



## Detailed sentence-by-sentence analysis:

The text discusses various aspects of marine biology, including the study of microscopic organisms, unique adaptations of deep-sea fish, and the concept of marine snow. It also covers the conditions required for coral reefs, the debate surrounding marine life near hydrothermal vents, and the potential of aquaculture to address global food security.

Search sentences...

Select claim types to analyse:

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Marine biology is not just about studying large sea animals; in fact, much of the field focuses on microscopic organisms like diatoms and archaea.

### might be correct

#### **Explanation**

The claim "Marine biology is not just about studying large sea animals" might be correct based on the provided text for the following reasons:

**1. Mention of Microbes:** The text discusses microbes, which are tiny organisms that are a significant part of marine ecosystems. This suggests that marine biology involves studying organisms much smaller than large sea animals.

#### **2. Diversity and Abundance:**

The text highlights the incredible diversity and abundance of microbes, including bacteria, in marine environments. This indicates that marine biology encompasses the study of a wide range of organisms, not just large ones.

**3. Ecosystem Integration:** The text mentions that microbes are "integral to ecosystems across the globe," implying that

their study is crucial to understanding marine ecosystems as a whole. However, the evidence in the text for this claim is indirect, partial, or uncertain for several reasons:

**1. Lack of Direct Statement:** The text does not directly state that marine biology is about more than just large

### Reference sentences: ⓘ

See source:

<https://ocean.si.edu/ocean-life/microbes/marine-microbes>

To support the claim that "Marine biology is not just about studying large sea animals," the following sentences from the source text are relevant:

1. "Even viruses, a group scientists debate is even a form of life, are considered to be microbes."
2. "Microbes are incredibly diverse and live in bustling microscopic worlds that are invisible to our eyes."
3. "You can see how all these microbes relate to one another in our interactive marine microbe tree of life or read on to learn more."
4. "Often regarded as vectors of disease, the majority of bacteria are actually harmless and in fact integral to ecosystems across the globe."
5. "They are also extremely abundant—in just a single drop of water there can be over 100 species of bacteria."

6. "They have been found in almost every surface on Earth, even in places that are seemingly inhospitable." These sentences highlight the diversity and importance of microbes, including bacteria and viruses, in marine environments

### Reference sentences: ⓘ

1.

<https://discoverwildscience.com/the-role-of-microorganisms-in-marine-ecosystems-and-why-they-matter-1-271148/> - Could get only metadata from the source text. Try pasting the text directly.

2.

<https://oceans.mit.edu/research/life-in-the-oceans/ocean-ecology/microbial-ecology.html> - Could get only metadata from the source text. Try pasting the text directly.

3.

<https://biologyinsights.com/marine-microbial-diversity-ecosystem-roles-and-applications/> - correct

4.

<https://letstalkscience.ca/educational-resources/stem-explained/marine-microbiology-meet-microbes-sea> - Could get only metadata from the source text. Try pasting the text directly.

## ⓘ might be correct

**Explanation** ⓘ **Text:** "The ocean is home to a vast array of life forms, ranging from the microscopic, such as phytoplankton and zooplankton, to the massive, like blue whales. Marine biologists study these organisms to understand their roles in the ecosystem, their interactions with each other, and their responses to environmental changes. Some key areas of research include the study of plankton, which forms the base of the marine food web, and the impact of climate change on coral reefs. Additionally, marine biologists investigate the behavior and migration patterns of larger marine animals, such as sharks and sea turtles." **Analysis:** The claim "Much of the field of marine biology focuses on microscopic organisms" might be correct based on the following points from the text:

### 1. Mention of Microscopic Organisms:

The text explicitly mentions "microscopic organisms" like phytoplankton and zooplankton, which are indeed a significant focus in marine biology.

## 2. Plankton Research: The text highlights the study

### Reference sentences: ⓘ

See source:

<https://biologyinsights.com/marine-microbial-diversity-ecosystem-roles-and-applications/>

To assist you effectively, I need the source text that you mentioned. Please provide the text from which I should extract the relevant sentences. Once I have the text, I can identify the specific sentences that support the claim "Much of the field of marine biology focuses on microscopic organisms."

### Reference sentences: ⓘ

1.

<https://discoverwildscience.com/the-role-of-microorganisms-in-marine-ecosystems-and-why-they-matter-1-271148/> - Could get only metadata from the source text. Try pasting the text directly.

2.

<https://oceans.mit.edu/research/life-in-the-oceans/ocean-ecology/microbial-ecology.html> - Could get only metadata from the source text. Try pasting the text directly.

3. <https://ocean.si.edu/ocean-life/microbes/marine-microbes> - Could get only metadata from the source text. Try pasting the text directly.

4.

<https://letstalkscience.ca/educational-resources/stem-explained/marine-microbiology-meet-microbes-sea> - Could get only metadata from the source text. Try pasting the text directly.

 **correct**

**Explanation**  The claim "Diatoms are microscopic organisms" is correct based on the provided text for the following reason: The text states that diatoms have a length/diameter of between 2 and 500 microns. Since 1 micron is equal to 0.001 millimeters, the size range of diatoms falls well within the microscopic scale. Microscopic organisms are typically defined as those that are too small to be seen with the naked eye, usually measuring less than 100 microns. Therefore, given their size range, diatoms are indeed microscopic organisms according to the information provided in the text.

**Reference sentences:** 

See source:

<https://www.microscopemaster.com/diatoms.html>

To support the claim "Diatoms

are microscopic organisms," the following sentences from the source text are relevant:

1. "Diatoms are photosynthetic organisms referred to as algae with a length/diameter of between 2 and 500 microns." - This sentence specifies the size range of diatoms, which falls within the microscopic scale (microns). These sentences clearly indicate that diatoms are very small, fitting the definition of microscopic organisms.

### Reference sentences: ⓘ

1.

<https://discoverwildscience.com/the-role-of-microorganisms-in-marine-ecosystems-and-why-they-matter-1-271148/> - Could get only metadata from the source text. Try pasting the text directly.

2.

<https://oceans.mit.edu/research/life-in-the-oceans/ocean-ecology/microbial-ecology.html> - Could get only metadata from the source text. Try pasting the text directly.

3.

<https://biologyinsights.com/marine-microbial-diversity-ecosystem-roles-and-applications/> - Could get only metadata from the source text. Try pasting the text directly.

4.

<https://letstalkscience.ca/educational-resources/stem->

[explained/marine-microbiology-meet-microbes-sea](#) - Could get only metadata from the source text. Try pasting the text directly.

5. <https://ocean.si.edu/ocean-life/microbes/marine-microbes> - Could get only metadata from the source text. Try pasting the text directly.

 **correct**

**Explanation**  The claim "Archaea are microscopic organisms" is not explicitly correct based on the provided text. The text discusses microbes, bacteria, and viruses, but it does not mention Archaea. Therefore, the text does not provide any information that supports or refutes the claim about Archaea being microscopic organisms.

