

Game Design One



# Angel of the Deep

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## Overview / Design Pitch

Angel of the Deep is an action arcade that lets you experience life through the large eyes of a deep ocean predator. Explore the eternal dark of the deep ocean, become fitter and dare to venture up to the light or grow your own.

### Vision

- **Game Summary** - Life in the crushing depths of the ocean is a cold and perilous one. The player takes control on an Angler fish and other creatures on a quest to the surface and the light. The action takes place on the ocean floor where where the player has to look for food and avoid the larger predators. The creatures encountered during the game correspond with real life deep fauna. Feeding habits and behaviours closely align to real life creatures, hence a potential for education exists.
- **Theme/Mood** - Blues and deep black. Stylized cartoon-like characters and creatures, a little comical.
- **Game Pace** - Real time, action taking place on a single “plain” at a time. The player progresses by choosing when to advance to the next level. The game pacing is explained by the phenomenon of *decompression* and player advances through the game one stage at a time completing the level goal, each goal completed allows the player to progress upwards on an current.
- **Game Setting** - Ocean floor, map closed off by vertical cliffs.



[Marum. 2013](#)

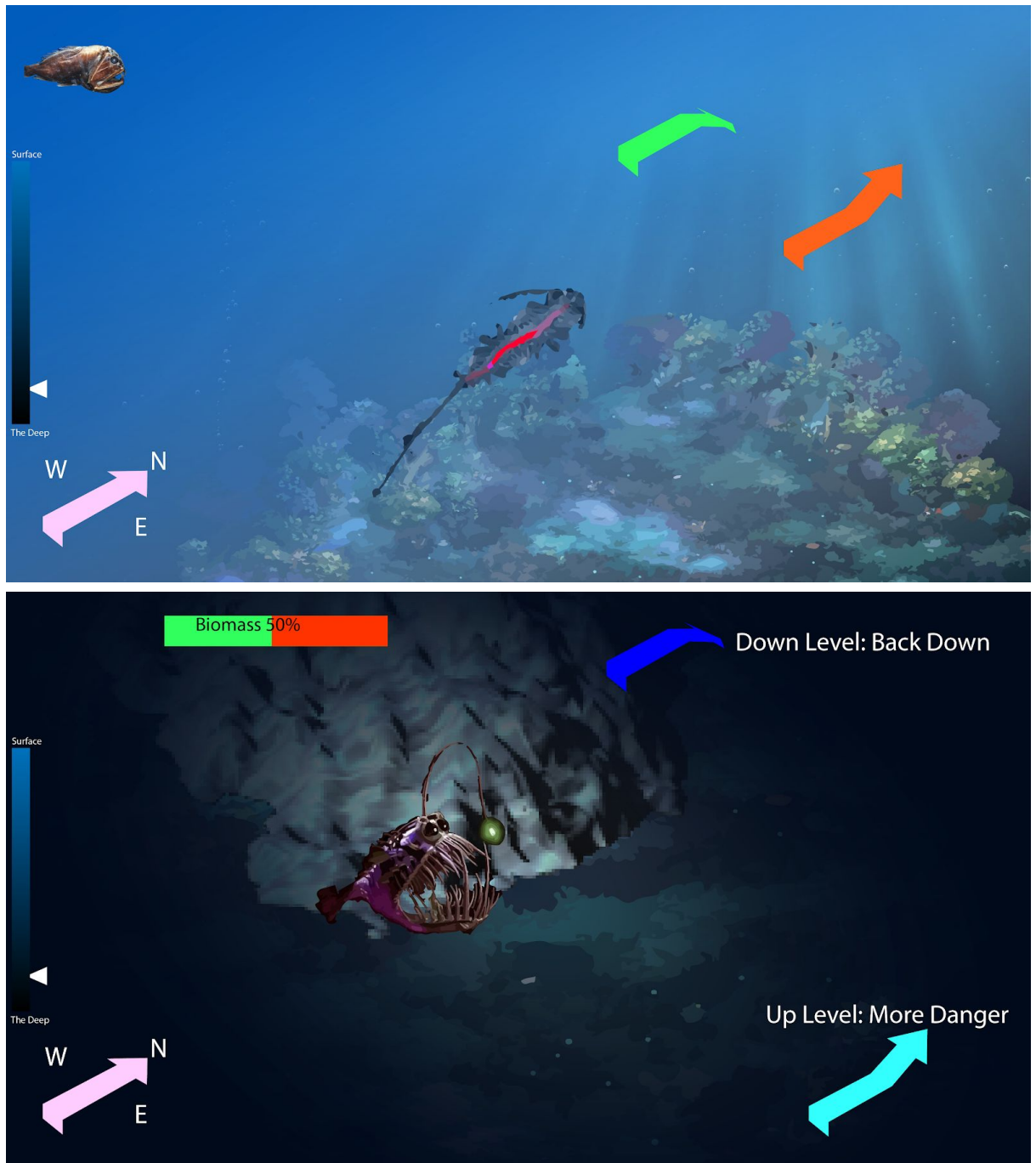
### Genre and Rating

Action arcade, 13+ (might be a little scary for the young)

### Camera and FOV

Isometric View with the player character in the center of the screen.

## Mock-up



### Ideal audience

Someone that enjoys exploration and the satisfaction of acquiring points and accumulating upgrades.

### Player Experience

- **Game Goal** - The player's main goal is to chase and harvest biomass from the environment. Upgrade abilities and defeat the other predators and other Angler fish. Once sufficient biomass has been harvested, the player is allowed to move up to higher, more food abundant level.
- **Core Actions** - The player has three core actions to perform.

Activate the light on the head and attract prey. Once the little fish/food swims close enough to the jaws, the player can execute the lunge by clicking forward (or tapping the screen). The Angler fish will then lunge forward in the direction of the tap/click and hopefully catch the fish/prey.

The light also attracts other nearby predators and activating it draws them closer. Switching off the light will aid escape or allow the player to get into a more advantageous position.

The player has to battle other fish and avoid their jaws by outmaneuvering them and attacking from the flank or rear.

