



Ash Dieback Tetrad Survey Data for Kent 2020

Louise A. Butfoy

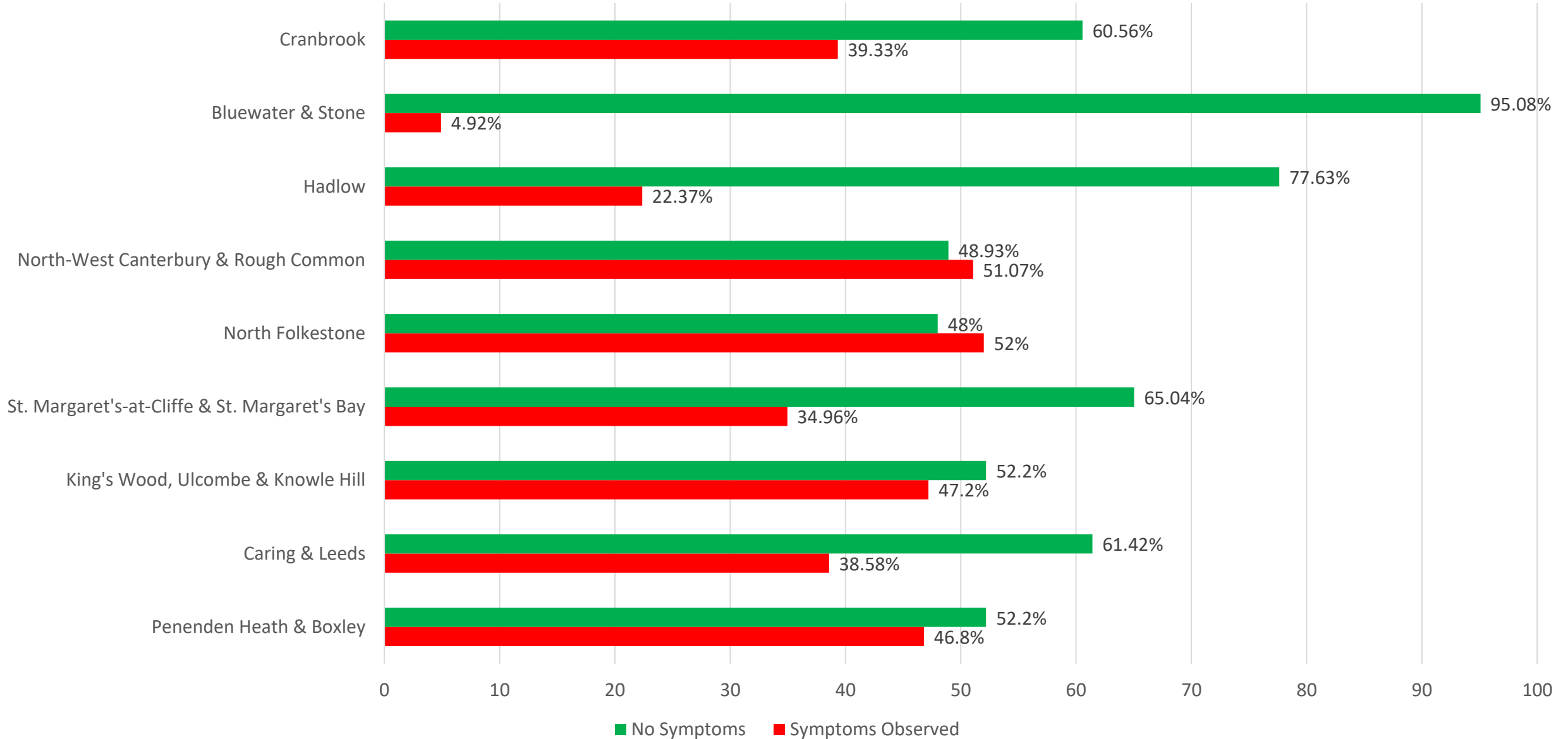
Tony P. Harwood

October 2020

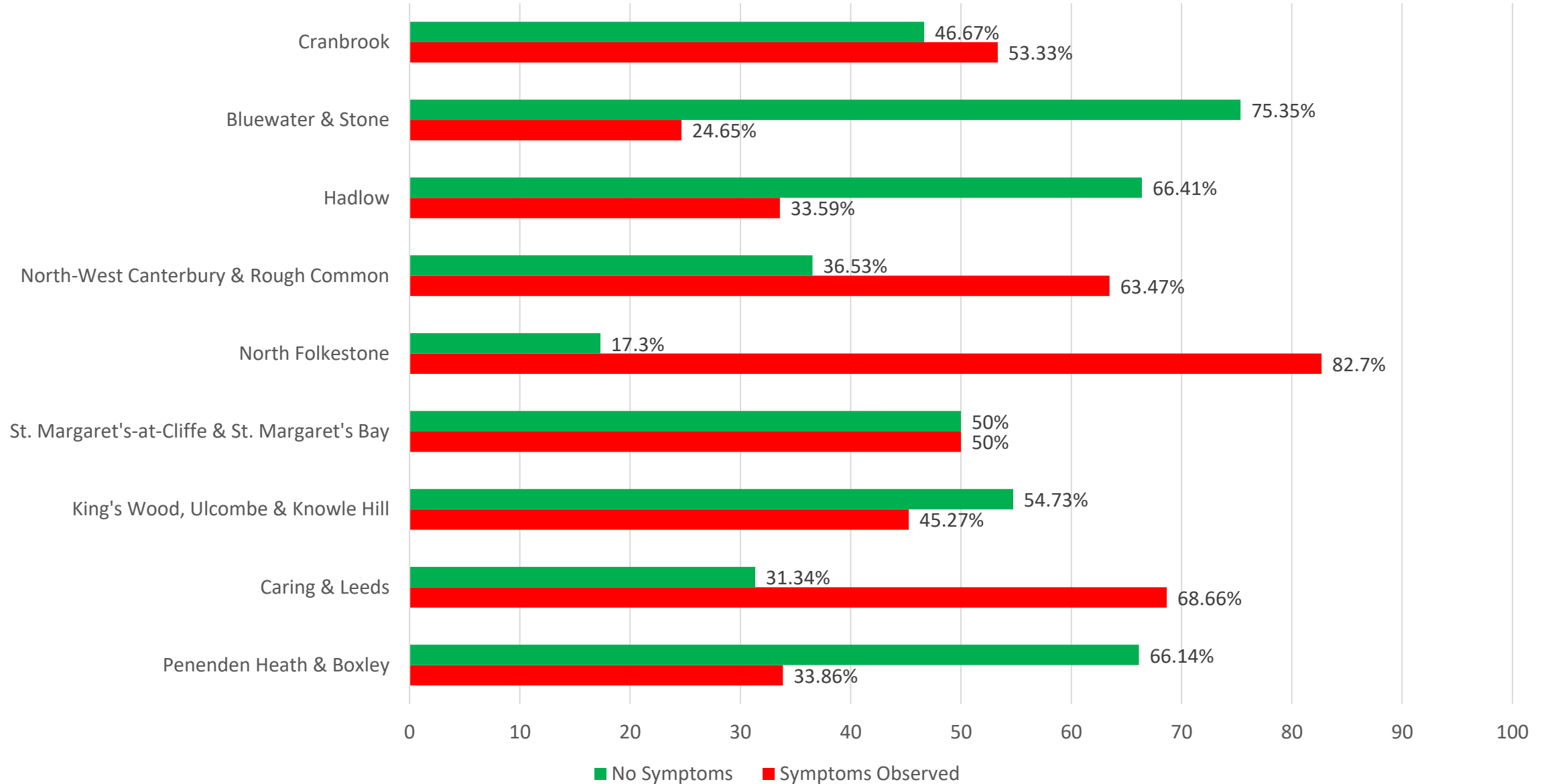
Executive Summary

- 2019/2020 and 2020/21 financial years have seen a decrease in costs since 2018/19 to KCC Highways, Transportation & Waste for the felling & pruning of Ash Dieback infected Ash on KCC Highway estate from £66,000 in 2018/19 to £51,417 in 2019/20 and £15,222.88 in 2020/21 (up to October 2020).
- 2020 has seen a significant recovery of ash populations across seven of the nine survey tetrads. The tetrads where increases in symptoms were observed resulted from intensification of infection within woodland environments, while those sites seeing decreases in levels of infection related to tree outside of woodlands. The working hypothesis is that the hot and dry spring and summer of 2020 reduced sporulation (and hence infection rates) in more exposed habitats, but the shelter afforded by woodland buffered this impact somewhat.
- The proportion of trees exhibiting Ash Dieback symptoms observed across the nine Kent survey sites **decreased** by an average of **13.14%** between 2019 and 2020, after **increasing** by an average of **28.36%** between 2018 and 2019.
- The percentage increase/decrease (from 2019 to 2020) in trees exhibiting symptoms observed across the Kent tetrads are as follows:
 - Cranbrook: **14% decrease** (from **8%** of trees showing ADB symptoms in 2018, to **53.33%** in 2019, to **39.33%** in 2020)