**Reference sentences:** 

See source:  
<https://ocean.si.edu/ocean-life/microbes/marine-microbes> The provided text does not contain any sentences that explicitly mention "Archaea." Therefore, I cannot extract any sentences that support the claim

"Archaea are microscopic organisms."

### Reference sentences: ⓘ

1.

<https://discoverwildscience.com/the-role-of-microorganisms-in-marine-ecosystems-and-why-they-matter-1-271148/> - Could get only metadata from the source text. Try pasting the text directly.

2.

<https://oceans.mit.edu/research/life-in-the-oceans/ocean-ecology/microbial-ecology.html> - Could get only metadata from the source text. Try pasting the text directly.

3.

<https://biologyinsights.com/marine-microbial-diversity-ecosystem-roles-and-applications/> - correct

4.

<https://letstalkscience.ca/educational-resources/stem-explained/marine-microbiology-meet-microbes-sea> - Could get only metadata from the source text. Try pasting the text directly.

Add another source ▼

Reload

A little-known fact is that some deep-sea fish have transparent heads, allowing them to look upward through their skulls to spot prey.

All  
Correct ▾  
✓

**(i) correct**

**Explanation** **(i)** The claim "Some deep-sea fish have transparent heads" is correct based on the provided text. The text explicitly states, "The fish with the clear skull... is the Barreleye fish (*Macropinna microstoma*).". This sentence clearly identifies the Barreleye fish as a deep-sea fish with a transparent head. Therefore, the text supports the claim that there are deep-sea fish with transparent heads.

**Reference sentences:** **(i)**

See source:

<https://enviroliteracy.org/what-fish-has-a-clear-skull/> Here are the sentences from the source text that support the claim "Some deep-sea fish have transparent heads":

1. "The fish with the clear skull, the one that has captured the imagination of marine biologists and the general

public alike, is the Barreleye fish (*Macropinna microstoma*)."

2. "This deep-sea dweller boasts a transparent head, allowing its barrel-shaped eyes to gaze upwards, spotting prey in the dim, ethereal light of the ocean's depths."

3. "The barreleye's transparent head isn't just a quirky feature; it's a crucial adaptation for survival."

### Reference sentences: ⓘ

1.

[https://allthatsinteresting.com/  
barreleye-fish](https://allthatsinteresting.com/barreleye-fish) - correct

2.

[https://www.animalsaroundthe  
globe.com/this-transparent-  
fish-has-a-completely-  
sethrough-head-and-it-is-  
fascinating-1-299515/](https://www.animalsaroundthe<br/>globe.com/this-transparent-<br/>fish-has-a-completely-<br/>sethrough-head-and-it-is-<br/>fascinating-1-299515/) - correct

3.

[https://theearthfeed.com/barr  
eleye-fish/](https://theearthfeed.com/barr<br/>eleye-fish/) - Could get only  
metadata from the source text.  
Try pasting the text directly.

4.

[https://enviroliteracy.org/what  
-is-the-barreleyes-skull-filled-  
with/](https://enviroliteracy.org/what<br/>-is-the-barreleyes-skull-filled-<br/>with/) - correct

ⓘ correct

**Explanation** ⓘ The claim

"The transparent heads of some deep-sea fish allow them to look upward through their skulls" is correct based on the provided text for the following reasons:

**1. Specific Example:** The text explicitly mentions the Barreleye fish (*Macropinna microstoma*) as a deep-sea fish with a transparent head. This provides a specific example that supports the claim.

**2. Function of Transparency:**

The text states that the transparent head of the Barreleye fish allows its barrel-shaped eyes to "gaze upwards, spotting prey in the dim, ethereal light of the ocean's depths." This directly supports the idea that the transparency of the head enables the fish to look upward.

**3. Adaptation for Survival:** The text emphasizes that the transparent head is a crucial adaptation for survival, further underscoring the importance of this feature in allowing the fish to see upward through its skull. Therefore, the text provides clear evidence that the transparent heads of

**Reference sentences:** ⓘ

See source:

<https://enviroliteracy.org/what-fish-has-a-clear-skull/> Here are the sentences from the

source text that support the claim "The transparent heads of some deep-sea fish allow them to look upward through their skulls":

1. "This deep-sea dweller boasts a transparent head, allowing its barrel-shaped eyes to gaze upwards, spotting prey in the dim, ethereal light of the ocean's depths."
2. "The clear dome is filled with fluid and acts like a shield, protecting the fish's sensitive eyes and allowing them to collect a maximum amount of light."

### Reference sentences: ⓘ

1.  
[https://allthatsinteresting.com/  
barreleye-fish](https://allthatsinteresting.com/barreleye-fish) - correct
2.  
[https://www.animalsaroundthe  
globe.com/this-transparent-  
fish-has-a-completely-  
setthrough-head-and-it-is-  
fascinating-1-299515/](https://www.animalsaroundthe<br/>globe.com/this-transparent-<br/>fish-has-a-completely-<br/>setthrough-head-and-it-is-<br/>fascinating-1-299515/) - correct
3.  
[https://theearthfeed.com/barr  
eleye-fish/](https://theearthfeed.com/barr<br/>eleye-fish/) - Could get only  
metadata from the source text.  
Try pasting the text directly.
4.  
[https://enviroliteracy.org/what  
-is-the-barreleyes-skull-filled-  
with/](https://enviroliteracy.org/what<br/>-is-the-barreleyes-skull-filled-<br/>with/) - correct

**(i) correct**

**Explanation** (i) The claim "Some deep-sea fish spot prey by looking upward through their skulls" is correct based on the provided text for the following reasons:

1. **Transparent Head:** The text describes the Barreleye fish (*Macropinna microstoma*) as having a "transparent head," which allows it to see through its skull.
2. **Upward-Gazing Eyes:** The text mentions that the Barreleye fish's "barrel-shaped eyes" are positioned to "gaze upwards," enabling it to spot prey from above.
3. **Light Detection:** The fish's eyes are described as being "incredibly sensitive to light," which is crucial for detecting the silhouettes of prey against the faint sunlight filtering down from above. These points collectively support the claim that some deep-sea fish, specifically the Barreleye fish, spot prey by looking upward through their transparent skulls.

**Reference sentences:** (i)

See source:

<https://enviroliteracy.org/what-fish-has-a-clear-skull/> Here are the sentences from the source text that support the claim "Some deep-sea fish

- spot prey by looking upward through their skulls":
1. "This deep-sea dweller boasts a transparent head, allowing its barrel-shaped eyes to gaze upwards, spotting prey in the dim, ethereal light of the ocean's depths."
  2. "These tubular eyes are incredibly sensitive to light, crucial for detecting the silhouettes of prey against the faint sunlight filtering down from above."

