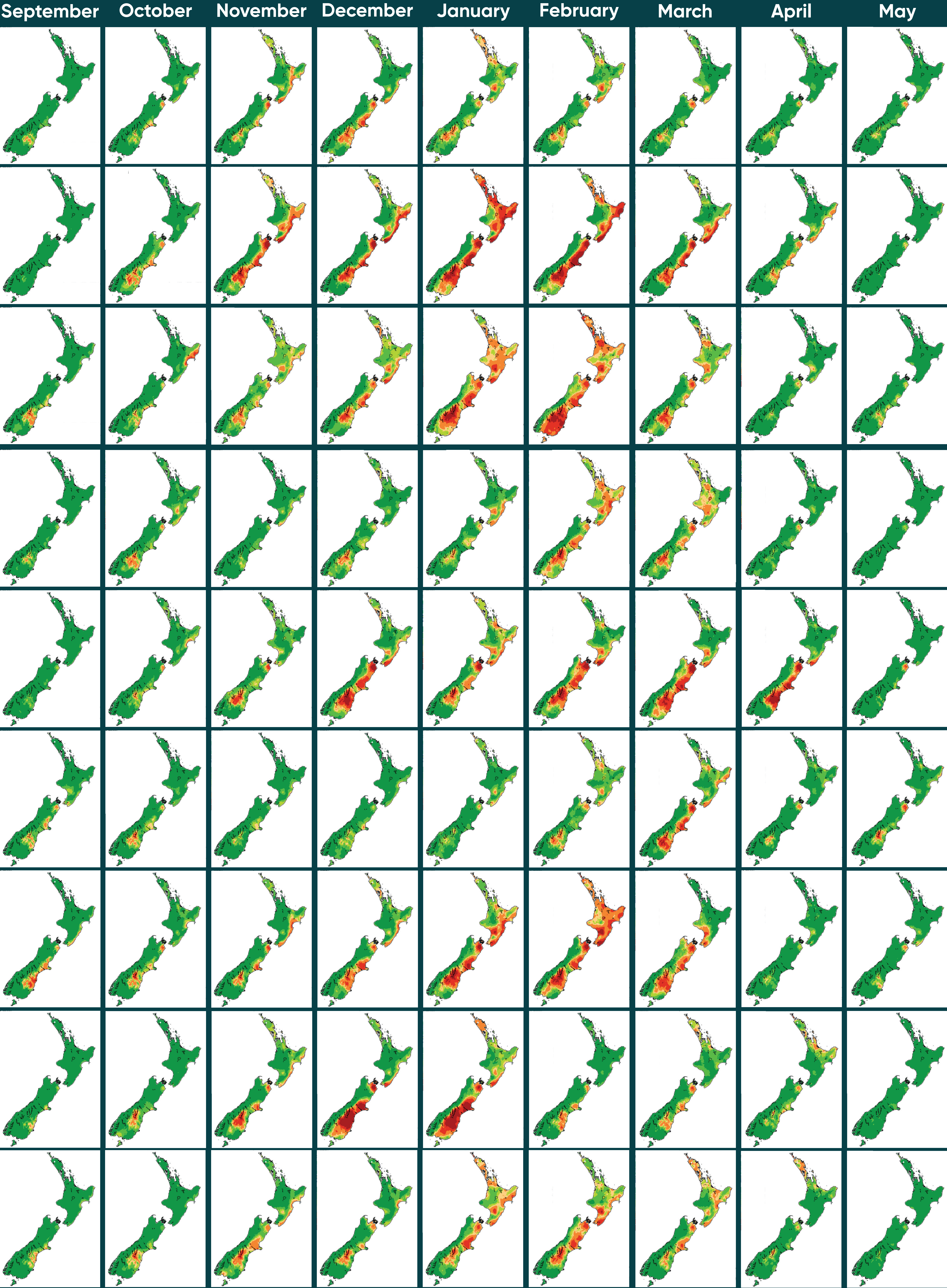


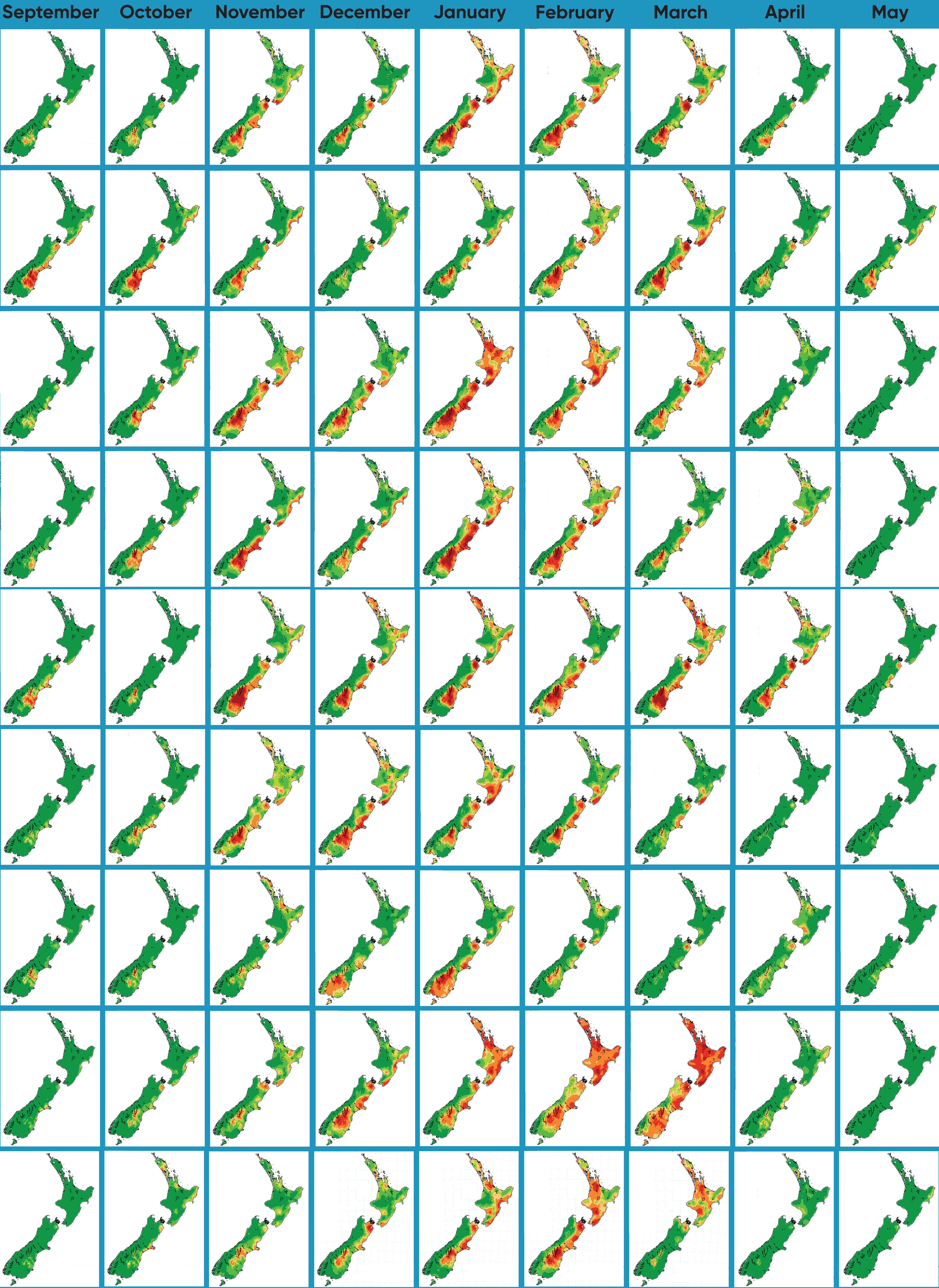
New Zealand Seasonal Fire Severity Summary