 - Bluewater: **19.73% decrease** (from **2.4%** of trees showing ADB symptoms in 2018, to **24.65%** in 2019, to **4.92%** in 2020)
 - Hadlow: **11.22% decrease** (from **15.93%** of trees showing ADB symptoms in 2018, to **33.59%** in 2019, to **22.37%** in 2020)
 - Canterbury: **12.40% decrease** (from **29.90%** of trees showing ADB symptoms in 2018, to **63.47%** in 2019, to **51.07%** in 2020)
 - Folkestone: **30.70% decrease** (from **39.05%** of trees showing ADB symptoms in 2018, to **82.70%** in 2019, to **52%** in 2020)
 - St. Margaret's Bay **15.04% decrease** (from **29.77%** of trees showing ADB symptoms in 2018, to **50%** in 2019, to **34.96%** in 2020)
 - King's Wood, Ulcombe & Knowle Hill: **1.93% increase** (from **18.14%** of trees showing ADB symptoms in 2018, to **45.27%** in 2019, to **47.20%** in 2020)
 - Caring & Leeds: **30.08% decrease** (from **27.09%** of trees showing ADB symptoms in 2018, to **68.66%** in 2019, to **38.58%** in 2020)
 - Penenden Heath & Boxley: **12.94% increase** (from **29.96%** of trees showing ADB symptoms in 2018, to **33.86%** in 2019, to **46.80%** in 2020)
- Summer 2020 saw a significant number of ash trees removed from alongside the River Medway towpath downstream of Maidstone Town Centre, this was ascribed in media reports as resulting from ash dieback. However, waterlogging following a major water leak appears to have been the main cause of the mortality of these trees.

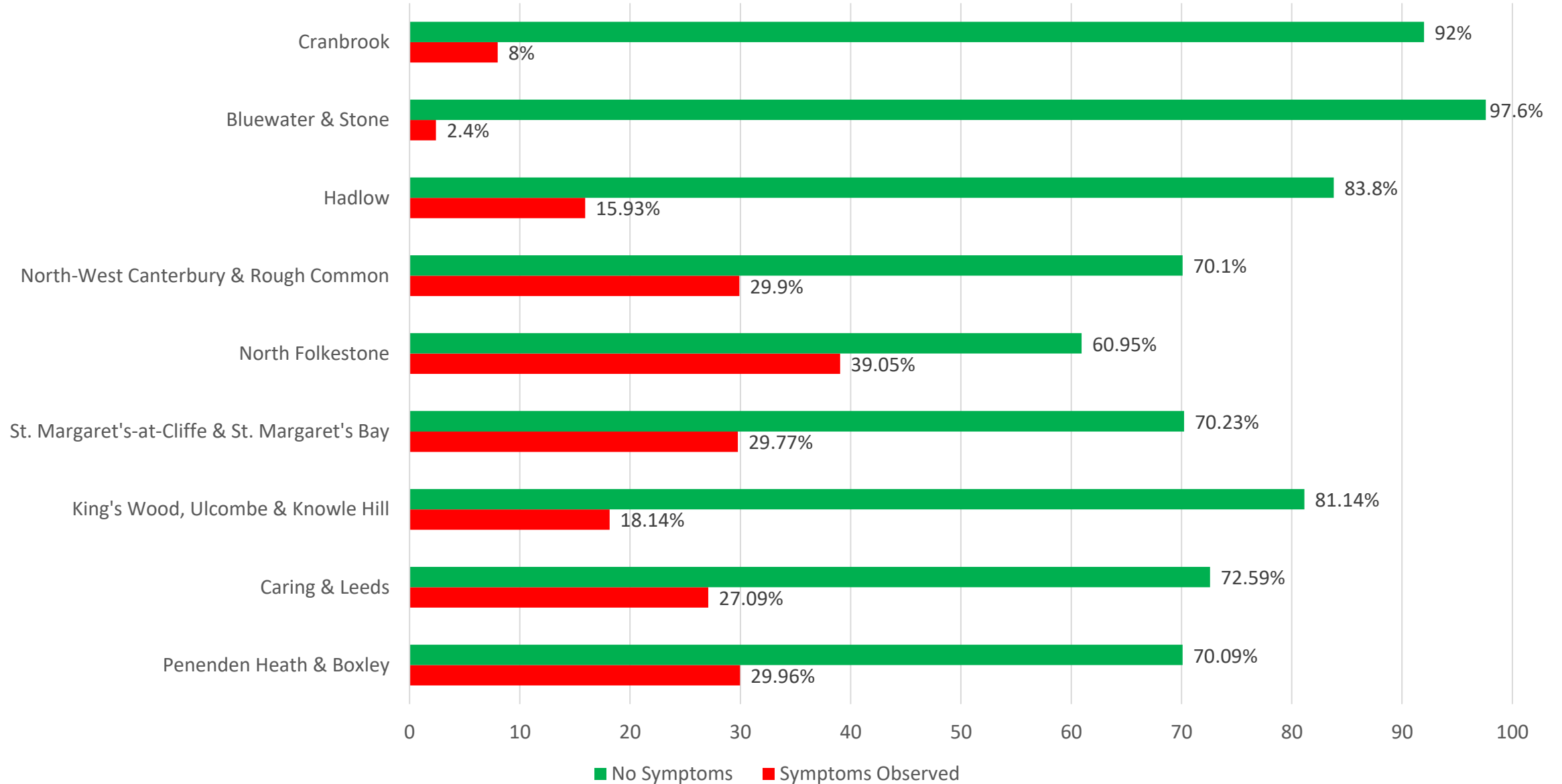
Percentage of Ash with No Ash Dieback Symptoms Comparison to Ash with Observed Symptoms 2020