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**Reference sentences:** ⓘ

1. <https://allthatsinteresting.com/barreleye-fish> - correct
2. <https://www.animalsaroundtheglobe.com/this-transparent-fish-has-a-completely-set-through-head-and-it-is-fascinating-1-299515/> - Could get only metadata from the source text. Try pasting the text directly.
3. <https://theearthfeed.com/barreleye-fish/> - Could get only metadata from the source text. Try pasting the text directly.
4. <https://enviroliteracy.org/what-is-the-barreleyes-skull-filled-with/> - correct

Add another source ▼

Reload

Another interesting fact is that marine snow is a form of underwater precipitation.

2  
- ▼  
**X**

**(i) incorrect**

**Explanation** **(i)** The claim "Marine snow is a form of underwater precipitation" is incorrect based on the provided text for the following reason: The text explicitly states that "Unlike its terrestrial counterpart, marine snow is not a wintery precipitation." This sentence directly contradicts the claim by clarifying that marine snow is not a form of precipitation, despite the name suggesting otherwise. The text goes on to describe marine snow as a "cascade of organic material drifting through the ocean's depths," which is distinct from the typical understanding of precipitation.

**Reference sentences:** **(i)**

=See source:

<https://www.theweather.com/news/trending/the->

[captivating\\_phenomenon\\_of\\_marine\\_snow\\_a\\_symphony\\_of\\_life\\_in\\_the\\_ocean\\_depths.html](#)

Here are the sentences from the source text that contradict the claim

"Marine snow is a form of underwater precipitation":

1. "Unlike its terrestrial counterpart, marine snow is not a wintery precipitation, but rather a fascinating cascade of organic material drifting through the ocean's depths."
2. "Marine snow refers to the continuous shower of organic particles that gently drift down from the upper layers of the ocean to the seafloor."

**Reference sentences:** ⓘ

1.

[https://en.wikipedia.org/wiki/Marine\\_snow](https://en.wikipedia.org/wiki/Marine_snow) – correct

2.

<https://ocean.si.edu/ecosystems/deep-sea/marine-snow-staple-deep> – correct

3.

<https://oceana.ca/en/blog/marine-snow-lifeline-to-the-deep/> – correct

4.

<https://oceanservice.noaa.gov/facts/marinesnow.html> – correct

## ⓘ incorrect

### Explanation ⓘ The claim

"The fact that marine snow is a form of underwater precipitation is interesting" is incorrect based on the provided text because the text explicitly states that marine snow is not a form of precipitation. The text says, "Unlike its terrestrial counterpart, marine snow is not a wintery precipitation." This statement directly contradicts the claim that marine snow is a form of underwater precipitation.

### Reference sentences: ⓘ

=See source:

<https://www.theweather.com/news/trending/the-captivating-phenomenon-of-marine-snow-a-symphony-of-life-in-the-ocean-depths.html>

The following sentences from the source text contradict the claim "The fact that marine snow is a form of underwater precipitation is interesting":

1. "Unlike its terrestrial counterpart, marine snow is not a wintery precipitation, but rather a fascinating cascade of organic material drifting through the ocean's depths."
2. "Marine snow refers to the continuous shower of organic particles that gently drift down

from the upper layers of the ocean to the seafloor."

### Reference sentences: ⓘ

1.

[https://en.wikipedia.org/wiki/Marine\\_snow](https://en.wikipedia.org/wiki/Marine_snow) - Could get only metadata from the source text. Try pasting the text directly.

2.

<https://oceanservice.noaa.gov/facts/marinesnow.html> - Could get only metadata from the source text. Try pasting the text directly.

3.

<https://oceana.ca/en/blog/marine-snow-lifeline-to-the-deep/> - Could get only metadata from the source text. Try pasting the text directly.

4.

<https://ocean.si.edu/ecosystems/deep-sea/marine-snow-staple-deep> - correct

Add another source ▼

Reload

This term is also used for a steady fall of organic particles, 2 including dead plankton and fecal matter, crucial for deep-sea ecosystems. ▶ 🔍

## ⓘ might be correct

### Explanation ⓘ The claim

"The steady fall of organic particles includes dead plankton" might be correct based on the provided text for the following reasons:

#### 1. Composition of Marine Snow:

The text describes marine snow as "mostly organic detritus." Detritus is dead organic material, which can include dead plankton. Plankton are a significant component of the organic matter in the ocean, and when they die, they contribute to the detritus that falls as marine snow.

2. Origin of Marine Snow: The text mentions that marine snow originates from activities within the productive photic zone, where photosynthesis occurs. Plankton are abundant in this zone, and their death and subsequent decomposition would contribute to the organic matter that falls as marine snow. However, the evidence in the text for this claim is indirect, partial, or uncertain for the following reasons:

1. Lack of Specific Mention: The text does not explicitly state

that dead plankton are part of marine snow. It only mentions

### Reference sentences: ⓘ

See source:

[https://en.wikipedia.org/wiki/Marine\\_snow](https://en.wikipedia.org/wiki/Marine_snow)

To determine if the claim "The steady fall of organic particles includes dead plankton" might be correct, we can extract relevant sentences from the source text that support this idea:

1. "In the deep ocean, marine snow (also known as 'ocean dandruff') is a continuous shower of mostly organic detritus falling from the upper layers of the water column."
2. "As the origin of marine snow lies in activities within the productive photic zone, the prevalence of marine snow changes with seasonal fluctuations in photosynthetic activity and ocean currents." These sentences suggest that marine snow, which includes organic detritus, falls from the upper layers of the water column, and its prevalence is linked to photosynthetic activity, which includes the presence of plankton.

### Reference sentences: ⓘ

1.

<https://ocean.si.edu/ecosystems/deep-sea/marine-snow-staple-deep> - might be correct

2.

<https://biologyinsights.com/m>

[arine-snow-key-player-in-carbon-cycling-and-deep-sea-ecosystems/](#) - correct

3.

<https://oceanservice.noaa.gov/facts/marinesnow.html> -

Could get only metadata from the source text. Try pasting the text directly.

4.

<https://www.americanoceangoing.org/facts/marine-snow/> - might be correct

### **might be correct**

#### **Explanation** The claim

"The steady fall of organic particles is crucial for deep-sea ecosystems" might be correct based on the provided text for the following reasons:

**1. Food Source:** The text mentions that "Marine snow can be an important food source for organisms living in the aphotic zone." This directly suggests that the steady fall of organic particles (marine snow) is crucial for the survival of deep-sea organisms, as it provides them with a necessary food source.