The player upgrades the characters attributes. Side fins - gives you quicker maneuvering. Better jaws gives bigger bite. Light upgrades its intensity and length of boom thus making it easier to trap prey and outmaneuver predators. Tail fin will upgrade the lunge and speed.

- **Characters**
  - **Angel fish**

The main character, known as an Angler Fish. Controlled by player and the acts as the center of attention.

- **LocalScale/Setting**  
Game unit scaled to Unity 1 GU = 1m scale. A large Angler fish can from to half a meter in length and will occupy a 5% of the vertical screen ratio.
- **Feedback**  
Player feedback for progress in the form of food and health bars. Vision blurring and damage effect.
- **Control Scheme**  
Mouse and keyboard input. Mouse for orientation and direction control. WASD for for forward and strafe mode, space bar for lunge forward.

### **Release Platform**

PC with the potential to expand into mobile touchscreen.

### **Proposed Development Technology**

Unity / Unreal engines. No special technology requirements do not warrant custom engine development. Maya for modeling, Ableton for sound generation.

## Game Mechanics

### Foundational Breakdown

- **Rules** - The player is restricted to one plain of movement, like in a traditional RTS game. The player has life. The player takes damage from the jaws of other creatures. The player's hunger meter forces the player to seek food and hunt otherwise the player loses. A level is considered passed when the minimum biomass is reached, the player is allowed to progress. No time limit per stage.
- **Actions** - The player controls the character and seems food in the form of krill and small fish. The player avoids hazards such as other fish, ocean floor vents and Bobbit worms. Strategy applies during maneuvering while in combat. Upgrade strategy applies during the purchasing/upgrading phase.
- **Space** - 3D with movement restricted to the single plain of moment. However, hazards and obstacles can appear and threaten the player. The player should be able to traverse the entire map in roughly 5 minutes. Map size of 40 GU across, discrete, potential expansion to subspaces such as caves in order to expand the goals, provide diversity and extend gameplay.
- **Core Mechanics** -

#### Control:

The mouse + keyboard is the primary input scheme. The mouse controls lateral rotation (around the vertical axis of rotation) of player character (impacted by upgrades). "W" key moves the player the screen up direction. "A/D" are used for sidestafe movement and "S" reverses the movement direction. The player has a "right click" activated lunge ability which provides a brief boost in speed. "Space" activates the lunge ability giving temporary forward jump ability.

