

## POSSIBLE ANALOGUES OF INVENTED PLANT SPECIES OF TOLKIEN'S MIDDLE-EARTH IN EARTH'S CURRENT FLORA

**Elçin Parçaoğlu**

Kocaeli University

**Arda Acemi**

Kocaeli University

### Abstract

Tolkien's mythology of Middle-earth is a highly studied corpus in ecology and environmental studies. Due to the cosmogonic nature of this mythology, ecological patterns are both similar and different to our world. Especially in terms of biodiversity, the flora and fauna we encounter in the corpus are at the centre of ecological and environmental approaches. Plant biodiversity supports the unique habitat formation of many regions in the history of this mythology. Being interested in botany, Tolkien paid particular attention to plants' geographical distribution and location and broke new ground in terms of diversity. In this diversity, there are also some plants that he invented. The purpose of this paper is to compare some plants Tolkien invented – athelas, mallorn, elanor, niphredil, and simbelmynë – with their companion plants in Earth's current flora. In addition, these plants' geographic locations in Middle-earth will also be revealed in terms of climate and vegetation diversity.

**Keywords:** flora, *The Lord of the Rings*, Middle-earth, plants, J. R. R. Tolkien

### Introduction

Middle-earth mythology, designed by the British writer J. R. R. Tolkien (1892-1973) in almost 60 years, has a dynamic content in terms of ecology. In this mythology, in which the formation process of the universe named Eä is explained, and the continuity of the formation is emphasized, biodiversity and ecosystems change considerably over the ages and are remarkable. It is observed that ecological and cosmological formations act together and affect each other, resulting in the diversification of plant species. This interaction is hidden within the purpose of the creation of the universe. Ilúvatar's designation of the universe and Valar's creation of it serve this purpose: the beauty and goodness of the universe itself. When these concepts are examined a little more, how biodiversity and ecosystems support these concepts can be understood.

Biodiversity – especially plant biodiversity – created for the good and beauty of the universe contributes significantly to the universe's cosmology. Some of the plants, especially in *The Lord of the Rings*, make an outstanding contribution to the book's plot. Although some of these species are found in the Earth's existing flora as widely distributed cosmopolitan plants, Tolkien imagined others as unique and native species for Middle-earth as well.

Since ancient times, plants have been used for various purposes, such as foods, natural sources for medicinal treatments, wooden buildings and furniture materials, and natural fiber sources for clothing (Christenhusz et al., 2017). These multi-purpose benefits of plants make them one of the essential natural resources in human life. To date, around 390,000 different plant species in 452 families have been identified in Earth's flora (Willis, 2017). In the taxonomical classification of plant species, very detailed identification keys are used. These keys include morphological data from various organs and parts of plants. Scientists examine whether the plant under investigation fits in the descriptions given in the keys and identify plant

species. Even changes in the millimetric scale might lead to a difference in the identification. With the enhancement in molecular biology techniques, these identifications are now being made at the DNA level (Bog et al., 2019). Therefore, Tolkien's narrowed descriptions of the plants make it difficult to use these scientific techniques to precisely identify the correct names of the species. However, the limited descriptions in *The Lord of the Rings* allow assuming the analogue species. Thus, this study aims to discuss these species' analogues, which are specially invented and appear in *The Lord of the Rings*, correspond to in Earth's flora. In this context, the five plants – athelas, mallorn, elanor, niphredil, and simbelmynë - will be discussed from botanical, medical, and literary perspectives.

### Athelas

**Where to Find:** The athelas plant appears in Tolkien's *The Lord of the Rings*. Leaving Bree to reach Rivendell under Aragorn's leadership, the hobbits arrive at the ruins of the Arnor Kingdom tower built by Elendil on Amon Sûl. Searching for Gandalf's trace at Weathertop, where the watchtower was located, the company is met by the Ringwraiths instead of Gandalf, and Frodo is mortally wounded. This wound instantly paralyzes Frodo's arm: "Frodo dozed, though the pain of his wound was slowly growing, and a deadly chill was spreading from his shoulder to his arm and side" (Tolkien, 2004, p. 198). Aragorn then leaves Frodo with the other hobbits. When he returns, Aragorn explains why he left with these sentences: "These leaves,' he said, 'I have walked far to find; for this plant does not grow in the bare hills; but in the thickets away south of the Road I found it in the dark by the scent of its leaves.'" (Tolkien, 2004, p. 198). This plant that Aragorn found is athelas. The geographical location, climate, and vegetation of the place where this plant grows will help us understand which plant species it is a reference to in Earth's current flora. Weathertop is in

the region of Middle-earth called Eriador, which lies to the north of Middle-earth. Located on a hill, Weathertop is surrounded by undulating plains. In terms of climatic conditions, it is seen that winters are cold and summers are mild. This region receives a warm and moist wind from the southwest, during a cold and dry wind from the north. In terms of vegetation, it is a place full of scrub and thickets (Fonstad, 1991, pp. 180-185).

