



New Zealand
**GARDEN
BIRD
SURVEY**



Technical report

HAWKE'S BAY REGION

2017 |

State of NZ Garden Birds

Te Āhua o ngā Manu o te Kāri i Aotearoa



Manaaki
Whenua
Landcare
Research

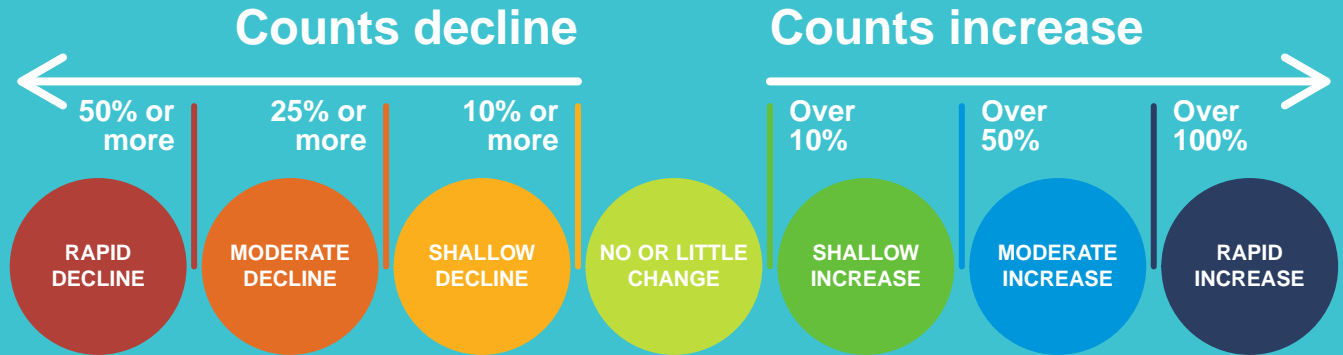


We have estimated how bird counts have changed since 2007 in different regions and towns across New Zealand for 14 common garden visitors – five native and nine introduced birds.

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.

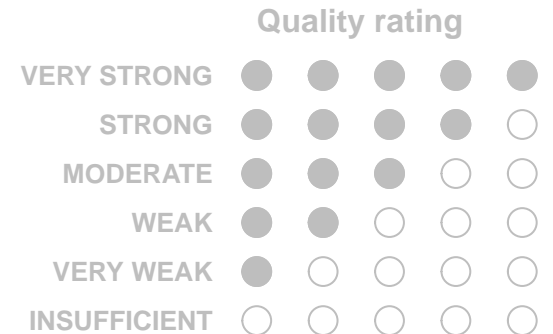
Drawing attention to changes in counts of potential concern or interest



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?

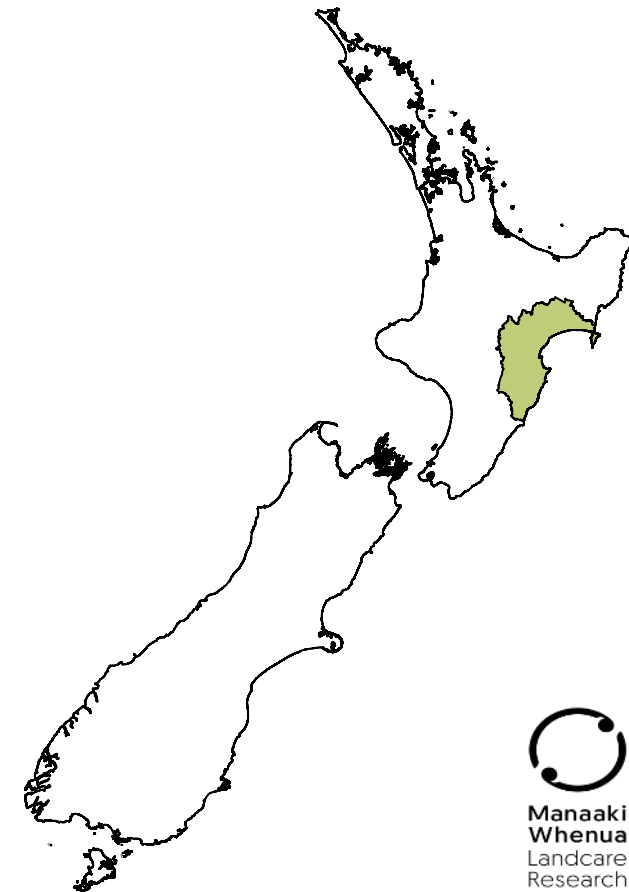
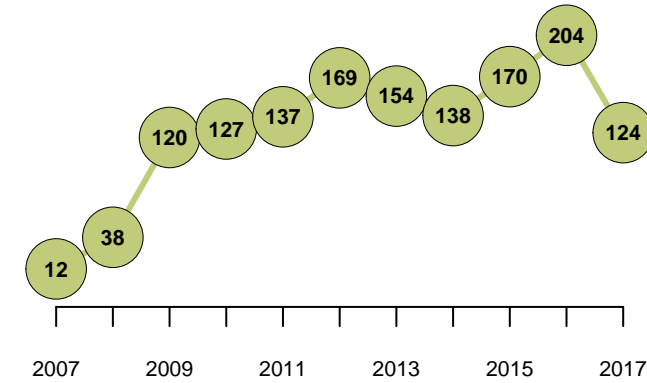
HAWKE'S BAY REGION | 2007-2017



