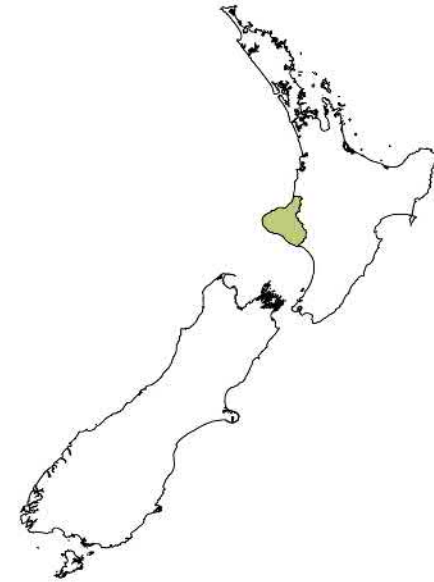




New Zealand
**GARDEN
BIRD
SURVEY**



Technical report

TARANAKI REGION

2017 |

State of NZ Garden Birds

Te Āhua o ngā Manu o te Kāri i Aotearoa



**Manaaki
Whenua**
Landcare
Research

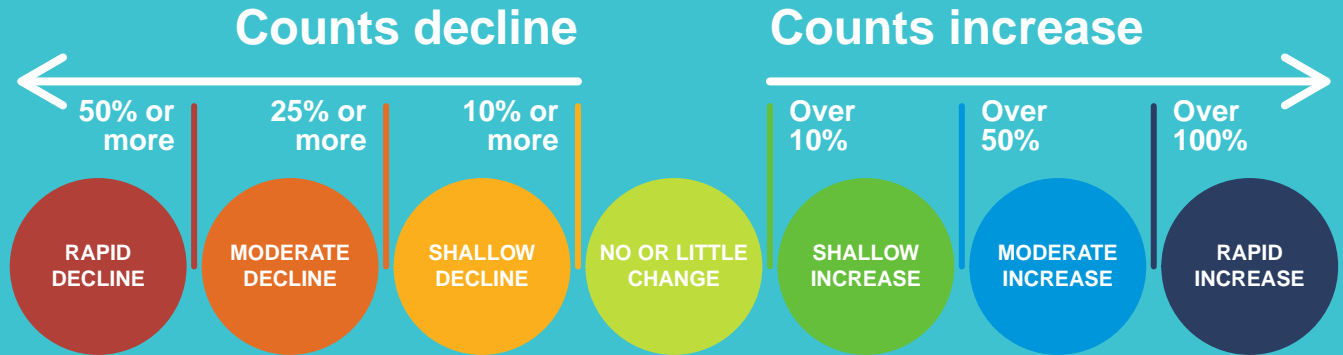


We have estimated how bird counts have changed since 2007 in different regions and towns across New Zealand for 14 common garden visitors – five native and nine introduced birds.

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.

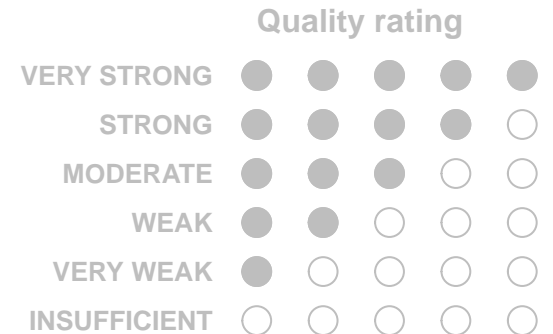
Drawing attention to changes in counts of potential concern or interest



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?

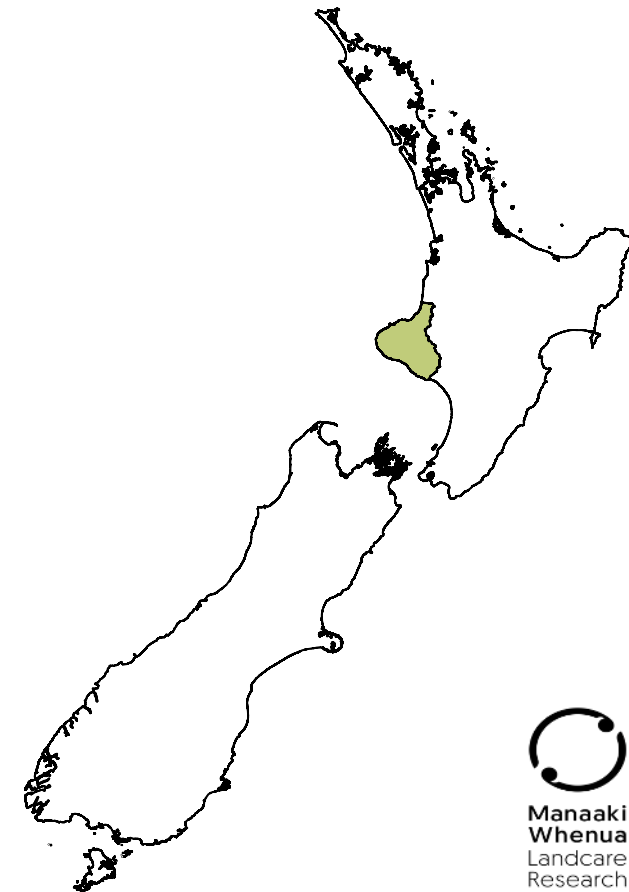
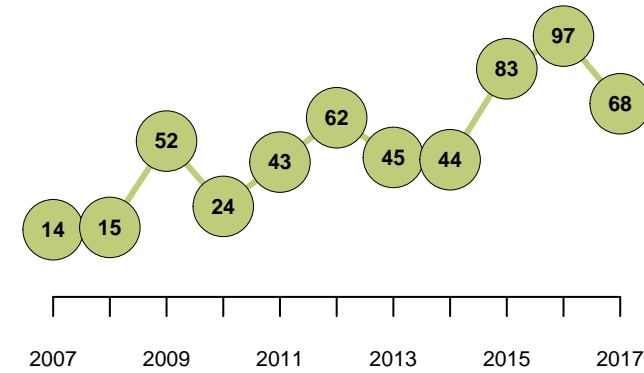
TARANAKI REGION | 2007-2017