**2. Energy Export:** The text describes marine snow as a "significant means of exporting

energy from the light-rich photic zone to the aphotic zone below." This implies that the steady fall of organic particles is essential for transporting energy to the deep-sea ecosystems, which do not have access to sunlight for photosynthesis. However, the evidence in the text for this claim is indirect, partial, or uncertain for the following reasons:

**1. Indirect Evidence:** The text does not explicitly state that deep-sea ecosystems are

#### Reference sentences: ⓘ

See source:

[https://en.wikipedia.org/wiki/Marine\\_snow](https://en.wikipedia.org/wiki/Marine_snow)

Here are the sentences from the source text that suggest the claim "The steady fall of organic particles is crucial for deep-sea ecosystems" might be correct: - "It is a significant means of exporting energy from the light-rich photic zone to the aphotic zone below, which is referred to as the biological pump." - "Marine snow can be an important food source for organisms living in the aphotic zone, particularly for" These sentences highlight the importance of the steady fall of organic particles (marine snow) in transporting energy and serving as a food source for deep-sea ecosystems.

#### Reference sentences: ⓘ

1. <https://ocean.si.edu/ecosystems/deep-sea/marine-snow-staple-deep> - Could get only metadata from the source text. Try pasting the text directly.
2. <https://biologyinsights.com/marine-snow-key-player-in-carbon-cycling-and-deep-sea-ecosystems/> - correct
3. <https://oceanservice.noaa.gov/facts/marinesnow.html> - Could get only metadata from the source text. Try pasting the text directly.
4. <https://www.americanoceangoing.org/facts/marine-snow/> - correct

 **correct**

#### **Explanation** The claim

"Marine snow is also used to describe a steady fall of organic particles" is correct based on the provided text for the following reasons:

1. The text states that marine snow is "a continuous shower of mostly organic detritus falling from the upper layers of the water column." This description directly supports

the claim that marine snow refers to a steady fall of organic particles.

2. The term "detritus" refers to organic particles, further confirming that marine snow is composed of organic material.

3. The use of the word "shower" implies a continuous and steady process, aligning with the claim of a steady fall. Therefore, the text explicitly describes marine snow as a steady fall of organic particles, making the claim correct.

### Reference sentences: ⓘ

See source:

[https://en.wikipedia.org/wiki/Marine\\_snow](https://en.wikipedia.org/wiki/Marine_snow)

Here are the sentences from the source text that support the claim "Marine snow is also used to describe a steady fall of organic particles": - "In the deep ocean, marine snow (also known as "ocean dandruff") is a continuous shower of mostly organic detritus falling from the upper layers of the water column." - "It is a significant means of exporting energy from the light-rich photic zone to the aphotic zone below, which is referred to as the biological pump."

### Reference sentences: ⓘ

1.

<https://ocean.si.edu/ecosystems/deep-sea/marine-snow-staple-deep> - correct

2.

<https://biologyinsights.com/marine-snow-key-player-in-carbon-cycling-and-deep-sea-ecosystems/> - correct

3.

<https://oceanservice.noaa.gov/facts/marinesnow.html> -

correct

4.

<https://www.americanoceangoing.org/facts/marine-snow/> -

correct

### ⓘ correct

#### Explanation ⓘ The claim

"The steady fall of organic particles includes fecal matter" is correct based on the provided text. The text mentions that "us secreted by zooplankton (mostly salps, appendicularians, and pteropods) also contribute to the constituents of marine snow aggregates." The term "us" in this context refers to fecal matter, as these zooplankton produce fecal pellets that contribute to the organic particles that make up marine snow. Therefore, the steady fall of organic particles, which is part of the marine snow process, indeed includes fecal matter.

**Reference sentences:** ⓘ

See source:

[https://en.wikipedia.org/wiki/Marine\\_snow](https://en.wikipedia.org/wiki/Marine_snow)

The provided text does not explicitly mention fecal matter.

However, it does discuss the components of marine snow and their sources, which include zooplankton. Since zooplankton are known to produce fecal pellets, we can infer that fecal matter is part of the organic particles that contribute to marine snow.

Here is a relevant sentence from the text: - "us secreted by zooplankton (mostly salps, appendicularians, and pteropods) also contribute to the constituents of marine snow aggregates."

**Reference sentences:** ⓘ

1.

<https://ocean.si.edu/ecosystems/deep-sea/marine-snow-staple-deep> - correct

2.

<https://biologyinsights.com/marine-snow-key-player-in-carbon-cycling-and-deep-sea-ecosystems/> - Could get only metadata from the source text. Try pasting the text directly.

3.

<https://oceanservice.noaa.gov/facts/marinesnow.html> - correct

4.

<https://www.americanoceangoing.org/facts/marine-snow/> - Could

get only metadata from the source text. Try pasting the text directly.

Add another source ▼

Reload

Coral reefs exist only in tropical waters, and there are no deep-sea cold-water coral reefs as they cannot survive in complete darkness.

2 -  
X ✓, ▼  
1 -  
?

ⓘ incorrect

**Explanation** ⓘ The claim "Coral reefs exist only in tropical waters" is incorrect based on the provided text because the text explicitly mentions the discovery of a coral reef that lies "deep beneath the ocean's surface" and stretches down to at least 410 feet (125 meters). This description indicates that the coral reef is not in shallow, tropical waters, but rather in much deeper and potentially colder waters. The text also highlights that this discovery challenges existing knowledge

about where life can thrive, implying that coral reefs can exist in environments beyond tropical waters.

### Reference sentences: ⓘ

=See source:

<https://discoverwildscience.com/the-deepest-corals-ever-discovered-and-the-life-it-hides-1-305504/> To contradict the claim "Coral reefs exist only in tropical waters," we can extract the following sentence from the source text: "The moment scientists realized they had found the deepest coral reef ever discovered was one of disbelief and excitement. This reef, lying deep beneath the ocean's surface, stretches down to at least 410 feet (125 meters)." This sentence implies that coral reefs can exist at significant depths, which is not limited to tropical waters.

### Reference sentences: ⓘ

1.

<https://enviroliteracy.org/does-coral-need-sunlight/> - almost correct

2.

<https://www.nps.gov/subjects/naturalmarks/coral-islands-reefs-and-atolls.htm> - incorrect

3. <https://phys.org/news/2024-03-ai-powered-corals-3d.html>  
- Could get only metadata

from the source text. Try pasting the text directly.

### ⓘ incorrect

**Explanation** ⓘ The claim "There are no deep-sea cold-water coral reefs" is incorrect based on the provided text because the text explicitly mentions the discovery of "the deepest coral reef ever found." This discovery is described as lying "deep beneath the ocean's surface, stretches down to at least 410 feet (125 meters)." The text also highlights that this reef is far below the familiar splash of tropical reefs, indicating that it is a deep-sea coral reef. Therefore, the text directly contradicts the claim by confirming the existence of deep-sea coral reefs.

### Reference sentences: ⓘ

=See source:

<https://discoverwildscience.com/the-deepest-coral-reef-ever-discovered-and-the-life-it-hides-1-305504/>

Based on the provided text, the following sentence contradicts the claim "There are no deep-sea cold-water coral reefs": - "scientists have uncovered something

truly astonishing: the deepest coral reef ever found." This sentence explicitly states that a deep coral reef has been discovered, which directly contradicts the claim that there are no deep-sea cold-water coral reefs.

