

# **Matariki Dates 2022 - 2052**

## **Matariki Advisory Committee**

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**Final Report V2 - 21 May 2021**

# Executive Summary

The Matariki Advisory Committee has been asked to provide recommendations to the government on the dates that the nation should celebrate the Matariki public holiday. This report provides the recommendations on the dates for the next 30 years in addition to providing the methodology behind the date selection.

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# Overview

There are a number of tribal and regional differences in determining when the Māori New Year is observed. These variations are based on unique regional and tribal knowledge bases where localised environmental factors and practices inform the correct New Year period. For some iwi the pre-dawn rising of Matariki, in the correct lunar phase of the correct lunar month, heralds the Māori New Year. For other tribes, Matariki is replaced by Puanga (Rigel) as the major marker of the New Year, while some look to Atutahi (Canopus). There are even regions where the setting of Rehua (Antares) in the winter is used to identify the correct period of time. Additional factors that feed into determining when the celebration period begins and how long it lasts include the position of the sun, the lunar phases, the lunar months and locationally specific environmental events.

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 Māori 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, Māori 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. In order to identify an actual date for a national celebration, elements of the multi-faceted Māori time keeping system 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 months and the lunar phases
- 4: The celebration period lasts for an extended period of time and is not restricted to a single day
- 5: It involves culturally important ceremonies and celebrations

In April 2021, the Matariki Advisory Committee met to discuss the various methodologies for determining the Māori New Year, and to decide upon the approach that would be used to identify the dates for the Matariki public holiday. The Committee has decided that the method that will be followed is Tangaroa of Pipiri.

# Method: Tangaroa of Pipiri

One of the most well-known and best recorded approaches to the timing of the Māori New Year, is to celebrate Matariki during the lunar month of Pipiri, when the moon is in the Tangaroa period. Tangaroa is not a single phase of the moon but rather a period of the lunar calendar that can be 2, 3 or even 4 days long depending on the regional lunar calendar system that is being followed. The Tangaroa lunar period is situated in the last quarter of the lunar cycle, when the moon is waning. In this period the moon goes from a quarter to completely dark (New Moon).

For many tribal groups this period is a very productive and positive time which celebrates 3 of the major Māori gods who have an association to the environment and traditional Māori food sources. These gods are Tangaroa, god of the ocean, Tāne, god of the forests and Rongo, god of gardens. Many Māori lunar calendars have 6 lunar phases that honour these gods, they are;

- **Tangaroa-ā-mua**
- **Tangaroa-ā-roto**
- **Tangaroa whakapau**
- **Tangaroa whāriki kiokio**
- **Ōtāne**
- **Ōrongonui**

4 lunar phases are dedicated to Tangaroa, 1 to Tāne and 1 to Rongo. There are 2 additional lunar phases that follow this period, the names are;

- **Ōmutu  
and Mutuwhenua**

Therefore, in this system there is a 7 to 8 day period where Matariki is viewed and the Māori New Year is celebrated. The viewing of Matariki occurs in the Tangaroa period. While Matariki will already be visible in the morning sky during this time, the celebration does not commence until the moon is in the correct lunar phase. In the above lunar system the viewing period of Matariki is spread across 4 days taking into account the poor weather of the winter season. Therefore, the first clear morning of this 4 day Tangaroa period, when Matariki is seen before the rising of the sun, marks the beginning of the Māori New Year. In this system the actual celebration lasts from the sighting of Matariki in the Tangaroa lunar phase, until Mutuwhenua. The names Ōmutu and Mutuwhenua can be loosely translated to mean 'to end,' or 'coming to completion.' In this system the celebration also comes to an end before the New Moon and the beginning of the next lunar month.

There are a number of references to Matariki and the Tangaroa lunar period. In 1875 Aperahama Taonui of Te Taitokerau wrote,

*“Ka puta Matariki i nga Tangaroa...”<sup>1</sup>*

Matariki appears in the phases of Tangaroa.

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<sup>1</sup> A. Taonui, Ki Te Kai Ta o Te Wananga, *Te Wananga* (Vol. 2, 21, August 1875)

Māori lunar calendar expert Wiremu Tāwhai<sup>2</sup> also endorsed this approach stating that the Tangaroa lunar phases are the correct period to view Matariki. This comment is also supported by Tūhoe astronomer Rāwiri Te Kōkau<sup>3</sup> who in his manuscript states that the Tangaroa lunar phases of the Pipiri lunar month is the correct time to view Matariki.

## Public Holiday Dates

The following table lists the dates agreed upon by the Matariki Advisory Committee for the Matariki holiday beginning in 2022. The actual Gregorian calendar dates shift every year to align with the Māori lunar calendar system, in a similar manner to how we currently celebrate Easter. The Matariki holiday date falls on the closest Friday to the Tangaroa lunar calendar period of the correct lunar calendar month.

Year	Tangaroa Lunar Period	Matariki Holiday Date
2022	21 – 24 June	24 June
2023	10 – 13 July	14 July
2024	29 June – 2 July	28 June
2025	19 – 22 June	20 June
2026	8 – 11 July	10 July
2027	27 – 30 June	25 June
2028	15 – 18 July	14 July
2029	4 – 7 July	6 July
2030	23 – 26 June	21 June
2031	11 – 14 July	11 July
2032	30 June – 2 July	2 July
2033	20 – 23 June	24 June
2034	9 – 12 July	7 July
2035	29 June – 1 July	29 June
2036	17 – 20 July	18 July
2037	6 – 9 July	10 July
2038	25 – 28 June	25 June
2039	13 – 16 July	15 July
2040	1 – 4 July	6 July
2041	21 – 24 July	19 July
2042	10 – 14 July	11 July
2043	30 June – 3 July	3 July
2044	19 - 22 June	24 June
2045	7 – 10 July	7 July
2046	26 – 29 June	29 June
2047	15 – 18 July	19 July
2048	3 – 6 July	3 July
2049	22 – 25 June	25 June

<sup>2</sup> Tawhai, W. (2009) 'Te Maramataka Māori', *Waka Huia*. TVNZ, 13 June 2009.

<sup>3</sup> Te Kōkau, R. 1898-1933. Unpublished manuscript, private collection, Ruatāhuna.

2050	11 -14 July	15 July
2051	1 - 4 July	30 June
2052	20 – 23 June	21 June

## Summary

In summary, this document outlines the methodology and dates for the Matariki holiday for the period 2022 to 2052. After much discussion and acknowledgement of the variation of methods used for different iwi, the methodology selected was that of the first Tangaroa moon phase in the month of Pipiri after the heliacal rising of Matariki. This methodology also takes into account the slippage that occurs between the number of lunar months in a year to that of a solar year. Thus, the inclusion of an intercalary month, or an additional month when needed is also accounted for in the calculations. Also accounted for is the need for the holiday to be set to a Friday. The methodology and dates presented here have been rigorously discussed in conjunction with multiple techniques used to calculate and cross check the integrity of the dates.