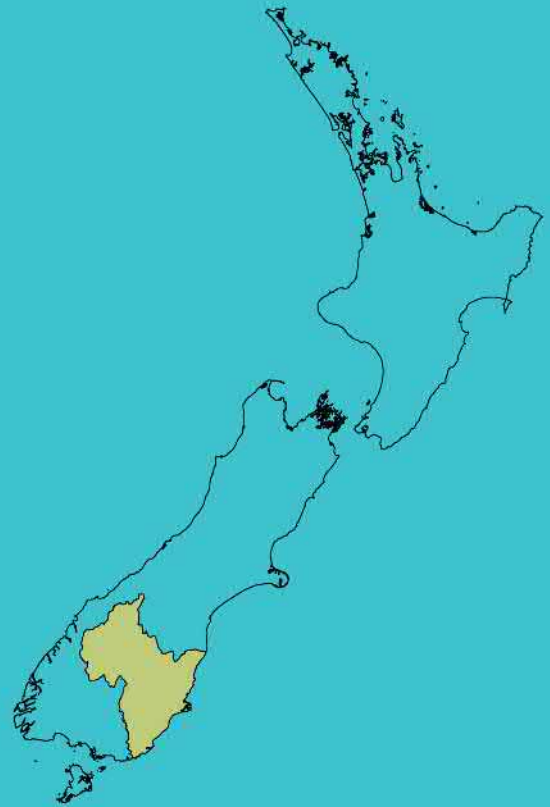




New Zealand
**GARDEN
BIRD
SURVEY**



OTAGO REGION

State of NZ Garden Birds

Te Āhua o ngā Manu o te Kāri i Aotearoa

2017

NUMBER OF SURVEYED GARDENS



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 diagram below) to help us identify changes of potential concern or interest.



How have bird counts changed?

Drawing attention to changes in counts that may be of concern or interest

Counts decline

50% or more

25% or more

10% or more

RAPID DECLINE

MODERATE DECLINE

SHALLOW DECLINE

NO OR LITTLE CHANGE

Counts increase

Over 10%

Over 50%

Over 100%

SHALLOW INCREASE

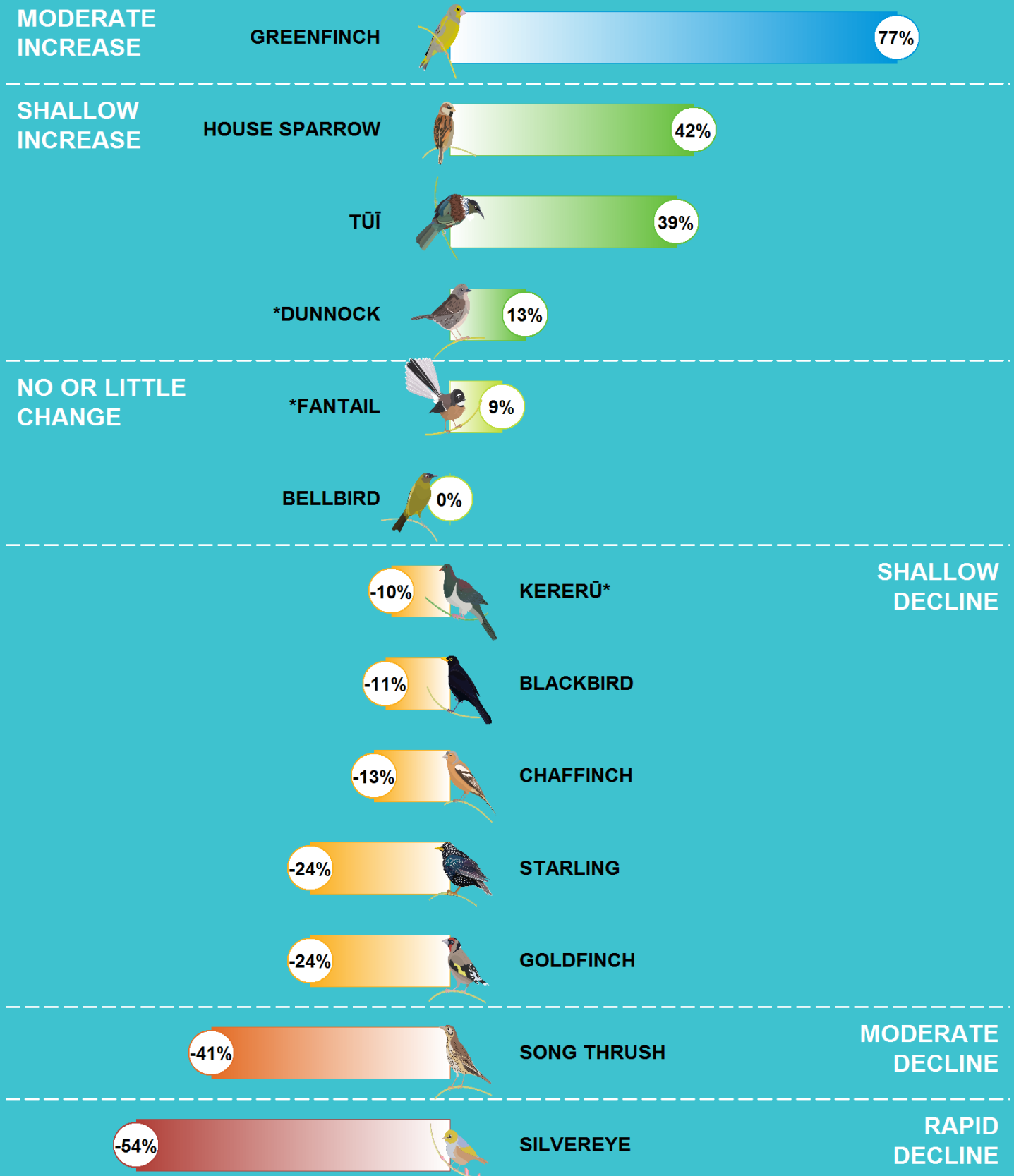
MODERATE INCREASE

RAPID INCREASE

How have bird counts changed?



OTAGO REGION | 2007-2017

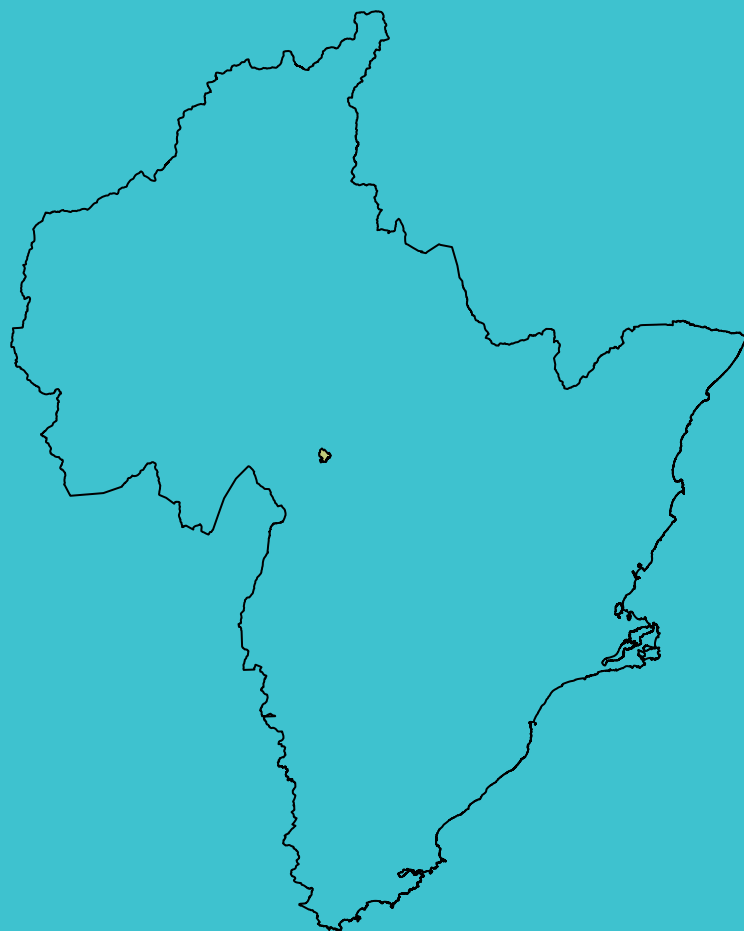


Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 4316 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



