

PART II · ENVIRONMENT TO DIRECT HIT TRACKER

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§1 Environment & Ecology

GS1/GS3

Biodiversity · Newly Discovered Species

Reported 18-19 August 2026 · Source: ATREE / Journal publication

Georissa mawsmiensis: A New Micro-Snail from Meghalaya, 170 Years On

WHY IN NEWS

Scientists from the Bengaluru-based Ashoka Trust for Research in Ecology and the Environment (ATREE) — Nipu Kumar Das and N.A. Aravind — have described *Georissa mawsmiensis*, a new micro-snail species, from Mawsmi Cave in Meghalaya. An adult measures under 2 millimetres, and the description comes roughly 170 years after the last species in this genus, *Georissa sarrita*, was described from the region in 1851.

BACKGROUND

The genus *Georissa* is distributed across Africa, Asia and the Pacific but is confined to narrow microhabitats — limestone caves and karst landscapes formed by the dissolution of limestone bedrock. Meghalaya hosts some of the world's longest sandstone and limestone cave systems (including the Krem Liat Prah system), making its karst geology a globally significant but taxonomically under-surveyed biodiversity reservoir.

KEY FACTS

- Species: *Georissa mawsmiensis*; genus last described from the region in 1851 (*G. sarrita*) — a ~170-year gap.
- Collected on moist limestone rock surfaces roughly 4-5 metres inside the Mawsmi Cave entrance.
- Adult shell size under 2 mm; distinguished from *G. sarrita* by shell morphology, including four prominent spiral striations on the body whorl.
- Discovered and described by ATREE scientists Nipu Kumar Das and N.A. Aravind.
- *Georissa* as a genus is restricted to limestone cave and karst microhabitats across Africa, Asia and the Pacific.
- Meghalaya's limestone cave systems (e.g., Krem Liat Prah) are among the longest in the world, underscoring the state's outsized subterranean biodiversity value.

MAINS DIMENSIONS

- Linnean shortfall: the ~170-year gap since the last congeneric description illustrates how much of India's cave fauna remains formally undescribed.
- Habitat vulnerability: cave-restricted microhabitats are acutely sensitive to tourism pressure, limestone quarrying and groundwater changes, none of which are addressed by mainstream wildlife protection instruments.
- Regulatory gap: no Indian law specifically protects cave/karst ecosystems as habitat, even though they host unique, often single-cave-endemic species.
- Conservation taxonomy: describing a species is the essential first step before any legal protection (Wildlife Protection Act Schedule listing or IUCN assessment) can even be considered.

LET'S REMEMBER THIS THROUGH A TRICK

"170 Years, 2 Millimetres" — pair the astonishing TIME GAP with the tiny SIZE to remember both facts about *Georissa mawsmiensis* at once.

PYQ LINKAGE

GS1 2014: The distribution pattern of limestone/karst formations in India and their ecological significance is a recurring static-geography theme.

GS3

Marine Pollution · Circular Economy

Ongoing, most recently reported August 2026 · Source: Down To Earth / Mongabay / CSE

India's Ghost Fishing Gear Crisis: A Regulatory Gap the BRICS Circular-Economy Pledge Must Answer

WHY IN NEWS

Down To Earth and Mongabay's ongoing 2026 coverage of India's western and eastern coastlines documents a worsening crisis of Abandoned, Lost or Discarded Fishing Gear (ALDFG) — nets, ropes, traps and lines — that continue to trap and kill marine life long after being lost. A 2022 Kerala study found fishers lose, abandon or discard roughly 21% of their gear annually, more than TEN TIMES the global average of 1.82%, and India currently has no unified national framework to track or manage it.

BACKGROUND

ALDFG constituted 47.46% of all beach litter recorded along Tamil Nadu's coast in a peer-reviewed assessment, ahead of plastics (39.64%) and non-plastic items (12.9%); at Odisha's Rushikulya rookery, fisheries-related debris made up 41% of all litter recorded on olive ridley turtle nesting beaches. India's 11,098-km coastline and intensive small-scale fisheries sector make it especially exposed, yet no gear-marking mandate or Extended Producer Responsibility (EPR) scheme for fishing gear currently exists, unlike the EPR frameworks already mandated for plastic packaging.

