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From: POV eSubmission Form <ecosystems@parliament.vic.gov.au>
Sent: Tuesday, 1 September 2020 11:33 PM
To: ecosystems
Subject: New Submission to Inquiry into Ecosystem Decline in Victoria

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Inquiry Name: Inquiry into Ecosystem Decline in Victoria

Mr Paul Harford
[redacted]

Member
Animal Justice Party

[redacted]

[redacted]

SUBMISSION CONTENT:

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Subject: Insect Population Decline

Entomologists across the country have reported lower than average numbers of wild insects. There seems to be a few factors responsible for this decline, which all lead back to human actions.

The first is insecticides which have been used extensively on all crops for human and animal feed. Another factor may be urbanisation, as we continue to expand our population, whereby eliminating some of the plants which are critical for these insects to complete their development. Another factor most certainly is climate change. The industrial revolution has caused massive devastation to the planet, especially the burning of fossil fuels (coal and oil).

Australia has suffered drought conditions and wavering temperatures which can affect insect lifecycles, which in turn affects entire populations. Insect populations rely on the combination of water, humidity and temperature to complete their lifecycle. The lifespan of insects can be drastically reduced if these conditions aren't ideal. Therefore insects may not lay as many eggs as usual, which will have a knock on affect to overall populations.

Insects are an essential element in the food chain that supports all life on our planet. I am 43 years of age and recall the amount of insects that would hit the windshield of the family car in the 80,s and early 90's. This has reduced drastically today.

On average, scientists have found that 41 per cent of known insect species involved in studies are in population decline. Losses were reported across all insect groups, except a few species. Among those in decline, 33 per cent of all species of insects are going into extinction. The rate of extinction in insects is about eight times higher than the

rate of extinction of vertebrates.

There has been extensive studies done globally, with one study in Germany reporting a 75 per cent decline in insect biomass over 27 years. Another study in Puerto Rico reported losses of between 78 and 98 per cent over 36 years. The rates of decline are so dramatic (up to 2.5 per cent a year), that at current rates there may be no insects in those regions within 10 years.

Many scientists agree that our knowledge of the exact causes needs to be increased urgently to stop further insect decline and extinction. Besides the fact that insects deserve their own life experiences, they are also essential for pollination, recycling nutrients and playing their role in the food chain, which supports life on this planet. If insects die, frogs, birds and mammals will have no food. Without insects, the entire ecosystem will collapse.

Yours faithfully,

Paul Harford

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File1:

File2:

File3: