

## Prelim Bits 29-03-2022 | Daily UPSC Current Affairs

### Alopecia areata

- Alopecia areata is a common non-contagious **auto-immune** disorder that often results in unpredictable hair loss in patches.
- Sometimes, it can lead to the complete loss of hair on the scalp (alopecia totalis) or, in extreme cases, the entire body (alopecia universalis).
- It may also develop slowly and occur again periodically or repeatedly after years between instances.
- The condition can affect anyone regardless of age and gender, though most cases occur before the age of 30.
- **Causes** - The condition is developed after the immune system attacks the hair follicles, resulting in clear patches of hair loss.
- It mostly occurs in people who have a family history of auto-immune conditions, such as diabetes and thyroid.
- The most common causes of baldness in both men and women.
  1. Hereditary or genetic factors and Aging
  2. Loss of essential nutrients & improper diet
  3. Psychological pressure and anxiety
  4. Hormonal changes during puberty, pregnancy, and menopause
  5. Chronic illnesses or auto-immune diseases
  6. Hormonal disorders such as polycystic ovary syndrome (PCOS), which affects women of reproductive age
  7. Environmental factors like pollution, dust, etc.
- **Treatment** - There is no cure for alopecia areata. But, it can be treated using both medical and natural treatment methods.
- The most common medical treatment is the use of **corticosteroids**, an anti-inflammatory drug that can suppress the immune system.
- These are mostly commonly administered through local injections, topical ointment application, or orally. There is also **light therapy**.
- Substances such as zinc and biotin, aloe vera drinks and topical gels, and onion juice are sometimes recommended to be rubbed into the scalp.
- Oils like tea tree, rosemary, lavender, and peppermint, as well as coconut, castor, olive and jojoba oil can be helpful.
- **Anti-inflammatory diet**, which mainly includes meats and vegetables, scalp massages, herbal supplements such as ginseng, green tea, and Chinese hibiscus, etc, are also used to treat alopecia areata.

### Reference

1. <https://indianexpress.com/article/explained/everyday-explainers/explained-alopecia-areata-auto-immune-disorder-jada-pinkett-smith-7840658/>
2. <https://www.medicalnewstoday.com/articles/70956>
3. <https://www.aad.org/public/diseases/hair-loss/types/alopecia>

## Articulated All-Terrain Vehicles

The Indian Army has issued a Request For Information (RFI) for the supply of Articulated All-Terrain Vehicles to be deployed in Ladakh and Kutch.

- Articulated All-Terrain Vehicle is a twin cabin, tracked, amphibious carrier for off road mobility.
- The special design of this equipment **exerts low ground pressure** on the soil and a **pull-push mode of locomotion** between two cabins facilitates mobility over varied terrains like **snow, desert and slush**.
- A ballistic protection in the cabin body ensures protection to troops travelling in it from small arms fire.
- These vehicles are very useful to move troops or supplies in snow-bound terrains and in marshy/sandy environments.
- They can reach where wheeled vehicles cannot due to deep snow, slush or marshy terrain and can be very effective for patrolling and rapid deployment in operational situations.
- **Usage** - The RFI document specifies that 12 vehicles need to be supplied to Nimu in Ladakh (snow-bound areas) and six to Bhuj in Gujarat (marshy terrain of the Rann of Kutch).
- The RFI document specifies that the vehicle should be able to perform at heights of 18,000 feet in glaciated and snow bound conditions and in salty/dry marshes.

### Reference

1. <https://indianexpress.com/article/explained/explained-articulated-all-terrain-vehicles-indian-army-7840545/>
2. <https://www.mod.gov.in/sites/default/files/rfp3252pdf>