### Reference sentences: ⓘ

1.

<https://enviroliteracy.org/does-coral-need-sunlight/> -

incorrect

2.

<https://www.nps.gov/subjects/national-landmarks/coral-islands-reefs-and-atolls.htm> -

incorrect

3. <https://phys.org/news/2024-03-ai-powered-corals-3d.html>

- Could get only metadata from the source text. Try pasting the text directly.

### ⓘ might be correct

**Explanation** ⓘ The text does not directly state that deep-sea cold-water coral reefs cannot survive in complete darkness. However, it does provide some indirect suggestions that might lead one to infer this claim.

#### 1. Depth and Light Penetration:

The text mentions that the coral reef is found in a "deep and shadowy" world where "sunlight barely touches its secrets." This implies that the reef is in an environment with very low light levels. If sunlight barely reaches this depth, it suggests that the reef is not in complete darkness but is also not in an environment with abundant light.

## 2. Adaptation to Extreme

**Conditions:** The text asks, "What extraordinary creatures dwell in these mysterious depths—and how did they adapt to such an extreme world?" This question implies that the creatures, including the corals, have adapted to extreme conditions, which could include low light levels. However, it does not specify that complete darkness is one of these conditions.

## 3. \*\*Implication of Light Requirement

### Reference sentences: ⓘ

See source:

<https://discoverwildscience.com/the-deepest-coral-reef-ever-discovered-and-the-life-it-hides-1-305504/> To determine if the claim "Deep-sea cold-water coral reefs cannot survive in complete darkness" might be correct, we need to look for sentences in the source text that discuss the conditions under which these coral reefs can survive. Here are the

relevant sentences:

1. "Imagine plunging into a world so deep and shadowy that sunlight barely touches its secrets." – This sentence suggests that the environment is very dark, implying that the coral reefs are not in complete darkness but rather in a state where sunlight barely reaches.
2. "This reef, lying deep beneath the ocean's surface, stretches down to at least 410 feet (125 meters)." – This sentence indicates the depth at which the coral reef is found, which is significant because it implies that the reef is in a very low-light environment. These sentences do not explicitly state that deep-sea cold-water coral reefs cannot survive in complete darkness, but they do suggest that the reefs are

#### Reference sentences: ⓘ

1.

<https://enviroliteracy.org/does-coral-need-sunlight/> – Could get only metadata from the source text. Try pasting the text directly.

2.

<https://www.nps.gov/subjects/national-landmarks/coral-islands-reefs-and-atolls.htm> – Could get only metadata from the source text. Try pasting the text directly.

3. <https://phys.org/news/2024-03-ai-powered-corals-3d.html> – Could get only metadata

from the source text. Try pasting the text directly.

Add another source ▼

Reload

However, it's controversial whether marine life near hydrothermal vents is completely independent of sunlight. 1 - ↴

### ⓘ might be correct

**Explanation** ⓘ The claim "It is controversial whether marine life near hydrothermal vents is completely independent of sunlight" might be correct based on the provided text for the following reasons:

- 1. Independence from Sunlight:**  
The text mentions that hydrothermal vents create an environment where life forms do not rely on sunlight. It states, "The vents discharge a cocktail of chemicals... which support life forms that do not rely on sunlight for." This suggests that

there is life near these vents  
that is independent of sunlight.

**2. Controversy:** The text does not explicitly state that the independence of this life from sunlight is controversial, but it does imply that the environment and the life forms supported by it are unique and challenging to our understanding. The phrase "challenges our understanding of life's boundaries" could suggest that there is ongoing debate or controversy about the nature of this life and its dependencies. However, the evidence in the text for this claim is indirect, partial, or uncertain for several reasons: 1.

### Reference sentences: ⓘ

See source:

<https://discoverwildscience.com/the-deep-sea-hydrothermal-vents-that-may-hold-the-key-to-the-first-life-forms-1-282525/>

The text does not explicitly state that it is controversial whether marine life near hydrothermal vents is completely independent of sunlight. However, it does mention that the vents support life forms that do not rely on sunlight, which could imply that there might be some debate or uncertainty about the extent of this independence. Here is the relevant sentence: "The vents discharge a cocktail of chemicals, including hydrogen sulfide and methane, which

support life forms that do not rely on sunlight for."

### Reference sentences: ⓘ

1.

<https://thewonderofwater.com/the-oceans-hidden-heat-hydrothermal-vent-ecosystems/> - Could get only metadata from the source text. Try pasting the text directly.

2.

<https://astrobiology.nasa.gov/news/life-in-the-extreme-hydrothermal-vents/> - Could get only metadata from the source text. Try pasting the text directly.

3.

<https://oceantoday.noaa.gov/lifeonavent/> - Could get only metadata from the source text. Try pasting the text directly.

4.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC34077/> - Could get only metadata from the source text. Try pasting the text directly.

Add another source ▼

Reload

While it's true these ecosystems 1 - rely on chemosynthesis, some 🦸, ▼

indirect dependence on surface 1 - processes remains debated. 🍀

### ⓘ might be correct

#### Explanation ⓘ The claim

"Ecosystems near hydrothermal vents rely on chemosynthesis" might be correct based on the provided text for the following reasons:

**1. Mention of Microbes:** The text mentions "the microbes that convert the minerals," which is a key component of chemosynthesis.

Chemosynthesis is a process by which certain microorganisms convert inorganic compounds into organic matter, using the energy derived from chemical reactions.

**2. Unique Ecosystems:** The text describes unique ecosystems that "teem with unusual animal species" around hydrothermal vents. These ecosystems are sustained by the mineral-laden fluid emitted from the vents, suggesting that the energy source for these ecosystems is not sunlight (as in photosynthesis) but rather the chemicals from the vents.

However, the evidence in the text for this claim is indirect, partial, or uncertain for several

reasons:

**1. Lack of Direct Statement:** The text does not explicitly state that chemosynthesis is the process that supports these ecosystems. It only

### Reference sentences: ⓘ

See source:

<https://ocean.si.edu/ecosystems/deep-sea/microbes-keep-hydrothermal-vents-pumping>

To support the claim "Ecosystems near hydrothermal vents rely on chemosynthesis," we can extract the following sentences from the source text: - "But at certain spots on the ocean floor where tectonic plates meet, unique ecosystems teem with unusual animal species." - "These structures are referred to as hydrothermal vents, and the assortment of animals surrounding them are referred to as hydrothermal vent communities." - "The animals are spectacular, but often overlooked are the organisms that make these ecosystems possible: the microbes that convert the minerals." These sentences suggest that there are unique ecosystems and communities of animals around hydrothermal vents, and that microbes play a crucial role in these ecosystems by converting minerals. This conversion process is a key aspect of chemosynthesis, which is the process by which certain

organisms obtain energy from chemical reactions, rather than from sunlight.