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	
GREENFINCH	163%	143 to 177%	○	○	○	○	○	○	●	●●●●●	
NEW ZEALAND PIGEON	52%	40 to 62%	○	○	○	○	○	●	○	●●○○○	KERERŪ
TUI	40%	35 to 44%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
BELLBIRD	29%	22 to 34%	○	○	○	○	●	○	○	●●●●●	KORIMAKO
FANTAIL	13%	8 to 17%	○	○	○	○	●	○	○	●●●●○	PĪWAIWAKA
CHAFFINCH	11%	7 to 15%	○	○	○	○	●	○	○	●●○○○	PAHIRINI
GOLDFINCH	-1%	-8 to 3%	○	○	○	●	○	○	○	●●●●●	
MYNA	-6%	-10 to -3%	○	○	○	●	○	○	○	●●●●○	MAINA
BLACKBIRD	-7%	-9 to -4%	○	○	○	●	○	○	○	●●●●●	MANU PANGO
HOUSE SPARROW	-15%	-20 to -7%	○	○	●	○	○	○	○	●●●●○	TIU
SONG THRUSH	-16%	-21 to -12%	○	○	●	○	○	○	○	●●●●●	
DUNNOCK	-16%	-24 to -9%	○	○	●	○	○	○	○	●●●●○	
SILVEREYE	-23%	-27 to -21%	○	○	●	○	○	○	○	●●●●●	TAUHOHU
STARLING	-30%	-35 to -26%	○	●	○	○	○	○	○	●●●●●	TĀRINGI

NUMBER OF GARDEN SURVEYS



How have bird counts changed?

HAWKE'S BAY REGION | 2007-2017

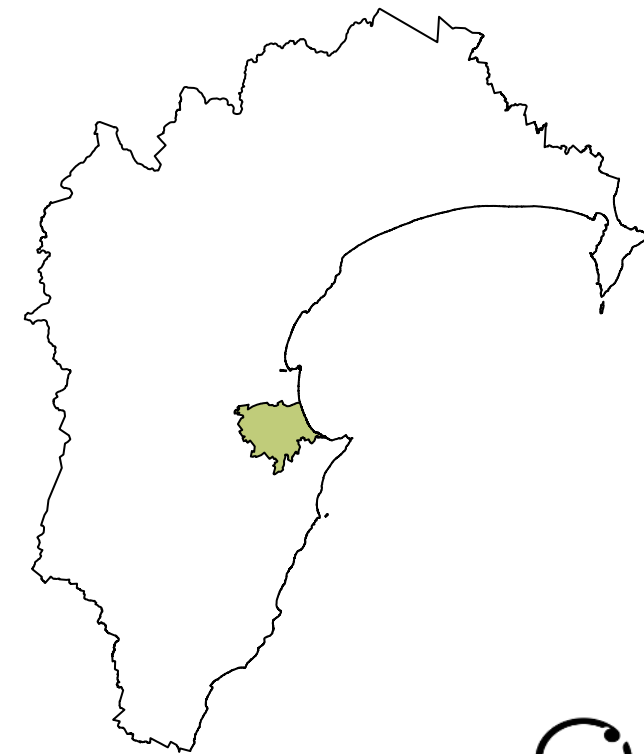
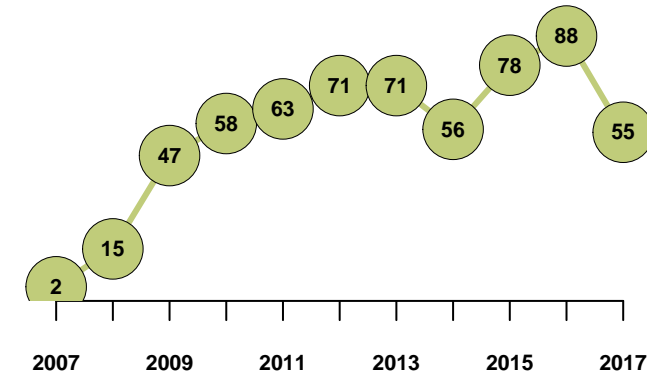
Hastings Zone



