

Excellent Points, Appalling Metaphors

American Digest gives a succinct, point-by-point account of how bad government, responding to silly people, caused yesterday's blackout. But spoils it by referring to that process as "Self-Inflicted Terrorism". It is not terrorism: none of those responsible intended the blackout to happen. None of them wanted any harm to come to its victims. None of them are today dancing in the streets. None are planning how to cause bigger and more painful blackouts in the future.

Steven Milloy of junkscience.com is rightly angry about the millions of poor people who have died of malaria and other insect-borne diseases because of the ban on DDT. (By the way, **Americans** are now starting to die of this policy too, through the West Nile virus.) So angry is he, that he can't resist an uncalled-for and utterly false closing remark:

Let's hope that in the 21st century our society comes to realize that genocide by junk science is no different than genocide by the gas chamber.

First of all, it was not genocide: the DDT ban was not intended to exterminate any ethnic or cultural group, nor did it in fact do so. And second, causing deaths through foolish negligence in the belief that one is saving lives and preventing other massive harm *is* different, very different, morally, from causing deaths wilfully and maliciously. The instigators of the DDT ban may have been unforgivably casual about the possibility of such deaths (some regarded them as a form of population control), but if another way had been found to prevent malaria, they would not have campaigned against it; nor did they send in death squads armed with mosquitos to forcibly infect any survivors.

This sort of metaphor is quite rare from anyone who, as in the above cases, is in other respects talking sense and making excellent points. But it is very common in idiotarian writing. (We noted **an example** recently; and see also **this one**.) For idiotarians have a dual motive: they not only want to attract the readers' attention to their boring pet issue by using a startling metaphor of evil violence, they also want to diminish evil violence itself by comparing it with their boring pet issue.

Blacked Out

American Digest gives a succinct, point-by-point account of how bad government, responding to silly people, caused yesterday's blackout.

How does American Digest know what caused the blackout before anyone else does? It seems to me that they are simply jumping to a conclusion based on their ideas about politics, and that **The World** (while clearly not of the opinion that *all* problems are due to "bad government, responding to silly people") is, being broadly in agreement, repeating it uncritically. I can certainly think of plausible events that I would argue do not fit this theory at all, but I wonder whether American Digest would not try hard to *make* them fit. Let me put it another way: once what actually happened becomes known, might the evidence refute this theory? If so, why treat it as established beyond reasonable doubt? If not, well....

by **Kevin** on Fri, 08/15/2003 - 20:21 | [reply](#)

Re: Blacked Out

Kevin said:

once what actually happened becomes known, might the evidence refute this theory?

Yes.

If so, why treat it as established beyond reasonable doubt?

Good point. We should have said: "a succinct, point-by-point account of the sort of behaviour by bad government, responding to silly people, which impedes problem-solving and sometimes causes systems to break down, and which might be responsible in this case".

by **Editor** on Fri, 08/15/2003 - 20:42 | [reply](#)

Metaphor appropriate

I think:

Let's hope that in the 21st century our society comes to realize that genocide by junk science is no different than genocide by the gas chamber.

is an excellent way to end that article. First of all, the DDT ban did in fact more or less target a specific ethnic or cultural group. Namely black people in Africa. The fact that it didn't exterminate all of them, or that not all victims were black, doesn't make the term genocide incorrect. Just as the fact that the Nazis didn't kill all Jews

and the fact that not all their victims were Jews makes the term

genocide incorrect.

Second, the result **was** intended by some, by their own admission. So for those, the term genocide is literally correct. For those people the act meets both criteria to be a proper genocide: a specific population was targeted and the result was intended.

Third, most proponents surely know about the result, or would have been able to learn about the result. Not changing their mind with that knowledge makes the result as good as intended.

That leaves those people who really didn't intend the result and who really were (justifiably?) unaware of the result. Well, a metaphor is just that, a metaphor. It's a comparison to make a point, in bold language, without claiming that one is exactly the same as the other. Some intelligence is assumed in the reader, to be able to read behind the lines. Language is not as exact as mathematics. I don't think doing that is necessarily wrong. I think that when the author makes the point there's no difference, he doesn't literally mean there's no difference. He means there's no difference in terms of an important aspect: for the victims it makes no difference whether they were killed intentionally or by foolishness.

The road to hell is paved with good intentions. And good intentions form a far greater danger than bad intentions. For it is far more common for people to do evil things (well, things with unintended horrible results) with good intentions than evil things with bad intentions.

Henry Sturman

by [Henry Sturman](#) on Sun, 08/24/2003 - 14:45 | [reply](#)

DDT myths

Sorry to comment on such an old issue, I hope you will let this comment through anyway.

There quite an important point in the DDT debate that nobody here seems aware of: It is nothing but a persistent myth that the US ban on DDT in 1972 has caused any deaths due to malaria.

The 1972 ban on DDT in the US had specific exceptions for campaigns against disease-carrying insects (as well as for agricultural uses where no other means were effective), and it had no direct consequences at all in the developing countries - where DDT has been used over all the years - and still is being used today inside the houses, where it poses no threat to wildlife.

It is thus not only Steven Milloy's comparison of DDT with genocide which is appallingly ridiculous - his claims about 80 millions "preventable" deaths is exactly as wrong.

The US ban has not cost a single african life - and if you took the time to check your sorces, you would immediatly realise that it

simply could not possibly have done so due to the nature of both

the ban as well as the very spraying being done inside the houses.

Steven Milloy knows this perfectly well, but getting serious information out clearly has never been the thrust of his various astroturf groups.

A more proper title of your remark could have been "Missing points, ridiculous metaphors". You might justly add willfully misleading as well.

Robert Schultz

by Robert Schultz on Mon, 03/06/2006 - 00:45 | [reply](#)

Re: DDT Myths

Thank you for the comment.

Of course the US *ban* "has not cost a single African life", because it does not have the force of law in Africa. However, one of the allegations is that various forms of pressure from Western governments and NGOs have caused anti-malaria campaigns to become far less effective through hostility to DDT.

We make no claim to be experts on the history or present status of anti-malaria campaigns. One problem with "checking sources" in this field is that the conclusions reached by various sources seem to be largely predictable from their political philosophies – right-wingers being broadly opposed to the anti-DDT campaign and concluding that it has resulted in many deaths, and left-wingers disagreeing on one or both of those points. However, as you rightly imply, this should not be an insuperable problem to those who want to discover the truth.

To this end, could you please set us right about the purely factual statements expressed in [this](#) open letter, in which the organisation "Africa Fighting Malaria" claims that

WHO's 1979 global strategy for malaria control called on countries to de-emphasize IRS

[That's 'indoor residual spraying' – presumably the very thing you say has continued unimpeded]

and to increase emphasis on case detection and treatment. In 1985, the World Health Assembly (WHA) resolution 38.24 called on malaria-endemic countries to move away from IRS and to dismantle the vertical malaria control programmes and move towards a more horizontal "community-based" system of malaria control. The 1979 strategy and the WHA resolution effectively destroyed organized malaria control programs in many developing countries. WHA resolution 38.24 caused a devastating loss of talented malaria control personnel and a loss of strict scientific guidance over malaria control programs. This immensely destructive resolution was based on a false assumption that a community-

based system is the only framework within which malaria control can be sustained. Acceptance of the resolution ignored the fact that many highly successful and long lasting malaria control programmes are run vertically and have been sustained for decades.

Countries that chose not to decentralise their malaria control activities and chose to retain IRS for malaria control have not witnessed the rise in malaria cases experienced by those countries that complied with the WHO's resolution.

If that is true, and if this WHO policy and similar Western policies were indeed influenced by environmentalism, then Western environmental politics have indeed caused many deaths from malaria in other countries.

But is it true? Is Africa Against Malaria being "wilfully misleading" in your opinion? If so, why do you think that is? And more importantly, could you direct us to the sources that explain what the truth of the matter is?

by **Editor** on Mon, 03/06/2006 - 10:35 | [reply](#)

DDT

Sorry if I interfere with a discussion, but you ask for evidence on DDT. How about Tim Lambert's page?

<http://timlambert.org/2005/12/ddt-ban-myth-bingo/>

It offers refutations of all of Steven Milloys claims, including the ones also made by the front group "Africa fighting malaria".

Best regards,

Christoffer Harder

by Christoffer Bugge Harder on Thu, 05/18/2006 - 13:53 | [reply](#)

Re: DDT

Thank you for the link! Far from "interfering with the discussion", you have provided exactly what we asked for.

Unfortunately, the only mention we can see of Africa Fighting Malaria on that web page is a link to [this](#) page, which does not purport to refute any claim of Africa Fighting Malaria. (Have we missed the passage containing the refutation? Please let us know.)

Nor does it call it a "front group". Perhaps you could enlighten us: for whom is Africa Against Malaria a front group, and what does that tell us about its claims which we quoted above?

by **Editor** on Thu, 05/18/2006 - 15:23 | [reply](#)

Thank you for the answer.

Thank you for the answer.

