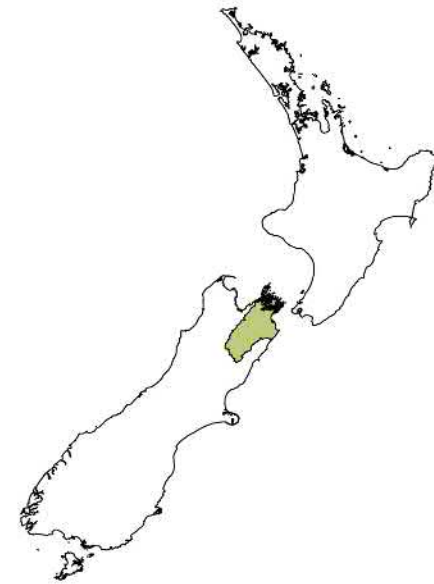




New Zealand
**GARDEN
BIRD
SURVEY**



Technical report

MARLBOROUGH REGION

2017



State of NZ Garden Birds

Te Āhua o ngā Manu o te Kāri i Aotearoa



**Manaaki
Whenua**
Landcare
Research

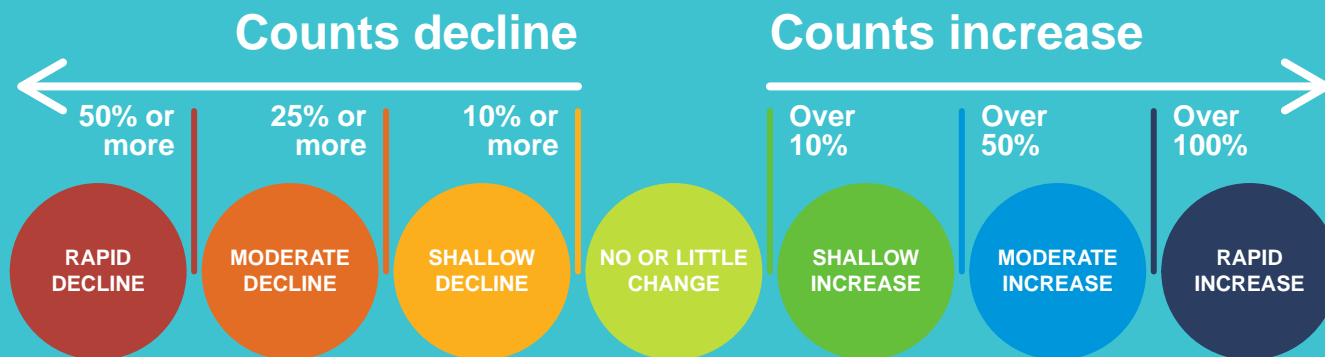


We have estimated how bird counts have changed since 2007 in different regions and towns across New Zealand for 14 common garden visitors – five native and nine introduced birds.

Thanks to all our volunteer bird counters, 31,679 garden surveys have been completed nationwide since 2007. We use specialised statistical tools to account for variation in sampling effort between regions, towns and suburbs over time. We also account for variation in bird counts depending on whether the surveyed gardens were in a rural or urban setting and if birds were fed or not. We also correct for the actual number of gardens in each area.

We then classify these changes according to their direction and size (see adjacent diagram) to help us identify changes of potential concern or interest.

Drawing attention to changes in counts of potential concern or interest



Change class for each species, based on the 1001 bootstrap replicates, indicated by double circle. The degree of shading indicates where these replicates lie.



Quality rating category for each species shows the strength of evidence for the change class based on the 1001 replicates.



How have bird counts changed?

