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Srivari Illam, No. 61, Karthik Nagar, 10th Street, Saravanampatti, Coimbatore, Tamil Nadu 641035, India
Registered Office: 3A2 Varadarajulu Nagar, FCI Road, Ganapathy, Coimbatore, Tamil Nadu 641006, India
Ph: +91 9385339863 | www.threatenedtaxa.org
Email: sanjay@threatenedtaxa.org

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continued on the back inside cover

Cover: Indian Grey Wolf *Canis lupus pallipes* and Smooth-coated Otter *Lutrogale perspicillata* sharing the territory in Chambal basin. Digital art on Procreate by Aakanksha Komanduri.



Schedule III of the Wild Life (Protection) Amendment Act, 2022: a new legal shield for India's threatened plant species

Monalisa Dey¹ & Avishek Bhattacharjee²

¹Sikkim Himalayan Regional Centre, Botanical Survey of India, Rajbhowan, Gangtok, Sikkim 737103, India.

²Central National Herbarium, Botanical Survey of India, B. Garden, Howrah, West Bengal 711103, India.

¹drmdey2010@gmail.com, ²aviorch@gmail.com (corresponding author)

Abstract: India's Wild Life (Protection) Amendment Act, 2022 marks a pivotal step in plant conservation by introducing Schedule III for specified plant species. This schedule regulates the cultivation, possession, trade, and transport of threatened and high-value plants through a permit-based system, aligning domestic law with CITES obligations. It shifts focus from outright collection bans to a balanced approach that encourages sustainable cultivation while preventing illegal wild extraction. The amendment enhances biodiversity conservation, supports livelihoods, and strengthens global compliance. Effective implementation can achieve long-term conservation outcomes with streamlined permits, better awareness, scientific support, and community participation.

Keywords: Biodiversity conservation, CITES, community participation, illegal trade, IUCN, legislation, livelihood, permit, rare flora, sustainable cultivation.

India is one of the world's richest countries in terms of plant biodiversity, hosting thousands of endemic, medicinal, ornamental, economically and ecologically significant plant species. The Wild Life (Protection) Act, 1972 serves as India's primary legislation for safeguarding wild animals, birds, plants, and their habitats. Initially, it categorized protection levels into six Schedules (I–VI), each offering varying degrees of legal protection and penalties. The plants listed in Schedule VI of this Act are rare and threatened, and the act prohibits cultivation,

possession, and trade without permission aiming to conserve rare flora. However, increasing commercial demand, illegal trade, habitat loss, and unregulated cultivation have placed many valuable plant species under serious threat.

Recognizing these challenges, the Government of India enacted the Wild Life (Protection) Amendment Act, 2022, which updates and strengthens the original law rather than replacing it. The 2022 Amendment modernizes it to tackle wildlife trafficking, invasive species, global trade, and current conservation challenges. It was passed by Parliament in 2022, signed by the President on 19 December 2022, and came into force on 1 April 2023.

The 2022 Amendment Act has four (I to IV) Schedules, introducing a new Schedule III dedicated exclusively for protection of specified plant species. The species of plants listed under the Schedule III are defined as 'specified plants' under Section 2(27) of the Wildlife (P) Act, 1972 as amended.

This landmark amendment marks a significant shift in India's conservation framework by extending regulatory protection beyond animals to include high-value and threatened plants, thereby aligning national legislation

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with international conservation commitments such as CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora).

Schedule III of the Wild Life (Protection) Act, as amended in 2022, lists specified plant species whose: cultivation, possession, sale, purchase, transport, and trade (domestic and international) are now regulated through a permit-based system. While earlier provisions focused primarily on bans on collection from the wild, Schedule III introduces a balanced regulatory approach, allowing controlled cultivation and trade while preventing illegal extraction from the wild.

A separate Chapter IIIA under the heading 'Protection of Specified Plants' have been included under the Act and regulatory provisions in respect of the Schedule III specified plants have been mentioned under Sections 17A to 17H in the Act highlighting various legislative guidelines under the following headings:

Section 17A: Prohibition of picking, uprooting etc. of specified plants.

Section 17B: Grants of permit for special purpose.

Section 17C: Cultivation of specified plants without license prohibited.

Section 17D: Dealing in specified plants without license prohibited.

Section 17E: Declaration of stock.

Section 17F: Possession etc. of plants by licensee.

Section 17G: Purchase etc. of specified plants.

Section 17H: Plants to be Government property.

Plant Species Included in Schedule III

The schedule includes several ecologically, medicinally, and culturally significant plant species, as listed below:

1. *Strobilanthes kunthiana* (Nees) T.Anderson ex Benth. ['Neela-kurinji' – a mass-flowering endemic plant of the Western Ghats; Vulnerable VU A2c (Bachan & Devika 2024 as per IUCN Red list of Threatened Species, ver. 3.1)].

