

## **Matariki Advisory Group**

### **Matariki dates for public holiday from 2022**

#### **Overview**

The predawn rising of Matariki in the mid-winter sky marks the beginning of the Māori New Year, and for many Māori communities it ushers in a period of ceremony and celebration. It's appearance in the Eastern sky during the coldest phase of the year heralds the changing of the seasons and is a time of remembrance, joy and peace. In essence the celebration focuses on 3 major themes,

- 1: remembering those who have passed since the last rising of Matariki
- 2: celebrating the present with family and friends, especially with feasting and festivities
- 3: planning and preparing for the new season

Matariki has a strong association with the environment, wellbeing, merriment and encourages all people to reflect on the past, while preparing for the future.

#### **Establishing a date**

There are a number of beliefs, ideas and applications associated with the timing of Matariki and the celebration of the Māori New Year. These variations are based on unique regional and tribal knowledge bases where localised environmental factors and perceptions inform the appropriate New Year period of time. For some iwi, Matariki is replaced by Puanga (Rigel) as the major maker of the New Year, and the lunar phases, lunar months and locational specific environmental factors all feed into determining when the celebration period begins and how long it lasts.

An additional issue in determining an appropriate period for a Matariki celebration is that our modern society adheres to a Gregorian solar calendar year, which is 365.25 days long, and aligns with the procession of the earth around the sun. This is different to a Maori calendar year, which for the most part is a stellar lunar system that is only 354 days long. This means there is an 11-day difference between a solar year and a lunar year. Therefore, Maori used a system of intercalation, applying an additional month every 3 years or so to the calendar to reconcile the difference between the solar year and the lunar year. Therefore, in order to identify an actual date for a national celebration, elements of the multifaceted Maori time keeping system will have to be applied to our modern solar year and its associated calendar.

These difficulties aside, there are a number of common principles and approaches that are universal in identifying the correct time to celebrate the Māori New Year.

- 1: The beginning of the New Year occurs in mid-winter
- 2: It is marked by the heliacal rising of a star
- 3: It is connected to the lunar month and the lunar phases
- 4: The celebration period lasts for an extended period of time as is not restricted to a single day
- 5: It involves culturally important ceremonies and celebrations

Based on the factors listed above and the various methods shown in the tables within this report, the most appropriate date for a Matariki holiday is mid-winter, specifically between

June and July when both Matariki and Puanga are visible in the morning sky. More work needs to be done to determine the actual date, but as seen in the workings within the tables of this report, a Matariki holiday can be aligned to either a Monday or a Friday.

### **Considerations**

There are some risks in determining a universal date for Matariki and the celebration of the Māori New Year.

- The difference in the observation of the New Year based on tribe and region might be a factor. Some groups and areas may disagree with the dates preferring to follow an alternative approach.
- There are employment related costs with these dates that will impact on the economy
- This holiday date will have an impact of schools and timetables
- There may be a lack of understanding from a large part of the population about the purpose and meaning of this holiday, especially in regards to the shifting of the dates

These possible risks are not insurmountable, and most have a reasonably simple solution. In regards to the tribal and regional variations in the Māori calendar, the simple fact is that there is not a single date that will appease everyone. However, the most crucial point is that we celebrate this event during mid-winter once Matariki and Puanga have become visible in the morning sky. Individuals and groups who have a more detailed approach to determining their unique celebration period are still able to acknowledge the Māori New Year in their own way. However, for the purpose of a national holiday that is observed by everyone, the mid-winter period in association with the viewing of the stars is the most generically accepted approach. Therefore, this would place the celebration between June and July.

Employment related costs and timetabling for schools are issues that can be address once the actual dates have been confirmed.

An extensive educational programme at both national and regional levels is needed to support the establishment of a date, so the general public are aware of the methods used to calculate the celebration period. This should also be supported by a consultation process to help embed the dates to be embedded into the public ethos.

### **Consultation and education**

A significant part of this process will be consultation and education, and this will need to take place at both national and regional levels. Stakeholders will need to be informed about the dates of the holiday and be given an opportunity to understand how it will impact on them. Key national and regional organisations and groups will be identified and invited to be part of the consultation process. Members of the Matariki advisory committee will take the lead in identifying and interacting with stakeholders within their own regions, and at times will be asked to consult with other stakeholders at a national level.