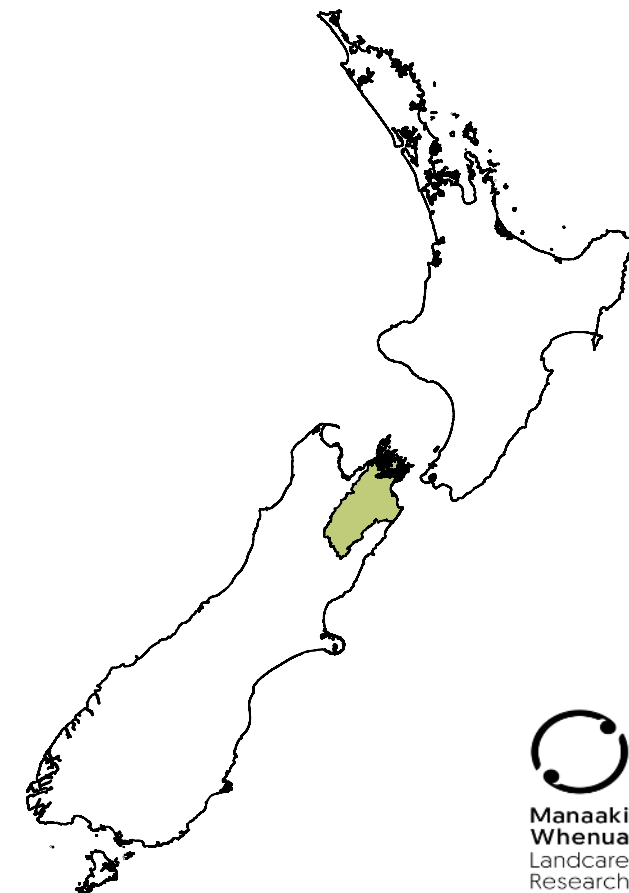
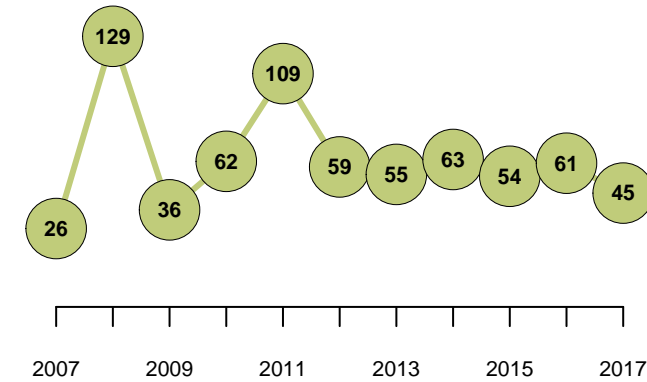
MARLBOROUGH REGION | 2007-2017



New Zealand
**GARDEN
BIRD
SURVEY**

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
TUI	54%	38 to 68%	○	○	○	○	○	●	○	●●○○○○	KŌKŌ
GREENFINCH	48%	30 to 61%	○	○	○	○	●	○	○	●●●●●●	
FANTAIL	15%	12 to 19%	○	○	○	○	●	○	○	●●●●●●	PĪWAIWAKA
BELLBIRD	9%	3 to 14%	○	○	○	○	○	○	○	●○○○○○	KORIMAKO
NEW ZEALAND PIGEON	6%	-3 to 14%	○	○	○	○	○	○	○	●●○○○○	KERERŪ
DUNNOCK	2%	-9 to 12%	○	○	○	○	○	○	○	●●●○○○	
CHAFFINCH	-7%	-12 to -2%	○	○	○	○	○	○	○	●●●○○○	PAHIRINI
BLACKBIRD	-14%	-17 to -12%	○	○	○	○	○	○	○	●●●●●●	MANU PANGO
HOUSE SPARROW	-17%	-22 to -10%	○	○	○	○	○	○	○	●●●●●●	TIU
SONG THRUSH	-22%	-27 to -19%	○	○	○	○	○	○	○	●●●●●●	
GOLDFINCH	-31%	-39 to -26%	○	○	○	○	○	○	○	●●●●●●	
STARLING	-35%	-41 to -31%	○	○	○	○	○	○	○	●●●●●●	TĀRINGI
SILVEREYE	-35%	-38 to -32%	○	○	○	○	○	○	○	●●●●●●	TAUHOHU

NUMBER OF GARDEN SURVEYS



How have bird counts changed?