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	40%	32 to 46%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
GREENFINCH	36%	16 to 49%	○	○	○	○	●	○	○	●●●●●	
FANTAIL	8%	4 to 11%	○	○	○	●	○	○	○	●●●○○	PĪWAIWAKA
NEW ZEALAND PIGEON	2%	-8 to 13%	○	○	○	●	○	○	○	●●●○○	KERERŪ
HOUSE SPARROW	0%	-3 to 7%	○	○	○	●	○	○	○	●●●●●	TIU
MYNA	-3%	-18 to 9%	○	○	○	●	○	○	○	●●○○○	MAINA
BLACKBIRD	-9%	-11 to -6%	○	○	○	●	○	○	○	●●○○○	MANU PANGO
BELLBIRD	-12%	-29 to 3%	○	○	●	○	○	○	○	●●○○○	KORIMAKO
CHAFFINCH	-14%	-18 to -10%	○	○	●	○	○	○	○	●●●●●	PAHIRINI
SONG THRUSH	-30%	-34 to -27%	○	●	○	○	○	○	○	●●●●●	
STARLING	-32%	-38 to -28%	○	●	○	○	○	○	○	●●●●●	TĀRINGI
DUNNOCK	-32%	-41 to -24%	○	●	○	○	○	○	○	●●●●○	
GOLDFINCH	-43%	-49 to -38%	○	●	○	○	○	○	○	●●●●●	
SILVEREYE	-48%	-51 to -45%	○	●	○	○	○	○	○	●●●●●	TAUHOU

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



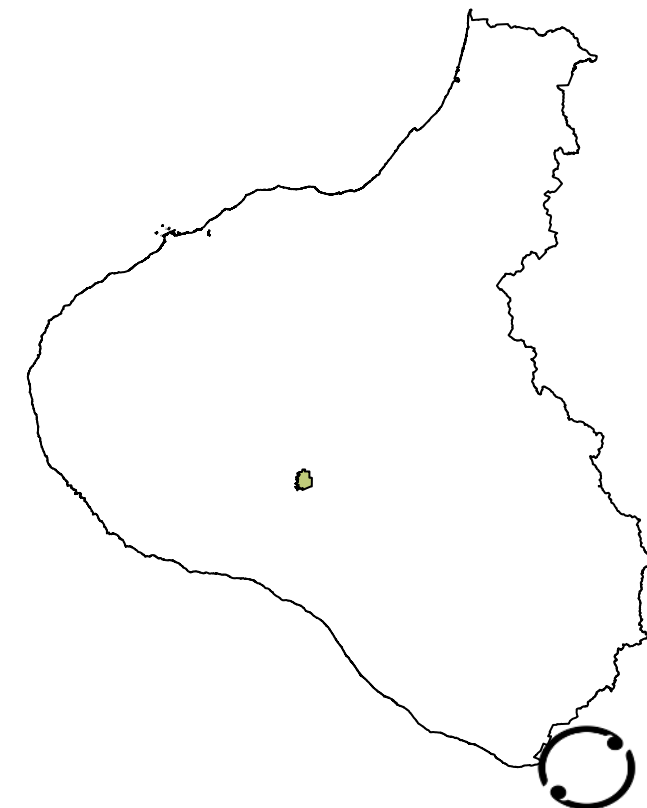
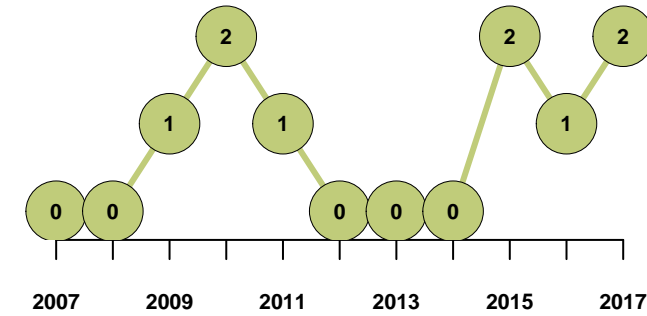
New Zealand
GARDEN BIRD SURVEY