The development of quality educational resources for both the general public and schools will be crucial in disseminating information regarding the dates and the associated Matariki celebrations. Resources will have to be both national and regional and support the

embedding of the holiday into the conscience of the country. There is a need for investment into mātauranga Māori experts to develop resources in this space.

### Additional considerations

- A midwinter holiday between June and July will coincide with our existing public holiday format. Currently there are no public holidays from Queens Birthday (1<sup>st</sup> Monday in June), to Labour Day, (the last Monday in October), a period of approximately 5 months.
- The shifting of the actual Matariki holiday date from year to year is similar to our modern approach to Easter, which is determined by the first Sunday following the full moon that occurs on or just after the spring equinox. This is an excellent example of how a traditional lunar calendar event can be incorporated into our modern solar calendar.

### Methodologies for determining a date

The following are a set of methodologies connected to identifying Matariki and Māori New Year period. Each method has an attached table showing the correct lunar date when the celebration is observed and the closest Monday and Friday to this period. It is important to note that these dates are indicative at this stage. The Māori New Year occurs between June and July every year, however more discussion with the Matariki advisory group needs to occur before the actual dates can be confirmed.

#### Method 1: Tangaroa of Pipiri

One of the most well-known and best recorded approaches to the timing of the Māori New Year celebrates Matariki during the lunar month of Pipiri, when the moon is in the Tangaroa phase. Tangaroa is not a single phase but rather a period of the lunar calendar that can be 2, 3 or even 4 days long depending on the regional maramataka that is being followed. The table below identifies the Tangaroa lunar phases of the Pipiri month, and the closest Monday and Friday to this period.

Year	Lunar date	Monday	Friday
2022	21 – 24 June	20 June	24 June
2023	10 – 13 July	10 July	14 July
2024	29 June – 2 July	1 July	28 June
2025	19 – 22 June	16 June	20 June
2026	8 – 11 July	6 July	10 July
2027	27 – 30 June	28 June	25 June
2028	15 – 18 July	17 July	14 July
2029	4 – 7 July	2 July	6 July
2030	23 – 26 June	24 June	21 June
2031	11 – 14 July	14 July	11 July
2032	30 June – 2 July	28 June	2 July
2033	20 – 23 June	20 June	24 June
2034	9 – 12 July	10 July	7 July
2035	29 June – 1 July	2 July	29 June
2036	17 – 20 July	18 July	21 July
2037	6 – 9 July	6 July	10 July
2038	25 – 28 June	28 June	25 June

2039	13 – 16 July	11 July	15 July
2040	1 – 4 July	2 July	6 July
2041	21 – 24 July	22 July	19 July
2042	10 – 14 July	14 July	11 July
2043	30 June – 3 July	29 June	3 July
2044	19 - 22 June	20 June	24 June
2045	7 – 10 July	10 July	7 July

### Method 2: Winter solstice

One approach has been to align Matariki and the Māori New Year to the winter solstice. The following table shows the winter solstice dates and the Mondays and Fridays close to this date.

Year	Winter Solstice	Monday	Friday
2022	21 June	20 June	17 June
2023	22 June	26 June	23 June
2024	21 June	24 June	21 June
2025	21 June	23 June	20 June
2026	21 June	22 June	19 June
2027	22 June	21 June	18 June
2028	21 June	19 June	23 June
2029	21 June	18 June	22 June
2030	21 June	24 June	21 June
2031	22 June	23 June	20 June
2032	21 June	21 June	18 June
2033	21 June	20 June	17 June
2034	21 June	19 June	23 June
2035	22 June	25 June	22 June
2036	21 June	23 June	20 June
2037	21 June	22 June	19 June
2038	21 June	21 June	18 June
2039	21 June	20 June	24 June
2040	21 June	18 June	22 June
2041	21 June	24 June	21 June
2042	21 June	23 June	20 June
2043	21 June	22 June	19 June
2044	21 June	20 June	24 June
2045	21 June	19 June	23 June

### Method 3: Matariki and the New Moon

In this particular method the Matariki celebration begins with the New Moon close to the heliacal rising of the star cluster. This approach states that Matariki first appears just before the sunrise when the constellation of Te waka o Tamarereiti aligns itself across the southern horizon in mid-June, as viewed from the East Coast. One point to note is that for many of the following dates Matariki is not visible in the morning sky.