MARLBOROUGH REGION | 2007-2017

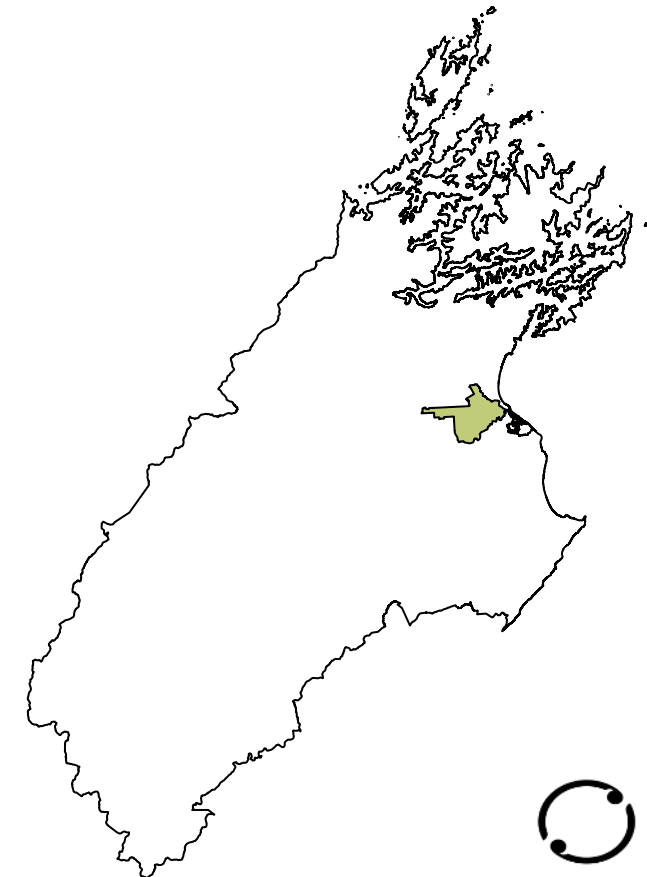
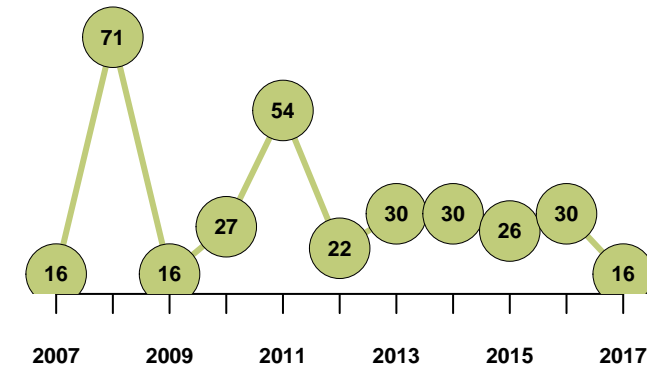
Blenheim



New Zealand
**GARDEN
BIRD
SURVEY**

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
TUI	104%	78 to 126%	○	○	○	○	○	○	●	●●○○○	KŌKŌ
NEW ZEALAND PIGEON	64%	9 to 99%	○	○	○	○	○	○	○	●●○○○	KERERŪ
GREENFINCH	55%	37 to 68%	○	○	○	○	○	○	○	●●○○○	
FANTAIL	19%	14 to 24%	○	○	○	○	○	○	○	●●●●●	PĪWAIWAKA
BELLBIRD	15%	2 to 27%	○	○	○	○	○	○	○	●●●○○	KORIMAKO
DUNNOCK	4%	-9 to 15%	○	○	○	○	○	○	○	●●○○○	
CHAFFINCH	-6%	-11 to 0%	○	○	○	○	○	○	○	●●●●○	PAHIRINI
BLACKBIRD	-14%	-16 to -11%	○	○	○	○	○	○	○	●●●●●	MANU PANGO
HOUSE SPARROW	-21%	-27 to -14%	○	○	○	○	○	○	○	●●●●●	TIU
SONG THRUSH	-24%	-29 to -20%	○	○	○	○	○	○	○	●●●●●	
GOLDFINCH	-29%	-37 to -23%	○	○	○	○	○	○	○	●●●●○	
STARLING	-35%	-41 to -31%	○	○	○	○	○	○	○	●●●●●	TĀRINGI
SILVEREYE	-35%	-38 to -32%	○	○	○	○	○	○	○	●●●●●	TAUHOHU

NUMBER OF GARDEN SURVEYS



How have bird counts changed?

