BOTANICA MAGICAE

A speculative biology field guide to unusual flora

Written and illustrated by
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Special thanks to:

Prof. Amanda Stansell
Prof. Kenny Smith

And to the friends I made at UCSB,
the best adventuring companions I could've asked for.

Here's to many more adventures together.

Introduction

WHAT IS SPECULATIVE BIOLOGY?

Speculative biology, or "speculative evolution", is a genre of science fiction that builds upon existing scientific knowledge to explore how life might evolve in hypothetical alternate scenarios. All plants featured in this book are original works of fiction based in speculative biology, but many of them are inspired by some of the most unusual flora the real world has to offer.

Life doesn't exist within a vacuum. Each unique species evolves to survive within the incredibly specific context of its environment, wherever its home may be. Plants in particular excel when it comes to the ability to evolve and adapt; after all, where there are plants, there is life. *Botanica Magicae* is about the incredible capacity of plant life to evolve in response to its environment.

HOW TO USE THIS BOOK

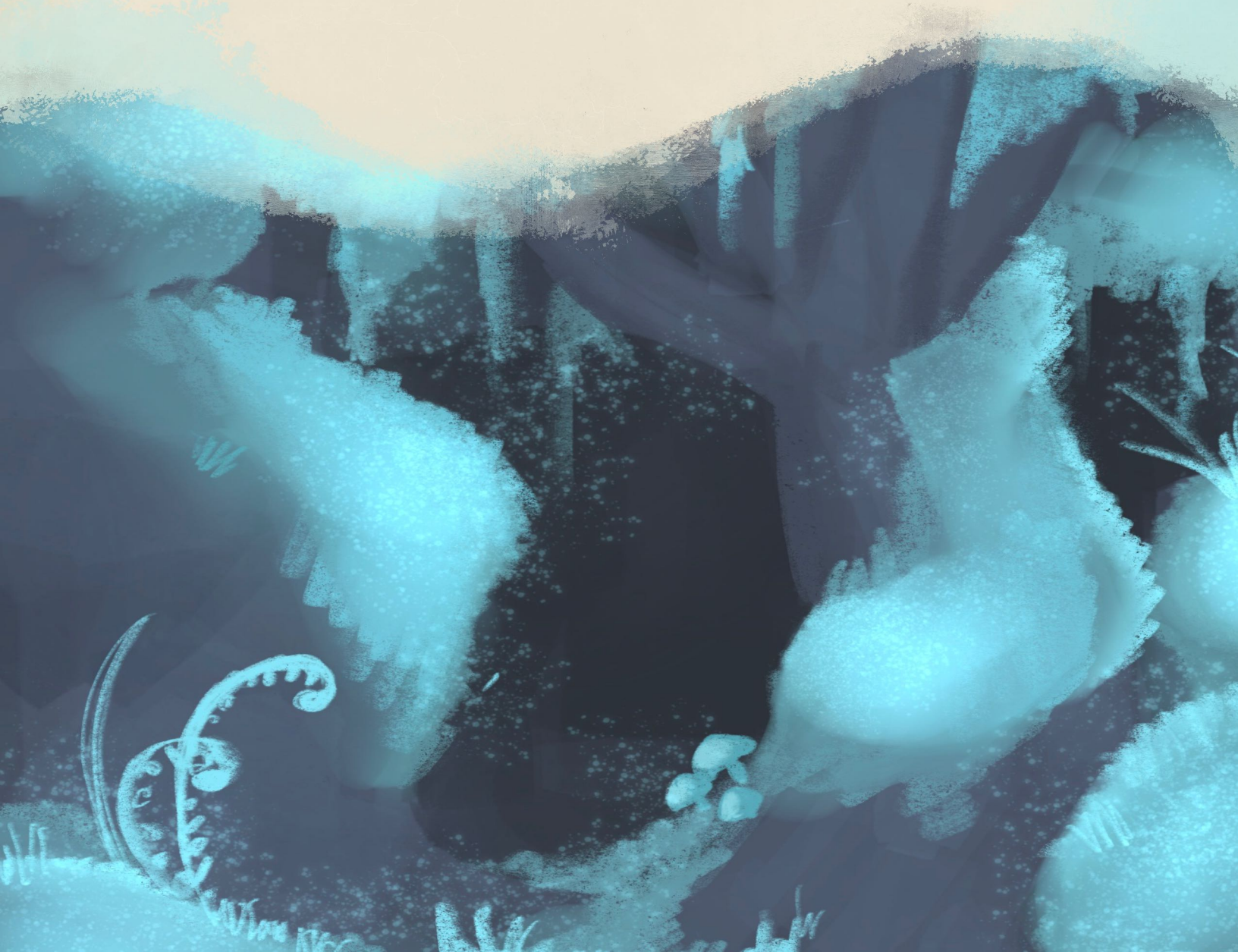
Botanica Magicae was originally created as a supplementary resource for the Dungeons and Dragons 5th Edition system. Each entry in this book comes with information on how to implement these plants into a D&D game (e.g., how much damage of a specific type a character would take upon ingesting a poisonous plant). These sections assume that the reader is already familiar with the basics of D&D 5th Edition. However, there is no "right way" to use the resources in this book; you can modify, build upon, or even ignore this information as you see fit for your own purposes.