Most of the numerous claims of AFM - that WHO and other international fora are imposing a kind of "de-facto" ban on DDT, that it could eradicate malaria, that resistance is a small or nonexistant problem, that South Africa reduced malaria by 95% and so on - are in my opinion quite effectively refuted by the other links that Tim Lambert offers in his "Bingo" game, if you follow them.

Furthermore, it should be noted that the decisions of international organisation to lobby for a phaseout of DDT does not mean that spraying against malaria mosquitoes are ended - they are simply promoting a shift to pyrethroids or other poisons, which are just as effective, but often more expensive. Another claim of the AFM is that the EU is threatening with sanctions against Uganda because of their use of DDT - but the EU actions are only directed against agricultural use of DDT. Not only does this use of DDT pose a threat to raptors, but it also could destroy the effect of DDT in the fight against malaria because of the rapid resurgence of resistant mosquitos always associated with excessive spraying.

Furthermore, Roger Bate from AFM advocated the use of DDT in Sri Lanka after the Tsunami, even though it is well known that DDT is useless in Sri Lanka because of widespread resistance. The DDT use was voluntarily given up in Sri Lanka exactly because of that more than 30 years ago.

Steven Milloys claims about 90 mio. deaths on this page

http://www.junkscience.com/malaria_clock.htm

are apparently completely unfounded, since the US ban on DDT had no effect in Africa and furthermore contained specific exceptions for uses of DDT related to disease controlling.

Why do they purport such false claims? I cannot really see other reasons for doing so than to smear environmentalists. Since both AFM and Junkscience receive significant fundings from industry groups critical to environmental movements, and since AFMs only real goal seems to be advocating excessive use of DDT (a strategy positively known to be of no use in many places), I think that the term Astro turf (or front group is appropriate.

Best regards

Christoffer

by Christoffer Bugge Harder on Thu, 05/18/2006 - 20:02 | [reply](#)

Addition

Just to point that out,

I know that this topic is a little technical, and that many people simply tend to side with the position on their political wing, as you correctly note.

I will make no claim to be "unbiased", since I am generally pro-environment as well as left-leaning.

But I consider myself a somewhat reasonable human being. As a biology student having taken classes in toxicology, organic chemistry, ornithology and majoring in evolutionary biology, I will also make the vain claim to have some kind of grasp on the facts in this debate. To be explicit, my opinion on the whole DDT matter is

1: The ban in most countries on agricultural use of DDT was fully justified by well-documented environmental hazards. As mentioned, such spraying would very likely contribute to the rise of resistance and be a much greater danger to the usefulness of DDT in the antimalaria fight

2: this resistance problem was and is the main reason for the halting use of DDT as an antimalarial drug

3: The claims of Milloy and others about millions of deaths resulting from a nonexisting DDT ban are absolutely bogus, to say the least - Milloy is not "justly angry", he is just angry.

4: However, if there is no alternative, just as effective and less dangerous insecticide than DDT, poor countries where malaria is endemic should continue to use DDT in IRS - if this is likely to be effective (which is not the case in many countries)

5: Finally, if environmentalists or Western governments want the developing countries to abandon their use of DDT in the antimalarial fight, they should compensate them for any costs and provide a guaranteed just as effective alternative toxin.

This is also the position of almost all environmental organisations I have ever heard speaking out in this matter. I consider this a somewhat balanced point of view. I hope you do not see it as merely propaganda.

Best regards,

Christoffer

by Christoffer Bugge Harder on Thu, 05/18/2006 - 20:33 | [reply](#)

A factual issue and a terminological cone

Perhaps we could focus on one factual issue:

AFP says that the WHO and other such organisations called on malaria-endemic countries to move away from 'indoor residual spraying' with DDT. Are you saying that this is (1) simply a lie: they only campaigned against agricultural use of DDT; or (2) true but misleading, because 'indoor residual spraying' continued just as effectively with different chemicals?

And a terminological one:

Are you saying that any group that is financed by people who agree

with its policies is fairly called a "front group"? Surely by that standard, all campaigning groups are front groups. Wouldn't a front group usually have the additional attribute that it is set up for one ostensible purpose, by people who actually have a different agenda, usually a less popular or attractive one. This is, for instance, how Oliver Kamm uses the term when he says that "**Respect** is a front organisation for the Socialist Workers' Party".

by **Editor** on Thu, 05/18/2006 - 22:54 | [reply](#)

Concerning the factual issue

Concerning the factual issue: AFMs statement about the WHO position is more or less "true but misleading". I do not know exactly when IRS with pyrethroids and other DDTalternatives started out - but the main reason for the cease in the use of DDT is mosquito resistance, not environmental pressure, a fact that AFM systematically omits. In this article(<http://www.fightingmalaria.org/news.php?ID=360>), AFM advocates spraying of DDT in Sri Lanka, even though everyone in the field knows very well that DDT is useless in Sri Lanka exactly because of this. Check WHO's DDT and Malaria pages <http://malaria.who.int/>

Regarding the terminology - I agree to your terminology, I certainly do not see every lobby group as a front or astroturf group. www.malaria.org is an example of an honest group getting industry funds. It actually is fighting malaria and is run by qualified scientists in the field.

But AFM is no such anti-malaria group. Its almost sole objective seems to be promoting DDT use, and it clearly has little idea about the factual stuff. It is established by two ideologues (Bate and Tren), and it seems to have little interest in other topics than to hurl accusations against environmentalist groups. It is established not to fight malaria, but to fight environmental groups, and it is financed by well known antienvironmental interests - these characteristics qualify it as a front group.

Best regards,

Christoffer

by Christoffer Bugge Harder on Mon, 05/22/2006 - 10:11 | [reply](#)

Any answers from the editors?

Dear Editors,

have you no answers at all to Christoffer Bugge Harders facts? Does this mean that you acknowledge what he says.

by Kaspar Jørgensen on Thu, 06/22/2006 - 12:57 | [reply](#)

Answers

Which of his facts do you want to see a comment on?

-- Elliot Temple
My Blog

by **Elliot Temple** on Thu, 06/22/2006 - 18:45 | [reply](#)

What is right and what is wrong about DDT?

Dear Editors,

I don't know that much about the DDT issues, but judging from this debate, I would say that Christopher Bugge Harder has me convinced here. I checked some of the sources he quotes, and I checked the homepage "Junk Science". The first ones seem quite reliable and with many facts, while the latter seems to be full of half-truths, op-eds and clearly propagandistic notions, such as the clock showing the costs of the Kyoto Protocol. John Quiggins homepage also, in my view, rebuts many of the allegations presented on Junk Science, and quite effectively. I studied the death clock counting malaria deaths presented on Junk Science thoroughly, but nowhere did it offer any links whatsoever between the US ban on DDT in the 70s and the deaths from malaria in Africa. That seems quite a weak basis for such harsh allegations, don't you think?

Is there such a ban on DDT that you seem to presuppose, or isn't there? That shouldn't be that complicated to sort out.

Has EU or US policies on DDT cost lives in Africa? Does WHO advocate DDT spraying or not? What effect has the US ban on DDT had in Africa?

Yours sincerely,

Kaspar Jørgensen

by Kaspar Jørgensen on Mon, 06/26/2006 - 11:01 | [reply](#)

Re: Concerning the factual issue

But AFM is no such anti-malaria group. Its almost sole objective seems to be promoting DDT use, and it clearly has little idea about the factual stuff. It is established by two ideologues (Bate and Tren), and it seems to have little interest in other topics than to hurl accusations against environmentalist groups. It is established not to fight malaria, but to fight environmental groups, and it is financed by well known antienvironmental interests

But how would hurling false accusations against environmentalist groups serve to promote DDT use?

And are these 'antienvironmental interests' companies who want to sell more DDT, or what?

by **Editor** on Mon, 06/26/2006 - 19:08 | [reply](#)

www.malaria.org

www.malaria.org is an example of an honest group getting industry funds. It actually is fighting malaria and is run by qualified scientists in the field.

Near the top of www.malaria.org's **DDT page** is an endorsement of Africa Fighting Malaria. In fact the endorsement appears to refer to the very campaign by AFM that we linked to above. Has this honest group run by qualified scientists in the field been duped by the dishonest one which has little idea about the factual stuff?

by **Editor** on Mon, 06/26/2006 - 19:22 | [reply](#)

AFM and DDT

Dear editors,

you asked: "...how would hurling false accusations against environmentalist groups serve to promote DDT use"?

The immediate answer to this is very straightforward: If you succeed in depicting your opponants as naive, "GAIA"-fanatics, religious pagans and anti-man treehuggers unaware of scientific facts, it will be much easier for organisations like AFM to stand forward as the rational, cool-headed and considerate part in the case. If you actually manage to make people believe that the unspecified environmental movement has been guilty in the death of 90 million African children and that DDT would have saved them were it not for this evil movement, it will not be difficult convincing people that DDT should be sprayed everywhere.

It is at the core of the antienvironmental movement to depict its opponants as religious, anti-man people unaffected by facts. Check publications by e.g. Dixy Lee Ray, Michael Sanera, Gregg Easterbrook and Steven Milloy, if you do not believe me. The DDT case is a very important such "battlefield".