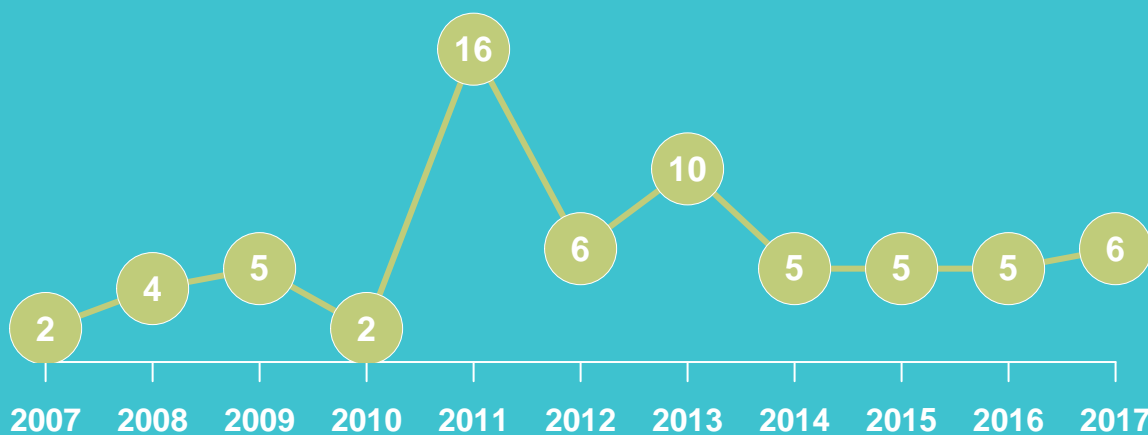
New Zealand
**GARDEN
BIRD
SURVEY**



OTAGO REGION

ALEXANDRA

NUMBER OF SURVEYED GARDENS



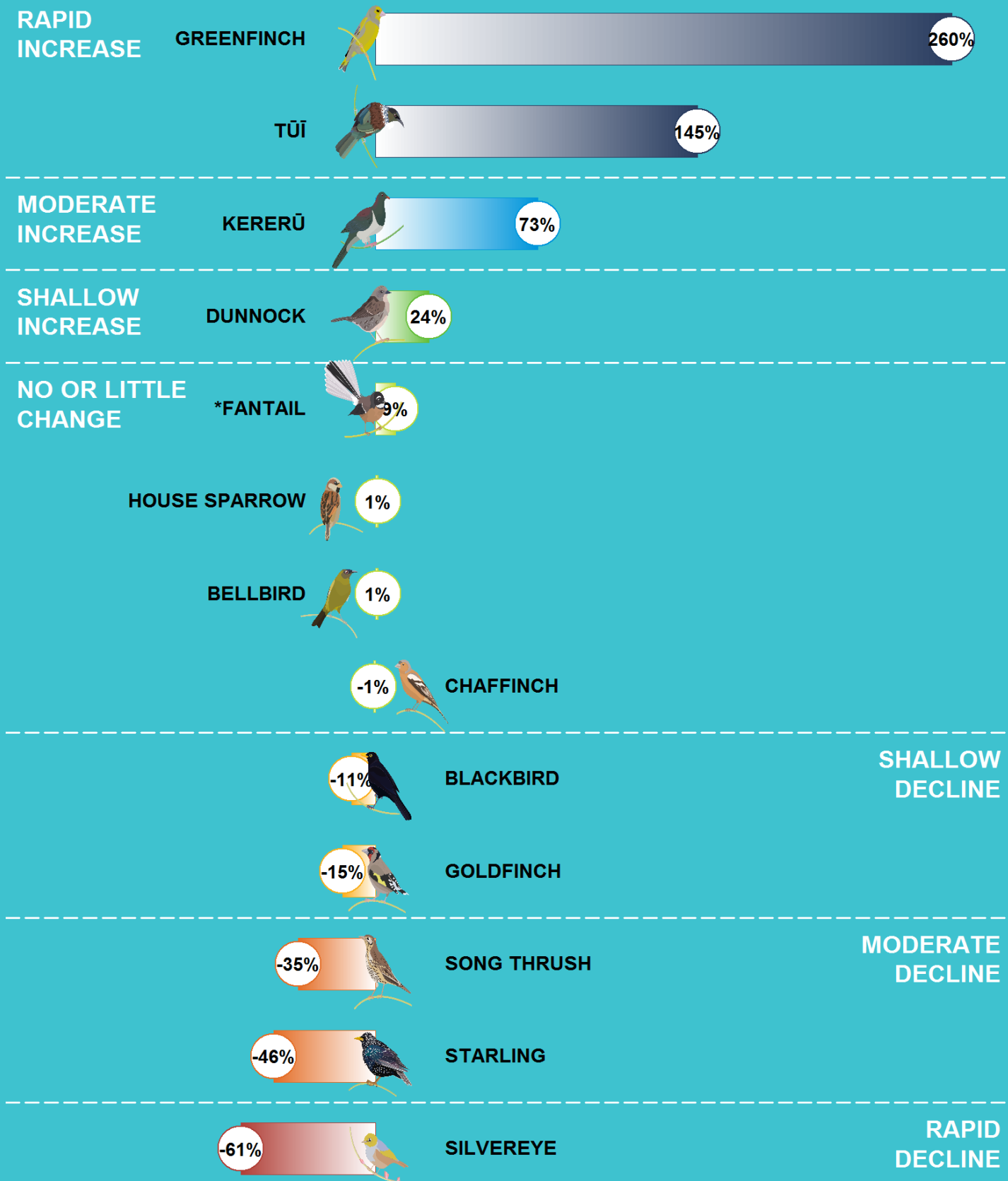
**Manaaki
Whenua**
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Alexandra



Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 66 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



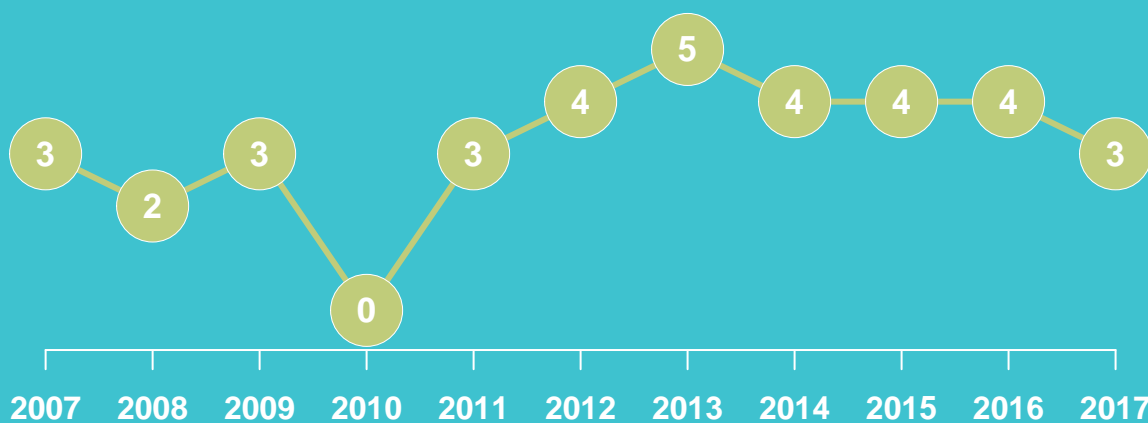
New Zealand
**GARDEN
BIRD
SURVEY**



OTAGO REGION

ARROWTOWN

NUMBER OF SURVEYED GARDENS



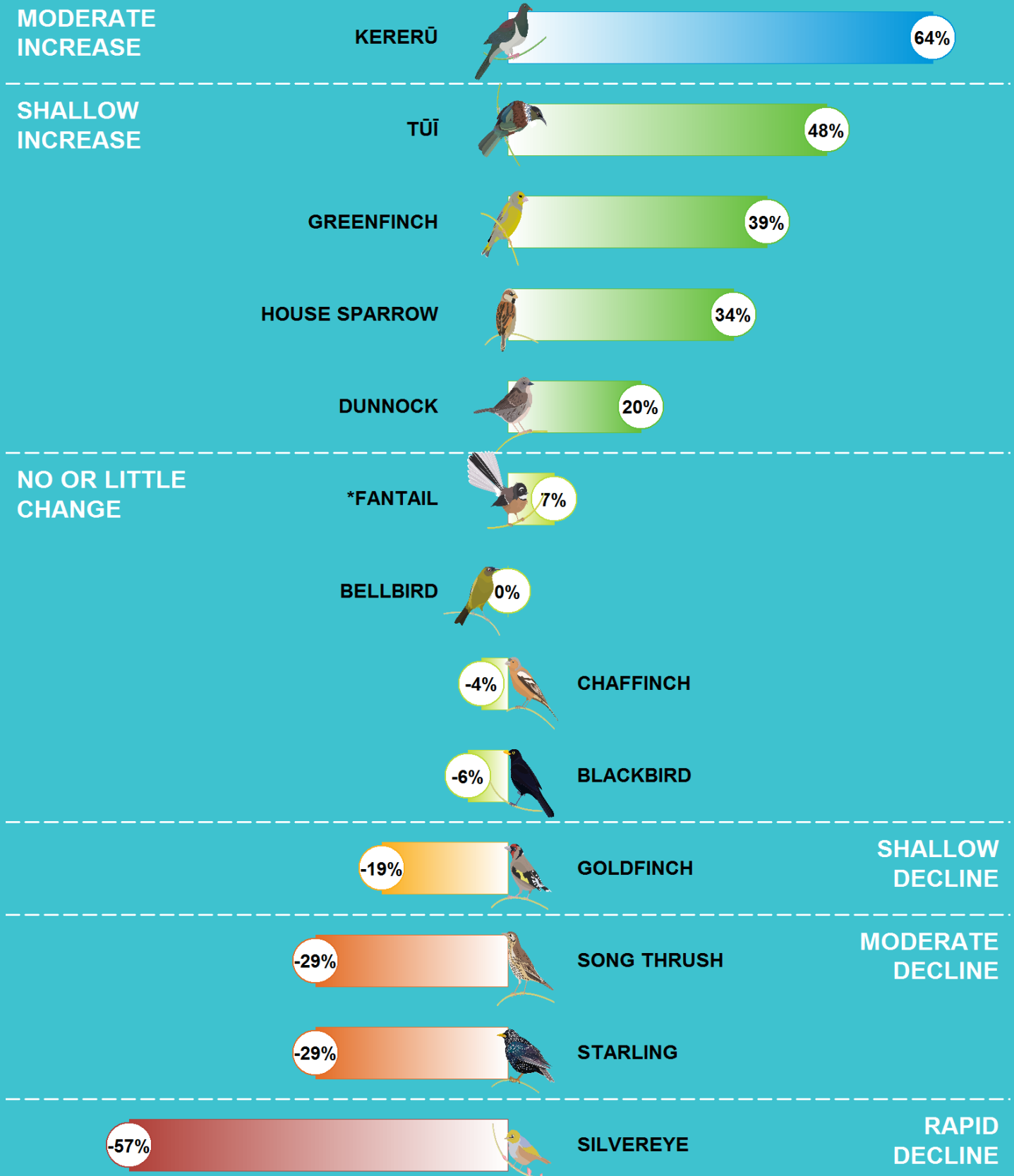
**Manaaki
Whenua**
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Arrowtown



Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 35 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