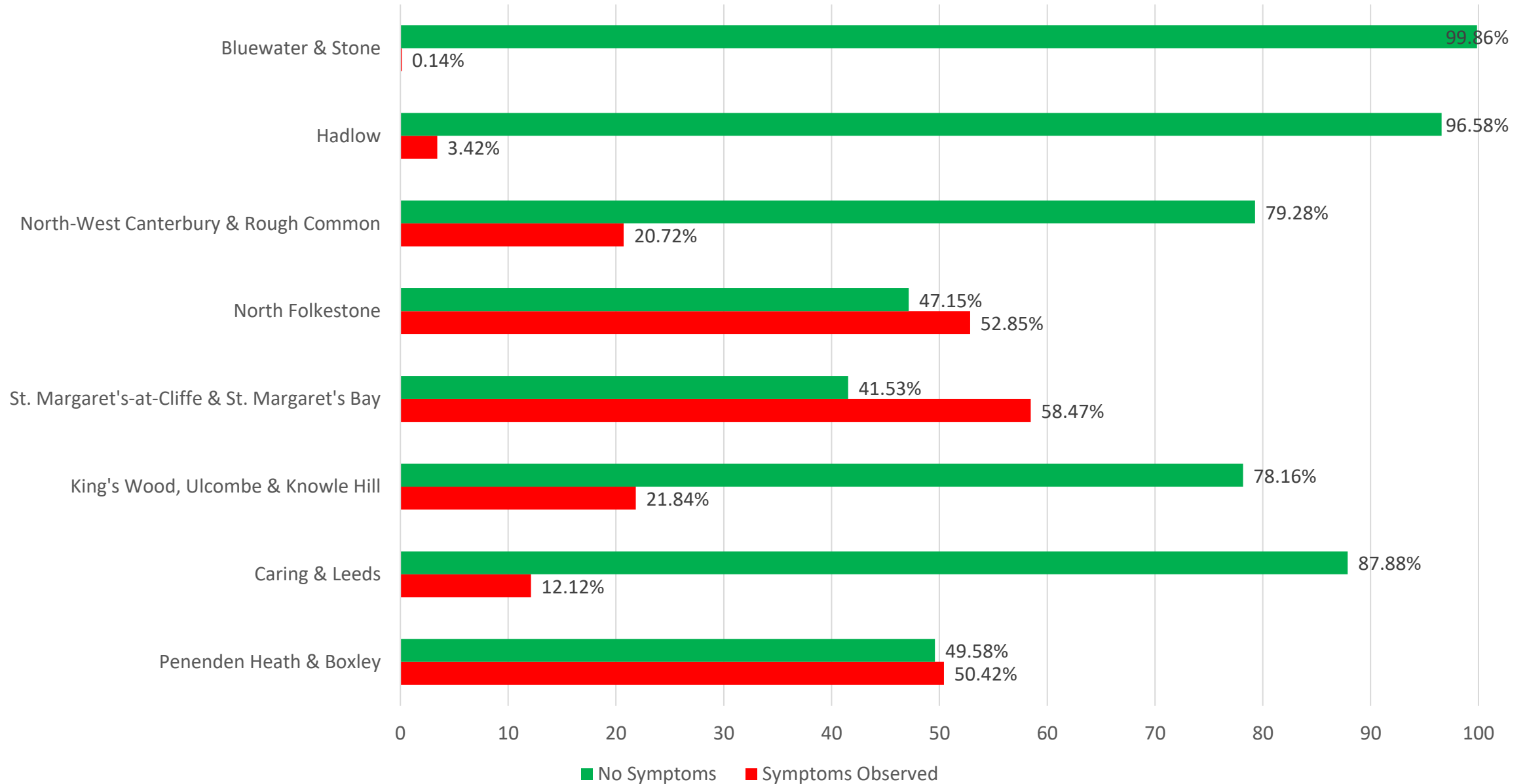
Percentage of Ash with No Ash Dieback Symptoms Comparison to Ash with Observed Symptoms 2019



Percentage of Ash with No Ash Dieback Symptoms Comparison to Ash with Observed Symptoms 2018