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
GREENFINCH	165%	145 to 179%	○	○	○	○	○	○	●	●●●●●
NEW ZEALAND PIGEON	43%	31 to 54%	○	○	○	○	●	○	○	●●●●●
TUI	40%	35 to 45%	○	○	○	○	●	○	○	●●●●●
BELLBIRD	32%	25 to 38%	○	○	○	○	●	○	○	●●●●●
CHAFFINCH	20%	15 to 24%	○	○	○	○	●	○	○	●●●●●
FANTAIL	15%	10 to 20%	○	○	○	○	●	○	○	●●●●●
GOLDFINCH	0%	-8 to 5%	○	○	○	●	○	○	○	●●●●●
BLACKBIRD	-8%	-11 to -5%	○	○	○	●	○	○	○	●●●○○
SONG THRUSH	-16%	-21 to -11%	○	○	●	○	○	○	○	●●●●●
MYNA	-16%	-19 to -13%	○	○	●	○	○	○	○	●●●●●
DUNNOCK	-16%	-24 to -7%	○	○	●	○	○	○	○	●●●●○
HOUSE SPARROW	-20%	-25 to -12%	○	○	●	○	○	○	○	●●●●●
SILVEREYE	-24%	-28 to -21%	○	○	●	○	○	○	○	●●●●●
STARLING	-30%	-35 to -26%	○	●	○	○	○	○	○	●●●●●

NUMBER OF GARDEN SURVEYS



How have bird counts changed?

HAWKE'S BAY REGION | 2007-2017

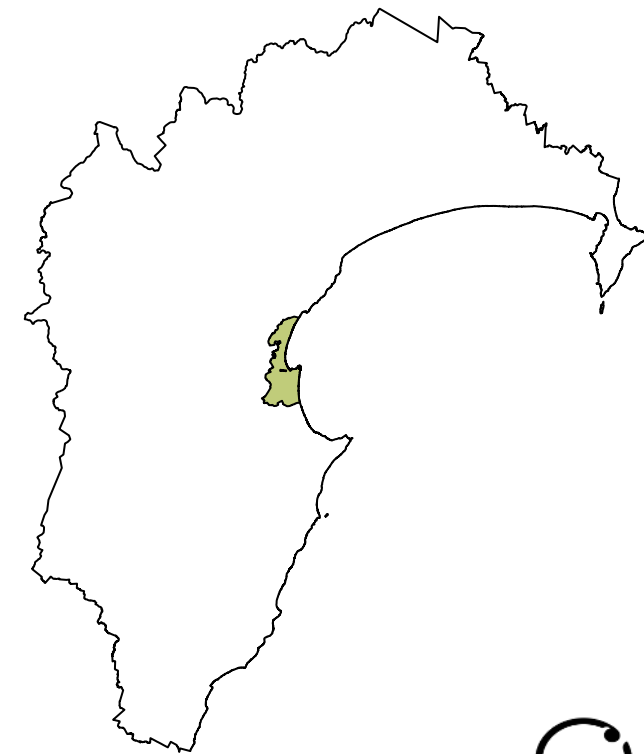
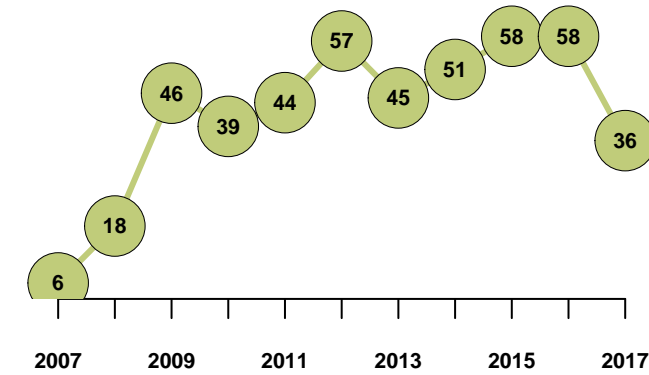


