



Technical report

BAY OF PLENTY REGION

2017

State of NZ Garden Birds

Te Āhua o ngā Manu o te Kāri i Aotearoa





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 settingand 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.

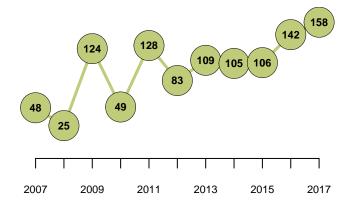


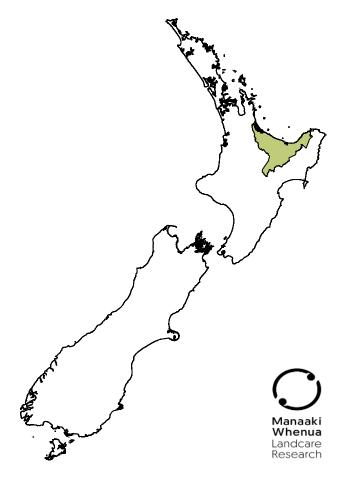


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	Median		Conf	idence val	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
MYNA	64%	59	to	69%	0	0	0	0	0	()	0	00000	MAINA
TUI	20%	16	to	24%	0	0	0	0	0	0	0	00000	KŌKŌ
NEW ZEALAND PIGEON	15%	3	to	26%	0	0	0	0	0	0	0	00000	KERERŪ
FANTAIL	15%	11	to	19%	0	0	0	0	0	0	0	00000	PĪWAIWAKA
GREENFINCH	11%	-7	to	24%	0	0	0	0		0	0	•0000	
HOUSE SPARROW	5%	1	to	12%	0	0	0	0	0	0	0	00000	TIU
CHAFFINCH	-6%	-10	to	-2%	0	0	0	0	0	0	0	00000	PAHIRINI
BLACKBIRD	-10%	-13	to	-8%	0	0		0	0	0	0	••000	MANU PANGO
GOLDFINCH	-17%	-23	to	-12%	0	0	0	0	0	0	0	00000	
BELLBIRD	-26%	-34	to	-18%	0	0		0	0	0	0	••000	KORIMAKO
SONG THRUSH	-28%	-32	to	-25%	0	0	0	0	0	0	0	00000	
STARLING	-30%	-36	to	-26%	0	0	0	0	0	0	0	00000	TĀRINGI
SILVEREYE	-39%	-43	to	-36%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-48%	-57	to	-40%		0	0	0	0	0	0	00000	



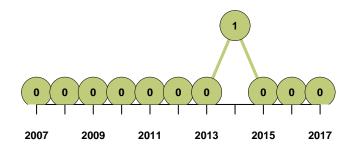


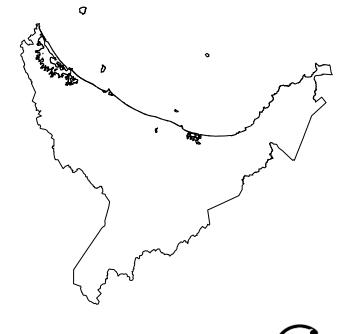
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Edgecumbe

Lugecumbe	Median		Conf nter	idence val	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
MYNA	31%	27	to	35%	0	0	0	0	0	0	0	00000	MAINA
NEW ZEALAND PIGEON	27%	6	to	48%	0	0	0	0	0	0	0	00000	KERERŪ
GREENFINCH	20%	3	to	33%	0	0	0	0		0	0	00000	
FANTAIL	18%	12	to	23%	0	0	0	0	0	0	0	00000	PĪWAIWAKA
TUI	14%	7	to	18%	0	0	0	0		0	0	••••	KŌKŌ
HOUSE SPARROW	2%	-1	to	9%	0	0	0	0	0	0	0	00000	TIU
CHAFFINCH	-7%	-11	to	-2%	0	0	0	0	0	0	0	00000	PAHIRINI
BLACKBIRD	-9%	-12	to	-7%	0	0		0	0	0	0	•0000	MANU PANGO
GOLDFINCH	-15%	-21	to	-10%	0	0	0	0	0	0	0	00000	
SONG THRUSH	-28%	-31	to	-24%	0	0	0	0	0	0	0	00000	
STARLING	-30%	-36	to	-26%	0	0	0	0	0	0	0	00000	TĀRINGI
BELLBIRD	-33%	-43	to	-22%	0	0	0	0	0	0	0	00000	KORIMAKO
SILVEREYE	-44%	-48	to	-41%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-50%	-58	to	-41%	0		0	0	0	0	0	•0000	





