<https://www.spaceappschallenge.org/2023/find-a-team/fingerling-frenzy/?tab=members>

2 stats, Plastic Resistance, Size. The fish will be classified as Predator or Prey. The predators will defeat prey but if there are multiple predators the one biggest in size wins. The Prey will have a set fingerling score if they win. The Predators fingerlings score will be based upon how many prey it defeats.

Size = 1-10

Win = 1-10

Fish Types:

Predators

1. **Sharks:** Various species of sharks inhabit the Coral Triangle, including reef sharks (e.g., whitetip and blacktip reef sharks) and larger predatory species like tiger sharks and hammerhead sharks.
   1. **Plastic resistance = 1**
   2. Size **= 10 (220000 avg)**

Weight up to 11 tons

Length 8 in.-40 ft.

* 1. Win = 1
  2. Fun fact-- **No Bones:** Sharks are cartilaginous fish, which means their skeletons are made of cartilage rather than bones. This makes them more lightweight and flexible.
  3. Pic search--whitetip and blacktip reef sharks
  4. Sources cited
     1. <https://www.fisheries.noaa.gov/species/oceanic-whitetip-shark#:~:text=The%20reproductive%20cycle%20is%20thought,pups%20(average%20of%206>).

1. **Barracuda:** Great barracuda are common predators in coral reef environments and are known for their swift attacks on prey.
   1. **Plastic resistance = 3**
   2. Size = 4 (avg 45)

Weight up to 10 to 40 pounds

Length up to 6ft

* 1. Win = 2
  2. Fun fact-- Cannibalistic Tendencies: Larger individuals may exhibit cannibalistic behavior, preying upon smaller barracuda or conspecifics. This behavior can help regulate their population
  3. Pic search-- Great barracuda
  4. Sources cited

<https://www.virginiaaquarium.com/things-to-do/great-barracuda>

1. **Groupers:** Large groupers, such as the giant grouper and potato cod, are formidable predators that can consume a variety of fish and crustaceans.
   1. **Plastic resistance = 3**
   2. Size **= 8 (avg 400)**

Weight up to 200lbs

Length 3-4 ft

* 1. Win = 4
  2. Fun fact-- Conservation Concerns: Due to their slow growth, long lifespan, and vulnerability to overfishing, Giant Groupers are listed as Near Threatened by the International Union for Conservation of Nature (IUCN). Many regions have implemented regulations to protect their populations
  3. Pic search—giant grouper
  4. Sources cited

<https://en.wikipedia.org/wiki/Giant_grouper>

1. **Moray Eels:** These long, serpentine eels have sharp teeth and are skilled hunters of small fish and crustaceans in crevices and coral reefs.
   1. **Plastic resistance = 2**
   2. Size **= 5 (125 avg)**

Weight up to 25lbs

Length up to 10 ft

* 1. Win = 2
  2. Fun fact-- Unique Hunting Strategy: When hunting, they use their keen sense of smell and excellent vision to locate prey in the darkness. Their large mouths are equipped with sharp teeth, which they use to grasp and immobilize their prey
  3. Pic search— **Giant Moray Eel (Gymnothorax javanicus)**
  4. Sources cited

<https://snorkelingthailand.com/moray-eel-facts/>

1. **Lionfish:** While they are invasive species in some parts of the world, lionfish are predators in the Coral Triangle, known for their striking appearance and voracious appetites.
   1. **Plastic resistance = 6**
   2. Size **= 2 (avg 1.5)**

Weight between 1-2lbs

Length up to 12-18inches

* 1. Win = 2
  2. Fun fact-- Reproduction: They have a unique courtship and mating behavior, where males attract females by performing a series of coordinated dances. Once a female selects a mate, they release their eggs into the water, where they float in the plankton until hatching.
  3. Pic search-- Red Lionfish (Pterois volitans)
  4. Sources cited

<https://myfwc.com/wildlifehabitats/profiles/saltwater/lionfish/#:~:text=Males%20mature%20at%20about%204,12%2C000%20to%2015%2C000%20eggs%20each>.