Monthly Severity 1996 – 2005



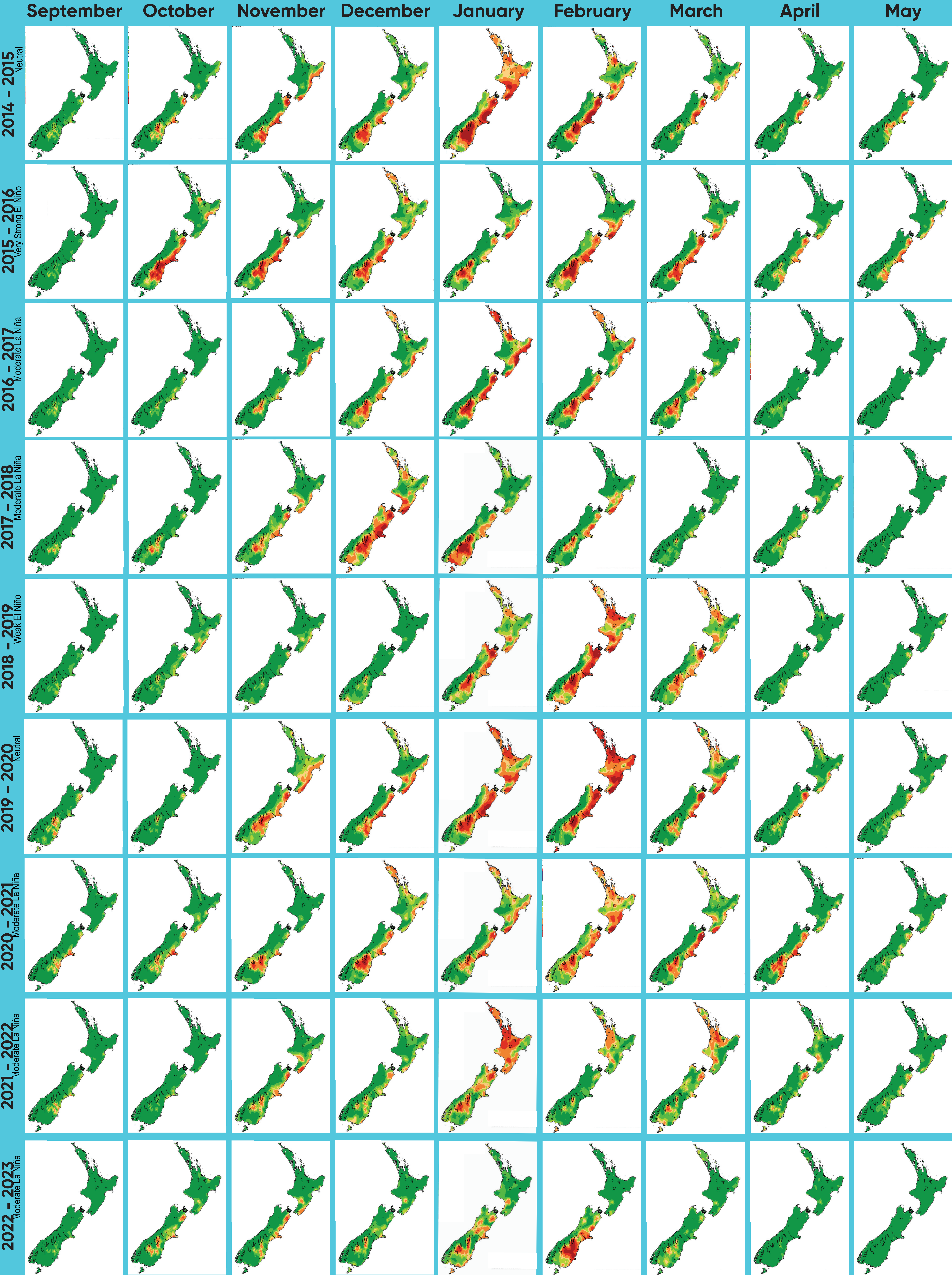
New Zealand Seasonal Fire Severity Summary