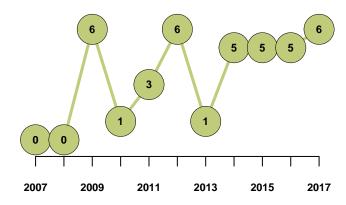


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Katikati Community

	Median		Conf nterv	idence ⁄al	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increas	Rapid increase	Quality rating	
NEW ZEALAND PIGEON	57%	17	to	85%	0	0	0	0	0	0	0	••000	KERERÛ
MYNA	27%	22	to	31%	0	0	0	0	0	0	0	00000	MAINA
TUI	17%	11	to	23%	0	0	0	0	0	0	0	00000	KŌKŌ
FANTAIL	16%	11	to	21%	0	0	0	0	0	0	0	00000	PĪWAIWAKA
GREENFINCH	-1%	-22	to	11%	0	0	0		0	0	0	•0000	
HOUSE SPARROW	-8%	-13	to	-1%	0	0	0	0	0	0	0	••000	TIU
CHAFFINCH	-9%	-15	to	-4%	0	0	0	0	0	0	0	•0000	PAHIRINI
SONG THRUSH	-13%	-20	to	-8%	0	0	(0	0	0	0	00000	
BLACKBIRD	-14%	-17	to	-11%	0	0	0	0	0	0	0	00000	MANU PANGO
GOLDFINCH	-30%	-37	to	-24%	0	0	0	0	0	0	0	00000	
BELLBIRD	-34%	-53	to	-18%	0		0	0	0	0	0	00000	KORIMAKO
STARLING	-46%	-52	to	-41%	0	0	0	0	0	0	0	00000	TĀRINGI
SILVEREYE	-47%	-51	to	-44%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-52%	-62	to	-42%		0	0	0	0	0	0	••000	





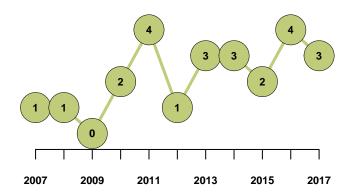


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Kawerau

Naworaa	Median		Conf	idence ⁄al	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
NEW ZEALAND PIGEON	54%	17	to	79%	0	0	0	0		0	0	•0000	KERERŪ
GREENFINCH	31%	13	to	44%	0	0	0	0	0	0	0	00000	
MYNA	24%	19	to	28%	0	0	0	0	0	0	0	00000	MAINA
FANTAIL	19%	14	to	24%	0	0	0	0	0	0	0	00000	PĪWAIWAKA
HOUSE SPARROW	0%	-4	to	7%	0	0	0	0	0	0	0	00000	TIU
CHAFFINCH	0%	-5	to	5%	0	0	0	0	0	0	0	00000	PAHIRINI
TUI	-3%	-11	to	1%	0	0	0	0	0	0	0	00000	KŌKŌ
BLACKBIRD	-7%	-11	to	-5%	0	0	0	0	0	0	0	••••0	MANU PANGO
SONG THRUSH	-12%	-18	to	-7%	0	0	0	0	0	0	0	00000	
GOLDFINCH	-16%	-22	to	-10%	0	0	0	0	0	0	0	00000	
BELLBIRD	-21%	-29	to	-12%	0	0	0	0	0	0	0	00000	KORIMAKO
STARLING	-26%	-32	to	-21%	0	0		0	0	0	0	••000	TĀRINGI
SILVEREYE	-43%	-47	to	-40%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-44%	-54	to	-35%	0	0	0	0	0	0	0	00000	