2. *Coptis teeta* Wall. ['Gold threat', 'Mishmi teeta' – extensively used as medicinal plant; Endangered EN A2cd (Saha et al. 2015a as per IUCN Red list of Threatened Species, ver. 3.1)].

3. *Coscinium fenestratum* (Gaertn.) Colebr. ['Tree Turmeric' – roots are traded under the name 'Mirmanjal', used in various systems of medicine, such as Ayurveda, folk, Tibetan and Siddha; Data Deficient DD (Ved et al. 2015a as per IUCN Red list of Threatened Species, ver. 3.1)].

4. *Taxus wallichiana* Zucc. [Common 'Yew' or 'East Himalayan Yew' – extensively used in preparing

furniture, cabinet work, candlestick, the alkaloid compounds (taxanes) of the bark are a source for the anti-cancer drug paclitaxel (Taxol); Endangered EN A2acd (Thomas & Farjon 2011 as per IUCN Red list of Threatened Species, ver. 3.1)].

5. *Vanda coerulea* Griff. ex Lindl. ['Blue Vanda Orchid' – highly prized ornamental orchids for long-lasting, spectacular blooms, preferred for hybridization and also used in traditional medicine, cosmetic and skincare].

6. *Nepenthes khasiana* Hook.f. ['Pitcher Plant' – India's only native carnivorous plant, endemic to Meghalaya; Endangered EN B2ab(iii) (Ved et al. 2015b as per IUCN Red list of Threatened Species, ver. 3.1)].

7. *Renanthera imschootiana* Rolfe ['Red Vanda Orchid' – highly ornamental, long-lasting, vibrant orange-red flowered orchid with long branching spikes, also used in traditional medicine].

8. *Cycas* spp.

9. *Ceropegias* spp.

10. *Aenhenrya rotundifolia* (Blatt.) C.S.Kumar & F.N.Rasm. ['Jewel Orchid' – highly attractive for beautiful, reticulated leaves; endemic to southern Western Ghats of India; (assessment not yet done as per IUCN Red list Criteria, ver. 3.1)].

11. *Odontochilus grandiflorus* (Lindl.) Benth. ex Hook.f. ['Jewel Orchid' – threatened, very attractive for its unique flowers with spotty petals and green leaves; earlier endemic to India, but now also found in Myanmar and Vietnam (assessment not yet done as per IUCN Red list Criteria, ver. 3.1)].

12. *Odontochilus tetrapterus* (Hook.f.) Av.Bhattacharjee & H.J.Chowdhery ['Jewel Orchid' – unique in having four lobed, cruciform epichile and dark velvety green leaves; endemic to Manipur, India; (assessment not yet done as per IUCN Red list Criteria, ver. 3.1)].

13. *Rhomboda pulchra* (King & Pantl.) Ormerod & Av.Bhattacharjee [syn. *Zeuxine pulchra* King & Pantl.; 'Jewel Orchid' – leaves adaxially blackish or purplish-brownish; endemic to northeastern India (Arunachal Pradesh, Meghalaya, Sikkim); (assessment not yet done as per IUCN Red list Criteria, ver. 3.1)].

14. *Vrydagzynea viridiflora* Hook.f. ['Jewel Orchid' – with white-green flowers and green leaves; (assessment not yet done as per IUCN Red list Criteria, ver. 3.1)].

15. *Zeuxine andamanica* King & Pantl. ['Jewel Orchid' – with white flowers having yellow blotch on labellum and 5 to many veined leaves; Endemic to India (Andaman Island); (assessment not yet done as per IUCN Red list Criteria, ver. 3.1)].

16. *Ipsea malabarica* (Rchb.f.) Hook.f. ['Malabar Daffodill Orchid' – a threatened and beautiful yellow flowered ground orchid; endemic to India (assessment not yet done as per IUCN Red list Criteria, ver. 3.1)].

17. *Habenaria barnesii* Summerh. ex C.E.C.Fisch. ['Barnes Habenaria' – a rare ground orchid of Nilgiris and other parts of the Western Ghats; endemic to southern Western Ghats of India (assessment not yet done as per IUCN Red list Criteria, ver. 3.1)].

18. *Podophyllum hexandrum* Royle ['Himalayan Mayapple', 'Indian Mayapple', 'Papra' – perennial rhizomatous herb found in alpine region, distributed in the entire range of Himalayas from Ladakh to Sikkim, extensively used in traditional systems of medicine; Endangered (EN) A2bd+3cd+4cd (Chauhan 2024 as per IUCN Red list of Threatened Species, ver. 3.1)].

