

An annotated checklist of orchids of Dhemaji district of Assam (India) with an addition of one rare orchid for the flora of Assam

Khyanjeet Gogoi

Regional Orchids Germplasm Conservation & Propagation Centre (Assam Circle),
The Orchid Society of Eastern Himalaya (TOSEHIM),
Daisa Bordoloi Nagar, Talap, Tinsukia - 786 156, Assam, India
*Corresponding author: khyanjeet.gogoi@gmail.com

Abstract

The present study is an outcome of repeated surveys carried out during the period 2018 to 2022 in forest areas of the Dhemaji district of Assam. This district is rich in many orchid species. This article deals with its orchid flora consisting of 68 species under 39 genera. *Sarcoglyphis arunachalensis* A.N. Rao is reported as a new record for the flora of the state. A brief description, taxonomic note, and regional distribution with color photographs are provided for this species.

Résumé

La présente étude est le résultat d'enquêtes répétées menées au cours de la période 2018 à 2022 dans les zones forestières du district de Dhemaji en Assam. Ce quartier est riche de nombreuses espèces d'orchidées. Cet article traite de sa flore d'orchidées composée de 68 espèces réparties en 39 genres. *Sarcoglyphis arunachalensis* A. N. Rao est signalé comme un nouvel enregistrement pour la flore de l'état. Une brève description, une note taxonomique et la distribution régionale avec des photographies en couleur sont fournies pour cette espèce.

Keywords: Conservation, orchid flora, reserve forest.

Mots clés : conservation, flore d'orchidées, forêt de réserve.

Introduction

The family Orchidaceae is considered to be the most highly evolved (as for the floral specialization) and diversified plant group. It is estimated that about 25,000–35,000 orchid species under 800–1,000 genera are distributed throughout the world. About 1430 species, 8 subspecies, and 46 varieties under 191 genera, including 400 endemic species are found in India with the temperate Himalayas as their natural home (Misra, 2019). North East India houses 900 species under 165 genera, representing 72.8% of the total orchid species in India (Rao, 2007). Assam houses 398 species and 10 infraspecific taxa belonging to 101 genera. Out of which 121 species under 48 genera are terrestrial/saprophyte and 277 taxa under 53 genera are epiphytic/lithophytic (Gogoi, 2019).

The orchid flora of the Dhemaji district has been very little studied, we found only two publications: a book (Gogoi *et al.*, 2022) where 65 species are reported from this district and an article (Gogoi, 2022) documenting 38 species under 25 genera from Poba Reserve Forest. The present article proposes a checklist of wild orchids and also reports one new regional record for the flora of the state.

Study area: The Dhemaji district is situated at the easternmost corner of the state of Assam and adjacent to Arunachal Pradesh. It is located between 94.0° to 95.2° E longitudes and 27.3° to 28.0° N latitudes at a medium elevation of 99 msl. As per the government records, there are 10 reserve forests (RF) with a total area of 917.31 km² in the Dhemaji district [Fig. 1; Table 1]. The forests of the Dhemaji district can be divided into three types viz. mixed, deciduous, and mixed deciduous, and can be seen scattered in the foothill areas. Among the 10 reserve forests known in this district, Poba Reserve Forest has the largest number of orchid species. The other 9 Reserve forests are in degraded condition due to human encroachment and soil erosion by the rivers. Many orchid species disappeared without being properly documented.

Climate: The Dhemaji District has unique physiographic elements. The area experiences a subtropical monsoon climate with mild winter and warm and humid summer as it is located in the boundary of Arunachal Pradesh. The climate is Per-humid characterized by high rainfall, mid-summer, and winter, and falls under a cool to warm per-humid thermic-agro ecological subzone. The annual rainfall

ranges from 2600 mm to 32 mm. Rains generally begin in April and continue till the end of September. The rainfall generally increases from southeast to northeast. July is the rainiest month. The relative humidity varies from 90 to 73 percent. The temperature ranges between 5.9⁰ C to 39.9⁰ C.

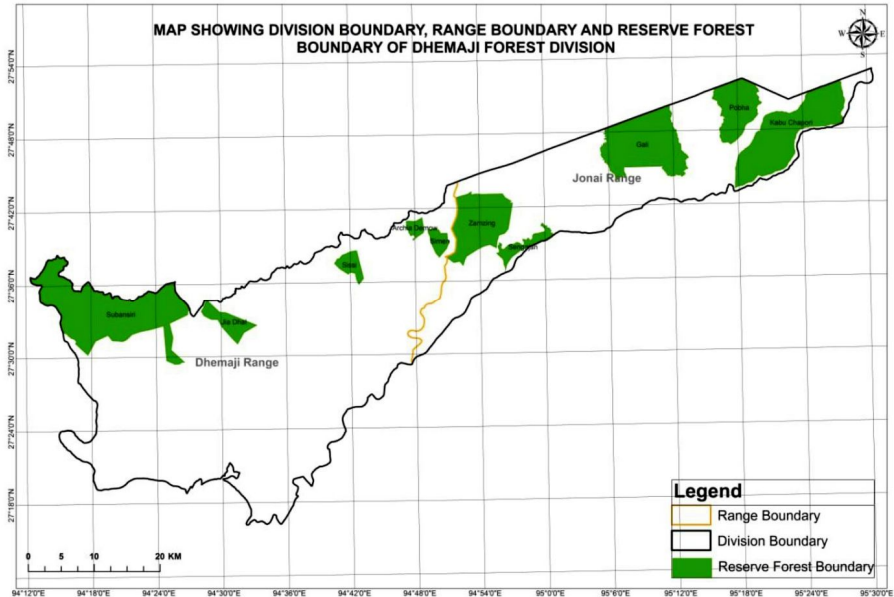


Fig. 1: Forest map of Dhemaji districts

Table 1: The Reserve forests of Dhemaji district, Assam (According to Department of Forest).