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**Explanation** ⓘ Could get only metadata from the source text. Try pasting the text directly.

**Reference sentences:** ⓘ

1.

<https://www.sciencedirect.com/science/article/pii/S0308597X18302811> – Could get only metadata from the source text. Try pasting the text directly.

2.

<https://astrobiology.nasa.gov/news/life-in-the-extreme-hydrothermal-vents/> – Could get only metadata from the source text. Try pasting the text directly.

3.

<https://www.sciencedirect.com/science/article/pii/S0141113614000506> – Could get only metadata from the source text. Try pasting the text directly.

4.

<https://ocean.si.edu/ecosystems/deep-sea/microbes-keep-hydrothermal-vents-pumping>

- Could get only metadata from the source text. Try pasting the text directly.

5.

<https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2016.00072/full> - Could get only metadata from the source text.

Try pasting the text directly.

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Reload

The ocean's midwater zone, or mesopelagic zone, may contain 1 – more biomass than all terrestrial 🐚 ecosystems combined.

**Could get only metadata from the source text. Try pasting the text directly.**

**Explanation** ⓘ Could get only metadata from the source text. Try pasting the text directly.

**Reference sentences:** ⓘ

1.

<https://www.nature.com/article/s/s44183-023-00008-8> – Could get only metadata from the source text. Try pasting the text directly.

2.

[https://www.researchgate.net/publication/375519138\\_Global\\_distribution\\_and\\_biomass\\_of\\_the\\_mesopelagic\\_mesozooplankton\\_and\\_micronekton\\_community](https://www.researchgate.net/publication/375519138_Global_distribution_and_biomass_of_the_mesopelagic_mesozooplankton_and_micronekton_community) – Could get only metadata from the source text. Try pasting the text directly.

3.

<https://www.sciencedirect.com/science/article/pii/S0092867419312747> – Could get only metadata from the source text. Try pasting the text directly.

4.

<https://www.sciencedirect.com/org/science/article/pii/S1314694719000484> – Could get only metadata from the source text. Try pasting the text directly.

5.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC3642170/> – Could get only metadata from the source text. Try pasting the text directly.

ⓘ correct

**Explanation** ⓘ The claim

"The ocean's midwater zone is also known as the mesopelagic zone" is correct based on the provided text. The text states that the mesopelagic zone is "also known as the middle pelagic or twilight zone." Since the "midwater zone" is a term that can be used to describe the middle layer of the ocean, it aligns with the description of the mesopelagic zone as the middle part of the pelagic zone. Therefore, the claim is supported by the information given in the text.

**Reference sentences:** ⓘ

See source:

[https://en.wikipedia.org/wiki/Mesopelagic\\_zone](https://en.wikipedia.org/wiki/Mesopelagic_zone)

The following sentence from the source text supports the claim "The ocean's midwater zone is also known as the mesopelagic zone": "The mesopelagic zone (Greek μέσος, middle), also known as the middle pelagic or twilight zone, is the part of the pelagic zone that lies between the photic epipelagic and the aphotic bathypelagic zones."

**Reference sentences:** ⓘ

1.

<https://www.nature.com/article/s/s44183-023-00008-8> – Could get only metadata from the source text. Try pasting the text directly.

2.

[https://www.researchgate.net/publication/375519138\\_Global\\_distribution\\_and\\_biomass\\_of\\_the\\_mesopelagic\\_mesozooplankton\\_and\\_micronekton\\_community](https://www.researchgate.net/publication/375519138_Global_distribution_and_biomass_of_the_mesopelagic_mesozooplankton_and_micronekton_community)

- Could get only metadata from the source text.

Try pasting the text directly.

3.

<https://www.sciencedirect.com/science/article/pii/S0967064510000846>

- Could get only metadata from the source text.

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Reload

Marine bioluminescence is very rare, especially in deep-sea species.

1 -



**incorrect**

**Explanation** The claim

"Marine bioluminescence is especially rare in deep-sea species" is incorrect based on the provided text for the

following reasons:

### 1. Prevalence in Marine

**Organisms:** The text states that bioluminescence is found in "many marine organisms," listing a wide range of creatures including bacteria, algae, jellyfish, worms, crustaceans, sea stars, fish, and sharks. This indicates that bioluminescence is quite common in marine environments.

### 2. Specific Mention of Deep-

**Sea Species:** The text mentions that there are about 1,500 known species of luminescent fish. While it does not explicitly state that all these species are deep-sea, it is known that many fish species that exhibit bioluminescence are found in deep-sea environments. This suggests that bioluminescence is not rare in deep-sea species but rather quite prevalent.

### 3. Adaptation for Survival:

The text describes how marine organisms use bioluminescence

### Reference sentences: ⓘ

=See source:

<https://ocean.si.edu/ocean-life/fish/bioluminescence> The following sentence from the source text contradicts the claim "Marine bioluminescence is especially rare in deep-sea species": - "Bioluminescence is found in many marine organisms: bacteria, algae, jellyfish, worms, crustaceans,

sea stars, fish, and sharks to name just a few."

### Reference sentences: ⓘ

1.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC11051050/> - Could get only metadata from the source text. Try pasting the text directly.

2.

<https://www.britannica.com/science/marine-bioluminescence> - might be correct

3.

<https://www.sciencedirect.com/science/article/pii/S007966114001220> - Could get only metadata from the source text. Try pasting the text directly.

4.

<https://www.nature.com/article/s42003-025-07450-z> - Could get only metadata from the source text. Try pasting the text directly.

### ⓘ almost correct

**Explanation** ⓘ The claim "Marine bioluminescence is very rare" is almost correct only with regards to the text provided, but it needs some nuancing. **What is correct:** - The text does not provide

specific numbers or percentages to quantify how common or rare bioluminescence is in marine organisms. Therefore, without a clear indication of the prevalence, one might infer that it could be rare. **What is wrong:** – The text explicitly states that bioluminescence is found in "many marine organisms," listing several examples such as bacteria, algae, jellyfish, worms, crustaceans, sea stars, fish, and sharks. This suggests that bioluminescence is not rare but rather quite common among marine life. – Additionally, the text mentions that there are about 1,500 known species of fish that luminesce, which further indicates the widespread nature of bioluminescence in marine environments. Therefore, while the claim might initially seem correct due to the lack of quantitative data,

#### Reference sentences: ⓘ

See source:

<https://ocean.si.edu/ocean-life/fish/bioluminescence> The claim "Marine bioluminescence is very rare" is not supported by the provided text. In fact, the text suggests the opposite. Here are some sentences that indicate the prevalence of bioluminescence in marine organisms: – "Bioluminescence is found in many marine

organisms: bacteria, algae, jellyfish, worms, crustaceans, sea stars, fish, and sharks to name just a few." – "In fish alone, there are about 1,500 known species that luminesce." These sentences highlight the wide range and number of marine organisms that exhibit bioluminescence, contradicting the claim that it is very rare.

