [herd] check tests were positive ... the proportion of new herd restrictions as a result of detection of TB lesions at slaughter has increased during recent years, from 26.8% in 2000 to 34.6% in 2002 ... the derogation permitting animal movements from a herd following disclosure of [positive] animals, is not correctly implemented ...

In the slaughterhouse, the same facility was used for cleaning and disinfecting both meat and livestock vehicles. Meat lorries were left open in the dirty part of the yard close to the manure stock, with numerous crows present. In the slaughter hall, rusty metallic supports and dirty air extractors were seen. In the dairy establishment, wall and floor damage was observed, as well as rust on metallic supports. Plastic milk containers were moved under the open sky prior to filling. The plant was not pest proof. In both establishments, a number of notices for enforcing hygiene rules were displayed ... but not respected and no enforcement action was taken”.

the testing regime is not nearly rigorous enough to detect a large proportion of reactors and/or there is not sufficient policing of livestock in Ireland.

- Several EU investigations since 1998 into TB control, livestock movements and animal by-products in Ireland have uncovered many types of irregularities, with consequent risks for both animal and human health.

- The text in the box (left) is taken from a devastating EU report into TB control in Ireland, following an inspection in 2003. It confirms that cattle monitoring and TB testing in Ireland has provided multiple opportunities for the spread of bovine TB between herds and farms for decades, whilst vets, scientists and politicians have blamed badgers.

- Ireland's cattle movements database did not conform to EU standards in 2003, when the EU advised Ireland to: "make the bovine database conform to the Community legislation as regards notification of all animal movements ... to improve its functional parameters so as to make it possible to carry out cross checks on the truthfulness of the information provided" by farmers<sup>[47]</sup>.

- In 2002, EU inspectors studying livestock transportation found: "Many vehicles ... in a poor state of cleanliness. Evidence was found of vehicles that had loaded animals without having been properly cleaned after the previous consignment ... an effective level of enforcement has not been achieved, as a high number of vehicles do not comply with Community or Irish legislation"<sup>[48]</sup>.

- The examples above underline

the importance of random, on-the-spot inspections of farms, markets and slaughterhouses in Ireland. Not surprisingly, in the run up to Ireland's 2007 general election, the Irish Farmers Association's (IFA) leading demand is for politicians to give farmers "14 days' advance notice of inspection for all schemes"<sup>[49]</sup>. Following this and other pressure from the IFA<sup>[50]</sup>, agriculture minister Mary Coughlan did indeed demand, but unsuccessfully, a 14 day notice period for inspections at a meeting of EU agriculture ministers<sup>[51]</sup> on 16 April 2007.

## Conclusion

Ireland's rightly proud and modern Celtic Tiger image stands in stark contrast to the primitive and brutal persecution of the Eurasian badger in its countryside.

The cruelty and extent of the slaughter is unparalleled in Europe and an international disgrace. The killing has failed to secure the eradication of bovine TB anywhere in the Republic of Ireland and, despite the intensive scale of the slaughter, bovine TB is not under control.

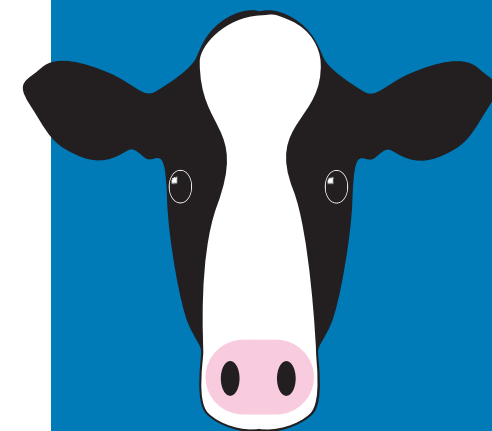
As in Great Britain, badgers have been made a scapegoat for bad farming practices that propagate the spread of bovine TB from cattle to other cattle and to badgers. The badger is a messenger, reporting that cattle-based TB control is not nearly effective enough. The response has been to shoot the messenger.

Badgers have been virtually exterminated from Ireland, yet TB remains at higher levels than anywhere else in Europe and at twice the level seen in Britain, which has far higher densities

of badgers. In Ireland, the scapegoat is all but extinct. But the blaming goes on.

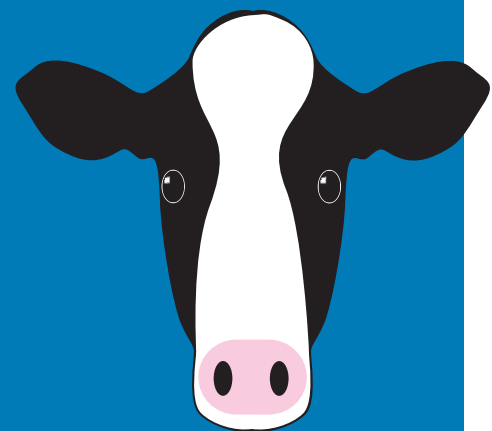
## Recommendations

- That consumers boycott Irish beef and dairy products until badger culling is halted in Ireland.
- That tourists with a concern for nature conservation and animal welfare boycott the Republic of Ireland as a holiday destination.
- That the Berne Convention immediately opens a file on Ireland's persecution of the Eurasian badger, until such time as a fully independent, nationwide population survey of Ireland's badgers has been commissioned, completed and published in a peer reviewed journal.
- That all political parties in Ireland commit to immediately suspending badger culling until the population survey above has been completed.
- That further badger culling is ruled out until Ireland can show that all possible cattle-based TB control measures have been fully implemented and subjected to full inspection and approval by the EU.
- That all future TB research in Ireland, including the further analysis of the Four Areas (badger culling) Project that is currently underway, is published in leading, international, multi-disciplinary, peer reviewed journals.
- That EU agriculture ministers reject Irish demands for a 14-day notice period for farm cross-compliance inspections.



FACT: In 2003, EU inspectors told Ireland to make its cattle movement database conform with EU legislation and to cross check "on the truthfulness of the information provided" by farmers.

(p.9., col.1)



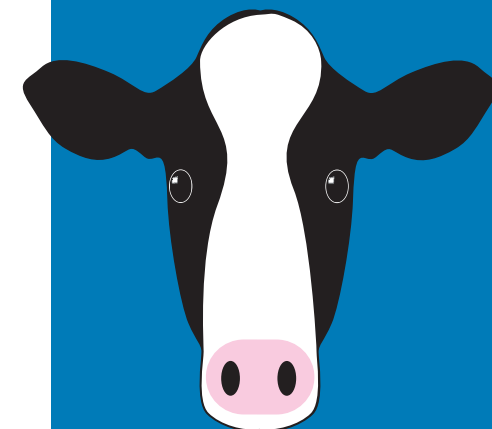
FACT: In 2003, EU inspectors reported an Irish slaughterhouse and a dairy where hygiene notices were displayed “but not respected and no enforcement action was taken”.

(p.8., box)

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FACT: In 2007, the highest number of prosecutions ever, for breaching TB, brucellosis and livestock movement regulations, are pending in the Republic of Ireland.  
(p.8., col.1)