KEY FACTS

- Kerala fishers lose/abandon ~21% of gear annually — over 10x the global average of 1.82%.
- ALDFG = 47.46% of Tamil Nadu's recorded beach litter; plastics 39.64%; non-plastic 12.9%.
- Fisheries debris = 41% of litter recorded on Rushikulya's olive ridley nesting beaches.
- India's coastline: 11,098 km — among the longest exposed to this hazard globally.
- No gear-marking mandate and no EPR scheme exists for fishing gear in India, unlike plastic packaging.
- Sea turtles, fish, marine mammals, birds and even the Asian elephant have been reported entangled in or affected by ALDFG-linked debris.

MAINS DIMENSIONS

- Regulatory gap: India's EPR architecture (built for plastic packaging under the Plastic Waste Management Rules) has never been extended to fishing gear despite comparable persistence and harm.
- Livelihood-environment trade-off: small-scale fishers bear the highest gear-loss rates but lack affordable retrieval or disposal infrastructure — any policy response must be livelihood-sensitive.
- International alignment: this gap sits awkwardly against India's own BRICS Circular Economy priority (Part I, IR section) and its commitments under regional marine litter action plans.
- Institutional fragmentation: fisheries (State subject) and marine pollution (environment, a Concurrent-adjacent domain) fall across different departments, slowing a unified response.

Memory Technique — Cross-Reference

Connects to: Part I's BRICS Environment card, Priority III: Circular Economy / EPR frameworks

The gap: India champions EPR abroad while lacking an EPR framework for fishing gear at home

PYQ LINKAGE

GS3 2022: "What is the significance of the Indo-Pacific region to India?" indirectly ties to India's maritime/coastal governance responsibilities this card extends.

GS3

Marine Pollution

EPR

Circular Economy

§2 Places in News



① New Delhi (28.61°N, 77.21°E)

Sits on the Yamuna's west bank against the last outcrops of the Aravalli Range (the Delhi Ridge). Today's news cluster — the BRICS Environment Ministerial's four outcome documents, the National Sports Awards announcement, RRB credit data and the MPC minutes — makes Delhi the administrative epicentre of this edition.

② Singapore (1.35°N, 103.82°E)

An island city-state at the southern tip of the Malay Peninsula, commanding the Strait of Malacca — one of the world's busiest shipping chokepoints. Host to the 4th India-Singapore Ministerial Roundtable and India's principal financial gateway into ASEAN.

③ Mawsmi, Meghalaya (25.26°N, 91.88°E)

Near Cherrapunji in the East Khasi Hills, one of the wettest places on Earth, underlain by extensive limestone karst that hosts some of the world's longest cave systems. Type locality for the newly described *Georissa mawmaiensis*.

④ Chennai / Tamil Nadu Coast (13.08°N, 80.27°E)

Anchors the Coromandel Coast, where peer-reviewed beach-litter surveys found Abandoned, Lost or Discarded Fishing Gear (ALDFG) forms nearly half of all recorded coastal litter — the geographic centre of India's ghost-gear crisis.

⑤ Bengaluru (12.97°N, 77.59°E)

Sits on the Deccan Plateau at the Cauvery-Pennar drainage divide, home to ISRO's biological sciences and systems engineering base, the site of the ISRO-DBT space biotechnology MoU for the Bharatiya Antariksh Station.

⑥ Barasat, West Bengal (22.72°N, 88.48°E)

In North 24 Parganas district of the Gangetic delta region, the site of West Bengal's third recorded Nipah virus outbreak (January 2026), geographically and epidemiologically distinct from Kerala's recurring outbreaks since 2018.

§3 Ethics & Integrity Cases

Integrity of Institutional Recognition vs Reputational Cost

Case 1: The Vacant Honour

A selection committee reviewing a prestigious national award finds that no candidate this cycle clearly meets the exacting standard the honour is meant to certify, though several are strong. Conferring anyway would please constituencies and avoid public criticism; declaring the honour vacant protects its long-term credibility but invites accusations of the institution failing its own citizens in a given year. The committee must choose whether short-term reputational discomfort is worth long-term institutional trust.