Ultimately, this book was written with creatives, worldbuilders and storytellers in mind. Whether you're a writer creating your own original setting, a Dungeon Master (DM) preparing for your next D&D game, or simply a plant enthusiast with a penchant for all things unusual, *Botanica Magicae* has something to offer; what you do with it is ultimately up to you.

Firefly Moss

Cavernicola Caeruleum

An unusual species of moss capable of living in complete darkness. Firefly moss grows in the deepest regions of otherwise lightless caverns, making its blue, bioluminescent glow easy to spot. Cave systems that are dominated by firefly moss usually host a number of cave-dwelling flora and fauna that use the plant's blue light to photosynthesize. These unique conditions give rise to unique "bioluminescent cave forests", unique ecosystems that can only exist underground.



BIOLOGY

To avoid competition from faster-growing moss species, firefly moss grows predominantly in dark, moisture-rich caverns. Its trademark blue grow comes from a unique species of bioluminescent microbes that grow particularly well in the same environments. These species work together to create habitable conditions for a variety of cave-dwelling organisms.

For reasons yet unknown, frequent and consistent exposure to these microbes causes organisms to exhibit a visible, albeit dim light-blue glow. Although much is still unknown about the effects of long-term exposure to firefly moss, no harmful effects have been observed as a result of long-term consumption.

ECOLOGY

Although firefly moss can grow on rocks and cave walls, it usually prefers to grow on other plants. In exchange for a fraction of the plants's nutrients, it provides the light necessary for photosynthesis. Because of this, underground plants and animals will gather around firefly moss, eagerly soaking up its bright blue light.

Bioluminescent cave forests are underground ecosystems where cave-dwelling flora and fauna gather around a population of firefly moss. As one of the very few sources of light in underground ecosystems, it is the keystone species of this unique ecological community. The plants and animals in these forests are naturally bioluminescent after spending years evolving to coexist alongside firefly moss.

D&D5e GAME MECHANICS

A creature who consumes firefly moss will temporarily gain darkvision for 24 hours, and their skin will emit a soft blue glow for the same duration. Consuming firefly moss consistently over the course of one week will make this effect permanent.

A character that has an alchemist's kit and makes a successful Nature (INT) check can brew dried firefly moss into one of the following:

- **"Sunspread Broth" (DC10):** A thin broth that gives off an eerie blue glow. Served as a rare delicacy in overworld cultures. Can be eaten by itself, or combined with other ingredients.
- **Potion of Darkvision (DC15)**
- **Potion of Truesight (DC17, combine with phasebloom):** Grants the effects of the True Seeing spell for 1 hour.

I tried eating some of this stuff once... it wasn't that bad, but I was glowing blue for days! Makes you wonder if it's really as safe to eat as people think.

Phasebloom / Changeling Tears

Flumeritus Vitria

Phaseblooms can be found growing in wetlands or in dense forests, especially near the shallows of ponds, rivers, or lakes. At first glance, this dainty, scentless flower seems to be entirely unremarkable; it prefers to hide under the shade of larger plants, making itself more difficult to spot. It reveals its true colors when submerged in water, upon which its petals take on a translucent, glass-like quality.

BIOLOGY

Phaseblooms have a loose cell structure that is easily disrupted upon coming into contact with water. Except for its roots and the fruit it produces, nearly every part of the phasebloom shares this quality. When completely submerged, the entire plant appears slightly translucent and ghost-like, with the flower seemingly disappearing altogether. Because the stem and leaves contain significant concentrations of chlorophyll, they do not disappear completely when submerged.