#### Feeding:

The player can attack other entities, the jaws will snap automatically when another object is in range. Thereafter the jaws will take a moment to reset. It is thus up to the player to judge the best moment to strike. The light at the top of the head will attract other fish, that will swim to it in a flocking behaviour. It is up to player to rotate body, such that the fish following the light are directly in front of the jaws for the lunge maneuver to succeed. The more the player eats, the more biomass is accumulated for later upgrades.

#### Combat:

Other creatures will actively attack the player. The Deep ocean crab is voverable from the rear and sides, the player must maneuver in order to avoid the front pincers.

Other predatory fish are more maneuverable than the player character, but can be distracted by the light.

The player will not be able to inflict damage to other other creatures unless attacking the sides or rear.

#### Level Progress:




The player is expected to reach a certain level of biomass (feed) before allowed to move on to the next level. Once a certain threshold is reached the player is notified that the thermal has opened and further progress can be made. The player can advance up a level or chose to go back to the previous where the

animals would be regenerated. The player is motivated to progress upwards as a result loss of natural habitat and progresses towards the better bright future in the shallows.




**Strategy:**



Maneuvering and movement, choices for upgrades in the shops


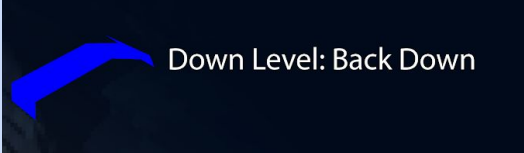
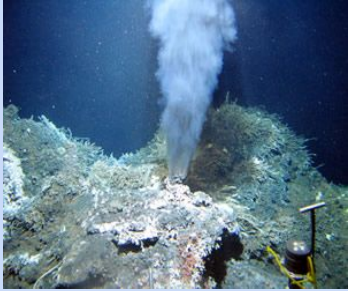
## Object Breakdown


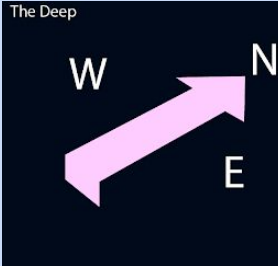
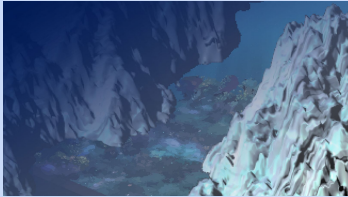

Name And Role Description	States	Attributes	Key assets
<p>Angler fish - Player Character (PC)</p>  <p>(<a href="http://screenheaven.com">screenheaven.com</a>, 2016)</p> <p>High fidelity model of the primary character including modular construction that allows parts to be changed during runtime.</p>	<p>Alive, Swimming, Turning, Damaged, Stunned, Dead,</p>	<p>Health 0 - 100%, Speed, Rate of rotation, Attack Power, Level, Scale: 0.5 *UGU (Unity Game Unit). Biomass: Varies</p>	<p>3D Model, Texture, Animations (Swimming, turning, Dead)</p>
<p>Pteropoda -NPC -Food/Resource</p>  <p>(<a href="http://AlexanderSemenov.com">Alexander Semenov</a>, 2016)</p> <p>One of small prey items, it follows the light from the player and can outrun the player unless the player lunges.</p>	<p>Wondering, Attracted by the light, Scared away</p>	<p>Nutritional Value: Low. Scale: 0.1 *UGU (Unity Game Unit). Biomass: 1</p>	<p>Model, Animations, Simple AI</p>
<p>Krill - NPC, Food, Resource</p>  <p>(<a href="http://nationalgeographic.com">nationalgeographic.com</a>, 2016)</p> <p>Type of prey, follows the light and can run away a little faster. Delivers more food and generally uarded.</p>	<p>Wondering, Attracted by the light, feeing ,</p>	<p>Nutritional Value: Med, Scale: 0.2 *UGU (Unity Game Unit). Biomass: 2</p>	<p>Model , Animations, Simple AI</p>