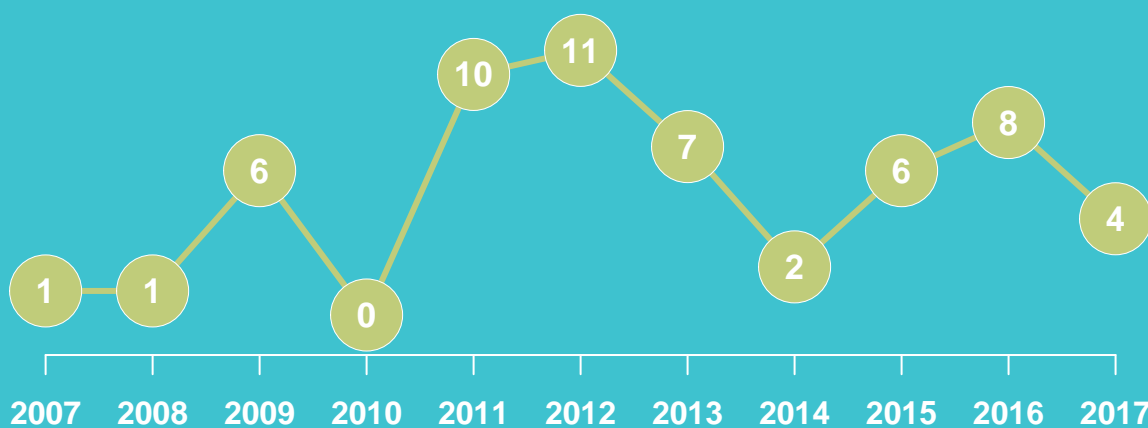
New Zealand
**GARDEN
BIRD
SURVEY**



OTAGO REGION

BALCLUTHA

NUMBER OF SURVEYED GARDENS



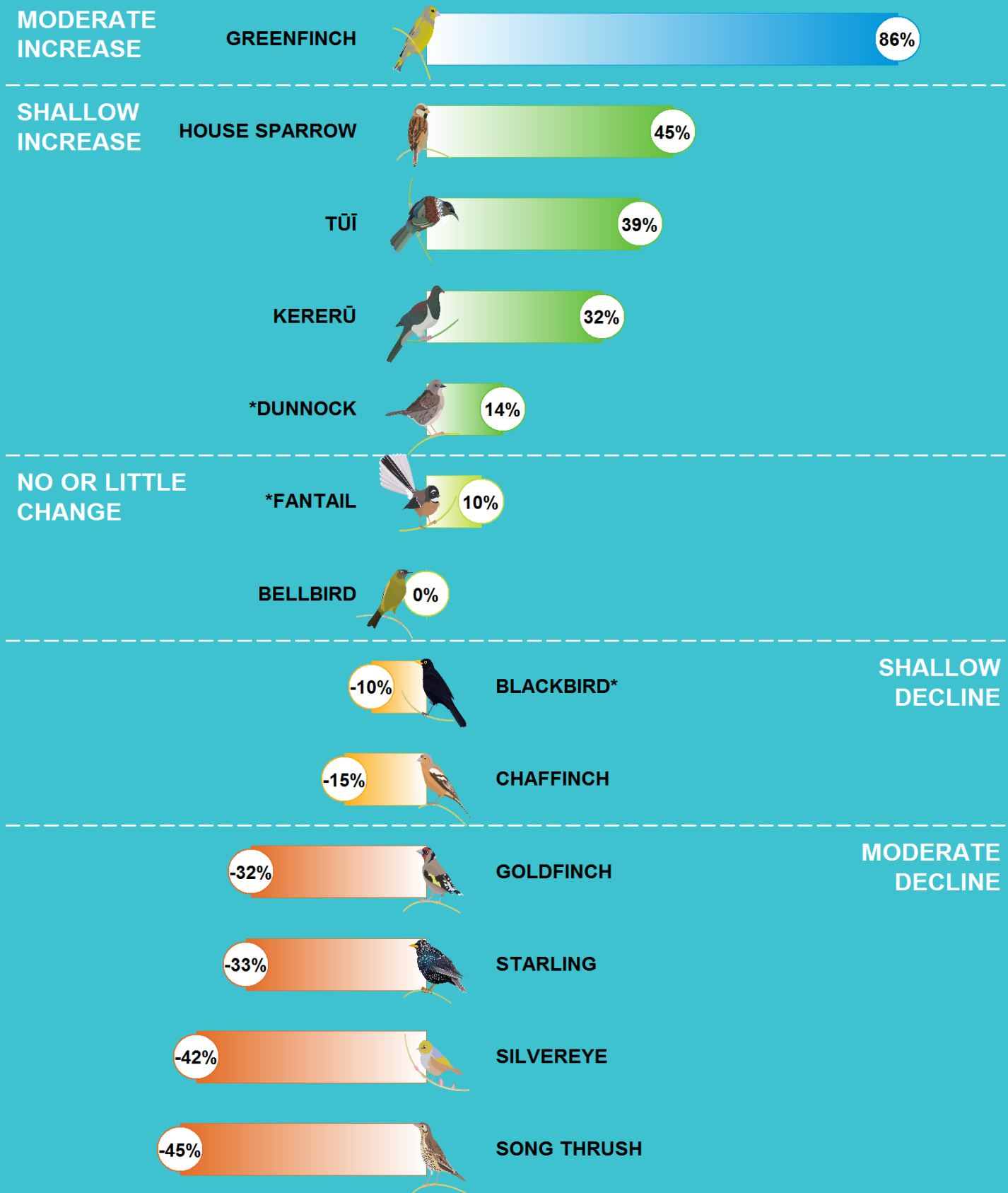
**Manaaki
Whenua**
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Balclutha



Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 56 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



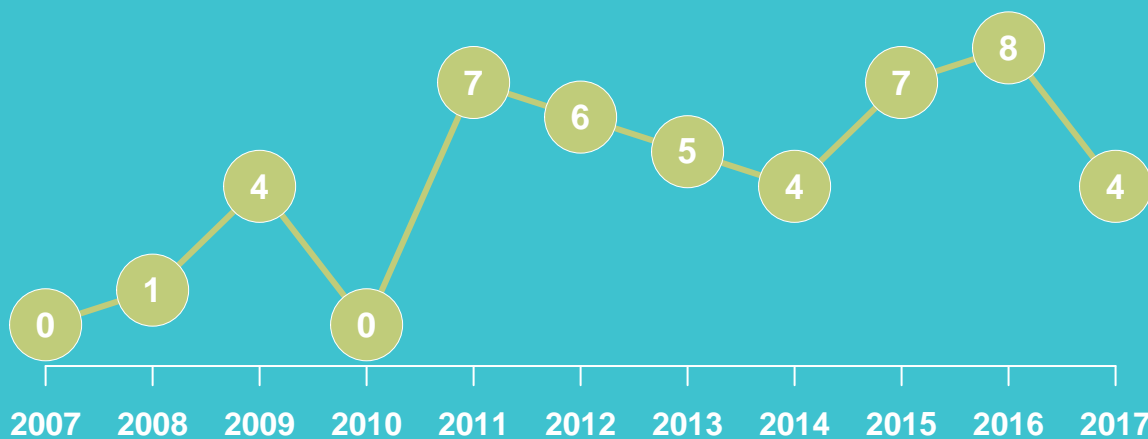
New Zealand
**GARDEN
BIRD
SURVEY**



OTAGO REGION

CROMWELL

NUMBER OF SURVEYED GARDENS



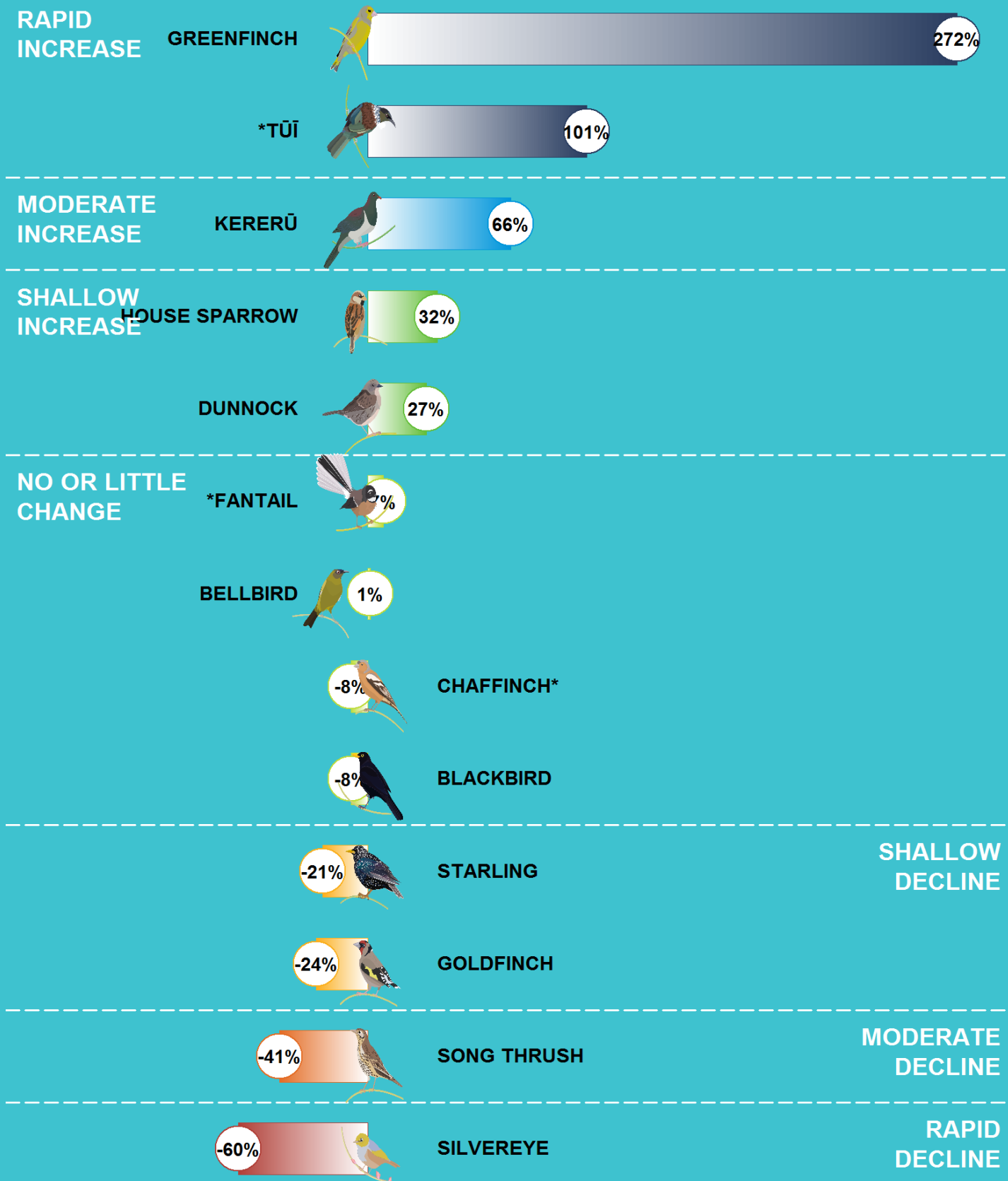
**Manaaki
Whenua**
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Cromwell



Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 46 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