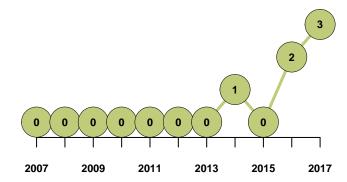


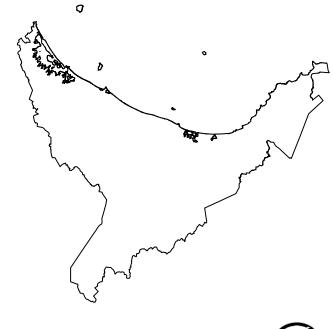
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Opotiki

Орошкі	Median		Conf nterv	idence ⁄al	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
MYNA	45%	38	to	51%	0	0	0	0	()	0	0	00000	MAINA
TUI	14%	7	to	19%	0	0	0	0	0	0	0	00000	KŌKŌ
FANTAIL	13%	9	to	18%	0	0	0	0	0	0	0	00000	PĪWAIWAKA
GREENFINCH	9%	-10	to	23%	0	0	0	0		0	0	00000	
HOUSE SPARROW	6%	2	to	13%	0	0	0	0	0	0	0	00000	TIU
NEW ZEALAND PIGEON	4%	-28	to	23%	0	0	0	0		0	0	00000	KERERŪ
CHAFFINCH	-9%	-14	to	-4%	0	0	0	0	0	0	0	•0000	PAHIRINI
BLACKBIRD	-9%	-12	to	-7%	0	0		0	0	0	0	•0000	MANU PANGO
GOLDFINCH	-15%	-21	to	-9%	0	0	0	0	0	0	0	00000	
SONG THRUSH	-17%	-21	to	-12%	0	0	0	0	0	0	0	00000	
STARLING	-30%	-35	to	-26%	0	0	0	0	0	0	0	00000	TĀRINGI
BELLBIRD	-31%	-43	to	-19%	0	0	0	0	0	0	0	••••	KORIMAKO
SILVEREYE	-43%	-48	to	-40%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-51%	-60	to	-42%	0	0	0	0	0	0	0	•0000	





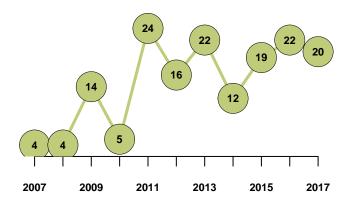


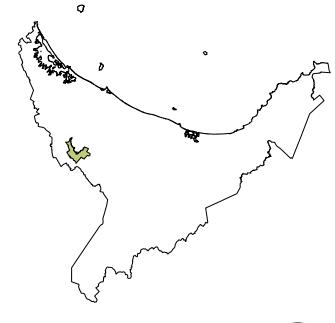
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Rotorua

Rotorua	Median		Conf	idence val	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
MYNA	43%	36	to	48%	0	0	0	0	()	0	0	00000	MAINA
NEW ZEALAND PIGEON	34%	8	to	51%	0	0	0	0	0	0	0	00000	KERERŪ
GREENFINCH	32%	14	to	46%	0	0	0	0	0	0	0	00000	
FANTAIL	18%	12	to	22%	0	0	0	0	0	0	0	00000	PĪWAIWAKA
CHAFFINCH	8%	-1	to	14%	0	0	0	0	0	0	0	••000	PAHIRINI
TUI	3%	-1	to	7%	0	0	0	0	0	0	0	00000	KŌKŌ
HOUSE SPARROW	0%	-4	to	6%	0	0	0	0	0	0	0	00000	TIU
BLACKBIRD	-7%	-10	to	-5%	0	0	0	0	0	0	0	••••	MANU PANGO
GOLDFINCH	-20%	-26	to	-15%	0	0	0	0	0	0	0	00000	
BELLBIRD	-27%	-37	to	-18%	0	0		0	0	0	0	••000	KORIMAKO
SONG THRUSH	-29%	-33	to	-25%	0	0	0	0	0	0	0	00000	
STARLING	-29%	-35	to	-25%	0	0	0	0	0	0	0	00000	TĀRINGI
SILVEREYE	-43%	-47	to	-40%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-47%	-56	to	-38%	0	0	0	0	0	0	0	00000	