<p>Crab - NPC, Enemy, Food</p>  <p>(<a href="http://agefotosock.com">agefotosock.com</a>, 2016)</p> <p>The first enemy the player encounters. The Crab is mostly stationary and has a slow rate of turn. That allows the player to get to the vulnerable rear. Teaches the player about the concept of vulnerability.</p>	<p>Idle, Attracted, Attacking (pinching), Turning, Dead, Taking Damage.</p>	<p>Sensitivity Radius, Attack/Speed/ Power, Scale: 1 *UGU (Unity Game Unit). Biomass: 5</p>	<p>Model, Animation. Strike special animation, Advanced AI</p>
<p>Deepsea Lizardfish</p>  <p>(<a href="#">David Shale, 2016</a>)</p> <p>One of the more dangerous enemies the player will encounter. Fast swimmer and a deadly bite. Long turning arc the only drawback of this fish, if the player manages to dodge the jaws and lunge at the enemy side. Can be bitten in half</p>	<p>Idle/Roaming , Attacking in circles, Dead.</p>	<p>Speed, Turning Arc radius. Scale: 1.5 *UGU (Unity Game Unit). Biomass:10</p>	<p>Model, Animation, Advanced AI.</p>
<p>Fangtooth Fish</p>  <p>(<a href="#">Abi Travis, 2016</a>)</p> <p>Another dangerous enemy, has to be distracted by the light and attacked from the sides. Movement pattern resembles that of the player character.</p>	<p>Idle/ Roaming. Attacking, Dead.</p>	<p>Speed, Turning speed, Scale: 0.5 *UGU (Unity Game Unit). Biomass:10</p>	<p>Model, Animation, Advanced AI.</p>

<p style="text-align: center;">Bobbit Worm</p>  <p style="text-align: center;">(Abi Travis, 2016)</p> <p>The most dangerous of all the enemies the player encounters. It conceals itself in a hole on the ocean floor or in the sides of cliffs. A little bit of bubbles and a slight discoloration of the sand is the only thing that gives the animal away. Once the bobbit worm strikes, the player's quick use of the lunge ability is the only thing that can save him.</p>	<p>Idle/Hidden, Striking,</p>	<p>Scale: 1 *UGU (Unity Game Unit). Biomass: 20</p>	<p>Model, Animation, Advanced AI.</p>
<p style="text-align: center;">Level Up Marker</p>  <p>Used to signify that the level is complete and the player can advance to the next area. This will appear when the player harvested sufficient biomass.</p>	<p>Idle</p>	<p>Scale: 1 *UGU (Unity Game Unit).</p>	<p>Model</p>

<p style="text-align: center;">Player Light</p>  <p>The Players attribute light. Attracts attention of both prey and predators alike. Can be switched off for concealment. Can also be upgraded at the shop.</p>	Attached to player.	Scale: 0.3 *UGU (Unity Game Unit).	model integrated to the player character.
<p style="text-align: center;">Level Down Marker</p>  <p>Allows the player to go back the the previous area and heal and deal with simpler prey. This gives the player the opportunity to revisit the level. If the need arises. Optional Extra</p>	Idle	Scale: 1 *UGU (Unity Game Unit).	Model
<p style="text-align: center;">Deep Sea vent</p>  <p><a href="http://menzmag.com">menzmag.com</a>, 2012</p> <p>Used as an additional obstacle that can erupt at any time, but attracts other animals. Making feeding around the vent more lucrative but more dangerous. Used in combination with prey and predators to create a more dangerous environment</p>	Timer, Idle	Scale: 4 *UGU (Unity Game Unit).	Model and particle effect