New Zealand

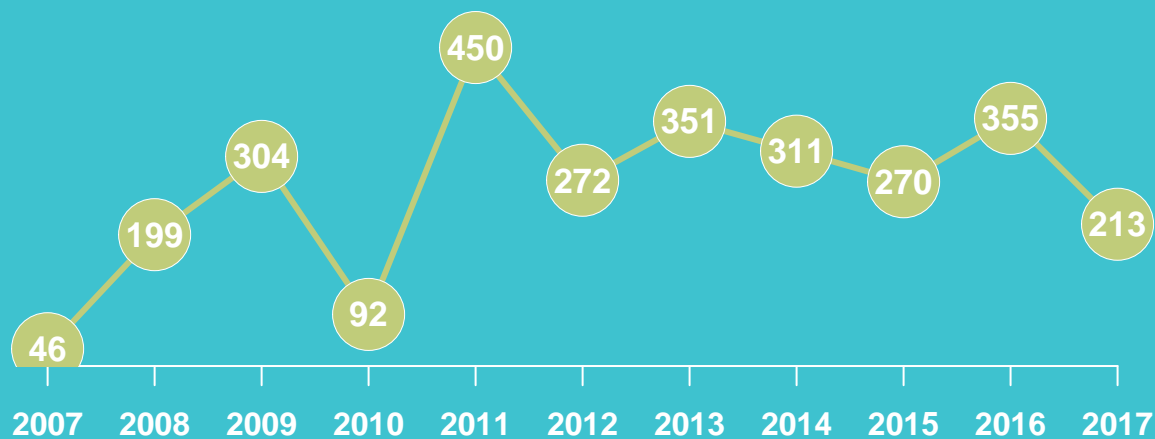
GARDEN BIRD SURVEY



OTAGO REGION

DUNEDIN

NUMBER OF SURVEYED GARDENS



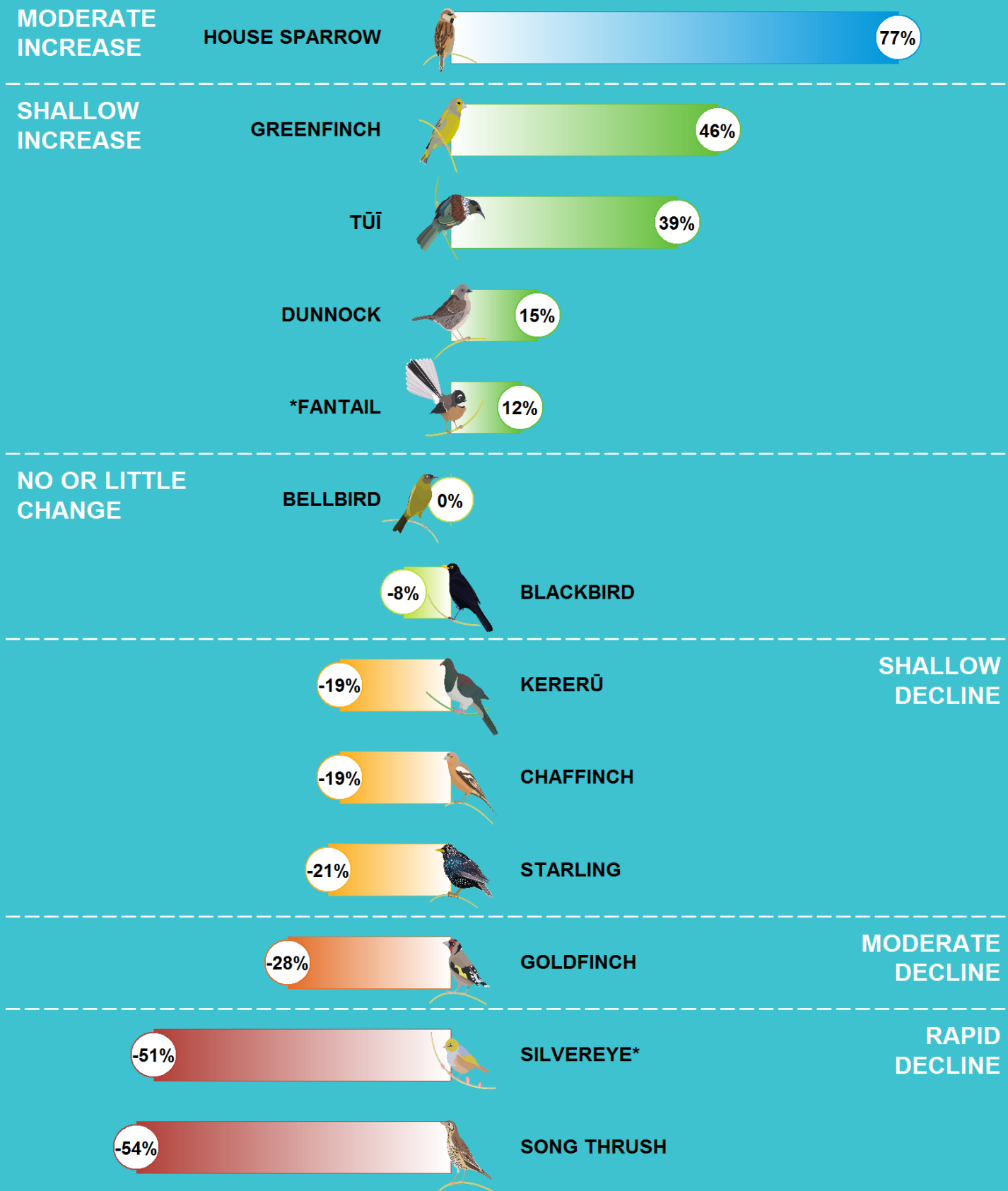
Manaaki
Whenua
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Dunedin



Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 2863 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



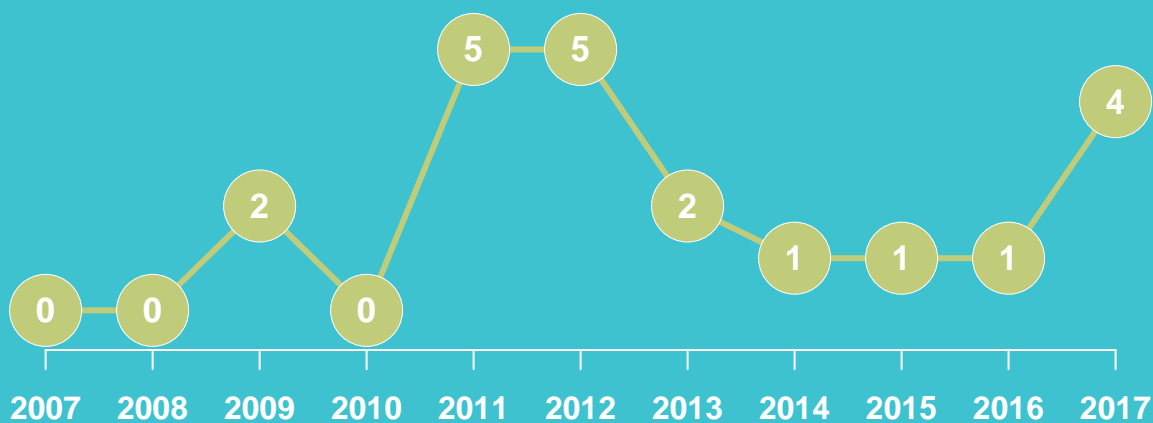
New Zealand
**GARDEN
BIRD
SURVEY**



OTAGO REGION

MILTON

NUMBER OF SURVEYED GARDENS



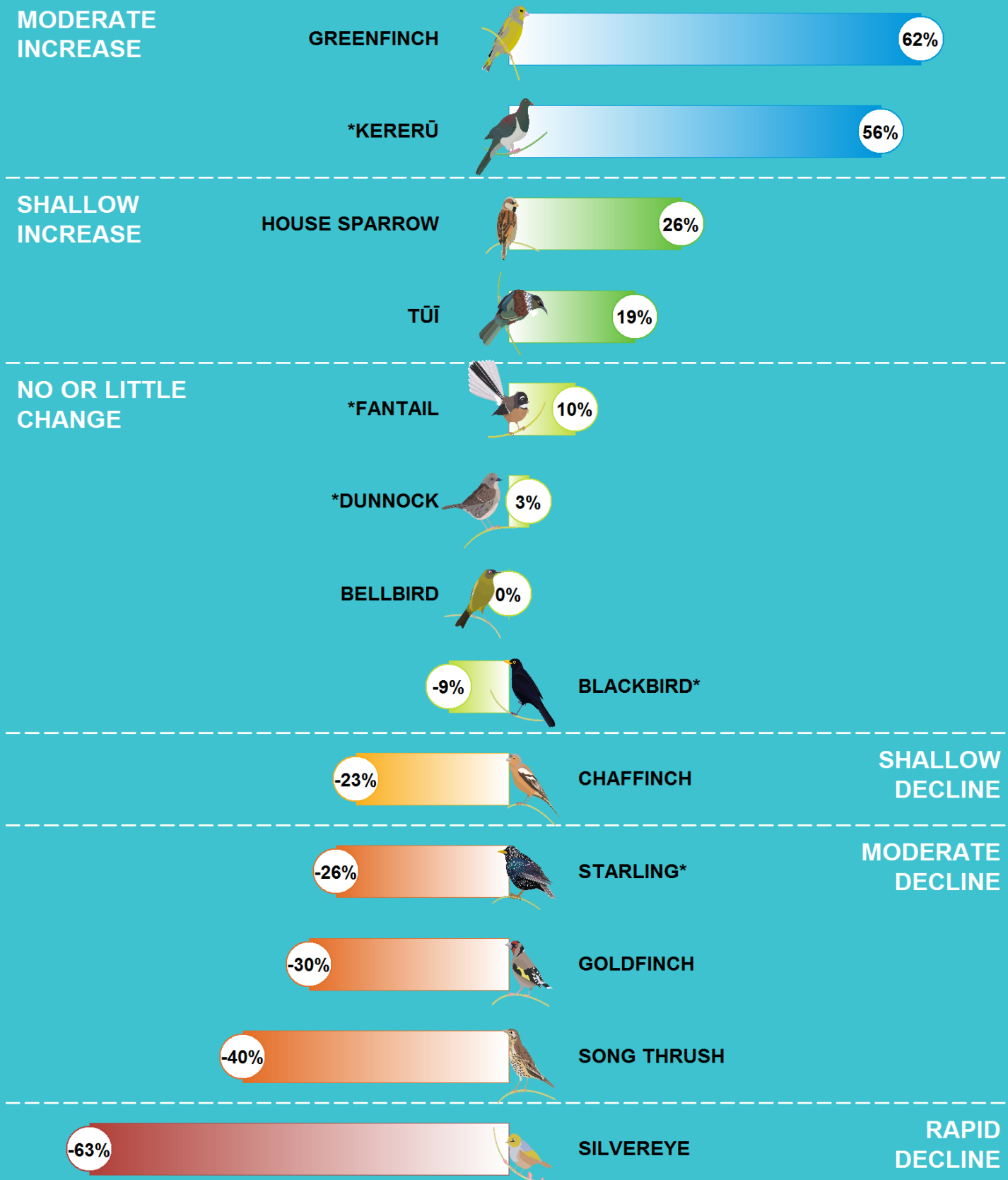
**Manaaki
Whenua**
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Milton