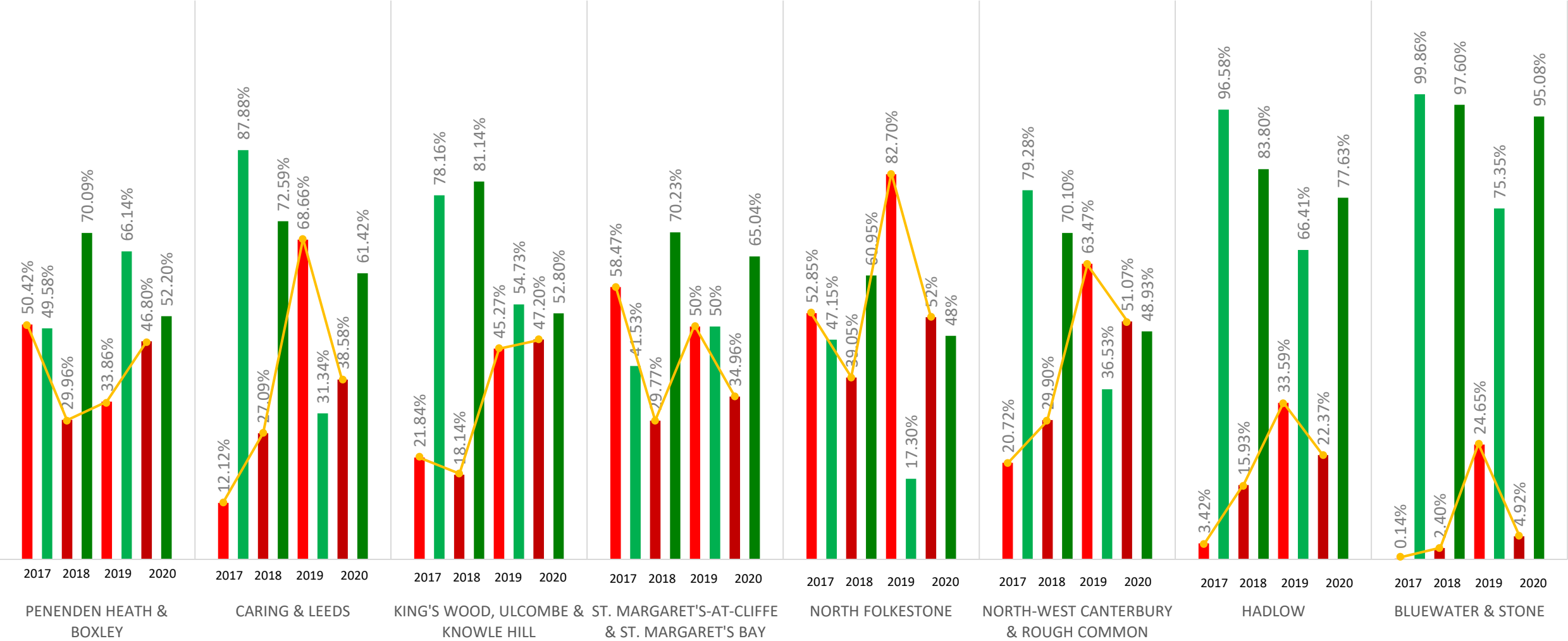


Percentage of Ash with No Ash Dieback Symptoms Comparison to Ash with Observed Symptoms 2017



PERCENTAGE OF ASH WITH NO SYMPTOMS COMPARISON TO ASH WITH OBSERVED SYMPTOMS SUMMER 2017, 2018, 2019 & 2020

- Symptoms Observed 2017
- No Symptoms 2017
- Symptoms Observed 2018
- No Symptoms 2018
- Symptoms Observed 2019
- No Symptoms 2019
- Symptoms Observed 2020
- No Symptoms 2020



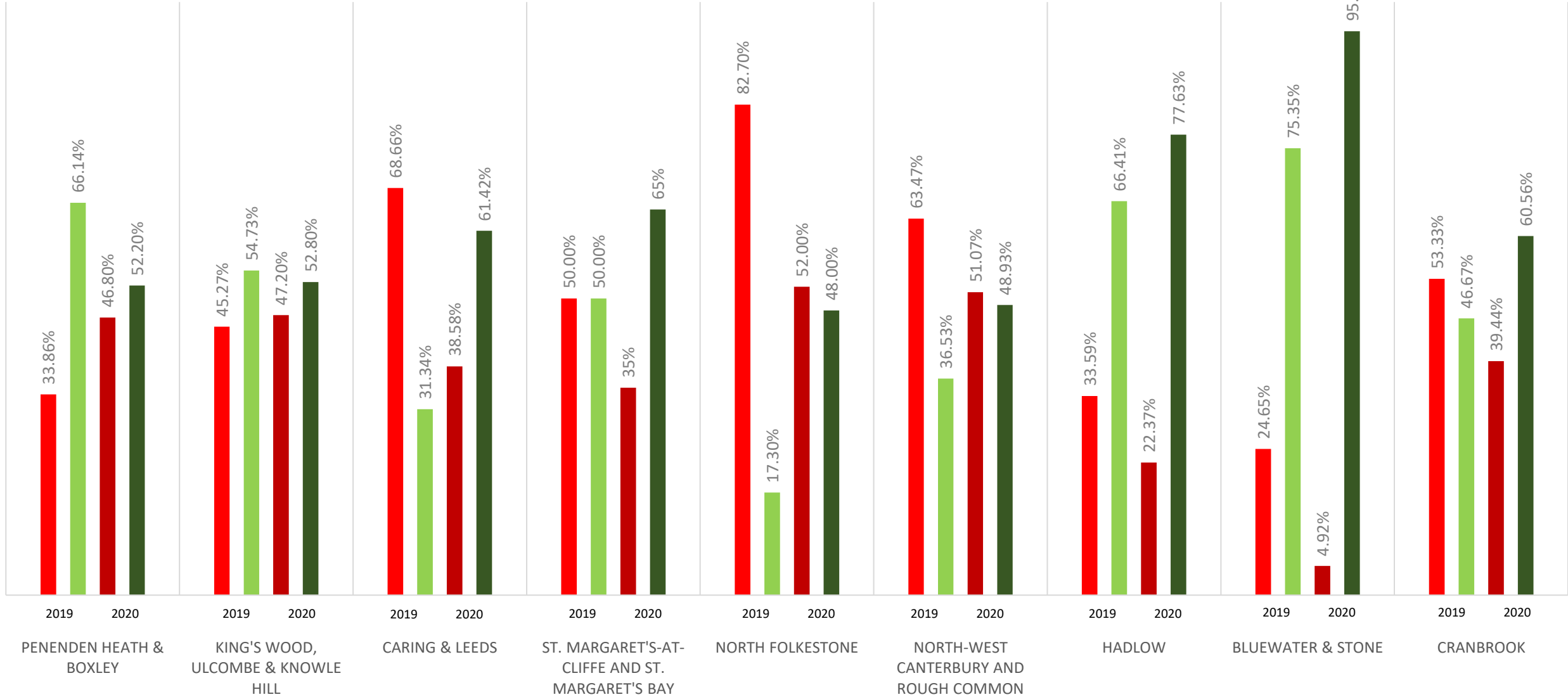
PERCENTAGE OF ASH WITH NO SYMPTOMS COMPARISON TO ASH WITH OBSERVED DIEBACK
SUMMER 2019 TO 2020