MARLBOROUGH REGION | 2007-2017

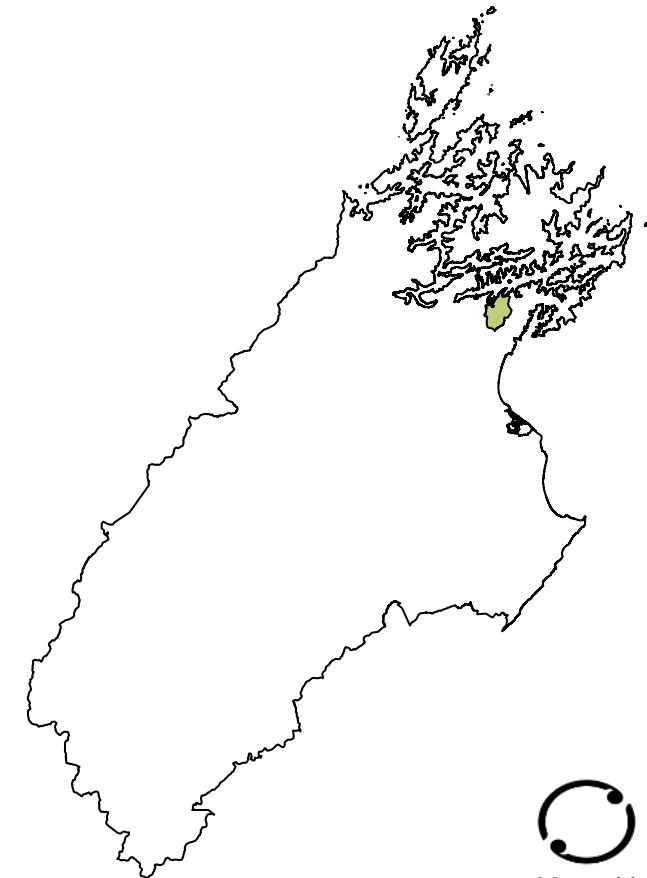
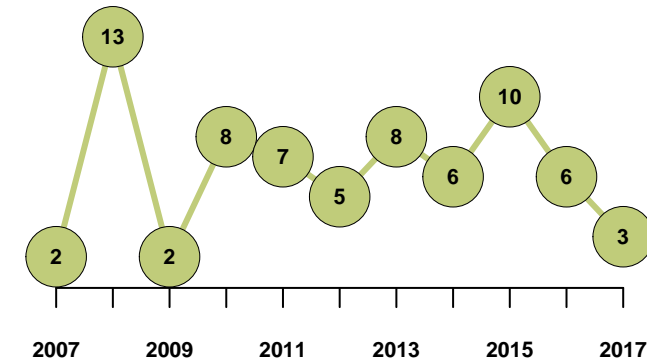


New Zealand
**GARDEN
BIRD
SURVEY**

Picton

	Median	80% Confidence Interval		Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
GREENFINCH	33%	15	to 46%	○	○	○	○	●	○	○	●●●●●	
TUI	30%	13	to 44%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
FANTAIL	17%	12	to 22%	○	○	○	○	●	○	○	●●●●●	PĪWAIWAKA
BELLBIRD	7%	1	to 11%	○	○	○	●	○	○	○	●●●○○	KORIMAKO
HOUSE SPARROW	4%	0	to 11%	○	○	○	●	○	○	○	●●●●○	TIU
DUNNOCK	-3%	-17	to 7%	○	○	○	●	○	○	○	●●○○○	
NEW ZEALAND PIGEON	-8%	-18	to 1%	○	○	○	●	○	○	○	●○○○○	KERERŪ
BLACKBIRD	-10%	-13	to -7%	○	○	○	●	○	○	○	●●○○○	MANU PANGO
CHAFFINCH	-11%	-17	to -6%	○	○	○	●	○	○	○	●●○○○	PAHIRINI
SILVEREYE	-29%	-32	to -26%	○	●	○	○	○	○	○	●●●●●	TAUHOHU
SONG THRUSH	-33%	-38	to -28%	○	●	○	○	○	○	○	●●●●●	
STARLING	-40%	-45	to -35%	○	●	○	○	○	○	○	●●●●●	TĀRINGI
GOLDFINCH	-44%	-50	to -38%	○	●	○	○	○	○	○	●●●●●	

NUMBER OF GARDEN SURVEYS



How have bird counts changed?

