

Submissions received via the Friends of the Earth Campaign

Submitter	Submission
Alexander Van Dort	<p>The release of gene drives could drive species to extinction globally – with devastating ecological consequences in regions where those species naturally occur. And the fact that this research is being funded by the US military suggests that they intend to weaponise it. Even gene drive proponents have now admitted that the gene drives are too risky to be released into the environment.</p>
Alison Wylie NZ	<p>I am opposed to the environmental release of a new genetic extinction technology i.e gene drives. I am strongly to GMO's because there has not been sufficient or little study into their long term effects. I am opposed to Gene drives because they carry the same biosafety risks.</p> <p>We know the track record of GMOs acting in unexpected ways and causing a variety of environmental harms, while not delivering on their promised benefits. Gene drives are designed not only to spread rapidly through populations. There is nothing in the natural world to compare them to and that limits our capacity to predict their behavior. Because of their serious and potentially irreversible threats to biodiversity – as well as national sovereignty, peace and food security – Southern countries and over 170 organisations have called for a UN moratorium on gene drives. 10 Leading proponents of gene drives have also now said that they are too risky to release</p> <p>What's wrong with Australia that we want to be the [REDACTED] that release these things.</p> <p>There must be much more debate and research done into potential negative outcomes from these developments before they are released from the laboratory</p> <p>Yours sincerely, Alison Wylie</p>
Anna	<p>Proposed changes to our gene technology legislation are untenable, as the release of gene drives could cause species extinction globally, with many other exponential risks. Therefore US military funded CSIRO scientists advising the Australian Government to do this, is an absurd dereliction of care and safety, and a psychotic lack of contact with external realities. So I would ask the Australian Government to deny these changes to the gene legislation.</p>

<p>Anonymous Submitter</p>	<p>I oppose the proposed deregulation of new GM techniques such as CRISPR in animals, plants and microbes. These techniques are fundamentally different to natural breeding and do not have a history of safe use. Products derived from new GM techniques should therefore be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment.</p>
<p>Anonymous Submitter</p>	<p>To whom it may concern,</p> <p>It is unacceptable to experiment with nature with the limited information that we have and should not go ahead for a number of reasons:</p> <p>Leading proponents of gene drives have now said that they are too risky to release in the wild, because of their serious and potentially irreversible threats to biodiversity, national sovereignty, peace and food security. There should be a moratorium on the environmental release of gene drives. I oppose the proposed deregulation of new GM techniques such as CRISPR in animals, plants and microbes. These techniques are fundamentally different to natural breeding and do not have a history of safe use. Products derived from new GM techniques should therefore be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment. There should be a moratorium on human germline gene therapy – in other words genetically modifying people – until there can be a broad societal discussion on what (if any) applications of this technology would be socially acceptable. ‘Removing barriers to trade’ should never be used as a justification for accepting lower levels of safety assessment than exist in Australia or allowing unapproved GMOs in our food. Reducing or removing regulations is actually more likely to create barriers to trade for Australian exporters. I support the rights of states and territories to protect their markets by maintaining their GM crop moratorium legislation. To preserve important checks and balances, all proposed changes to the Gene Technology Act and Regulations should undergo full consideration by appropriate Ministers and state and territory parliaments. Regulations designed to prevent scientists with conflicts of interest from offering biased advice need to be enforceable. DIY ‘biohacking’ kits are now available to buy online, making a mockery of the Government’s claim that such experiments must be undertaken “within a certified containment facility”. Urgent enforcement action is needed to ensure that genetic experiments are not going on without adequate safety mechanisms in place.</p> <p>Yours sincerely</p>

<p>Anonymous Submitter</p>	<p>I think MLK said “When scientific power outruns moral power then civilisation will end.”</p> <p>please stop GMO animals and save human civilisation from the potential harm from unforeseen risks.</p> <p>Yours sincerely</p>
<p>Anonymous Submitter</p>	<p>The release of gene drives could drive species to extinction globally – with devastating ecological consequences in regions where those species naturally occur. And the fact that this research is being funded by the US military suggests that they intend to weaponise it. Even gene drive proponents have now admitted that the gene drives are too risky to be released into the environment.</p> <p>Yours sincerely</p>
<p>Anonymous Submitter</p>	<p><b>THIS SUBMISSION IS CONFIDENTIAL</b></p> <p>Leading proponents of gene drives have now said that they are too risky to release in the wild, because of their serious and potentially irreversible threats to biodiversity, national sovereignty, peace and food security. There should be a moratorium on the environmental release of gene drives</p> <p>I oppose the proposed deregulation of new GM techniques such as CRISPR in animals, plants and microbes. These techniques are fundamentally different to natural breeding and do not have a history of safe use. Products derived from new GM techniques should therefore be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment.</p> <p>There should be a moratorium on human germline gene therapy – in other words genetically modifying people – until there can be a broad societal discussion on what (if any) applications of this technology would be socially acceptable.</p> <p>‘Removing barriers to trade’ should never be used as a justification for accepting lower levels of safety assessment than exist in Australia or allowing unapproved GMOs in our food. Reducing or removing regulations is actually more likely to create barriers to trade for Australian exporters.</p> <p>I support the rights of states and territories to protect their markets by maintaining their GM crop moratorium legislation.</p> <p>To preserve important checks and balances, all proposed changes to the Gene Technology Act and Regulations should undergo full consideration by appropriate Ministers and state and territory parliaments.</p>