19. *Dolomiaea costus* (Falc.) Kasana & A.K.Pandey [= *Saussurea lappa* (Decne.) Sch.Bip., *Saussurea costus* (Falc.) Lipsch, 'Kuth' – an important medicinal plant used in Ayurveda and Tibetan medicine; Critically Endangered CR A2cd (as *Saussurea costus*) (Saha et al. 2015b as per IUCN Red list of Threatened Species, ver. 3.1)].

Renanthera imschootiana, *Nepenthes khasiana*, *Dolomiaea costus* (as *Saussurea costus*) and *Cycas beddomei* are listed under Appendix I of CITES, while rest of the *Cycas* spp., *Taxus wallichiana*, *Podophyllum hexandrum* and rest of the above mentioned orchids are listed in Appendix II of CITES. These species have long been vulnerable to over-exploitation and illegal trade, both domestically and internationally, however, only five of these were earlier listed and provided protection under Schedule VI of the Wild Life (Protection) Act, 1972. Although several species have been added to Schedule III, ladies slipper orchids (*Paphiopedilum* spp.), listed in Appendix I of CITES and earlier included in Schedule VI of the Wild Life (Protection) Act, 1972 are missing from the Schedule III.

Linkages of Schedule III species with the Foreign Trade Policy of Govt. of India and exclusion of *Paphiopedilum* spp. from Schedule III

The Government of India, through the Ministry of Environment, Forest and Climate Change (MoEF&CC), issued the Wild Life (Protection) International Trade of Specimens Rules, 2023 via Notification No. S.O. 5408(E) dated 21 December, 2023. These rules were framed under the authority of Section 63 of the Wild Life (Protection) Act, 1972 to operationalize the provisions of Section 49H. Their primary objective is to regulate the international movement of wildlife specimens,

A comparative list between Schedule VI of Wild Life (Protection) Act, 1972, and Schedule III of Wild Life (Protection) Amendment Act, 2022 is given below.

	Plants listed in Schedule VI of Wild Life (Protection) Act, 1972	Plants listed in Schedule III of Wild Life (Protection) Amendment Act, 2022
1	Beddome's cycad (<i>Cycas beddomei</i>)	<i>Strobilanthes kunthiana</i>
2	Blue Vanda (<i>Vanda soerolec</i>) [<i>Vanda coerulea</i>]	<i>Coptis teeta</i>
3	Kuth (<i>Saussurea lappa</i>) [= <i>Dolomiaea costus</i>]	<i>Coscinium fenestratum</i>
4	Ladies slipper orchids (<i>Paphiopedilum</i> spp.)	<i>Taxus wallichiana</i>
5	Pitcher plant (<i>Nepenthes khasiana</i>)	<i>Vanda coerulea</i>
6	Red Vanda (<i>Renanthera imschootiana</i>)	<i>Nepenthes khasiana</i>
7	---	<i>Renanthera imschootiana</i>
8	---	<i>Cycas</i> spp.
9	---	<i>Ceropegia</i> spp.
10	---	<i>Aenhenrya rotundifolia</i>
11	---	<i>Odontochilus grandiflorus</i>
12	---	<i>Odontochilus tetrapteris</i>
13	---	<i>Rhomboda pulchra</i>
14	---	<i>Vrydagzynea viridiflora</i>
15	---	<i>Zeuxine andamanica</i>
16	---	<i>Ipsea malabarica</i>
17	---	<i>Habenaria barnesii</i>
18	---	<i>Podophyllum hexandrum</i>
19	---	<i>Dolomiaea costus</i>

including their import, export, and re-export, while ensuring compliance with the requirements of the CITES and the applicable policies of the Directorate General of Foreign Trade (DGFT). There is a total ban on export of wild orchids from India under the Foreign Trade Policy of Government of India since long. So, although the *Paphiopedilum* spp. are left out of the purview of Schedule III during 2022 amendments to the Wildlife (P) Act, 1972, the export of the genus of orchids of wild origin remains prohibited from India.