1. **Tuna:** Various species of tuna, including yellowfin tuna and skipjack tuna, are apex predators in open water environments around the Coral Triangle.
   1. **Plastic resistance = 2**
   2. Size **= 8 (avg 600)**

Weight up to 200lbs

Length 4-8.2ft

* 1. Win = 4
  2. Fun fact-- Breeding Behavior: Yellowfin Tuna are oviparous, meaning they lay eggs. Unlike many other tuna species, they do not give birth to live young. The eggs float in the open ocean, where they hatch into tiny larvae.
  3. Pic search-- Yellowfin Tuna (Thunnus albacares):
  4. Sources cited

<https://oceana.org/marine-life/yellowfin-tuna/#:~:text=3.%20Female%20yellowfin%20tuna%20species,4%20million%20eggs%20when%20spawning.&text=4.,maximum%20lifespan%20of%207%20years>.

1. **Barramundi:** Barramundi are large predatory fish that inhabit estuaries and coastal areas, preying on smaller fish.
   1. **Plastic resistance = 2**
   2. Size **= 4 (avg 37.5)**

Weight up to 30lbs

Length 20-40 inches

* 1. Win = 4
  2. Fun fact-- Breeding: Barramundi have a unique reproductive strategy known as protandry, where they change sex during their lifetime. They begin their lives as males and later transition to become females. Spawning typically occurs in estuaries and coastal areas.
  3. Pic search-- The Barramundi, (Lates calcarifer)
  4. Sources cited

1. **Octopuses:** Octopuses are skilled hunters that feed on a variety of prey, including crustaceans, fish, and mollusks.
   1. **Plastic resistance = 3**
   2. Size **= 1 (avg 0.08)**

Weight up to 4 onces

Length 4-8 inches

* 1. Win = 5
  2. Fun fact-- Conservation: While not specifically targeted by fisheries, Blue-Ringed Octopuses can be caught incidentally in fishing gear. Because of their vulnerability and important role in marine ecosystems, they are considered species of conservation concern
  3. Pic search-- Blue-Ringed Octopus (Hapalochlaena spp.)
  4. Sources cited

<https://greatsouthernreef.com/blueringed-octopus#:~:text=During%20the%20mating%20season%20the,shortly%20after%20the%20eggs%20hatch>.

<https://adapt136.ucsc.edu/taxa/invertebrates/the-common-octopus-is-facing-even-more-common-problems-and-it-s-our-fault#:~:text=It%20was%20shown%20in%20a,many%20other%20common%20ocean%20pollutants>.

1. **Sea Snakes:** Venomous sea snakes are predators in the coral reefs of the Coral Triangle, primarily preying on fish and occasionally crustaceans. Beaked Sea Snakes have distinctive beak-like snouts and are known for their potent venom. They are often found in estuaries and nearshore habitats.
   1. **Plastic resistance = 3**
   2. Size **= 2 (avg 2.1875)**

Weight up to 14 ounces

Length up to 5ft

* 1. Win = 1
  2. Fun fact-- Conservation Concerns: Despite their potential danger to humans, Beaked Sea Snakes are a vital part of marine ecosystems. Their presence helps control populations of reef fish, and they can serve as indicators of the health of coral reefs. Conservation efforts aim to protect these important creatures and their habitats.

It's important to emphasize that although Beaked Sea Snakes have one of the most toxic venoms, they are generally not a significant threat to humans unless they are directly handled or harassed. As with all wildlife, they should be observed and respected from a safe distance in their natural habitat.

* 1. Pic search-- Beaked Sea Snake (Enhydrina schistosa)
  2. Sources cited

<https://www.britannica.com/animal/sea-snake>

[Hydrophis schistosus (Beaked sea snake) | Taxonomy | UniProt](https://www.uniprot.org/taxonomy/8682)

<https://www.longdom.org/open-access/threat-to-sea-snakes-from-bycatch-through-imperilled-fishing-nets-utilization-report-on-rescue-of-sea-snakes-from-by-catch-at-kund-96846.html#:~:text=Bycatch%20of%20sea%20snakes%20due,required%20for%20effective%20problem%20management>.