	<p>Regulations designed to prevent scientists with conflicts of interest from offering biased advice need to be enforceable.</p> <p>DIY ‘biohacking’ kits are now available to buy online, making a mockery of the Government’s claim that such experiments must be undertaken “within a certified containment facility”. Urgent enforcement action is needed to ensure that genetic experiments are not going on without adequate safety mechanisms in place.</p> <p>Yours sincerely</p>
<p>Anonymous Submitter</p>	<p>This is the lunacy of unethical anything, this is the continued murdering of everything Australia while under this treasonous incorporation, it must be dissolved immediately So is America military full on attacking Australia????</p> <p>“The release of gene drives could drive species to extinction globally – with devastating ecological consequences in regions where those species naturally occur. And the fact that this research is being funded by the US military suggests that they intend to weaponise it. Even gene drive proponents have now admitted that the gene drives are too risky to be released into the environment.”</p> <p>When will Australian Security forces stand in &amp; protect ALL of Australian LIFE???</p> <p>To be confidential. Yours sincerely,</p>
<p>Anonymous Submitter</p>	<p>I am extremely concerned about the follow-on consequences. Under proposed changes to our gene technology legislation, Australia could be the first country in the world to allow the environmental release of a dangerous new genetic extinction technology called gene drives. CSIRO and the University of Adelaide scientists have already begun US military funded research to develop a gene drive mouse with the aim of driving the species to extinction in islands in Western Australia. And these same CSIRO scientists are advising the Government on how this research should be regulated! The release of gene drives could drive species to extinction globally – with devastating ecological consequences in regions where those species naturally occur. And the fact that this research is being funded by the US military suggests that they intend to weaponise it. Even gene drive proponents have now admitted that the gene drives are too risky to be released into the environment. Please keep my submission confidential because the US military are involved.</p> <p>Yours sincerely</p>

Anonymous Submitter	I am concerned that the risk of something going wrong or not according to plan from a release of gene drives is too great and the outcomes very serious. More research needs to be completed to manage this program so we don't have another "can toad" problem
Anonymous Submitter	<p>On the one hand I would love to see certain islands rid of mice but this gene drive technology is very scary.</p> <p>The Australian Government is so backward in so many areas such as climate change and live animal transport, why do we have to be the first in such a potentially very frightening technology.</p> <p>The other things that concern me are the fact that the US military is involved or backing the scheme. Let them do it in their own backyard if they are so confident.</p> <p>Also it is never healthy for those involved in creating something to also be involved in the drawing up of the regulations.</p> <p>Australia must proceed cautiously – we have already caused mayhem with the introduction of the cane toad which we never thought could extend into western and southern Australia</p> <p>Yours sincerely</p>
Anonymous Submitter	Please stop the release of gene drive mice on islands off Western Australia or anywhere else in Australia. Stop the US military using Australia as a testing site for their weapons development.
Anonymous Submitter	<p>I strongly oppose the proposed changes to the Australian gene technology legislation.</p> <p>It is of great concern that just across the Tasman, Australia could be the first country in the world to allow the environmental release of a dangerous new genetic extinction technology called gene drives.</p> <p>Leading proponents of gene drives have now publicly stated that they are too risky to release in the wild, because of their serious and potentially irreversible threats to biodiversity, national sovereignty, peace and food security.</p> <p>There should be a moratorium on the environmental release of gene drives in Australia until more trustworthy and unbiased scientific evidence is available.</p>