In Schedule III of the amended Act, *Cycas* L. and *Ceropegia* L. are just vaguely listed as 'Cycas spp.' and 'Ceropegia spp.'. However, 18 taxa of *Cycas* (Devi et al. 2025) and 72 taxa of *Ceropegia* (Ranjan et al. 2024; Chiranjeevi et al. 2026) are found in India. Here, 'spp.' may be interpreted as multiple species within the genus *Cycas* and genus *Ceropegia* and that all the species within the genus *Cycas* and genus *Ceropegia* found in India are deemed to be included under the Schedule III of the Wildlife (P) Act, 1972 as amended. However, an annotation explaining the above facts or a proper

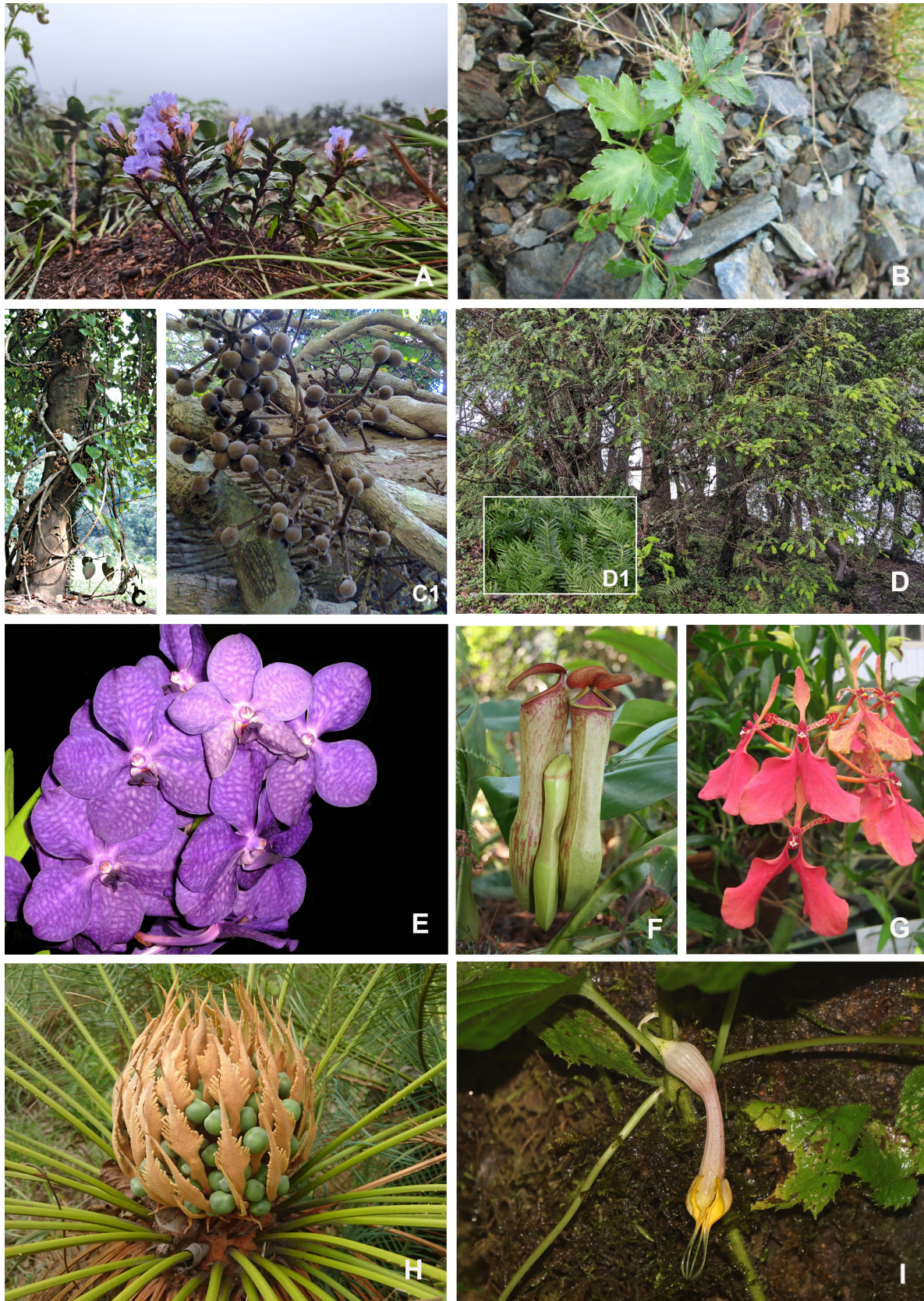


Image 1. A—*Strobilanthes kunthiana*. © P.S. Kushwaha | B—*Coptis teeta* | C–C1—*Coscinium fenestratum*. © C.R. Chitra | D–D1—*Taxus wallichiana*. © R. Layola M.R. | E—*Vanda coerulea* | F—*Nepenthes khasiana* | G—*Renanthera imschootiana* | H—*Cycas beddomei*. © K. Prasad | I—*Ceropegia candelabrum*. © P.S. Kushwaha. © B,E,F,G—Avishek Bhattacharjee

clarification (with list) needs to be provided to include all the species and infraspecific taxa of these two genera (*Cycas* and *Ceropegia*) in order to provide protection to each taxa against exploitation.