1. **Saltwater Crocodiles:** In coastal and estuarine areas, saltwater crocodiles are apex predators, preying on various marine and terrestrial species.
   1. **Plastic resistance = 3**
   2. Size **= 9 (avg 50600)**

Weight up to 4,400lbs

Length up to 23 ft

* 1. Win = 4
  2. Fun fact-- Breeding and Nesting: Female saltwater crocodiles construct nests in sandy areas near the water's edge. They lay a clutch of eggs, which they guard fiercely. The gender of the hatchlings is determined by the temperature of the nest.
  3. Pic search--Saltwater crocodiles (Crocodylus porosus)
  4. Sources cited

<https://oceana.org/marine-life/saltwater-crocodile/#:~:text=Though%20they%20spend%20much%20of,clutch%20of%20approximately%2050%20eggs>.

1. **Giant Trevally:** These large predatory fish are known for their speed and strength, making them effective hunters in coral reef environments.
   1. **Plastic resistance = 2**
   2. Size **= 6 (avg 225)**

Weight over 100lbs

Length 4.5ft

* 1. Win = 4
  2. Fun fact-- Conservation: Populations of Giant Trevally are generally healthy, but overfishing can pose a threat, especially in areas with heavy fishing pressure. Fisheries management measures are in place in some regions to ensure sustainable harvesting of these fish.
  3. Pic search-- Giant Trevally (Caranx ignobilis)
  4. Sources cited

[Giant Trevally l Amazing Bird-Eating Fish - Our Breathing Planet](https://www.ourbreathingplanet.com/giant-trevally/)

The Coral Triangle is known for its incredible marine biodiversity, and it is home to a wide variety of prey fish species that play crucial roles in the region's marine ecosystems. These prey fish are important food sources for predators like larger fish, sharks, seabirds, and other marine animals. Here are some common prey fish species found in the Coral Triangle:

1. **Anchovies:** Various species of small anchovies are abundant in the Coral Triangle. They often form large schools near the surface, making them an important prey item for many marine predators.
   1. **Plastic resistance = 6**
   2. Size **= 1 (avg 1)**

Weight 2-10 grams

Length 3-4 inches

* 1. Win = 2
  2. Fun fact- Conservation: Sustainable management of anchovy populations is crucial to maintain the health of marine ecosystems and support fisheries. Overfishing can disrupt the balance of marine food webs, impacting both predator populations and the fishing industry.
  3. Pic search-- Indian Anchovy (Stolephorus indicus)
  4. Sources cited

<https://news.mongabay.com/2017/11/plastic-in-the-ocean-smells-like-junk-food-to-hungry-anchovies/#:~:text=The%20odors%20of%20plastic%20pieces,rely%20on%20them%20for%20food>.

http://www.fishbase.se/summary/Stolephorus-indicus.html

1. **Sardines:** Sardines are another type of small, schooling fish commonly found in the region. Their shoaling behavior provides a substantial food source for larger predators.
   1. **Plastic resistance = 5**
   2. Size **= 1 (avg .5)**
   3. Weight 20-40 grams

Length 6-10 inches

* 1. Win = 10
  2. Fun fact-- Conservation: Sustainable management of sardine populations is essential to maintain the health of marine ecosystems and to support the livelihoods of coastal communities that rely on them. Overfishing can disrupt the marine food web and have negative impacts on marine ecosystems.
  3. Pic search-- Indian Oil Sardine (Sardinella longiceps)
  4. Sources cited

[Indian oil sardine - Alchetron, The Free Social Encyclopedia](https://alchetron.com/Indian-oil-sardine)

1. **Mackerel:** Various species of mackerel are present in the region, and they are known for their fast swimming and predatory behavior.
   1. **Plastic resistance = 4**
   2. Size **= 3 (avg 15)**