<p>Anonymous Submitter</p>	<p>My family and I completely oppose the development and release of gene drive mice on the islands of Western Australia. At every stage of gene alteration of a species, animals suffer. Then eventually mice are created to be released and it is impossible to predict or regulate the consequences of this horrible action. The risk is of creating a another CSIRO situation/mistake of which we are all too well aware from past ‘scientific’ trials – and there would be no going back. Please abandon this crisis in the making, before going further. If the scientists are truly worth their salt, they will be devising ways to stop the extinction of species and compassionately removing non-native animals from the landscape.</p>
<p>Bunty Freeman-Flood</p>	<p>I oppose the proposed regulation of new GM techniques such as CRISPR in animals, plants and microbes. These techniques are fundamentally different to natural breeding and do not have history of safe use.</p> <p>The new products derived from new GM techniques should be registered in the same way as those created using older GM techniques and require a rigorous risk assessment every step of the way.</p> <p>There should be a moratorium on human germline gene therapy until all risks are known and assessed.</p> <p>I support the rights of states and territories to protect their markets by maintaining their GM moratorium legislation.</p> <p>Regulations designed to prevent scientists with conflicts of interest from offering biased advice need to be enforced.</p> <p>There should be a moratorium on the environmental release of gene drivers, it is too risky, it could devastate the biodiversity, and food security. Australia has had many disastrous actions in the past with the introduction of foreign animals, plants and birds to mention a few.</p> <p>Yours sincerely, Bunty Freeman-Flood</p>
<p>Burwell Dodd</p>	<p>Release of gene drive mice as proposed by CSIRO entails the danger of the world wide extinction of mice. Since mice are an integrated part of the mammalian biota and interact as part of that biota in ways not fully understood, making them extinct could well have detrimental consequences. We just don't know what the effects could be.</p> <p>If it is argued that they will not escape from the islands in Western Australia where they are proposed to be released, consider that other “protected” releases have escaped. It only takes one boat putting ashore and one mouse becoming a stowaway.</p>

	<p>It's not a good idea to take that chance. The better part of wisdom is not to do foolish things.</p> <p>Yours sincerely, Burwell Dodd</p>
David Forrest	<p>As a scientist I have accessed research which indicates this technology is too risky to utilise yet. Each gene control has its own specific risks and this is not accounted for with general regulations of the technology. Existing integrated control measures can be used with success, and scientific review of these is the best way to enact a solution.</p> <p>Yours sincerely, David Forrest</p>
Dr Howard Dengate	<p>I am very concerned about the proposal to use the gene drive technology in Australia.</p> <p>As a senior government executive, I was appointed to the CSIRO Australian Animal Health Laboratory Advisory Committee and served from about 1999-2003 following the escape of the rabbit calicivirus from a guaranteed safe island.</p> <p>Therefore I know first hand that all the security precautions in the world cannot guarantee that there will not be an escape. Nor can any escape be recalled – all that there will be will be the sound of stable doors closing after the horse has bolted. In the case of gene drive, the consequences could be horrendous, adding to the worst extinction event in 65 million years currently underway due to human-caused climate change.</p> <p>Australia should not be the first country in the world to allow the environmental release of this dangerous new genetic extinction technology.</p> <p>Yours sincerely, Dr Howard Dengate</p>

Gaby Jung	<p>I have been made aware that changes to gene technology legislation in Australia could make us the first country in the world to allow the environmental release of a new genetic extinction technology called gene drives. The consequences of such a release are a total unknown and I personally think that it is far too risky to release this technology into the environment. I like to add that I do not like mice (or rodents) and am well aware of the damage they are causing, still I believe to deliberately drive a species into extinction is ethically wrong and I therefore oppose this type of release.</p>
George Dion	<p>Leading proponents of gene drives have now said that they are too risky to release in the wild, because of their serious and potentially irreversible threats to biodiversity, national sovereignty, peace and food security. There should be a moratorium on the environmental release of gene drives. I oppose the proposed deregulation of new GM techniques such as CRISPR in animals, plants, and microbes. These techniques are fundamentally different from natural breeding and do not have a history of safe use. Products derived from new GM techniques should, therefore, be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment. There should be a moratorium on human germline gene therapy – in other words genetically modifying people – until there can be a broad societal discussion on what (if any) applications of this technology would be socially acceptable. ‘Removing barriers to trade’ should never be used as a justification for accepting lower levels of safety assessment than exist in Australia or allowing unapproved GMOs in our food. Reducing or removing regulations is actually more likely to create barriers to trade for Australian exporters.</p> <p>Yours sincerely, George Dion</p>
Janet Grogan	<p>I believe there should be a moratorium on the environmental release of gene drives because</p> <ul style="list-style-type: none"> <li>• they pose serious and potentially irreversible threats to biodiversity, national sovereignty, peace and food security according to gene drive experts</li> <li>• gene drives do not have a history of safe use</li> <li>• The technique CRISPR needs to be fully regulated as the outcomes could prove unpredictable and release into the environment poses great risks,</li> <li>• More regulations are needed to control the public access to ‘biohacking’ products which could be used without proper facilities and containment controls to prevent escape of experiments.</li> </ul>