No	Reserve forests	Area in hect.	Present status	Orchid species present
1	Subansiri RF	17465.26	Degraded	37
2	Jiadhal RF	1816.00	Partly existing, replanted	11
3	Sissi RF	906.26	Degraded	10
4	Demow RF	606.25	Degraded	7
5	Simen RF	881.26	Partly existing	9
6	Jamzing RF	1618.71	Degraded	12
7	Sengajan RF	9060.00	Degraded	7
8	Gali RF	10647.24	Degraded	26
9	Poba RF	10521.75	Existing	39
10	Kobu Chapori RF		Partly existing	11

Methods

Data was collected through repeated field surveys throughout all seasons in the forests from 2018 to 2022. The plant specimens collected were photographed in the field, press dried, and mounted in herbarium sheets following the standard methods of Jain & Rao (1977). The nomenclature of the species was followed using (POWO, 2022; WFO, 2020) and classified as per Angiosperm Phylogeny Group system, APG IV (Chase *et al.*, 2016). Identifications were done using relevant literature (King & Pantling, 1898; Deva & Naithani, 1968; Pradhan, 1979; Deorani & Naithani, 1995; Chowdhery, 1998; Pearce & Cribb, 2002; Lucksom, 2007; Chen *et al.*, 2009; Swami, 2017; Gale *et. al.*, 2018; Misra, 2019; Gogoi, 2018, 2019; Singh *et al.* 2019) and scrutiny of the herbarium specimens housed in ASSAM, ARUN, HAU and several virtual herbaria like K, E and PE. The voucher specimens were deposited in TOSEHIM, Regional Orchids Germplasm Conservation & Propagation Centre (Assam).

Result

The orchid flora of the district consists of 68 species covering 39 genera, including terrestrial and epiphytic species. Several orchids like *Acanthophippium sylhetense*, *Aerides multiflora*, *Bryobium pudicum*, *Bulbophyllum spathulatum*, *Corymborkis veratrifolia*, *Dendrolirium ferrugineum*, *Gastrochilus obliquus*, *Micropera mannii*, *Phaius tankervilleae*, *Phalaenopsis deliciosa*, *Thrixspermum centipeda*, *Tropidia curculigoides*, *Zeuxine nervosa*, *Z. lindleyana*, etc. have been recorded. *Sarcoglyphis arunachalensis* A.N. Rao is reported as a new record for the flora of the state.

Out of the 39 genera present, *Dendrobium* is the largest with 7 species. Several species like *Aerides multiflorum*, *A. rosea*, *A. odorata*, *Cymbidium bicolor*, *Dendrobium moschatum*, *D. fimbriatum*, *D. transparens*, *D. lituiflorum*, *D. aphyllum*, *Micropera rostratum*, *Phaius tankervilleae*, *Rhynchostylis retusa*, etc. produce beautiful ornamental flowers.

Artocarpus chaplasha Roxburgh, *Anthocephalus cadamba* (Roxburgh) Miquel, *Bischofia javanica* Blume, *Bombax ceiba* Linnaeus, *Dillenia indica* Linnaeus, *Dillenia pentagyna* Roxburgh, *Duabanga grandiflora* (Roxburgh ex De Candolle)

Walpers, *Dipterocarpus retusus* Blume, *Lagerstroemia speciosa* (Linnaeus) Persoon, *Premna bengalensis* C.B. Clarke, *Stereospermum chelonoides* De Candolle, *Terminalia myriocarpa* Van Heurck and J. Müller Argoviensis, etc. are the major hosts for the epiphytic species.

So far, only 19 species of ground orchids have been collected from the district. The terrestrial orchids show very localized occurrence in the district; *Eulophia dabia*, *Nervilia Juliana*, *Spiranthes sinensis*, *Zeuxine strateumatica* are well distributed in the grasslands of the river banks of the Brahmaputra, *Acanthephippium sylhetense*, *Corymborkis veratrifolia*, *Calanthe sylvatica*, *Crepidium purpureum*, *Dienia ophrydis*, *Geodorum densiflorum*, *Tropidia curculigoides*, *Zeuxine nervosa* are growing on the forest floor. Similarly, *Phaius tankervilleae* is found in the semi-aquatic habitat and the saprophytic species *Didymoplexis pallens* grows in the bamboo forest due to the presence of a thick layer of decomposed leaf litter under the damp and shady situation.

Table 2: Orchid genera collected from Dhemaji district along with the number of species.

No	Genus	Number of species	No	Genus	Number of species
1	<i>Acampe</i>	2	21	<i>Liparis</i>	2
2	<i>Acanthephippium</i>	1	22	<i>Luisia</i>	1
3	<i>Aerides</i>	3	23	<i>Micropera</i>	3
4	<i>Agrostophyllum</i>	1	24	<i>Nervilia</i>	3
5	<i>Bryobium</i>	1	25	<i>Oberonia</i>	3
6	<i>Bulbophyllum</i>	5	26	<i>Papilionanthe</i>	1
7	<i>Calanthe</i>	1	27	<i>Phaius</i>	1
8	<i>Callostylis</i>	1	28	<i>Phalaenopsis</i>	1
9	<i>Cleisostoma</i>	3	29	<i>Pholidota</i>	2
10	<i>Corymborkis</i>	1	30	<i>Pinalia</i>	2
11	<i>Crepidium</i>	1	31	<i>Pteroceras</i>	2
12	<i>Cymbidium</i>	2	32	<i>Rhynchostylis</i>	1
13	<i>Dendrobium</i>	7	33	<i>Robiquetia</i>	1
14	<i>Dendrolirium</i>	2	34	<i>Sarcoglyphis</i>	1
15	<i>Didymoplexis</i>	1	35	<i>Spiranthes</i>	1
16	<i>Dienia</i>	1	36	<i>Strongyleria</i>	1
17	<i>Eulophia</i>	1	37	<i>Thrixspermum</i>	1
18	<i>Gastrochilus</i>	2	38	<i>Tropidia</i>	1
19	<i>Geodorum</i>	1	39	<i>Zeuxine</i>	3
20	<i>Goodyera</i>	1			

Table 3: Annotated checklist of Orchids of Dhémaji district.