Phaseblooms are hydrophytic, meaning they are adapted to grow underwater. Many phaseblooms spend most of their lives partially or completely submerged, only rising above the water's surface to reproduce. Phasebloom roots must be constantly submerged in freshwater in order to survive. Because of this, they are extremely sensitive to even the slightest changes in their environment, often shriveling up during periods of drought or extreme heat.

ECOLOGY

The phasebloom's translucent quality ensures that the main structure of the plant is protected from aquatic herbivores. Unfortunately, this also makes it incredibly difficult for wild phaseblooms to photosynthesize. As such, these plants constantly live in a state of delicate balance within their environment. Determining the correct conditions for a phasebloom to grow (right amount of water, sun, nutrients, etc.) can be a difficult task for even the most seasoned of naturalists.

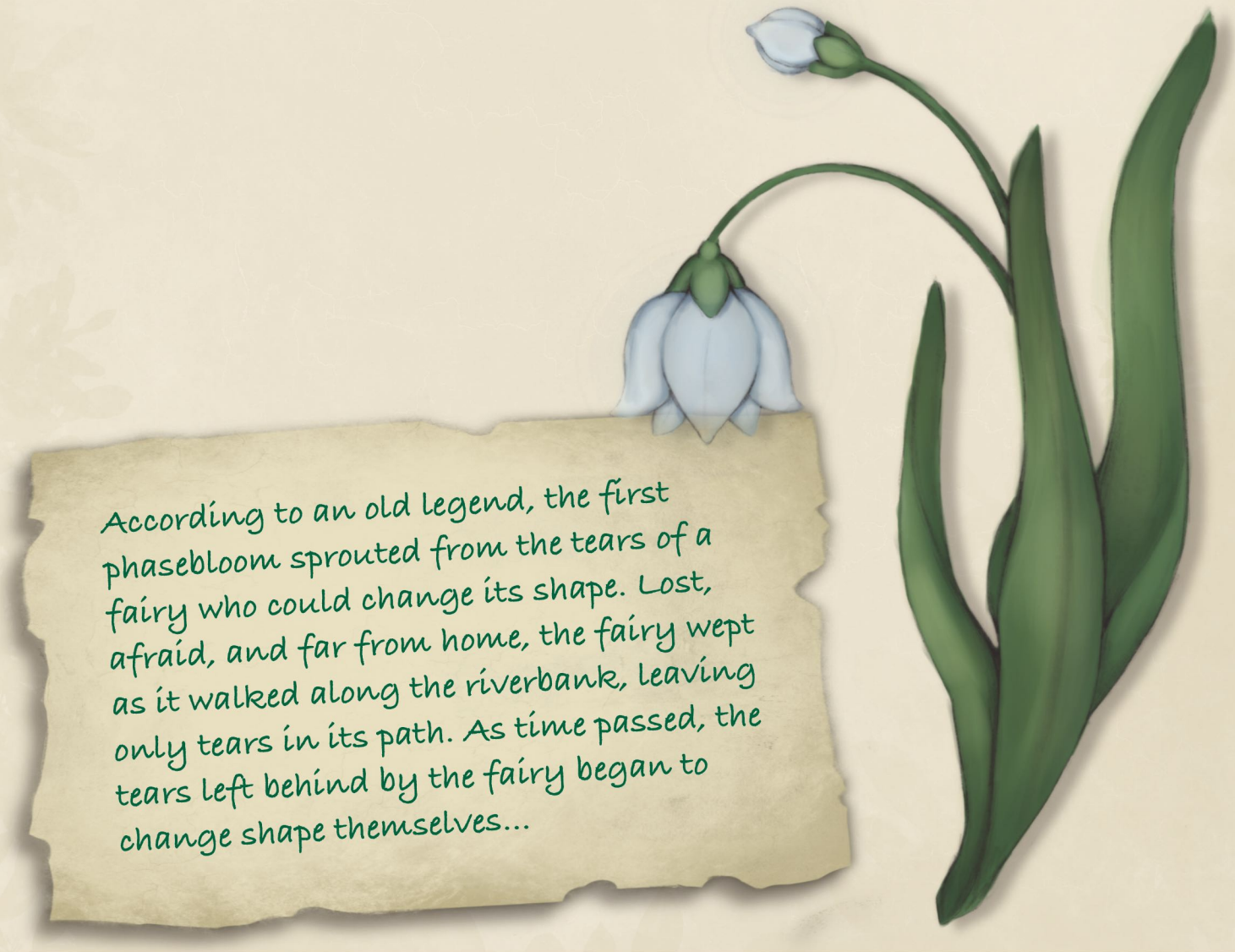
Like many other flowers, phaseblooms are capable of reproducing through wind pollination and insect pollination; however, as hydrophilous organisms, they are also capable of reproduction by moving water. Through this process, water is washed off of the petals and delivered to other populations of phaseblooms that grow downstream. This method of pollination can be particularly unreliable during seasons of flooding and heavy rainfall.