TARANAKI REGION | 2007-2017

Eltham

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
GREENFINCH	78%	56 to 92%	○	○	○	○	○	●	○	●●●●●	
TUI	43%	31 to 53%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
NEW ZEALAND PIGEON	19%	-14 to 43%	○	○	○	○	●	○	○	●●○○○	KERERŪ
FANTAIL	7%	3 to 11%	○	○	○	●	○	○	○	●●●○○	PĪWAIWAKA
CHAFFINCH	0%	-7 to 4%	○	○	○	●	○	○	○	●●●●●	PAHIRINI
HOUSE SPARROW	-2%	-6 to 4%	○	○	○	●	○	○	○	●●●●●	TIU
BELLBIRD	-12%	-31 to 4%	○	○	●	○	○	○	○	●○○○○	KORIMAKO
MYNA	-13%	-48 to 13%	○	○	●	○	○	○	○	●○○○○	MAINA
BLACKBIRD	-14%	-17 to -12%	○	○	●	○	○	○	○	●●●●●	MANU PANGO
SONG THRUSH	-15%	-20 to -11%	○	○	●	○	○	○	○	●●●●●	
GOLDFINCH	-32%	-38 to -27%	○	●	○	○	○	○	○	●●●●●	
STARLING	-33%	-39 to -29%	○	●	○	○	○	○	○	●●●●●	TĀRINGI
DUNNOCK	-35%	-44 to -26%	○	●	○	○	○	○	○	●●●●●	
SILVEREYE	-55%	-58 to -52%	●	○	○	○	○	○	○	●●●●●	TAUHOU

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



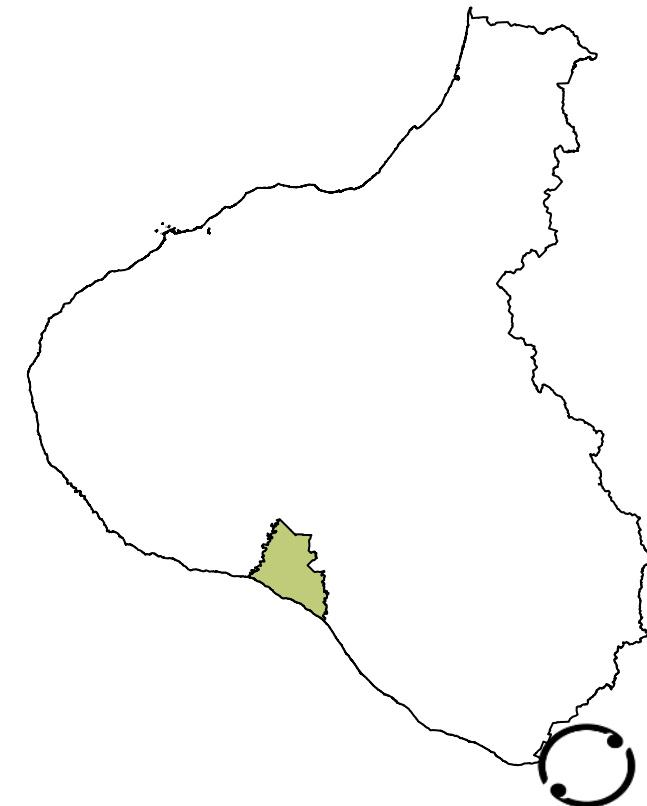
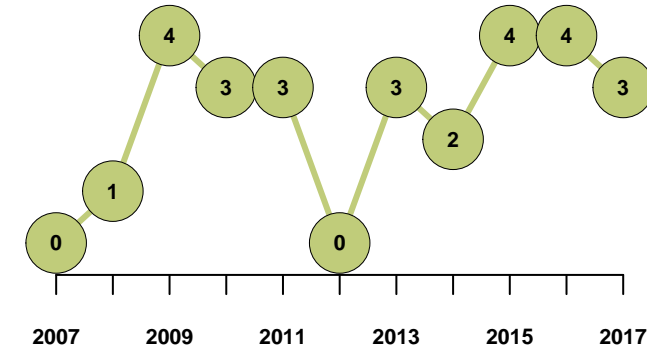
New Zealand
GARDEN BIRD SURVEY

TARANAKI REGION | 2007-2017

Hawera

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
TUI	84%	69 to 96%	○	○	○	○	○	●	○	●●●●●	KŌKŌ
GREENFINCH	68%	49 to 80%	○	○	○	○	○	●	○	●●●●○	
NEW ZEALAND PIGEON	31%	-4 to 54%	○	○	○	○	●	○	○	●●●○○	KERERŪ
FANTAIL	11%	6 to 15%	○	○	○	○	●	○	○	●●○○○	PĪWAIWAKA
HOUSE SPARROW	-5%	-9 to 1%	○	○	○	○	○	○	○	●●●●●	TIU
CHAFFINCH	-6%	-11 to -2%	○	○	○	○	○	○	○	●●●●○	PAHIRINI
BLACKBIRD	-8%	-11 to -5%	○	○	○	○	○	○	○	●●●●○	MANU PANGO
MYNA	-10%	-55 to 19%	○	○	○	○	○	○	○	●○○○○	MAINA
BELLBIRD	-13%	-32 to 3%	○	○	○	○	○	○	○	●●○○○	KORIMAKO
SONG THRUSH	-24%	-29 to -20%	○	○	○	○	○	○	○	●●●●●	
STARLING	-25%	-31 to -21%	○	○	○	○	○	○	○	●○○○○	TĀRINGI
DUNNOCK	-29%	-39 to -20%	○	○	○	○	○	○	○	●●●○○	
GOLDFINCH	-41%	-47 to -36%	○	○	○	○	○	○	○	●●●●●	
SILVEREYE	-47%	-50 to -44%	○	○	○	○	○	○	○	●●●●●	TAUHOU