Abbreviations used: Fig.-Figure; no.- Voucher no; H- Habit [E-Epiphytic, T-Terrestrial]; O-Occurrence [C-Common, R-Rare (i.e. just a few populations were seen), VR-Very Rare (only one population has been encountered)].

No	Taxon	Fig.	VNo	H	Localities	O
1	<i>Acampe carinata</i> (Griffith) Panigrahi	2.A	01083	E	Poba	C
2	<i>Acampe praemorsa</i> (Roxburgh) Blatter & McCann var. <i>longepedunculata</i> (Trimen) Govaerts	2.B	01084	E	Subansiri, Jamzing, Gali, Poba	C
3	<i>Acanthephippium sylhetense</i> Lindley	2.C	01118	T	Poba	R
4	<i>Aerides multiflora</i> Roxburgh	2.D	01119	E	Poba	VR
5	<i>Aerides odorata</i> Loureiro	2.E	01117	E	Poba	C
6	<i>Aerides rosea</i> Loddiges ex Lindley & Paxton	2.F	01085	E	Subansiri, Simen, Sissi, Jamzing, Gali, Poba	C
7	<i>Agrostophyllum planicaule</i> (Wallich ex Lindley) Reichenbach f.	2.G	01120	E	Subansiri, Gali	C
8	<i>Bryobium pudicum</i> (Ridley) Y. P. Ng & P. J. Cribb	2.H	01123	E	Subansiri	C
9	<i>Bulbophyllum affine</i> Lindley	2.I	01126	E	Subansiri	C
10	<i>Bulbophyllum careyanum</i> (Hooker f.) Sprengel	2.J	01067	E	Poba	C
11	<i>Bulbophyllum delitescens</i> Hance	2.K	01124	E	Subansiri	R
12	<i>Bulbophyllum roxburghii</i> (Lindley) Reichenbach f.	2.L	01116	E	Poba	C
13	<i>Bulbophyllum spatulatum</i> (Rolfe ex E.W. Cooper) Seidenfaden	2.M	01121	E	Subansiri	R
14	<i>Calanthe sylvatica</i> (Thouars) Lindley	2.N	01115	T	Poba	C
15	<i>Callostylis rigida</i> Blume	2.O		E	Subansiri	C
16	<i>Cleisostoma appendiculatum</i> (Lindley) Bentham & Hooker f. ex B. D. Jackson	2.P	01112	E	Poba	R
17	<i>Cleisostoma linearilobatum</i> (Seidenfaden & Smitinand) Garay	2.Q	01122	E	Subansiri	R
18	<i>Cleisostoma subulatum</i> Blume	2.R	01113	E	Subansiri, Poba	C
19	<i>Corymborkis veratrifolia</i> (Reinwardt) Blume	3.A	01114	T	Poba	VR
20	<i>Crepidium purpureum</i> (Lindley) Szlachetko	3.B	01127	T	Gali	R
21	<i>Cymbidium aloifolium</i> (Linnaeus) Swartz	3.C	01086	E	Subansiri, Simen, Jiadhal, Sissi, Demow, Jamzing, Sengajan, Gali, Poba	C
22	<i>Cymbidium bicolor</i> Lindley	3.D	01087	E	Poba	R
23	<i>Dendrobium acinaciforme</i> Roxburgh	3.E	01088	E	Subansiri, Poba	C
24	<i>Dendrobium aduncum</i> Lindley	3.F		E	Subansiri	C
25	<i>Dendrobium aphyllum</i> (Roxburgh) C. E. C. Fisch	3.G	01089	E	Subansiri, Simen, Jiadhal, Sissi, Demow, Jamzing, Sengajan, Gali, Poba, Kobu Chapori	C
26	<i>Dendrobium fimbriatum</i> Hooker	3.H	01128	E	Subansiri, Gali	R

27	<i>Dendrobium lituiflorum</i> Lindley	3.I	01090	E	Subansiri, Sissi, Jiadhal, Gali, Kobu Chapori	Simen, Jamzing, Poba,	C
28	<i>Dendrobium moschatum</i> (Banks) Swartz	3.J	01092	E	Subansiri, Jiadhal, Gali, Poba	Jamzing,	C
29	<i>Dendrobium transparens</i> Wallich ex Lindley	3.K	01091	E	Subansiri, Jamzing, Gali, Poba	Sissi,	C
30	<i>Dendrolirium ferrugineum</i> (Lindley) A.N. Rao	3.L	01111	E	Poba, Gali		R
31	<i>Dendrolirium lasiopetalum</i> (Willdenow) S. C. Chen & J. J. Wood	3.M	01110	E	Subansiri, Sissi, Jamzing, Gali, Poba,	Jiadhal, Demow, Sengajan,	C
32	<i>Didymoplexis pallens</i> Griffith	3.N	01109	T	Poba		C
34	<i>Dienia ophrydis</i> (J. Koenig) Seidenfaden	3.O	01108	T	Poba, Gali, Jiadhal		C
35	<i>Eulophia dabia</i> (D. Don) Hochreutiner	3.P		T	Simen, Kobu Chapori		C
36	<i>Gastrochilus inconspicuus</i> (Hooker f.) Kuntze	3.Q	01107	E	Subansiri, Jiadhal, Sissi, Jamzing, Gali, Poba, Kobu Chapori	Simen, Demow, Sengajan,	C
37	<i>Gastrochilus obliquus</i> (Lindley) Kuntze	3.R	01129	E	Subansiri, Gali		R
38	<i>Geodorum densiflorum</i> (Lamarck) Schlechter	3.S	01132	T	Subansiri, Jiadhal		C
39	<i>Goodyera procera</i> (Ker Gawler) Hooker	3.T	01106	T	Subansiri, Poba		C
40	<i>Liparis plantaginea</i> Lindley	3.U		E	Subansiri, Gali		R
41	<i>Liparis viridiflora</i> (Blume) Lindley	3.V	01093	E	Subansiri, Poba, Gali		C
42	<i>Luisia trichorrhiza</i> (Hooker) Blume	3.W	01094	E	Subansiri, Jiadhal, Sissi, Jamzing, Gali, Poba	Simen, Demow, Sengajan,	C
43	<i>Micropera mannii</i> (Hooker f.) Tang & F. T. Wang	3.X	01135	E	Gali		VR
44	<i>Micropera obtusa</i> (Lindley) Tang & F. T. Wang		01133	E	Gali		C
45	<i>Micropera rostrata</i> (Roxburgh) N.P. Balakrishnan	4A	01134	E	Subansiri		R
46	<i>Nervilia concolor</i> (Blume) Schlechter	4.B	01136	T	Kobu Chapori		C
47	<i>Nervilia macroglossa</i> (Hooker f.) Schlechter	4.C	01105	T	Poba		VR
48	<i>Nervilia juliana</i> (Roxburgh) Schlechter		01137	T	Kobu Chapori		C
49	<i>Oberonia mucronata</i> (D. Don) Ormerod & Seidenfaden	4.D	01095	E	Subansiri, Poba		C
50	<i>Papilionanthe teres</i> (Roxburgh) Schlechter	4.E	01096	E	Subansiri, Jiadhal, Sissi, Jamzing, Gali, Poba, Kobu Chapori	Simen, Demow, Sengajan,	C
51	<i>Pelatantheria insectifera</i> (Reichenbach f.) Ridley	4.F	01140	E	Poba		R
52	<i>Phaius tankervilleae</i> (Banks) Blume	4.G	01131	T	Gali		VR