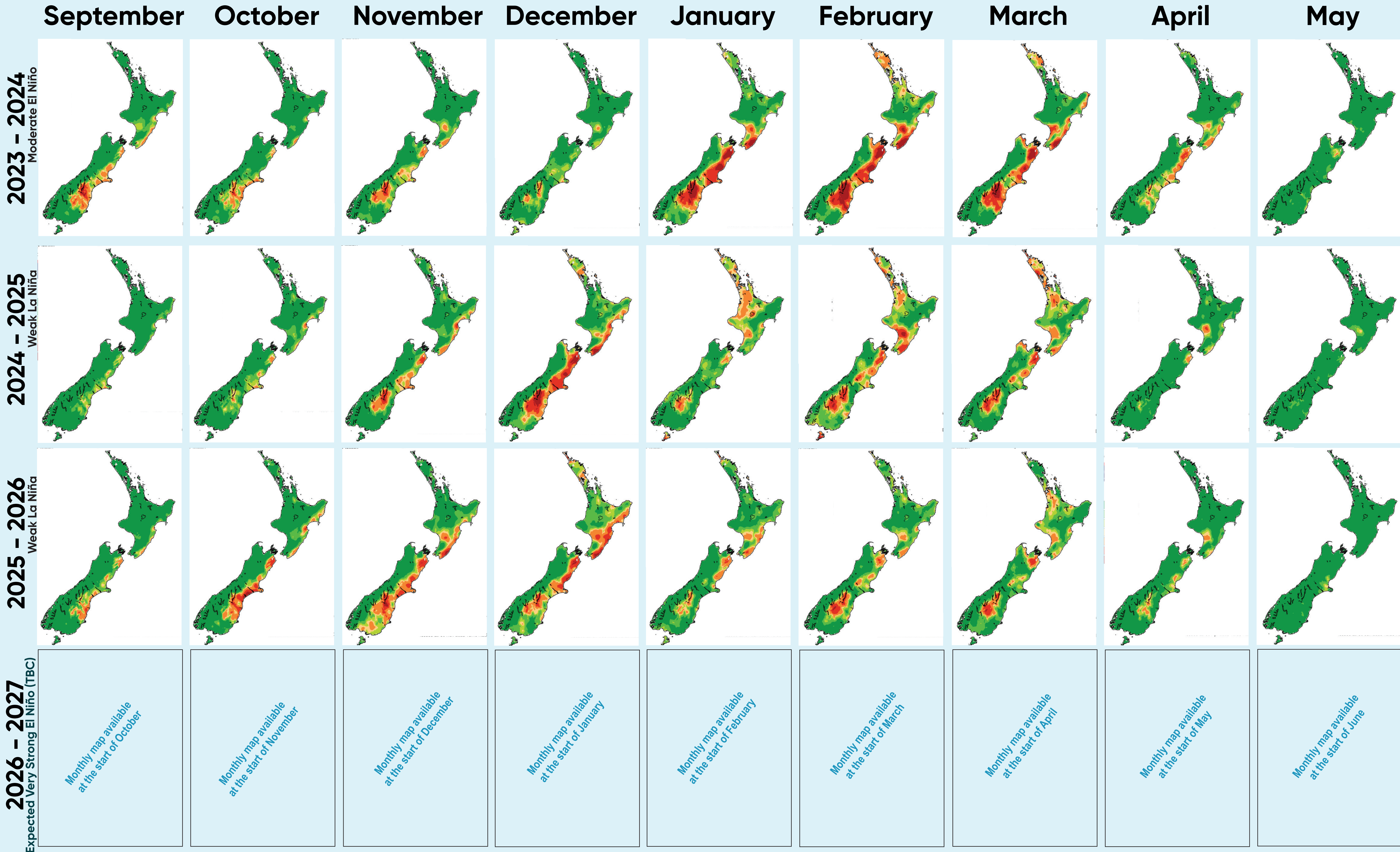
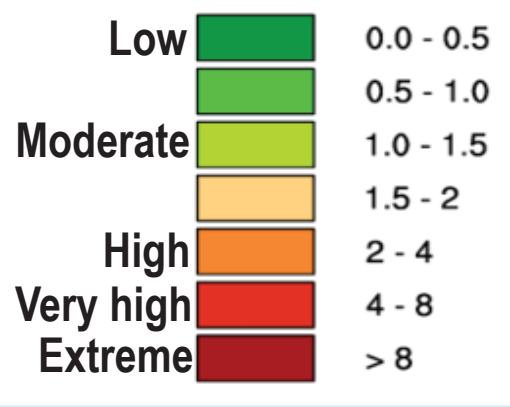
Monthly Severity 2005 – 2014



New Zealand Seasonal Fire Severity Summary

Monthly Severity 2014 – 2023





Understanding the Fire Severity Information

This poster summarises historical seasonal fire severity patterns across New Zealand and provides context on how fire severity has differed between El Niño, Neutral, and La Niña phases. Historical records between 1996 - present show that no two ENSO events produce exactly the same outcomes.