New Zealand
GARDEN BIRD SURVEY

Napier Zone

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating
GREENFINCH	172%	152 to 186%	○	○	○	○	○	○	●	●●●●●
NEW ZEALAND PIGEON	90%	74 to 105%	○	○	○	○	○	●	○	●●●●●
TUI	53%	47 to 58%	○	○	○	○	○	●	○	●●●○○
BELLBIRD	30%	23 to 35%	○	○	○	○	●	○	○	●●●●●
FANTAIL	14%	8 to 19%	○	○	○	○	●	○	○	●●●●○
MYNA	5%	1 to 9%	○	○	○	●	○	○	○	●●●●●
CHAFFINCH	4%	0 to 9%	○	○	○	●	○	○	○	●●●●●
GOLDFINCH	-1%	-10 to 3%	○	○	○	●	○	○	○	●●●●○
BLACKBIRD	-4%	-8 to -2%	○	○	○	●	○	○	○	●●●●●
HOUSE SPARROW	-11%	-16 to -3%	○	○	●	○	○	○	○	●●○○○
SONG THRUSH	-14%	-20 to -10%	○	○	●	○	○	○	○	●●●●●
DUNNOCK	-19%	-29 to -10%	○	○	●	○	○	○	○	●●●●●
SILVEREYE	-25%	-29 to -23%	○	●	○	○	○	○	○	●●○○○
STARLING	-31%	-37 to -27%	○	●	○	○	○	○	○	●●●●●

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



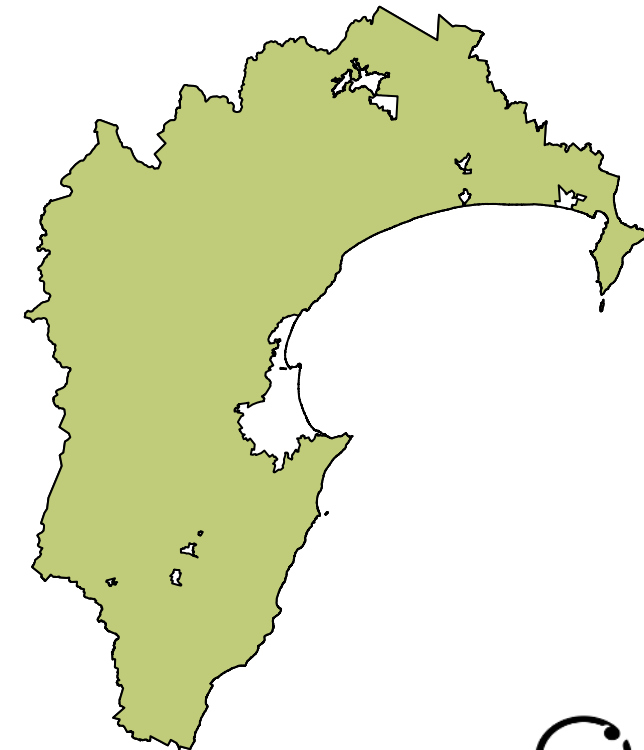
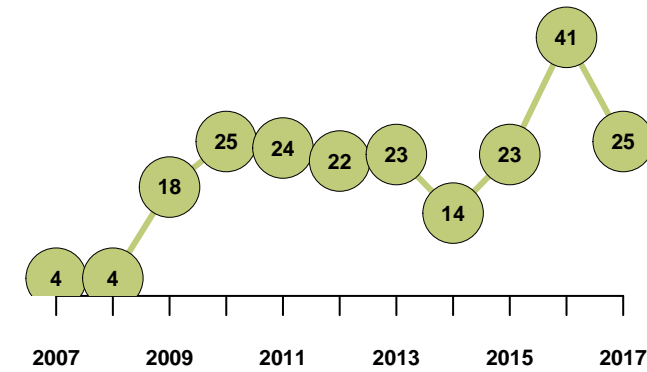
New Zealand
GARDEN BIRD SURVEY

HAWKE'S BAY REGION | 2007-2017

Rural (Incl. some Off Shore Islands)