It is hardly necessary to argue neither about Roger Bate's or Steven Milloy's well-known anti-environmental positions nor about their many earlier fraudulent claims. Are you seriously challenging the fact that these people can be fairly described as "antienvironmentalists"? Can you point out any remote connection between the US 1972 agriculture ban on DDT on one side and malaria deaths in Africa on the other, as alleged on Milloys "Death clock" page? Why make such an obviously false claim if not to smear environmental movements?

As both AFM and most environmental groups acknowledge, DDT has become the epitome of an "evil pesticide". The rise of the environmental movements was very much linked to the struggle against DDT - and the US agriculture ban of 1972 was one of its first great "victories". If Roger Bate, Steven Milloy or other "junk scientists" could cast doubts upon the validity of the US DDT ban, they believe that they can also cast doubt about the motifs and the honesty of the environmental movement.

You may, of course, disagree, but I do not think that I have to

descend into conspiracy theories to drive these points home, neither in your view.

Concerning the resistance development: If you are doubting that resistance to DDT is a major problem, you can check this homepage (http://www.pesticideresistance.org/DB/pesticide_profile.php?pageNum_rstPesticides=10&totalRows_rstPesticides=448&formulationid=97)

This article (<http://www.washingtonpost.com/wp-dyn/content/article/2005/06/04/AR2005060400130.html>) also does a good job in explaining the rise of resistance as the main problem and reason for switching away from DDT use.

AFM advocates DDT spraying almost everywhere as if it were some kind of miracle medicine. Why do they suggest DDT spraying in areas where it is known to everybody with some knowledge in the field that it will be of no use (like in Sri Lanka, as quoted formerly)? Surely, they cannot possibly have much idea about the factual stuff (which is scarcely surprising since none of them are scientists) when they argue like that. I assume you will grant this.

Will you accuse me of being a conspiracy theorist if I make the claim that the primary goal of AFM is to promote DDT use because it is a convenient way to attack environmental movements at their original core - and not because of consideration for Asian or African malaria victims? And if you disagree, can you then suggest any other plausible reason for loudly endorsing spraying treatments which are known beforehand to be completely ineffective?

I do consider malaria.org a lobby group, and I do not agree with their points of view, but they are honest about the resistance problem, and they make the distinction between agricultural use (which is indeed banned) of DDT, and the disease control (which is not banned and never has been). I have not seen them accuse environmental groups of being responsible for millions of deaths, either. If you want to prevent something, you often side with just about everybody, but you can ask themselves why they link to AFM. However, I still find it difficult to honestly describe AFM as anything but ideological with little knowledge about the factual stuff. As said above, if you do not agree to this, could you then answer the question why they, then, are advocating DDT spraying in areas where it is positively known to have no effect and furthermore be a waste of money?

Best regards,

Christoffer Bugge Harder

P.S: If you acknowledge that DDT is not banned, as you seem to do, then why do you claim above that "Steven Milloy is justly angry about the millions of poor people who have died of malaria and other insect-borne diseases because of the ban on DDT"?

by Christoffer Bugge Harder on Sat, 07/08/2006 - 19:06 | [reply](#)

Regarding my last comment: I

Regarding my last comment: I hope I did not sound too indignant or

rude - I am not too familiar with colloquial English. I did not intend to insult you by any means. I am also sorry for the poor spelling.

Still, I would like to see you comment on the claims of AFM and Steven Milloy in the light of the information I linked to. Do you maintain that some kind of DDT ban has cost millions of lives, that WHO are opposed to DDT spraying, that they do not fund IRS spraying with other chemicals, or that development of resistance was not the main reason for switching away from DDT?

Best regards

Christoffer Bugge Harder

by Christoffer Bugge Harder on Fri, 07/14/2006 - 10:43 | [reply](#)

Some other interesting posts

Some other interesting posts about claims of possible wonders of DDT spraying in Sri Lanka and India:

<http://info-pollution.com/ddtban.htm>

This is the indian doctor V.P. Sharma:

<http://www.ias.ac.in/currsci/dec102003/1532.pdf>

Does the editor still believe the claims of AFM or Steven Milloy?

Regards,

Christoffer Harder

by Christoffer Bugge Harder on Tue, 07/18/2006 - 14:53 | [reply](#)

AFM and DDT

If you actually manage to make people believe that the unspecified environmental movement has been guilty in the death of 90 million African children and that DDT would have saved them were it not for this evil movement, it will not be difficult convincing people that DDT should be sprayed everywhere.

Presumably when you say 'everywhere', this is hyperbole. What places do you mean specifically? And does the AFM advocate spraying in those places, or is this a secret agenda of theirs which they will only begin to advocate once sufficiently many people believe that the unspecified environmental movement has been guilty in the death of 90 million African children and that DDT would have saved them were it not for this evil movement?

by [Editor](#) on Tue, 07/18/2006 - 15:14 | [reply](#)

Dear editors, first of al

Dear editors,

first of all, I am not sure if I get the mood of your reply right. I am not a native English speaker, so if I am missing completely out on something, it is my mistake. Are you being ironic or thinking that I am promoting conspiracy theories?

"Presumably when you say 'everywhere', this is hyperbole".

You are right; "Everywhere" is somewhat polemical. However, I have never (and I do mean never in the literary sense) read any longer pieces from AFM about how to fight malaria that have not contained lots of recommendations to spray DDT, no matter where in the world.

"What places do you mean specifically"?

There are quite a few places, but to begin with, we can look on this page, to which have referred previously:
<http://www.fightingmalaria.org/news.php?ID=360>

Here, AFM suggests spraying with DDT in Sri Lanka, as well as in Southeast Asia as well. (They also quote Charles Wurster of EDF for a fake quote about malaria as an efficient population control mechanism).

It has long been known that the malaria-carrying mosquitoes in Sri Lanka as well as in most of India are resistant to DDT. In fact, DDT was used excessively in Sri Lanka both before and after 1963, but when malaria resurged in the late 1960 and the singhalese went back to the DDT sprayguns, DDT had lost it efficiency. So Sri Lanka abandoned DDT spraying in the 60ies and 70ies - because it did not work anymore. I cannot find any link whatsoever to supposedly green pressure in this process.

Can you suggest any sensible reasons for AFM to suggest DDT spraying in e.g. Sri Lanka? They do not even mention the fact that malaria mosquitoes in Sri Lanka are resistant, or that DDT use quickly leads to resistance development anyway.

In another article (http://www.aei.org/publications/pubID.21911,filter.all/pub_detail.asp), Roger Bate has moderated this point of view a little - here, he does recognise the possibility of resistance to DDT, but soon after claims that the major role of DDT is as a repellent, not as insecticide. But Bate fails to recognise that resistance of the mosquitoes is a two-way system: Physiological resistance (the poison is ingested but causes no harm) and behavioural resistance (the insect tend to avoid DDT sprayed surfaces). In either case, DDT becomes useless because the mosquitoes are either unaffected or simply decide to rest outside houses. AFM's suggestion has already been tried without success.

If AFM claims to have a grasp on reality, they should not post such an utterly false allegation.

I hope it answers your question,

Regards,

Christoffer

by a reader on Sun, 07/23/2006 - 01:21 | [reply](#)

"Presumably when you say 'eve

"Presumably when you say 'everywhere', this is hyperbole".

You are right; "Everywhere" is somewhat polemical. However, I have never (and I do mean never in the literary sense) read any longer pieces from AFM about how to fight malaria that have not contained lots of recommendations to spray DDT, no matter where in the world.

Perhaps they only brought up DDT spraying regarding places they advocate it?

I think what the editor was getting at is they don't advocate DDT spraying everywhere. For example, not in my house. There is a logic to where they do and do not advocate spraying DDT. This logic includes that they only advocate spraying DDT in places where it will do something useful such as kill mosquitos. Saying they advocate spraying "everywhere" does not consider and address the actual logic of their position.

-- Elliot Temple

<http://www.curi.us/blog/>

by [Elliot Temple](#) on Sun, 07/23/2006 - 01:42 | [reply](#)

"I think what the editor was

"I think what the editor was getting at is they don't advocate DDT spraying everywhere. For example, not in my house".

I do not know if I do not express myself sufficiently clearly, but I do, of course, understand what the Editor hinted at.

And of course, I do not suggest that the AFM are literally advocating spraying DDT "everywhere" - like in your house (in the U.S.A, I suppose).

Rather, AFM seems to me to advocate spraying with DDT almost everywhere where malaria is endemic. Furthermore, they almost never seem to consider alternative solutions and are always accompanying their spraying suggestions with harsh attacks on governments and environmental organisations.

"There is a logic to where they do and do not advocate spraying DDT. This logic includes that they only advocate spraying DDT in places where it will do something useful such as kill mosquitos".

You do not seem to actually having read my last post. If there indeed is such a logic, as you claim, could you be so kind to explain the logic in suggesting spraying DDT in e.g. India or Sri Lanka after the last tsunami?