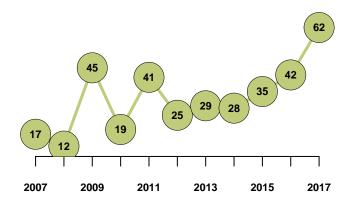


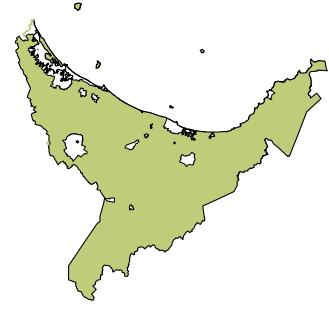
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Rural (Incl.some Off Shore Islands)

	Median		Conf	fidence val	Rapid decline	Moderate decline	Shallow decline	No or little chang	Shallow increase	Moderate increas	Rapid increase	Quality rating	
MYNA	97%	89	to	102%	0	0	0	0	0	0	0	•••••	MAINA
GREENFINCH	25%	5	to	39%	0	0	0	0	0	0	0	00000	
NEW ZEALAND PIGEON	20%	8	to	30%	0	0	0	0	0	0	0	00000	KERERŪ
TUI	8%	5	to	11%	0	0	0	0	0	0	0	•••00	KŌKŌ
FANTAIL	7%	5	to	9%	0	0	0	0	0	0	0	00000	PĪWAIWAKA
HOUSE SPARROW	6%	2	to	13%	0	0	0	0	0	0	0	00000	TIU
CHAFFINCH	-3%	-8	to	0%	0	0	0	0	0	0	0	00000	PAHIRINI
BLACKBIRD	-11%	-14	to	-9%	0	0	0	0	0	0	0	00000	MANU PANGO
SONG THRUSH	-14%	-19	to	-11%	0	0	0	0	0	0	0	00000	
GOLDFINCH	-15%	-22	to	-9%	0	0	0	0	0	0	0	00000	
BELLBIRD	-25%	-33	to	-17%	0		0	0	0	0	0	•0000	KORIMAKO
STARLING	-31%	-37	to	-28%	0	0	0	0	0	0	0	00000	TĀRINGI
SILVEREYE	-36%	-40	to	-33%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-46%	-55	to	-36%	0	0	0	0	0	0	0	00000	





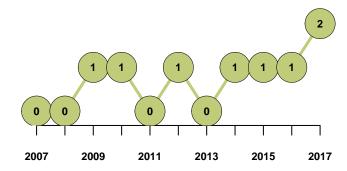


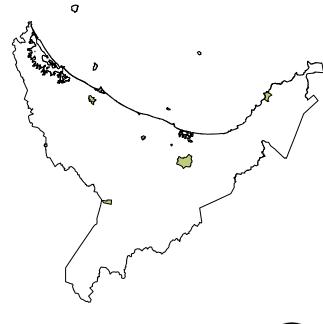
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Rural Centre

	Median		Conf nter	idence ⁄al	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increas	Rapid increase	Quality rating	
MYNA	46%	39	to	51%	0	0	0	0	0	0	0	00000	MAINA
GREENFINCH	20%	0	to	32%	0	0	0	0		0	0	00000	
FANTAIL	9%	6	to	11%	0	0	0	0	0	0	0	••000	PĪWAIWAKA
TUI	8%	4	to	11%	0	0	0	0	0	0	0	00000	KŌKŌ
NEW ZEALAND PIGEON	4%	-22	to	21%	0	0	0	0	0	0	0	00000	KERERŪ
HOUSE SPARROW	4%	0	to	11%	0	0	0	0	0	0	0	00000	TIU
CHAFFINCH	-7%	-11	to	-3%	0	0	0	0	0	0	0	00000	PAHIRINI
BLACKBIRD	-9%	-11	to	-6%	0	0	0	0	0	0	0	••000	MANU PANGO
GOLDFINCH	-17%	-23	to	-12%	0	0	0	0	0	0	0	00000	
SONG THRUSH	-25%	-28	to	-22%	0	0		0	0	0	0	•0000	
BELLBIRD	-30%	-40	to	-20%	0	0	0	0	0	0	0	00000	KORIMAKO
STARLING	-33%	-39	to	-29%	0	0	0	0	0	0	0	00000	TĀRINGI
SILVEREYE	-42%	-46	to	-39%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-49%	-58	to	-41%		0	0	0	0	0	0	00000	