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
GREENFINCH	105%	84 to 119%	○	○	○	○	○	○	●	●●○○○	
NEW ZEALAND PIGEON	26%	10 to 40%	○	○	○	○	●	○	○	●●●●●	KERERŪ
BELLBIRD	21%	16 to 26%	○	○	○	○	●	○	○	●●●●●	KORIMAKO
TUI	19%	15 to 23%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
FANTAIL	6%	4 to 8%	○	○	○	●	○	○	○	●●●●●	PĪWAIWAKA
CHAFFINCH	5%	0 to 9%	○	○	○	●	○	○	○	●●●●●	PAHIRINI
GOLDFINCH	-3%	-10 to 1%	○	○	○	●	○	○	○	●●●●○	
HOUSE SPARROW	-7%	-11 to 0%	○	○	○	●	○	○	○	●●●○○	TIU
BLACKBIRD	-8%	-12 to -6%	○	○	○	●	○	○	○	●●○○○	MANU PANGO
MYNA	-9%	-16 to -3%	○	○	○	●	○	○	○	●○○○○	MAINA
DUNNOCK	-12%	-20 to -4%	○	○	●	○	○	○	○	●●○○○	
SONG THRUSH	-19%	-23 to -15%	○	○	●	○	○	○	○	●●●●●	
SILVEREYE	-20%	-24 to -17%	○	○	●	○	○	○	○	●●●●●	TAUHOU
STARLING	-32%	-38 to -27%	○	●	○	○	○	○	○	●●●●●	TĀRINGI

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



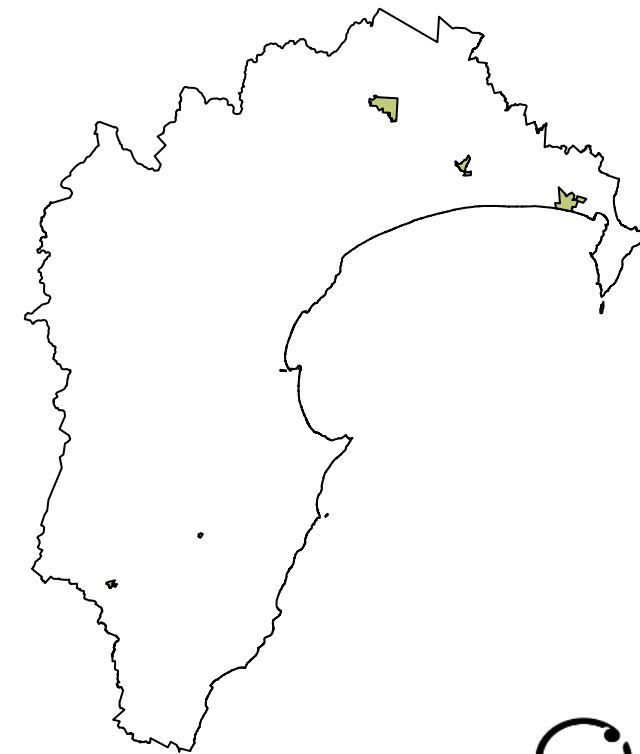
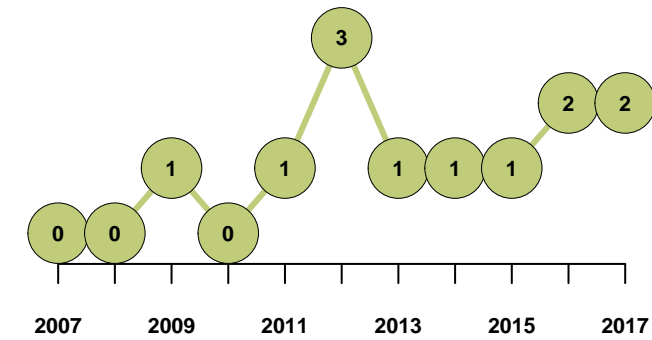
New Zealand
GARDEN BIRD SURVEY