D&D5e GAME MECHANICS

A creature that consumes any part of this plant becomes invisible for 1 minute. Consuming its fruit has the same effect and heals the creature for 1d4 hit points.

A character that has an alchemist's kit and makes a successful Nature (INT) check can brew **phasebloom petals** into one of the following:

- **Potion of Invisibility (DC13)**
- **Phasebloom Ink:** Messages written using this ink are only visible when water is spilled onto the page. (DC13)
- Blink Elixir. (DC15): Grants the effects of the Blink spell without the need for concentration.
- **Potion of Truesight** (DC17, combine with firefly moss): Grants the effects of the True Seeing spell for 1 hour.



Reclamentia / “Scourge’s Hand”

Carcinogenia Reclamentia

This rare omnivorous plant constantly exudes an eerie, lifelike warmth. Upon closer inspection, you may notice its monstrous form subtly twitch and writhe as if it has a mind of its own. When in bloom, its immediate vicinity is clouded with puffs of silver pollen, swarms of flies, and the stench of rotting carrion.

BIOLOGY

The most defining characteristic of *carcinogenia reclamentia* is its unusually high nutrient requirement, which is necessary for sustaining its large size and aggressive growth patterns. In addition to photosynthesizing, these monstrous plants can parasitize the roots of larger trees by fusing the host plant's tissue with its own. They also tend to favor soil that has been fertilized with large quantities of decomposing organic material. In some rare cases, reclamentias that have access to a sufficient amount of organic nutrients may not need to photosynthesize at all, causing them to shed their chlorophyll and turn entirely red.

When the plant has consumed enough nutrients to the point of excess, the entire plant will twitch and convulse at random to expend the excess energy. It will continue to seek out living food for itself, slowly moving towards the closest and strongest source of heat.

ECOLOGY

In the wild, reclamentias like to grow on the roots of trees or large vines, though some have been found sprouting out of large animal skeletons. The poisonous compounds they produce, which they use to protect themselves from predators, can be tolerated by larger animals in small enough doses. This renders them especially vulnerable to predation in the early stages of their lives. As a result, their numbers are usually few and far between.

On extremely rare occasions, multiple reclamentia will grow in the same area and form a fully mature community, allowing them to share their resources and increase their chances of survival. When left unchecked, these groups can grow large enough to become living, breathing "clusters" that can easily dominate their surrounding ecosystems. This rare phenomenon, known as *"carcinomic reclamation*", poses a significant ecological threat to its native habitats. Instances of advanced-stage carcinomic reclamation (Stages 3 or 4) have been observed more frequently in man-made structures that were abandoned in the wake of severe natural disasters.

REPRODUCTION

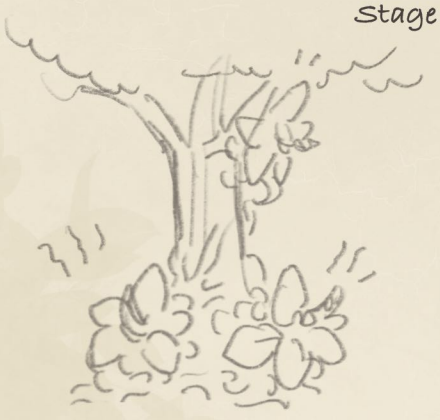
Because reclamentia usually grows by itself, it has evolved to maximize its chances of reproduction. In its blooming period, the reclamentia produces a single, female "flower"-- a spadix wreathed by thick, fleshy petals-- surrounded by smaller male flowers that grow scattered at its base.