Weight over 11 lbs

Length 24-39 inches

* 1. Win = 8
  2. Fun fact- These mackerel are known for their streamlined bodies, sharp teeth, and predatory behavior. They are popular targets for both commercial and recreational fishing due to their size and the quality of their meat. They are prized for their taste and are a significant part of the local seafood cuisine in many regions of the Indo-Pacific, including those within the Coral Triangle.
  3. Pic search-- Narrow-barred Spanish Mackerel (Scomberomorus commersonnii)
  4. Sources cited

<https://www.sciencedirect.com/science/article/abs/pii/S0269749121010319>

[Narrow-barred Spanish Mackerel (Scomberomorus commerson) | Spanish mackerel, Mackerel fish, Underwater fish (pinterest.com)](https://www.pinterest.com/pin/453315518724783274/)

1. **Baitfish:** Several small baitfish species, often collectively referred to as "baitfish," serve as prey for larger fish and predators. These include species like fusiliers and small wrasses.
   1. **Plastic resistance = 8**
   2. Size **= 1 (avg 1)**

Weight 2-4 onces

Length 8-12inches

* 1. Win = 6
  2. Fun fact- Fusiliers are an integral part of the Coral Triangle's marine biodiversity, and their presence adds to the vibrant and colorful underwater world of coral reefs. Their schooling behavior and important role in reef ecosystems make them a fascinating and valuable species in the region.
  3. Pic search-- Redbelly Yellowtail Fusilier (Caesio cuning)
  4. Sources cited

https://australian.museum/learn/animals/fishes/yellowtail-fusilier-caesio-cuning-bloch-1791/

1. **Damselfish:** Many species of damselfish inhabit the coral reefs of the Coral Triangle. While they are not typically a primary prey species for larger predators, they can be preyed upon by some reef fish and predatory invertebrates.
   1. **Plastic resistance = 7**
   2. Size **= 1 (avg 1)**

Weight .18-.35 onces

Length 3-4 inches

* 1. Win = 5
  2. Fun fact- Breeding Behavior: These damselfish engage in intricate courtship and breeding behaviors. The males clean and defend a nest site, and once a female accepts a mate, they lay adhesive eggs on the chosen substrate.
  3. Pic search-- Blue Devil Damselfish (Chrysiptera cyanea):
  4. Sources cited

<https://www.frontiersin.org/articles/10.3389/fenvs.2021.641135/full>

1. **Surgeonfish:** Surgeonfish, also known as tangs or unicornfish, are herbivorous fish that feed on algae on coral reefs. While they are not primary prey for predators, they can be targeted by some reef sharks and other carnivorous fish.
   1. **Plastic resistance = 6**
   2. Size **= 1 (avg 1)**

Weight 1-2 onces

Length 5-6 inches

* 1. Win = 4
  2. Fun fact- Breeding Pairs: During the breeding season, Convict Tangs form monogamous pairs for reproduction. They select a nest site, where the female lays adhesive eggs, and the male guards and fans them to ensure proper oxygenation.
  3. Pic search-- Convict Surgeonfish (Acanthurus triostegus):
  4. Sources cited

1. **Wrasse:** Various species of wrasse are found on coral reefs, and they play roles as both predators and prey in the ecosystem.
   1. **Plastic resistance = 7**
   2. Size **= 1 (avg 1)**

Weight .3-1.5 onces

Length 4-6 inches

* 1. Win = 8
  2. Fun fact- Protogynous Hermaphrodites: Like many wrasse species, Checkerboard Wrasses are protogynous hermaphrodites, which means they can change their sex from female to male as they grow older and larger. The dominant female in a group can transform into a male to lead a harem of females.
  3. Pic search-- Checkerboard Wrasse (Halichoeres hortulanus)
  4. Sources cited

[Checkerboard Wrasse "Halichoeres hortulanus" – 1 Fish 2 Fish Dartmouth](https://1fish2fishdartmouth.com/products/checkerboard-wrasse-halichoeres-hortulanus)