53	<i>Phalaenopsis deliciosa</i> Reichenbach f.	4.H	01130	E	Subansiri, Gali	VR
54	<i>Pholidota articulata</i> Lindley	4.I	01098	E	Poba	C
55	<i>Pholidota imbricata</i> Lindley		01099	E	Subansiri, Poba	C
56	<i>Pinalia amica</i> (Reichenbach f.) Kuntze	4.J	01104	E	Subansiri, Poba	C
57	<i>Pinalia bractescens</i> (Lindley) Kuntze	4.K	01103	E	Poba	C
58	<i>Pteroceras teres</i> (Blume) Holttum	4.L		E	Gali	R
59	<i>Rhynchostylis retusa</i> (Linnaeus) Blume	4.M	01082	E	Subansiri, Jiadhal, Sissi, Demow, Simen, Jamzing, Sengajan, Gali, Poba, Koby Chapori	C
60	<i>Robiquetia spathulata</i> (Blume) J.J. Smith	4.N	01138	E	Subansiri	R
61	<i>Sarcoglyphis arunachalensis</i> A.N. Rao		01141	E	Poba	VR
62	<i>Strongyleria pannea</i> (Lindley) Schuiteman, Y. P. Ng & H. A. Pedersen	4.O	01139	E	Subansiri, Gali	C
63	<i>Spiranthes sinensis</i> (Persoon) Ames		01102	T	Poba, Koby Chapori	C
64	<i>Thrixspermum centipeda</i> Loureiro	4.P		E	Subansiri	R
65	<i>Tropidia curculigoides</i> Lindley		01100	T	Poba	C
66	<i>Zeuxine Lindleyeyana</i> A.N. Rao	6.Q		T	Koby Chapori	C
67	<i>Zeuxine nervosa</i> (Wallich ex Lindley) Bentham ex Trimen		01101	T	Poba	C
68	<i>Zeuxine strateumatica</i> (Linnaeus) Schlechter	4.R	01125	T	Simen, Koby Chapori	C

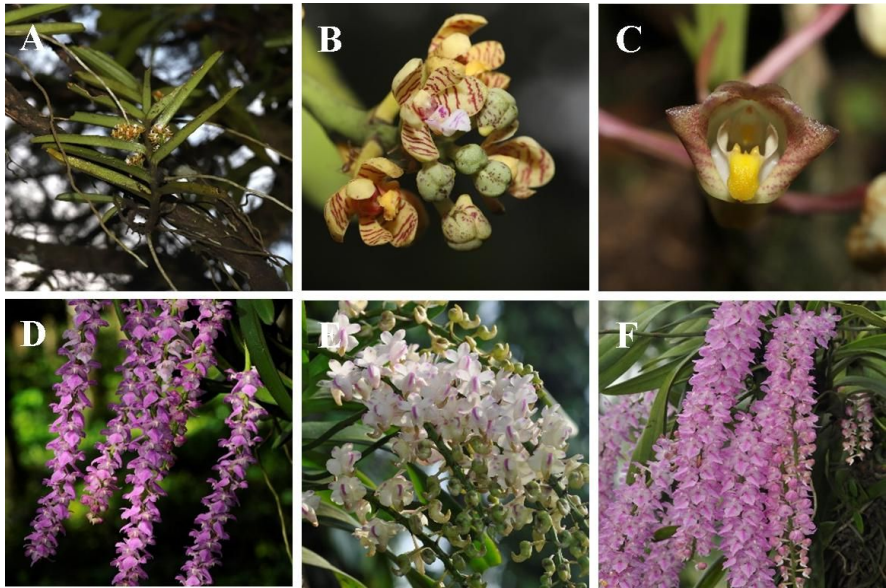


Fig. 2: Some orchids of Dhemaji

A. *Acampe carinata*; B. *Acampe praemorsa* var. *longepedunculata*; C. *Acanthephippium sylhetense*; D. *Aerides multiflora*; E. *Aerides odorata*; F. *Aerides rosea*