Under the amended Act, permits are required for the cultivation, possession, sale, transport, and trade of specified plants. The state forest departments are appointed as the authorities responsible for issuing these permits. Traceability systems are implemented to differentiate legally cultivated plants from those collected in the wild. Violations, such as unauthorized trade or transport, are subject to penalties and legal action. This framework promotes conservation while allowing sustainable use, benefiting both biodiversity and legitimate growers.

Alignment with CITES and Global Conservation Standards

Many species listed under Schedule III are already included in Appendices of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which regulate international trade. A separate Schedule IV has been incorporated during 2022 amendments to the Wildlife (P) Act, 1972 which includes all animal and plant species listed under the various Appendices to the CITES. Therefore, some of the species/genera are listed both under the Schedule III and Schedule IV of the Wildlife (P) Act, 1972 as amended. Hence, both the provisions under the CITES and Chapter IIIA of the Wildlife (P) Act, 1972 will be applicable during international trade in these CITES listed species. A separate Chapter VB is included under the heading 'Regulation of International Trade in Endangered Species of Wild Fauna and Flora as per CITES' and Sections 49D to 49R describe the various provisions/definitions/regulatory guidelines for implementation of CITES. Since Schedule III includes several CITES listed species/genus, the traders/growers need to understand inter alia both the provisions under the Chapter IIIA and VB. For proper implementation of the provisions under the Act in relation to Schedule III and IV, coordination among State Forest Departments, Customs and CITES Management Authority is imperative. Stakeholders' awareness regarding 2022 amendments needs to be promoted.

By incorporating these Schedule III plants into domestic law, India strengthens enforcement against illegal export, reduces loopholes exploited by wildlife traffickers and enhances compliance with international conservation obligations. This harmonization improves India's credibility in global biodiversity governance.

Conservation and Socio-Economic Significance

The introduction of Schedule III has multiple benefits, biodiversity conservation by protecting rare and endemic plant species from extinction, providing sustainable livelihoods by encouraging regulated cultivation by farmers, nurseries, and tribal communities, promoting scientific research by facilitating lawful access for research and conservation breeding, and awareness and accountability by bringing plants into mainstream wildlife protection discourse. Importantly, it recognizes that like animals, plants also require legal safeguards due to their ecological and economic value.

Challenges

With proper execution, Schedule III can become a model for plant conservation in biodiversity-rich countries. Despite its progressive intent, the introduction of Schedule III for specified plant species has several limitations and practical challenges that may affect its effective implementation.

For legal trade/dealing/possession of any Schedule III species, the growers or traders must obtain a license from the concerned chief wildlife warden of the state/union territories and declare their stock of such specified plants (Schedule III). Also, there is a need for proper identification of the species and their parts/products and derivatives during trade/transit which is a major challenge for the law enforcement agencies. The MoEF&CC, Government of India, notified a list of 23 designated Scientific Authorities under the CITES recently and for identification/scientific advice/ Non-detriment Finding study report, necessary guidance/assistance may be taken from the concerned/appropriate scientific authority designated for the purpose.

The requirement of permits for cultivation, possession, sale, and transport may lead to delays in approvals, increased paperwork and administrative bottlenecks. This can discourage genuine cultivators, researchers, and small-scale nurseries from engaging in legal plant trade. Many farmers, traders, nursery owners, and even local forest officials are unaware of Schedule III provisions and don't have a clear understanding about permit procedures and compliance requirements. This knowledge gap may result in unintentional violations of the law.

Distinguishing legally cultivated plants from illegally collected specimens from wild remains difficult. Forest departments often face shortage of trained manpower, lack of botanical expertise for species identification, limited infrastructure for monitoring cultivation and trade.



Image 2. A—*Aenhenrya rotundifolia*. © U.C. Pradhan | B—*Odontochilus grandifloras* | C—*Zeuxine andamanica*. © S. Mishra | D—*Vrydagzynea viridiflora* © fide Gogoi, 2016 | E—*Habenaria barnesii*. © C. Sathishkumar | F—*Ipsea malabarica*. © S. Suresh, through C. Sathishkumar | G. *Rhomboda pulchra* | H—*Podophyllum hexandrum* | I—*Dolomiaea costus*. © B,G,H,I—Avishek Bhattacharjee



Image 3. A—*Podophyllum hexandrum* (dry fruits) | B—*Dolomiaea costus* (dried roots) | C—*Dolomiaea costus* (dried flowers). © Avishek Bhattacharjee

Schedule III mainly regulates trade and possession, but does not directly address survival problems arising due to habitat loss, climate change, or invasive species, and thus, may not fully protect species whose survival depends on ecosystem-level conservation. Local communities and indigenous groups who traditionally use or cultivate these plants may face legal hurdles, reduced access, lack of clear exemptions or simplified procedures. This could negatively affect livelihoods and traditional knowledge systems. Furthermore, Schedule III overlaps with forest laws, Biodiversity Act, 2002, state-specific regulations. Such overlaps may cause confusion, duplication of permissions, and legal complexity.