Jennifer Castledine	<p>The release of gene drives will have unintended consequences, and is too dangerous to continue with. How dare the US trial this in Australia rather than their own country. Please stop this now.</p> <p>Yours sincerely, Jennifer Castledine</p>
John Kahler	<p>I'm writing to demand the end of genetic engineering. This practise has gone on far too long in our country, and the damage that needs to be cleaned up needs to happen now. By allowing this to continue, you are ruining our planet in one of the most disgusting and sickening ways that could be imagined. The corruption in the government and organisations such as the CSIRO need to be held accountable for these actions which will affect so many of our precious living organisms. They need to be publicly shamed for the vile works that have been permitted to go on unchecked for so long now. In a time where more and more people are trying to protect the environment, the continuation of genetic engineering and associated immoral works is a massive backwards step. It MUST end now. And we must also block foreign shipments of any such altered products. The gene drive issue affecting mice now is a disgusting perversion, and the risks of extinction are downright shameful. There is no further exc uses for this wasteful “work” to continue. People are fed up with the lack of labelling laws that need to be introduced as well on products, so that we can make ethical choices, which the government seemingly couldn't care less about. If you do not help to fight against this, you should get out of our country! You are not worthy to be Australians if you support the destruction of our precious land. Take pride in those fighting it, and the organic industry which is paving the way to a cleaner and more sensible future.</p>
Jon Singleton	<p>Hello,</p> <p>Leading proponents of gene drives have now said that they are too risky to release in the wild, because of their serious and potentially irreversible threats to biodiversity, national sovereignty, peace and food security. There should be a moratorium on the environmental release of gene drives.</p> <p>I oppose the proposed deregulation of new GM techniques such as CRISPR in animals, plants and microbes. These techniques are fundamentally different to natural breeding and do not have a history of safe use. Products derived from new GM techniques should therefore be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment.</p> <p>There should be a moratorium on human germline gene therapy – in other words genetically modifying people – until there can be a broad societal discussion on what (if any) applications of this technology would be socially acceptable.</p>

	<p>‘Removing barriers to trade’ should never be used as a justification for accepting lower levels of safety assessment than exist in Australia or allowing unapproved GMOs in our food. Reducing or removing regulations is actually more likely to create barriers to trade for Australian exporters.</p> <p>I support the rights of states and territories to protect their markets by maintaining their GM crop moratorium legislation. To preserve important checks and balances, all proposed changes to the Gene Technology Act and Regulations should undergo full consideration by appropriate Ministers and state and territory parliaments.</p> <p>Regulations designed to prevent scientists with conflicts of interest from offering biased advice need to be enforceable. DIY ‘biohacking’ kits are now available to buy online, making a mockery of the Government’s claim that such experiments must be undertaken “within a certified containment facility”. Urgent enforcement action is needed to ensure that genetic experiments are not going on without adequate safety mechanisms in place.</p> <p>Yours sincerely, Jon Singleton</p>
Jonathan Peter	<p>Dept. of Health</p> <p>We strongly urge you NOT to weaken any of our gene technology legislation, which could lead to the unintended release of new “organisms” and the unregulated use of new techniques such as CRISPR</p>
Karl Tattersall	<p>I am no expert on gene technology, but I have lived long enough to see the dreadful consequences of poorly researched and tested scientific “advances”.</p> <p>Gene technology is no different. If anything, the Australian government should be strengthening the restraints within our gene technology legislation. I do not want gene drives being released into the wild, I would prefer it if the research was halted altogether. Anything funded by the US military is unlikely to come to any good. I imagine the US military may see Australia as a good pilot case for wild gene drives, as we are relatively isolated from other parts of the world.</p> <p>Yours sincerely, Karl Tattersall</p>