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



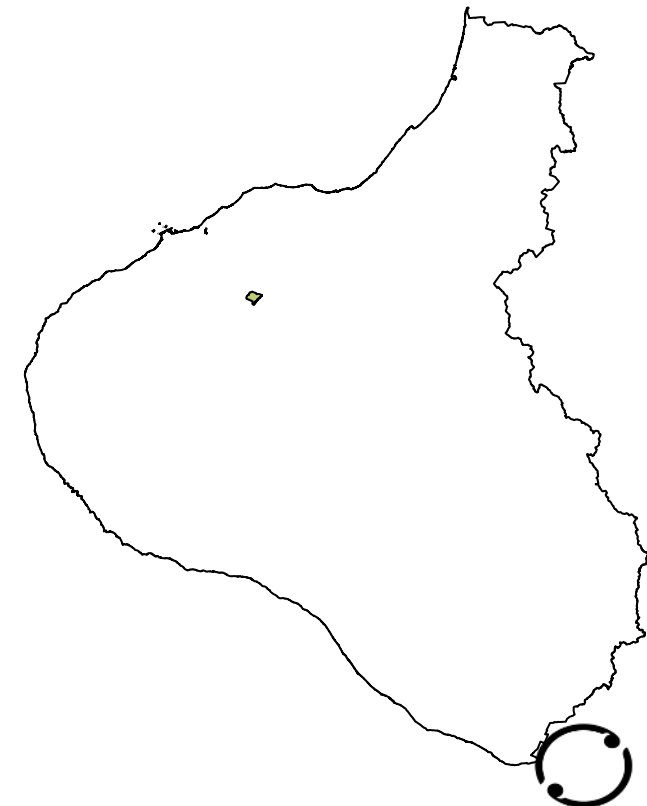
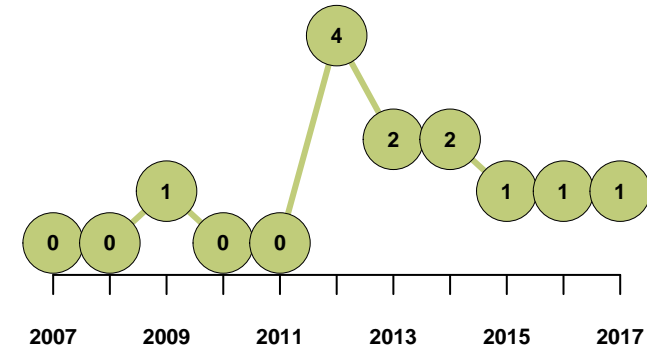
New Zealand
GARDEN BIRD SURVEY

TARANAKI REGION | 2007-2017

Inglewood

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating
GREENFINCH	60%	41 to 74%	○	○	○	○	○	●	○	●●●○○
TUI	51%	36 to 62%	○	○	○	○	○	●	○	●○○○○
NEW ZEALAND PIGEON	24%	-11 to 47%	○	○	○	○	○	○	○	●●●○○
HOUSE SPARROW	9%	5 to 16%	○	○	○	○	○	○	○	●○○○○
FANTAIL	8%	3 to 12%	○	○	○	○	○	○	○	●●●○○
MYNA	5%	-22 to 26%	○	○	○	○	○	○	○	○○○○○
BLACKBIRD	-6%	-9 to -4%	○	○	○	○	○	○	○	●●●●●
CHAFFINCH	-10%	-14 to -5%	○	○	○	○	○	○	○	●○○○○
BELLBIRD	-14%	-33 to 3%	○	○	○	○	○	○	○	●●○○○
STARLING	-29%	-35 to -25%	○	○	○	○	○	○	○	●●●●●
SONG THRUSH	-30%	-36 to -26%	○	○	○	○	○	○	○	●●●●●
DUNNOCK	-32%	-41 to -23%	○	○	○	○	○	○	○	●●●●○
SILVEREYE	-36%	-40 to -34%	○	○	○	○	○	○	○	●●●●●
GOLDFINCH	-47%	-53 to -42%	○	○	○	○	○	○	○	●●●●●