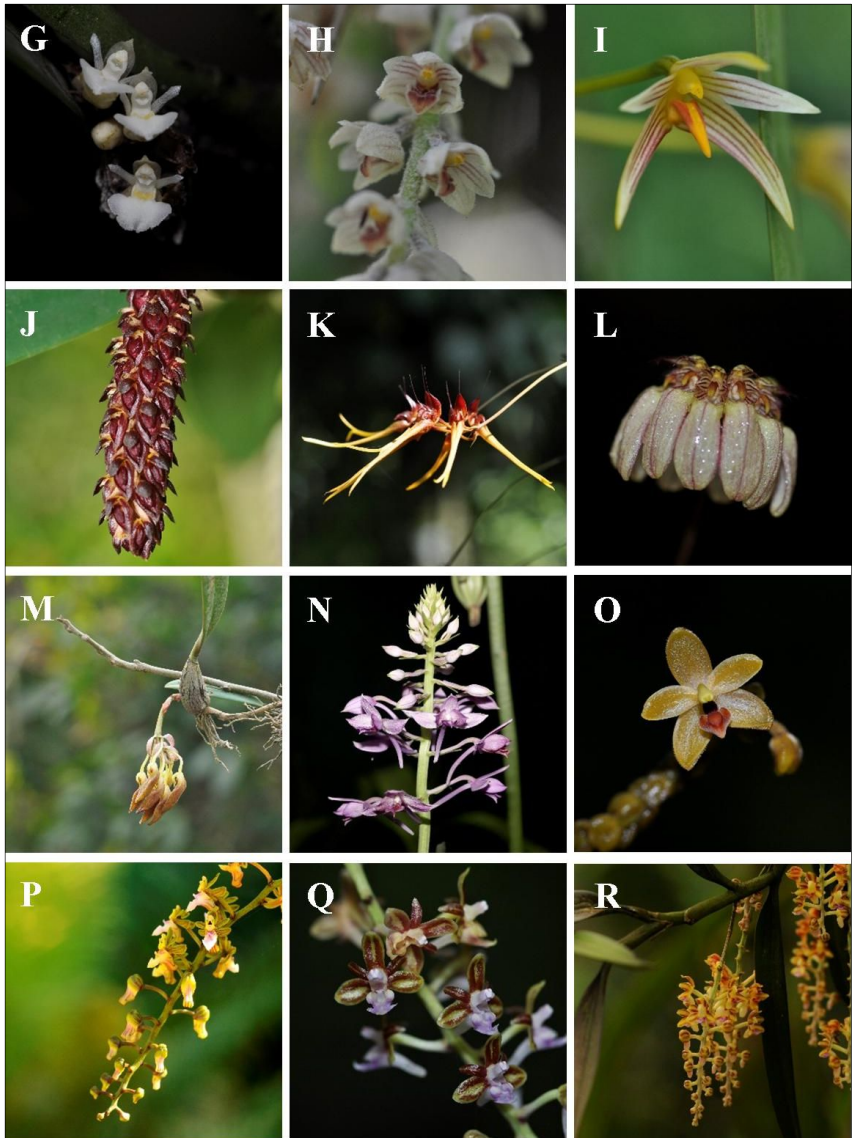


Fig. 2: after

G. *Agrostophyllum planicaule*; H. *Bryobium pudicum*; I. *Bulbophyllum affine*; J. *Bulbophyllum careyanum*; K. *Bulbophyllum delitescens*; L. *Bulbophyllum roxburghii*; M. *Bulbophyllum spathulatum*; N. *Calanthe sylvatica*; O. *Callostylis rigida*; P. *Cleisostoma appendiculatum*; Q. *Cleisostoma linearilobatum*; R. *Cleisostoma subulatum*