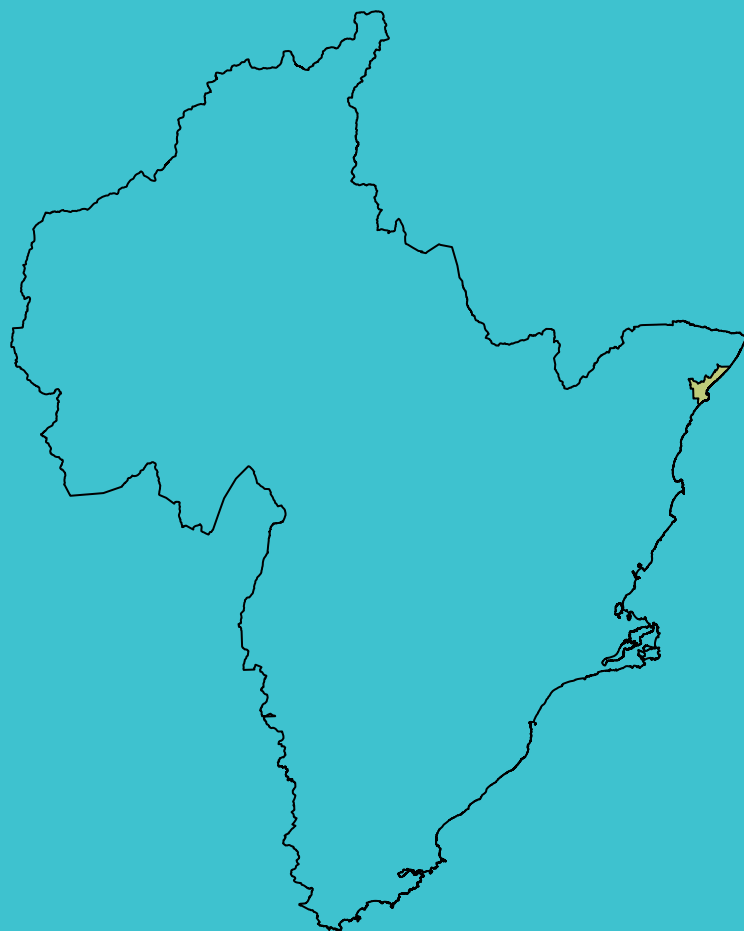
Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 21 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



New Zealand

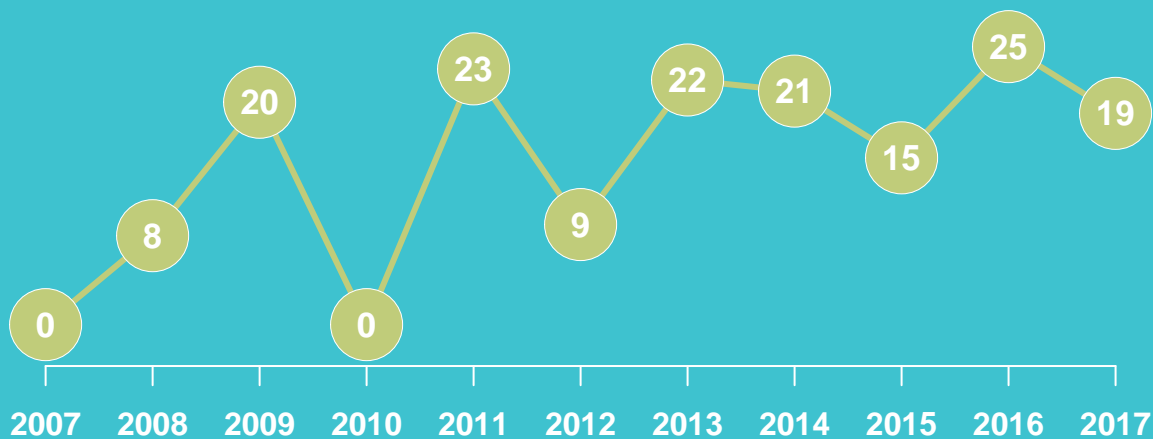
GARDEN BIRD SURVEY



OTAGO REGION

OAMARU

NUMBER OF SURVEYED GARDENS



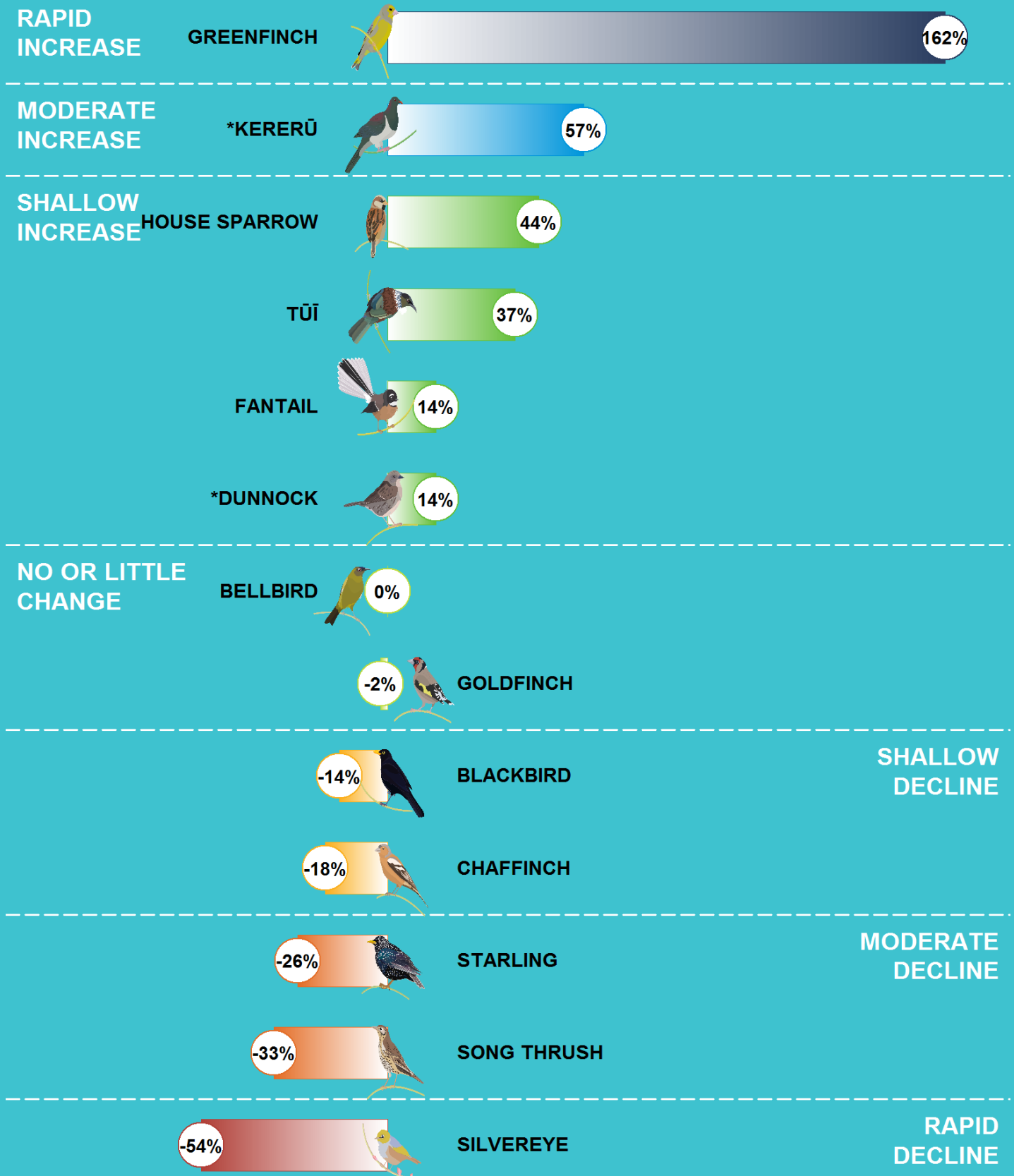
Manaaki
Whenua
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Oamaru



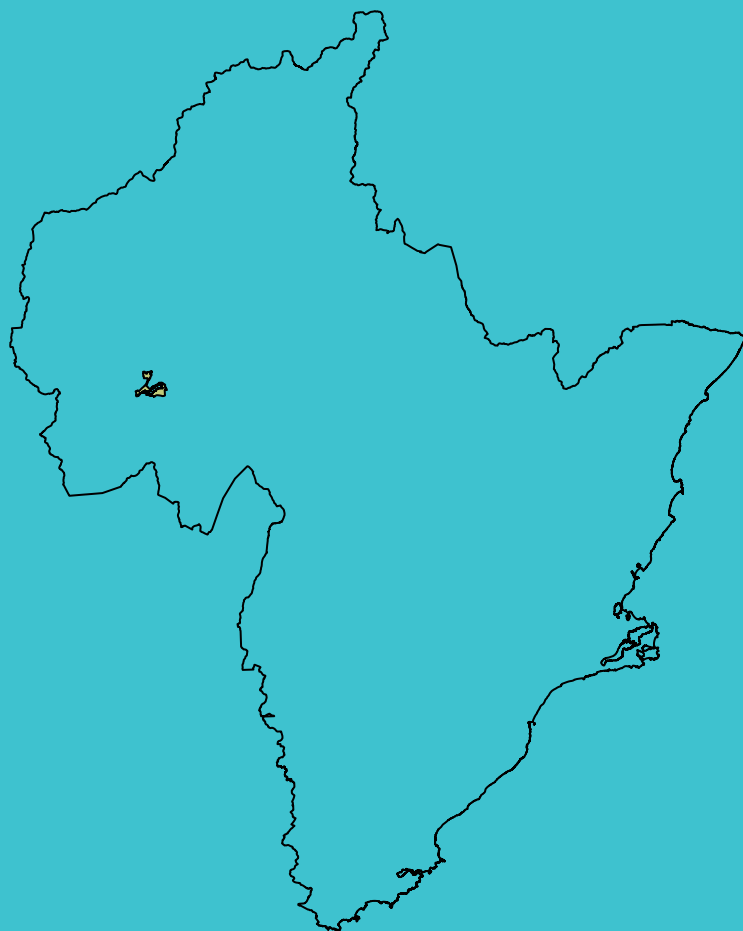
Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 162 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