Future Scope and Way Forward for Schedule III of the Wild Life (Protection) Amendment Act, 2022

The introduction of Schedule III marks an important milestone in India's plant conservation regime. However, its long-term success depends on adaptive governance, scientific support, and stakeholder participation. The following measures outline the future scope and strategic way forward.

1. Expansion and periodic revision of Schedule III: i) additional threatened, endemic, and high-value plant species should be scientifically assessed and included based on IUCN status (ver3.1) and trade pressure; ii) regular revision of the Schedule will ensure responsiveness to emerging conservation threats.

2. Development of clear cultivation and certification protocols: i) standardized species-specific cultivation guidelines should be issued in consultation with botanical institutions; ii) a certification and tagging system (QR codes / barcoding) can help distinguish cultivated stock from wild-collected plants, improving traceability.

3. Simplification and digitization of permit systems: i) introduction of a single-window, online permit platform for cultivation, transport, and trade; ii) time-bound approvals of permits/ certificates will reduce processing delays and encourage legal compliance.

4. Strengthening institutional and technical capacity: i) training programs for forest officials in plant taxonomy, trade monitoring, and CITES procedures; ii) engagement of institutions like Botanical Survey of India (BSI), universities, and herbaria for scientific validation and advisory support.

5. Community and farmer participation: i) promote community-based cultivation models involving local farmers, self-help groups, and indigenous communities; ii) provide incentives such as subsidies, technical assistance, and assured buy-back mechanisms for legally cultivated plants.

6. Integration with biodiversity and climate policies: i) harmonize Schedule III implementation with the Biological Diversity Act, 2002, National Biodiversity Action Plan, and climate adaptation strategies; ii) focus on ex situ conservation, seed banks, micropropagation, and assisted regeneration programs.

7. Strengthening research and monitoring: i) encourage research on propagation techniques, population dynamics, and sustainable harvest limits; ii) establish national-level databases for tracking trade volumes and conservation status.

8. Public awareness and outreach: i) awareness campaigns targeting traders, nurseries, enforcement agencies, and the public; ii) inclusion of Schedule III species in educational curricula and conservation outreach programs.

9. International cooperation and CITES compliance: i) strengthen coordination with CITES authorities for monitoring cross-border trade; ii) promote India as a leader in plant conservation governance at global biodiversity forums.

CONCLUSION

The introduction of Schedule III under the Wild Life (Protection) Amendment Act, 2022 represents a historic

step in India's conservation journey. By legally regulating the cultivation and trade of threatened plant species, the amendment strikes a crucial balance between protection and sustainable use. It reinforces India's commitment to conserving its unique botanical heritage while aligning national law with global environmental standards.

Protecting plants today is essential for securing ecosystems, livelihoods, and biodiversity for future generations. The future of Schedule III lies in transforming it from a regulatory instrument into a science-driven, participatory conservation framework. With improved implementation, technological support, and community engagement, Schedule III can ensure the long-term conservation of India's threatened plant species while supporting sustainable livelihoods and legal trade.

