Fireworks; harmless fun or wanton destruction?

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As someone who used to love the spectacle and the theatre of firework displays, the whizzing, whooping, whistling, screams, pops, and thunderous bangs, the sparkling, light-blazing skies and the gunpowder smoke hanging heavy in the crisp frosty air, the past few years have been a journey of discovery leading to a 180 degree turnaround in my perspective. As with so many things in my life, getting used to saying, 'I was wrong, I've changed my mind' has been very humbling and necessary – I can thoroughly recommend it and it gets easier with practice. Now I hold the view that this archaic practice should be completely banned with immediate effect.

I suppose my mind started to change on Hogmanay (Scottish New Year's Eve) a few years back, on a night when my thoughts moved beyond my erstwhile childish delight in things that sparkle and go bang.

Afterwards I wrote,

'At midnight last night it began; a volley of deafening noise and lights that seared the sky, echoing in the silence of a frosty night. The polluting stench of gunpowder hung in the air. I wonder how wild creatures survive in the bitter cold of Scottish nights. Do they hide? Do they huddle together in whatever shelter they can find? The world that we are ruining belongs to them, every bit as much as it belongs to any other species, our own included. With their survival balanced so precariously, this terrifying disruption to whatever peace or rest they had managed to find may have cost some of them their lives.

I realised then, that beyond the exhortations to 'check bonfires for hedgehogs before lighting' that seemed to be the limit of 'concern' advocated by animal 'welfare' organisations when I was younger, I had given little thought to the true impact of firework use.

Please note that in this piece are several links but I must stress a disclaimer. Although superbly addressing particular aspects of the consequences of firework use, some promote regulatory changes as potential solutions. While acknowledging these works, I wish it to be noted that I am opposed to any position that falls short of a complete ban.

Social acceptance and belonging

I grew up to see firework displays as a 'treat'. So much of our lives involve little critical thought; we become adult with a full set of accepted behaviours but no memory of their source or justification. They have been drip-fed into us from infancy by parents, teachers, peers and media, along with life lessons we need for keeping ourselves safe, fed, and sheltered. From childhood, we gradually learn about social conventions; adopt attitudes that enable us to 'belong' as members of a social species.

And thus, we become adults who indulge in the most depraved and sickening practices towards our fellow creatures while calling ourselves 'animal lovers'; condoning practices that wreck our home planet while calling ourselves 'ethical' and 'conscientious'; eating brutal slaughterhouse-tainted diets that cause disease in ourselves and our world while ignoring science and calling it 'natural' and 'normal'. And when challenged, we can't defend ourselves with calm and reasoned logic because none was used in our early indoctrination. I firmly believe that's why we see so much juvenile and illogical blustering on social media, as adults seek in vain to defend violent, toxic and abusive behaviours that fall into the category of 'knowledge' inherited from childhood.

So, what's the problem with fireworks?

Well, basically everything.

- 1. Apart from willing spectators, fireworks terrify countless living individuals of every species as well as being;
- 2. An extreme form of noise pollution;
- 3. An extreme form of light pollution;
- 4. Environmental vandalism causing widespread pollution by toxic litter and emissions.
- 5. And beyond all these, which occur in every case, fireworks serve as readily available weapons for those with malicious intent to cause deliberate harm, providing a hazardous tool for mayhem and destruction. I won't discuss here the sickening injuries caused to cats, dogs and others by having fireworks tied to them before being lit, but it would be naïve to ignore that it happens frequently. Age restrictions and all the half-measures implemented randomly in different countries and areas are *not*an impediment to those with vicious intent. There will be no effective resolution until a complete ban takes place.

1 – A reign of terror

In considering the terror that fireworks cause, here we find a wealth of the most obvious evidence of injury and death to humans, to wildlife and to those species that have been domesticated for our use.

<u>Fireworks legislation and impacts: international evidence review</u> is a particularly <u>well-referenced</u> report by the Scottish Government as opposed to the UK one. It examines in great detail a tragic catalogue of trauma, distress and injuries to humans and nonhuman species. If you don't want to read my blog, then I can recommend this for a comprehensive analysis of the issues. In fact it's essential reading for everyone.

Meanwhile anyone who considers themselves to be an 'animal lover' will have witnessed social media outrage in the aftermath of firework 'celebrations'. Traumatised, lost and dead animals — with a focus fairly firmly on dogs — feature with distressing frequency. It's so widely acknowledged that I won't dwell on it here but it's time we started looking at the bigger picture. Dogs, humans, cats, and horses are *not* the only species impacted by fireworks.

2 – Noise pollution

The promotion of 'silent fireworks' pops up every time I mention the subject so I don't want to risk misunderstandings here. *There is no such thing as 'silent' fireworks*. Some companies sell what they promote as 'low noise' fireworks, as a marketing strategy, seeking to preserve business by convincing consumers there's a right way to do something fundamentally harmful and wrong.