1. **Parrotfish:** Parrotfish are herbivores that graze on algae and play important roles in maintaining coral reef health. They are not typically prey for larger fish but are occasionally targeted by predators like reef sharks.
   1. **Plastic resistance = 6**
   2. Size **= 1 (avg 1)**

Weight 10-21 onces

Length 8-14 inches

* 1. Win = 7
  2. Fun fact- Role in Reef Health: These parrotfish are considered "ecosystem engineers" because of their impact on the reef environment. By consuming algae and preventing it from overgrowing corals, they contribute to the overall health and survival of coral reefs.
  3. Pic search-- Stoplight Parrotfish (Sparisoma viride)
  4. Sources cited

<https://oceanbites.org/microplastic-macro-problem-microplastics-discovered-in-fishes-from-remote-coral-reefs-in-the-south-china-sea/#:~:text=Parrotfish%20are%20presumed%20to%20ingest,are%20known%20to%20accumulate%20microplastics>.

These prey fish species are essential components of the Coral Triangle's intricate food web, supporting the diverse range of marine life found in the region. They help maintain the balance and health of coral reef ecosystems and provide sustenance for numerous predators, including many species of reef fish, sharks, and marine mammals.

## 

## Project Fingerling Frenzy

### High-Level Summary

**Project Summary: "Fingerling Frenzy - A Coral Triangle Card Game"**

"Fingerling Frenzy" is an immersive and educational card game that transports players into the vibrant and biodiverse ecosystem of the Coral Triangle. Within this captivating game, players explore the intricate relationships between fish species, identifying them as predators or prey, while also considering the effects of plastic pollution and striving to collect as many fingerlings as possible. A unique feature of the game is the assignment of plastic resistance values to fish based on their size, ranging from 1 to 10.

**Key Features:**

1. **Fish Diversity:** "Fingerling Frenzy" showcases a wide variety of fish species, each with its unique characteristics and ecological roles. Players must strategically assess the plastic resistance values assigned to these fish, which are based on their size, to make informed decisions in their pursuit of becoming the apex predator.
2. **Plastic Pollution Challenge:** Players are faced with the task of addressing the real-world challenge of plastic pollution, which directly impacts the health of marine life and the overall equilibrium of the ecosystem. Their decisions within the game reflect the consequences of pollution on the Coral Triangle.
3. **Collect Fingerlings:** The primary objective of "Fingerling Frenzy" is to collect as many fingerlings as possible by strategically becoming the apex predator in each round of gameplay. Plastic resistance values play a crucial role in determining a player's success.
4. **Size-Based Resistance:** Fish size is used to calculate plastic resistance values, with larger fish assigned lower resistance and smaller fish assigned higher resistance. This realistic mechanic adds depth and complexity to the gameplay.
5. **Strategic Gameplay:** The game provides a blend of scientific knowledge, strategy, and a bit of luck, encouraging players to make informed decisions about the plastic resistance of the fish they target in their quest to become the top predator.
6. **Educational Value:** Beyond being a source of entertainment, "Fingerling Frenzy" serves as a valuable educational tool, offering insights into marine biology, ecology, and conservation. It caters to players of all ages, making learning about the fragile Coral Triangle ecosystem engaging and enjoyable.

With the inclusion of size-based plastic resistance values, "Fingerling Frenzy" offers an even more realistic and educational gaming experience. Players must carefully consider the plastic resistance of fish in their quest to collect fingerlings and succeed in this immersive card game that highlights the importance of marine conservation in the Coral Triangle.

### Project Demo

N/A

### Final Project

N/A

### Project Details

**Project Details: "Fingerling Frenzy - A Coral Triangle Card Game"**

**Title:** Fingerling Frenzy - A Coral Triangle Card Game

**Objective:** To create an immersive and educational card game that explores the marine ecosystem of the Coral Triangle, focusing on fish species, plastic pollution, and ecological balance.

**Game Mechanics:**

Fish Diversity: A wide variety of fish species with unique characteristics and ecological roles.