In these places, it is well known by all relevant experts (like V.P. Sharma, Indias leading malaria expert) to be futile, because the

mosquitoes are genetically as well as behaviourally resistant to DDT.

"Saying they advocate spraying "everywhere" does not consider and address the actual logic of their position".

As said before, if you add everywhere "where malaria is endemic", it is, in my view, very close to the truth.

AFM is a subdivision of the American Enterprise Institute, and it is not run by qualified scientists in the field. It can be fairly described as an organisation established to fight environmentalists and government intervention disrupting free market economies. This is, of course, a perfectly legitimate political goal, but it is not respectable to hide it under a thin veil of science, especially not when you are unaware (willingly or not) of central scientific problems in the DDT approach.

I repeat that I do not oppose spraying with DDT in places where it can be expected to be effective, and where no other remedy is likely to be effective or can be afforded. But it is foolish to launch it as a miracle medicine in the way that the AFM is doing it.

Regards

Christoffer

by Christoffer Bugge Harder on Tue, 08/01/2006 - 17:34 | [reply](#)

Everywhere where malaria is endemic

Does the open letter from AFM that we [cited](#), and which initiated this entire discussion of them, advocate spraying "almost everywhere where malaria is endemic"?

Does it "almost never consider alternative solutions" to DDT?

Does it misrepresent their true agenda?

by [Editor](#) on Tue, 08/01/2006 - 18:47 | [reply](#)

DDT and libertarian think tanks

Dear editors,

you have asked me many times about both the factual and the terminological issues, and I have adressed all your questions repeatedly and posed some counter-questions. This far, you have been evading a little.

I will briefly answer your last questions:

1: "Does the open letter from AFM that we cited, and which initiated this entire discussion of them, advocate spraying "almost everywhere where malaria is endemic"?"

Yes. The sense of the letter is to give the impression that DDT

would work wonders if only the eco-lobbyists or WHO would allow it. Of course, they do not mention every single country in the world, but it is a specific and uncritical endorsement of the necessity of DDT. And of course, they fail to mention any problems regarding DDT resistance (as usual), as I have written to you three times.

"Does it "almost never consider alternative solutions" to DDT"?

Yes and no. They do mention ITN (bednets) and other strategies as important, but they also always add that ITN alone is not sufficient and that IRS with DDT is essential in combination. They also seem to imply that "IRS" simply means "DDT spraying".

"Does it misrepresent their true agenda"?

To answer this question, you have to make inferences about Roger Bate's and his fellows' motives. Honestly, my immediate answer is "yes".

If you think I am too harsh or promoting conspiracy theories, you can check this page for more on the libertarian think tanks and the DDT issue: http://www.sourcewatch.org/index.php?title=Malaria_and_DDT

I do not doubt that many libertarians are honestly interested in fighting malaria and believe that misguided or careless environmentalists are impeding this fight (and they are indeed right in claiming that some environmentalists are severely misguided). I hope you do not feel patronised if I would group you in this segment - I mean it as a sincere compliment.

However, Roger Bate is, like Steven Milloy, renowned for obviously disingenuous claims about environmental or health issues and for the founding of and participation in dubious astroturf groups like "European Science and Environment Forum" or "Tech Central Station" and the likes. And, like Milloy, he simply cannot be ignorant about the falsity of many of the claims he makes. I can provide you with a multitude of such examples if you are interested.

So, quite honestly, I will argue that Bate's primary agenda is to attack environmentalists, liberals, UN, WHO and other groups he sees as enemies and anti-market groups, and that AFM and the DDT fight is simply a convenient battlefield. I do not think that neither Bate nor Milloy care much for sick African children.

Regards,

Christoffer

P.S: Now when I have answered your questions: I would appreciate if you, too, would answer these questions that I have posed repeatedly:

1: When you say that Milloy is "justly angry....because of the ban on DDT", then to which DDT ban are you referring?

2: Can you point out any link whatsoever on Milloy's "Death Clock"

page that offers a connection between the 1972 US agriculture ban and malaria deaths in Africa?

3: Can you explain the presumed logic of advocating spraying of DDT in India and Sri Lanka, where it is known to be of little or no use?

4: If you think AFM has a good grasp on the realities, then why do they fail to mention the resistance in Sri Lanka as mentioned, when their promoted strategy there (IRS spraying with DDT) has already been tried repeatedly, has failed and subsequently been abandoned years ago? If they are unaware of this, then are they not quite poorly informed for malaria eradication experts in your view? And if they are aware of the problem, do you then agree that their claims can be fairly described as "dishonest"?

by Christoffer Bugge Harder on Tue, 08/01/2006 - 23:19 | [reply](#)

Comments?

To the editors,

have you come up with any answers to my questions?

Regards,

Christoffer

by Christoffer Bugge Harder on Sat, 08/05/2006 - 10:53 | [reply](#)

Everywhere

1: "Does the open letter from AFM that we cited, and which initiated this entire discussion of them, advocate spraying "almost everywhere where malaria is endemic"?"

Yes.

Does it advocate using DDT outside houses? Or other than in coordinated spraying campaigns?

by [Editor](#) on Sat, 08/05/2006 - 15:12 | [reply](#)

Re: DDT and libertarian think tanks

In reply to your questions.

Question 1 (what DDT ban): We answered that in the second paragraph of [this](#) comment above.

Question 2 (any link whatsoever between US DDT ban and malaria deaths in Africa): See answer to Question 1.

Question 3: (Logic of advocating DDT spraying where it is known to be of no use): None. But could you provide a link to someone

advocating this? Do you mean the reference to Sri Lanka in that

open letter?

Question 4 (Could one be honest, knowledgeable, and still advocate the above): No, not honest, knowledgeable and sane. Unless one had a hidden agenda.

The trouble with the specific hidden agenda you propose is that it implies that the critics have some reasons for being opposed to environmental movement (and the anti-DDT campaign in particular), which have filled them with passion for their cause, but about which they (and you) are staying silent, and they are instead trying to promote that cause with arguments they know to be invalid and allegations they know to be false.

This *could* happen, in some exotic set of circumstances. We are open to the possibility that it has happened to those people for reasons of which we as yet have no inkling. But their opponents, including, so far, you, show no sign of acknowledgement that they are alleging any such thing, or have anything a priori bizarre to explain.

by **Editor** on Sat, 08/05/2006 - 15:25 | [reply](#)

Africa fighting malaria does

Africa fighting malaria does suggest spraying with DDT in Sri Lanka and India - there is about 100 hits on google with the search words ""africa fighting malaria" Sri lanka tsunami ddt".

You can read this AFM article, if you still doubt what I say:
<http://www.fightingmalaria.org/news.php?ID=360>

This article repeats Steve Milloys charges (90 mio. deaths due to a "de facto ban". How can you have a de facto DDT ban when it is still being used in 23 countries?

It fails to notice that the mosquitoes in Sri Lanka are resistant to DDT and that spraying with DDT has been tried and subsequently abandoned, not because of environmental pressure, but because it was not effective anymore.

Check this source out for the whole story: <http://info-pollution.com/ddtban.htm>

It furthermore spreads the fake quote about EDF executive Charles Wurster praising DDT for helping to reduce the population pressure.

Do you maintain that the AFM is a well informed, unpartisan group only devoted to save human lives? Then why do they endorse spraying DDT in Sri Lanka? You answered yourself that it was not possible to suggest spraying DDT where mosquitoes are resistant and still be "honest, knowledgeable and sane. Unless one had a hidden agenda".

Do you think that it is "exotic" to suggest that AFM or Junkscience could have a hidden agenda? They are both funded by industries with conflicting interests, and they are both trying their best to hide

their sources. In my view, their hidden agenda is patent and obvious.

As I wrote, both Steve Milloy and Roger Bate has a long history of membership of other Astroturf groups also slamming environmental or health groups for advocating restrictions on the chemical industries or tobacco firms.

Everybody who regularly read libertarian/conservative manifestos will know that they are sceptical about environmentalists because they often advocate legislation or regulation interfering with the free market economy. Is this an exotic accusation in your view?

It does seem to me that you are seriously interested in getting this right, and I respect a libertarian point of view. But from a somewhat balanced point of view, it is hard to respect people like Roger Bate and Steve Milloy - at least if you have some knowledge about both science and propaganda. It seems to me that you are, excuse me, displaying a bit of naiveté in your approach to the astroturf machinery and its motifs as well as to the amount of propaganda in the case. Are you struggling to imagine that people apparently making wellmeaning and humane appeals could have such dubious agendas?

Regards,

Christoffer

by Christoffer Bugge Harder on Tue, 08/08/2006 - 11:41 | [reply](#)

Dear editors, does this ar

Dear editors,

does this article

<http://www.fightingmalaria.org/news.php?ID=360>

from AFM clearly endorse spraying in a resistant neighbourhood, or does it not?

Could you explain the presumed logic in AFM's spraying suggestions you claimed to exist to me, in this article? As a person academically trained in science, I frankly do not see it.

And if you do not see it either, could you then suggest a reason for suggesting futile spraying you consider likely?