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



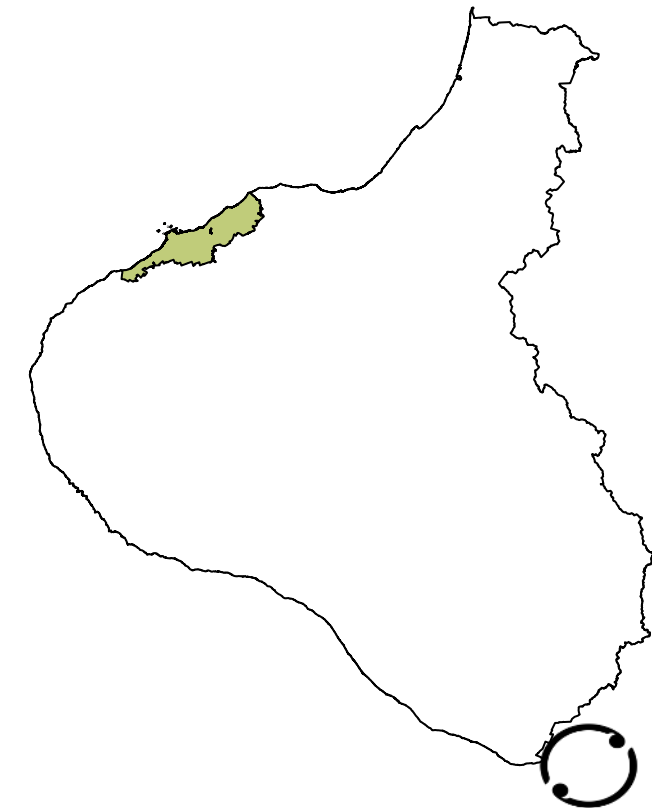
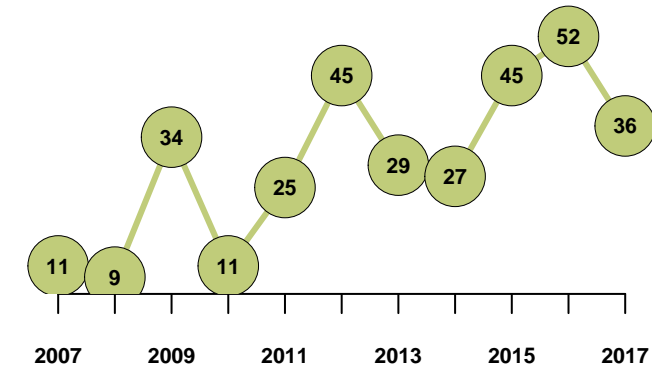
New Zealand
GARDEN BIRD SURVEY

TARANAKI REGION | 2007-2017

New Plymouth

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
TUI	43%	35 to 50%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
GREENFINCH	23%	2 to 36%	○	○	○	○	●	○	○	●●●●○	
FANTAIL	9%	4 to 14%	○	○	○	●	●	○	○	●○○○○	PĪWAIWAKA
HOUSE SPARROW	5%	0 to 12%	○	○	○	●	●	○	○	●●●●○	TIU
MYNA	-2%	-18 to 11%	○	○	○	●	●	○	○	●●○○○	MAINA
NEW ZEALAND PIGEON	-7%	-18 to 4%	○	○	○	●	○	○	○	●●○○○	KERERŪ
BLACKBIRD	-10%	-13 to -7%	○	○	●	●	○	○	○	●○○○○	MANU PANGO
BELLBIRD	-13%	-34 to 3%	○	○	●	●	○	○	○	●●○○○	KORIMAKO
CHAFFINCH	-27%	-32 to -21%	○	●	○	○	○	○	○	●●●○○	PAHIRINI
STARLING	-35%	-41 to -31%	○	●	○	○	○	○	○	●●●●●	TĀRINGI
DUNNOCK	-35%	-43 to -26%	○	●	○	○	○	○	○	●●●●●	
SONG THRUSH	-41%	-45 to -36%	○	●	○	○	○	○	○	●●●●●	
SILVEREYE	-48%	-52 to -46%	○	●	○	○	○	○	○	●●●●●	TAUHOU
GOLDFINCH	-48%	-54 to -42%	○	●	○	○	○	○	○	●●●●●	

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



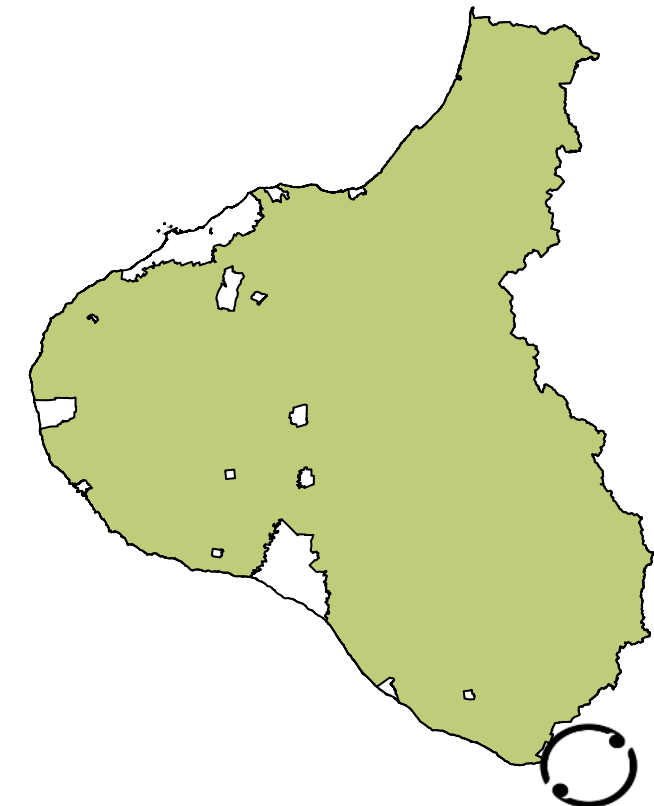
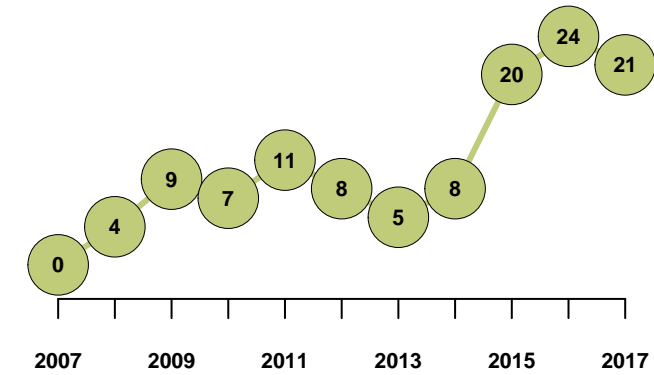
New Zealand
GARDEN BIRD SURVEY