Observed Monthly Severity Rating

The Monthly Severity Rating (MSR) is the average of the Daily Severity Rating (DSR) values from the Fire Weather Index (FWI) System. The DSR is derived from the FWI and was developed to allow comparisons between years and locations. Both DSR and MSR capture the combined effects of wind and fuel dryness on potential fire intensity, fire suppression difficulty, and the level of effort required to control a fire. These indices provide a useful way to compare the severity of fire weather conditions between seasons and across regions.

- DSR classifications:
- Less than 1: Low fire behaviour potential
 - 1 to <3: Moderate fire behaviour potential
 - 3 to <7: High to Very High fire behaviour potential
 - 7 or greater: Extreme fire behaviour potential

El Niño, Neutral and La Niña Years

El Niño, Neutral, and La Niña seasons are identified using a combination of the Southern Oscillation Index (SOI) and Niño 3.4 Sea Surface Temperature (SST) anomalies. Events are classified when thresholds are met or exceeded for at least three consecutive overlapping three-month periods (table 1).

What do these mean for New Zealand?
El Niño conditions are typically associated with stronger west to southwesterly winds. This often results in wetter conditions in the west and south of both islands, and drier conditions in northern and eastern areas.

La Niña conditions are typically associated with weaker westerly winds and more frequent easterly to northeasterly airflow. This generally leads to wetter conditions in the north and east of both islands, and drier conditions in the west and south.

When neither El Niño nor La Niña conditions are present, the climate is considered **neutral**. Neutral conditions often result in greater variability in New Zealand's weather patterns, while El Niño and La Niña phases tend to produce more recognisable and predictable regional climate patterns.

Table 1: Summary of El Niño, Neutral, and La Niña years and their event intensities.