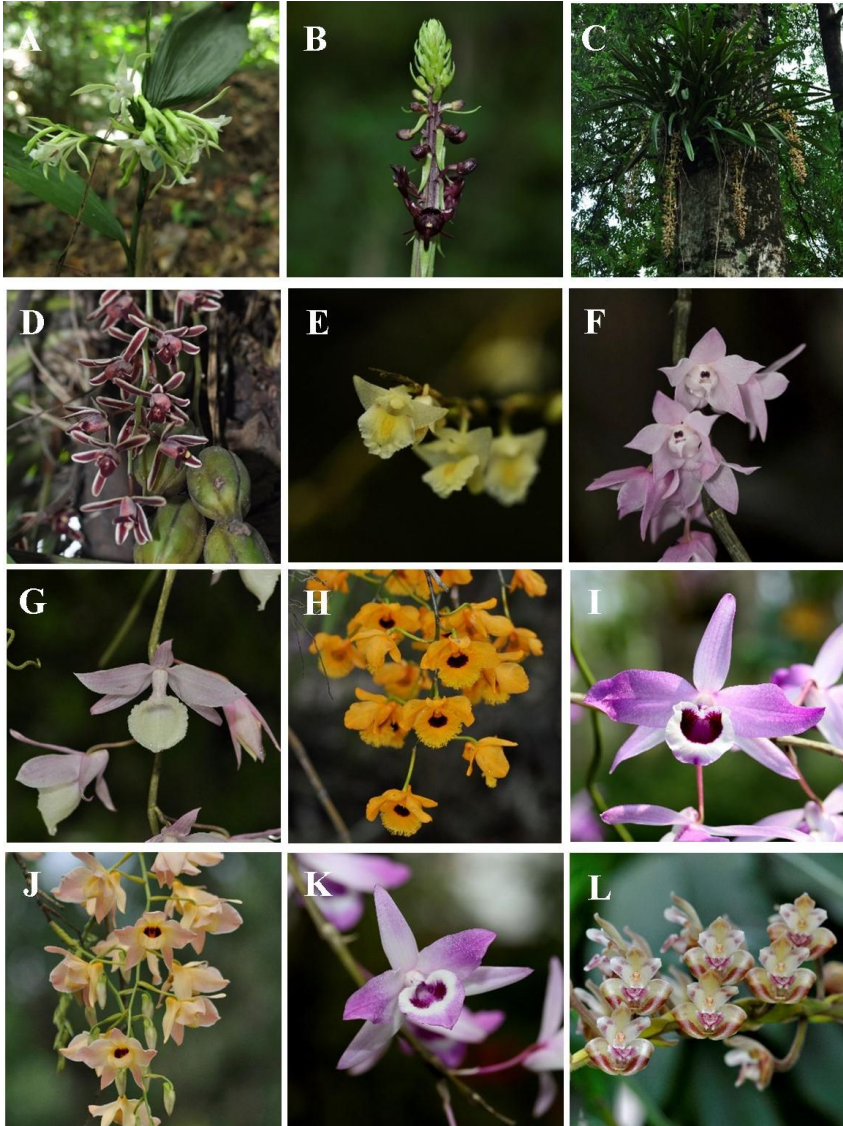


Fig. 3: Some orchids of Dhemaji

A. *Corymborkis veratrifolia*; B. *Crepidium purpureum*; C. *Cymbidium aloifolium*; D. *Cymbidium bicolor*; E. *Dendrobium acinaciforme*; F. *Dendrobium aduncum*; G. *Dendrobium aphyllum*; H. *Dendrobium fimbriatum*; I. *Dendrobium lituiflorum*; J. *Dendrobium moschatum*; K. *Dendrobium transparens*; L. *Dendrolirium ferrugineum*

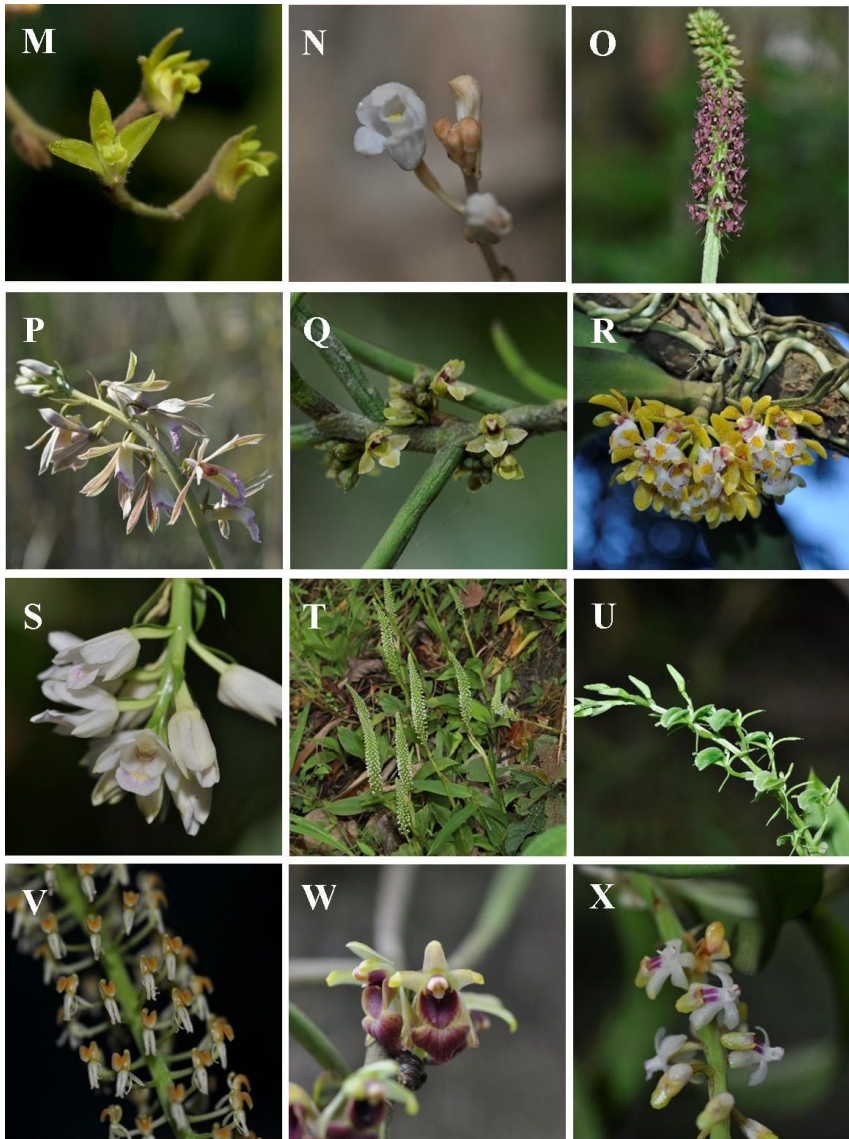


Fig. 3: after

M. *Dendrolirium lasiopetalum*; N. *Didymoplexis pallens*; O. *Dienia ophrydis*; P. *Eulophia dabia*; Q. *Gastrochilus inconspicuus*; R. *Gastrochilus obliquus*; S. *Geodorum densiflorum*; T. *Goodyera procera*; U. *Liparis plantaginea*; V. *Liparis viridiflora*; W. *Luisia trichorrhiza*; X. *Micropera mannii*