Laura Harris

I am writing to express my strong opposition to the proposed deregulation of new GM techniques such as CRISPR in animals, plants and microbes. These techniques are fundamentally different to natural breeding and do not have a history of safe use. Products derived from new GM techniques should be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment. Leading proponents of gene drives have now said that they are too risky to release in the wild, because of their serious and potentially irreversible threats to biodiversity, national sovereignty, peace and food security. There should be an absolute moratorium on the environmental release of gene drives. There should also be a moratorium on human germline gene therapy until there can be a broad societal discussion on what (if any) applications of this technology would be socially acceptable. 'Removing barriers to trade' should never be used as a justification for accepting lower levels of safety assessment than exist in Australia or allowing unapproved GMOs in our food. Reducing or removing regulations is actually more likely to create barriers to trade for Australian exporters. I fully support the rights of states and territories to protect their markets by maintaining their GM crop moratorium legislation. I feel it is highly important that regulations designed to prevent scientists with conflicts of interest from offering biased advice become enforceable. As DIY 'biohacking' kits are now available to buy online this makes a mockery of the Government's claim that such experiments must be undertaken "within a certified containment facility". Urgent enforcement action is needed to ensure that genetic experiments are not going on without adequate safety mechanisms in place.

Yours sincerely,  
Laura Harris

Linda Grammar  
NZ

Thank you for the opportunity to make a submission, so that together we can achieve sound environmental, economic and public health outcomes.

Our farming family strongly opposes the proposed changes to the Australian gene technology legislation, it is of concern that just across the ditch, Australia could be the first country in the world to allow the environmental release of a dangerous new genetic extinction technology called gene drives.

Leading proponents of gene drives have now said that they are too risky to release in the wild, because of their serious and potentially irreversible threats to biodiversity, national sovereignty, peace and food security. There should be a moratorium on the environmental release of gene drives in Australia.

We agree with findings 1 and 2 that that the object of the Gene Technology Act 2000 remains appropriate and should be maintained and that the Gene Technology Agreement (2001) is working well and continues to facilitate effective national cooperation on gene technology.

- We disagree with the assertion of some Australian stakeholders that the Scheme is overly precautionary. The inclusion of the Precautionary Principle in the Gene Technology Act is critical given the experimental, risky and unpredictable nature of many biotechnology applications (and the fact that transgenic pollution/harm caused by outdoor use of risky new genetic technologies may be irreversible).

It is our view that the precautionary principle needs significant strengthening and clear operational provisions to ensure that the principle is properly used and is not simply the curtain behind which business as usual operates. NZ is a signatory to the Cartagena Biosafety Protocol and we strongly support the Precautionary Principle (in national legislation and in local councils plans).

- There is no evidence that Australia's current gene technology regulatory scheme is slowing down ethical research in the strict containment of the laboratory.

Here in NZ, our government strongly opposes the outdoor use of risky new genetic technologies on our public conservation lands and elsewhere. See the quotes from our Minister of Conservation Hon Eugenie Sage in the recent 4 December 2017 NZ Herald article “CONSERVATION MINISTER OPPOSES GM RODENT PLAN”

[http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=11952990](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11952990)

Our Minister of Conservation Hon Eugenie Sage (NZ) clearly stated “there would be serious risk to New Zealand's environmental reputation if there were field trials here using gene technology.”

“Gene editing is an unproven technology for predator control. Gene technologies are problematic and untested and have significant risks.”

“They have no social licence to operate. There is a lot at stake and there is a need for the utmost caution.”

“There would be serious questions around the risks to New Zealand's GE Free reputation from being associated with any field trials of gene technology.”

See also the excellent article in the 15 November 2017 DOMINION POST (NZ)

"Gene editing not a panacea for eradicating wild pests"

[www.stuff.co.nz/environment/98856502/gene-editing-not-a-panacea-for-eradicating-wild-pests](http://www.stuff.co.nz/environment/98856502/gene-editing-not-a-panacea-for-eradicating-wild-pests)

by Dr. Wayne Linklater, Director, Centre for Biodiversity and Restoration Ecology, Associate Professor of Conservation Science, Victoria University.

“The massive release of genetically engineered predatory pest species at a national scale is obviously just a silly idea and I am aghast that we are even considering it. Gene editing also poses societal and political risks that I haven't even discussed.” ENDS quote

We do not support outdoor use of GE/GMOs due to the serious risks to NZ and Australia's biosecurity, unique biodiversity, wider environment, existing GM free primary producers, and strongly oppose the proposed deregulation in Australia of new GM techniques such as CRISPR in animals, plants and microbes. These techniques are fundamentally different to natural breeding and do not have a history of safe use. Products derived from new GM techniques should therefore be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment.

There should be a moratorium on human germline gene therapy – in other words genetically modifying people – until there can be a broad societal discussion on what (if any) applications of this technology would be socially acceptable.