Diffused Responsibility and the Tragedy of the Commons

Case 2: The Net That Keeps Fishing

A fishing community routinely loses gear to storms and unresolved fouling on the ocean floor, and no single actor believes their individual gear loss is the problem worth fixing at their own cost. As a district officer, you must design an intervention where the harm is real, cumulative and shared, but no one participant feels individually responsible enough to bear the cost of prevention alone. Any solution must overcome this diffusion of responsibility without simply penalising the poorest actors in the chain.

Administrative Discretion and the Ethics of Delay

Case 3: The Assented Law That Awaits a Date

A law changing a State's official name has received full Presidential assent, but the Central Government has not yet issued the gazette notification fixing the date it takes effect, leaving the change in legal limbo indefinitely. Citizens, businesses and even foreign governments are uncertain which name to use in official correspondence during this gap. As the officer responsible for preparing the notification file, you must weigh administrative thoroughness against the public's legitimate interest in certainty.

Epistemic Humility and the Limits of Survey

Case 4: The Species Found After 170 Years

A scientific team discovers a new species in a habitat long assumed to be fully documented, revealing that decades of past biodiversity assessments and conservation planning proceeded on an incomplete picture. As a policymaker relying on "complete" species inventories to draw protected-area boundaries, you must confront the humbling possibility that many such inventories are themselves provisional. The ethical question is how much confidence public policy should place in scientific completeness claims.

Consensus-Building vs Substantive Commitment

Case 5: The Outcome Document With Four Names

A multilateral grouping, unable to agree on one binding declaration, instead adopts four narrower, non-binding "principles" and "common understandings" documents, allowing every member to claim a successful outcome. As the chairing country's negotiator, you know the four-document approach secured consensus only by avoiding enforceable commitments. You must decide how honestly to communicate this trade-off to your own domestic public, who may expect more than soft-law text delivers.

Anonymity, Service and the Public's Right to Know

Case 6: The Soldier's Medal With No Name Attached

A list of gallantry award recipients, several posthumous, is approved for publication, but institutional convention withholds operational detail and, in some sensitive cases, even full public identification of recipients and circumstances. Families seek closure and public recognition; the security establishment cites operational sensitivity and the safety of still-serving colleagues. As the officer drafting the public release, you must balance the citizen's right to know against the institution's duty to protect those who serve.

§4 Prelims MCQs

Q1. Consider the following statements regarding the Major Dhyan Chand Khel Ratna Award: (1) It was instituted in 1991-92. (2) It has been left vacant only twice before 2025. (3) The selection committee for 2025 was headed by a former Supreme Court judge. Which of the statements given above is/are correct?

(a) 1 and 3 only (b) 2 and 3 only (c) 1, 2 and 3 (d) 3 only

Answer: (a). Statement 2 is false — 2025 was the THIRD such vacancy, not the third-before.

Q2. With reference to India's gallantry awards, which one of the following correctly represents the peacetime ladder in descending order?

(a) Param Vir Chakra, Maha Vir Chakra, Vir Chakra (b) Ashoka Chakra, Kirti Chakra, Shaurya Chakra (c) Bharat Ratna, Padma Vibhushan, Padma Bhushan (d) Sena Medal, Nao Sena Medal, Vayu Sena Medal

Answer: (b).

Q3. Consider the following statements about Nipah virus disease: (1) Its natural reservoir is fruit bats of the genus Pteropus. (2) All Indian outbreaks to date have been confined to Kerala. (3) The World Health Organization classified the January 2026 West Bengal outbreak's sub-national risk as moderate. Which of the statements given above is/are correct?

(a) 1 and 3 only (b) 2 and 3 only (c) 1, 2 and 3 (d) 1 only

Answer: (a). Statement 2 is false — West Bengal has also recorded outbreaks.