REFERENCES

- Bachan, A.K.H. & M.A. Devika (2024). *Strobilanthes kunthiana*. The IUCN Red List of Threatened Species: e.T239578615A239579829. <https://doi.org/10.2305/IUCN.UK.2024-1.RLTS.T239578615A239579829.en>. Accessed on 06.ii.2026.
- Chauhan, H.K. (2024). *Podophyllum hexandrum*. The IUCN Red List of Threatened Species: e.T61985348A61985350. <https://doi.org/10.2305/IUCN.UK.2024-1.RLTS.T61985348A61985350.en>. Accessed on 06.ii.2026.
- Chiranjeevi, P. et al. (2026). *Ceropegia andrahica* (Apocynaceae), a new species from Andhra Pradesh, India. *Nordic Journal of Botany* e05069. <https://doi.org/10.1002/njb.05069>
- Devi, R. et al. (2025). *Cycas* species of India: a comprehensive review on health benefits and gaps analysis. *Indian Forester* 151(5): 504–507. <https://doi.org/10.36808/if/2025/v15i5/170411>
- Gogoi, K. (2016). *Vrydagzynea nuda* (Orchidaceae) from Dehing-Patkai Wildlife Sanctuary, Tinsukia, (Assam): a new record for India. *Richardiana* 16: 347–350.
- Ranjan, V. et al. (2024). A new variety of *Ceropegia pubescens* (Apocynaceae: Asclepiadoideae) from Neora Valley National Park, Kalimpong, West Bengal. *Nelumbo* 66(1): 1–5. <https://doi.org/10.20324/nelumbo/v66/2024/172835>
- Saha, D. et al. (2015a). *Coptis teeta*. The IUCN Red List of Threatened Species: e.T50126583A50131320. <https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T50126583A50131320.en>. Accessed on 9.ii.2026.
- Saha, D. et al. (2015b). *Saussurea costus*. The IUCN Red List of Threatened Species: e.T50126641A50131430. <https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T50126641A50131430.en>. Accessed on 9.ii.2026.
- Thomas, P. & A. Farjon (2011). *Taxus wallichiana*. The IUCN Red List of Threatened Species: e.T46171879A9730085. <https://doi.org/10.2305/IUCN.UK.2011-2.RLTS.T46171879A9730085.en>. Accessed on 09.ii.2026.
- Ved, D. et al. (2015a). *Coscinium fenestratum*. The IUCN Red List of Threatened Species: e.T50126585A50131325. <https://doi.org/10.2305/IUCN.UK.2015-4.RLTS.T50126585A50131325.en>. Accessed on 09.ii.2026.
- Ved, D. et al. (2015b). *Nepenthes khasiana*. The IUCN Red List of Threatened Species: e.T48992883A49009685. <https://doi.org/10.2305/IUCN.UK.2015-2.RLTS.T48992883A49009685.en>. Accessed on 09.ii.2026.

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Dr. Priyadarsanan Dharma Rajan, Ashoka Trust for Research in Ecology and the Environment (ATREE), Royal Enclave, Bangalore, Karnataka, India

Fishes

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Dr. Brian L. Cypher, California State University-Stanislaus, Bakersfield, CA
Dr. S.S. Talmale, Zoological Survey of India, Pune, Maharashtra, India
Prof. Karan Bahadur Shah, Budhanilakantha Municipality, Kathmandu, Nepal
Dr. Susan Cheyne, Borneo Nature Foundation International, Palangkaraja, Indonesia
Dr. Hemanta Kafley, Wildlife Sciences, Tarleton State University, Texas, USA

Other Disciplines

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Dr. Mandar S. Paingankar, University of Pune, Pune, Maharashtra, India (Molecular)
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Tamil Nadu 641006, India
ravi@threatenedtaxa.org & ravi@zooreach.org

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Articles

Knowledge and attitude towards wild carnivores among university students: a study from Kargil Trans-Himalaya, India
– Iftikar Ali & Robert John Young, Pp. 29559–29570

Avian community structure in a human-impacted forest landscape: insights from Amargarh Tiger Reserve, Uttar Pradesh, India
– Vijay Pratap Singh, Sajid Reza, Sharad Kumar, Meraj Anwar & Afifullah Khan, Pp. 29571–29582

Long-term dynamics of breeding waterbirds in relation to habitat structures in a tropical irrigation wetland: evidence from Vettangudi Bird Sanctuary, Tamil Nadu, India
– H. Maitreyi, N. Raveendran, Reshmi Vijayan & H. Byju, Pp. 29583–29595

Avifaunal diversity with reference to their feeding guilds of Mahadare Conservation Reserve, Maharashtra, India
– Riya Patil, Gayatri Pawar, Neha Bendre, Aruna Shelar & Sunil Bhoite, Pp. 29596–29605

Nesting colonies and breeding ecology of the Cattle Egret *Bubulcus ibis* (Linnaeus, 1758) in northern and northeastern Bangladesh
– Allama Shibli Sadik, M. Monirul H. Khan, M. Kamrul Hasan, Fahad Hossain Haider & M. Sher-E-Afgan, Pp. 29606–29616

An annotated checklist of the avifauna of Pichavaram Mangrove Forest, southern India: a Ramsar wetland with conservation significance
– I. Jamil Hussain & K. Jahir Hussain, Pp. 29617–29629

Snake diversity based on rescue records in urban Jaipur, Rajasthan, India
– Aadya Kalra, Dharampal Singh & Joy Gardner, Pp. 29630–29638

Assessment of ichthyofaunal diversity of the suborder Cyprinoidei Fitzinger, 1832 (Actinopterygii: Cypriniformes) of western Indian Himalayan Region: present status and conservation - a systematic review
– Nisha Chauhan, Dhyal Singh & Shefalee Singh, Pp. 29639–29652

Post-impoundment changes in fish diversity and community structure of the Dikrong River, Arunachal Pradesh: a comparative assessment between 2000–2001 and 2025–2026
– Minam Siram, Tonya Miroh, Rafia Farooquee & Debangshu Narayan Das, Pp. 29653–29666