**Botanical Characteristics:** The species is an evergreen herb with long leaves. These are the only known botanical and morphologic characteristics of the species. To expand the identification of the plant, the illustrations on the internet have been searched. However, it is seen that most of them are wrongly illustrated from a botanical perspective. For example, in one of the illustrations, the species is drawn with five petals (the colourful part of a flower) – a property of dicotyledonous plants – with pale white or whitish colour, and long leaves with parallel veins, which is a property of most monocotyledonous plants (Phelan, 2011). Also, based on the drawings of the plant on the internet, the species morphologically looks similar to *Lysimachia* sp. (Loosestrife) from the Primulaceae (Primrose) family. However, leaves of *Lysimachia* species have no such medicinal properties as described below. The long leaves of the species might correspond to the botanical terms "linear" or "lanceolate" that defines its morphological characteristics. As mentioned before, the habitat of Athelas is designated as woodlands and dense forests.

**Medicinal Properties:** According to Tolkien, the species' leaves have analgesic properties when applied as an infusion to cure "Black Breath." Also, this medicinal property of the species might be a sign of its restoring activity on the nervous system. The fresh scent arising from the infusion of the leaves should be a sign of the rich essential oil (volatile oils) content of the leaves, a general property of the species from the Lamiaceae (Mint; Labiatae) family known for its aromatic herbs and shrubs (Karpiński, 2020).

**Possible Analogue Species:** Tolkien's description of the plant's botanical and medicinal properties should be taken into account to find the analogue of the species from today's flora. This hypothesis suggests species of six potential genera of the Lamiaceae family, namely *Mentha* sp. (Mint; herb), *Salvia* sp. (Sage; herb), *Rosmarinus* sp. (Rosemary; shrub), *Ocimum* sp. (Basil; herb), *Thymus* sp. (Thyme; herb), and *Laurus* sp. (Laurel; shrub). However, *Thymus*, *Rosmarinus*, *Ocimum*, and *Laurus* species should be discarded since they do not have many long-leaved individuals. Also, *Laurus* and *Rosmarinus* species are in shrub form but not an herb. Considering their scents of leaves, medicinal uses, and healing effects on the nervous system *Mentha* and *Salvia* species with longer leaves might have better possibilities than the other species. Mint species have rich menthol and menthone contents in their leaves, which are volatile oils with strong analgesic properties and fresh scents (Singh et al., 2005). In contrast, *Salvia* species' leaves have camphor, cineole, and thujone as volatile oils with similar medicinal properties and anti-cancer activities (Kammoun El Euch et al., 2019). On the other hand, there are other species from different plant families that include species with such medicinal properties as *Foeniculum* sp. (Fennel) from Apiaceae (Carrot) family (Rahimi & Ardekani, 2013). However, these species do not fit into the botanical characteristics narrowly described by Tolkien. As mentioned before, in botanical identification keys of plant species, definitions of the morphologic characteristics of plant species are given in full detail with precise descriptions, measurements in numbers, and colours. Thus, to the best of our conclusion, the species with healing effects and long leaves found among trees should be one of the *Mentha* or *Salvia* species. The meaning of the Latin name "Salvia" was derived from "salvus, salus, salutis," which means "healthy, health, heal" in English, which is in line with its medicinal uses. However, the members of this genus prefer dry habitats and mostly grow on limestones, calcareous rocks, and rocky slopes, which makes it incompatible with Tolkien's habitat description. In contrast, *Mentha* species are found near streams and

other wet areas, and also they can grow both in partial shade, the ambient created by surrounding trees (Davis, 1982). In conclusion, *Mentha* species are the only remaining possible options to define the botanical name of Athelas.

### Mallorn

**Where to Find:** Mallorns are the golden trees of Lórien. Lórien, a realm ruled in the Third Age by Galadriel, one of the Noldor elves, is like a reflection of Valinor in the West. Galadriel, a horticulturist, has a unique soil and plant species in her garden, Lórien. Mallorns are the most spectacular of these types, as they are also home to the Galadhrim elves. Lothlórien provides a rest for the Fellowship of the Ring who escaped from the Moria mines. It is a region that should be examined in terms of plant diversity. Legolas says the following about the most famous trees of this region, which allows resting to the Fellowship of the Ring, members of whom were in grave danger: "[I]n the autumn their leaves fall not, but turn to gold. Not till the spring comes and the new green opens do they fall, and then the boughs are laden with yellow flowers; and the floor of the wood is golden, and golden is the roof, and its pillars are of silver, for the bark of the trees is smooth and grey" (Tolkien, 2004, p. 335). The most prominent feature of the Galadhrim elves is that they live on these trees. This region is in the middle of Middle-earth. It consists of undulating lowlands. In the region where Lothlórien is located, the climate is cold in winters and warm in summers, but since Lothlórien is ruled by Galadriel, the climate and vegetation vary in their own way. In terms of vegetation, it has a dense forest area.

