



505-Million Year Old Jellyfish Fossils

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Why in News?

Recently, researchers have unveiled a **collection of [jellyfish](#) fossils from the Cambrian period**, providing a unique glimpse into their distant past.

- These preserved fossils, found in the **Burgess Shale**- a renowned fossil-rich site in the **Canadian Rockies**, offer an improbable pathway to preservation.

What are the Major Findings of the Research?

- **Special Features of the Fossils:**
 - The newly discovered jellyfish fossils retained remarkable features, such as over **90 fingerlike tentacles** protruding from their bell-shaped bodies.
 - Some specimens even contained stomach contents and gonads, providing invaluable insights into their anatomy and behavior.
 - These things help scientists learn about how the jellyfish looked and acted.
- **Link with Old Fossils from a Quarry:**
 - In the 1990s, scientists dug up over 170 jellyfish fossils in a place called **Raymond Quarry in British Columbia**. These fossils were kept for a long time.
 - Researchers re-examined the specimens from the excavation and identified that the fossils actually belonged to a **previously unknown species**.
 - This newly discovered species was named **Burgessomedusa phasmiformis**. The species falls under the **medusozoans category**.

What are Jellyfish?

- **About:**
 - Jellyfish are **members of the phylum Cnidaria**, a group of animals that includes [corals](#), **sea anemones, hydroids**, and siphonophores.
 - Cnidarians are characterized by having **radial symmetry, a central mouth surrounded by tentacles**, and **specialized stinging cells called cnidocytes** that can inject venom into their prey or predators.
 - Jellyfish tend to just **follow the [currents of the ocean](#)**, they can be found around the world in every type of ocean water.
 - They are considered to be **one of the earliest branches of the animal tree of life**.
- **Characteristics:**
 - Despite their name, jellyfish do not have much characteristics of a fish, they **are [invertebrates](#), or animals with no backbones**.
 - Jellyfish are also among the simplest animals in terms of body organization and nervous system, **lacking a brain, a heart, or a skeleton**.
 - However, some jellyfish have evolved remarkable adaptations, such as **eyes**, [bioluminescence](#), and **complex behaviors**.
- **Prey:**

- They dine on **fish, shrimp, crabs and tiny plants**. They have tiny stinging cells in their tentacles to **stun or paralyze their prey** before they eat them.
- **Challenge of Jellyfish Fossilization:**
 - Jellyfish, composed of **95% water**, pose a considerable challenge when it comes to fossilization. Their delicate structure makes them prone to rapid deterioration, leaving behind minimal traces in the fossil record.

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