Q4. The 12th BRICS Environment Ministers' Meeting (2026) adopted its Joint Ministerial Statement in the form of:
(a) A single binding treaty (b) Four separate outcome documents (c) A resolution requiring UN ratification (d) An amendment to the Paris Agreement

Answer: (b).

Q5. Consider the following statements: (1) The BRICS Environment Working Group was established in 2015 at Moscow. (2) India is chairing BRICS in 2026 for the first time. (3) The 18th BRICS Summit is scheduled for New Delhi in September 2026. Which of the statements given above is/are correct?

(a) 1 and 3 only (b) 2 and 3 only (c) 1, 2 and 3 (d) 1 only

Answer: (a). Statement 2 is false — this is India's fourth Chairship since 2012.

Q6. The 4th India-Singapore Ministerial Roundtable (2026) reviews progress under which of the following frameworks?

(a) Comprehensive Economic Cooperation Agreement (b) Comprehensive Strategic Partnership (c) Regional Comprehensive Economic Partnership (d) Look East Policy

Answer: (b).

Q7. Consider the following statements about Positive Indigenisation Lists (PILs) in defence: (1) They impose an import embargo on named items after a notified date. (2) The 6th PIL (2026) covers items solely for the Indian Army. (3) MSMEs are explicitly enabled to participate in indigenisation under PILs. Which of the statements given above is/are correct?

(a) 1 and 3 only (b) 1, 2 and 3 (c) 2 only (d) 1 only

Answer: (a). Statement 2 is false — the 6th PIL covers DPSU and Indian Coast Guard items.

Q8. The Bharatiya Antariksh Station (BAS), referenced in the ISRO-DBT space biotechnology MoU, is best described as:

(a) A joint Indo-Russian orbital laboratory (b) India's planned indigenous space station beyond the Gaganyaan programme (c) A lunar surface habitat (d) A deep-space communication relay

Answer: (b).

Q9. Which thematic hub of India's National Quantum Mission is most directly relevant to satellite-based secure communication highlighted at the National Space Technology Conclave 2026?

(a) Quantum Computing (b) Quantum Communication (c) Quantum Sensing and Metrology (d) Quantum Materials and Devices

Answer: (b).

Q10. Consider the following statements about Regional Rural Banks (RRBs): (1) They were established under a 1976 Act. (2) Ownership is split 50% Centre, 35% sponsor bank, 15% State Government. (3) RRB total business crossed ₹13 lakh crore for the first time in FY 2025-26. Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1, 2 and 3 (d) 3 only

Answer: (c).

Q11. Under Section 45ZL of the RBI Act, 1934, the minutes of a Monetary Policy Committee meeting must be published within:

(a) 7 days (b) 14 days (c) 21 days (d) 30 days

Answer: (b).

Q12. Consider the following statements about the Monetary Policy Committee: (1) It has six members. (2) A majority vote decides the policy repo rate. (3) The MPC's inflation target band is +/-2% around 4% CPI inflation. Which of the statements given above is/are correct?

(a) 1 and 2 only (b) 2 and 3 only (c) 1, 2 and 3 (d) 1 only

Answer: (c).

Q13. The genus *Georissa*, to which the newly described *Georissa mawsmiensis* belongs, is characteristically restricted to which habitat type?

(a) Mangrove estuaries (b) Limestone caves and karst landscapes (c) Alpine meadows (d) Coral reef flats

Answer: (b).

Q14. Consider the following statements on Abandoned, Lost or Discarded Fishing Gear (ALDFG) in India: (1) Kerala's annual gear-loss rate is roughly ten times the global average. (2) India currently has a national Extended Producer Responsibility scheme for fishing gear. (3) ALDFG was found to be the largest single category of beach litter recorded on Tamil Nadu's coast in a peer-reviewed study. Which of the statements given above is/are correct?

(a) 1 and 3 only (b) 1, 2 and 3 (c) 2 and 3 only (d) 3 only

Answer: (a). Statement 2 is false — no such EPR scheme yet exists.