■ Symptoms Observed 2019

■ No Symptoms 2019

■ Symptoms Observed 2020

■ No Symptoms 2020



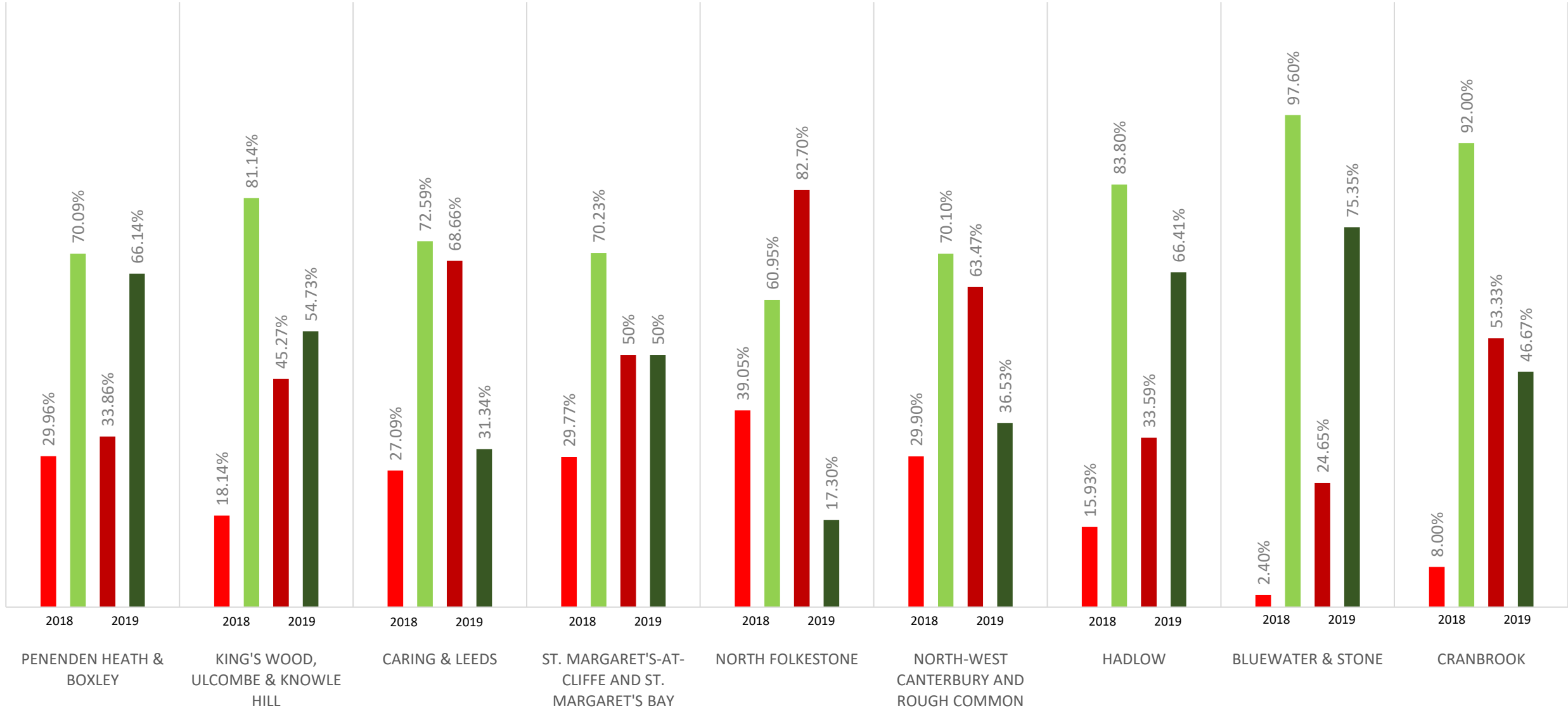
PERCENTAGE OF ASH WITH NO SYMPTOMS COMPARISON TO ASH WITH OBSERVED DIEBACK
SUMMER 2018 TO 2019

