**Purpose**

This document is intended to cover enemy/passive creatures/adversaries that will populate the game levels.

It's to create alignment about how creatures are designed, and as a living document for specific creature designs.

Stakeholders:

* Game Designers
* Level Designers
* Narrative Designers / Writers
* Developers

**Creature design framework**

Creatures can be either Adversary - hostile/aggressive towards players, or Passive.

AI will have different spawn points each game. We will have a AI Pool, we will pick AI type depending of the room generated by the PSG (Procedural Spaceship Generator).

Creatures have different SIZE, SENSES, MOVEMENT, STRENGTHS & WEAKNESSES, MECHANICS and SPAWN.

See everything in greater details here, notably for their mechanics, their descriptions and the lore and reason behind their behaviors : <https://docs.google.com/spreadsheets/d/1ssEhgCWz1tYvythBH0Ymkw4WnRnUfkv9xrKXw5EgrDw/edit?usp=sharing>

**Example creatures**

**Reef society**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NAME** | **Size** | **Danger** | **Mechanics** | **Senses** | **Movement** | **Strengths & Weaknesses** |
| **THE REEF** | Very small to Huge (grows) | Harmless | Resonating web-mesh (Flying) polyps Consume | *Tactile, only feels what touches “it”* | *NONE, but “grows” through the ship* | *Its consuming web-mesh recedes against water ?* |
| **CONDUITGEIST** or “Suckers” | Very Small (ghostlike) | Harmless unless Players are already hurt | Possession Explosion | *Nothing, Wanders on its own. - seek Players in pain* | *Average, floats, goes through wall if debloated* | *Immortal when empty, Explodes on touch if bloated* |
| HOARSHOALS or **“Crabs”** | Very Small (flat) | Increases with their number | Biomimicry Hodor Weird interest | *All average* | *Crawling fast (walls), also through conducts* *Rolling very fast* | *Courage based on their number* *Strong vs Blunt* *Weak vs Fire* |
| SPUMEBROOD or **MIASMAL** | Small | Moderate, gives conditions | Ink spit Pheromone spore-fart Foam shield | *Very good Smell,* *Deaf & Blind* | *Jumping avg speed + Brachiation?* | *Afraid of Fire, strong vs Blunt* |
| **VOLTMAW** | Medium (doglike) | Great | Energic siphon Buzzing stomach | *All average, and Electrosensitivity* | *Hopping very fast* | *Resist against all electricity* |
| **HUSKHUSH** or “The Ear” | Medium (bottom-heavy) | Great | Good ear Camouflaged Weird interest | *Blind, Very good Hearing* | *Slow but “invisible” when immobile* | *Invincible when camouflaged* *Shell can be broken (blunt) then weak to all* |
| **LURKLURE** or “The Eye” | Medium (top-heavy) | Great | Weeping angel Weird interest | *Deaf, Very good Sight* | *Crawls slowly on walls + fast short jump-bursts* | *Weak vs Fire after being hurt (releasing gas)* |
| SLUBBERDEGULLION or **“The Custodian”** | Very Large (thick) | Great (but shrinks with damage?) | Resonating web-mesh Hodor Engulfing | *Bad hearing/sight, Good smell, Wanders on its own.* | *Very slow slithering/slug* | *Strong vs Firearms* *Weak vs Slash* |
| **RIFFWAILER** | Very Large (long) | Harmless if alone | Jamming-radar Maestro Screamer | *Good hearing, Avg sight, Bad smell* | *Swaying slow back-and-forth* | *Weak legs, falls easily if bumped, Hates screams* |

**Fauna**

There is the REEF and all its “societal” creatures, but then many other fauna come along, from parasites to simply others fighting for their survival in the new ecosystem the REEF provides.  
Here are some "preys" all the Dangerous creatures of the REEF preys on as well, and that YOU may use as a Player (therefore this might be put in [Items](http://176.131.51.146/en/items-design-document#complete-item-list)?)

|  |  |
| --- | --- |
| **NAME** | **Description, Bonus, Trade-off** |
| **Snailcloak** | *These little snails-like stuff can be ACCUMULATED on you, the more you have the slower you are, but the more other creatures think you are one of them and at first aim at other players, or even disregard you* |
| **Screamslug** | *It's disgusting but it's cute, this little seaslug thingy, and you can throw it while it yells and cry its unfair living condition until you reassure it. It sticks on your shoulder, or to walls too. Sometimes it splashes on wall though* |
| **Lamp-prey** | *It sucks on you, BLEEDING you a bit (like a lamprey), but hey, it's cool now it emits light (bioluminescence) along its elongated figure. It might work on other creatures too if you threw it on them. Advice : Don't try too many of these on you* |
| **Bloomwhale** | *This cute but dumb whale-mushroom swims and blooms spores in the air in a relaxing manner to us humans (reduces FEAR), or maybe it's their moaning song - In all cases, it ALSO might attract greater problems (dangerous creatures)* |
| **\*Crabdog** | *This Hoardhsoal thinks you're one of them, or even the Reef itself, he goes around and brings back surrounding items to you. Hopefully, it won't be OTHER hoardshoals, this time!* |
| **\*Blobpack** | *This odd Conduitgeist is sucked to you, but isn't sucking you. You can use its "stomach" as an extra inventory slot. You always fell a bit COLD, that's weird though* |
| **\*Jellywatch** | *Walk around with your inflated organic electrosensitive jelly-balloon. Whenever another non-human creature is around, it shrink small out of fear. It's weak, and often is scared for NO reason whatsoever (because of random noises)* |
| **\*Climbsucker** | *This starfish-like creature attaches to your back with two podsucking tentacles, using its remaining ones to attach to any wall or ceiling (to evade/hide) and get stuck up ther until you ask for release, IF it lets you actually* |
| *\* Indicates only the SCOUT can tame & use them (or maybe ONLY the scout can tame any of these creatures anyway)* Side quest ? Bring back some of these harmless fauna with you! | |