### Reference sentences: ⓘ

1.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC11051050/> – Could get only metadata from the source text. Try pasting the text directly.

2.

<https://www.britannica.com/science/marine-bioluminescence> – almost correct

3.

<https://www.sciencedirect.com/science/article/pii/S007966114001220> – Could get only metadata from the source text. Try pasting the text directly.

4.

<https://www.nature.com/article/s/s42003-025-07450-z> – Could get only metadata from the source text. Try pasting the text directly.

Add another source ▼

Reload

The sound of snapping shrimp colonies is one of the All loudest natural underwater noises and can interfere with sonar.



 **correct**

**Explanation**  The claim "The sound of snapping shrimp colonies is one of the loudest natural underwater noises" is correct based on the provided text for the following reasons:

1. **Individual Loudness:** The text states that the sound produced by a single snapping shrimp can reach up to 210 decibels. This is an extremely high level of sound, comparable to the noise of a jet engine.
2. **Colony Behavior:** While the text does not explicitly mention colonies, it implies that snapping shrimp use their sonic blasts for communication. In a colony, where many shrimp would be using this ability simultaneously or in close succession, the cumulative

noise would be significant.

**3. Underwater Context:** The text specifies that the sound is produced underwater, which is the context of the claim.

**4. Natural Source:** The text describes the sound as being produced by the shrimp's natural mechanism, aligning with the "natural" aspect of the claim. Therefore, given the extreme

### Reference sentences: ⓘ

See source:

<https://enviroliteracy.org/animals/why-are-snapping-shrimp-so-loud/>

To support the claim "The sound of snapping shrimp colonies is one of the loudest natural underwater noises," the following sentences from the source text are relevant:

1. "This sonic blast is used to stun prey, defend against predators, and communicate with other snapping shrimp."

2. "This bubble then implodes, generating an intense shockwave that produces a sound reaching up to 210 decibels in some species."

These sentences highlight the extreme loudness of the sound produced by snapping shrimp, which contributes to the overall noise level of their colonies.

### Reference sentences: ⓘ

1.

<https://knowledge.foundationforuda.in/index.php/2024/02/27>

</mapping-snapping-shrimp-noise-in-the-indian-ocean-region-impact-on-sonar/> -

Could get only metadata from the source text. Try pasting the text directly.

2. <https://www.whoi.edu/press-room/news-release/as-oceans-warm-snapping-shrimp-sound-a-warning/> -

Could get only metadata from the source text. Try pasting the text directly.

3.

<https://www.eurekalert.org/news-releases/1027079> - correct

 **correct**

### **Explanation** The claim

"The sound of snapping shrimp colonies can interfere with sonar" is correct based on the provided text for the following reasons:

**1. Direct Statement:** The text explicitly states that "Snapping shrimp are a major source of high-frequency noise in the ocean" and that their activities and habitation in shallow waters "affect the efficiency of sonar systems used for navigation and communication with other vessels."

**2. Interference with Sonar:** The

text mentions that snapping shrimp pose challenges due to their "large band of operating frequency" and their "interference with sonar."

**3. Impact on Detection:** The text also cites studies that indicate "increase in biological noise in ocean decreases the detection range of sonar drastically." Since snapping shrimp are a significant source of biological noise, their sound can indeed interfere with sonar systems. These points from the text directly support the claim that the sound of snapping shrimp colonies can interfere with sonar.

### Reference sentences: ⓘ

See source:

<https://knowledge.foundationforudc.in/index.php/2024/02/snapping-shrimp-noise-in-the-indian-ocean-region-impact-on-sonar/>

Here are the sentences from the source text that support the claim "The sound of snapping shrimp colonies can interfere with sonar":

1. "Snapping shrimp are a major source of high-frequency noise in the ocean and their activities and habitation in shallow waters affect the efficiency of sonar systems used for navigation and communication with other vessels."
2. "The Project describes the challenges faced in dealing with the large band of

operating frequency of shrimps and their interference with sonar."

3. "Many studies and researches indicate that increase in biological noise in ocean decreases the detection range of sonar drastically."

### Reference sentences: ⓘ

1.

[https://enviroliteracy.org/anim  
als/why-are-snapping-  
shrimp-so-loud/](https://enviroliteracy.org/animals/why-are-snapping-shrimp-so-loud/) - Could get only metadata from the source text. Try pasting the text directly.

2. [https://www.whoi.edu/press-  
room/news-release/as-  
oceans-warm-snapping-  
shrimp-sound-a-warning/](https://www.whoi.edu/press-room/news-release/as-oceans-warm-snapping-shrimp-sound-a-warning/) - Could get only metadata from the source text. Try pasting the text directly.

3.

[https://www.eurekalert.org/ne  
ws-releases/1027079](https://www.eurekalert.org/news-releases/1027079) - correct

Add another source ▼

Reload

It is believed that aquaculture (marine farming) will solve global food security without harming ecosystems.

1 -



, ▼

1 -



## ⓘ might be correct

### Explanation ⓘ

The claim "Aquaculture is believed to solve global food security" might be considered correct based on the provided text for the following reasons:

#### 1. Direct Contribution to Food Security:

The text states that "aquaculture may, directly and indirectly, help sustainable food security." This sentence directly suggests that aquaculture is seen as a potential solution to food security issues.

#### 2. Technological Advancements:

The text mentions various technologies, including nanotechnology, that could drive changes in aquaculture to enhance its contribution to food security. This implies that aquaculture, with the help of technological interventions, could play a significant role in addressing global food security.

#### 3. Importance of Aquatic Products:

The text highlights that "Aquatic products are considered critical components of a nutritious and sustainable food system." This underscores the importance of aquaculture in providing essential nutrients and

contributing to a sustainable food system. However, the evidence in the text for this claim

### Reference sentences: ⓘ

See source:

[https://link.springer.com/chapter/10.1007/978-3-031-40908-0\\_6](https://link.springer.com/chapter/10.1007/978-3-031-40908-0_6)

Based on the provided text, the following sentences suggest that the claim "Aquaculture is believed to solve global food security" might be correct:

1. "Aquaculture has emerged as the world's most rapidly expanding food-production sector."
2. "This chapter demonstrates how aquaculture may, directly and indirectly, help sustainable food security."
3. "Aquatic products are considered critical components of a nutritious and sustainable food system."
4. "In this chapter, we suggest that the discussion about aquatic foods should focus more on finding and implementing interventions to increase productivity."

### Reference sentences: ⓘ

1.