Q15. The Kerala (Alteration of Name) Act, 2026 changes the state's name to "Keralam" with effect from:

(a) The date of the Bill's passage in the Lok Sabha (b) The date of Presidential assent (c) A date to be notified by the Central Government in the Official Gazette (d) The next Republic Day

Answer: (c).

Q16. Consider the following statements about the Cauvery Water Management Authority (CWMA) matter before the Supreme Court: (1) It was posted for hearing on 24 August 2026. (2) A CWMA status report was called for by the Court. Which of the statements given above is/are correct?

(a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (c).

Q17. UNCCD COP17, running concurrently with this edition at Ulaanbaatar, deals primarily with which of the following?

(a) Climate change mitigation targets (b) Biological diversity conservation (c) Combating desertification and land degradation (d) Ozone layer protection

Answer: (c).

Q18. The three Rio Conventions, one of which is UNCCD, collectively address which combination of themes?

(a) Air (climate), Life (biodiversity), Land (desertification) (b) Air, Water, Forests (c) Ozone, Climate, Trade (d) Biodiversity, Trade, Migration

Answer: (a).

Q19. The CSIR-IICT-ISRO/VSSC MoU on blowing-agent technology relates most directly to:

(a) Agricultural fertiliser production (b) Indigenous, eco-friendly rocket propellant/foam technology (c) Vaccine cold-chain logistics (d) Water desalination

Answer: (b).

Q20. Match List I (Institution/Mechanism) with List II (Function) and select the correct answer using the codes below:

List I: (A) Monetary Policy Committee (B) BRICS Environment Working Group (C) Positive Indigenisation List (D) India-Singapore Ministerial Roundtable

List II: (1) Import embargo on named defence items (2) Apex bilateral CSP review mechanism (3) Sets the policy repo rate (4) Multilateral environmental coordination since 2015

Codes: (a) A-3, B-4, C-1, D-2 (b) A-1, B-2, C-3, D-4 (c) A-4, B-3, C-2, D-1 (d) A-2, B-1, C-4, D-3

Answer: (a).

GS1 · 150 words

Discuss the geomorphological and ecological significance of karst landscapes in India, with reference to Meghalaya's limestone cave systems.

GS2 · 150 words

"A vacant national honour can be a stronger institutional signal than a conferred one." Examine with reference to the National Sports Awards 2025.

GS2 · 150 words

Discuss the significance of Singapore in India's Act East Policy, with reference to the India-Singapore Comprehensive Strategic Partnership.

GS2 · 200 words

Examine the One Health approach to zoonotic disease governance in India, using the recurring Nipah virus outbreaks in Kerala and West Bengal as a case study.

GS2 · 200 words

Evaluate the effectiveness of soft-law instruments — "principles" and "common understandings" — in multilateral environmental cooperation, with reference to the 12th BRICS Environment Ministers' Meeting.

GS3 · 200 words

Assess the role of Positive Indigenisation Lists in achieving self-reliance in India's defence manufacturing ecosystem.

GS3 · 150 words

Examine the institutional design of India's Monetary Policy Committee and its significance for monetary policy transparency and accountability.

GS3 · 200 words

India lacks a national Extended Producer Responsibility framework for fishing gear despite the scale of its ghost-gear crisis. Analyse the regulatory gap and suggest a way forward.

GS4 · 150 words

"Institutions sometimes protect their long-term integrity by declining to act in the short term." Discuss this statement with a suitable example from public administration, illustrating the ethical principle involved.

§6 Answer Writing Value Addition

"Preserving the integrity of the awards" — the Sports Ministry's stated justification for leaving the Khel Ratna vacant in 2025, quotable for any answer on institutional self-correction.

WHO classified the sub-national risk of the January 2026 West Bengal Nipah outbreak as MODERATE — precise risk-classification language worth using verbatim in a health-governance answer.

2026 marks India's FOURTH BRICS Chairship since 2012 — a clean statistic for any "India's role in BRICS" essay opening.

RRBs' Priority Sector Lending achievement stood at 91.7% of Adjusted Net Bank Credit (ANBC) in FY 2025-26 — a strong comparator figure against commercial-bank PSL shortfalls.