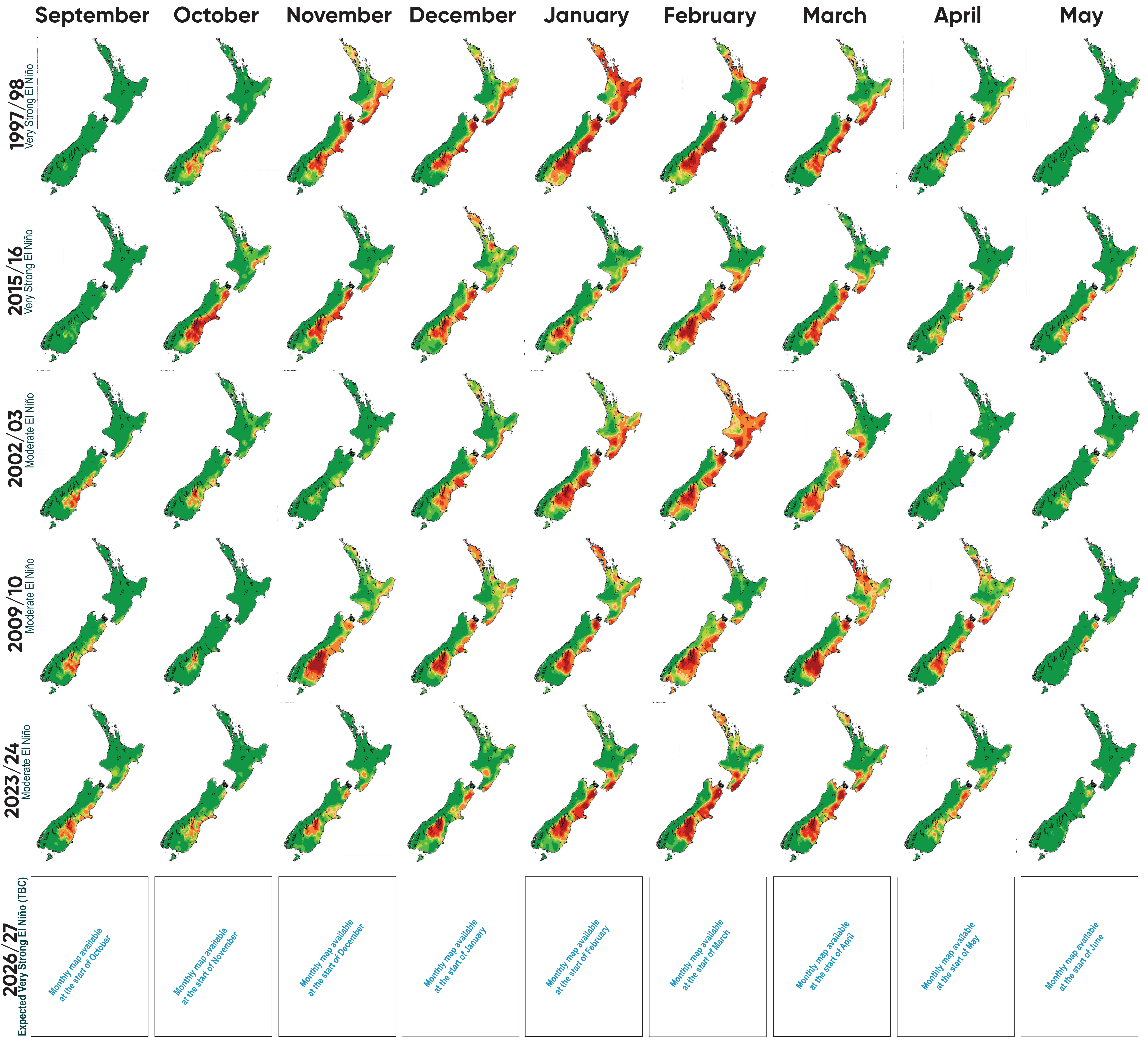
El Niño				Neutral		La Niña		
Very strong	Strong	Moderate	Weak			Weak	Moderate	Strong
1972-1973	1957-1958	1963-1964	1951-1952	1950-1951	1985-1986	1954-1955	1955-1956	1973-1974
1982-1983	1965-1966	1968-1969	1952-1953	1956-1957	1989-1990	1964-1965	1975-1976	1988-1989
1991-1992		1976-1977	1953-1954	1959-1960	1990-1991	1970-1971	2016-2017	1998-1999
1997-1998		1986-1987	1958-1959	1960-1961	1992-1993	1983-1984	2017-2018	1999-2000
2015-2016		1987-1988	1969-1970	1961-1962	1993-1994	1984-1985	2020-2021	2007-2008
		1994-1995	1977-1978	1962-1963	1996-1997	1995-1996	2021-2022	2010-2011
		2002-2003	1979-1980	1966-1967	2001-2002	2000-2001	2022-2023	
		2009-2010	2004-2005	1967-1968	2003-2004	2005-2006		
		2023-2024	2006-2007	1971-1972	2012-2013	2008-2009		
			2018-2019	1974-1975	2013-2014	2011-2012		
				1978-1979	2014-2015	2024-2025		
				1980-1981	2019-2020	2025-2026		
				1981-1982				

Notes:
Event intensity classifications follow NOAA Climate Prediction Center conventions and are based on Niño 3.4 sea surface temperature (SST) anomalies. To be classified as Weak, Moderate, Strong, or Very Strong, the corresponding threshold must be met or exceeded for at least three consecutive overlapping three-month periods. Events are classified as: Weak: 0.5 to 0.9°C; Moderate: 1.0 to 1.4°C; Strong: 1.5 to 1.9°C; Very Strong: ≥ 2.0°C

ENSO classifications are periodically updated as NOAA revises its underlying climate reference period every 5 years. Consequently, the intensity assigned to historical events may change slightly over time as the climatological baselines are revised. This poster incorporates these updates and reflects the NOAA classifications available at the time of publication. Any differences between this version and past poster versions are due to the NOAA records being revised.

Source: El Niño and La Niña Years and Intensities. <https://ggweather.com/enso/roni.htm> (accessed 13 August 2026).

New Zealand Historical Fire Severity Analogues for 2026/27 fire season



Understanding Fire Severity Information and Historical Analogues

This poster summarises historical seasonal fire severity patterns across New Zealand and provides context on how fire severity has differed between El Niño, Neutral, and La Niña phases over time. Historical records show that no two ENSO events produce exactly the same outcomes. Nevertheless, examining historical analogue seasons can help place current fire season conditions into the context of similar climate patterns observed in the past.