[https://link.springer.com/chapter/10.1007/978-3-031-75830-0\\_2](https://link.springer.com/chapter/10.1007/978-3-031-75830-0_2) - Could get only metadata from the source text. Try pasting the text directly.

2.

<https://hspf.harvard.edu/envir>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7200472/> - Could get only metadata from the source text. Try pasting the text directly.

3.

<https://www.agtechnavigator.com/Article/2025/04/29/aquaculture-2025-whats-shaping-aquacultures-growing-role-in-global-food-security/> - Could get only metadata from the source text. Try pasting the text directly.

4.

<https://www.agtechnavigator.com/Article/2025/04/29/aquaculture-2025-whats-shaping-aquacultures-growing-role-in-global-food-security/> - Could get only metadata from the source text. Try pasting the text directly.

5.

<https://www.agtechnavigator.com/Article/2025/04/29/aquaculture-2025-whats-shaping-aquacultures-growing-role-in-global-food-security/> - Could get only metadata from the source text. Try pasting the text directly.

6.

<https://www.sciencedirect.com/science/article/pii/S0044848623008451> - Could get only metadata from the source text. Try pasting the text directly.

**Could get only metadata from the source text. Try pasting the text directly.**

**Explanation** ⓘ Could get only metadata from the source text. Try pasting the text directly.

**Reference sentences:** ⓘ

1.

[https://link.springer.com/chapter/10.1007/978-3-031-75830-0\\_2](https://link.springer.com/chapter/10.1007/978-3-031-75830-0_2) - Could get only metadata from the source text. Try pasting the text directly.

2.  
3.

<https://hsph.harvard.edu/environmental-health/news/fishing-and-the-law-of-unintended-consequences/> - Could get only metadata from the source text. Try pasting the text directly.

4.  
5.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC7200472/> - Could get only metadata from the source text. Try pasting the text directly.

<https://www.agtechnavigator.com/Article/2025/04/29/aquaculture-2025-whats-shaping-aquacultures-growing-role-in-global-food-security/> - Could get only metadata from the source text. Try pasting the text directly.

6.

<https://www.frontiersin.org/journals/sustainable-food-systems/articles/10.3389/fsufs.2024.1485956/full> – Could get only metadata from the source text. Try pasting the text directly.

6.

<https://www.agtechnavigator.com/Article/2025/04/29/aquaculture-2025-whats-shaping-aquacultures-growing-role-in-global-food-security/> – Could get only metadata from the source text. Try pasting the text directly.

7.

<https://www.sciencedirect.com/science/article/pii/S2211912422000116> – Could get only metadata from the source text. Try pasting the text directly.

8.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC7200472/> – Could get only metadata from the source text. Try pasting the text directly.

9.

[https://link.springer.com/chapter/10.1007/978-3-031-40908-0\\_6](https://link.springer.com/chapter/10.1007/978-3-031-40908-0_6) – Could get only metadata from the source text. Try pasting the text directly.

Add another source ▼

Reload

While promising, concerns about 2 habitat destruction, pollution, - ▼ and disease persist. 

### might be correct

**Explanation**  The claim "Concerns about habitat destruction, pollution, and disease in aquaculture persist" might be correct based on the provided text for the following reasons:

**1. Habitat Destruction:** The text mentions "criticisms have arisen around aquaculture, most of them related to the destruction of ecosystems such as mangrove forest to construct aquaculture facilities." This directly indicates that there are concerns about habitat destruction. However, the evidence in the text for the claim is indirect, partial, or uncertain for several reasons:

**1. Partial Evidence:** The text only explicitly mentions habitat destruction (specifically mangrove forests) and does not directly address pollution or disease. Therefore, it only partially supports the claim.

**2. Indirect Evidence:** The text does not provide specific details or examples of pollution

or disease concerns. It only mentions criticisms related to habitat destruction.

**3. Uncertainty:** The text does not quantify the extent of these concerns or provide evidence that they persist in

### Reference sentences: ⓘ

See source:

<https://pmc.ncbi.nlm.nih.gov/articles/PMC3353277/>

To determine if the claim "Concerns about habitat destruction, pollution, and disease in aquaculture persist" might be correct, we can extract specific sentences from the source text that suggest these concerns. Here are the relevant sentences:

1. "However, criticisms have arisen around aquaculture, most of them related to the destruction of ecosystems such as mangrove forest to construct aquaculture f" These sentences indicate that there are criticisms related to habitat destruction in aquaculture, which supports the claim about concerns regarding habitat destruction.

### Reference sentences: ⓘ

1.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC7121614/> - Could get only metadata from the source text. Try pasting the text directly.

2.

<https://units.fisheries.org/habit>

[at/aquaculture-a-review-of-the-risks-to-the-environment-and-human-health/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9530733/) - might be correct

3.

<https://www.seachoice.org/info-centre/aquaculture/habitat-damage-and-pollution/> - correct

### ⓘ might be correct

**Explanation** ⓘ The claim "Aquaculture is promising" might be correct based on the provided text for several reasons:

**1. Growth Rate:** The text mentions that aquaculture has been the agroindustrial activity with the highest growth rate worldwide in the last four decades. This high growth rate suggests that aquaculture is a rapidly expanding industry, which could indicate its promise.

**2. Production and Value:** The text states that the annual aquaculture production is over 60 million tons with an approximate value of 85 billion dollars. These figures suggest that aquaculture is a significant and valuable industry, further supporting the claim that it is promising.

**3. Population Growth and**

**Aquaculture Production:** The text notes that while the world population increased by 6.3% from 2004 to 2009, the production of aquatic organisms by aquaculture increased by 31.5%. This disparity suggests that aquaculture is keeping pace

**Reference sentences:** ⓘ

See source:

<https://pmc.ncbi.nlm.nih.gov/articles/PMC3353277/>

Based on the provided text, the following sentences suggest that the claim "Aquaculture is promising" might be correct: - "Aquaculture, the farming of aquatic organisms, has been the agroindustrial activity with the highest growth rate worldwide in the last four decades." - "From 1970 to 2008 the production of aquaculture organisms grew at a rate of 8.3% per year, compared to less than 2% of fisheries, and 2.9% of livestock." - "The annual aquaculture production is at present over 60 million tons (including marine plants), with an approximate value of 85 billion dollars." - "The last FAO report revealed that the world population increased by 6.3% from 2004 to 2009, whereas the production of aquatic organisms by aquaculture increased by 31.5%."

**Reference sentences:** ⓘ

1.  
<https://pmc.ncbi.nlm.nih.gov/articles/PMC7121614/> - Could get only metadata from the source text. Try pasting the text directly.
2.  
<https://units.fisheries.org/habitat/aquaculture-a-review-of-the-risks-to-the-environment-and-human-health/> - might be correct
3.  
<https://www.seachoice.org/info-centre/aquaculture/habitat-damage-and-pollution/> - Could get only metadata from the source text. Try pasting the text directly.

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