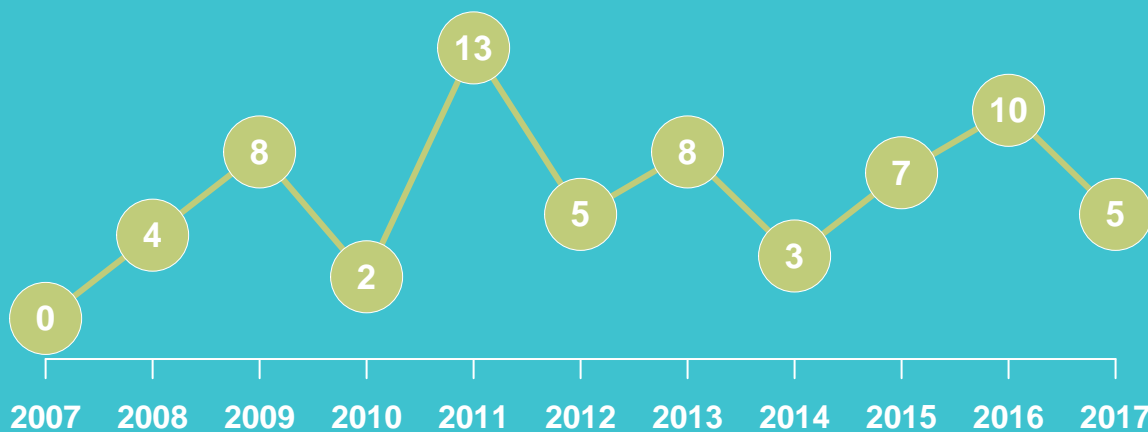
New Zealand

GARDEN BIRD SURVEY



OTAGO REGION QUEENSTOWN

NUMBER OF SURVEYED GARDENS



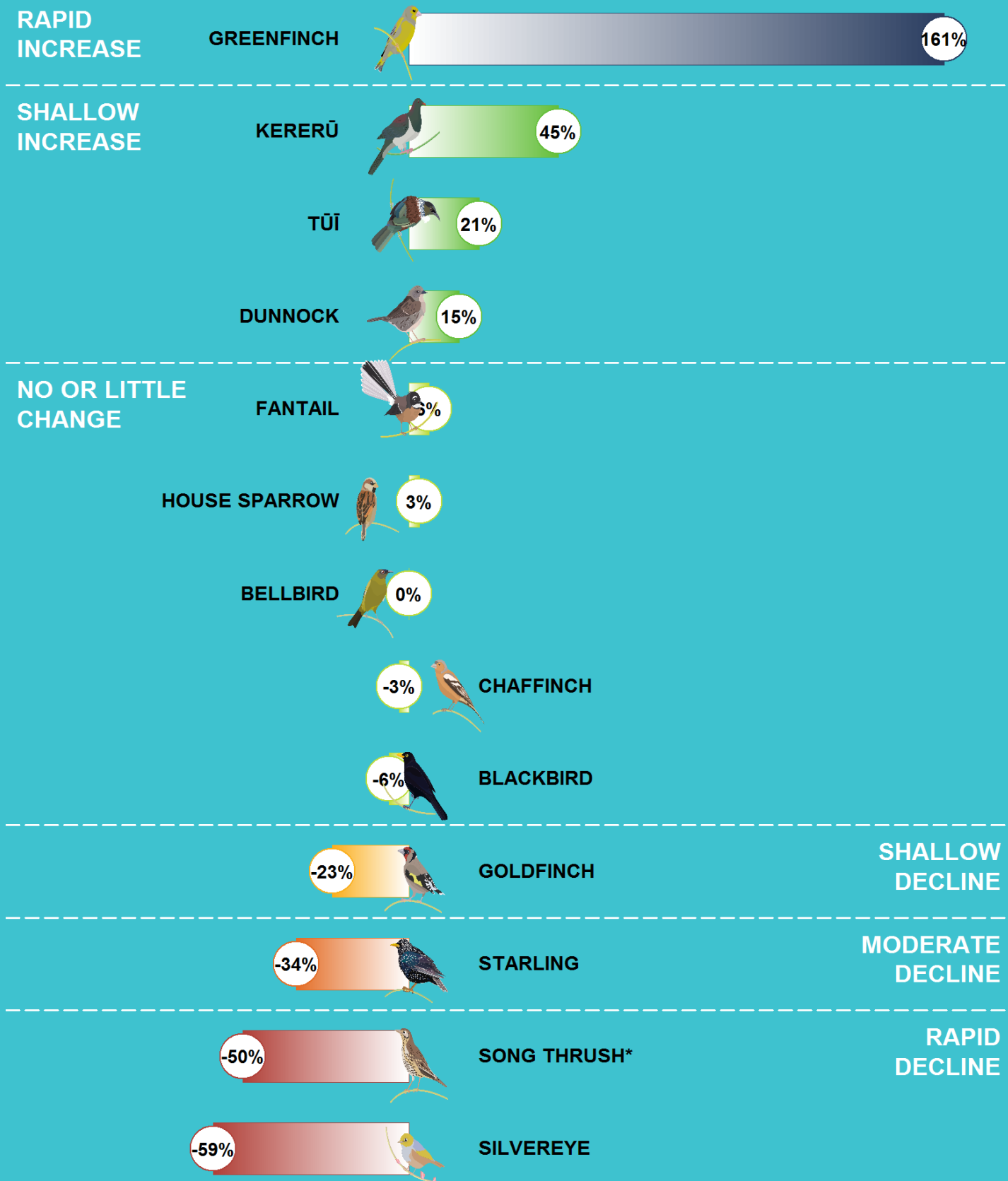
Manaaki
Whenua
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Queenstown



Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 65 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



New Zealand

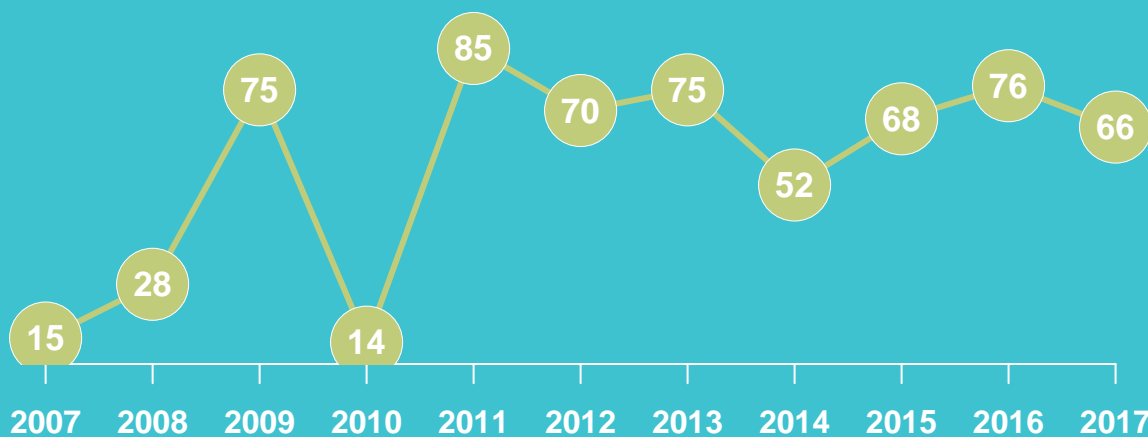
GARDEN BIRD SURVEY



OTAGO REGION

RURAL (INCL. SOME OFF SHORE ISLANDS)

NUMBER OF SURVEYED GARDENS



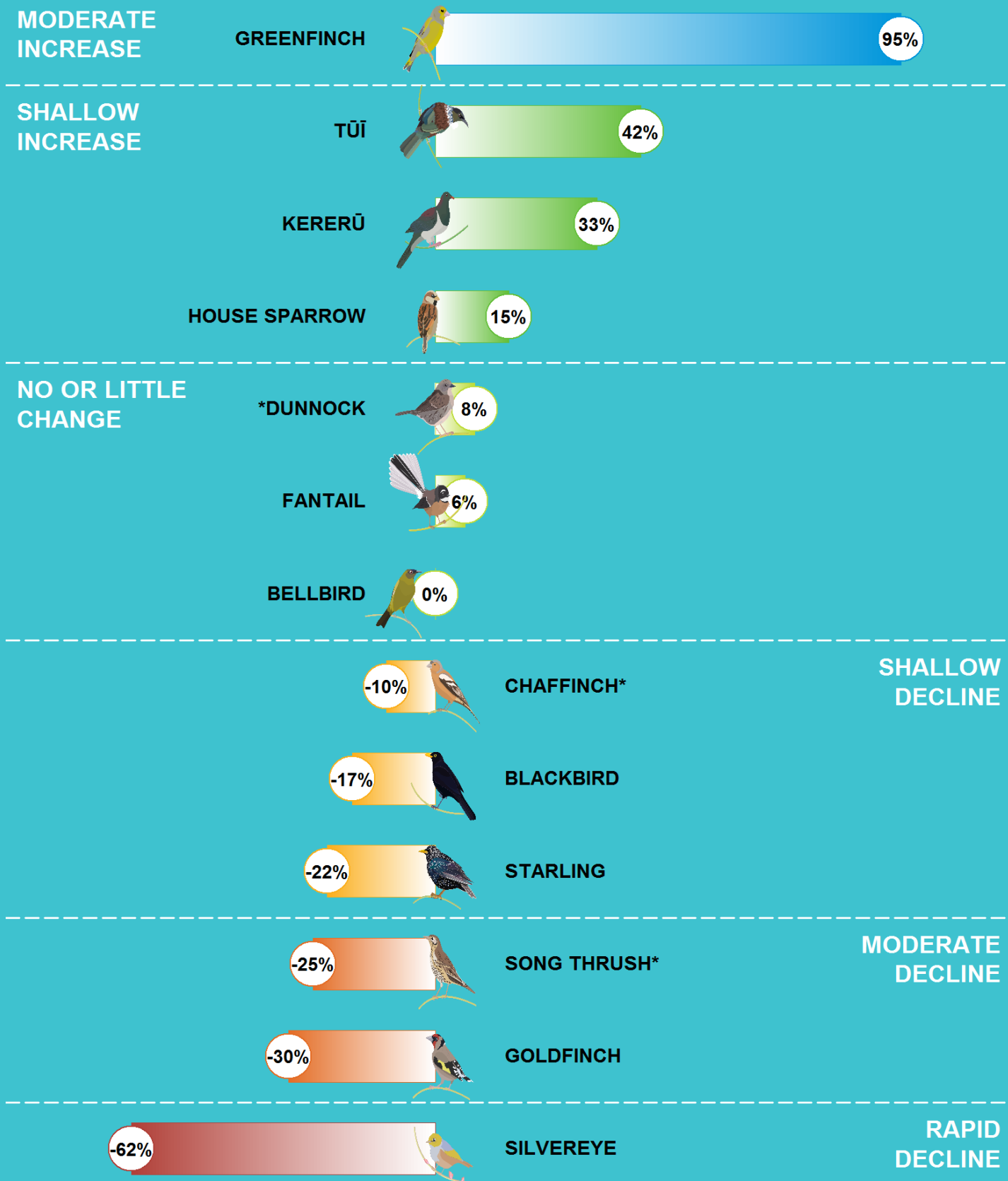
Manaaki
Whenua
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Rural (Incl.some Off Shore Islands)



Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 624 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.