TARANAKI 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	45%	24 to 57%	○	○	○	○	●	○	○	●●●●●	
TUI	27%	19 to 33%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
NEW ZEALAND PIGEON	26%	9 to 40%	○	○	○	○	●	○	○	●●●●○	KERERŪ
FANTAIL	4%	2 to 6%	○	○	○	●	○	○	○	●●●●●	PĪWAIWAKA
HOUSE SPARROW	-3%	-7 to 3%	○	○	○	●	○	○	○	●●●●●	TIU
BLACKBIRD	-6%	-9 to -4%	○	○	○	●	○	○	○	●●●●●	MANU PANGO
CHAFFINCH	-7%	-11 to -3%	○	○	○	●	○	○	○	●●●●○	PAHIRINI
MYNA	-12%	-47 to 11%	○	○	○	○	○	○	○	●○○○○	MAINA
BELLBIRD	-12%	-28 to 3%	○	○	○	○	○	○	○	●○○○○	KORIMAKO
SONG THRUSH	-23%	-27 to -19%	○	○	○	○	○	○	○	●●●●●	
DUNNOCK	-30%	-39 to -21%	○	○	○	○	○	○	○	●●●○○	
STARLING	-34%	-41 to -31%	○	○	○	○	○	○	○	●●●●●	TĀRINGI
GOLDFINCH	-37%	-43 to -32%	○	○	○	○	○	○	○	●●●●●	
SILVEREYE	-51%	-54 to -48%	○	○	○	○	○	○	○	●●●○○	TAUHOU

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



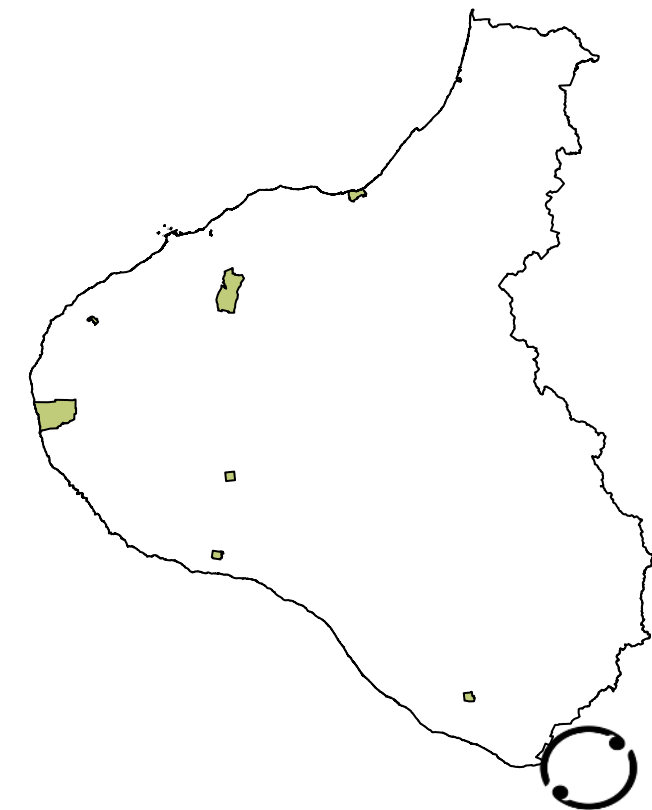
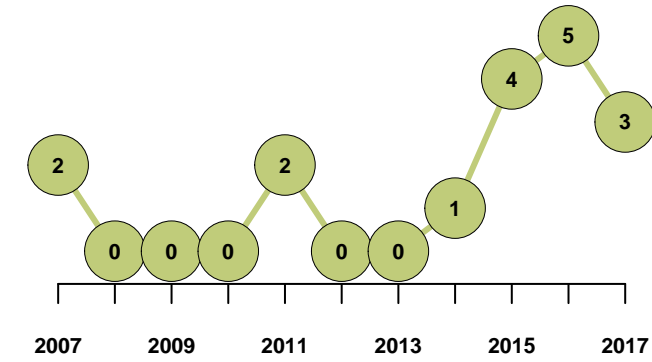
New Zealand
GARDEN BIRD SURVEY