<p>Terrain /Level</p> 		<p>Scale: 40 *UGU (Unity Game Unit).</p>	
<p>Follow Camera - Tracking player. Tracing Camera, with soft boom attached to player. Another actor with focus ability and other object tracking for cynamatics.</p>	<p>Tracking Player, Panning for players attention and elements</p>	<p>Target, Inertia, Waypoints</p>	<p>Main Camera system, Engine</p>
<p>Compass - Objective Guide</p>  <p>The directional indicator indicted the direction to the level up marker</p>	<p>Rotation, real time UI Component</p>	<p>Scale: 1 *UGU (Unity Game Unit).</p>	<p>Rotation and direction finding system.</p>
<p>Cliffs and Pathfinding elements</p>  <p><a href="http://Dundjinni.com">Dundjinni.com</a> Rocks line the level and create a path for the player to follow. Also used by enemies such as Bobbit worms to hide.</p>	<p>Static object</p>	<p>Scale: 30 *UGU (Unity Game Unit).</p>	<p>Static World object, collision system.</p>
<p>HUD</p>  <p>Displays vital information</p>		<p>Scale: 1 *UGU (Unity Game Unit).</p>	



## Systems

- **Main Menu System / Gameflow (level loading etc).**
- **Character Control / Input.**
- **Camera System.**
- **Combat System - Taking and Dealing Damage.**
- **AI.**
- **Level end Shop.**
- **Level asset management system.**
- **Animation Systems.**
- **Damage screen fade and effect for damage feedback**
- **Biomass reward and collection system.**
- **Shader and effects**
- **Sound and music system.**

### **Ideal Audience**

Game is recommended for 13 - 18 where action and interest in ancient life is most acute. The potential for an educational experience exists, as the creatures encountered in the game represent the real feeding patterns and habits.