MARLBOROUGH REGION | 2007-2017

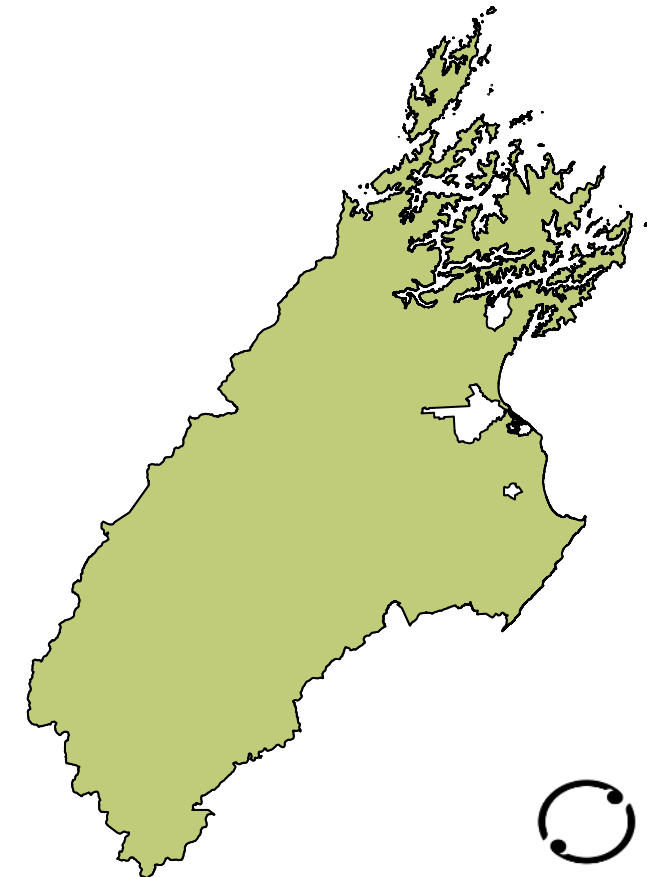
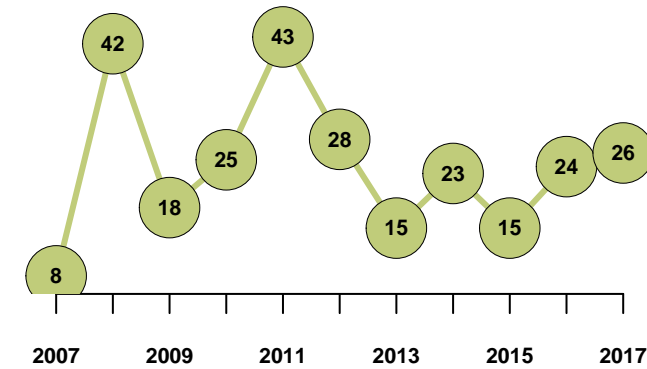
Rural (Incl.some Off Shore Islands)



New Zealand
**GARDEN
BIRD
SURVEY**

	Median	80% Confidence Interval		Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
TUI	31%	18	to 42%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
GREENFINCH	19%	0	to 32%	○	○	○	○	●	○	○	●●●●○	
FANTAIL	8%	6	to 10%	○	○	○	●	○	○	○	●●●●○	PĪWAIWAKA
BELLBIRD	6%	3	to 10%	○	○	○	●	○	○	○	●●●●○	KORIMAKO
NEW ZEALAND PIGEON	4%	-5	to 14%	○	○	○	●	○	○	○	●●●●○	KERERŪ
DUNNOCK	0%	-11	to 9%	○	○	○	●	○	○	○	●●●●○	
HOUSE SPARROW	-8%	-12	to 0%	○	○	○	●	○	○	○	●●●●○	TIU
CHAFFINCH	-8%	-12	to -3%	○	○	○	●	○	○	○	●●●●○	PAHIRINI
SONG THRUSH	-14%	-19	to -10%	○	○	●	○	○	○	○	●●●●●	
BLACKBIRD	-19%	-22	to -16%	○	○	●	○	○	○	○	●●●●●	MANU PANGO
GOLDFINCH	-33%	-40	to -28%	○	●	○	○	○	○	○	●●●●●	
STARLING	-34%	-40	to -29%	○	●	○	○	○	○	○	●●●●●	TĀRINGI
SILVEREYE	-40%	-43	to -36%	○	●	○	○	○	○	○	●●●●●	TAUHOHU

NUMBER OF GARDEN SURVEYS



How have bird counts changed?