TARANAKI 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	39%	18 to 51%	○	○	○	○	●	○	○	●●●●●	
TUI	17%	10 to 23%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
MYNA	16%	-17 to 40%	○	○	○	○	●	○	○	●●○○○	MAINA
NEW ZEALAND PIGEON	7%	-15 to 21%	○	○	○	○	○	○	○	○○○○○	KERERŪ
FANTAIL	4%	2 to 6%	○	○	○	○	○	○	○	●●●●●	PĪWAIWAKA
HOUSE SPARROW	2%	0 to 9%	○	○	○	○	○	○	○	●●●●●	TIU
CHAFFINCH	-6%	-10 to -2%	○	○	○	○	○	○	○	●●●●○	PAHIRINI
BLACKBIRD	-8%	-11 to -6%	○	○	○	○	○	○	○	●●●○○	MANU PANGO
BELLBIRD	-11%	-27 to 5%	○	○	○	○	○	○	○	●○○○○	KORIMAKO
SONG THRUSH	-12%	-16 to -9%	○	○	○	○	○	○	○	●●●●○	
STARLING	-30%	-36 to -27%	○	○	○	○	○	○	○	●●●●●	TĀRINGI
GOLDFINCH	-34%	-39 to -29%	○	○	○	○	○	○	○	●●●●●	
DUNNOCK	-34%	-42 to -25%	○	○	○	○	○	○	○	●●●●●	
SILVEREYE	-42%	-46 to -40%	○	○	○	○	○	○	○	●●●●●	TAUHOU

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



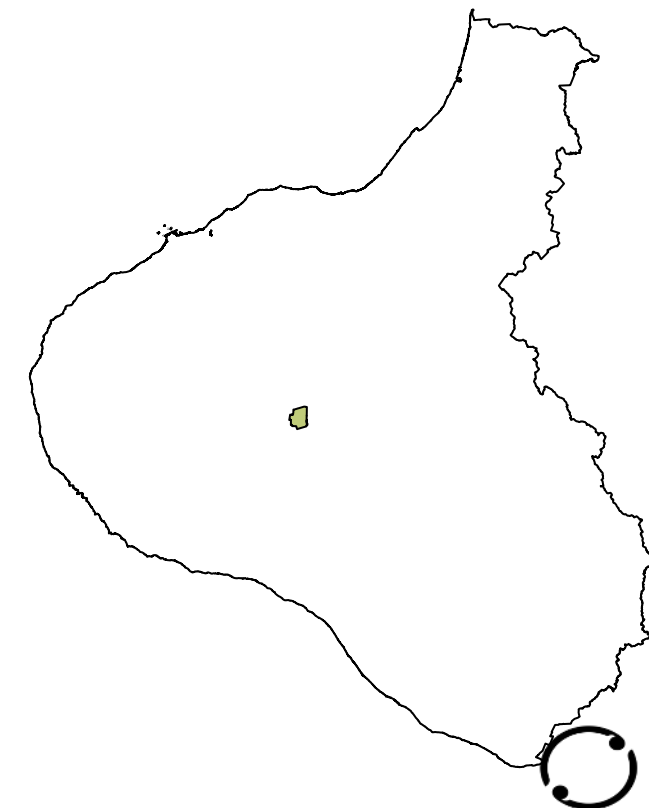
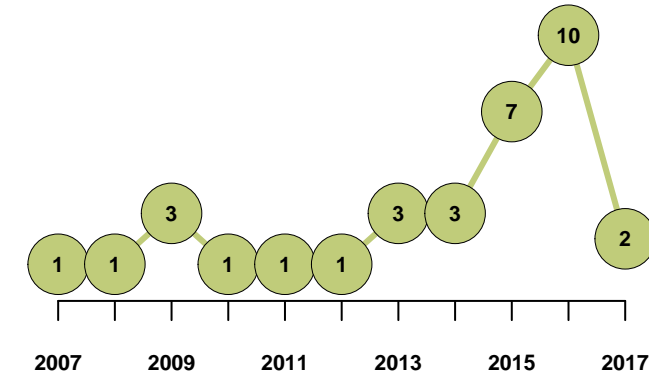
New Zealand
**GARDEN
BIRD
SURVEY**

TARANAKI REGION | 2007-2017

Stratford

	Median	80% Confidence Interval	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
TUI	44%	33 to 53%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
NEW ZEALAND PIGEON	34%	0 to 53%	○	○	○	○	●	○	○	●●●●○	KERERŪ
GREENFINCH	30%	11 to 42%	○	○	○	○	●	○	○	●●●●●	
FANTAIL	10%	5 to 15%	○	○	○	○	○	○	○	○●○●○	PĪWAIWAKA
MYNA	0%	-46 to 29%	○	○	○	○	○	○	○	○●○●○	MAINA
CHAFFINCH	-3%	-8 to 1%	○	○	○	○	○	○	○	●●●●●	PAHIRINI
HOUSE SPARROW	-7%	-11 to 0%	○	○	○	○	○	○	○	●●●○●	TIU
BLACKBIRD	-8%	-11 to -6%	○	○	○	○	○	○	○	●●●○●	MANU PANGO
BELLBIRD	-14%	-33 to 3%	○	○	○	○	○	○	○	●●○●○	KORIMAKO
SONG THRUSH	-24%	-29 to -19%	○	○	○	○	○	○	○	●●●●●	
STARLING	-28%	-35 to -24%	○	○	○	○	○	○	○	●●●●○	TĀRINGI
DUNNOCK	-35%	-44 to -26%	○	○	○	○	○	○	○	●●●●●	
GOLDFINCH	-44%	-50 to -39%	○	○	○	○	○	○	○	●●●●●	
SILVEREYE	-46%	-50 to -43%	○	○	○	○	○	○	○	●●●●●	TAUHOU

NUMBER OF GARDEN SURVEYS



How have bird counts changed?