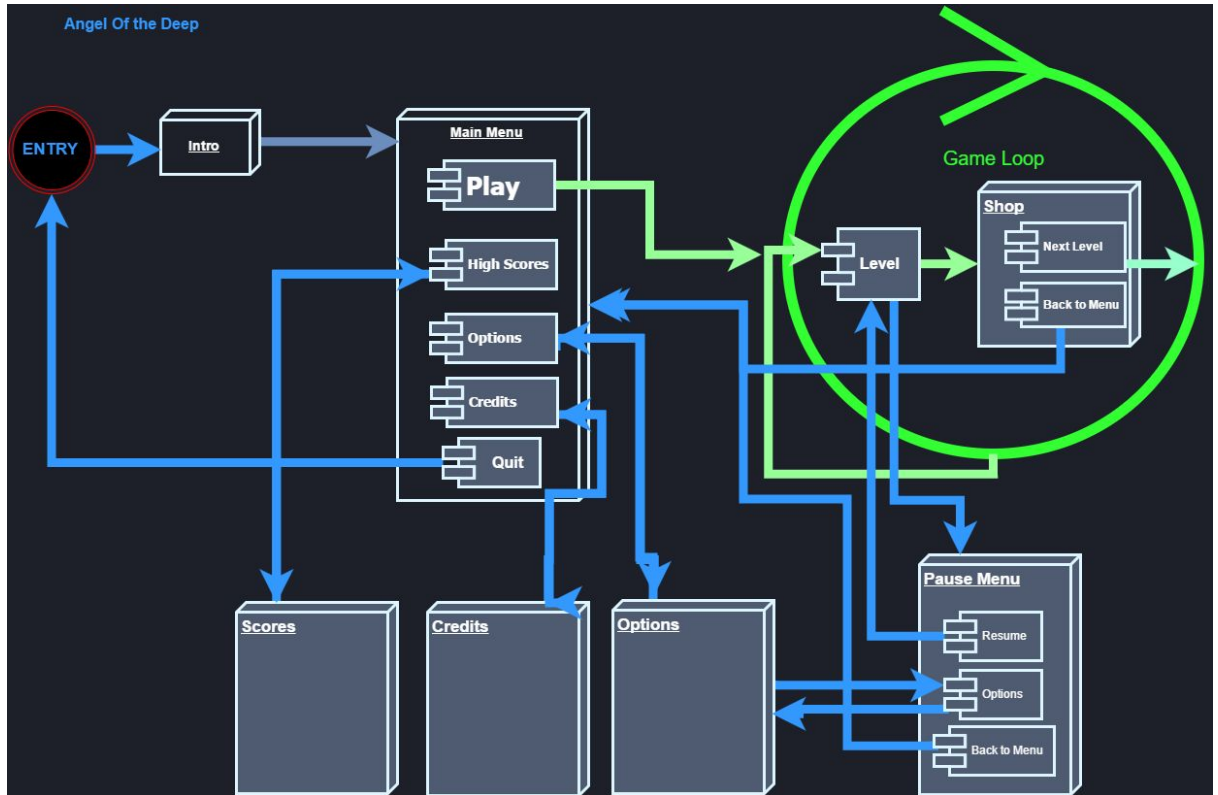
### **Skill**

Skillful maneuvering and strategy is crucial to successfully advance in the game. The player uses skill to outmaneuver the enemy and apply strategy as to how to apply the limited resources for shop upgrades. As the player advances through the game he/she becomes more skilled and quicker on the with the lunge and become better at patterning and predicting enemy behaviour. The player becomes more skilled at detecting the Bobbit Worms. The player learns to more skillfully use the light and hunt more effectively. Strategy is the dominant skill manifested in the way the player aims to pattern and predict the enemy motion.

### **Chance**

Variation in AI pattern of attack (direction and speed) will lend an element of unpredictability to combat. The environmental factors such as the eruption of underwater geysers lend an element of unpredictability.

## UI Flow Chart



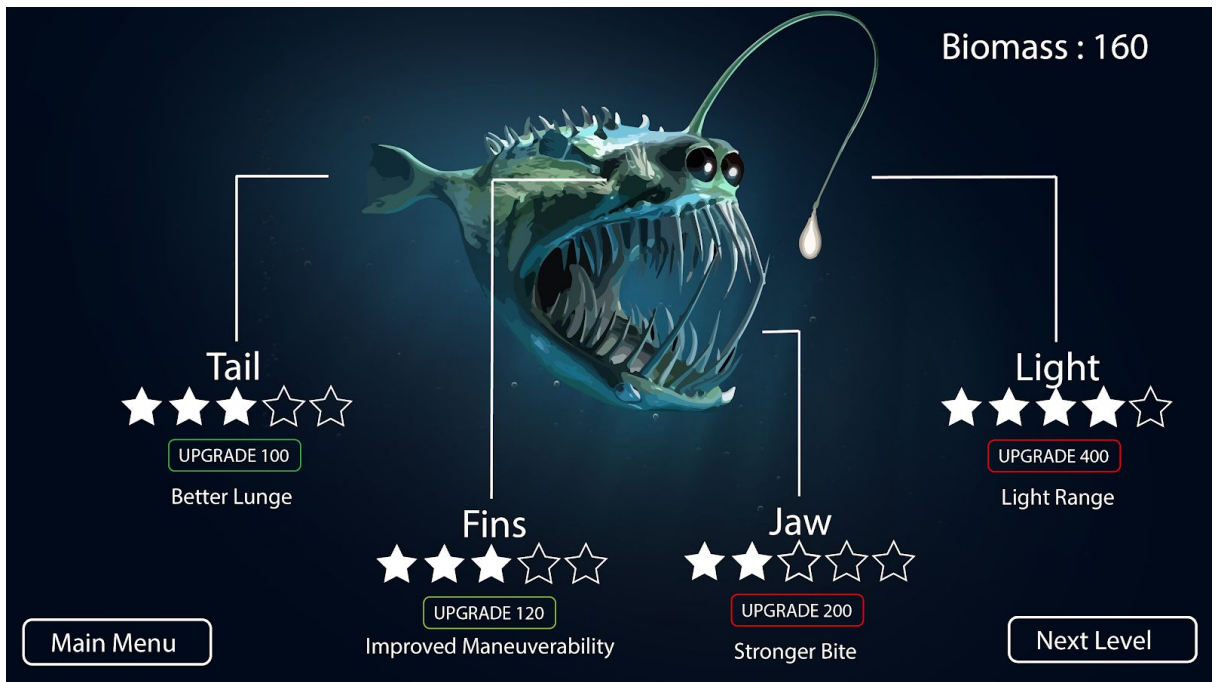
## Main Menu



Pause Menu



Shop (End of Level)



# HUD







## Monetization

### **Auto-Harvest ability**

When the minimum level goal is reached, the player has the option to advance even if there is biomass left uncollected. The player can stay and collect it all for additional points. However, should the auto-harvest ability is enabled, the player gets a notification that all biomass has automatically been collected. Auto harvest can be available for in app purchase