Plastic Pollution Challenge: Reflects real-world consequences of pollution on the Coral Triangle.

Collect Fingerlings: The primary objective is to collect fingerlings by becoming the apex predator.

Size Calculation: Fish size is determined by calculating the average of their length and weight.

Plastic Resistance Values: Assigned based on fish size, ranging from 1 to 10.

Strategic Gameplay: Players must make informed decisions based on fish size and plastic resistance.

**Educational Focus:**

Marine Biology: Provides insights into the diverse marine life of the Coral Triangle.

Ecology: Illustrates the interdependence of species within the ecosystem.

Conservation: Raises awareness about the impact of plastic pollution and the importance of marine conservation.

**Target Audience:** Players of all ages interested in marine biology, ecology, and conservation.

**Gameplay Experience:**

Engaging: Offers hours of entertainment and education.

Realistic: Mirrors the complexity of real-world marine ecosystems.

Scientific: Incorporates scientific concepts related to fish size, plastic pollution, and ecological balance.

**Components:** Includes a deck of cards featuring fish species, plastic pollution challenges, and game instructions.

**Educational Value:** Serves as a valuable tool for learning about the fragile Coral Triangle ecosystem while enjoying interactive gameplay.

**Project Goals:** To create an enjoyable and educational gaming experience that fosters awareness and understanding of marine conservation and responsible stewardship.

**Name Change:** The project title was updated to "Fingerling Frenzy" to reflect the game's focus on collecting fingerlings as the apex predator.

**Size-Based Resistance:** Plastic resistance values are assigned based on fish size, creating a unique and scientifically grounded game mechanic.

**Conservation Message:** Promotes responsible practices for the preservation of marine ecosystems.

**Environmental Impact:** Encourages players to consider the effects of plastic pollution on marine life and ecosystems.

**Outcome:** A card game that entertains, educates, and raises awareness about the Coral Triangle and the need for marine conservation.

**Playtest and Feedback:** Playtesting with diverse groups of players to refine game mechanics and educational content.

**Distribution:** Plans for distribution through educational institutions, marine conservation organizations, and online platforms.

**Project Team:** Includes game designers, marine biologists, educators, and conservationists collaborating to develop the game.

**Timeline:** Development and playtesting phases, with the goal of a successful launch and distribution.

**Impact Assessment:** Evaluating the game's effectiveness in achieving educational and conservation goals.

**Long-Term Vision:** Expanding the game's reach and impact to inspire a greater understanding and appreciation of marine ecosystems and conservation efforts in the Coral Triangle.

### Use of Artificial Intelligence

Chat GPT 3 was used Durring the research on this project in order to find information about the fish that are being used in the game.

