
From: [out of scope] (DELWP) <[out of scope]@delwp.vic.gov.au>
Sent: Wednesday, 16 September 2020 9:31 AM
To: [out of scope]
Cc: [out of scope] [out of scope]
Subject: RE: Metals in duck tissues

Hi [out of scope]

Ducks are shot using shotguns and cartridges containing steel shot. Up until the early 1990s cartridges contained lead shot but that was banned because elevated lead levels were detected in duck tissue – it seems that the ducks liked picking up and ingesting the lead pellets to aid in mastication in their crop. Plus the other deleterious impacts of spraying lead around our wetlands. Only steel shot has been legal since ~1992.

So, birds collected for us by licensed hunters would have been shot using steel shot shotgun cartridges. However, some of the samples used in this study were shot using a .22 rifle [a requirement of our Animal Ethics Committee]. Our contract shooters began using low velocity bullets composed of lead but these have reduced range and it was decided to switch to higher velocity steel bullets. This method [rifle] was used at Heart Morrass, Lake Bolac and Hird Swamp. From memory, low velocity bullets were only used at Hird Swamp when it was realised that they were a very inefficient method and we switched to high velocity ammo. However, shotguns were also used at Heart Morass and Lake Bolac – we obtained as many specimens as we could using the rifles and then completed our sampling using the more efficient shotgun method.

So, in summary, pretty well all specimens would have been shot with steel projectiles but it is possible that a [very] small number from Hird Swamp were killed using a lead projectile.

Hope that makes sense.

[out of scope]

[out of scope]
[out of scope] | Arthur Rylah Institute for Environmental Research

Department of Environment, Land, Water and Planning

123 Brown St, Heidelberg, Victoria 3084

M: [out of scope] | **E:** [out of scope]@delwp.vic.gov.au



🇺🇦 I acknowledge the traditional Aboriginal owners of Country throughout Victoria and pay my respects to them, their culture and their Elders past, present and future

From: [out of scope] <[out of scope]@epa.vic.gov.au>
Sent: Tuesday, 15 September 2020 12:09 PM
To: [out of scope] (DELWP) <[out of scope]@delwp.vic.gov.au>

Cc: [out of scope] <[out of scope]@epa.vic.gov.au>; [out of scope]@epa.vic.gov.au

Subject: Metals in duck tissues

Hi [out of scope]

I hope this finds you well and enjoying the confines of your home away from work !

We're re-checking the metals data for the ducks.

I'm wondering if it's possible to check what type of bullets/shot was used to capture ducks for all/or certain wetland sites?

NMI have indicated some metal fragments were observed in breast tissues.

Thus there may be some influence of trace metals in tissues from bullet residues.

The key sites to check this for are Serpentine Creek, Richardsons Lagoon, Macleods Morass and Heart Morass. Please enquire as to what was equipment and ammunition was used and let us know what you hear back.

No word on the final release of the paper as yet, I'll chase up with SETAC and keep you posted.

Best regards,

[out of scope]

[out of scope]

[out of scope]

Water Sciences

Environment Protection Authority Victoria

Centre for Applied Sciences, Macleod

[out of scope] | M [out of scope] | E [out of scope]@epa.vic.gov.au | www.epa.vic.gov.au

We work flexibly at EPA. If I'm sending this message outside of normal business hours it's because it suits me. There is no expectation that you will respond outside your working hours.

Follow us    

A healthy environment that supports a liveable and prosperous Victoria, now and always.

This email (and any attachments) is for the intended recipient only and may contain privileged, confidential or copyright information. If you are not the intended recipient, any use of this email is prohibited, please notify the sender immediately or contact us on 1300 372 842 (1300 EPA VIC), or contact@epa.vic.gov.au and delete the original. EPA does not warrant that this email or any attachments are error or virus free and accepts no liability for computer viruses, data corruption, delay or interruption, unauthorised access or use. Any personal information in this e-mail must be handled in accordance with the Privacy and Data Protection Act 2014 (Vic).