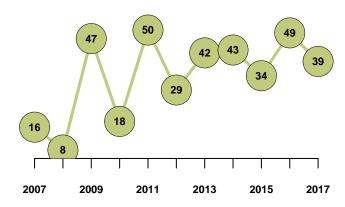


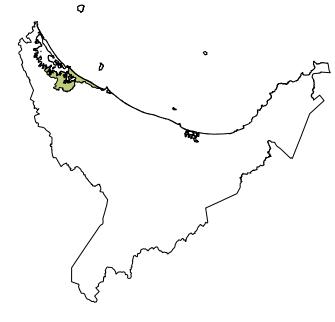
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Tauranga

ruurungu	Median		Conf	fidence val	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
NEW ZEALAND PIGEON	92%	37	to	129%	0	0	0	0	0	0		00000	KERERŪ
MYNA	73%	67	to	78%	0	0	0	0	0	0	0	00000	MAINA
TUI	38%	32	to	43%	0	0	0	0	0	0	0	00000	KŌKŌ
FANTAIL	17%	12	to	22%	0	0	0	0	0	0	0	00000	PĪWAIWAKA
HOUSE SPARROW	8%	3	to	15%	0	0	0	0	0	0	0	••000	TIU
GREENFINCH	-2%	-20	to	11%	0	0	0	0	0	0	0	••000	
BLACKBIRD	-10%	-13	to	-7%	0	0	0	0	0	0	0	••000	MANU PANGO
GOLDFINCH	-18%	-24	to	-12%	0	0	(0	0	0	0	00000	
CHAFFINCH	-21%	-28	to	-14%	0			0	0	0	0	00000	PAHIRINI
STARLING	-29%	-35	to	-25%	0	0	0	0	0	0	0	00000	TĀRINGI
BELLBIRD	-33%	-56	to	-14%	0		0	0	0	0	0	00000	KORIMAKO
SONG THRUSH	-37%	-42	to	-33%	0	()	0	0	0	0	0	00000	
SILVEREYE	-38%	-42	to	-35%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-51%	-63	to	-42%		0	0	0	0	0	0	••000	





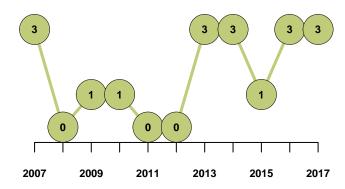


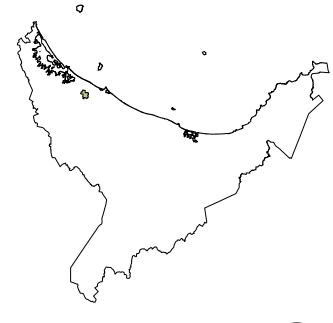
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Te Puke Community

	Median		Conf	idence /al	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increas	Rapid increase	Quality rating	
MYNA	51%	43	to	57%	0	0	0	0		0	0	••000	MAINA
GREENFINCH	25%	5	to	39%	0	0	0	0		0	0	00000	
FANTAIL	14%	9	to	18%	0	0	0	0		0	0	00000	PĪWAIWAKA
HOUSE SPARROW	13%	9	to	20%	0	0	0	0	0	0	0	00000	TIU
TUI	5%	0	to	10%	0	0	0	0	0	0	0	00000	KŌKŌ
CHAFFINCH	-3%	-9	to	1%	0	0	0	0	0	0	0	00000	PAHIRINI
GOLDFINCH	-6%	-12	to	-1%	0	0	0	0	0	0	0	00000	
BLACKBIRD	-11%	-14	to	-9%	0	0	0	0	0	0	0	•••00	MANU PANGO
NEW ZEALAND PIGEON	-15%	-27	to	-6%	0	0	0	0	0	0	0	00000	KERERŪ
SONG THRUSH	-17%	-21	to	-12%	0	0	0	0	0	0	0	00000	
STARLING	-32%	-38	to	-28%	0	0	0	0	0	0	0	00000	TĀRINGI
BELLBIRD	-32%	-44	to	-21%	0	0	0	0	0	0	0	••••	KORIMAKO
SILVEREYE	-34%	-38	to	-30%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-51%	-60	to	-43%		0	0	0	0	0	0	•0000	