Regards,

Christoffer

by Christoffer Bugge Harder on Thu, 08/10/2006 - 06:41 | [reply](#)

answer

Does the article clearly endorse spraying DDT where mosquitos are resistant? No. I searched "resist" and only found: "Worse yet, area mosquitoes have built up a resistance to anti-malarial drugs,

rendering them useless." which is referring to anti-malarial drug resistance, not DDT resistance.

-- Elliot Temple

<http://www.curi.us/blog/>

by **Elliot Temple** on Thu, 08/10/2006 - 16:30 | [reply](#)

Re: answer

I think the idea is that, although the article doesn't explicitly say so, it's hard to read it as not endorsing spraying DDT *in Sri Lanka*, and we are also assured that spraying DDT in Sri Lanka is known to all reputable scientists in the field to be futile. Is that correct, Christoffer?

by **David Deutsch** on Thu, 08/10/2006 - 17:38 | [reply](#)

Re: answer

Searching "sri lanka" i don't see where the article tells us Sri Lanka has resistant mosquitos. BTW I also searched "spray".

-- Elliot Temple

<http://www.curi.us/blog/>

by **Elliot Temple** on Thu, 08/10/2006 - 18:18 | [reply](#)

Elliott, of course the c

Elliott,

of course the cited AFM article does not mention the fact that the mosquitoes of Sri Lanka are resistant to DDT - you do not seem to realise that this is exactly my point? They just endorse spraying it there without mentioning this inconvenient fact.

However, the mosquitoes in Sri Lanka are indeed resistant to DDT. I have posted other links with documentation, but if you do not believe them, read WHO's note on malaria and the tsunami about Sri Lanka:

http://www.who.int/malaria/docs/Asia_tsunami_malaria_risk-v1-5Jan.pdf

You can also check this page about widespread DDT resistance in many disease-transmitting insects all over the world:

http://www.pesticideresistance.org/DB/pesticide_profile.php?pageNum_rstPesticides=10&totalRows_rstPesticides=448&formulationid=97

And David, you have got it quite right. The cited AFM article quite explicitly argues that spraying DDT in Sri Lanka could prevent lots of needless deaths. As said before, DDT has never been banned for disease-control in Sri Lanka, and it was actually sprayed after the resurgence of malaria there in the late 60ies. But now it did not work anymore because of the build-up of resistance - therefore, it

was subsequently abandoned. As also shown in my above comments, AFM and Roger Bate know this perfectly well.

As I have said repeatedly, AFM wants to generate the impression that DDT could work wonders if only Western environmentalists, governments or lobby groups would let it. Apparently, it is much more important for AFM to attack environmentalists, WHO or governments than getting the facts right.

Elliot, could you answer these questions directly:

Does the cited article endorse spraying in Sri Lanka?

Are the malaria vector in Sri Lanka resistant to DDT?

Why does AFM then suggest spraying DDT in Sri Lanka?

Regards,

Christoffer

by Christoffer Bugge Harder on Fri, 08/11/2006 - 22:04 | [reply](#)

sri lanka resistance

I didn't mean to deny the mosquitos in Sri Lanka are resistant. I don't know and I'll look at your links. I thought you were saying that by reading just the AFM article we could see they endorse spraying in resistant neighborhoods. Now I see that your argument is that the article says to spray in Sri Lanka, and independent sources say DDT won't work in Sri Lanka.

-- Elliot Temple

<http://www.curi.us/blog/>

by [Elliot Temple](#) on Sat, 08/12/2006 - 04:39 | [reply](#)

sri lanka

<http://www.malaria.org/ddtlancet.html> seems to be in agreement with your pdf that one species of mosquito in Sri Lanka was considered resistant many years ago.

i don't see how resistant (100%, 90%, or what?), whether there are other types of mosquitos in the area, or anything about how long it takes resistances to evolve away when not used.

So I can't tell if it will work. One way to find out would be to try it. others ways to find out that take time would be possibly condemning a lot of people to die.

-- Elliot Temple

<http://www.curi.us/blog/>

by [Elliot Temple](#) on Sun, 08/13/2006 - 16:40 | [reply](#)

Elliot, the document h

Elliot,

the document

http://www.who.int/malaria/docs/Asia_tsunami_malaria_risk-v1-5Jan.pdf

very explicitly shows that the "one DDT resistant mosquito species" you refer to is the only malaria vector in Sri Lanka (*Anopheles culifacies*) - check the map of vector species.

You seem to think that the alternative to spraying DDT is doing nothing. As matter of fact, DDT is not the only insecticide available (though one would be excused for believing so if one only gets its information from AFM or other libertarian/conservative groups).

The WHO page also states boldly that this species has been "considered resistant to DDT for many years, but is still sensitive to organophosphates, such as malathion, and pyrethroids". Since these insecticides are actually known to be effective, while DDT most likely will not be, could it then be an idea to try these compounds out, if one really want to save lives in Sri Lanka (and not just use the topic to rant and rave about misanthropic environmentalists or silly governments like the AFM)?

As the previously posted links show, DDT spraying has been tried against resurging malaria in the 70ies in Sri Lanka - and it failed. Why waste time to wait and see with DDT when we have better (and less environmentally toxic) insecticides? Well, it surely cannot be because of worries about Sri Lankan lives.

As a soggy liberal by american standars, I will be happy if WHO, WWF and my government spend some of my tax money to finance effective spraying with insecticides in Sri Lanka. This is not DDT. The only unqualified advantage of DDT is that it is cheap. I do not mind if the politicians raise my taxes to pay the difference. I would recommend them to consult some other "experts" than AFM on the topic, if they want maximum value for their money.

Regards,

Christoffer

by Christoffer Bugge Harder on Tue, 08/15/2006 - 01:58 | [reply](#)

Hello, editors?

So, have you checked the comments? And do you maintain that AFM is a well-informed group, or that my accusations are "exotic"? Do you still not see any link between AFM and the other libertarian think tanks?

Regards,

Christoffer

by Christoffer Bugge Harder on Wed, 08/23/2006 - 22:35 | [reply](#)

Re: Hello, editors?

Patience. There's a war on, you know.

by [Editor](#) on Wed, 08/23/2006 - 22:45 | [reply](#)

Still no comments? Just aski

Still no comments? Just asking in your own interest, of course. I do not know if the war is over.

It's just, you know, that nasty or naive liberal hypocrites reading this page might get the impression that you did not happen to have any qualified answers to the posed questions and had spoken out without bothering to check your sources. Some liberals might even discredit Steven Milloy as a typical example of an idiotarian writer (financed by dubious troubled industries) with a boring pet issue, as you so eloquently put it.

Since I cannot possibly imagine this to be the case, I just wanted to hear if you could submit the comments and supporting evidence you undoubtedly have.

Best regards,

Christoffer

by Christoffer Bugge Harder on Fri, 09/08/2006 - 14:39 | [reply](#)

DDT

I agree with most of what you say, Christoffer.

But:

Finally, if environmentalists or Western governments want the developing countries to abandon their use of DDT in the antimalarial fight, they should compensate them for any costs ...

Why? Why 'should' they? Why is it always the responsibility of the West? Why do you treat Africans as children who can never take responsibility for themselves? If you do, they will indeed never take responsibility and will behave like children.

Which is pretty much where Africa is today, largely as a result of the actions of idiots like Geldof and Bono and their ilk (I only mention them as examples!).

by [Yoni](#) on Sun, 09/10/2006 - 11:12 | [reply](#)

Children

What do you have against children?

Surely children are the worst possible example of people who can

"*never* take responsibility for themselves", because every responsible person ever was once a child.

Couldn't you have chosen, say, African Americans, who have been criticized for having a culture of dependence? Or Palestinians who won't take responsibility for their actions, and blame the occupation (OK, that's not very true. That's just what the Western media says. Palestinian terror organizations actually like to claim credit for killings.)

-- Elliot Temple

<http://www.curi.us/blog/>

by **Elliot Temple** on Sun, 09/10/2006 - 18:47 | [reply](#)

No, I couldn't

First of all, my use of 'children' was rhetorical, while yours is absurdly literal. Surprisingly, I do know that children do eventually grow up; but while they are still children between certain ages - typically, up to around age 6 in emotionally healthy ones - they are still learning the concept of responsibility.

I love children; perhaps that is related to the fact that I understand them quite well. I wasn't accusing them of anything, but only pointing out a fact, namely that they are not adults. Children behaving like children are lovable; adults consistently behaving like 3-year olds are suffering from some serious disorder.

I don't know enough about African Americans; your comment about them may or may not be correct.

There are no 'Palestinians'.

by **Yoni** on Sun, 09/10/2006 - 23:19 | [reply](#)

Evolving Away

Christoffer,

Could you cite research addressing how long it takes for resistance to DDT to evolve away when it is not in use? Or if that is unknown, confirm as such.

-- Elliot Temple

<http://www.curi.us/blog/>

by **Elliot Temple** on Tue, 09/12/2006 - 00:14 | [reply](#)

Ageism

Yoni,

Tell me if I understand you properly.