Year	New Moon	Monday	Friday
2022	31 May	30 May	3 June
2023	19 June	19 June	16 June

2024	8 June	10 June	7 June
2025	28 May	26 May	30 May
2026	16 June	15 June	19 June
2027	6 June	7 June	4 June
2028	25 May	29 May	26 May
2029	13 June	11 June	15 June
2030	2 June	3 June	31 May
2031	21 June	23 June	20 June
2032	9 June	7 June	11 June
2033	29 May	30 May	27 May
2034	17 June	16 June	19 June
2035	7 June	8 June	11 June
2036	27 May	23 May	26 May
2037	15 June	15 June	12 June
2038	4 June	7 June	4 June
2039	23 June	24 June	27 June
2040	11 June	11 June	8 June
2041	31 May	3 June	31 May
2042	19 June	20 June	23 June
2043	8 June	8 June	5 June
2044	28 May	30 May	27 May
2045	16 June	16 June	19 June

#### Method 4: Puanga

Puanga is the star Rigel, and for some tribes its heliacal rising marked the beginning of the Māori New Year. Due to its position and brightness, Puanga rises earlier than Matariki as is generally visible from early to mid-June. The follow 2 tables show the nearest full moon and new moon phases after the rising of Puanga along with the nearest Monday and Friday. The visibility of Puanga for these table is taken from Taranaki, one of the regions that use Puanga as the marker of the Māori New Year

#### Puanga and New Moon

Year	Visibility of Puanga	New Moon	Monday	Friday
2022	2 June	29 June	27 June	24 June
2023	2 June	18 June	19 June	16 June
2024	2 June	7 June	10 June	7 June
2025	2 June	26 June	23 June	27 June
2026	2 June	15 June	15 June	12 June
2027	2 June	5 June	4 June	7 June
2028	2 June	23 June	26 June	23 June
2029	2 June	12 June	11 June	15 June
2030	2 June	1 July	1 July	28 June
2031	2 June	20 June	23 June	20 June
2032	2 June	8 June	7 June	11 June
2033	2 June	27 June	27 June	24 June
2034	2 June	17 June	19 June	16 June
2035	2 June	6 June	4 June	8 June
2036	2 June	24 June	23 June	27 June

2037	2 June	14 June	15 June	12 June
2038	2 June	3 June	7 June	4 June
2039	2 June	22 June	20 June	24 June
2040	2 June	10 June	11 June	8 June
2041	2 June	29 June	1 July	28 June
2042	2 June	18 June	16 June	20 June
2043	2 June	8 June	8 June	5 June
2044	2 June	26 June	27 June	24 June
2045	2 June	15 June	12 June	16 June

### Puanga and Full Moon

Year	Visibility of Puanga	Full Moon	Monday	Friday
2022	2 June	15 June	13 June	17 June
2023	2 June	4 June	5 June	9 June
2024	2 June	22 June	24 June	21 June
2025	2 June	12 June	16 June	13 June
2026	2 June	30 June	29 June	3 July
2027	2 June	19 June	21 June	18 June
2028	2 June	8 June	5 June	9 June
2029	2 June	26 June	25 June	29 June
2030	2 June	16 June	17 June	14 June
2031	2 June	6 June	9 June	6 June
2032	2 June	24 June	21 June	25 June
2033	2 June	13 June	13 June	17 June
2034	2 June	2 July	3 July	30 June
2035	2 June	21 June	18 June	22 June
2036	2 June	9 June	9 June	13 June
2037	2 June	28 June	29 June	26 June
2038	2 June	17 June	14 June	18 June
2039	2 June	7 June	6 June	10 June
2040	2 June	25 June	22 June	25 June
2041	2 June	15 June	14 June	17 June
2042	2 June	4 June	6 June	9 June
2043	2 June	23 June	22 June	26 June
2044	2 June	11 June	13 June	10 June
2045	2 June	30 June	3 July	30 June

### Conclusion

Based on the various methods shown in the tables above, the most appropriate date for a Matariki holiday is mid-winter, specifically between June to July when both Matariki and Puanga are visible in the morning sky. More work needs to be done to determine the actual date, but as seen in the workings above the holiday can be made to align with either a Monday or a Friday.