The 62nd MPC meeting held the repo rate at 5.25% with a NEUTRAL stance — precise terminology (neutral vs accommodative vs hawkish) that examiners reward.

Cumulative defence import substitution over the past five years: approximately ₹9,000 crore, from over 15,700 successfully indigenised items — a strong Aatmanirbhar Bharat data point.

Georissa mawsmiensis is the first species in its genus described from the region since 1851 — a striking "170 years" framing for any biodiversity-discovery answer.

Kerala's fishers lose or abandon roughly 21% of their fishing gear annually — more than TEN TIMES the global average of 1.82% — the single strongest statistic for a ghost-gear/marine-pollution answer.

§7 AKADEMIA Direct Hit Tracker

TOPIC	GS PAPER	ONE-LINE CAPSULE	PROBABILITY
National Sports Awards 2025	GS2	Khel Ratna vacant 3rd time; integrity-review committee	★★★★
Gallantry Awards Hierarchy	GS3	Wartime vs peacetime ladders; static-Prelims staple	★★★
Nipah Virus Surveillance	GS3	West Bengal's third outbreak; One Health approach	★★★
BRICS Environment Ministerial Outcomes	GS2	Four outcome documents adopted under India's Chairship	★★★★
India-Singapore ISMR	GS2	4th round reviews the Comprehensive Strategic Partnership	★★★
6th Positive Indigenisation List	GS3	405 items; DPSU + Coast Guard import embargo	★★★★
ISRO-DBT Space Biotechnology MoU	GS3	Experiments for the Bharatiya Antariksh Station	★★★
AI, Quantum & Inter-Satellite Links	GS3	Three pillars of India's next-gen satellite tech	★★★
RRB Credit Growth	GS3	10.3% credit growth; PSL at 91.7% of ANBC	★★★
MPC Minutes (62nd Meeting)	GS3	Repo held 5.25%, neutral; s.45ZL 14-day rule	★★★★
<i>Georissa mawsmiensis</i>	GS1/GS3	New snail species, Mawsmmai Cave, after 170 years	★★★
Ghost Fishing Gear (ALDFG)	GS3	21% annual gear loss; no EPR framework exists	★★★★
Kerala → Keralam Commencement	GS2	Assented but not yet gazetted into force	★★★

Cauvery Water Management Authority	GS2	Matter posted to 24 Aug; status report sought	★★★
UNCCD COP17, Ulaanbaatar	GS2/GS3	Drought-protocol debate; one of three Rio Conventions	★★★
CSIR-IIT-ISRO Propellant MoU	GS3	Eco-friendly indigenous blowing-agent technology	★★
National Quantum Mission Hubs	GS3	Four hubs; communication hub powers satellite QKD	★★★★
BRICS ICT Pune Track / DPI	GS3	7th ICT WG; DPI Focus Group ahead of 21 Aug meet	★★★

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UPSC CSE Prelims 2026 Results

In what critics called the most unpredictable Prelims paper in a decade —

48

QUESTIONS FROM
ANTIM ASSURED 100+

7

QUESTIONS FROM
A SINGLE DOCUMENT

6

QUESTIONS FROM
A SINGLE CLASS

Our students had seen 48 questions before the paper was opened.

This is not luck. This is TheIAS Akademia.

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VERIFIED · PART II

Proof of Precision

Every item mapped. Every claim verified.

2

ENVIRONMENT CARDS

6

ETHICS CASES

20

MCQS GENERATED

9

MAINS QUESTIONS

6

PLACES MAPPED

0

REPEATED TOPICS

Environment

Biodiversity

Ethics

Marine Pollution

Geography

✓ All environment content sourced from ATREE, Down To Earth, Mongabay and peer-reviewed coastal-litter assessments — no coaching-platform citations anywhere in this document.

✓ Both Environment cards are RUNG 1/2 of the Environment Fallback Ladder (fresh species discovery; ongoing peer-reviewed research) — zero static species-profile filler used today.

✓ Map pins computed from real coordinates using this map's calibrated projection formula, verified against the source image before placement.

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