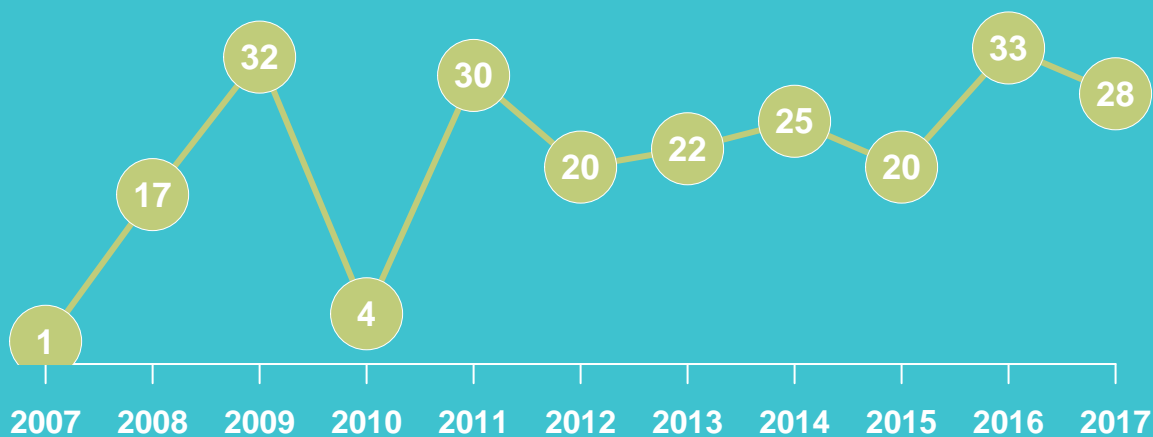


New Zealand
**GARDEN
BIRD
SURVEY**



OTAGO REGION RURAL CENTRE

NUMBER OF SURVEYED GARDENS



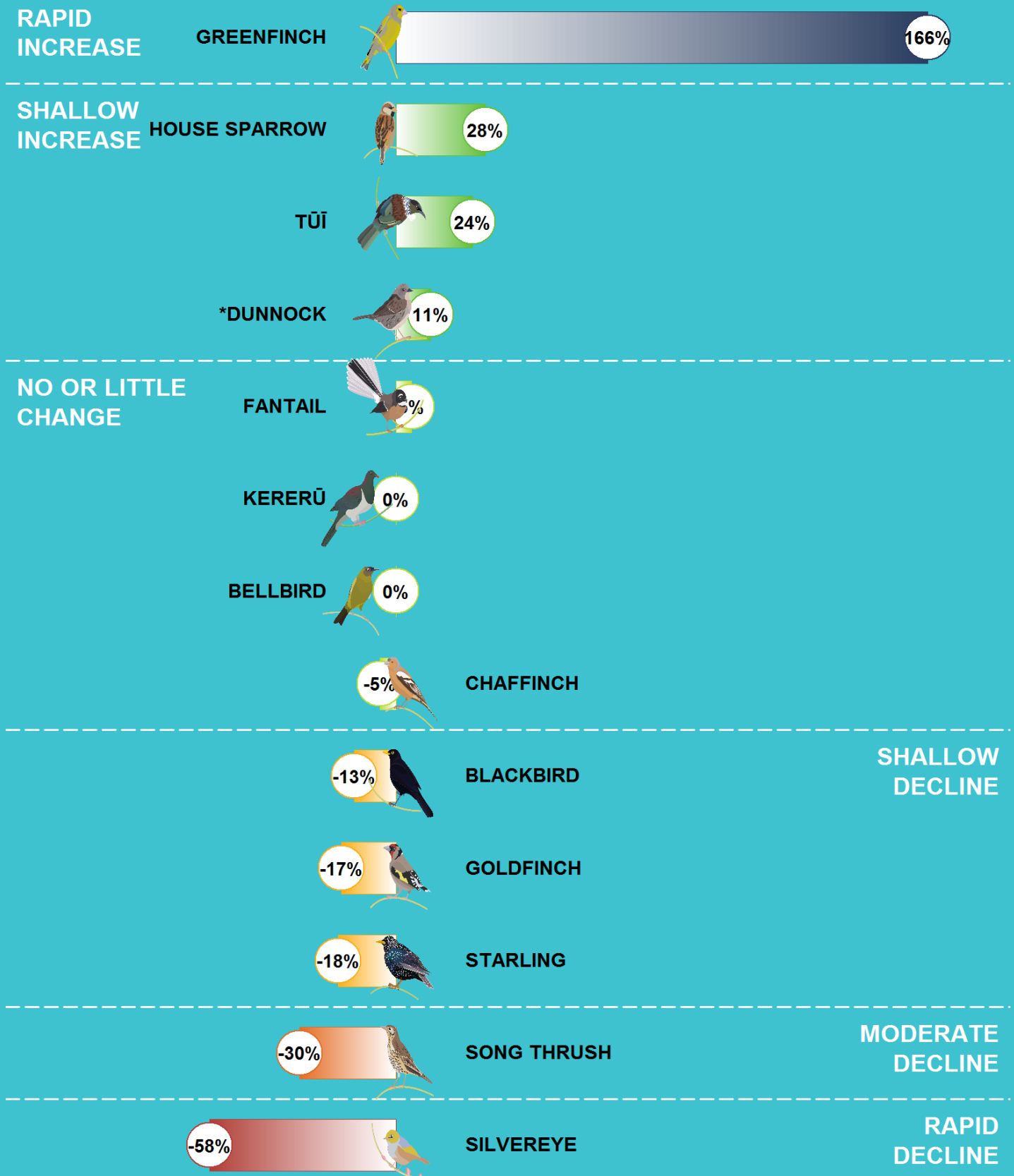
Manaaki
Whenua
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Rural Centre



Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 232 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