Historical analogue seasons can provide additional context by illustrating how fire severity has varied under similar climate conditions in the past. While analogue years are not predictions, they can help place current fire season conditions into the context of previous El Niño, Neutral, and La Niña years. The information below and maps above explain the fire severity metrics, climate classifications, and historical analogues used throughout the poster.

2026/27 Fire Season

With forecasts indicating the potential for a strong El Niño, it is important to understand how associated weather patterns may influence fire danger across New Zealand. **El Niño** conditions are typically associated with stronger west to southwesterly winds. This often results in wetter conditions in the west and south of both islands, and drier conditions in northern and eastern areas. In general, El Niño conditions increase the likelihood of elevated fire danger, particularly in the northern and eastern regions of New Zealand, where warm, dry, and windy conditions are more common during El Niño.

To help place the 2026/27 fire season in context, historical analogue seasons with similar El Niño conditions have been examined. The selection of analogue seasons is limited to those years for which fire severity maps are available. Among these, very strong El Niño events include 1997/98 and 2015/16, while moderate El Niño events include 2002/03, 2009/10, and 2023/24. Although no two El Niño events produce identical outcomes, these seasons provide useful examples of where fire severity is elevated in the past (Table 1).

During periods of elevated fire danger, communities, landowners, and land managers should be aware of the increased risk of wildfire and take appropriate precautions to reduce the likelihood of accidental ignitions. For landowners and land managers, this can increase the importance of planning for and managing the risks associated with prolonged dry, warm, and windy weather.

Observed Monthly Severity Rating

The Monthly Severity Rating (MSR) is the average of the Daily Severity Rating (DSR) values from the Fire Weather Index (FWI) System. The DSR is derived from the FWI and was developed to allow comparisons between years and locations. Both DSR and MSR capture the combined effects of wind and fuel dryness on potential fire intensity, fire suppression difficulty, and the level of effort required to control a fire. These indices provide a useful way to compare the severity of fire weather conditions between seasons and across regions. **DSR classifications:**

- Less than 1: Low fire behaviour potential
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- 3 to <7: High to Very High fire behaviour potential
- 7 or greater: Extreme fire behaviour potential

Table 1: Summary of El Niño, Neutral, and La Niña years and their event intensities.

El Niño				Neutral		La Niña		
Very strong	Strong	Moderate	Weak			Weak	Moderate	Strong
1972-1973	1957-1958	1963-1964	1951-1952	1950-1951	1985-1986	1954-1955	1955-1956	1973-1974
1982-1983	1965-1966	1968-1969	1952-1953	1956-1957	1989-1990	1964-1965	1975-1976	1988-1989
1991-1992		1976-1977	1953-1954	1959-1960	1990-1991	1970-1971	2016-2017	1998-1999
1997-1998		1986-1987	1958-1959	1960-1961	1992-1993	1983-1984	2017-2018	1999-2000
2015-2016		1987-1988	1969-1970	1961-1962	1993-1994	1984-1985	2020-2021	2007-2008
		1994-1995	1977-1978	1962-1963	1996-1997	1995-1996	2021-2022	2010-2011
		2002-2003	1979-1980	1966-1967	2001-2002	2000-2001	2022-2023	
		2009-2010	2004-2005	1967-1968	2003-2004	2005-2006		
		2023-2024	2006-2007	1971-1972	2012-2013	2008-2009		
			2018-2019	1974-1975	2013-2014	2011-2012		
				1978-1979	2014-2015	2024-2025		
				1980-1981	2019-2020	2025-2026		
				1981-1982				

Notes:
Event intensity classifications follow NOAA Climate Prediction Center conventions and are based on Niño 3.4 sea surface temperature (SST) anomalies. To be classified as Weak, Moderate, Strong, or Very Strong, the corresponding threshold must be met or exceeded for at least three consecutive overlapping three-month periods. Events are classified as: Weak: 0.5 to 0.9°C; Moderate: 1.0 to 1.4°C; Strong: 1.5 to 1.9°C; Very Strong: ≥ 2.0°C

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Source: El Niño and La Niña Years and Intensities. <https://ggweather.com/enso/roni.htm> (accessed 13 August 2026).