## Gambusia Fish May Do More Harm in the Long-run

- Mosquitofish or *Gambusia affinis* are released into ponds and rural areas, where they feed on mosquito larvae.
- To check the control the disease-spreading mosquito menace, district administrations of certain Indian places started releasing mosquitofish into local water bodies.
- *Gambusia affinis* (western mosquitofish) is a species of freshwater fish of the genus *Gambusia*.
- This fish is described as a very hardy fish and can adapt to wide variations in temperature as well as to chemical and organic content of the water but does not tolerate very high organic pollution.
- **Guidelines** - According to the National Center for Vector Borne Disease Control, this particular species has been in use in India since 1928.
- [National Center for Vector Borne Disease Control is an umbrella programme for prevention and control of vector-borne diseases.]
- It further states that a single full-grown fish eats about 100 to 300 mosquito larvae per day.
- It has advised states in the past to upscale the use of this fish as a biological control method in rural areas.
- **Problems** - Researchers say that the introduction of *Gambusia* fish into local waterbodies may actually be harmful in the long run.
- The IUCN lists the *Gambusia affinis* among 100 of the world's worst **invasive alien species**.
- Introduced as a biological control of mosquitoes initial in the early last century, it is a pest in many waterways around the world.
- It is no more effective than native predators of mosquitoes and that one of the main avenues of its spread is continued, intentional release by mosquito-control agencies.

- Mosquitofish are **difficult to eliminate** once established, because female Gambusia can get impregnated and lay fries whenever the situation is favourable.
- Also, the Gambusia can delay or prepone their sexual maturation and alter their body size based on the environment.
- Gambusia fish are often referred to as **plague minnows** due to their explosive spreading, higher reproduction rate and their negative impact on local ecosystems.
- After the introduction, the Gambusia fish hijacks the food web and breaks the existing cycle, causing an imbalance in the ecosystem.
- The fish also negatively affect the aquaculture industry as they prey on the eggs of and compete for resources with economically-important fish.

## Reference

<https://scroll.in/article/1020480/uttar-pradeshs-use-of-gambusia-fish-to-check-dengue-may-do-more-harm-in-the-long-run>

## PAHAL Scheme

*Under PAHAL Scheme, during the year 2020-21, the Government of India has reimbursed an amount of Rs. 23666 crore to Oil Marketing Companies (OMCs) as subsidy.*

Under PAHAL Scheme of Ujjwala Yojana, the subsidy is paid to consumers by OMCs and the same is reimbursed by Government to OMCs.

- Pratyaksh Hanstantrit Labh (PAHAL) or Direct Benefit Transfer of LPG (DBTL) scheme was first launched in 2013 and was modified in 2015.
- It aims to **reduce diversion & eliminate duplicate LPG** connections.
- It required the consumer to mandatorily have an Aadhaar number for availing LPG Subsidy.
- Under the PaHaL scheme, LPG cylinders are sold at market rates and entitled consumers get the subsidy directly into their bank accounts.

## Reference

1. <https://pib.gov.in/PressReleasePage.aspx?PRID=1810520>
2. [https://digitalindia.gov.in/content/pahal-dbt#:~:text=The%20PAHAL%20\(DBTL\)%20aims%20to,directly%20into%20their%20bank%20accounts.](https://digitalindia.gov.in/content/pahal-dbt#:~:text=The%20PAHAL%20(DBTL)%20aims%20to,directly%20into%20their%20bank%20accounts.)
3. <https://vikaspedia.in/social-welfare/direct-benefit-transfer/direct-benefit-transfer-of-lpg-dbt-scheme>
4. <http://petroleum.nic.in/dbt/whatisdbtl.html>

## Zojila Pass

*The deadline by 2 years for all-weather connectivity with Ladakh through 18-km-long multiple tunnels to cross the Zojila pass.*

- Located within the Himalayas mountain range, Zojila or Zoji La is a high mountain pass at an elevation of 3.528m above the sea level.
- It is located in the Kargil district of Ladakh, India.
- The Zojila Pass is frequently named as the entrance to Ladakh in Jammu and Kashmir.
- The pass is situated in the principal Himalayan Mountain Range on the Srinagar-Leh Highway or National Highway 1D (NH1D).

## Reference

1. <https://www.thehindu.com/todays-paper/zojila-tunnel-deadline-advanced-to-2024/article65269280.ece>
2. <https://www.dangerousroads.org/asia/india/111-zoji-la-pass-india.html>