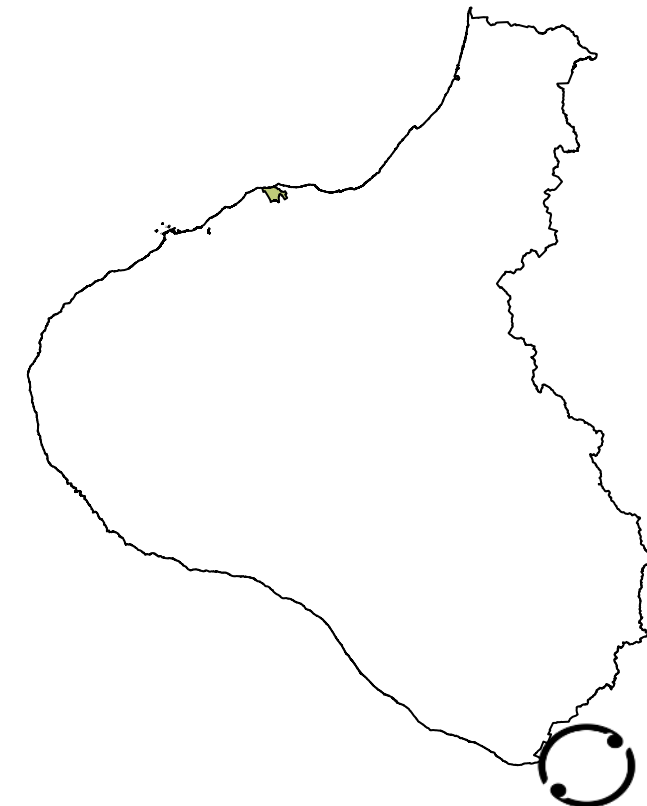
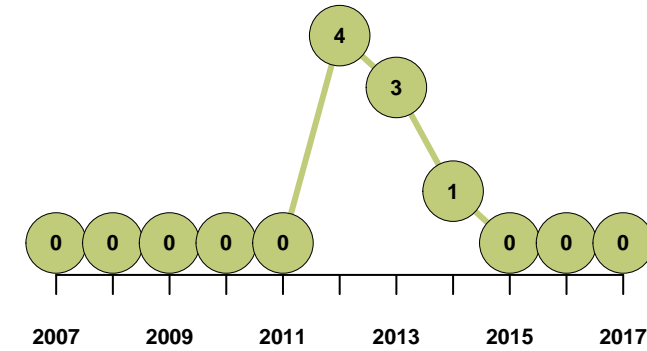
New Zealand
GARDEN BIRD SURVEY

TARANAKI REGION | 2007-2017

Waitara

	Median	80% Confidence Interval		Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
GREENFINCH	46%	26	to 59%	○	○	○	○	●	○	○	●●●●●	
TUI	35%	23	to 46%	○	○	○	○	●	○	○	●●●●●	KŌKŌ
NEW ZEALAND PIGEON	23%	-8	to 45%	○	○	○	○	●	○	○	●●●○○	KERERŪ
FANTAIL	11%	6	to 15%	○	○	○	○	●	○	○	●●○○○	PĪWAIWAKA
MYNA	7%	-14	to 23%	○	○	○	○	○	○	○	○○○○○	MAINA
BLACKBIRD	-10%	-13	to -7%	○	○	○	○	○	○	○	●○○○○	MANU PANGO
HOUSE SPARROW	-11%	-15	to -4%	○	○	○	○	○	○	○	●●○○○	TIU
CHAFFINCH	-12%	-16	to -7%	○	○	○	○	○	○	○	●●●○○	PAHIRINI
BELLBIRD	-14%	-33	to 2%	○	○	○	○	○	○	○	●●○○○	KORIMAKO
SONG THRUSH	-20%	-25	to -16%	○	○	○	○	○	○	○	●●●●●	
STARLING	-28%	-34	to -24%	○	○	○	○	○	○	○	●●●●○	TĀRINGI
DUNNOCK	-37%	-46	to -28%	○	○	○	○	○	○	○	●●●●●	
GOLDFINCH	-40%	-46	to -35%	○	○	○	○	○	○	○	●●●●●	
SILVEREYE	-49%	-53	to -47%	○	○	○	○	○	○	○	●●●●●	TAUHOU

NUMBER OF GARDEN SURVEYS





New Zealand
**GARDEN
BIRD
SURVEY**

2018
30 June to 8 July

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

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