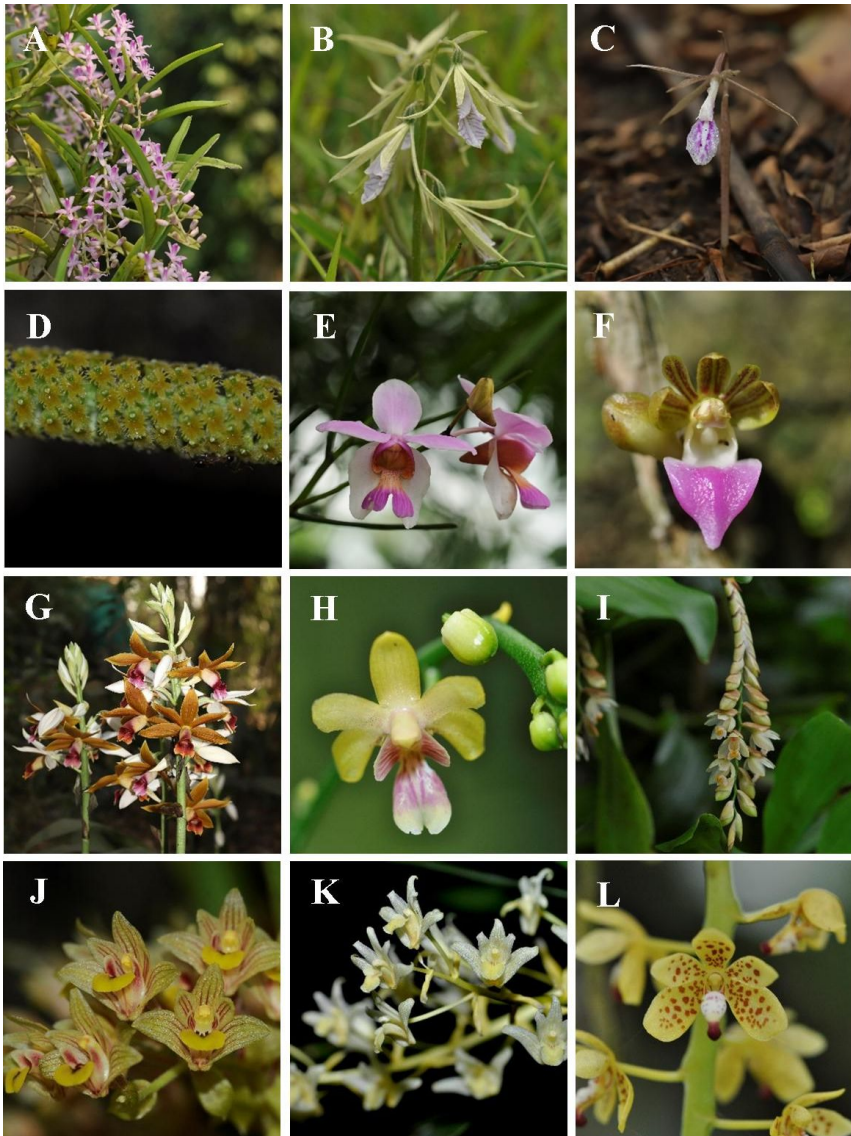


Fig. 4: Some orchids of Dhemaji

A. *Micropera rostrata*; B. *Nervilia concolor*; C. *Nervilia macroglossa*; D. *Oberonia mucronata*; E. *Papilionanthe teres*; F. *Pelatantheria insectifera*; G. *Phaius tankervilleae*; H. *Phalaenopsis deliciosa*; I. *Pholidota articulata*; J. *Pinalia amica*; K. *Pinalia bractescens*; L. *Pteroceras teres*

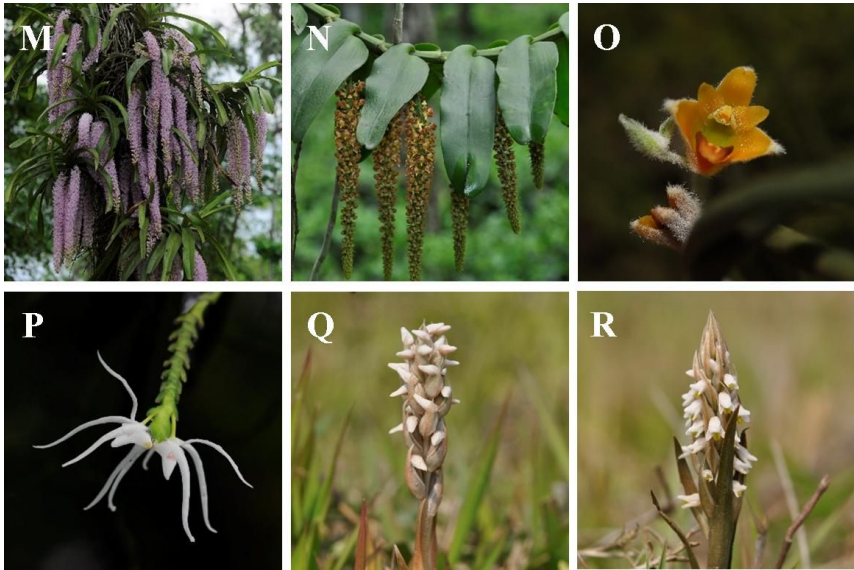


Fig. 4: after

M. *Rhynchosstylis retusa*; N. *Robiquetia spathulata*; O. *Strongyleria pannea*; P. *Thrixspermum centipeda*;
Q. *Zeuxine Lindleyeyana*; R. *Z. strateumatica*

Taxonomic note

One species has never been recorded in Assam earlier:

Sarcoglyphis arunachalensis A.N. Rao, Nordic Journal of Botany. 10: 161 (1990).

[Fig: 5-6]

Type: India, Arunachal Pradesh state, West Kameng district, Sessa, 1100 m, *S.N. Hegde 4199* (holotypus: Orchid Herbarium, Tipi); Tipi, 200 m., *A.N. Rao 5511* (paratypus).

Material studied: India, Assam, Dhemaji district, Poba reserve forest, 02.04.2020, *K. Gogoi 01143* (Herbarium of TOSEHIM).

Description: Plant epiphytic. Stem 2-3 cm, with many roots; roots slender. Leaves 2-6 × 0.5-2.0 cm, strap-shaped, strongly veined, unequally bilobed at apex with a minute mucro. Inflorescence a panicle, 5-16 cm long, drooping, many-flowered.

