



# Select Committee on Victoria's Recreational Native Bird Hunting Arrangements

**Hearing Date:** 26 May 2023

**Question[s] taken on notice**

**Directed to:** Dr Brian Hiller

**Received Date:** 7 June 2023

## 1. Melinda Bath p. 44

### Question asked:

Would you have any evidence that you could show us on this? Have you got some data?

### Response:

Below are the preliminary data from the first four years of the Sale FGA Nest Box Project. These data have not been published, nor peer-reviewed as of this date June 6, 2023. I have included an excerpt from my draft report to Sale Field and Game.

YEAR	#Success	#Unsucces	#Active	Total used	Total unused	Total eggs laid	Total hatched	Hatch rate	Fledged	Fledge rate
2019	106	35	na	141	250	825	600	73	595	72
2020	59	55	70	184	223	1,298**	707**	54	707**	54
2021	131	102	37	270	154	1793**	1,064**	59	1,039**	58
2022	176	125	5	306	139	2176	1074	49	1042	48
<b>Average</b>	<b>118</b>	<b>79</b>	<b>54</b>	<b>198</b>	<b>192</b>	<b>1414</b>	<b>861</b>	<b>57</b>	<b>845</b>	<b>60</b>

**Table 1.** Basic nest box data for the first four years of the Sale Field and Game Branch duck box research project. \*\*Includes eggs found in active nests during nest box checks the following year. Differences in total boxes checked were a function of differences in access during Covid restrictions and high water years.

“Since we’re still in the early stages of recording consistent data on nest box productivity, I’m not going to read too much into what we’re seeing so far. Given the dry year (2018 was 11% below average nationally) prior to the start of our research project, a reasonable explanation is that the total number of breeding ducks would be lower than years when rainfall was higher as it was in breeding season 2020 (as reflected in the 2021 data). The rate of box usage started from a low in 2019 of 37% and increased each year to 46% in 2020, to 63% in 2021, and a high of 69% in 2022. The increasing rate of use indicates an increasing population following better rainfall rates across eastern Australia during the same timeframe.

The differences in success rates among years are very interesting and warrant further examination. One possible explanation could be that following lower rainfall years the remaining ducks are likely the most experienced adults who have a better ability to compete for the best nesting sites (boxes). Alternatively, when there has been substantial rainfall that produced a lot of offspring (2020 and 2021 breeding seasons) and those younger, less experienced ducks nested in the less than optimal sites (boxes) and were less successful. These are just my initial thoughts (and brief conversations with other waterfowl scientists) at this point and I'll be following this up further in the literature.”