‘Removing barriers to trade’ should never be used as a justification

for accepting lower levels of safety assessment than exist in Australia or allowing unapproved GMOs in our food. Reducing or removing regulations is actually more likely to create barriers to trade for Australian exporters.

We support the rights of states and territories to protect their markets by maintaining their GM crop moratorium legislation.

To preserve important checks and balances, all proposed changes to the Gene Technology Act and Regulations should undergo full consideration by appropriate Ministers and state and territory parliaments.

Regulations designed to prevent scientists with conflicts of interest from offering biased advice need to be enforceable.

DIY 'biohacking' kits are now available to buy online, making a mockery of the Government's claim that such experiments must be undertaken "within a certified containment facility".

In our view, Urgent enforcement action is needed to ensure that genetic experiments are not going on without adequate safety mechanisms in place.

We support our farming and conservation colleagues in Australia and OPPOSE the proposed changes to the Australian gene technology legislation which could put both Australia and NZ's biosecurity, unique biodiversity, wider environment, economy, existing GM free primary producers and their valuable enterprises at risk. Only ethical and humane experiments for ethical medical purposes should be allowed in the strictest containment of the laboratory, in NZ and Australia. Please keep us informed. We wish to be heard.

Yours sincerely,  
Linda Grammer & family Whangarei

Martin Robinson  
NZ

Thank you for the opportunity to submit.

Our community group (GE Free Northland) strongly opposes the proposed changes to the Australian gene technology legislation. It is of great concern to our members that just across the Tasman, Australia could be the first country in the world to allow the environmental release of a dangerous new genetic extinction technology called gene drives.

Leading proponents of gene drives have now publicly stated that they are too risky to release in the wild, because of their serious and potentially irreversible threats to biodiversity, national sovereignty, peace and food security.

There should be a moratorium on the environmental release of gene drives in Australia.

We strongly agree with findings 1 and 2 that that the object of the Gene Technology Act 2000 remains appropriate and should be maintained and that the Gene Technology Agreement (2001) is working well and continues to facilitate effective national cooperation on gene technology.

We disagree with the assertion of some Australian stakeholders that the Scheme is overly precautionary. The inclusion of the Precautionary Principle in the Gene Technology Act is critical given the experimental, risky and unpredictable nature of many biotechnology applications (and the fact that transgenic pollution/harm caused by outdoor use of risky new genetic technologies may be irreversible.

It is our considered view that the precautionary principle needs significant strengthening and clear operational provisions to ensure that the principle is properly used and is not simply the curtain behind which business as usual operates.

We note that NZ is a signatory to the Cartagena Biosafety Protocol and we strongly support the Precautionary Principle (in national legislation and in local councils plans across NZ). Australia should retain or strengthen legislation to support the Precautionary Principle. Australian territories/ regions with GE free /GMO bans/ moratoriums must be protected. Outdoor use of risky new genetic technologies must be banned as well.

There is no evidence that Australia's current gene technology regulatory scheme is slowing down ethical research in the strict containment of the laboratory.

Here in NZ, our government strongly opposes the outdoor use of risky new genetic technologies on our public conservation lands and

elsewhere. See the quotes from our Minister of Conservation Hon Eugenie Sage in the recent 4 December 2017 NZ Herald article “CONSERVATION MINISTER OPPOSES GM RODENT PLAN” [http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=11952990](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11952990)

New Zealand's Minister of Conservation Hon Eugenie Sage clearly stated in late December 2017 “there would be serious risk to New Zealand's environmental reputation if there were field trials here using gene technology.”

“Gene editing is an unproven technology for predator control. Gene technologies are problematic and untested and have significant risks.”

“They have no social licence to operate. There is a lot at stake and there is a need for the utmost caution.”

“There would be serious questions around the risks to New Zealand's GE Free reputation from being associated with any field trials of gene technology.”

See also the following article in the 15 November 2017 DOMINION POST

"Gene editing not a panacea for eradicating wild pests" [www.stuff.co.nz/environment/98856502/gene-editing-not-a-panacea-for-eradicating-wild-pests](http://www.stuff.co.nz/environment/98856502/gene-editing-not-a-panacea-for-eradicating-wild-pests)

by Dr. Wayne Linklater, Director, Centre for Biodiversity and Restoration Ecology, Associate Professor of Conservation Science, Victoria University.

“The massive release of genetically engineered predatory pest species at a national scale is obviously just a silly idea and I am aghast that we are even considering it. Gene editing also poses societal and political risks that I haven't even discussed.” ENDS quote

We do not support outdoor use of GE/GMOs or risky new genetic technologies like CRISPR or gene drive due to the serious risks to NZ and Australia's biosecurity, unique biodiversity, wider environment, existing GM free primary producers, and strongly oppose the proposed deregulation in Australia of new GM techniques such as CRISPR in animals, plants and microbes. These techniques are fundamentally different to natural breeding and do not have a history of safe use. Products derived from new GM techniques should therefore be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment.

There should be a moratorium on human germline gene therapy – in

	<p>other words genetically modifying people – until there can be a broad societal discussion on what (if any) applications of this technology would be socially acceptable.</p> <p>‘Removing barriers to trade’ should never be used as a justification for accepting lower levels of safety assessment than exist in Australia or allowing unapproved GMOs in our food. Reducing or removing regulations is actually more likely to create barriers to trade for Australian exporters.</p> <p>We support the rights of states and territories to protect their markets by maintaining their GM crop moratorium legislation. To preserve important checks and balances, all proposed changes to the Gene Technology Act and Regulations should undergo full consideration by appropriate Ministers and state and territory parliaments.</p> <p>Regulations designed to prevent scientists with conflicts of interest from offering biased advice need to be enforceable. DIY ‘biohacking’ kits are now available to buy online, making a mockery of the Government’s claim that such experiments must be undertaken “within a certified containment facility”.</p> <p>In our view, Urgent enforcement action is needed to ensure that genetic experiments are not going on without adequate safety mechanisms in place.</p> <p>We support the people of Australia including GM free primary producers and regions and OPPOSE the proposed changes to the Australian gene technology legislation which could put both Australia and NZ's biosecurity, unique biodiversity, wider environment, economy, existing GM free primary producers and their valuable enterprises at risk. Ethical and humane experiments for ethical medical purposes are acceptable in the strictest containment of the laboratory, in NZ and Australia (in NZ those laboratory conditions still need tightening up to ensure breaches do not occur).</p> <p>Please keep us informed. We wish to be heard.</p> <p>Yours sincerely, Martin Robinson Secretary, GE Free Northland</p>
Marzena Bonar	<p>Leading proponents of gene drives have now said that they are too risky to release in the wild, because of their serious and potentially irreversible threats to biodiversity, national sovereignty, peace and food security. There should be a moratorium on the environmental release of gene drives.</p> <p>I oppose the proposed deregulation of new GM techniques such as CRISPR in animals, plants and microbes. These techniques are fundamentally different to natural breeding and do not have a history</p>

	<p>of safe use. Products derived from new GM techniques should therefore be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment.</p> <p>There should be a moratorium on human germline gene therapy – in other words genetically modifying people – until there can be a broad societal discussion on what (if any) applications of this technology would be socially acceptable.</p> <p>‘Removing barriers to trade’ should never be used as a justification for accepting lower levels of safety assessment than exist in Australia or allowing unapproved GMOs in our food. Reducing or removing regulations is actually more likely to create barriers to trade for Australian exporters.</p> <p>I support the rights of states and territories to protect their markets by maintaining their GM crop moratorium legislation. To preserve important checks and balances, all proposed changes to the Gene Technology Act and Regulations should undergo full consideration by appropriate Ministers and state and territory parliaments.</p> <p>Regulations designed to prevent scientists with conflicts of interest from offering biased advice need to be enforceable. DIY ‘biohacking’ kits are now available to buy online, making a mockery of the Government’s claim that such experiments must be undertaken “within a certified containment facility”. Urgent enforcement action is needed to ensure that genetic experiments are not going on without adequate safety mechanisms in place.</p>
Monica O'Leary	<p>I was shocked to hear that scientists have developed gene drive technology. Their aim is to eradicate mice in certain areas, but the unintentional consequences for this technology are far too risky. The fact that the US military is funding the research suggests that there is an intention to weaponise it . There are grave risks for humans and animals alike. Please do not allow this technology to be released.</p> <p>Yours sincerely, Monica O'Leary</p>
Nathalie Haymann	<p>To Whom it may Concern,</p> <p>With endangered species in Australia already in catastrophic freefall, the notion of US Military funded extinction gene technology being developed here is literally unbelievable.</p> <p>As far as bees, mice, frogs, rabbits, ants, cockroaches etc. are concerned, I am very relieved whenever I am fortunate enough to</p>