Scape and rachis dark brown with persistent small, triangular floral bracts. Flower about 1-1.2 cm across, white tinged with rose purple on sepals and lip. Dorsal sepal 0.5-0.6 × 0.4-0.3 cm, obovate, subacute, cucullate, recurved at apex. Lateral sepals 0.6-0.7 × 0.4-0.5 cm, obliquely ovate, subacute, deflexed parallelly to the ovary. Petals 0.5-0.6 × 0.25-0.3 cm, oblanceolate, obtuse. Lip firmly attached to the column, fleshy, 3-lobed; lateral lobes broadly triangular, 0.25-0.3 × 0.15-0.2 cm, tips incurved and touching each other; midlobe triangular, sagittate, 0.2 × 0.2 cm, with a short sharp apicule at apex. Spur tubular, 0.4-0.3 × 0.15-0.2 cm, white, forwardly bent in lower portion. Backwall callus 0.05 cm, oblong, with a median vertical groove, finely papillose allover. Front wall callus arcuate. Column 0.25-0.3 × 1.5-0.2 cm. Anther cap 0.1 cm with long curved beak, white. Pollinia 4, yellow, in two groups, attached together by a bifurcate caudicle; stipe 0.3-0.4 cm long, curved, hyaline, with a small gland at apex.



Fig. 5: *Sarcoglyphis arunachalensis* A.N. Rao in natural habitat

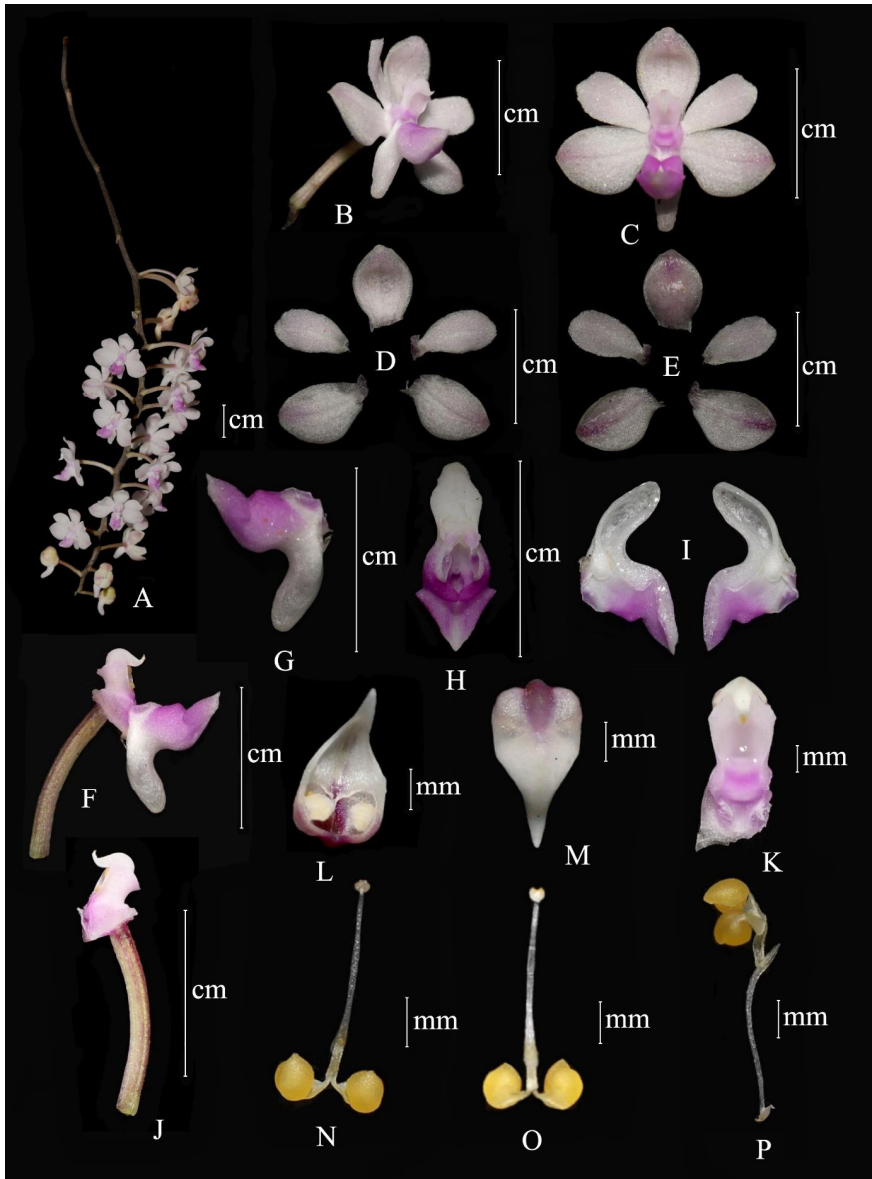


Fig. 6: *Sarcoglyphis arunachalensis* A.N. Rao

A. inflorescence; B, C. different views of flower; D, E. perigone, ventral and dorsal views; F. lip with ovary & column; G, H. different views of lip; I. longitudinal section of lip; J. ovary and column. K: column; L, M. anther; N, O, P. pollinia.

Flowering: April - May. **Habitat:** Plant epiphyte growing on the branches of small trees in dense evergreen tropical and subtropical rain forests at an altitude between 200 to 1100 m. **Distribution:** India (Assam, Arunachal Pradesh).

The genus *Sarcoglyphis* was established by L. A. Garay (1972), and is characterized by a high-raising, helmet-shaped, fleshy, laterally compressed rostellum to which the linear stipe and the dorsally placed four pollinia are attached by a short caudicle in a longitudinal furrow along its edge. The genus comprises 13 species (Govaerts *et al.* 2022), distributed from India and China to Indonesia (Averyanov 2012).

Conclusion

With the new taxa included here, the current orchid species number in Assam is brought to 411. Presently various factors have affected the orchid population which is causing the gradual decrease of many species. Different types of anthropogenic as well as environmental factors have been creating unfavorable conditions for the existing orchid species. The orchids of Dhemaji are under threat and many species have diminished before their documentation. Several known species among the are threatened or are locally rare. It has been observed that a high risk of extinction is possible soon if the habitat of these species is not conserved immediately.

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