■ Symptoms Observed 2018

■ No Symptoms 2018

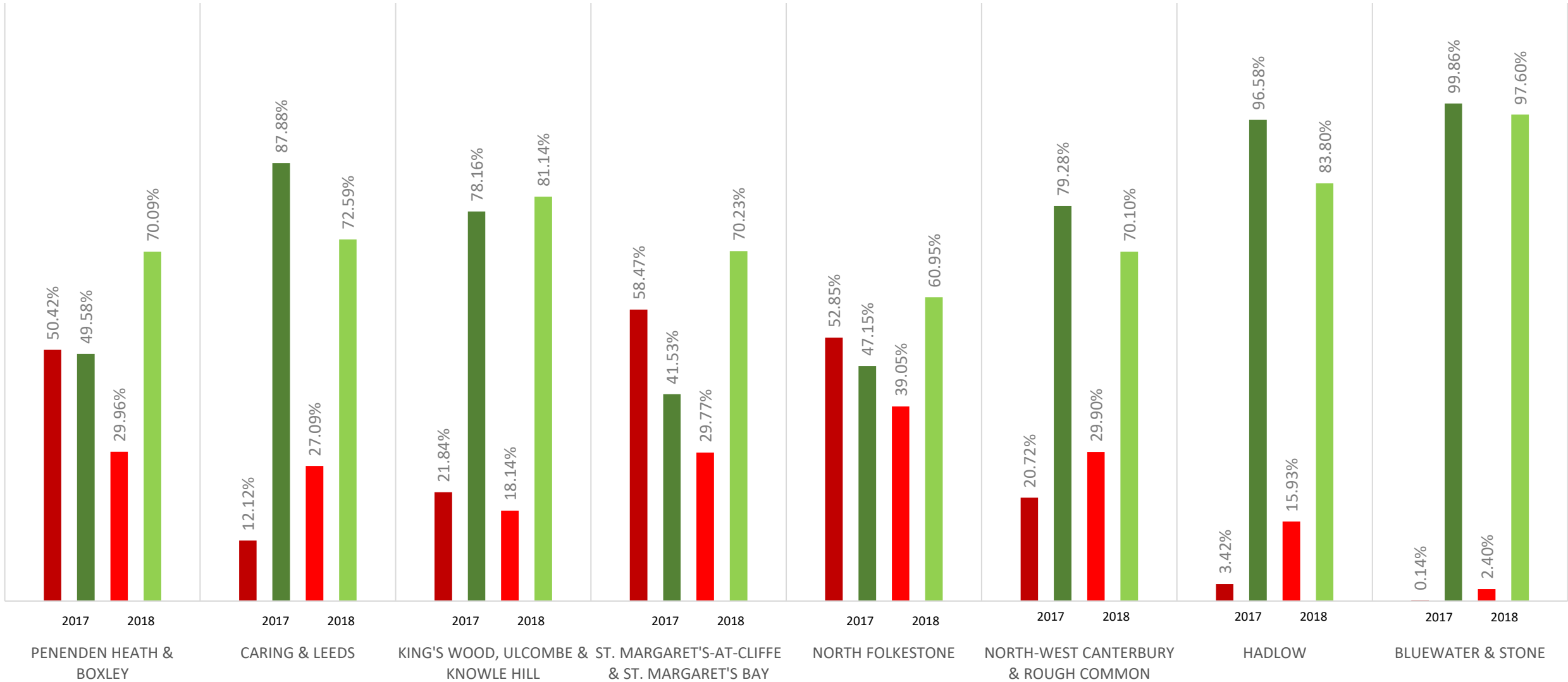
■ Symptoms Observed 2019

■ No Symptoms 2019

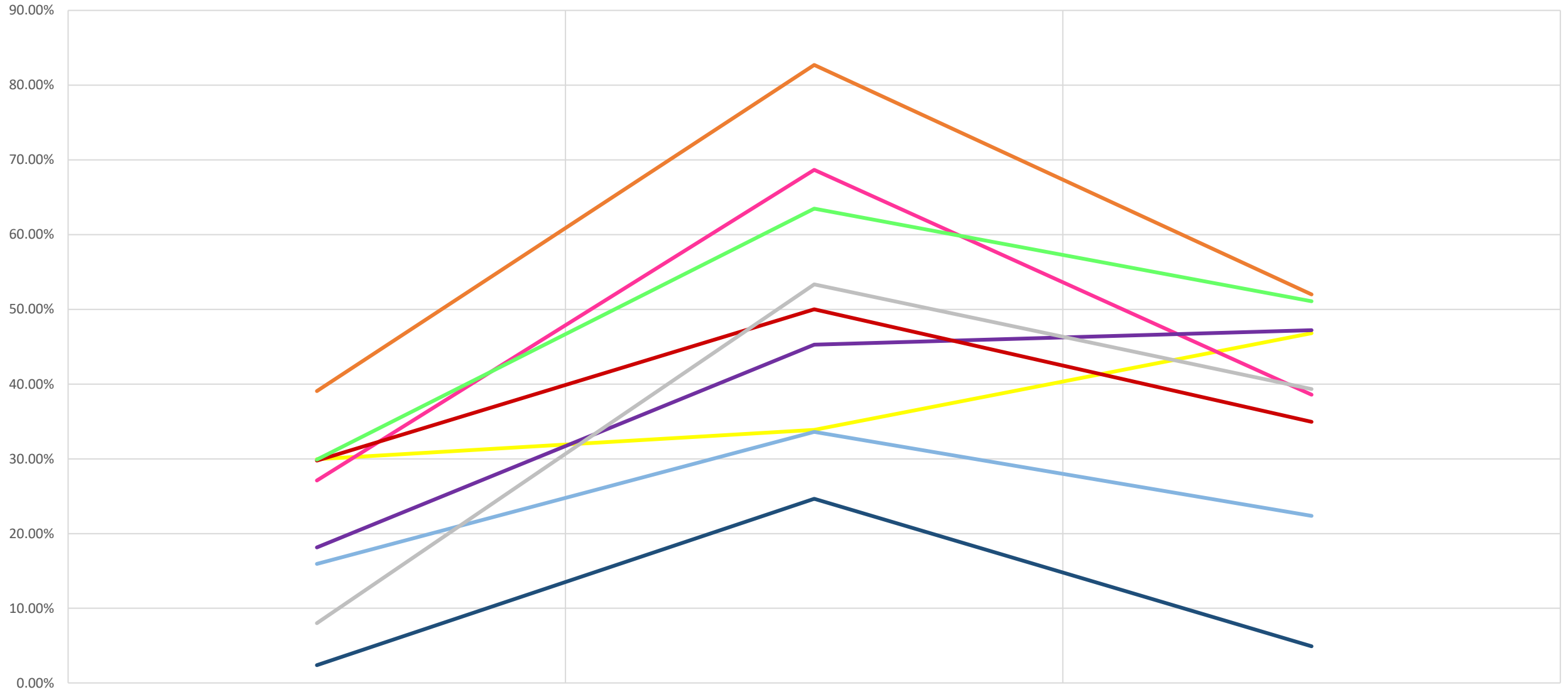


PERCENTAGE OF ASH WITH NO SYMPTOMS COMPARISON TO ASH WITH OBSERVED SYMPTOMS SUMMER 2017 & 2018

■ Symptoms Observed 2017 ■ No Symptoms 2017 ■ Symptoms Observed 2018 ■ No Symptoms 2018