**Botanical Characteristics:** The species is a tree with leaves that do not fall in autumn but turn yellow in the season. When the spring comes, and fresh green leaves occur, its yellow leaves fall, and the tree flowers are yellow. The bark of the tree is grey. No further descriptions are found about the tree

in *The Lord of the Rings*.

**Medicinal Characteristics:** There is no medicinal property of the plant indicated in *The Lord of the Rings*.

**Possible Analogue Species:** The fallen yellow leaves on the ground and yellow flowers on their branches in spring give a golden look to the tree. Also, the tree is expected to have strong branches since sheds are built on them. Upon the limited information given, the species might be *Eucalyptus* sp. (*Eucalyptus* or Blue gum) from Myrtaceae (Myrtle) family with yellowish-white flowers and grey bark. Also, the species is considered to be an evergreen tree.

### Elanor

**Where to Find:** The two flowers (Elanor and Niphredil), like Mallorns, are exclusive to Lothlórien, the realm of Galadriel. Haldir talks about these flowers as follows: “Here ever bloom the winter flowers in the unfading grass: the yellow elanor, and the pale niphredil” (Tolkien, 2004, p. 350). However, they could have originated in the Elder Days since they bloomed in the Northern Beleriand.

**Botanical Characteristics:** The species is an herb with star-shaped yellow petals. No further descriptions of the plant in *The Lord of the Rings* are found.

**Medicinal Characteristics:** There is no medicinal property of the plant indicated in *The Lord of the Rings*.

**Possible Analogue Species:** The shallow and minimal information about the species make it hard to associate with a good plant. However, in the light of illustrations found on the internet, the species seems like *Lysimachia* sp. (Primulaceae), *Hypoxis* sp. (Common goldstar) from Hypoxidaceae (Star-grass family), and *Zephyranthes* sp. (Rain Lily) from Amaryllidaceae (Amaryllis family) with yellow petals.

### Niphredil

**Where to Find:** Niphredil is an ancient flower. Niphredil and Elanor could be found in Doriath, the north of Beleriand, in the First Age of Middle-earth. Galadriel may have kept their seeds for ages since she dwelt in Doriath with Elven-king Thingol and Maia Melian in the First Age. In the poem “The Lay of Leithian,” the flowers are mentioned as follows: “There mirth there was and voices bright / there eve was peace and morn was light / there jewel gleamed and silver wan / and red gold on white fingers shone / and elanor and niphredil / bloomed in the grass unfading still” (Tolkien, 2015, p. 333). In addition, these flowers are associated with Lúthien, daughter of King Thingol: “In the forest of Neldoreth it is said that she was born and cradled under the stars of heaven, and the white flowers of niphredil came forth to greet her, as stars from the earth” (Tolkien, 1994, p. 10).<sup>1</sup>

**Botanical Characteristics:** The species is an herb with pale-coloured white petals. It blooms during winter. No further descriptions of the plant in *The Lord of the Rings* are found.

**Medicinal Characteristics:** There is no medicinal property of the plant indicated in *The Lord of the Rings*.

**Possible Analogue Species:** The winter-blooming flowers with white petals limit the possible species to *Galanthus* sp. (Snowdrop) and *Leucojum* sp. (Snowbell) from Amaryllidaceae family, *Cyclamen* sp. (Alpine violet)

from Primulaceae family, and *Crocus* sp. (possibly *Crocus vernus*; Dutch crocus) from Iridaceae (Iris family). Considering drawings of the species on the internet, the species might be one of the *Galanthus* or *Leucojum* species since these plants flower during the winter season. Especially, *Galanthus* sp. prefers snowy and cold weather to bloom.

<sup>1</sup> Our pagination.