An annotated district-wise account of Odonata (Dragonflies and Damselflies) from Uttarakhand, India
– Manoj Kumar Arya & Mayank Mahara, Pp. 29667–29683

Study of Odonata in the coastal-influenced area of Purba Medinipur District with a note on seasonal fluctuations and species composition
– Suvabrata Khatua, Sriparna Jana, Sourav Bar & Sudipta Kumar Ghorai, Pp. 29684–29699

Species richness and distribution of Hymenophyllaceae in Mindanao Island, Philippines
– Aurfeli D. Nietes, Rachel C. Sotto, Analinda C. Manila-Fajardo, Lerma SJ. Maldia, Fulgent P. Coritico, Victor B. Amoroso & Inocencio E. Buot Jr., Pp. 29700–29715

Communications

Assessment of genetic variation for conservation implications in the Critically Endangered Bawean Deer *Axis kuhlii* Temminck, 1836 (Mammalia: Artiodactyla: Cervidae)
– Frank Drygala, Alain C. Frantz, Gono Semiadi, Jörg Mehnert, Agus Ariyanto, Yul Ianto & Wirda Teti, Pp. 29716–29720

First record of interspecific allopreening among *Gyps* vultures in the Aravalli Range, India
– Hemsingh Gehlot, Anil Kumar Sharma & Narayan Lal Choudhary, Pp. 29721–29728

DNA Barcode based species delineation within Freshwater Garfish *Xenentodon cancila* (Hamilton, 1822) (Belontiiformes: Belontiidae) reveals the existence of multiple lineages under single nominal taxon
– Ranjit More, Jiwan Sarwade, A. Shabnam & K.P. Dinesh, Pp. 29729–29735

Characterization of *Aphelenchoides confusus* Thorne & Malek, 1968 (Nematoda: Rhabditida: Aphelenchoididae) occurring in a marine habitat of eastern India
– Sujit Das & Sudipta K. Ghorai, Pp. 29736–29742

Geo-ecological dynamics of Bhairabkunda Grasslands: flood origins, florican dependence, and conservation need
– Jonmani Kalita, Karishma Sharma Chamlagain, Koushik Rajbongshi & Dhritiman Das, Pp. 29743–29750

Viewpoint

Schedule III of the Wild Life (Protection) Amendment Act, 2022: a new legal shield for India's threatened plant species
– Monalisa Dey & Avishek Bhattacharjee, Pp. 29751–29758

Short Communications

A century-long hiatus: rediscovery of Cadorna's Pipistrelle *Hypsugo cadornae* (Chiroptera: Vespertilionidae) from India
– Uttam Saikia & Gabor Csorba, Pp. 29759–29763

Photographic record of the Painted Bat (Chiroptera: Vespertilionidae: *Kerivoula picta* (Pallas, 1767)) from the Terai Region of Uttar Pradesh, India
– Deval Kadam, Ravi Rohit, Vipin Kapoor Sainy, H. Rajamohan, R. Jagdeesh, Mudit Gupta & Manish Singh, Pp. 29764–29768

New record of the Indian Roofed Turtle *Pangshura tecta* (Gray, 1831) (Reptilia: Testudines: Geoemydidae) from Jaisamand Lake, Rajasthan, India
– Vijay Kumar Koli, Nirbhay Singh Chouhan, Kamal Vaishnav & Rakesh Kumar, Pp. 29769–29771

Observations on the dental morphology of the North African Sandfish *Scincus scincus* (Squamata: Scincidae)
– Shreya Bhattacharya & Indraneil Das, Pp. 29772–29775

New distribution records of two *Lithurgus* bee species (Hymenoptera: Megachilidae) from Jammu & Kashmir, India
– P.M. Osman Javid & Sajad H. Parey, Pp. 29776–29780

Notes

Striped Hyena *Hyaena hyaena* (Linnaeus, 1758) carrying a carcass of a Rusty-spotted Cat *Prionailurus rubiginosus* (I. Geoffroy Saint-Hilaire, 1831) in Rajasthan, India
– Akshay Jain, Debashish Panda, Rajasekar Rajaraman, Sanjeev Sharma, Sugna Ram Jat & Kamlesh K. Maurya, Pp. 29781–29783

Toil in the soil: putative nest excavation by an adult female Panther Chameleon *Furcifer pardalis* (Cuvier, 1829) in moist, clayey soil on Nosy Komba, Madagascar
– Hinrich Kaiser & Przemysław Zdunek, Pp. 29784–29786

***Amomum pauciflorum* Baker (Zingiberaceae), an addition to the flora of Manipur, India**
– Lolia Hepuni, Adani Lokho & A.A. Mao, Pp. 29787–29790

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