HAWKE'S BAY REGION | 2007-2017

Rural Centre

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
GREENFINCH	113%	93 to 127%	○	○	○	○	○	○	●	●●●●○	
NEW ZEALAND PIGEON	27%	-3 to 47%	○	○	○	○	●	○	○	●●●○○	KERERŪ
BELLBIRD	26%	19 to 32%	○	○	○	○	●	○	○	●●●●●	KORIMAKO
TUI	19%	13 to 23%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
FANTAIL	7%	5 to 9%	○	○	○	●	○	○	○	●●●●●	PĪWAIWAKA
MYNA	5%	0 to 9%	○	○	○	●	○	○	○	●●●●●	MAINA
CHAFFINCH	2%	-1 to 5%	○	○	○	●	○	○	○	●●●●●	PAHIRINI
HOUSE SPARROW	-6%	-10 to 1%	○	○	○	●	○	○	○	●●●●○	TIU
BLACKBIRD	-7%	-10 to -5%	○	○	○	●	○	○	○	●●●●○	MANU PANGO
GOLDFINCH	-11%	-17 to -6%	○	○	●	○	○	○	○	●●○○○	
SONG THRUSH	-15%	-19 to -11%	○	○	●	○	○	○	○	●●●●●	
DUNNOCK	-21%	-29 to -13%	○	○	●	○	○	○	○	●●●●●	
STARLING	-26%	-32 to -22%	○	●	○	○	○	○	○	●●●○○	TĀRINGI
SILVEREYE	-27%	-30 to -24%	○	●	○	○	○	○	○	●●●●○	TAUHOU

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



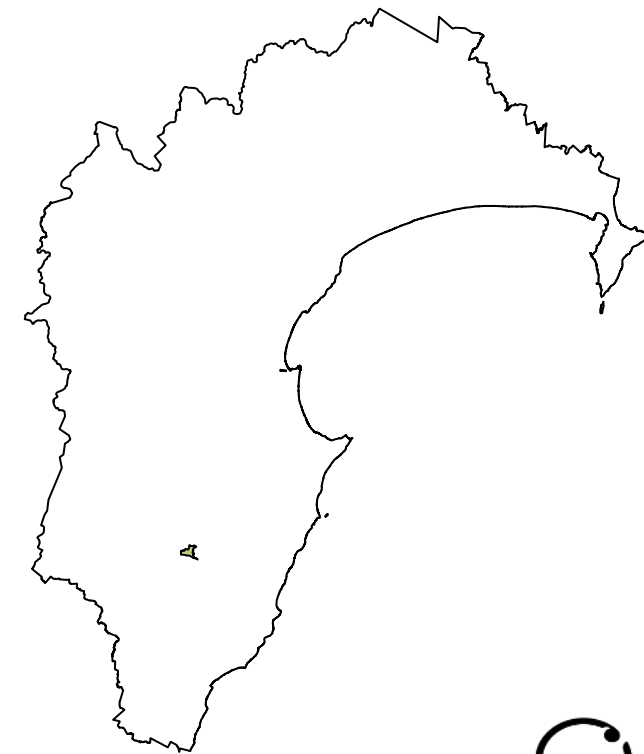
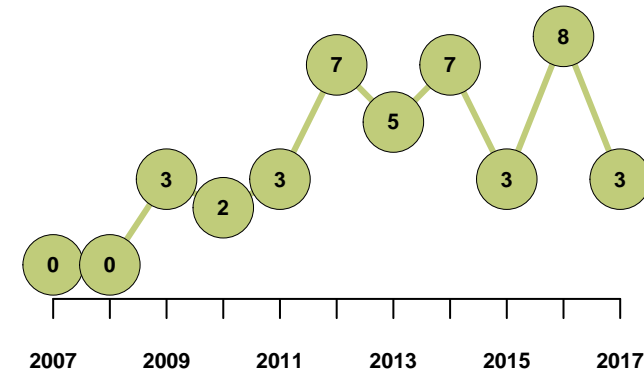
New Zealand
GARDEN BIRD SURVEY

HAWKE'S BAY REGION | 2007-2017

Waipawa

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
GREENFINCH	155%	133 to 169%	○	○	○	○	○	○	●	●●●●●	
NEW ZEALAND PIGEON	89%	49 to 115%	○	○	○	○	○	●	○	●●●●○	KERERŪ
TUI	34%	25 to 41%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
BELLBIRD	33%	26 to 39%	○	○	○	○	●	○	○	●●●●●	KORIMAKO
CHAFFINCH	13%	7 to 18%	○	○	○	○	●	○	○	●●●●○	PAHIRINI
HOUSE SPARROW	11%	6 to 19%	○	○	○	○	●	○	○	●●○○○	TIU
FANTAIL	11%	5 to 15%	○	○	○	○	●	○	○	●●○○○	PĪWAIWAKA
MYNA	1%	-5 to 6%	○	○	○	●	○	○	○	●●●●●	MAINA
GOLDFINCH	1%	-6 to 7%	○	○	○	●	○	○	○	●●●●●	
DUNNOCK	-6%	-18 to 2%	○	○	○	●	○	○	○	●●○○○	
SILVEREYE	-7%	-11 to -4%	○	○	○	●	○	○	○	●●●●○	TAUHOU
BLACKBIRD	-7%	-11 to -4%	○	○	○	●	○	○	○	●●●○○	MANU PANGO
SONG THRUSH	-18%	-25 to -12%	○	○	●	○	○	○	○	●●●●●	
STARLING	-32%	-39 to -28%	○	●	○	○	○	○	○	●●●●●	TĀRINGI