**Stealth Mechanics**

* **Potential issues:**
  + *Hierarchy in tracking X or Y Player and through different signs. I suspect enemies may be switching targets back and forth*
  + *Balancing the ability of Players to “disappear” (by being stealthier - i.e. by producing Signs with less Exposure) from the Creatures tracking them*

**CREATURE AWARENESS**

* **1)**A Player does **Something** ([Character designers](http://176.131.51.146/en/characters-design-document#stats)?), that thing leaves a **Sign** ([Technical Design?](http://176.131.51.146/en/technical-design-document#character-scales)). The more **apparent (Light, Noise, Motion) a Player's action** is , the greater his Sign's **Exposure-area & Tracking-area**
  + That **Sign's "visibility" to Creatures** depends on its interaction with the environment, such as **Light** (for Motions) or **Material** (for Noises) which **multiplied**together create the **Sign's Exposure-area**  (Making the Creature Aware of a Player and by How much) & **Tracking-area** (the Researching zone for more Tracks)
  + A**ll creatures have different Senses** (such as Sight or Hearing) better or worse in different environment too (such as Light for example), which are **multiplied** together to create their **Sense's Perception-area**
  + When a “Creature's specific Sense's Perception-area” **collides** with a “Player's created Sign's Exposure-area” this means they detected a something. This increases the **Creature's Awareness** to the player by an amount equal to the perceived Sign's Exposure-Area (how visible this Player's action was)

* **2)** All Creatures have an **AWARENESS** meter towards EACH Player, which increases based on the Player's **SIGNS** he leaves behind through his actions.
  + The first, middle and last step of a Creature's awareness corresponds to being **UNAWARE**, **ALERTED**, **or AWARE** of the Player's position
    - ***Unaware =*** *The Player is* ***totally invisible to the Creature****, it totally misses him, pure stealth*
    - ***Alerted =*** *The Creature “believes”* ***there MIGHT be a Player*** *around but doesn't know where, it seeks more Signs of the Player to become aware*
    - ***Aware =*** *The Creature “knows”* ***there IS a Player*** *around, it directly chases the Player' Signs down to his actual position*
      * **Diegetic signaling to Player of the Creature's state of Awareness** ([For UX Designers and Artists](http://176.131.51.146/en/ui-ux-design-document#gameplay), and [Audio Designers](http://176.131.51.146/en/audio-design-document#c-sound))**:**
        + Unaware Creatures = In their “idle” mode & animation, the typical behavior, not much noise either than their footsteps or the minimum required
        + Alerted Creatures = Moving more forcedly, they are looking around, moving their eyes or sense organs or even lighting them, making some “sensing noises” like sniffing, “rolling eye” noises, or drooling (visually and in noise)
        + Aware Creatures = Like hungry beasts, heavily drooling, making predatory noises from their throat, charging to Players directly, lighting their sense organ even more, and them (eyes for examples) directly aimed/targeting their focused player.
      * **2.a)** Creatures always focus in **tracking the Player they have their greatest Awareness of**, AND then **the most Exposing Sign** surrounding the Creature itself
      * **2.b)** Creature's Awareness of a Player **decreases gradually over time WHEN not sensing any of his Sign** (-10% per second?)

* **3)** **If a Creature's Sense's Perception-area collides with a Player's Sign's Exposure-area…**
  + **Then increase its Awareness level to THAT Player**, by an amount equal to the Sign's Exposure
    - As its level of Awareness increases for that Player (**from Unaware to Alerted**) he will shift his behavior in relation to Signs:
  + There are two different state of Creature's tracking, changing its behavior in relation to Signs, corresponding to its gradual ability to track the Player's position accurately ([Metrics?](http://176.131.51.146/en/technical-design-document#metrics))
    - **3.a) Unaware (0 to 10) to Alerted (10 to 50) =**
      * IF a Sign's Tracking-area is within the Creature's **related Sense** Area (some creatures might “See” a Player better than “Hear” a Player),
        + Then the Creature goes to that Sign's Tracking-area

Then moves randomly within this Inner-area, to indirectly (through his Sense areas) find more Signs to increase its Awareness meter

* + - * + If a ANOTHER Player's Sign's Exposure-area is within the Creature's related Sense area (such as a diversion, or simply another Player's doing something) AND is more Powerful than any CLOSER Tracks.