## Simbelmynë

**Where to Find:** It means “ever-mind,” and it is a “small white flower in Rohan, growing thickly on the burial mounds of the kings of the Mark” (Drout, 2007, p. 513). The land of Rohan is located in the south of Middle-earth. While there are plains and bottomlands on its northern border, the White Mountains draw its southern border. The winters are mild, and the summers are warm. While the warm and moist wind blows from the west, the cold and dry wind blows from the east. There are tall grasslands (Fonstad, 1991, pp. 180-185). Additionally, this flower is mentioned in the city of Gondolin, the Hidden City, in the First Age. When Tuor reaches the city under the guidance of Voronwë, he sees these flowers before the Gate of Silver: “like stars bloomed the white flowers of uilos, the Evermind that knows no season and withers not” (Tolkien, 2014, p. 64). “Uilos” is the Elven name of Simbelmynë. It is understood that this flower’s origin is based on Elder days when the Elves ruled in a large area such as Beleriand of Middle-earth.

**Botanical Characteristics:** The species is considered a shrub with a thick stem. It grows on the burial mounds and has small white flowers. No further descriptions of the plant in *The Lord of the Rings* are found.

**Medicinal Characteristics:** There is no medicinal property of the plant indicated in *The Lord of the Rings*.

**Possible Analogue Species:** The thick stem, small white flowers, and its shrub nature might be the indicators. However, these are minimal descriptions. It might be evergreen and flowers often. These properties of the plant might be associated either with *Nerium* sp. (Oleander) from Apocynaceae (Dogbane family) or *Jasminum* sp. from Oleaceae (Olives family) with white flowers. However, the thicker stems of *Nerium* sp. increase the possibility of analogism.

## Conclusion

As seen in the analogues, these invented plants of Tolkien are distributed in a wide range of families. Thus, it is undeniable how wide the limits of Tolkien’s imagination are, although he was not a botanist. In particular, the analogue species given for the two plants, athelas, and mallorn, have a much higher rate than the others in terms of accuracy. In addition, their presence in Middle-earth cosmology reflects Tolkien’s ecological perspective, especially as seen in the athelas plant. It can be emphasized that Middle-earth mythology, in addition to its contributions to literature with ecocritical theory, may also prioritize contemporary interdisciplinary studies in terms of offering fields of study that include many scientific fields, including botanical science.

## References

- Bog, M., Appenroth, K. J., & Sree, K. S. (2019). Duckweed (Lemnaceae): its molecular taxonomy. *Frontiers in Sustainable Food Systems*, 3, 117.
- Christenhusz, M. J. M., Fay, M. F., & Chase, M. W. (2017). *Plants of the World: An Illustrated Encyclopedia of Vascular Plants*. University of Chicago Press.
- Davis, P. H. (1982). *Flora of Turkey and The East Aegean Islands*, (Vol. 7). Edinburgh University Press.
- Drout, M. D. C. (Ed.), (2007). *J. R. R. Tolkien Encyclopedia: Scholarship and Critical Assessment*. Routledge.
- El Euch, S. K., Hassine, D. B., Cazaux, S., Bouzouita, N., & Bouajila, J. (2019). Salvia officinalis essential oil: Chemical analysis and evaluation of anti-enzymatic and antioxidant bioactivities. *South African Journal of Botany*, 120, 253-260.
- Fonstad, K. W. (1991). *The Atlas of Middle-earth*. Houghton Mifflin Company.
- Karpiński, T. M. (2020). Essential oils of Lamiaceae family plants as antifungals. *Biomolecules*, 10(1), 103.
- Phelan, J. (2011). *What Is Life? A Guide to Biology with Physiology*. W.H. Freeman Custom Publishing.
- Rahimi, R., & Ardekani, M. R. S. (2013). Medicinal properties of Foeniculum vulgare Mill. in traditional Iranian medicine and modern phytotherapy. *Chinese Journal of Integrative Medicine*, 19(1), 73-79.
- Singh, A. K., Raina, V. K., Naqvi, A. A., Patra, N. K., Kumar, B., Ram, P., & Khanuja, S. P. S. (2005). Essential oil composition and chemoarrays of menthol mint (*Mentha arvensis* L. f. *piperascens* Malinvaud ex. Holmes) cultivars. *Flavour and Fragrance Journal*, 20(3), 302-305.
- Tolkien, C. (Ed.) (2015). *The Lays of Beleriand (The History of Middle-Earth)* (Vol. 3). Harper

Colins Publishers.

- Tolkien, J. R. R. (2012). *Unfinished tales of Númenor and Middle-earth*. Houghton Mifflin Harcourt.
- Tolkien, J. R. R. (2004). *The Lord of the Rings*. HarperCollins Publishers.
- Tolkien, C., & Tolkien, J. R. R. (1994). *The War of the Jewels: The Later Silmarillion, Part Two (The History of Middle-Earth)* (Vol. 11). Houghton Mifflin Harcourt.
- Willis, K. J. (ed.) 2017. *State of the World's Plants 2017*. Report. Royal Botanic Gardens, Kew.