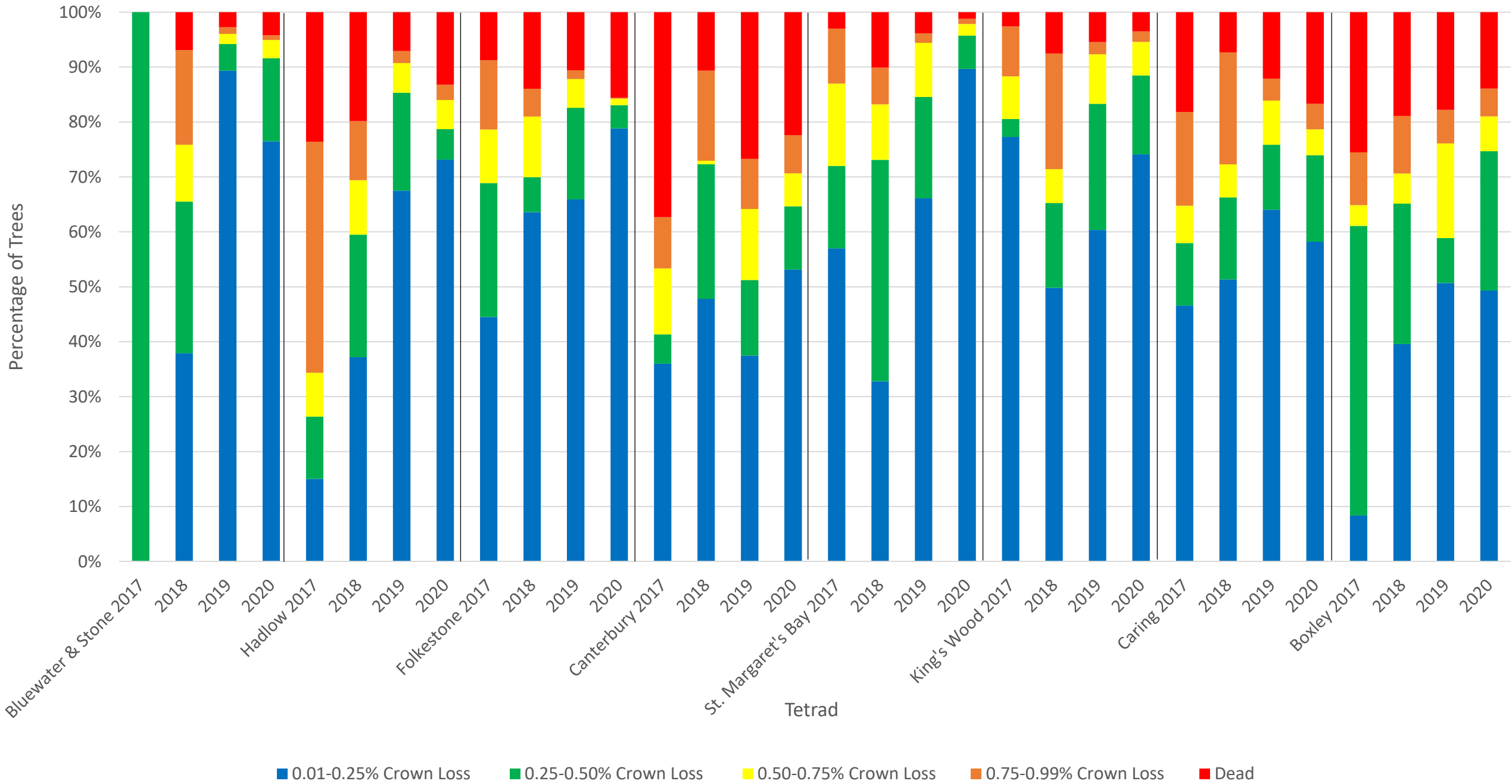


INCREASE/DECREASE OF ADB SYMPTOMS OBSERVED SYMPTOMS SUMMER 2018, 2019 & 2020

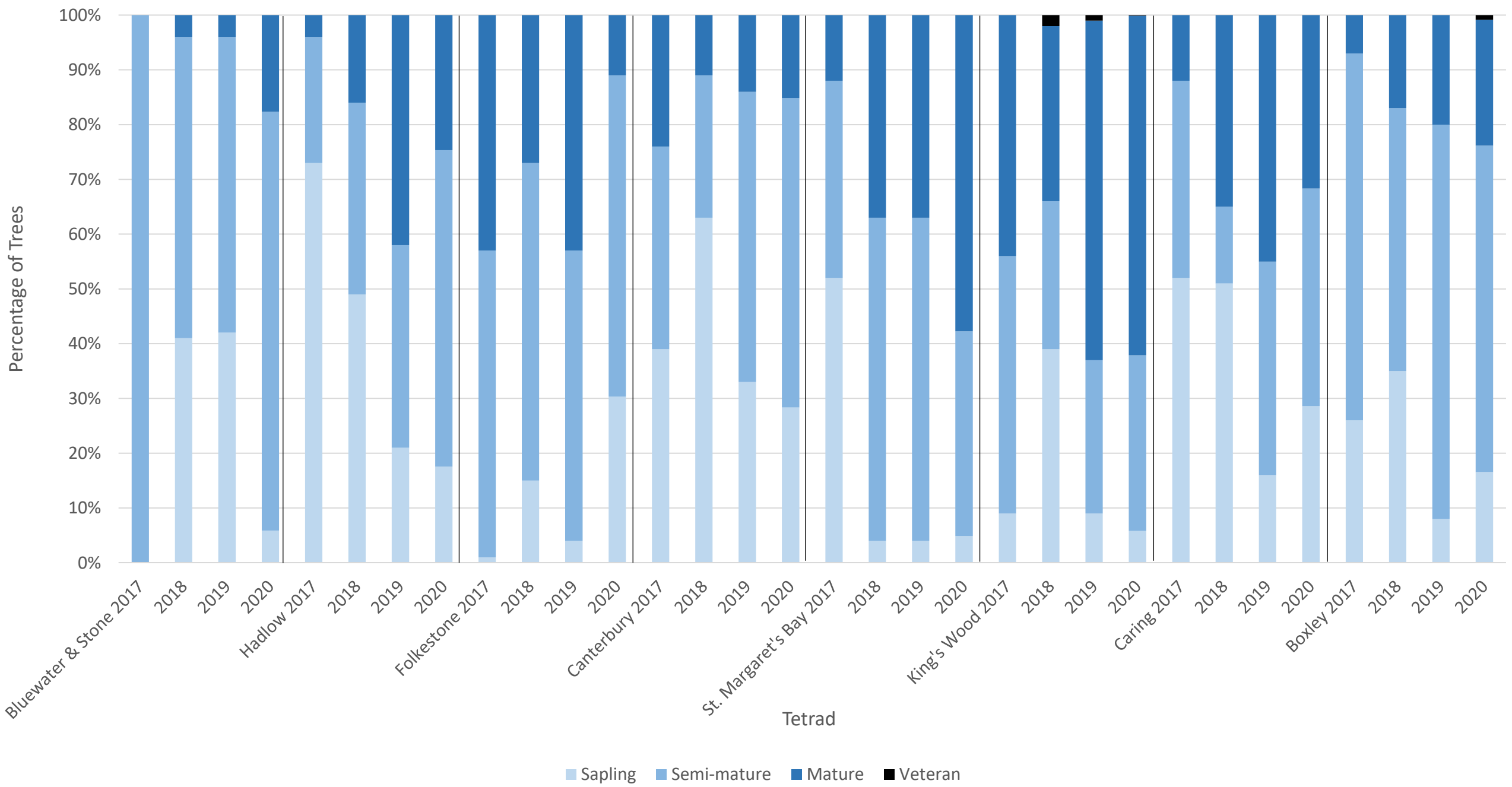


- Penenden Heath & Boxley
- Caring & Leeds
- King's Wood, Ulcombe & Knowle Hill
- St. Margaret's-at-Cliffe & St. Margaret's Bay
- North Folkestone
- North-West Canterbury & Rough Common
- Hadlow
- Bluewater & Stone
- Cranbrook