	<p>see one (I live in a rural area) as it indicates to me that natural biodiversity is still hanging in there. Just. This is despite verroa destructor mites, the spectre of colony collapse disorder, rodenticides which cook bodily organs from within, introduced cane roads, climate change and drought, myxomatosis and calicivirus, pyrethroids, piperonyl, butoxide, permethrin etc. etc. and not forgetting fipronil and hydra methylnon. Choose your poison as it were.</p> <p>In my frequent travelling over many kilometres, I no longer have to clean the front bonnet and headlights of my car of dead flying creatures as there aren't any. At least I'm saving water as I have two 23,000 litre rainwater tanks, one of which is empty and the other 4/5 empty because of lack of rain.</p> <p>“Hit em high, hit 'em low” is definitely working and there are dead zones enough, when serious over-clearing, drought, salinity, dying bees, GM contaminated organic grain crops because of dust storms, as well as the Laws of Nature are thrown into the mix</p> <p>In our quickening race to the extinction of life on this planet, nothing and no-one will save it and all of its living creatures, ESPECIALLY the terminally sick US Military, which is a metastasizing virulent cancer.</p> <p>Yours sincerely, Nathalie Haymann</p>
Paul Owens	<p>I'm sorry but I dont trust you and the science regarding gene drives. It is a very dangerous operation that could easily escape species and cause unintended consequences of escape or crossover to other species, meaning possible extinction. Please dont do It. Too dangerous</p> <p>Yours sincerely, Paul Owens</p>
Roman Revyakin	<p>Dear Sir/Madame,</p> <p>I would like to express my concern to the proposed changes to gene technology legislation and potential release of gene drives into the wild.</p> <p>Leading proponents of gene drives have now said that they are too risky to release in the wild, because of their serious and potentially irreversible threats to biodiversity, national sovereignty, peace and food security. There should be a moratorium on the environmental release of gene drives. I oppose the proposed deregulation of new GM techniques such as CRISPR in animals, plants and microbes. These techniques are fundamentally different to natural breeding and do not have a history of safe use. Products derived from new GM</p>

	<p>techniques should therefore be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment. There should be a moratorium on human germline gene therapy – in other words genetically modifying people – until there can be a broad societal discussion on what (if any) applications of this technology would be socially acceptable. ‘Removing barriers to trade’ should never be used as a justification for accepting lower levels of safety assessment than exist in Australia or allowing unapproved GMOs in our food. Reducing or removing regulations is actually more likely to create barriers to trade for Australian exporters. I support the rights of states and territories to protect their markets by maintaining their GM crop moratorium legislation. To preserve important checks and balances, all proposed changes to the Gene Technology Act and Regulations should undergo full consideration by appropriate Ministers and state and territory parliaments. Regulations designed to prevent scientists with conflicts of interest from offering biased advice need to be enforceable.</p> <p>DIY ‘biohacking’ kits are now available to buy online, making a mockery of the Government’s claim that such experiments must be undertaken “within a certified containment facility”. Urgent enforcement action is needed to ensure that genetic experiments are not going on without adequate safety mechanisms in place.</p> <p>Yours sincerely, Roman Revyakin</p>
Trish Hyndman	<p>I am 100% opposed to the proposed new genetic extinction technology called gene drives.</p> <p>I oppose the proposed deregulation of new GM techniques such as CRISPR in animals, plants and microbes. These techniques are fundamentally different to natural breeding and do not have a history of safe use. Products derived from new GM techniques should therefore be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment.</p> <p>Don't █████ with nature.</p> <p>Yours sincerely, Trish Hyndman</p>

Zdenko Pokorny

Hi,

I as an Australian citizen feel very upset, extremely unhappy and and very frustrated, when I hear stuff like this, that we need to get rid of the whole species just because WE (as humans) don't need it. That kind of thinking is very selfish and typical for humans. When will you start thinking straight and consider all the facts and all the consequences of doing so? You are going to kill (to bring to extinction probably) other species as lizards and birds that rely on eating mice. There are big problems there awaiting for you. This century will be about protecting our nature (or at least what will be left of it).

You may have heard: "We have to live with nature and not against nature". That is really true in every aspect as our bodies and souls cannot live without nature (every time we try people get more sick and more depressed...). And every problem you have can be solved naturally (with help of nature). The initial cost can be higher but the future will pay you back. Do we have to do everything for money? Do we really need to be changing our environment (and getting rid of unwanted plants and animals) only because we save money somewhere by doing it? How can you even think of it...? This technology will not stay by mice. You know it. And the fact it is funded by US Army is extremely alarming to all of us... Very scary stuff. What other species do they decide to get rid of? Humans as well? Like black people or Iranians or what? In 20 years you will be very much regretting your decisions if you allow this. Think of your kids. And their kids. Don't they have the right to see the Earth other than destructed?

Thanks.

Yours sincerely,  
Zdenko Pokorny