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



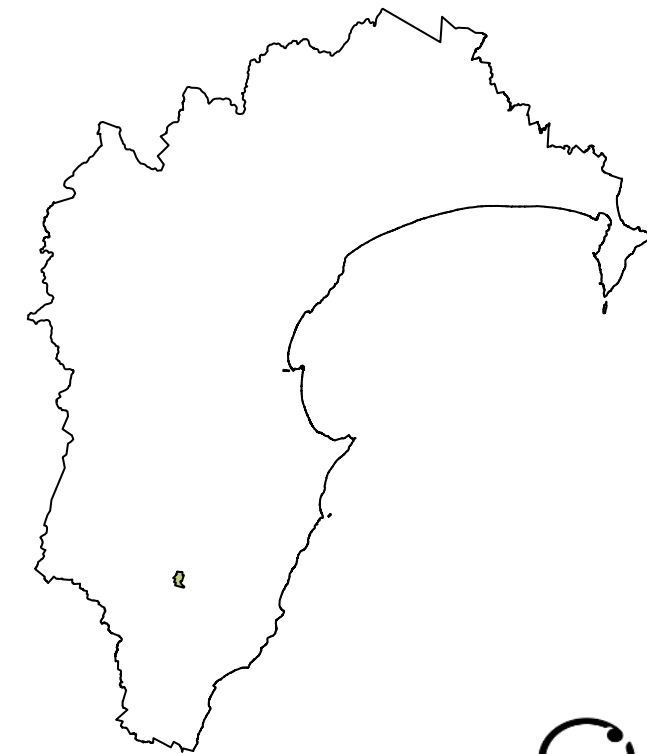
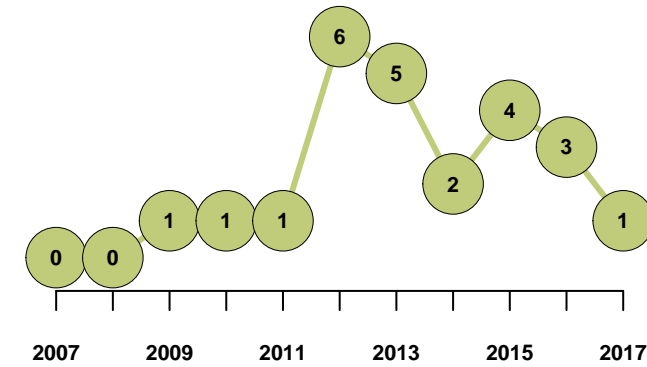
New Zealand
GARDEN BIRD SURVEY

HAWKE'S BAY REGION | 2007-2017

Waipukurau

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating
GREENFINCH	176%	157 to 190%	○	○	○	○	○	○	●	●●●●●
NEW ZEALAND PIGEON	90%	51 to 115%	○	○	○	○	○	●	○	●●●●●
BELLBIRD	45%	28 to 59%	○	○	○	○	●	○	○	●●●●●
TUI	28%	19 to 35%	○	○	○	○	●	○	○	●●●●●
FANTAIL	15%	9 to 20%	○	○	○	○	●	○	○	●●●●○
GOLDFINCH	2%	-4 to 7%	○	○	○	●	○	○	○	●●●●●
CHAFFINCH	2%	-2 to 7%	○	○	○	●	○	○	○	●●●●●
MYNA	-5%	-11 to -1%	○	○	○	●	○	○	○	●●●●○
BLACKBIRD	-9%	-12 to -6%	○	○	○	●	○	○	○	●●○○○
SILVEREYE	-18%	-22 to -16%	○	○	●	○	○	○	○	●●●●●
HOUSE SPARROW	-18%	-23 to -10%	○	○	●	○	○	○	○	●●●●●
DUNNOCK	-19%	-29 to -11%	○	○	●	○	○	○	○	●●●●●
STARLING	-20%	-26 to -16%	○	○	●	○	○	○	○	●●●●●
SONG THRUSH	-32%	-37 to -26%	○	●	○	○	○	○	○	●●●●●