Children are naturally childish and infantile. They do things that

would be immoral if an adult did them. Sometimes they are even immoral for children, and that's when they must be punished. But generally, when children act in those ways, it's lovable. But when adults do, it's unforgivably immoral.

-- Elliot Temple

<http://www.curi.us/blog/>

by **Elliot Temple** on Tue, 09/12/2006 - 00:41 | [reply](#)

"Finally, if environmentalist

"Finally, if environmentalists or Western governments want the developing countries to abandon their use of DDT in the antimalarial fight, they should compensate them for any costs ..."

Yoni, I did not mean to imply that the West is responsible for any ills in Africa with this phrase, or that Africans are like children. (Actually, in the DDT case it appears to be conservatives/libertarians blaming the West, i.e. the environmentalists, for ills in Africa)!

I am simply saying that since DDT does still work against malaria-carrying mosquitoes in some places when used in IRS, and since DDT is usually cheaper than most other remedies, it will naturally be the chemical of choice of poor Africans - or other people in the quite few remaining poor places where DDT is still effective.

DDT will be used by African people in their own houses, someone will be willing to sell DDT to them, and the Africans have a fully legitimate right to seek protection from malaria. This is a perfectly understandable transaction.

And then - IF environmentalists and/or governments want DDT banned in such cases, THEY should pay the Africans the difference. THEY are the ones wanting to interfere with a transaction in which they have a much smaller business than the other people involved. To me, this seems right up the alley even of a libertarian perspective.

To simply ban DDT without securing an alternative strategy economically available for average Africans would be exactly what libertarian/conservative lobby groups are always blaming the environmentalists for in the DDT debate -risking poor peoples lives just because of worries about wildlife and relatively minor health concerns. That is exactly why DDT is not banned and never has been in the antimalarial fight, contrary to popular belief in far right-circles.

Hope this was clarifying.

Regards,

Christoffer

by Christoffer Bugge Harder on Tue, 09/12/2006 - 08:18 | [reply](#)

Who Pays?

If DDT is wrong to use because of catastrophic environmental damage, then it is wrong for Africans, or anyone, to use it, whether they are poor or not. They have no right to money for a different chemical that would be right to use.

If the environmentalists object to DDT on purely grounds of personal taste, then they should indeed offer to pay Africans to do something other than use DDT.

This is the same as:

If a company wants to dump toxic waste in the river, then environmentalists who object don't have to pay for alternative toxic waste disposal.

But if environmentalists like parks, and object to the owner of a park turning it into a mall, then they should buy the land or pay him not to do that.

-- Elliot Temple

<http://www.curi.us/blog/>

by **Elliot Temple** on Tue, 09/12/2006 - 08:25 | [reply](#)

Alternatives to DDT

Hi Elliot,

DDT can do and has done much harm to the environment (i.e. raptors, grebes, herons and non-pest insects) when sprayed carelessly, but apparently it is not toxic to humans - at least, the minor health concerns (premature births and a extremely remote and never substantially supported link to cancer) are nothing to talk about in the shadow of the clear and present health problems with millions of deaths due to malaria in e.g. tropical Africa. The environmentalists opposes the use of DDT because it almost wiped out all raptors and other large birds on top of the food chain in Western Europe and the U.S.A.

However, if we were to choose between saving wildlife and saving poor Africans, no reasonable person would prohibit Africans from spraying their own homes with DDT because of worries about raptors - as Rachel Carson boldly stated in "The silent spring"! IRS spraying inside houses poses very little threat to wildlife, but it has been shown numerous times that once DDT is on the market, it can be very difficult to limit its use to certain fields when spaying is done by uneducated people in poorly functioning states.

Therefore, if DDT is effective against malaria and governments or environmentalists want to protect wildlife, governments or environmentalists should definitely pay the poor Africans, if they want them to use another insecticide.

Regarding the resistance problem: Normally, resistant rats, bacteria or bugs are deficient in some other respect. If so, the mutant phenotypes will quickly be subject to counterselection once the

treatment with penicillin, anticoagulants or other remedies ceases, because they are less fit than normal rats under normal circumstances. If the mutation is dominant, it will usually be eliminated rapidly.

The problem is that DDT resistant flies and mosquitoes do not seem to suffer any particular disadvantage to normal mosquitoes and flies - i.e., the mutation is selectively neutral without treatment and highly advantageous when DDT is sprayed. Therefore, it will remain in the population and only be eliminated slowly by "genetic drift". Since Sri Lanka virtually bathed themselves in DDT in the sixties, it is fair to assume that almost all mosquitoes who have survived this are resistant. Thus, all descendants are from resistant stocks and the mutation could be fixed or at least widespread for many hundreds or thousand years thereafter. Certainly, an even mild new spraying effort would spark a new wave of resistance, because you would give the resistant mosquitoes a big selective advantage, and selection always works very strongly on big populations.

I do not think any large-scale surveys about DDT resistance in Sri Lanka has been done in the last 25 years, but at that time, it was of completely no use at all, and there is every reason to believe that DDT would at best have a minor effect, if any at all.

If I were a Sinhalese, I would try something else than DDT. I would furthermore recommend anyone not to listen to Africa Fighting Malaria, because it is very easy to see that the real goal of this organisation is to use the DDT debate as a weapon in their fight against environmental regulation, environmentalists and governments generally. They do not care about Sinhalese, malaria victims or resistance mechanisms, and they obviously do not care about any scientific facts or whether their allegations against environmental group has any string of truth to them. They are making arguments that are supposed to sound reasonable in the ears of lay readers unfamiliar with the scientific facts, but which collapses at a closer examination.

You can check this article about DDT resistance in fruit flies, a model organism closely related to Anopheles mosquitoes:

<http://www.news-medical.net/?id=12329>

Regards,

Christoffer

by Christoffer Bugge Harder on Tue, 09/12/2006 - 21:34 | [reply](#)

DDT Resistance

As I read your link, it says that it was a widely held belief among scientists that resistance would evolve away, and they've only just discovered that this is sometimes false, at least for fruit flies.

If that's the case, shouldn't your position be, "I know your view seems reasonable, and your motivations are rational, however there is this new information you may be interested in. It's far from

conclusive, but take a look."

-- Elliot Temple

<http://www.curi.us/blog/>

by **Elliot Temple** on Tue, 09/12/2006 - 22:11 | [reply](#)

Elliot, you have apparent

Elliot,

you have apparently not fully understood the article, especially regarding the consequences if there is a cost to mutants. This is understandable, since the topic is somewhat technical. Let me try to explain the best I can.

It is indeed a wildly held belief that resistant mutants will suffer a cost under normal circumstances and that these will tend to evolve away subsequently. But "evolving away" does not mean that ALL resistant mosquitoes will be quickly eliminated after treatment ceases. Normally, a "mutation-selection-drift-equilibrium" will arise, in which the mutant gene will still be present, but in small numbers.

As the article says and as I said, the model organisms most widely studied with respect to resistance - rats and bacteria - have been deficient in some other respect. Rats resistant to warfarin (an anticoagulant rat poison) were deficient in vitamin K synthesis, and therefore, the mutation causing the resistance will tend to be eliminated by the course of time - however slowly - from the population when the selective agent, the poison, is no longer there.

But if this is the case, the proper strategy when dealing with e.g. DDT on mosquitoes is to change the insecticide once resistance has emerged! This is what has been done when dealing with rats, and this is also exactly what the article also says. Resistance is very difficult to get rid of again, and because mosquitoes are fast breeders, they will quickly reach a large population size when treatment ceases. To have any chance of eradicating malaria, you must act very fast and coordinatedly with a new drug, before the inevitable resistance gets any chance to spread.

The speed at which the mutant phenotype disappears depend much on the dominance interactions.

Is the mutant

1: Recessive (you have to be homozygous (have two copies of the mutant gene) to display the mutant phenotype)?

2:Codominant (the heterozygote shows both characteristics),

3:Incompletely dominant (the heterozygote shows some but not all features of both homozygotes) or

4:fully dominant (both heterozygotes and the mutant homozygotes show the mutant phenotype)?

It is by far the most common that a newly arisen mutant gene be

recessive with respect to the wildtype. In the three first cases, the resistance mutation will only be removed slowly, because it can "hide" in the heterozygotes (you know, like cystic fibrosis, dwarfism and albinism in humans). When this is the case, there is no selection against heterozygotes, either because they do not display the mutant phenotype, or because the cost associated with the mutant gene is only present in the homozygous mutant, which will always be much rarer than heterozygotes.

Even when the mutant is fully dominant (scenario 4) and counterselection applies to all carriers of just a single copy of the mutant gene, it still depends on the size of the population and the strength of the counterselection under normal circumstances - coupled with the frequency of the recurrent treatments.

This does not mean that once resistance has developed, ALL members of a population will necessarily be resistant long thereafter. The resistance genes will most likely only be present in some or a few individuals after some time without treatment, as said. But as long as they are present, they will rise to high frequencies once the treatment with the respective remedy starts over again - and since many pest species are reproducing themselves rapidly, they will only need a short time to reach the same population size as before the treatment started.