Then go to that Sign's Tracking-area and increase its Awareness level to THAT Player

* + - **3.b) Alerted (50 to 90) to Aware (90 to 100) =** Then, the Creature goes to the actual position (i.e. NOT its Inner-area) of Player's latest Sign, but delayed by 5-(Alert-50)/10 seconds (-1s per 10 Alert), ultimately 0 seconds when Aware.
      * This delay, as shown just above, is **reduced the higher the Creature's Awareness** (i.e. knowing more about the player position makes him more accurate - of course this should be tested & adapted to the game's experience)
      * This delay is **reduced the higher the Exposure level** of the latest Sign (allowing Players to escape a Creature tracking them)
        + WHEN a Creature is **Alerted, any OTHER Player's Sign's Exposure-area it notices makes him directly Alerted** of them as well (i.e. put its Awareness level to THAT new player to “Alerted”)

**SIGNS**

For [Level Designers](http://176.131.51.146/en/level-design-document#environmental-elements), to devise/use the different kind of props as seen below  
For [Character designers](http://176.131.51.146/en/characters-design-document#stats) (to assess the interaction between props & character senses)

**1) LIGHT & DARKNESS**

* There is a gradient of Intensity, from 00L to 100L and three Areas of that Intensity (Small, Medium, Large). Each light source have different combinations of them.
* *Some creatures CANNOT see you(r signs) in the light, Other creatures can ONLY see you(r signs) in light.*
* *Some creatures CANNOT see you(r signs) in the darkness, Other creatures can ONLY see you(r signs) in the darkness*
* *Some creatures LIKE the light (they go towards it, and/or they can only see you with light), some DISLIKE it (they go to darkness areas, and can only see you in darkness).*

**Prototype: The Lurklure Sees Signs best proportionally to the surrounding lack of Light (its Sight = 100-Light). It cannot Hear anything. It seeks to hide in lack of Light to attack when Player stop looking at it, and will try to destroy Lightsources (only) when it is Alerted by a Player, otherwise it avoids brightly lighted areas (>25L)**

***Props***

1. Turn on/off Light switches (Large Area).
   1. Off: 00L, Shifty Lights: 50L, On: 100L
      * *The Lurklure can Switch off lights*
2. Change broken lightbulbs (00L→100L) or Break lightbulbs (100L→00L), (Medium Area)
   1. *The Lurklure can Break lightbulbs*
3. Kill bioluminescent REEF’s “light” (25L→5L (some light remains)) (*artists can check glowworms for inspiration*) or feed the REEF to regrow them (5L→25L, if still alive (25L→50L for a minute), (Small Area)
4. Make a fire (Small Area = 25L, Medium = 50L, Large = 75L) or Shut a fire off (XXL→10L (ambers for 1 minute) → 00L (ashes))  
   Fire torches or “fire arrows” act like Small fires (25L→10L→00L).
5. Carry an energy torch (not fire) (On: 100L, Off:00L) (Small Area), throw a “light” grenade (emitting 100L in a Large Area for 1 minute, could scare some Creatures too)

**2) NOISE**

* Each type of action produces a different Noise level - from 00N (silent) to 100N (loud). Walking, shooting, talking, etc. all have different Noise Level.
* Each Noise is perceived as a Sign where a creature might go to inquire. The higher the Noise level, the more accurate the Creature locates it according to its Hearing Sense (for example: with a small noise the creature will look around it, while with an explosion it will go exactly where it happened)

***Props***

1. Throw/collide/shoot things around to create noise to redirect creatures towards it - or speak loudly somewhere to attract them there.
2. Yell/sing/talk/etc. to scare creatures OR attract them (depending on the creature).
3. Walk on specific surfaces to make less noise (or remove boots & walk barefoot?) - such as the REEF's resonating webmesh
4. The more stuff you carry, the noisier you are?

**3) MOTION**

* All Player's Motions have differing levels of Exposure (from 00M to 100M). This CAN depend from surrounding Brightness, but not necessarily. All Player motion's Exposure are dependent on the Brightness (dancing under a ceiling light isn't the same as in pitch darkness), to do so, take both /100 and multiply them (Example: 25L/100 (Small fire) \* 50M/100 (Walking) = 0.125M For Walking by the Area of a Lighted Small fire)
* If a Player stops moving he can become effectively invisible to some creatures, If a Player starts moving he can become effectively invisible to some creatures
* If a Player make something move (point a laser, throw a rock) he can divert and attract creature with movement sensibility towards it

***Props***

1. Use a laser to point and distract/redirect some creatures (like a cat)
2. Throw things around (stones, etc.) to have creatures follow its movement.
3. Stop moving and let creatures pass.
4. Physically hide behind props to get out of its sight
5. Hide in the darkness to get out of its sight
6. Spread a specific Hallucinogen causing Akinetopsia (motion blindness) to creatures so they CAN’T see your movement, they ONLY see you when you STOP moving.