

# My Creature

The background is a dark blue gradient representing an underwater scene. At the top, there are wavy, layered bands of purple and blue. The middle section is dark blue with several small white dots representing bubbles. In the lower half, there are stylized, light blue coral-like structures. A seahorse is visible on the right side of the bottom section. Several fish are scattered throughout the scene, including a large one on the right and a smaller one on the left.

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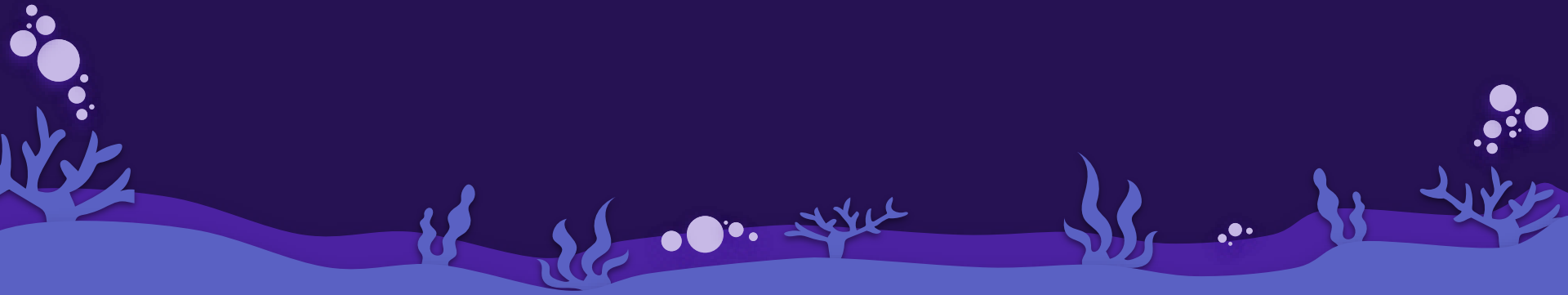


# Backstory

In 2011, the Fukushima daiichi power plant exploded due to a tsunami hitting the plant causing the cooling system to shutdown, eventually overheating and exploding. As a result large amounts of radiation was released into the surrounding area. This radiation affected the environment as it caused random mutations among the aquatic animals that inhabited the area. This radiation plus the oppressive effects of natural selection produced an electric eel which went through extensive change, such as growing in size, changing biological functions, and even gaining new physical attributes. While locals question its existence, the eel lurks in the depths of the ocean feeding and surviving from other mutants.

# Harden Scales

- One of the changes to the eel was durable scales that were as hard as iron.
- Biological basis: radiation caused rapid mutation in skin cells, leading to keratin or collagen production being enhanced to form tough, armor like scales.
- Purpose: as it's not the only mutant, the eel needs this new found armor to protect itself from potential predators.



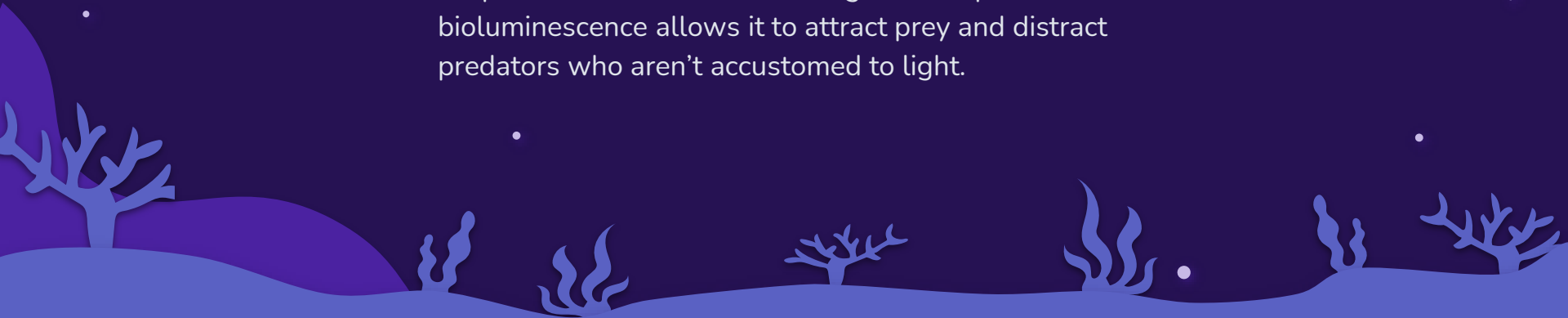
# Electric Shocks

- Biological basis: electric eels already possess specialized cells called electrocytes, which generate electrical charges. In this case the radiation has caused the eel to produce more electrocytes and cause the organs that produced them to be more tightly packed, increasing the voltage.
- Purpose: electric eels already use shocks as a form of defense, but due to the mutation this eel causes send off short bursts of electricity in a small area using it for both offense and defense.



# Bioluminescence

- Bioluminescence is the ability of living organisms to emit light through chemical reactions.
- Biological basis: bioluminescence typically arises from proteins called luciferase. As a result of mutation, the eel's fins now produce this protein resulting in a light yellow glow coming from them.
- Purpose: as the eel now lives in greater depths, the bioluminescence allows it to attract prey and distract predators who aren't accustomed to light.



# Retractable Jaw

- Biological basis: the retractable jaw evolved from overdeveloped connective tissues and muscle attachments around the skull, allowing the jaw to extend outward. Similar mechanisms are seen in the moray eels which have a second set of pharyngeal jaws.
- Purpose: this adaptation would allow the eel to grab prey that is farther away or has evaded an initial strike, increasing its hunting efficiency.

# Large Size

- As a result of mutations the eel is now about 8 meters in length or about 26 feet.
- Biological basis: radiation exposure in some organisms has been known to increase cell size or cause uncontrollable growth (like gigantism). Also due to the drastic change in environment and competition, a larger size is needed to fend off predators and control resources.
- Energy requirements: due to its newfound electrical abilities and bioluminescence, the eel will require more energy. So now being a larger size its dietary range has significantly increased.



# Weaknesses

1. Energy limitations: the electrical shocks and bioluminescence require immense energy, resulting in frequent feeding. Failure to do so results in extreme exhaustion.
2. Overheating: generating high-voltage shocks can cause heat buildup in electrical organs, potentially damaging the organs.
3. Radiation induced decay: while being mutated by radiation, prolonged exposure can result in a shortened lifespan.



# Summary

This mutated electric eel is a formidable creature, shaped by radiation to a near perfect predator. It's electric shocks are stronger due to enhanced electrocyte development, it's bioluminescence aids in hunting and survival, and its retractable jaw increases its predatory range. Its large size and armored scales make it nearly untouchable in its harsh environment. However it still has weaknesses. Stories are still told of sightings of a long serpent like creature glowing in the dark waters at night, seeming to always vanish before getting a good look.