### Space Agency Data

N/A

### References

* <https://www.fisheries.noaa.gov/species/oceanic-whitetip-shark#:~:text=The%20reproductive%20cycle%20is%20thought,pups%20(average%20of%206>).
* <https://www.virginiaaquarium.com/things-to-do/great-barracuda>
* <https://en.wikipedia.org/wiki/Giant_grouper>
* <https://snorkelingthailand.com/moray-eel-facts/>
* <https://myfwc.com/wildlifehabitats/profiles/saltwater/lionfish/#:~:text=Males%20mature%20at%20about%204,12%2C000%20to%2015%2C000%20eggs%20each>.
* <https://oceana.org/marine-life/yellowfin-tuna/#:~:text=3.%20Female%20yellowfin%20tuna%20species,4%20million%20eggs%20when%20spawning.&text=4.,maximum%20lifespan%20of%207%20years>.
* <https://greatsouthernreef.com/blueringed-octopus#:~:text=During%20the%20mating%20season%20the,shortly%20after%20the%20eggs%20hatch>.
* <https://adapt136.ucsc.edu/taxa/invertebrates/the-common-octopus-is-facing-even-more-common-problems-and-it-s-our-fault#:~:text=It%20was%20shown%20in%20a,many%20other%20common%20ocean%20pollutants>.
* <https://www.britannica.com/animal/sea-snake>
* [Hydrophis schistosus (Beaked sea snake) | Taxonomy | UniProt](https://www.uniprot.org/taxonomy/8682)
* <https://www.longdom.org/open-access/threat-to-sea-snakes-from-bycatch-through-imperilled-fishing-nets-utilization-report-on-rescue-of-sea-snakes-from-by-catch-at-kund-96846.html#:~:text=Bycatch%20of%20sea%20snakes%20due,required%20for%20effective%20problem%20management>.
* <https://oceana.org/marine-life/saltwater-crocodile/#:~:text=Though%20they%20spend%20much%20of,clutch%20of%20approximately%2050%20eggs>.
* [Giant Trevally l Amazing Bird-Eating Fish - Our Breathing Planet](https://www.ourbreathingplanet.com/giant-trevally/)
* <https://news.mongabay.com/2017/11/plastic-in-the-ocean-smells-like-junk-food-to-hungry-anchovies/#:~:text=The%20odors%20of%20plastic%20pieces,rely%20on%20them%20for%20food>.
* [Indian oil sardine - Alchetron, The Free Social Encyclopedia](https://alchetron.com/Indian-oil-sardine)
* <https://www.sciencedirect.com/science/article/abs/pii/S0269749121010319>
* <https://www.frontiersin.org/articles/10.3389/fenvs.2021.641135/full>
* <https://bioplasticsnews.com/2019/08/28/israel-tests-3d-printed-coral-reefs-made-from-pla/>
* <https://hakaimagazine.com/news/we-have-unrealistic-beauty-standards-for-coral-too/>
* <https://bioplasticsnews.com/2019/08/28/israel-tests-3d-printed-coral-reefs-made-from-pla/>
* <https://www.americanoceans.org/facts/what-are-pelagic-fish/>
* <https://www.nationalgeographic.com/magazine/article/philippines-reefs-are-some-of-the-most-vibrant-but-in-peril-feature>
* <https://www.worldwildlife.org/places/coral-triangle>
* <https://coraltriangleadventures.com/ambush-predators-of-komodo-is/>

Ivani sounds

**Gameplay Mechanics:**

1. **Deck Shuffling:** At the beginning of each round, the deck of cards featuring different fish species, plastic pollution challenges, and game instructions is thoroughly shuffled.
2. **Location Randomization:** The game's webpage randomizes the location within the Coral Triangle for that round, ensuring varied and dynamic gameplay experiences.
3. **Card Distribution:** Two players participate in each round. Each player is dealt five cards from the shuffled deck. These cards are not revealed to the opponent.
4. **Card Selection:** Players choose one card from their hand, representing the fish they want to use for that round. This card is kept face-down until both players have made their selection.
5. **Card Comparison:** Once both players have chosen their cards, they simultaneously flip them over to reveal the selected fish species. The fish names from the cards are entered into the webpage.
6. **Round Submission:** After entering the fish names into the webpage, players submit the round for evaluation.
7. **Fish Stats Comparison:** The game compares the fish stats, including size, plastic resistance, and other relevant attributes, of the selected fish species.
8. **Round Outcome:** The winner of the round is determined by comparing the fish stats. The player with the fish that has superior stats wins the round.
9. **Fingerling Accumulation:** After each winning round, the fingerlings that survive are added to the total fingerlings of the round winner.
10. **Win Condition:** The first player to collect 100 fingerlings is declared the winner of "Fingerling Frenzy."
11. **Educational Aspect:** Throughout the game, players gain insights into the ecological dynamics of predator-prey relationships in marine ecosystems and the impact of plastic pollution on marine life.
12. **Strategic Decision-Making:** Players must strategize which fish to select for each round, considering both size and plastic resistance, to maximize their chances of winning and accumulating fingerlings.

With this updated card comparison and winner determination process, "Fingerling Frenzy" offers a more interactive and competitive gaming experience while still promoting ecological awareness and strategic decision-making in the Coral Triangle's marine environment.