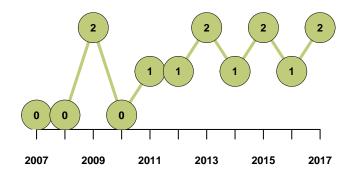


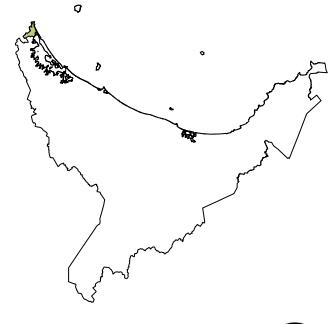
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Waihi Beach

	Median		Conf nter	idence ⁄al	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increas	Rapid increase	Quality rating	
MYNA	21%	15	to	26%	0	0	0	0	0	0	0	00000	MAINA
TUI	17%	9	to	23%	0	0	0	0	0	0	0	00000	KŌKŌ
GREENFINCH	14%	-5	to	29%	0	0	0	0		0	0	00000	
FANTAIL	9%	5	to	14%	0	0	0	0		0	0	00000	PĪWAIWAKA
NEW ZEALAND PIGEON	8%	-16	to	25%	0	0	0	0		0	0	00000	KERERŪ
CHAFFINCH	-1%	-7	to	4%	0	0	0	0	0	0	0	00000	PAHIRINI
GOLDFINCH	-5%	-12	to	0%	0	0	0	0	0	0	0	00000	
HOUSE SPARROW	-7%	-11	to	0%	0	0	0	0	0	0	0	••••0	TIU
BLACKBIRD	-9%	-12	to	-7%	0	0			0	0	0	•0000	MANU PANGO
BELLBIRD	-31%	-41	to	-21%	0	0	0	0	0	0	0	00000	KORIMAKO
SONG THRUSH	-33%	-38	to	-28%	0	0	0	0	0	0	0	00000	
STARLING	-41%	-47	to	-37%	0	()	0	0	0	0	0	00000	TĀRINGI
SILVEREYE	-46%	-50	to	-42%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-47%	-56	to	-39%		0	0	0	0	0	0	00000	





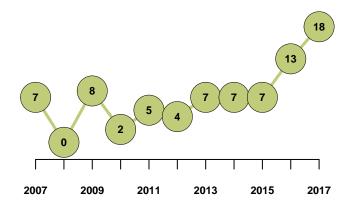


BAY OF PLENTY REGION | 2007-2017



Whakatane

	Median		Conf	idence val	Rapid decline	Moderate decline	Shallow decline	No or little change	Shallow increase	Moderate increase	Rapid increase	Quality rating	
MYNA	64%	58	to	68%	0	0	0	0	0	0	0	00000	MAINA
GREENFINCH	26%	8	to	40%	0	0	0	0	0	0	0	00000	
TUI	17%	12	to	22%	0	0	0	0	0	0	0	00000	KŌKŌ
FANTAIL	17%	11	to	21%	0	0	0	0	0	0	0	00000	PĪWAIWAKA
HOUSE SPARROW	14%	10	to	21%	0	0	0	0	0	0	0	00000	TIU
NEW ZEALAND PIGEON	-8%	-21	to	3%	0	0	0	0	0	0	0	•0000	KERERŪ
BLACKBIRD	-11%	-14	to	-8%	0	0	0	0	0	0	0	00000	MANU PANGO
CHAFFINCH	-17%	-22	to	-12%	0	0	0	0	0	0	0	00000	PAHIRINI
BELLBIRD	-20%	-30	to	-10%	0	0	0	0	0	0	0	00000	KORIMAKO
GOLDFINCH	-21%	-27	to	-16%	0	0	0	0	0	0	0	00000	
SONG THRUSH	-29%	-34	to	-25%	0	0	0	0	0	0	0	00000	
STARLING	-32%	-38	to	-28%	0	0	0	0	0	0	0	00000	TĀRINGI
SILVEREYE	-39%	-43	to	-35%	0	0	0	0	0	0	0	00000	TAUHOU
DUNNOCK	-51%	-60	to	-42%		0	0	0	0	0	0	•0000	









2018
30 June to 8 July

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