MARLBOROUGH REGION | 2007-2017

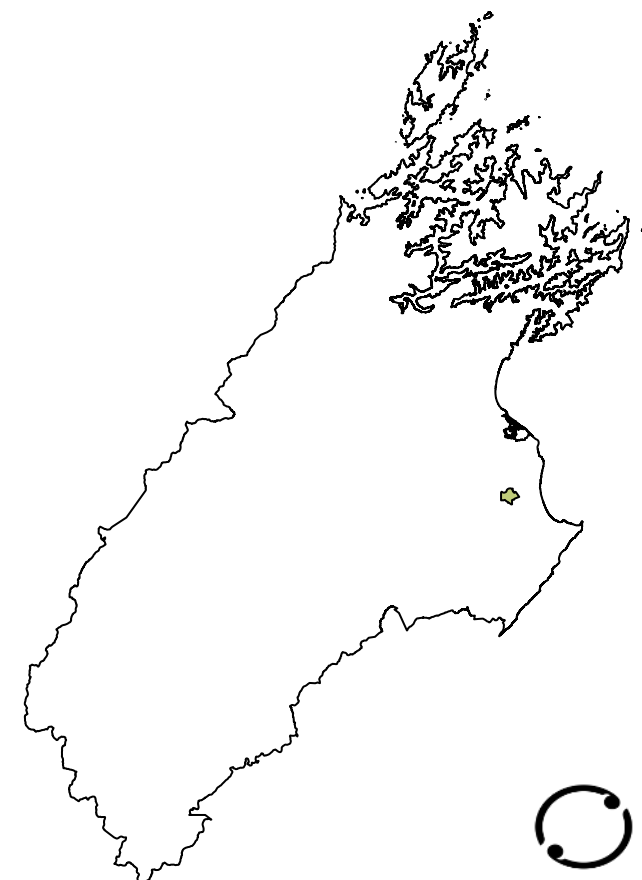
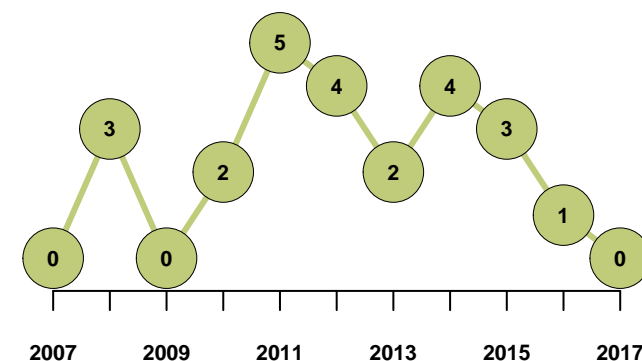
Rural Centre



New Zealand
**GARDEN
BIRD
SURVEY**

	Median	80% Confidence Interval		Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
TUI	69%	53	to 81%	○	○	○	○	○	●	○	●●●●●	KŌKŌ
GREENFINCH	69%	51	to 82%	○	○	○	○	○	●	○	●●●●●	
NEW ZEALAND PIGEON	14%	-7	to 30%	○	○	○	○	●	○	○	●●○○○	KERERŪ
FANTAIL	12%	9	to 14%	○	○	○	○	●	○	○	●●●●○	PĪWAIWAKA
BELLBIRD	9%	4	to 13%	○	○	○	○	●	○	○	●●○○○	KORIMAKO
DUNNOCK	-2%	-12	to 6%	○	○	○	○	●	○	○	●●●○○	
HOUSE SPARROW	-13%	-17	to -6%	○	○	○	○	○	○	○	●●●○○	TIU
CHAFFINCH	-13%	-16	to -9%	○	○	○	○	○	○	○	●●●●○	PAHIRINI
BLACKBIRD	-13%	-16	to -10%	○	○	○	○	○	○	○	●●●●●	MANU PANGO
SONG THRUSH	-24%	-27	to -20%	○	○	○	○	○	○	○	●●●●●	
SILVEREYE	-33%	-36	to -30%	○	○	○	○	○	○	○	●●●●●	TAUHOHU
GOLDFINCH	-39%	-44	to -34%	○	○	○	○	○	○	○	●●●●●	
STARLING	-42%	-47	to -38%	○	○	○	○	○	○	○	●●●●●	TĀRINGI

NUMBER OF GARDEN SURVEYS





New Zealand
**GARDEN
BIRD
SURVEY**

2018
30 June to 8 July

Visit our webpage to learn more:
gardenbirdssurvey.landcareresearch.co.nz

This report should be cited as: MacLeod CJ, Spurr EB, Brandt AJ, Green P. 2018.
State of NZ Garden Birds 2017 | Te Āhua o ngā Manu o te Kāri i Aotearoa
Manaaki Whenua - Landcare Research, Lincoln. ISBN 978-0-947525-43-9.



**Manaaki
Whenua**
Landcare
Research