The hearing of many species is way beyond our own. Many animals have an acute sense of hearing, with various types of mammals and birds shown to have broader hearing ranges and to hear noises of frequencies multiple times higher. As a result, sensitivity to the sounds caused by fireworks is common in many types of domestic and wild animal.

The arbitrary reductions of fireworks marketed as 'low noise' do not resolve the issue of noise-induced stress and/or hearing damage for all the victims of humanity's 'entertainment'. Please see this link sections 4.3 and 4.4 for a detailed breakdown of hearing related issues too numerous to list.

3 – Light pollution

Now this is one that rarely gets a mention. In fact, since it's absurdly common to see the promotion of 'silent fireworks' (see above), the light pollution aspect gets a free pass every time. As a country dweller who lives far from street lights, I wouldn't be surprised if few people who live in cities or communities have any concept of the natural night-time world, so I'll share what I know.

Walking out my door on a starry night to see the sweep of the Milky Way overhead, or the cool steady gleam of moonlight bleaching everything to a dull silver, there is a silent tranquillity unknown in a town. When it's cloudy or there is no moon, the darkness is almost palpable and only close knowledge of the ground lets me move around. On windy nights, my ears are less sensitive to the sounds of life around me. When the wind drops there are small quiet rustlings, the occasional tiny sound of alarm, but in general, it's a sleeping world where uncounted unseen individuals huddle silently in their night-time refuges. As an alien invader of their rest, there's a hush that urges my respect and reminds me that even quiet footfalls and the sound of my breathing will be disturbing someone. And you know what? The dreaming world is theirs, not mine, and I would never think of finding 'entertainment' by using eye-searing man-made lights – far less the noises of a battlefield – to disrupt their slumber.

When we live in towns, we are disconnected from this intimacy and kinship with the sleeping world, so acclimatised to street lights and neon signs and shop lights and headlights that it's all too easy to think that it's all about us. Which is where our problem starts and ends, to be sure. But even here, wild creatures exist, tucked into corners away from our sight, foxes, birds, rodents and others, often left with nowhere else to go as we take over and decimate their ancient habitats with our urban sprawls and the 'farms' where we keep our victims as they wait for the grim and unnecessary deaths that our social conventions impose.

Science, as ever is slow to catch up with what we can feel at a primitive level, however much is currently emerging about the harm that man-made light can cause. There are recent studies that indicate LED <a href="mailto:streetlights are decimating insect populations and alarm bells are ringing for other species too.

Of course these reports are not specifically about fireworks, focussing mainly on the types of lighting that our species considers essential for their general activities. However as always, it makes no sense to add the gratuitous, easily avoidable and undeniable harm of fireworks into the mix. We can stop doing it. And we should.

4 – Toxic litter pollution

Not surprisingly, the same ingredients are used in any kind of firework whether they're marketed as 'silent' or not. Added to which, our fragile planet is already in dire peril as the direct result of the activities of a species that has never learned the most basic respect for a world that we share with millions of other species whose continued existence is now as seriously threatened as our own. This global climate collapse is linked to animal use and our inappropriate and destructive predation on other species, to fossil fuel use and to pollution as three of the main culprits. Fireworks combine our flagrant disrespect for our fellow creatures with an astonishing level of environmental vandalism.

In <u>an article</u> by <u>The Firework Campaign UK</u> whose site is worth exploring (while bearing in mind my earlier disclaimer),

'Fireworks propel a cocktail of chemicals into the atmosphere, many of which can harm both people and the environment. The vivid colours in firework displays come from metallic compounds such as barium or aluminium that can have negative impacts on animal and human health." It goes on to explain that in order to create an explosion, you need a lot of oxygen, so many fireworks contain oxidisers known as <u>perchlorates</u>. These can contaminate rivers, lakes and drinking water. If our rivers and lakes are contaminated, that affects anything living in, dependent on or drinking from the river. Fish, ducks, swans, deer and more. And the water goes downstream and into our oceans, carrying the problem even further. From a DEFRA report of 2003, global emissions of air pollutants from fireworks in 2000 included copper 2.8 tonnes, potassium 100 tonnes, sodium 5.5 tonnes, magnesium 73 tonnes, barium 65 tonnes, strontium 9.9 tonnes, aluminium 86 tonnes, titanium 5.3 tonnes, as well as carbon dioxide and monoxide 160 tonnes and 120 tonnes respectively. Firework use has increased exponentially since the the time of that report.

And finally

There are *always* going to be those who consider that they have the right to kill without conscience while laying waste to the fragile environment we share with the other species of planet Earth. It's the reason we're in such a <u>mess as a species</u>. All I can do is to keep telling the truth. We can't distance ourselves from the effects of the activities and atrocities we demand as consumers.

It's time to realise that humans are not the centre of the universe. It's time to stop refusing to be vegan. Because everything in the world depends on it.

Recommended links

Scottish review of evidence on the impact of fireworks, in the context of international legislation and regulations

Emission factors for air pollutants – See Appendix 1