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



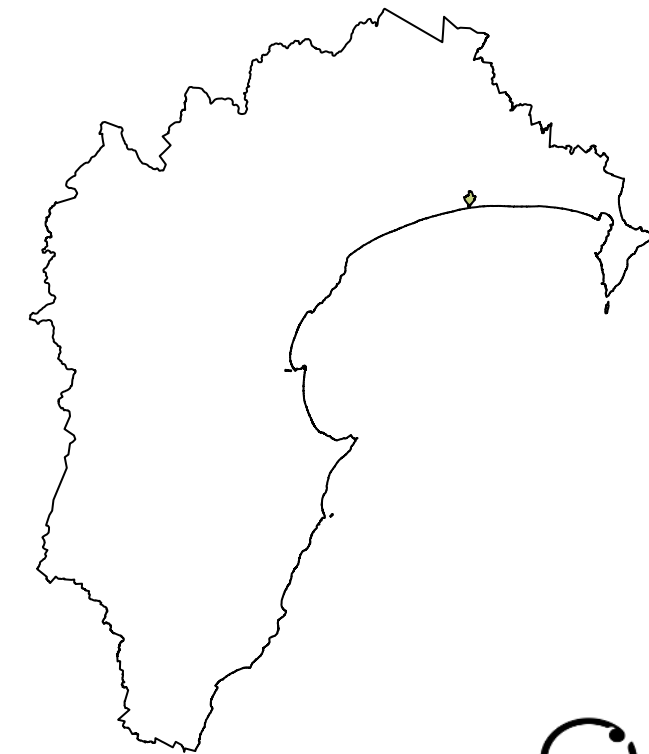
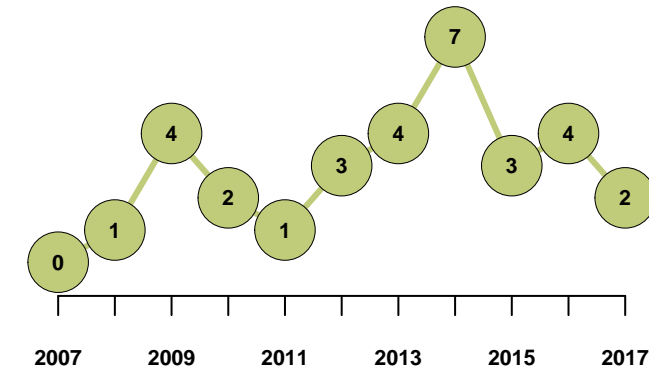
New Zealand
GARDEN BIRD SURVEY

HAWKE'S BAY REGION | 2007-2017

Wairoa

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating
GREENFINCH	253%	231 to 269%	○	○	○	○	○	○	●	●●●●●
NEW ZEALAND PIGEON	97%	63 to 118%	○	○	○	○	○	●	○	●●●●●
BELLBIRD	26%	20 to 31%	○	○	○	○	●	○	○	●●●●●
TUI	25%	17 to 31%	○	○	○	○	●	○	○	●●●●●
CHAFFINCH	10%	5 to 15%	○	○	○	○	○	○	○	○●○●○
FANTAIL	9%	4 to 14%	○	○	○	○	○	○	○	●○●○●
MYNA	3%	-3 to 7%	○	○	○	○	○	○	○	●●●●●
HOUSE SPARROW	0%	-5 to 7%	○	○	○	○	○	○	○	●●●●●
GOLDFINCH	0%	-6 to 5%	○	○	○	○	○	○	○	●●●●●
BLACKBIRD	-6%	-9 to -3%	○	○	○	○	○	○	○	●●●●●
SILVEREYE	-10%	-14 to -7%	○	○	○	○	○	○	○	●○●○●
SONG THRUSH	-14%	-20 to -8%	○	○	○	○	○	○	○	●●●●○
STARLING	-21%	-27 to -16%	○	○	○	○	○	○	○	●●●●●
DUNNOCK	-22%	-31 to -13%	○	○	○	○	○	○	○	●●●●●

NUMBER OF GARDEN SURVEYS





New Zealand
**GARDEN
BIRD
SURVEY**

2018
30 June to 8 July

Visit our webpage to learn more:
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This report should be cited as: MacLeod CJ, Spurr EB, Brandt AJ, Green P. 2018.
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