And all this is of the above is written under the assumption that resistance conveys some kind of cost when the relevant toxic treatment is not present.

But DDT resistant flies and mosquitoes do not seem to suffer any particular disadvantage to normal mosquitoes and flies - i.e., the mutation is selectively neutral or weakly advantageous even without treatment and, of course, highly advantageous when DDT is sprayed.

In this case, large populations will remain resistant to DDT long after cessation of spraying - there is no evolutionary pressure causing the resistance to evolve away at population level. This seems to be the case with DDT.

DDT can thus be expected to be of very limited value, if any at all, in such places where resistance has been known to be widespread, like Sri Lanka. If one truly cares about preventing malaria in these countries, one should help them getting the more expensive but still effective malathion and pyrethroids. With our present knowledge, it is much more likely that this will be effective.

It is understandable that lay persons do not know these things. I find it much more difficult to accept that professional rants like Roger Bate and Steven Milloy are deliberately trying to generate the impression that DDT could work wonders or eradicate malaria in the Third World if only environmentalists would let it, constantly and spuriously referring to some kind of unspecified "ban", spreading fake quotes about the American EPA wanting to get rid of people and citing death losses of 90 mio. due to the US 1972 ban, which in

any case could not possibly have had any effect in Africa since it

only applied to agricultural use.

Steven Milloy and Roger Bate cannot possibly be ignorant about these mentioned facts - but they hope that their listeners are. Their claims about DDT can only be termed as disingenious. They know perfectly well that they are deliberately misleading people.

You never see requests for malathion or pyrethroid spraying on "junkscience" or "Africa fighting malaria". One is logically left to conclude that their real issue has absolutely nothing to do with fighting malaria and everything to do with speading false accusations against scientists, governments and environmentalists, and that DDT simply serves as a convenient weapon in this fight.

Bate and Milloy are exactly such examples of idiotarians with a boring pet issue, as the editors put it. As a scientist, I must say that it escapes me how any reasonable person, regardless of political observation, can possibly think that Steven Milloy is "talking sense and making excellent points".

Regards,

Christoffer

by Christoffer Bugge Harder on Wed, 09/13/2006 - 13:23 | [reply](#)

AFM's position

Christoffer wrote:

And of course, they fail to mention any problems regarding DDT resistance (as usual), as I have written to you three times.

[...]

why do [AFM] fail to mention the resistance in Sri Lanka

But the thing is, they do. It's just that they also give arguments that the problem of resistance has been misinterpreted and has resulted in a less-than optimal use of DDT. For instance, in [this](#) article on their web site Roger Bate claims that "Aid agencies' failure to fund DDT was defended by studies that showed that Sri Lankan mosquitoes were developing resistance to DDT, an argument which ignores the chemical's main benefit. Treated houses repel mosquitoes better than any other insecticide yet tested..."

Now, this may all be false. But unfortunately, arguments of the form "AFM are funded by XYZ", or "Roger Bate is only saying that because..." do not bear on the issue of whether the two claims he makes there are true or false. Nor has anything yet cited here.

It seems that the two claims go together: aid agencies have failed to fund DDT (entirely? or sufficiently? he doesn't say); and the DDT-resistance argument (and other arguments such as the environmental one) have been used to justify this, and have helped

to cause it.

Christoffer wrote:

You never see requests for malathion or pyrethroid spraying on "junkscience" or "Africa fighting malaria".

But the thing is, you do. On their **FAQ**, for instance, they say: "DDT is ... significantly cheaper ... That said, alternative insecticides can and should be used for a number of reasons ... DDT is only suitable on traditional mud structures. As people build more western style houses with painted and plastered walls, malaria control programmes will need suitable alternatives ... In order to control for the development of insecticide resistance, malaria control programmes should use alternative insecticides either on an annual rotational basis or sprayed in a mosaic pattern. DDT will kill the mosquitoes resistant to pyrethroid insecticides and vice versa. Rotational and mosaic spraying has proved effective at controlling insecticide resistance in various parts of the world. Good malaria control programmes should always be seeking alternative insecticides for use in IRS. DDT is still much needed because it forms part of resistance management strategies."

Christoffer wrote:

AFM advocates DDT spraying almost everywhere as if it were some kind of miracle medicine

Yet in the above FAQ quote, AFM are not only advocating the use of pyrethroids (and, by the way, presenting a separate argument why DDT can be useful despite the resistance problem), they also acknowledge that DDT can be ineffective in many situations and are also envisaging that the usefulness of DDT will decline in the future.

by [Editor](#) on Wed, 09/13/2006 - 15:02 | [reply](#)

DDT Resistance

Christoffer,

You have misrepresented the article which you cited. It begins

the conventional wisdom of evolution offers a reassuring word: In the absence of the original chemical threat, most resistance mutations would cause a disadvantage to their hosts and might be expected to **quickly leave** the genetic landscape once the use of a drug or insecticide is suspended or withdrawn.

(my emphasis)

You argue that, **in fact**, resistance will not leave quickly. But that is beside the point, as far as discussion of AFM being guilty. As I said above, if you have new evidence/arguments, which go against the conventional wisdom, then it's great to share them, but you

would be wrong to blast people who don't know about them yet for

being irrational or politically motivated.

Further, as Editor has explained, even if the new ideas about resistance are true, and apply to mosquitos, DDT is still useful.

PS I am not incapable of understanding the technical details of evolution.

-- Elliot Temple

<http://www.curi.us/blog/>

by **Elliot Temple** on Thu, 09/14/2006 - 01:08 | [reply](#)

Resistance

Elliot,

I am not sure that you understand the expression "genetic landscape". To "quickly leave the genetic landscape" in evolutionary terms does not usually mean that the gene will be purged altogether once treatment has ceased - rather, it means that it will no longer be widespread in the population and only very rarely be found.

The mutation causing human cystic fibrosis, for example, is highly deleterious and subject to counterselection. But it is not a part of the human genetic landscape, which means that you will, by a random search, almost never find it. But it is still present in the population and could, theoretically, resurge rapidly, should some hardly imaginable evolutionary advantage suddenly arise in connection with it. It has an allele frequency in Denmark of about 0,015, meaning that about 1 in 4200 children will be born with the disease, and it appears to be quite stable, because it has reached an mutation-selection equilibrium, as I said. Still, this mutant is not a part of the genetic landscape, as a geneticist would put it.

If there is no indication that a mutant causes a deleterious phenotype, it will, as the article says, neither be subject to counterselection nor disappear from the genetic landscape.

This is completely conventional wisdom. If AFM do not know about this, they should leave the field to people who do.

I have already in a previous post answered the claims of the Editors and AFM about DDT as a repellent:

"In another article

(http://www.aei.org/publications/pubID.21911,filter.all/pub_detail.asp), Roger Bate has moderated this point of view a little - here, he does recognise the possibility of resistance to DDT, but soon after claims that the major role of DDT is as a repellent, not as insecticide. But Bate fails to recognise that resistance of the mosquitoes is a two-way system: Physiological resistance (the poison is ingested but causes no harm) and behavioural resistance (the insect tend to avoid DDT sprayed surfaces). In either case, DDT becomes useless because the mosquitoes are either unaffected or simply decide to rest outside houses. AFM's suggestion has already been tried

without success".

I have also provided a source explaining this:
<http://www.ias.ac.in/currsci/dec102003/1532.pdf>

Resistance is a two-way system: Behavioural and physiological. Behavioural resistance simply means that DDT in IRS do cause the mosquitoes to rest somewhere else, but that its effect on malaria is simply to make the mosquitoes rest outside and fly directly in to bite, or making transmission take place outside.

I have written another lengthy answer to all the Editor's claims, but apparently, it was rejected as spam. Could the editors please check it and post it, please?

regards,

Christoffer

by Christoffer Bugge Harder on Thu, 09/14/2006 - 10:41 | [reply](#)

Dear editors, you do not s

Note from Editor: *We apologise that the following comment was held up in our spam filter for a while. We rescued and re-posted it on September 15.*

Dear editors,

you do not seem to really read neither what I write nor the links I provide you with. Just a few inches above, I have answered your questions based on this AFM article

(<http://www.fightingmalaria.org/article.php?min=60&max=75>).

"[T]he chemical's (DDT's) main benefit" according to Roger Bate, repellancy, is not recognised because it is also subject to resistance.

I have written this to you once, but I will happily repeat it. I wrote:

"In another article

(http://www.aei.org/publications/pubID.21911,filter.all/pub_detail.asp),

Roger Bate has moderated this point of view a little - here, he does recognise the possibility of resistance to DDT, but soon after claims that the major role of DDT is as a repellent, not as insecticide. But Bate fails to recognise that resistance of the mosquitoes is a two-way system: Physiological resistance (the poison is ingested but causes no harm) and behavioural resistance (the insect tend to avoid DDT sprayed surfaces). In either case, DDT becomes useless because the mosquitoes are either unaffected or simply decide to rest outside houses. AFM's suggestion has already been tried without success".

