



Reconstitution of Atomic Energy Commission

[Source: ET](#)

The government has recently reconstituted the **Atomic Energy Commission (AEC)**.

- **Ajit Kumar Mohanty**, Secretary, [Department of Atomic Energy \(DAE\)](#), is the **Chairman** of the **AEC** and [National Security Adviser Ajit Doval](#) is among the key members.
- **About Atomic Energy Commission (AEC)**: AEC was first established in **August 1948** to oversee atomic energy research under the **Department of Scientific Research**.
 - In **1958**, the AEC was restructured within the **DAE**, and set up in **1954**, under the **direct charge of the Prime Minister**.
 - The Secretary of the **DAE** serves as the **ex-officio Chairman** of the Commission, with other members appointed annually upon **Prime Ministerial approval**.
 - The AEC formulates policies to promote **peaceful uses of nuclear energy**, empowering India through advancements in **nuclear technology, healthcare, food security, and energy independence**.

Read more: [Year End Review 2019: Department of Atomic Energy](#)

Chimpanzee Conservation

[Source: TH](#)

NGO Papaye International in Cameroon has been in the news, which operates a sanctuary for **orphaned chimpanzees** in the **Douala-Edea National Park**.

- **About Chimpanzee**: Chimpanzees (*Pan troglodytes ssp.*) are one of our nearest living relatives, sharing a common ancestor with humans that lived approximately 7-8 million years ago.
 - **Subspecies**: Four recognized subspecies: **Central chimpanzee, Western chimpanzee, Nigeria-Cameroon chimpanzee, and Eastern chimpanzee**.
- **IUCN Status**: Chimpanzees listed as **endangered**, with **Western chimpanzees** classified as **Critically Endangered**.
- **Cultural Diversity**: Chimpanzees exhibit **culturally learned behaviors**, including **tool use, vocal dialects, and feeding techniques**, varying by subspecies.
 - They live in highly **structured social groups**, often consisting of 20 to 150 members, showcasing complex communication and behaviors.
 - Examples of tool use by Chimpanzees include **termite fishing, harvest honey and nut cracking**, with **variations in tools and techniques** across populations.
- **Feeding Habits**: Chimpanzees have diverse diets, such as [mangrove leaves](#) and **cave use**, particularly in **dry environments**.

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- **Habitat destruction** and **hunting** threaten **genetic** and **cultural diversity**, making **conservation efforts** crucial.
- **About Cameroon:**
 - It is located in **Central Africa**, bordered by **Nigeria, Chad, the Central African Republic, Congo, Gabon, and Equatorial Guinea**.
 - It features diverse geography, including coastal plains, mountains, and rainforests.

Read more: [Mining Threatens African Great Apes](#)

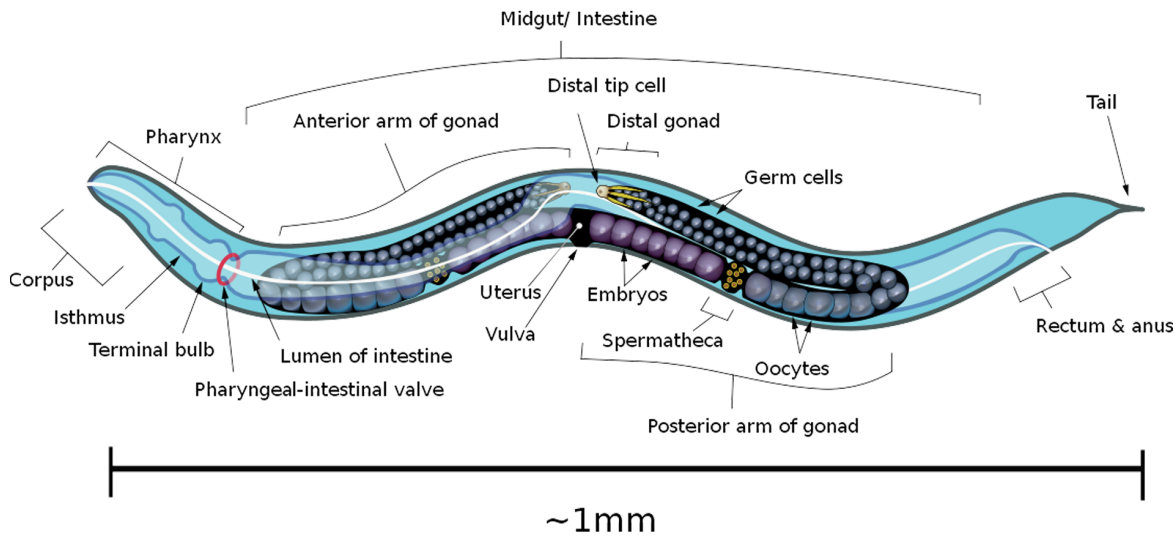
Discoveries in Biology Using *C. Elegans*

[Source: TH](#)

The roundworm *Caenorhabditis elegans* has played a **pivotal role** in numerous **Nobel Prize-winning discoveries**, shedding light on **fundamental biological processes**.

- **Nobel Winning Research on *C. Elegans*:**
 - **Victor Ambros and Gary Ruvkun (2024 Nobel Prize in Physiology or Medicine):** Discovered **microRNAs** and their crucial role in **gene expression** control.
 - **Osamu Shimomura, Martin Chalfie, and Roger Tsien (2008 Nobel Prize in Chemistry):** Developed **green fluorescent protein (GFP)**, enabling live-cell imaging and revolutionizing biological research.
 - GFP is a tool used in **molecular and cell biology** for **visualizing and tracking** biological processes.
 - **Andrew Fire and Craig Mello (2006 Nobel Prize in Medicine):** Discovered **RNA interference (RNAi)**, revolutionizing gene-silencing techniques.
 - It led to the discovery that **double-stranded RNA (dsRNA)** can **silence specific genes**, offering potential **therapeutic applications**.
 - **Sydney Brenner (2002 Nobel Prize in Medicine):** His research contributed to understanding **programmed cell death**.
- **About *C. Elegans*:** It is a **tiny invertebrate**, measuring just **1 mm in length**, and **transparent nematode**.

- Nematodes, also called **roundworms**, are **unsegmented, cylindrical, and often microscopic** organisms and a major component of **soil and sediment ecosystems**.
- They are **parasitic** in animals or plants or **free-living in soil or water**.



Read More: [Nobel Prize 2024 in Physiology or Medicine](#)

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