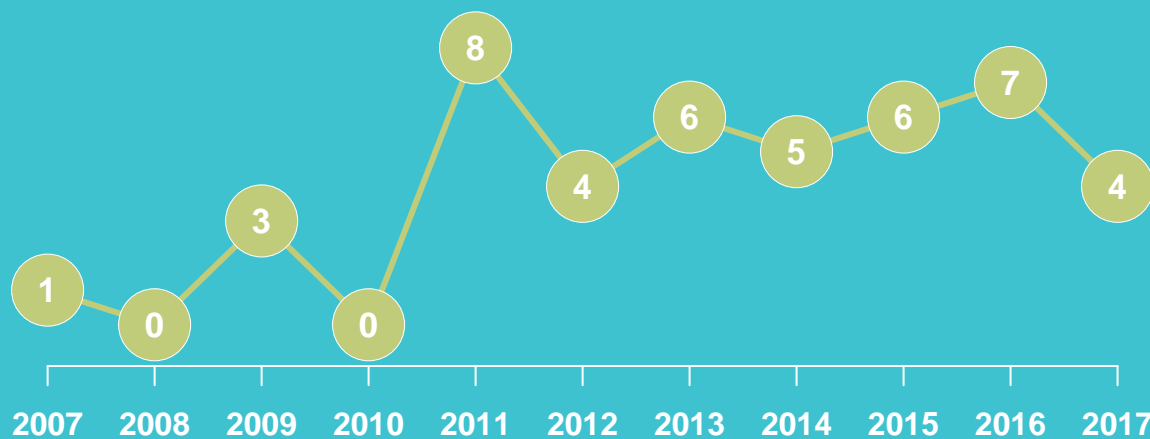
New Zealand
**GARDEN
BIRD
SURVEY**



OTAGO REGION

WAIKOUAITI

NUMBER OF SURVEYED GARDENS



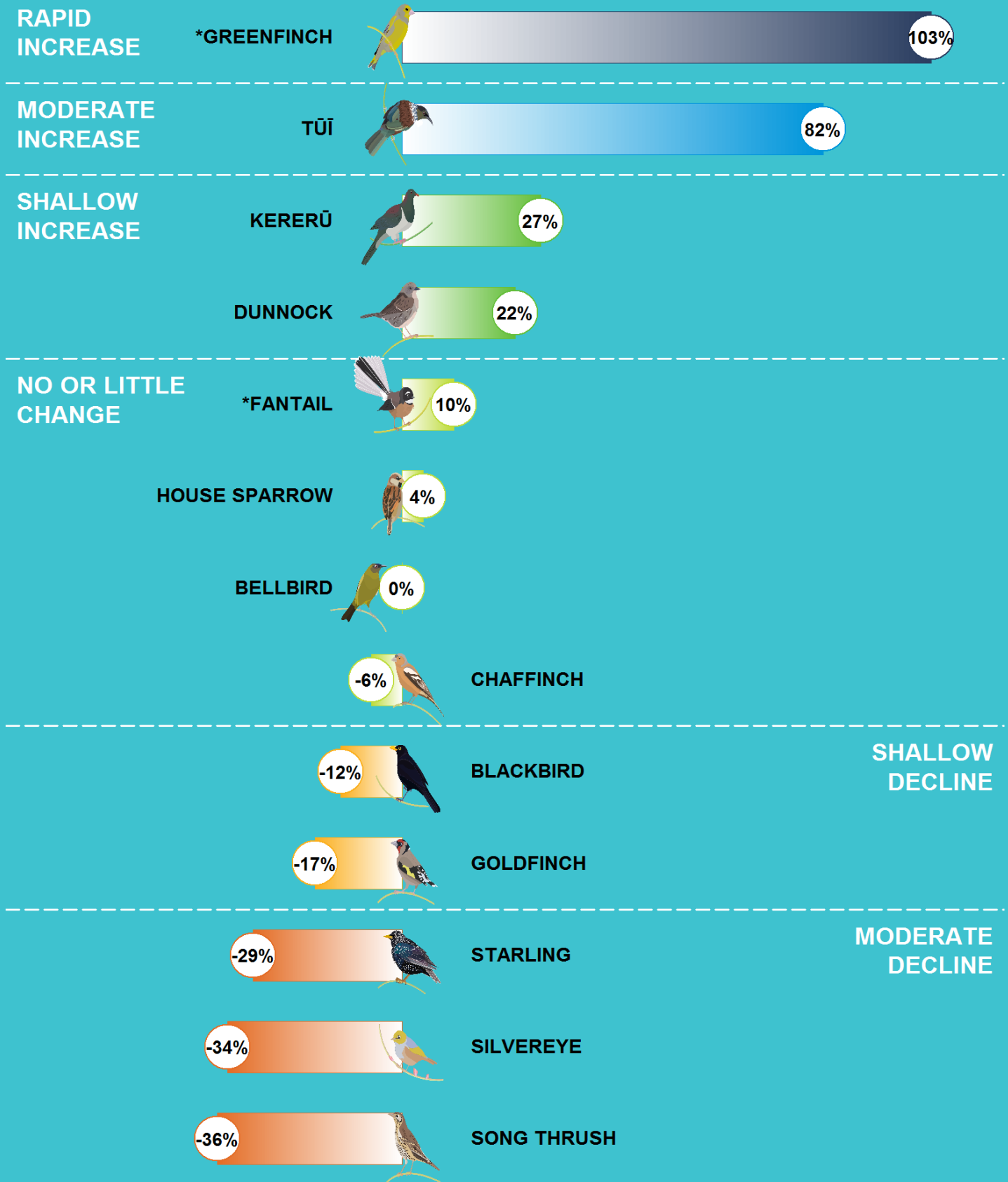
Manaaki
Whenua
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Waikouaiti



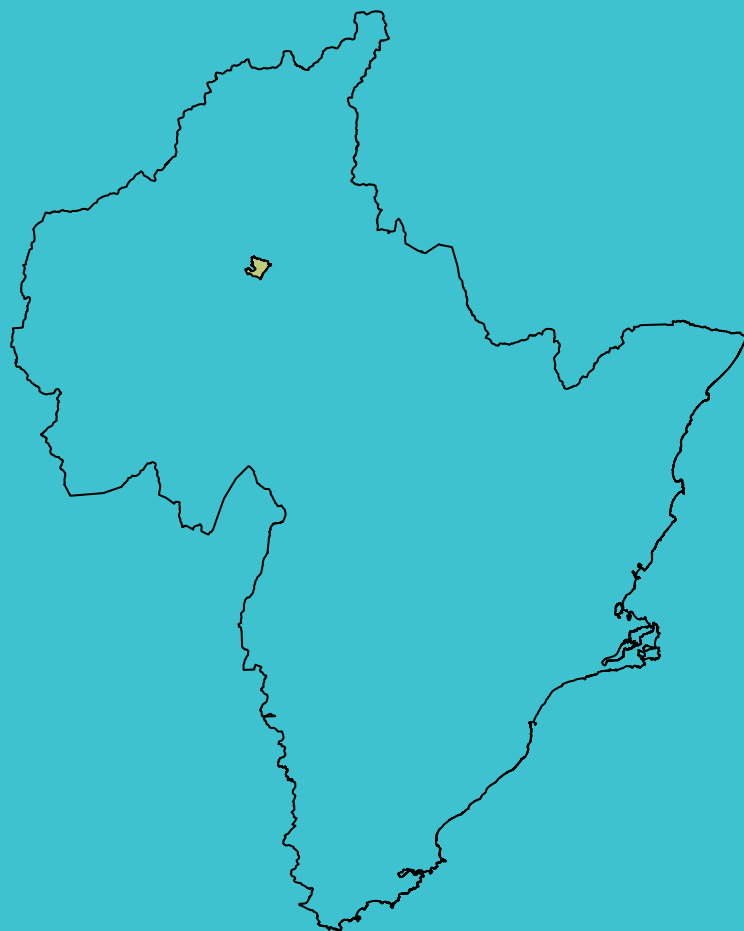
Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 44 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



New Zealand

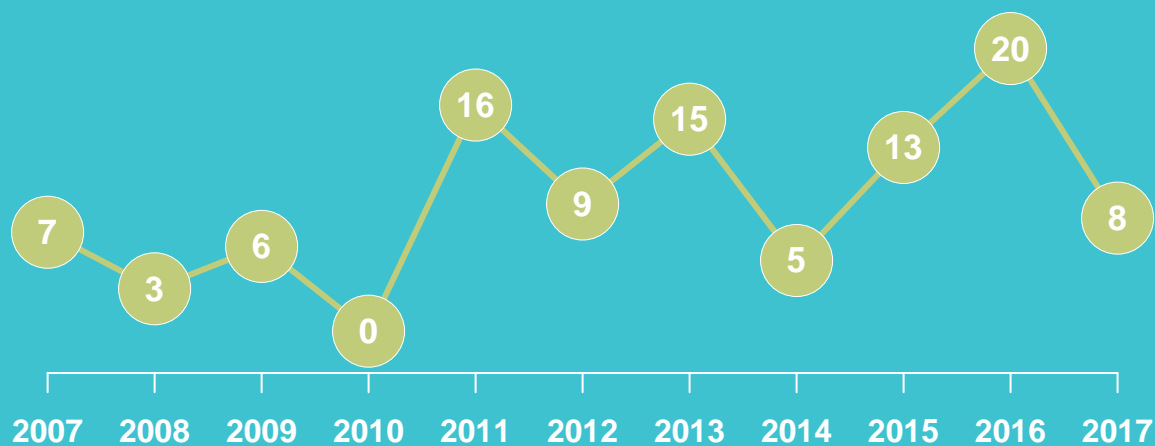
GARDEN BIRD SURVEY



OTAGO REGION

WANAKA

NUMBER OF SURVEYED GARDENS



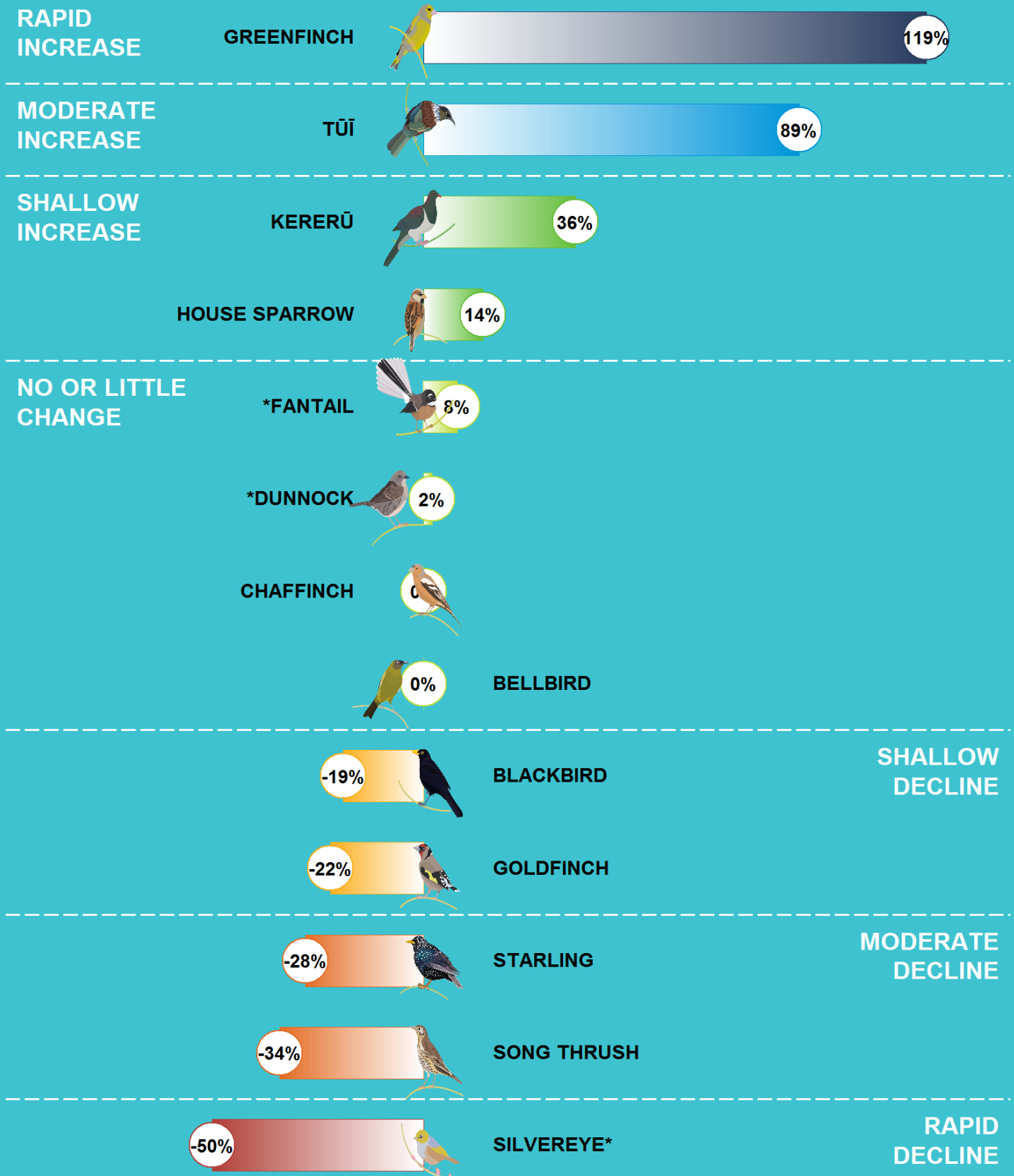
Manaaki
Whenua
Landcare
Research

How have bird counts changed?



OTAGO REGION | 2007-2017

Wanaka



Data source: 31,679 garden surveys nationwide between 2007 and 2017. This includes 102 garden surveys in this specific area.

* Based on available data, evidence for these species' estimates is weak.



New Zealand

**GARDEN
BIRD
SURVEY**

2018

30 June to 8 July

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

This report should be cited as: MacLeod CJ, Spurr EB, Brandt AJ, Green P. 2018.

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