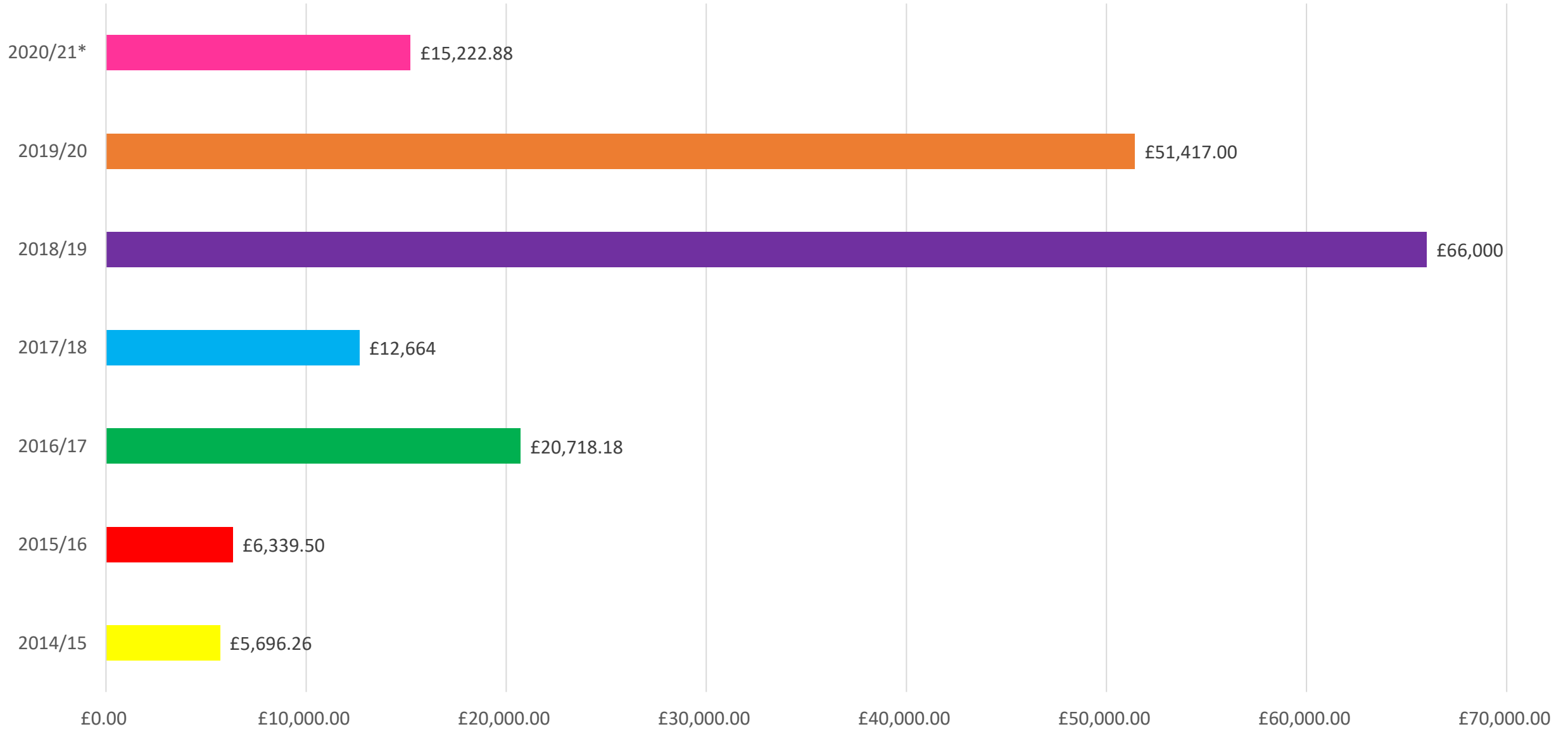
KCC SURVEY OF ASH TETRADS LEVELS OF DIEBACK 2017, 2018, 2019 & 2020



KCC SURVEY OF ASH TETRADS AGE/SIZE OF INFECTED TREES 2017, 2018, 2019 & 2020



COST TO KCC HIGHWAYS, TRANSPORTATION & WASTE FOR THE FELLING & PRUNING OF ASH DIEBACK INFECTED ASH ON KCC ESTATE.



* Up to October 2020

2013 BASELINE ASH DIEBACK DATA

Ash (*Fraxinus excelsior*) records from tetrads (2km squares) on or adjacent to publicly accessible land (including highways, PROWS and public open spaces)
North Maidstone / Penenden Heath / Boxley tetrad - suburban / urban edge (27/28 Aug 2013)

No of Trees	Tree Age					Tree Management					Site/Woodland Management				Chalara Present	Tree Condition
	Sapling	Immature	Mature	Veteran	Unknown	Coppice	Maiden	Pollard	Other	Unknown	Coppice	Unmanaged	Partially Managed	Unknown		
2574	1024	1154	391	5	0	79	2483	12	0	0	0	2244	330	0	No	N/A
%	40%	45%	15%	0%	0%	3%	96%	0%	0%	0%	0%	87%	13%	0%		

Caring / Leeds tetrad - managed agricultural landscape (28 Aug 2013)

No of Trees	Tree Age					Tree Management					Site/Woodland Management				Chalara Present	Tree Condition
	Sapling	Immature	Mature	Veteran	Unknown	Coppice	Maiden	Pollard	Other	Unknown	Coppice	Unmanaged	Partially Managed	Unknown		
422	100	163	157	2	0	6	395	21	0	0	0	146	276	0	No	N/A
%	24%	39%	37%	0%	0%	1%	94%	5%	0%	0%	0%	35%	65%	0%		

King's Wood tetrad - heavily wooded landscape with some urbanised and managed agricultural land (30 Aug 2013)

No of Trees	Tree Age					Tree Management					Site/Woodland Management				Chalara Present	Tree Condition
	Sapling	Immature	Mature	Veteran	Unknown	Coppice	Maiden	Pollard	Other	Unknown	Coppice	Unmanaged	Partially Managed	Unknown		
523	188	116	217	2	0	216	306	1	0	0	161	88	274	0	No	N/A
%	36%	22%	41%	0%	0%	41%	59%	0%	0%	0%	31%	17%	52%	0%		