The reclamentia expends a large amount of energy to replicate both the smell and the warmth of a recently deceased carcass when in bloom. This painstaking work is meant to attract its main pollinator: flies. For reasons still unknown, flies and certain species of beetles are uniquely immune to the poison of the reclamentia. Insects that are able to survive direct contact with the plant become covered in its sticky, silver pollen and quickly flee, only to land on the plant again and begin the reproduction cycle anew.

When the reclamentia plant is fertilized, it slowly withers to reveal a cluster of tiny, edible fruits. These fruits contain a small enough dosage of toxic chemicals that humans and larger herbivores can consume them safely; however, smaller animals will die within just a few hours of consumption. These corpses will serve as fertilizer for the seeds they carry in their digestive tracts.

Stage I: Successful Reproduction

Stage III: Cluster Colony



Stage II: Isolated Colony

Stage IV: Ecological Colonization

D&D5e GAME MECHANICS

Breathing in its pollen or otherwise consuming any part of the plant deals 4d8 necrotic damage. Additionally, any creature that fails a CON saving throw (DC15) has its maximum HP decreased by 3d4 points.

A character that has an alchemist's kit and makes a successful Nature (INT) check can brew **reclamentia pollen** into one of the following:

- **Potion of False Life (DC13):** Grants 3d4 temporary hit points for 1 hour, then decreases max HP by the same amount for an additional hour.
- **Potion of Poison (DC13)**
- **Potion of Greater Poison (DC15)**

"Where silver clouds linger, so too does the scourge."

Red Wyrmbreath / Dragon's Daughter

Dracadaverium Ignis

A stout and hardy grassland herb that grows well in dry grasslands and on the slopes of volcanoes. Its petals are uncomfortably warm to the touch; when crushed, they secrete a volatile and highly flammable chemical solution. The more heat its petals give off, the stronger its extract will be.

BIOLOGY

Red wyrmbreaths keep themselves warm year-round with a flammable substance that circulates throughout its system. The plant uses this substance to control the spread of wildfires and deter would-be predators. Because of this, its chemical composition is especially reactive to dry heat, making its seeds highly combustible in warm conditions. Because it uses flammable liquids to keep itself warm, this species has evolved to make itself highly resistant to fire and extreme temperatures.

Long winters and periods of frost causes the plant to devote its stored energy to maintaining its internal temperature, disrupting its reproductive process. Some herbalists deliberately grow domesticated variants of red wyrmbreath in cold conditions to prevent the plants from reaching full maturity.

On rare occasions, red wyrmbreath can grow on the slopes of active volcanoes. Volcanic wyrmbreath varieties do not follow the same annual reproductive cycle as their grassland counterparts, allowing them to grow larger and live for considerably longer periods of time. Under these highly optimized growth conditions, red wyrmbreath specimens can live for as long as several centuries. These specimens are highly valued for their ecological importance and often receive formal protection against poachers.

ECOLOGY

Red wyrmbreath seeds can only germinate when directly exposed to flame. Because of this, grassland habitats with a native red wyrmbreath population are subject to dry seasons marked by annual wildfires. Interestingly, the timing of these fires usually correlates with the maturation of the local red wyrmbreath population.

An established red wymrbreath population influences the biology of the entire surrounding ecosystem. Animals in these habitats exhibit a greater tolerance for extreme heat and shorter periods of dormancy during winter seasons, during which the red wyrmbreaths serve as a constant source of heat.

D&D5e GAME MECHANICS

Any creature consuming any part of the plant raw makes a DC 13 Constitution saving throw, taking 7 (2d6) fire damage on a failed save, or half as much on a successful one.

A character that has an alchemist's kit and makes a successful Nature (INT) check can brew **red wyrmbreath seed pods** into one of the following:

- **Tarasco Sauce (DC13):** A popular food additive with a spicy kick. The key ingredient in its secret recipe is wyrmspice, a powdered substance made from dried red wyrmbreath pods.
- **Potion of Fire Breathing (DC13):** Grants the ability to cast the Fire Bolt cantrip as a bonus action for 1 minute. Casting the spell in this way requires the caster to make a constitution saving throw (DC10) or take fire damage equivalent to half of the damage dealt.
- **Potion of Fire Resistance (DC15)**

Centuries ago, red wyrmbreath was actually worshiped in some cultures as the reincarnated form of a long-sleeping dragon.

This copy of *BOTANICA MAGICAE* belongs to:

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