The thing is, that mosquitoes can quickly develop behavioural resistance to DDT, as Dr. Sharma, as I have also quoted, mentions:

"[Failure of DDT against malaria] is partly due to six decades of spraying resulting in physiological resistance to DDT and/or pronounced exophilic vector behaviour encouraging extra-domiciliary transmission".

"The excito-repellent effect

of DDT, often reported useful in other countries, actually promotes outdoor transmission and therefore helps maintain

a huge malaria burden under the influence of An. culicifacies, An. dirus and An. sondaicus".

(from <http://www.ias.ac.in/currsci/dec102003/1532.pdf>)

In this latter case (exophilic vector behaviour), the mosquitoes simply learn not to rest on DDT-sprayed surfaces, but sit on the exterior of the houses and fly directly in to bite or transmit it to people outside houses. In this case, IRS spraying with DDT is futile. I have already answered this claim and provided you with a link to an expert supporting this many weeks ago. It is beyond me why you insist on making the same claims repeatedly without actually reading my posts or checking any of the very same sources I quote, which you have asked me for yourselves.

My comment about AFM failing to mention any problems regarding DDT resistance (as usual) was a comment to the open letter you referred to in your first answer (<http://www.fightingmalaria.org/petition.php>). As I said, this does not mention resistance.

But of course, the AFM has many different articles, and some of them are more elaborated than others. I know that in some articles, the AFM do mention other insecticides. I realise that my comment about this was a bit harsh. But they always make sure to mention DDT, and their overall picture is very misleading. The AFM FAQ quoted by you (<http://www.fightingmalaria.org/faq.php>) e.g. says: "Limited use of DDT for public health has continued to be effective in areas where it is used inside homes. As DDT's chief property is repellency, mosquitoes often avoid the DDT treated homes altogether. In so doing, they avoid the exposure that promotes resistance as well".

But in so doing, the mosquitoes are displaying exactly the avoidance behaviour or behavioural resistance I was referring to. This just means that the mosquitoes will rest outside and fly directly inside to bite, or that the propagation will take place outside instead of inside houses.

The FAQ also claims that IRS spraying is not affecting the exterior environment. Yet, Dr. Sharma continues:

"DDT and its metabolites exceeded the maximum permissible limits in human breast milk and bovine milk. DDT residues in soil were 74 times higher and in whole blood, eight times higher. In groundwater, no DDT was detectable when alternatives were used against the presence of 0.18 to 0.07 mg/l in sprayed areas^{18,19}. Obviously, either DDT sprayed on walls eventually contaminates the environment or it ends up in the environment through diversion for illegal uses".

As I said, AFM practically never write about anything without mentioning that DDT could work wonders.

In this article (<http://www.fightingmalaria.org/news.php?ID=360>), there is many false claims and fake quotes, as I have pointed out a number of times, e.g. the fake Charles Wurster quote. A serious organisation would care not to yield to such sensationalism.

On the same page you link to

(<http://www.fightingmalaria.org/article.php?min=60&max=75>)

Richard Tren is spreading the false claim that EU is threatening Uganda with sanctions if they use DDT. But the EU warnings apply only to agricultural use, not to malaria control - as I have also pointed out to you a number of times.

And the article by Roger Bate on this page repeats the false claim that DDT spraying was stopped in 1963 because of environmental pressure, when (as I have also pointed out) it was in fact due to such a simple fact that the authorities on Sri Lanka simply thought that it was not necessary anymore, because malaria rates had declined so rapidly. As I have also pointed out and provided links to (sorry for repeating myself), DDT WAS tried and sprayed on Sri Lanka after the resurgence of malaria in the 70ies, but now it failed because of resistance. Environmental pressure played no role whatsoever in this process on Sri Lanka - and the environmentalist 's bible, Rachel Carson 's "The silent spring", explicitly made a distinction between the use of DDT in the agriculture and the use against disease vectors like malaria mosquitoes - as I have pointed out numerous times here.....

Dear editors - could you please check the sources I provide you with upon your very own request and read the articles I quote? There is no point in keeping up this debate if you keep making the same claims no matter what I provide.

Regards,

Christoffer

by Christoffer Harder on Thu, 09/14/2006 - 10:57 | [reply](#)

Behavioural resistance

"Behavioural resistance simply means that DDT in IRS do cause the mosquitoes to rest somewhere else, but that its effect on malaria is simply to make the mosquitoes rest outside and fly directly in to bite, or making transmission take place outside".

To clarify this: This means that DDT spraying, even when only used as a repellent, will have no impact on malaria transmission. Other chemicals will be much better suited.

I am not out on an "anti-chemical" crusade, it is simply about finding the best chemical solution.

Christoffer

by Christoffer Bugge Harder on Thu, 09/14/2006 - 12:19 | [reply](#)

Re: Behavioural resistance

The behavioural resistance to DDT you speak of is otherwise known as the effectiveness of DDT as a mosquito repellent. Is that correct?

Malaria-carrying mosquitoes usually feed only at night. Is that correct? Does their DDT-avoiding behaviour cause them to feed by day?

The paper you cite

<http://www.ias.ac.in/currsci/dec102003/1532.pdf> (thanks for the reference: peer reviewed science is presumably our best guide to

what the facts are) says that this behavioural resistance is often

reported useful [in fighting malaria] in other countries, but not in India for the following reasons: many of the target population sleep outside their houses or work at night or re-plaster treated walls or refuse to have their walls treated, and coverage rates are too low and the monitoring system is grossly understaffed. Is that correct?

Note added on September 15: Now that we have received your comment that was held up by the spam filter, the significance of this question is increased. This facet of the argument seems to go:

- AFM faction says DDT can be useful even where there is resistance to its insecticidal effects, because it is also a repellent.
- Anti-AFM faction says that this is not so, because the repellent effect merely causes the mosquitoes to avoid houses, but all they do then is feed outside.
- AFM faction acknowledges that this is true in some areas, but notes that it depends on there being people outside the houses at night to feed on. So in some areas, and for some people in every area, DDT is still useful despite both chemical and behavioural resistance.
- Anti-AFM faction replies that this is not so because ... the DDT-avoiding behaviour includes changing from night-time to daytime feeding? Or what?

by **Editor** on Thu, 09/14/2006 - 16:22 | [reply](#)

Genetic Landscape

Christoffer

If a DDT resistance gene leaves the genetic landscape in your sense, ie becomes rare, then DDT would kill most mosquitos, leaving the few resistant ones. And thus using only DDT wouldn't work out very well, but using DDT followed by something else would be wise. Correct?

-- Elliot Temple

<http://www.curi.us/blog/>

by **Elliot Temple** on Thu, 09/14/2006 - 18:28 | [reply](#)

Children

"Children are naturally childish and infantile. They do things that would be immoral if an adult did them. Sometimes they are even immoral for children, and that's when they must be punished. But generally, when children act in those ways, it's lovable. But when adults do, it's unforgivably immoral"

I would love to know how you managed to deduce this misreading of my words. Nowhere did I mention morality, imply an aspect of morality, hint at any shade of anything remotely to do with morality ...

What I actually WROTE was that childish behaviour is healthy in

children, but indicative of some (often serious) disorder when exhibited by adults.

Disorders are not moral or immoral: they are damaging to the individual, and often to the individual's human and other environment.

by **Yoni** on Sat, 09/16/2006 - 16:22 | [reply](#)

Genetic landscape

Elliot,

"If a DDT resistance gene leaves the genetic landscape in your sense, ie becomes rare, then DDT would kill most mosquitos, leaving the few resistant ones".

To begin with, "my sense" of the term "genetic landscape" is completely trivial according to anything I have ever read in the technical press. It is not something I have pulled from the sleeve - just to point that out.

But if we assume that DDT is sprayed excessively (ie. not only IRS) AND if we assume that resistance has a selective cost when DDT is not there, then you are most likely right.

The problem is that mosquitoes are fast breeders, and that they will quickly rise to high numbers again after the initial blow from DDT - in a matter of months, the effects of DDT spraying could be barely visible.

And if DDT-resistance, as it seems, is indeed a gain-of-function mutation with no clear disadvantages without treatment, there will be no effect at all. In this case, the whole population might get fixed for resistance, and the mutation will dominate the genetic landscape even in the absence of DDT.

"And thus using only DDT wouldn't work out very well, but using DDT followed by something else would be wise. Correct"?

Not in Sri Lanka. The main problem is that no poison is likely to be able to eradicate malaria - DDT was sprayed everywhere on Sri Lanka in the 60ies and 70ies, and it did not eradicate neither malaria nor the mosquitoes. Using DDT now in a more limited IRS programme would most likely not contribute to fight malaria in Sri Lanka.

But in other places, your strategy might work well. Therefore, it is important to keep one's cool in the DDT debate - it is not the most deadly and evil all pesticides as some extremists put it, but certainly it is neither a miracle medicine, as AFM will have us believe. Their advice about DDT in Sri Lanka is worthless, and its main point seem to be lobbying for DDT use rather than fighting malaria in this case.

You can read on here:

<http://timlambert.org/2005/02/ddt2/>

by Christoffer Bugge Harder on Tue, 09/26/2006 - 19:23 | [reply](#)

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